

Demographic and Statistical Analysis Unit

Foreign Fee-Paying Senior Secondary Students' Achievement 2004 - 2006 Fact Sheet

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Introduction

This fact sheet presents key statistics on foreign fee-paying (FFP)¹ senior secondary students' achievement in NCEA² over the time period of 2004 to 2006.

Note that students' achievement can be assessed in many ways and statistics presented here may differ from other sources. Note also that the calculation basis for the statistics in this paper differs from that used previously (see The Statistics section at the end for more information).

Context

FFP students make up a relatively small proportion of students in senior secondary study. FFP students come to New Zealand with a range of goals; some are seeking a high quality education while some are seeking a year's experience of a different life style and culture. Consequently the length of time these students spend in New Zealand varies. Most come from a non-English speaking background and are not at an advanced level of proficiency in the English language while undertaking senior secondary study³. With students coming from different education systems it may at times be difficult to place them in the appropriate year level. FFP students may choose different study pathways than most of their non-FFP peers, for example, working towards a certificate of English proficiency rather than a NCEA qualification or they could be working towards international examinations. Therefore, although the analysis here includes non-FFP students, any comparisons between FFP and non-FFP outcomes must incorporate an awareness of the different characteristics of the two groups.

¹ FFP students are one category of international students.

² Here, NCEA refers to all national certificates for senior secondary students (for example, National Certificate of Educational Achievement and other certificates on the National Qualifications Framework), but excluding international qualifications (for example, Cambridge International Examinations).

³ Colleen Ward & Anne-Marie Masgoret, *The Experiences of International Students in New Zealand*. Wellington: Ministry of Education

**Top 10 countries of origin of Foreign Fee Paying Students, by year level
As at July 2006**

Year 11		Year 12		Year 13	
Country	Number of students	Country	Number of students	Country	Number of students
SOUTH KOREA	557	SOUTH KOREA	513	SOUTH KOREA	436
JAPAN	352	JAPAN	459	CHINA	415
CHINA	159	CHINA	308	JAPAN	334
THAILAND	152	THAILAND	201	GERMANY	232
TAIWAN	64	GERMANY	181	HONG KONG	87
HONG KONG	39	HONG KONG	79	THAILAND	74
GERMANY	26	TAIWAN	75	TAIWAN	63
VIET NAM	22	BRAZIL	52	VIET NAM	58
FIJI	13	VIET NAM	46	FIJI	39
RUSSIA	9	FIJI	27	BRAZIL	39

Key Findings

- FFP students were more likely to gain an NCEA qualification at a typical level or higher in 2006 than they were in 2004.
- The proportion of FFP students to meet the UE requirements by the end of Year 13 has varied in the last three years (31% to 39%) with the peak in 2005.
- FFP students were much more likely to meet the numeracy requirements than the literacy requirements for NCEA level 1 by the end of Year 11.
- Participation and achievement in Mathematics by FFP candidates is relatively high across all year levels.

Participation

- As seen in Table 1, the pattern of participation in NCEA assessment between year levels and years is generally similar between FFP students and their non-FFP peers. Between 2004 and 2006, FFP students had a lower participation level in NCEA than their non-FFP peers. Note however that FFP students may be studying towards international examinations.
- FFP students' participation in NCEA has remained relatively stable (around 80%) in the last three years.

Table 1: Participation in NCEA assessment (%), 2004 - 2006

	2004			2005			2006		
	Year 11	Year 12	Year 13	Year 11	Year 12	Year 13	Year 11	Year 12	Year 13
FFP	77	77	82	78	77	81	77	80	78
Non-FFP	90	91	95	90	92	94	93	95	93

Note: participation is defined as number of candidates divided by student roll as at 1 July.

Qualifications

- FFP students were more likely to gain an NCEA qualification at a typical level or higher in 2006 than they were in 2004. Year 13 results show more variability than for other year levels.

Table 2: Typical level or higher NCEA qualifications gained by FFP and non-FFP students, 2004 - 2006

		2004		2005		2006	
		Student roll	Gained a typical level or higher NCEA, %	Student roll	Gained a typical level or higher NCEA, %	Student roll	Gained a typical level or higher NCEA, %
Year 11	FFP	1,872	28.5	1,656	32.4	1,475	33.0
	Non-FFP	58,506	55.8	60,668	56.8	62,251	60.7
Year 12	FFP	3,040	30.4	2,449	37.7	2,079	39.2
	Non-FFP	46,639	58.9	47,301	61.4	48,488	65.1
Year 13	FFP	2,835	32.9	2,396	40.3	1,946	37.8
	Non-FFP	31,847	49.6	33,415	50.9	34,674	53.0

- From 2005 qualifications gained by students who have not paid their NZQA exam fees are included. These students, however, are not able to be specified at all for 2004 (see The Statistics section for more information). This change appears to affect the time series to some extent for the small group of FFP students.

