

AN OVERVIEW

The number of domestic students enrolled in postgraduate study increased between 2004 and 2005, continuing the steady growth in the number of postgraduate students over the last 10 years. The increase was driven by increased participation in postgraduate certificate and doctorate study.

The number of domestic students completing postgraduate qualifications also increased between 2004 and 2005. There was a marked difference in the five-year completion rates of domestic students in the different postgraduate qualifications, largely reflecting the duration and the nature of the study for each of these qualifications. Domestic students starting a postgraduate certificate or a bachelors degree with honours in 2001 had the highest five-year completion rates.

After 10 years of strong growth, the number of international students enrolled in postgraduate study declined from 2004 to 2005. The largest drop was in students studying for postgraduate diplomas. New Zealand has one of the highest proportions of foreign students enrolled at postgraduate level. International students generally have higher rates of qualification completion than their domestic counterparts.

LOOKING TO 2006

Early indications suggest that student numbers at postgraduate level will continue to increase at a similar rate in 2006, particularly at doctorate level. Increases in the Performance-Based Research Fund and the policy change to treat international doctorate students as domestic are likely to exert a positive influence on enrolments at this qualification level.

PARTICIPATION AT POSTGRADUATE LEVEL

The number of students enrolled in postgraduate study continued to increase between 2004 and 2005. There were 35,110 students enrolled in postgraduate study during 2005, an increase of 800 students, or 2.3 percent over 2004. The number of equivalent full-time students enrolled in postgraduate study during 2005 also increased, by 0.5 percent, from 21,510 to 21,620.

Postgraduate qualifications comprise qualifications at three levels of the New Zealand Register of Quality Assured Qualifications. Level 8 qualifications comprise postgraduate diplomas and certificates, and bachelors degrees with honours. Level 9 qualifications are masters degrees, and level 10 qualifications are doctoral degrees, including professional doctorates and higher doctorates.

Domestic students

There were 30,910 domestic students enrolled in postgraduate study during 2005, an increase of 950 students, or 3.2 percent over 2004. This continued the steady growth in postgraduate students over the last 10 years. The percentage of New Zealanders aged 15 years and over enrolled in postgraduate study during 2005 was 1 percent, up slightly from 0.9 percent during 2004 and 0.6 percent during 1995. During 2005, 6.8 percent of all domestic students were enrolled in postgraduate study.

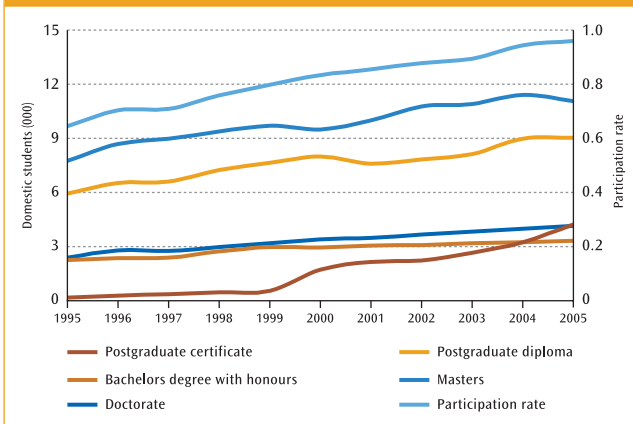
The largest number of domestic students enrolled at the postgraduate level were studying for a masters degree (36 percent of students during 2005), while 29 percent studied for a postgraduate diploma, 14 percent a postgraduate certificate, 13 percent a doctorate degree and 11 percent a bachelors degree with honours. There were 4,220 domestic students enrolled in postgraduate certificate study during 2005, up 31 percent over 2004, 9,030 students enrolled in postgraduate diploma study, up 0.6 percent, 3,310 students enrolled in bachelors with honours study, up 2.4 percent, 11,060 students enrolled in masters study, down 3 percent, and 4,140 students enrolled in doctorate study, up 4 percent.

The sharp increase in the numbers taking postgraduate certificates since 1999 is a reflection of the fact that there has been an expansion in the numbers of postgraduate certificates provided by tertiary education organisations over that time.



Learners in tertiary education

Figure 9.1: Participation in postgraduate study



The number of domestic equivalent full-time students enrolled in postgraduate study during 2005 increased by 1.6 percent over 2004, from 18,260 to 18,550. There were 1,210 domestic equivalent full-time students enrolled in postgraduate certificate study during 2005, up 5.8 percent over 2004, 4,140 enrolled in postgraduate diploma study, down 1.5 percent, 2,770 enrolled in bachelors with honours study, up 0.4 percent, 6,420 enrolled in masters study, down 4.4 percent, and 4,000 enrolled in doctorate study, up 17 percent.

