



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

The information needs of international students in New Zealand tertiary institutions





Centre for Applied
Cross-Cultural Research
Te Pae Rangahau Tauhōkai Ahurea

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Report prepared for:
Settlement, Protection and Attraction Branch, Immigration New Zealand
Ministry of Business, Innovation & Employment

ISBN: 978-0-478-43312-8 (online)

April 15, 2014

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Executive Summary

Attracting and retaining international students is one of the New Zealand Government's key priorities. The Settlement, Protection and Attraction Branch of Immigration New Zealand, Ministry of Business, Innovation and Employment is currently working on expanding the information that it provides to international students about living and working in New Zealand. One of Immigration New Zealand's information products is NZReady, an online planning tool, and Immigration New Zealand is currently tailoring it to cater for international students. The aim of the tool is to provide information and links that migrants need when planning their trip to New Zealand, and it is currently designed for migrants who are coming to New Zealand to work. This is not necessarily useful or appropriate for international students. This research was designed to assist with the development of new NZ Ready content specifically targeted at international students, by surveying international tertiary students about their informational needs.

A total of 23,205 tertiary students were invited to complete an online survey, and 2,370 of these returned usable responses.

Results indicate that overall, the areas of information identified by Immigration New Zealand were moderately to very useful to students who are deciding to study in New Zealand. In addition, most students reported only slight difficulty in finding necessary information prior to their arrival in New Zealand. However, some student groups that the government has identified as priority, particularly Bachelor's and Ph.D. degree students, reported more difficulty in finding information before travelling to New Zealand.

There were variations in student's responses about the accessibility and perceived usefulness of information across the different students' regions of origin and qualification sought. With the exception of students from India, international students from Asia had more difficulty accessing information than students from other regions. Students enrolled in Bachelor's and Ph.D. degrees found information more difficult to access than those enrolled for certificates or diplomas, and those with lower levels of English proficiency were more likely to report experiencing difficulties in accessing information. Given these variations in the accessibility of information, it could be of benefit to provide the information rated as useful in a single, easy to access place.

Although New Zealand is largely meeting the informational needs of international tertiary students, it is suggested that extra effort be made to address the difficulties of students enrolled in Ph.D. and Bachelor's degrees and students from Asia.

Introduction: Attracting and Retaining International Students

Attracting, settling, and retaining international students are important to the New Zealand Government. Economically, international education supports 28,000 jobs and contributes \$2.6 billion to the New Zealand economy, making export education New Zealand's fifth largest export earner (Infometrics and National Research Bureau, 2013). International students also provide an important source of New Zealand's permanent migrants. In 2012/13, former international students comprised 42% of skilled principal migrants. Over the last decade 22% of international students became permanent residents of New Zealand within five years of obtaining their first student visa (MBIE, 2013). International students can be seen to contribute significantly to the overall economic productivity and population of the nation.

Recognising these benefits, the Government has set in place policy changes and new initiatives to increase the number of international students and enhance their integration into the labour market (Ministry of Education, 2007). The 2011 Leadership Statement for International Education set the goal of doubling the annual economic value of international education to \$5 billion by increasing international student enrolments in general and by doubling international postgraduate students over the next 15 years (Ministry of Education, 2011). Government initiatives, such as the 2011 immigration policy changes for the then graduate job search and graduate work experience visas (MBIE, 2013) and increased Crown contributions for international education promotions (Ministry of Education, 2011), have assisted in meeting these objectives. Further efforts are needed to achieve these goals.

The Ministry of Education (2007) identified increasing widespread awareness about New Zealand's educational system as an important prerequisite for attracting and retaining international students. Their report noted that "Good information and assistance for students on living and studying in New Zealand" was important for overall success (p. 18, Ministry of Education, 2007). The Ministry of Business, Innovation & Employment (MBIE) already provides information for international students through a dedicated website. However, it is currently expanding the content of NZReady, an online informational tool for migrants, to incorporate international students in the user group. The expanded content will provide information and links that students need when planning their trip to New Zealand.

1. CURRENT INFORMATIONAL TOOLS

Immigration New Zealand maintains a number of useful internet resources primarily aimed at migrants who are planning to work in New Zealand, these resources provide information prior to their arrival and help them settle into life and work in New Zealand over the first two years of settlement. However, there is currently no dedicated planning tool providing international students with the information they need prior to their arrival.