University Entrance (UE)

- The proportion of FFP students to meet the UE requirements by the end of Year 13 has varied in the last three years (31% to 39%) with the peak in 2005. However, it should be noted that some FFP students plan to pursue their tertiary studies in other countries. Students from Europe, North America, South America, and Australia in particular were more likely to plan to return home for further studies.⁴

Table 3: FFP and non-FFP students to meet UE requirements by the end of Year 13, 2004 - 2006

	2004		2005		2006	
	Year 13 student roll	Met UE requirements, %	Year 13 student roll	Met UE requirements, %	Year 13 student roll	Met UE requirements, %
FFP	2,835	31.1	2,396	38.6	1,946	34.2
Non-FFP	31,847	46.8	33,415	48.2	34,674	50.7

Literacy and Numeracy

- FFP students were much more likely to meet the numeracy requirements than the literacy requirements for NCEA level 1 by the end of Year 11. This result likely reflects the non-English speaking background and level of English proficiency in Year 11 of many FFP students.
- The proportion of FFP students to meet both the literacy and numeracy requirements has increased since 2004.

Table 4: FFP and non-FFP students to meet literacy and numeracy requirements for NCEA Level 1 by the end of Year 11, 2004 - 2006

		Year 11 student roll	Met both the requirements, %	Met literacy requirement only, %	Met numeracy requirement only, %
2004	FFP	1,872	38.1	2.2	27.3
	Non-FFP	58,506	67	4.7	10.9
2005	FFP	1,656	43.4	3.1	23.3
	Non-FFP	60,668	68.3	4.1	10.0
2006	FFP	1,475	42.2	2.4	20.1
	Non-FFP	62,251	72.4	3.1	9.8

⁴ Colleen Ward & Anne-Marie Masgoret, *The Experiences of International Students in New Zealand*. Wellington: Ministry of Education

Core Subjects

English

- English has been the most difficult of the three core subjects for FFP candidates to attain. The non-English speaking background of most FFP students will largely explain this result. Additionally recent research has that showed that FFP students rate making oral presentations, taking tests or exams and expressing themselves in English the most difficult of their academic activities⁵.

Table 5: Participation and attainment⁶ in English by FFP and non-FFP candidates, 2006

		Total no. of candidates	Candidates gaining at least one credit at any level		Candidates gaining 14 or more credits at a typical level or higher	
			n	% of total candidates	n	% of participants
Year 11	FFP	1,130	859	76	306	35.6
	Non-FFP	57,879	52,905	91.4	34,320	64.9
Year 12	FFP	1,666	1,213	72.8	235	19.4
	Non-FFP	46,167	39,974	86.6	20,299	50.8
Year 13	FFP	1,517	1,049	69.1	74	7.1
	Non-FFP	32,143	20,425	63.5	9,911	48.5

- Participation in English of Year 11 and Year 12 FFP candidates has remained relatively stable. The trend for Year 13 FFP candidates is not so clear however it is interesting to note that participation in English is higher for Year 13 FFP candidates than for their Year 13 non-FFP candidates in 2006.
- The proportion of participants to gain at least 14 credits in English at a typical level or higher has increased for Year 11 and Year 12 FFP candidates since 2004 (36% for Year 11 FFP participants in 2006, compared with 29% in 2004; 19% for Year 12 FFP participants in 2006, compared with 13% in 2004).

⁵ Colleen Ward & Anne-Marie Masgoret, The Experiences of International Students in New Zealand. Wellington: Ministry of Education

⁶ Participation in a subject is defined as gaining at least one credit at any level in the subject during the year; a candidate who has attained a subject is a student who has gained 14 or more credits in the subject within the year, at the typical level or higher. 14 credits is based on the number of credits in a subject required by the University Entrance requirements.