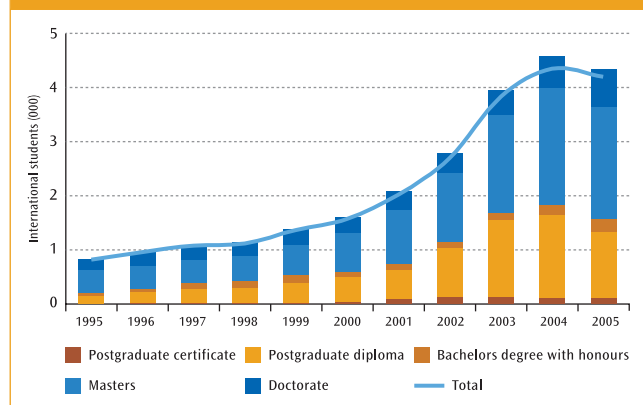
The Organisation for Economic Co-operation and Development provides some international comparisons on participation in postgraduate tertiary education. These comparisons include advanced research programmes, which, in the New Zealand tertiary system, focused on doctorates. The net entry rate measure represents the proportion of the population that will enter advanced research programmes over their lifetime. New Zealand ranked ninth, with a net entry rate into advanced research programmes of 1.9 percent, compared with the OECD average of 1.7 percent (OECD 2006). For a fuller summary of international comparisons see chapter 5.

International students

The number of international students enrolled in postgraduate study during 2005 declined by 3.4 percent over 2004, from 4,340 to 4,190. This is the first decline in the number of international postgraduate students in the last 10 years and comes after strong growth between 1999 and 2004.

While postgraduate diploma study has seen the most growth over the last 10 years, it also had the largest drop in international students during 2005. There were 1,210 international students (or 29 percent of all international postgraduate students) enrolled in postgraduate diploma study during 2005, down by 21 percent from 2004. This compared with 2,080 international students (50 percent) at masters level during 2005, down by 3.0 percent from 2004, and 690 international students (17 percent) at doctorate level, up by 20 percent on 2004. There were small numbers of international students studying for postgraduate certificates (110 students) or bachelors degrees with honours (260 students) during 2005.

Figure 9.2: International students enrolled in postgraduate study



The number of international equivalent full-time students enrolled in postgraduate study during 2005 fell by 5.3 percent over 2004, from 3,250 to 3,080. International equivalent full-time students made up 8.1 percent of all postgraduates during 2005, down from 9.8 percent during 2000.

OECD international comparisons show that during 2004, when permanent residents are also considered, non-citizens made up 37 percent of all students in doctorate study in New Zealand, which is the third highest proportion of the OECD countries.

ACHIEVEMENT

Domestic students

A total of 10,190 domestic students completed 10,430 postgraduate qualifications during 2005. This represented a 6.7 percent increase over 2004 in the number of domestic students who completed postgraduate qualifications.

This included 1,640 domestic students who completed a postgraduate certificate, 3,200 who completed a postgraduate diploma, 1,720 who completed a bachelors degree with honours, 3,250 who completed a masters degree and 580 who completed a doctorate degree.

There was a marked difference in the five-year completion rates of domestic students in the different postgraduate qualifications, largely reflecting the duration and the nature of study of each of the qualifications. Domestic students who started a bachelors degree with honours or a postgraduate certificate during 2001 were more likely to complete their qualification within five years and domestic students who started a doctorate degree during 2001 were the least likely to complete within five years. However, five-year retention rates for domestic doctorate students are similar to those of other domestic postgraduate students. This reflects the fact that doctorate students take longer to complete their qualification. Long-term completion rate estimates confirm that eventually doctorate students complete at a similar rate to students enrolled in other postgraduate qualifications. Between 55 and 60 percent of those who start are likely to complete the qualification eventually.

Five-year completion rates for domestic students enrolled in postgraduate qualifications, apart from doctorate degrees, are higher than for domestic students enrolled in lower-level qualifications.

First-year attrition was low for domestic students who started a doctorate qualification during 2004. Among domestic postgraduate students, first-year attrition was highest for students who started a postgraduate certificate or a postgraduate diploma during 2004. This perhaps reflects that students who enrol in these qualifications are more likely to be studying part-time while in work and may be more likely to be seeking to pass selected courses, rather than a whole qualification.

There are clear indications that retention has improved at doctorate level. This improvement coincides with the introduction of the Performance-Based Research Fund, in which some funding is tied to the successful completion of research degrees.

Table 9.1: First-year attrition and five-year retention and completion rates for domestic postgraduate students

	First-year attrition	Five-year retention	Five-year completion
Students starting in			
	2004	2001	2001
Qualification	Percentage of students		
Doctorate	4	61	27
Masters	25	53	48
Bachelors degree with honours	30	65	65
Postgraduate diploma	36	52	51
Postgraduate certificate	36	64	63
All students	28	62	57

OECD international comparisons of achievement in advanced research programmes show our graduation rate¹ to be the 12th highest in the OECD at 1.1 percent, slightly below the OECD average of 1.3 percent. Our survival rate² is 66 percent, which is about the same as the OECD average of 67 percent. For a fuller summary of international comparisons see chapter 5.

On average, a student who started doctorate study in 1998 took 3.9 equivalent full-time years to complete but, unlike other levels of study, doctoral students are more likely to persist beyond the first year before ceasing study. In fact, half of those leaving did so after two equivalent full-time years of doctoral study. Many doctoral students extend their study over a long period, greater than the six-year period analysed here. It is likely that a proportion of those who have left after one or two full-time years of study may return to complete in the future. In general, students studying at postgraduate level are more likely to persist longer than undergraduate students before withdrawing (Scott 2005).