Immigration New Zealand's 'Settlement Services' website (<http://www.ssnz.govt.nz/>) is a large and the most comprehensive site, providing a wide variety of information to all migrants. Topics such as climate, transportation, way of life, education, health and recreational activities are addressed on the site. The site provides information about the various regions in New Zealand, and employment options and rights. The site can be used by migrants both before and after their arrival in New Zealand.

Unlike the generic 'Settlement Services' website, Immigration New Zealand's 'New Zealand Now' migrant attraction website (<http://www.newzealandnow.govt.nz/>) has a section specifically tailored to the needs of international students. This site provides students with information about the quality, reputation, and styles of education in New Zealand institutions, what students should expect about the New Zealand lifestyle, and links to additional practical information about institutions and visas. 'New Zealand Now' also features videos about the experiences of current students on the site. However, this site does not provide practical information on areas of everyday living, such as opening a bank account, getting an IRD number or finding accommodation.

Immigration New Zealand also hosts a website, 'NZ StudyWork' (<http://nzstudywork.immigration.govt.nz/>), which is dedicated to answering students' and employers' questions about international students' options for employment while studying, employment law, and workers' rights. This information is relevant during their studies and after graduation. This website is currently available in English, Korean, and Chinese.

Finally, Immigration New Zealand has developed the 'NZ Ready' online tool, designed to assist new migrants to plan for moving to and living in New Zealand (<http://nzready.immigration.govt.nz/#/>). This interactive tool asks potential migrants to answer a set of questions. Upon completion of the questions, site visitors are provided with a personalised list of helpful information for their situation and a task list for their move to, and settlement in New Zealand. As mentioned above, the information on the tool is currently aimed at migrants who are coming to New Zealand to work and does not provide information that is specifically targeted at international students.

2. NEW DEVELOPMENTS

The Settlement, Protection and Attraction Division of Immigration New Zealand, Ministry of Business, Innovation and Employment, is currently working on expanding the content of NZReady to cater for international students. The study described below was designed to assist with the development of the expanded website.

The Study

The primary objective of this research is to assess the difficulty of obtaining relevant information for study in New Zealand and to evaluate the usefulness of information currently available. The differences in information needs and utility were examined across regions of origin and regions of settlement, as well as by the type of qualification sought by international students. The study identified the personal background characteristics of students who intended to remain in New Zealand to work or study further, in contrast to those who intended to leave the country on the completion of their current course of study.

1. METHODOLOGY

a. Description of Survey

The survey included questions about students' personal background, future plans and information needs. Respondents were asked to indicate: age, gender, country of origin, qualification sought, as well as type, region and length of residence in New Zealand. Self-reported English language proficiency was evaluated for reading, writing, speaking, and comprehension on a scale from 1 (very poor) to 6 (excellent) with 7 representing native speakers. Students were also asked about future plans after completion of their current study programme. Specifically if they were planning to remain in New Zealand (enrolling in studies at the same or different educational institution in New Zealand, or finding a job in New Zealand) or leaving (enrolling in further studies in their home or another country, or finding a job in their home or another country).

Of primary interest was the assessment of accessibility and usefulness of information. Two questions were posed: "How difficult was it for you to find information about the following areas before arriving in New Zealand to study?" and "Based on your experience as an international student in New Zealand, how useful would it have been to receive information about the following areas while deciding to study in New Zealand?" Twenty-two informational areas were included in the survey, and responses were measured on a scale of 1-5 (not at all difficult/useful to extremely difficult/useful) with a response of 6 being not applicable.

Following each of these sets of questions respondents were asked: "Was there any other information that you found difficult to find (please specify)?" and "Was there any other information that you would have found useful while deciding to study in New Zealand (please specify)?" to determine if there were any additional information areas worthy of consideration.

A copy of the survey items can be found in Appendix A.

b. Procedure

Current international students in tertiary institutions (universities, institutes of technology and polytechnics, and private training establishments¹) were identified in the Settlement, Protection and Attraction Branch of Immigration New Zealand, Ministry of Business, Innovation & Employment's

1 Students at English language institutes were not included in the survey.

database and contacted via email with an invitation to participate in the study. A total number of 23,205 students were sent the survey link, and the chance to win an Apple iPad Mini was offered as a participation incentive. A total of 2,823 students opened the survey link in the email and entered the survey (12.17% response rate). However, some of those who entered the survey either provided no responses or only answered a few demographic questions. These respondents were subsequently eliminated from the study leaving a total of 2,370 participants retained in the research².

c. Participants

The participants included 1,397 males (59%) and 967 females (41%) with an average age of 26 years (SD = 5.72). This gender distribution is generally in line with the proportion of males and females approved for study visas in 2013 (MBIE, 2013). The students had resided in New Zealand from less than one month to 12 years, with the average length of stay of 15.62 months (SD = 8.95). The distributions of age and length of residence are reported in Tables 1 and 2.