Mathematics⁷

- Participation in mathematics by Year 12 and Year 13 FFP candidates has been relatively high over the last three years.
- The proportion of the Year 11 and Year 12 FFP participants to gain at least 14 credits in mathematics at a typical level or higher has also been relatively high over the last three years. In particular the proportion of Year 12 FFP participants to gain 14 credits or more at a typical level has remained at least 16 percentage points higher than that for their non-FFP peers.

Table 6: Participation and attainment in mathematics by FFP and non-FFP candidates, 2006

			Candidates gaining at least one credit at any level		Candidates gaining 14 or more credits at a typical level or higher	
			n	% of total candidates	n	% of participants
Year 11	FFP	Mathematics	1,040	92.0	787	75.7
	Non-FFP	Mathematics	55,750	96.3	40,533	72.7
Year 12	FFP	Mathematics	1,459	87.6	863	59.2
	Non-FFP	Mathematics	36,853	79.8	15,937	43.2
Year 13	FFP	Maths with Calc	823	54.3	578	70.2
		Maths with Stats	876	57.7	669	76.4
	Non-FFP	Maths with Calc	5,854	18.2	4,060	69.4
		Maths with Stats	12,199	38.0	9,341	76.6

Sciences⁸

- Overall, participation in science subjects by FFP candidates has been lower than for English or Mathematics over the last three years.
- In Year 12 and Year 13, FFP candidates have been more likely to participate in Chemistry or Physics than in Biology, in contrast non-FFP candidates have been more likely to participate in Biology than Chemistry or Physics.
- The proportion of Year 11 FFP participants to gain 14 credits or more in science has been at a similar level for 2004 – 2006.
- Out of the four specialist science subjects, FFP participants have generally been most likely to gain 14 credits or more at a typical level or higher in Chemistry. Year 12 attainment of Physics has shown a steady increase since 2004 (from 47% to 55%). Year 13 attainment of Physics has shown a small increase since 2004 (40% to 44%).

⁷ Mathematics is generally offered as a single subject at Levels 1 and 2. The more specialised subjects including mathematics with calculus and mathematics with statistics are normally offered at Level 3 or higher.

⁸ Sciences are generally offered as a single subject at Level 1. The more specialised subjects including biology, chemistry, physics and science are normally offered at Level 2 or higher.

Table 7: Participation and attainment in the core science subjects by FFP and non-FFP candidates, 2006

			Candidates gaining at least one credit at any level		Candidates gaining 14 or more credits at a typical level or higher	
			n	% of total candidates	n	% of participants
Year 11	FFP	Sciences	784	69.4	444	56.6
	Non-FFP	Sciences	47,055	81.3	28,132	59.8
Year 12	FFP	Biology	253	15.2	105	41.5
		Chemistry	363	21.8	216	59.5
		Physics	425	25.5	233	54.8
		Science	185	11.1	11	5.9
	Non-FFP	Biology	12,867	27.9	7,366	57.2
		Chemistry	10,507	22.8	6,326	60.2
		Physics	10,021	21.7	6,538	65.2
		Science	4,886	10.6	457	9.4
Year 13	FFP	Biology	184	12.1	76	41.3
		Chemistry	309	20.4	138	44.7
		Physics	347	22.9	153	44.1
		Science	49	3.2	5	10.2
	Non-FFP	Biology	7,763	24.2	4,590	59.1
		Chemistry	6,379	19.8	3,461	54.3
		Physics	6,071	18.9	3,725	61.4
		Science	1,688	5.3	260	15.4

The Statistics

The calculation basis for the statistics in this fact sheet differs from that used previously. Except for the Core Subjects section, all proportions are calculated with a denominator of student roll. Previously a denominator of candidates was used.

Attainment of all national certificates on the National Qualifications Framework by senior secondary students is reported here, previously only the National Certificate of Educational Achievement was focused on. By far the majority of senior secondary students gain the National Certificate of Educational Achievement. Additionally from 2005, qualifications gained by students who have not paid their NZQA exam fees are included (these students, however, are not able to be specified at all for 2004). They were specifically excluded from our previous analyses for the 2005 data. At the national level, this has minimal effect on trend results.

In the Core Subjects section, participation in a subject is defined as gaining at least one credit at any level in the subject during the year. However, to assess a candidate's attainment in a subject, we have used the criterion of gaining at least 14 credits at a TYPICAL LEVEL or higher in the subject during the year. Previously, gaining at least 14 credits at ANY LEVEL in the subject was used for this purpose. A denominator of participants in the subject is used for the attainment calculation.