Of those domestic students who completed a bachelors-level qualification in 2004, 15 percent went on to postgraduate study in 2005. This rate has remained relatively unchanged over the last five years. Of those domestic students who completed a bachelors degree in 2000, 22 percent went on to postgraduate study sometime between 2000 and 2005. These progression rates were higher for students aged 18 to 24 years than for any other age group.

1 Graduation rate represents the total number of first-time graduates at a particular level, divided by the population at the typical age of graduation for that level.

2 The total number of graduates at a particular level, divided by the number of new entrants to that level x years earlier, where x represents the typical time required to complete at that level.



Learners in tertiary education

Of those domestic students who completed a postgraduate certificate or diploma or a bachelors degree with honours during 2004, 19 percent went on to masters or doctorate study during 2005. Of those domestic students who completed a masters qualification during 2004, 5 percent went on to doctorate study during 2005.

International students

Around 1,880 international students completed 1,900 postgraduate qualifications during 2005. This was a 16 percent increase over 2004 in the number of students who completed postgraduate qualifications and an increase of 230 percent on the number of students completing in 2000. This reflects the large increase in international students starting their postgraduate studies three to four years earlier. International students completing postgraduate qualifications included 80 students who completed a postgraduate certificate, 650 who completed a postgraduate diploma, 130 who completed a bachelors degree with honours, 960 who completed a masters degree and 70 who completed a doctorate degree.

International students complete postgraduate qualifications within five years at a higher rate than domestic students, with the exception of postgraduate certificates. International students are more likely to be studying full-time and intramurally than their domestic counterparts, both of which are factors associated with higher rates of completion.

Table 9.2: First-year attrition and five-year retention and completion rates for international postgraduate students

	First-year attrition	Five-year retention	Five-year completion
Students starting in			
	2004	2001	2001
Qualification	Percentage of students		
Doctorate	6	66	41
Masters	17	58	57
Bachelors degree with honours	26	78	78
Postgraduate diploma	30	63	62
Postgraduate certificate	52	–	–
All students	18	65	62

International students generally have a lower rate of direct progression to postgraduate study after completing a bachelors-level qualification than domestic students. This reflects the fact that most international students have a focus on completing the qualification they originally come to New Zealand to take. Of those international students who completed a bachelors-level qualification during 2004, 11 percent continued studying in New Zealand at postgraduate level. This rate has been variable over the last five years, ranging from 6.9 percent of 2000 completions to 16 percent of 2003 completions.

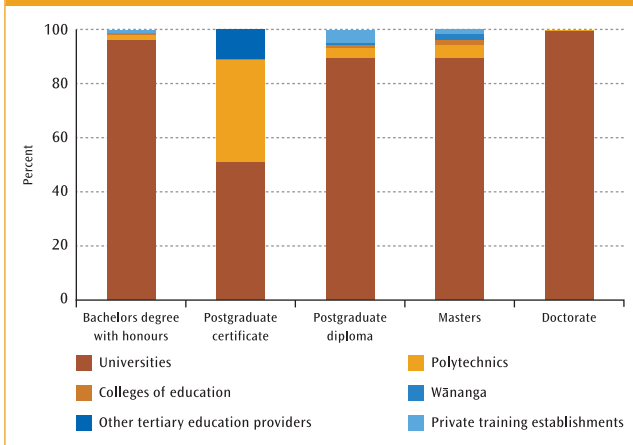
Of those international students who completed a postgraduate certificate or diploma or a bachelors degree with honours during 2004, 30 percent went on to masters or doctorate study during 2005. Of those international students completing a masters degree during 2004, 3 percent went on to doctorate study during 2005.

TYPE OF PROVIDER

Universities continued to be the largest type of tertiary education organisation to enrol domestic students in postgraduate study. In 2005, 87 percent of all domestic postgraduate students were enrolled at a university, compared to 8.2 percent for polytechnics, 2.1 percent for private training establishments, 1.5 percent for other tertiary education providers and 0.8 percent for wānanga. The higher the level of the postgraduate qualification, the more likely it was to be done at a university. During 2005, almost 100 percent of doctorate study was done at universities.

Polytechnics attracted a growing proportion of domestic postgraduate students across all qualifications, with most of this growth in postgraduate certificate study. From 2000 to 2005, domestic students enrolled in postgraduate certificate study at polytechnics increased by 500 percent, and they now make up 37 percent of all domestic postgraduate certificate students. Two-thirds of domestic postgraduate students studying at private training establishments were enrolled in postgraduate diplomas during 2005.

Figure 9.3: Distribution of domestic postgraduate students in 2005 by sub-sector and qualification level



During 2005, 29 percent of domestic students who graduated from a university achieved a postgraduate qualification. By contrast, other parts of the sector were more focused on lower-level qualifications.

Of those domestic students starting a bachelors degree with honours at a polytechnic during 2001, 67 percent had completed within five years, compared with 64 percent of those starting at universities. Across all other postgraduate qualifications, domestic students enrolled in universities were more likely to complete than those enrolled in other providers.

Of those domestic students who started a masters qualification at a university in 2001, 49 percent had completed within five years, compared with 37 percent for private training establishments, 21 percent for polytechnics and 13 percent for wānanga.