TABLE 1: AGE DISTRIBUTION OF SAMPLE

Age	Number	Percentage
Under 18	4	0.2%
18-22	666	28.3%
23-26	817	34.8%
27-30	455	19.3%
Over 30	410	17.4%
Total	2,352	100.0%

TABLE 2: LENGTH OF STAY IN NEW ZEALAND

Length of Stay	Number	Percentage
under 6 months	133	5.6%
6-12 months	1112	47.8%
13-24 months	787	33.8%
over 24 months	297	12.8%
Total	2,329	100.0%

The qualifications sought by students ranged from diplomas and certificates to doctoral degrees as described in Table 3. The table shows that a relatively high proportion of respondents (32%) were post-graduate students. In addition, three per cent of the total number of respondents were enrolled in other qualifications or had just completed their studies. Among these, the most common courses of study were aviation, nursing, exchange programmes, and bridging and foundation courses.

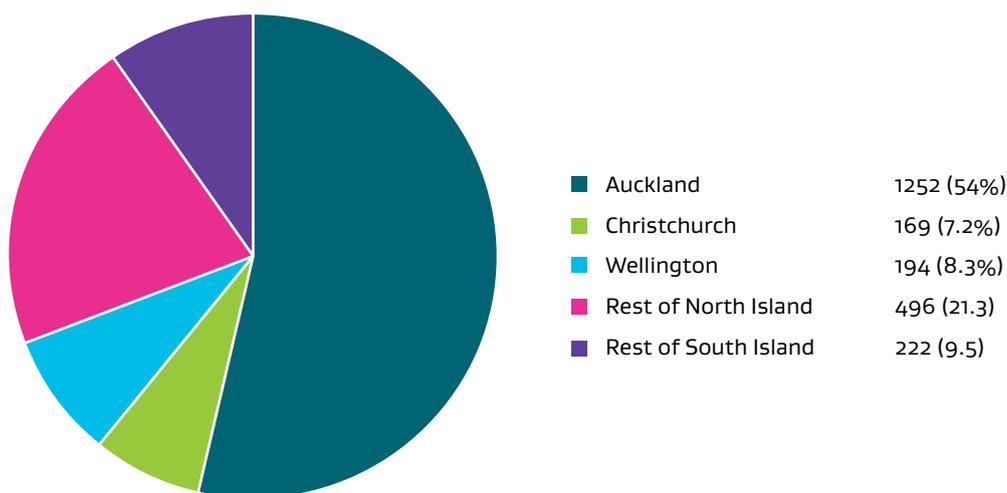
² The descriptive information in the section that follows is based on available data, which does not always reflect a 100% response rate.

TABLE 3: QUALIFICATIONS SOUGHT

Qualification	Number	Percentage
Certificate / Diploma	597	25.4%
Bachelor's Degree	548	23.3%
Graduate Certificate / Graduate Diploma	383	16.3%
Postgraduate Certificate / Postgraduate Diploma	222	9.4%
Master's Degree	287	12.2%
Ph.D.	245	10.4%
Other	69	3.0%
Total	2,351	100.0%

Figure 1 shows respondents' region of study. The majority of the responses came from New Zealand's largest urban areas: Auckland, Christchurch, and Wellington with Auckland-based students composing over half of the respondents. Amongst those students from the rest of the North Island, Palmerston North, Hamilton and Rotorua were the most common study regions. After Christchurch, Dunedin was the most common location of South Island students.