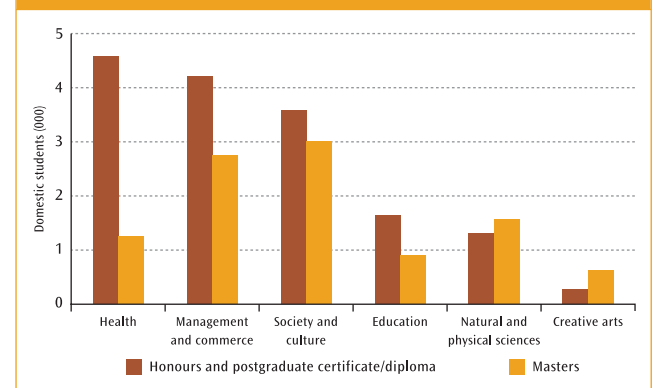
FIELD OF STUDY

As at other levels of study, management and commerce-related, and society and culture-related were the most common broad fields of study at postgraduate level during 2005. The management and commerce broad field had around 6,810 domestic students (or 22 percent of all domestic postgraduate students) during 2005, while the society and culture field of study had around 6,710 domestic postgraduate students (or 22 percent). Study in the broad field of society and culture includes, for example, law, economics, philosophy, sociology, history, language studies, human welfare support and services, and sport and recreation.

The number of domestic postgraduate students enrolled in the health field of study increased by 3,130 (or 118 percent) from 2000 to 2005. This field of study made up 19 percent of all domestic students studying at postgraduate level during 2005. Other broad fields of study were mixed field programmes (13 percent of all domestic postgraduate students during 2005), natural and physical sciences (9.1 percent) and education (8.4 percent).

The most common fields of study at honours or postgraduate certificate/diploma level were health (4,560 domestic students during 2005), management and commerce (4,200 students), society and culture (3,580 students) and education (1,630 students). The most common fields of study at masters level were society and culture (3,000 domestic students during 2005), management and commerce (2,730 students), natural and physical sciences (1,560 students) and health (1,240 students).

Figure 9.4: Top 6 fields of study in 2005 for domestic postgraduate students



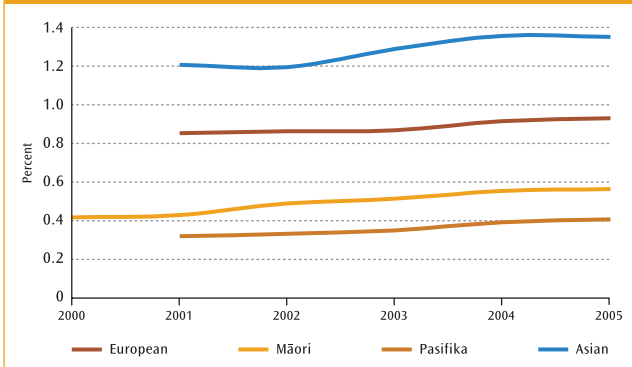
ETHNIC GROUPS

When adjusted for differences in the age profiles of the various ethnic groups, 1.4 percent of Asian New Zealanders aged 15 years and over participated in postgraduate study during 2005, the highest rate of any ethnic group. This compared with 0.9 percent for Europeans, 0.6 percent for Māori and 0.4 percent for Pasifika. From 2001 to 2005, the participation rate of Māori in postgraduate study grew at a faster rate than other ethnic groups.



Learners in tertiary education

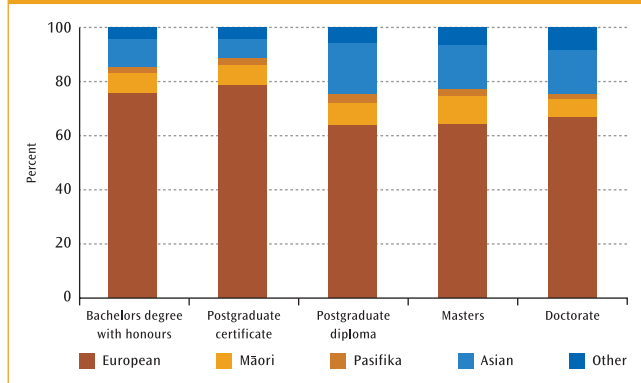
Figure 9.5: Age-standardised participation rates in postgraduate study by ethnic group



Māori and Pasifika remain under-represented across all qualifications in postgraduate study. During 2005, Māori students made up 11 percent of all domestic students enrolled in masters degrees, while this proportion ranged from 6.6 percent to 9 percent across the other postgraduate qualifications. The proportion of domestic Pasifika students enrolled in postgraduate qualifications in 2005 ranged from 2.2 percent to 3.5 percent across all types of postgraduate qualification. While Māori and Pasifika are under-represented at postgraduate level, their share increased between 2000 and 2005. Growth in the number of Māori students has been strongest in postgraduate certificate and masters study, while for Pasifika students it has been strongest in postgraduate certificates, doctorates and bachelors degrees with honours. Across all postgraduate qualifications, growth in the number of Māori and Pasifika students has been stronger than that of European students.