FIGURE 1: INTERNATIONAL STUDENTS BY REGION OF STUDY

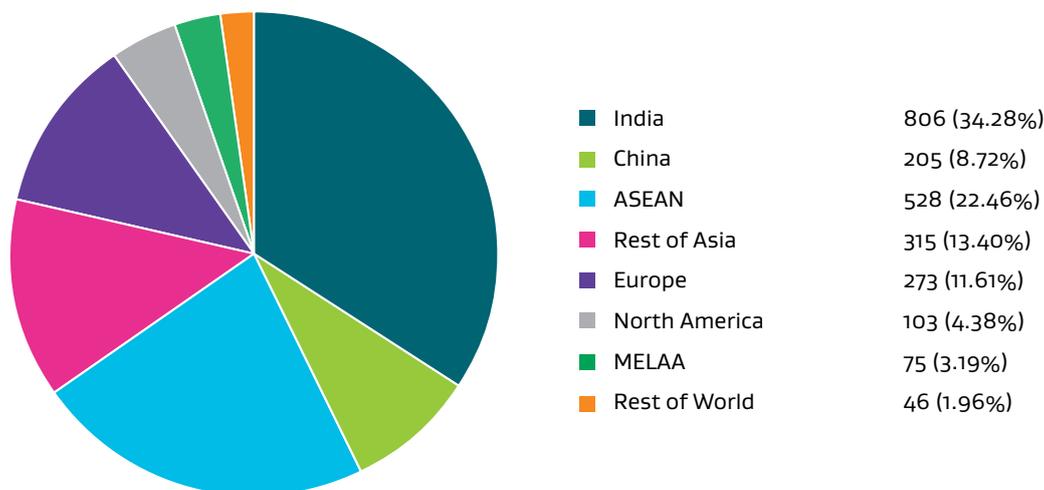


Note: Figure reports the number and percentage of students by region.

Although students most commonly resided in university cities and towns, only 15% lived in student hostels and halls of residence. Most commonly students lived in rental accommodation (69%), with smaller proportions living in homestays (8%), relatives' homes (4%), own home (2%) or other locations (2%).

A total of 2,360 students indicated their country of origin, and 90 nations were represented in the sample. Responses were grouped into the regions depicted in Figure 2. In comparison with the national statistics from the Ministry of Education (Infometrics and National Research Bureau, 2013), Indian students were markedly over-represented in the sample, while Chinese students were under-represented.

FIGURE 2: INTERNATIONAL STUDENT RESPONDENTS BY COUNTRY OF ORIGIN



Notes: MELAA = Middle East, Latin America and Africa. ASEAN = Association of Southeast Asian Nations (including Indonesia, Thailand, Vietnam, Malaysia, Singapore, Brunei, Laos, Myanmar, Philippines and Cambodia) Figure reports the number and percentage of students by region.

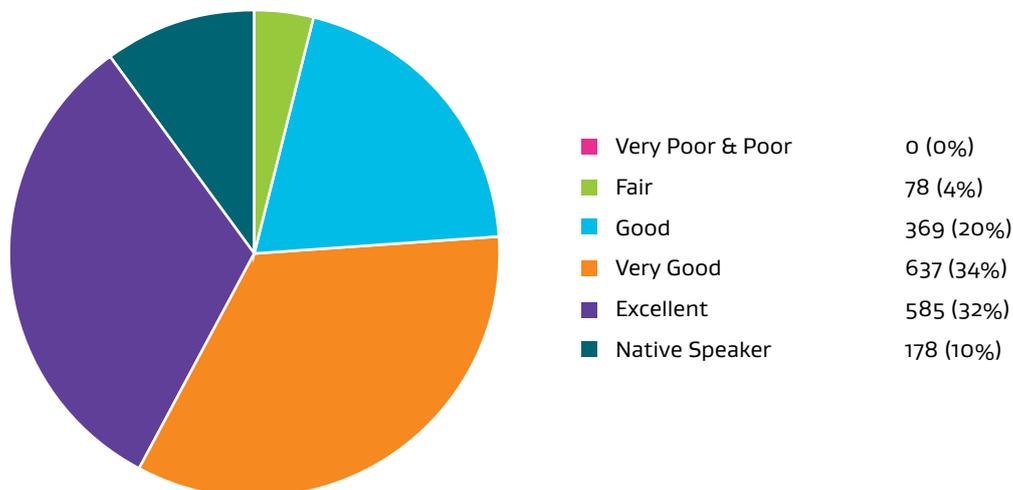
Finally, the level of English language proficiency of the respondents is presented in Figure 3. The following seven-point rating was used:

- 1 = very poor
- 2 = poor
- 3 = fair
- 4 = good
- 5 = very good
- 6 = excellent
- 7 = native speaker

Ratings made for reading, writing, speaking and comprehension were averaged for each participant resulting in an overall mean English language proficiency score of 5.22 (SD = 1.03) or “very good”³. Few respondents (0.27 %) described their English language proficiency as “poor” or “very poor”. This pattern of responses is not surprising given English language requirements for admission to tertiary institutions.