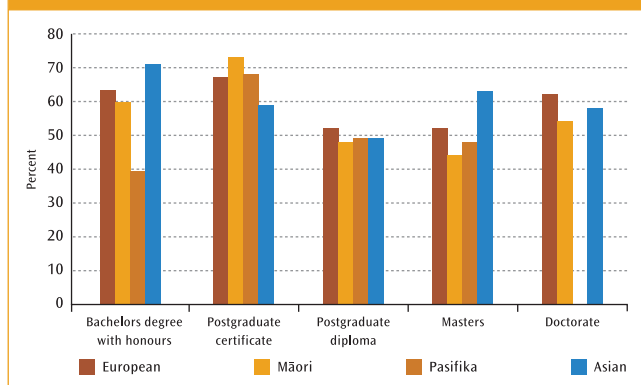
Domestic Asian students are over-represented across all postgraduate qualifications. During 2005, domestic Asian students made up 19 percent of domestic postgraduate diploma students and 17 percent of domestic doctorate and masters students. While domestic Asian students had the strongest growth across most postgraduate qualifications from 2000 to 2005, this growth has stopped in masters, bachelors degree with honours and postgraduate diploma study from 2004 to 2005.

Figure 9.6: Distribution of domestic postgraduate students in 2005 by ethnic group and qualification level



Of those domestic students who started a postgraduate qualification in 2001, Asian students had the highest five-year completion rate for all qualifications except doctorates and postgraduate certificates. Domestic Asian students had a five-year completion rate, of 71 percent, in bachelors degrees with honours, eight percentage points higher than other ethnic groups, and 62 percent in masters degrees, 15 percentage points higher than other ethnic groups. Māori students had a five-year completion rate in postgraduate certificates of 72 percent, the highest of all ethnic groups, while domestic Pasifika students had a completion rate of 68 percent, the second highest. Similar trends are seen in the five-year retention rates of domestic students starting a postgraduate qualification during 2001.

Figure 9.7: Five-year retention rates for domestic postgraduate students who started study in 2001 by ethnic group and qualification level

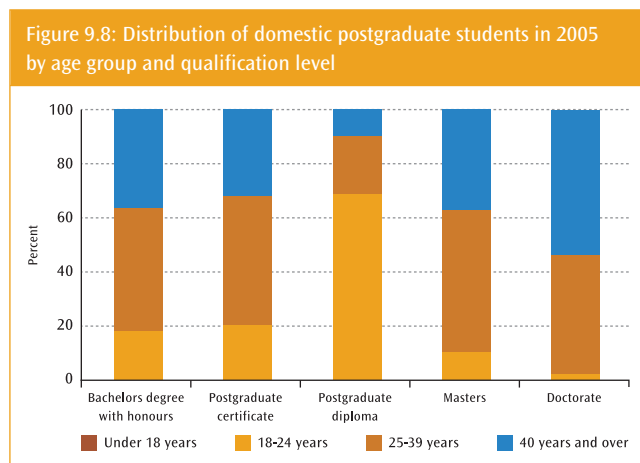


AGE

Domestic postgraduate students, on average, are older than their sub-degree and bachelors-level counterparts. During 2005, the average age of domestic postgraduate students was 34.9 years, up from 33.6 years during 2000. Domestic doctorate students, on average, are the oldest postgraduate students, with an average age of 37 years during 2005.

Of those in the New Zealand population who participated in tertiary education between 2000 and 2005, the group aged 25 to 39 years grew the fastest while the participation of the group aged 18 to 24 years of age declined over this period. In 2005, 1.7 percent of those aged 18 to 24 years participated in postgraduate study, compared to 1.6 percent of those aged 25 to 39 years and 0.6 percent of those aged 40 years and over.

Across all postgraduate qualifications, domestic students aged 40 years and over had the biggest increase in numbers between 2000 and 2005, while those aged 18 to 24 years had the least growth in most qualifications. In 2005, domestic students aged 25 to 39 years made up the largest proportion of postgraduate students. Domestic students aged 18 to 24 years made up 69 percent of those taking a bachelors degree with honours and those aged 40 years and over comprised 50 percent of all students enrolled in a postgraduate certificate.



Domestic students aged 18 to 24 years who started a postgraduate qualification during 2001 had higher five-year completion and retention rates than older students across all postgraduate qualifications. There was a similar trend in sub-degree and bachelors degree study, partly because older students

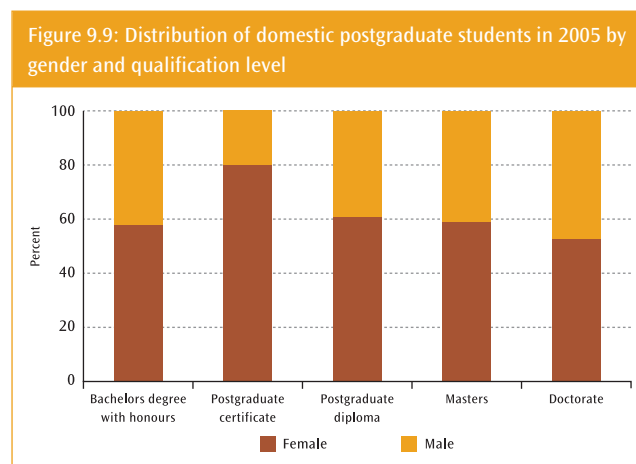
were more likely to be studying part-time and combining study with work or family commitments.

The first-year attrition rate for domestic students who started a postgraduate qualification during 2004 was also lowest for those aged 18 to 24 years across all postgraduate qualifications. First-year attrition for domestic students aged 18 to 24 years ranged from 3 percent for doctorate students to 29 percent for students enrolled in bachelors degrees with honours.