3 If native-speakers are excluded from the analysis, the mean English language proficiency score is 4.85 (SD = 1.10).

FIGURE 3: MEAN OVERALL ENGLISH PROFICIENCY SCORES



Notes: Number and percentage of students by proficiency scores (rounded to the nearest whole number). Very Poor (2, 0.1%) and Poor (3, 0.2%) responses were combined graphically due to the small number of responses.

2. RESULTS

a. Overall Difficulty in Obtaining Information⁴

Students evaluated the difficulty of obtaining information on the following five-point scale:

1 = not at all difficult

2 = slightly difficult

3 = moderately difficult

4 = very difficult

5 = extremely difficult

In general, international students did not encounter serious difficulties in accessing information prior to moving to New Zealand. Table 4 shows the overall average (mean) difficulty score for each of the 22 informational areas, ordered from the most to the least difficult. Although there is variation in the difficulty ratings, all mean scores are at or below the scale's midpoint response of "moderately difficult," indicating that on average international students did not experience serious difficulties in finding information prior to moving to New Zealand.

TABLE 4: DIFFICULTY ACCESSING INFORMATION PRIOR TO MOVING TO NEW ZEALAND

Item	Mean difficulty score	SD	Percent Reporting Not Applicable
Opportunities to work while studying	3.03	1.27	10.3%
Cost of living	2.89	1.14	2.4%
Options for working after study	2.88	1.32	14.8%
Employment rights in NZ	2.35	1.25	15.8%
Finding accommodation	2.24	1.10	4.4%
Public transport	2.23	1.23	3.2%
How well NZ qualifications are recognised internationally	2.22	1.13	14.4%
Shipping and relocating possessions	2.21	1.10	21.8%
Medical care/health services in NZ	2.13	1.16	6.7%
Support services for international students	2.02	1.13	3.1%
Immigration/visa information	2.00	1.05	0.89%
Driving in NZ (e.g. getting a driver's license, traffic rules)	1.99	1.15	12.9%
Where to live / information about regions in NZ	1.98	0.95	5.5%
Climate (e.g. weather)	1.77	0.93	1.7%
Shopping	1.71	0.95	4.2%
Food in NZ	1.70	0.94	3.3%
NZ culture	1.65	0.86	2.4%
Religious and other community groups	1.61	0.88	15.3%
Sports, recreation, and leisure activities	1.58	0.84	4.7%
Language and communication	1.56	0.82	2.7%
Getting a tax (IRD) number	1.48	0.87	14.9%
Banking (e.g. opening a bank account)	1.27	0.64	3.7%

The percentage of students reporting that an informational item was not applicable to them prior to moving to New Zealand is also included in the table. Although the incidence of “not applicable” responses is low overall, it appears that employment-related items (working during or after studies, employment rights, tax number) were identified as not applicable for 10-16% of the sample. Of the other items noted as not applicable, religious and community groups, driving, shipping, and the international recognition of New Zealand qualifications were cited by at least 10% of the respondents.

Open-ended questions were used to collect additional information about topics that students found difficult to access prior to their departure for New Zealand. Respondents indicated that they experienced difficulties in accessing the following informational areas (the number of respondents who indicated each area is listed in brackets following the topical area):

- › institution-related issues such as choosing the institution, choosing courses, paying fees, etc. (9)
- › social activities/groups (8)
- › settling/permanent residence options (7)
- › medical insurance/services (7)
- › support for family/partners (6)
- › interacting with New Zealanders (4)
- › safety/NZ Police (3)
- › non-immigration-related legal matters (3)
- › scholarships/financial aid (2)
- › counselling services (2).

b. Overall Usefulness of Information

Students evaluated the usefulness of information on the following five-point scale:

1 = not at all useful

2 = slightly useful

3 = moderately useful

4 = very useful

5 = extremely useful

Overall students found the informational areas addressed by the survey to be useful. Average (mean) usefulness scores for each of the 22 items, tabled from most to least useful, are presented in Table 5. However, all information areas were ranked above the midpoint, “moderately useful,” indicating that all of the areas in question are considered to be useful by international students when deciding on study in New Zealand. With respect to applicability ratings, at least 10% of the respondents identified shipping and religious community groups as “not applicable”, however in this instance work-related matters were deemed applicable to at least 90% of the respondents.