GENDER

Participation rates for females in postgraduate study doubled from 1995 to 2005. Of females aged 15 years and over, 1.2 percent participated at the postgraduate level, compared with 0.7 percent for males in this age group.

The number of females enrolled outnumbered the number of males enrolled across all postgraduate qualifications during 2005. However, the gender difference was less pronounced the higher the level of the postgraduate qualification. While females have outnumbered males at other postgraduate levels for several years, at doctorate level their number surpassed males for the first time in 2004. Females enrolled in postgraduate certificate study during 2005 made up 80 percent of the total domestic postgraduate certificate students, compared with 53 percent for domestic doctorate students.





Learners in tertiary education

Growth in the numbers of females studying at postgraduate level was stronger than in the numbers of males across all postgraduate qualifications. The number of female students grew fastest in postgraduate certificate study. Between 2000 and 2005, the number of females enrolled in postgraduate certificates increased by 178 percent, from 1,210 to 3,360. While the number of males enrolled in postgraduate certificates also grew at a faster rate over this period than for males in other postgraduate qualifications, their rate of increase was lower at 70 percent. The number of females enrolled in masters study has increased by 23 percent from 5,320 to 6,550 between 2000 and 2005. Over the same period, males enrolled in masters study increased by 8.3 percent, from 4,160 to 4,510.

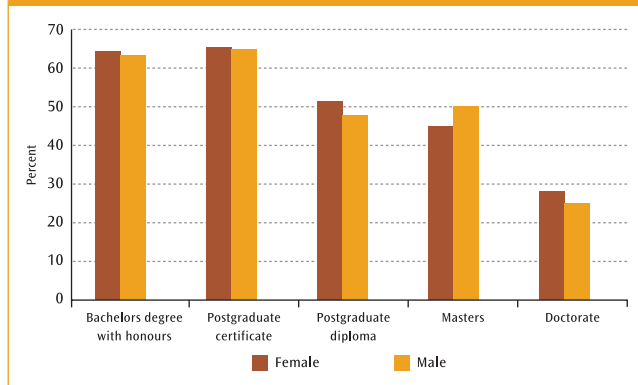
During 2005, Māori females made up 68 percent of all Māori postgraduate students and Pasifika females made up 63 percent of all Pasifika domestic postgraduate students. Asian males made up 45 percent of all Asian domestic students and participated in postgraduate study at a similar rate to Asian females.

In the various age groups, the largest gender difference was for those aged 40 years and over, where there were more than twice as many females in postgraduate study as there were males.

Achievement

Females were more likely than males to complete a postgraduate diploma, a bachelors degree with honours and a doctorate degree within five years. Males are more likely than females to complete a masters degree within five years, while males and females complete postgraduate certificates within five years at a similar rate. The gender difference in five-year completion rates was less pronounced in postgraduate study than it was in either bachelors-level or sub-degree-level study. Five-year retention rates for domestic students starting postgraduate study during 2001 were similar for females and males across all postgraduate qualifications.

Figure 9.10: Five-year completion rates for domestic postgraduate students who started study in 2001 by gender and qualification level



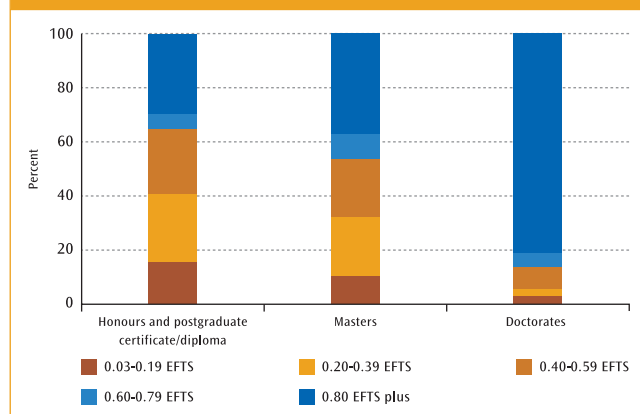
TYPE OF STUDENTS

Study load

There were significant differences in the study load of domestic students at the different levels of postgraduate study. During 2005, 81 percent of domestic doctorate students were enrolled with an equivalent full-time student value of 0.8 or more, compared with 37 percent of domestic masters students and 29 percent of domestic honours and postgraduate certificate/diploma students.

While the distribution of domestic doctoral students by study load remained relatively constant between 2000 and 2005, the number of students enrolled with an equivalent full-time student value of less than 0.4 has increased both at honours and postgraduate certificate/diploma level and at masters level.

Figure 9.11: Distribution of domestic postgraduate students in 2005 by qualification level and study load



Mode of study

Of those enrolled in postgraduate qualifications in 2005, around 15 percent studied extramurally. A similar level of extramural study occurs at bachelors level, while for the lower qualification levels the amount of extramural study increases. Around 20 percent of level 4 certificates and level 5 to 7 certificates and diplomas are studied extramurally. Of those enrolled in level 1 to 3 certificates, around 40 percent studied extramurally.

There was a higher proportion of domestic students studying extramurally at honours and postgraduate certificate/diploma level than at masters or doctorate level. During 2005, 3,530 domestic honours or postgraduate certificate/diploma students (around 22 percent) studied one or more qualifications extramurally. Extramural students made up 10 percent of domestic masters students and 0.4 percent of domestic doctoral students. In the six-year period since 2000, there has been growth in the number of extramural domestic students in all types of postgraduate qualification.

Around 92 percent of domestic students studying for postgraduate certificate/diploma qualifications at private training establishments studied extramurally during 2005. Across all levels of postgraduate study, domestic students studying extramurally are more likely to be aged 40 years and over than any other age group, and more likely to have a study load of between 0.2 and 0.4 EFTS.

Students with disabilities

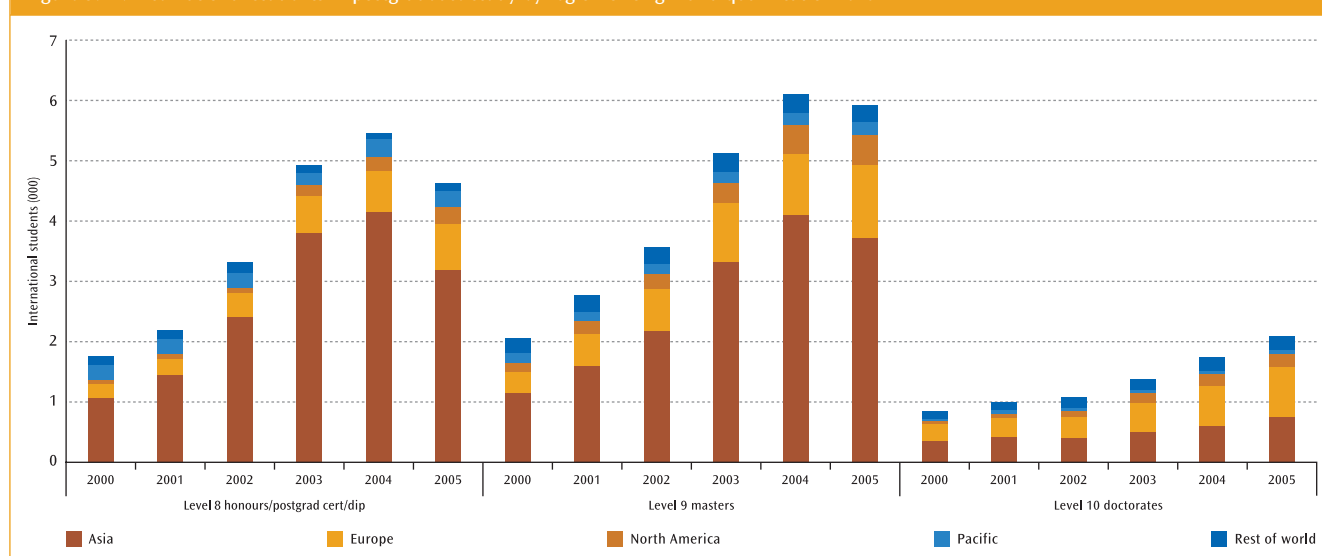
Students with disabilities were less likely to study at the postgraduate level than at other qualification levels. During 2005, the number of domestic students with disabilities represented 3.1 percent of students studying at honours and postgraduate certificate/diploma level, 3.6 percent of domestic students studying at masters level and 2.6 percent studying at doctorate level. These proportions have remained relatively unchanged since information on disability was first collected in 1998.

Across all levels of postgraduate study, students with disabilities were more likely to be aged 40 years and over than any other age group, and more likely to be Māori than any other ethnic group.

INTERNATIONAL STUDENTS

The majority of international students studying at honours and postgraduate certificate/diploma or masters level in New Zealand are from Asia (69 and 65 percent, respectively). The next largest groups are from Europe and North America. Almost 40 percent of international students enrolled in doctorate study during 2005 were from Europe, compared with 36 percent from Asia. From 2004 to 2005, the number of international students from Asia enrolled in honours or postgraduate certificate/diploma study decreased by 22 percent, while the number of Asian students enrolled in masters study decreased by 8.8 percent.

Figure 9.12: International students in postgraduate study by region of origin and qualification level





Learners in tertiary education

The largest number of students studying at honours or postgraduate certificate/diploma level continues to be from China (44 percent of international students during 2005). However, the number of international students from China decreased by 25 percent from 2004 to 2005. The next largest numbers of honours or postgraduate certificate/diploma students come from India, followed by Germany and Canada. The largest number of students studying at masters level are also from China (42 percent of international students during 2005). The next largest number of masters students comes from Germany, followed by India and the United States.

The most common field of study for international students enrolled in honours or postgraduate certificate/diploma study during 2005 was management and commerce, with 45 percent of international students studying in this field. From 2004 to 2005, the number of international students enrolled in management and commerce study at honours or postgraduate certificate/diploma level decreased by 22 percent. Other fields of study were natural and physical sciences (16 percent) and society and culture (9.4 percent). The most common field of study for international masters students during 2005 was also management and commerce, with 47 percent of international students studying in this field.

International postgraduate students, as a group, are younger than their domestic counterparts, with an average age of 28.2 years, compared with 34.9 years for domestic students. During 2005, just 6 percent of international postgraduate students were aged 40 years and over, compared with 34 percent of domestic students. By contrast, 25 percent of international postgraduate students were aged 18 to 24 years and 69 percent were aged 25 to 39 years.

DOCTORAL STUDENTS

There were 4,140 domestic students enrolled in doctorate study during 2005, an increase of 4 percent over 2004. Annual growth in domestic doctoral students from 2001 to 2005 remained relatively constant at 4 percent. During 2005, 13 percent of all domestic postgraduate students were enrolled in doctoral study.

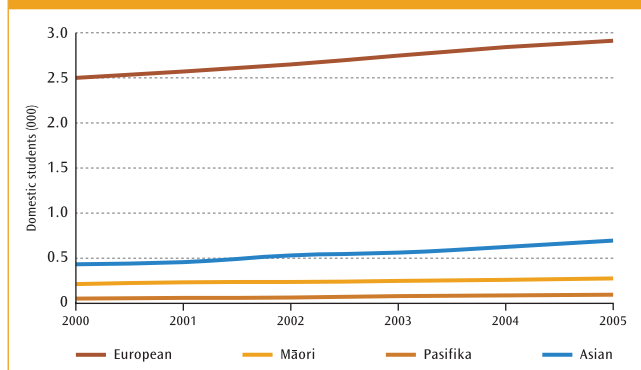
All but 14 domestic students enrolled in doctorate study were enrolled in universities during 2005. Almost a third of these students were enrolled at the University of Auckland, a further 17 percent were enrolled at the University of Otago and 15 percent

at Massey University. The 14 students not enrolled at a university were all enrolled in Unitec New Zealand and largely studying information technology.

Domestic students enrolled in doctorate study during 2005 made up 3,995 equivalent full-time students, up by 569, or 17 percent, on 2004. Domestic students enrolled in doctorate study are more likely to be studying full-time than students enrolled at other qualification levels. During 2005, 81 percent of domestic doctorate students were enrolled with an equivalent full-time student value of 0.8 or more, up on 79 percent during 2000.

While domestic Pasifika students remained under-represented at doctorate level during 2005, their numbers doubled to 95 in the six years since 2000. During 2005, 2.3 percent of domestic doctorate students were Pasifika. Māori were also under-represented at doctorate level with 6.6 percent of the total domestic doctorate students during 2005. European students made up 70 percent of domestic doctorate students, while domestic Asian students made up 17 percent.

Figure 9.13: Number of domestic doctoral students by ethnic group



Domestic doctoral students were more likely to be aged 25 to 39 years than any other age group, with 52 percent of students in this age group during 2005. Students aged 40 years and over made up a growing proportion of domestic doctorate students, with 38 percent of domestic doctorate students aged 40 years and over during 2005, up from 33 percent during 2000. Students aged 18 to 24 years made up the remaining 10 percent of domestic students enrolled in doctorate study.

While females outnumber males in doctorate-level study, the gender difference at doctorate level is the lowest across all qualification levels except for certificate level. Enrolments at the

doctorate level by females exceeded enrolments by males for the first time in 2004. During 2005, 53 percent of domestic students enrolled in doctorate study were female. However, the number of females enrolled in doctorate study grew by 36 percent from 2000 to 2005, while the number of males grew by 10 percent over that period.

A total of 580 domestic students completed doctorate qualifications during 2005. This represented a 4.3 percent increase over 2004, and an increase of 34 percent on the number of students completing in 2000. An estimated 27 percent of domestic students who started a doctorate qualification in 2001 had completed after five years. However, 34 percent of those students who started in 2001 were still studying towards their doctorate five years later, while the remaining 39 percent were not studying toward the doctorate qualification during 2005. Those more likely to complete a doctorate qualification within five years included students aged 18 to 24 years, who were more likely than older students to be studying full-time.

Table 9.3: First-year attrition and five-year retention and completion rates for domestic doctoral students

	First-year attrition	Five-year retention	Five-year completion
Students starting in			
	2004	2001	2001
Domestic doctoral students	Percentage of students		
Female	4	62	28
Male	4	60	25
European	3	62	28
Māori	4	54	13
Pasifika	5	–	–
Asian	4	58	26
18 to 24 years	3	73	37
25 to 39 years	5	60	29
40 years and over	3	56	17
All students	4	61	27

The number of international students enrolled in doctorate study continued to grow. There were 690 international students enrolled in doctorate study during 2005, an increase of 20 percent over 2004 and 146 percent over 2000. All but one of the international students enrolled in doctorate study during 2005 were enrolled at universities. Over a quarter of international students enrolled in doctorate study during 2005 came from Germany. The next largest student numbers came from Malaysia, followed by France, the United States, Thailand and China. A total of 650 international students completed doctorate qualifications during 2005, an increase of 4.2 percent over 2004. International students complete doctorate qualifications within five years at a higher rate than domestic students. However, international students are more likely to be studying full-time and thus able to complete their doctorate qualification in a shorter time-frame. An estimated 41 percent of international students who started a doctorate qualification during 2001 had completed after five years. Around 25 percent of those who started in 2001 were still studying towards their doctorate five years later.

References:

- Organisation for Economic Co-operation and Development (2006), *Education at a glance: OECD indicators 2006*, Paris.
- Scott, D. (2005), *How long do people spend in tertiary education?* Ministry of Education, Wellington.



Learners in tertiary education