TABLE 5: USEFULNESS OF INFORMATION

Item	Mean Usefulness Score	SD	Percent Reporting Not Applicable
Immigration/visa information	3.92	1.26	0.9%
Options for working after study	3.78	1.30	7.4%
Medical care/health services in NZ	3.77	1.27	2.1%
Support services for international students	3.77	1.30	1.7%
Opportunities to work while studying	3.75	1.28	5.5%
Cost of living	3.73	1.22	1.6%
Finding accommodation	3.7	1.26	2.9%
How well NZ qualifications are recognised internationally	3.64	1.27	5.6%
Employment rights in NZ	3.61	1.28	6.8%
Public transport	3.6	1.30	1.5%
Banking (e.g. opening a bank account)	3.59	1.39	2.0%
Driving in NZ (e.g. getting a driver's license, traffic rules)	3.54	1.29	7.3%
Where to live / information about regions in NZ	3.53	1.26	3.6%
Getting a tax (IRD) number	3.48	1.38	9.7%
Language and communication	3.44	1.37	3.2%
NZ culture	3.43	1.29	1.9%
Food in NZ	3.27	1.29	1.7%
Climate (e.g. weather)	3.26	1.25	2.0%
Shipping and relocating possessions	3.24	1.25	12.3%
Sports, recreation, and leisure activities	3.24	1.27	3.0%
Religious and other community groups	3.11	1.35	10.2%
Shopping	3.11	1.31	2.6%

With regards to the usefulness of the informational areas, similar themes emerged in the open-ended responses. Participants indicated that in addition to the topical areas included in the survey, the following would be useful for international students prior to their arrival in New Zealand:

- › institution-related issues (17)
- › making friends/dating (7)
- › safety (6)
- › the permanent residence process (6)
- › educational curriculum/system for dependent children (4)
- › non-immigration-related laws and regulations (4)
- › emergency services (2)
- › tourism options (2)
- › scholarships (2).

c. Regional Variations in Informational Needs

Average (mean) difficulty and usefulness ratings were calculated for students by region of origin and by region of study. The findings for region of origin are presented in Tables 6 and 7.

TABLE 6: DIFFICULTY IN ACCESSING INFORMATION BY REGION OF ORIGIN

Region	Mean	SD	Number
India	1.91	0.57	673
Europe	1.95	0.49	154
N. America	2.04	0.58	73
MELAA	2.08	0.62	62
Rest of World	2.08	0.59	40
China	2.10	0.54	167
ASEAN	2.10	0.56	442
Rest of Asia	2.17	0.63	252

Note: Ratings are made on 5 point scales with 1 = not at all difficult and 5 = extremely difficult.

Across all regions, mean difficulty scores were below the midpoint indicating that on average and irrespective of country of origin, students have only slight difficulty accessing information. However, there were significant variations across regions. On average, respondents from India had significantly less difficulty accessing information than respondents from China, ASEAN countries, and the rest of Asia. Additionally, respondents from Europe found accessing information less difficult than respondents from ASEAN countries and the rest of Asia.

All regions had mean usefulness of information scores above the midpoint, indicating that, on average, all of the topic areas identified are seen as at least moderately useful for international students prior to their arrival in New Zealand. Overall, respondents from ASEAN countries rated the information areas as significantly more useful than respondents from China, India, Europe, and the rest of Asia.

TABLE 7: MEAN USEFULNESS OF INFORMATION SCORES BY REGION

Region	Mean	SD	Number
Rest of World	3.97	0.70	35
MELAA	3.78	0.86	56
ASEAN	3.77	0.89	412
N. America	3.56	0.79	81
Rest of Asia	3.54	0.88	221
Europe	3.42	0.69	183
India	3.38	1.15	511
China	3.32	0.95	158

Note: Ratings are made on 5-point scales with 1 = not at all useful to 5 = extremely useful.

There were significant differences between MELAA students and those from India and China, with the former reporting information as more useful. In addition, students from the rest of the world found the information significantly more useful than those from India, China, Europe and the rest of Asia. However, due to the small numbers of students from MELAA and the rest of the world regions, these differences should be viewed with caution.

Difficulty and usefulness ratings were also assessed by region of study in New Zealand, however no significant differences were found across groups.

d. Variations in Informational Needs by Qualification Sought

Difficulty and usefulness ratings by qualifications sought are presented in Tables 8 and 9. Although all group scores were below the scale mid-point, indicating that overall information was no more than slightly difficult to access, Ph.D. and Bachelor's Degree students experienced significantly more difficulties than both groups of certificate and diploma students. All groups evaluated information as moderately to very useful for deciding to study in New Zealand, and there were no significant differences across these groups.

TABLE 8: MEAN DIFFICULTY IN ACCESSING INFORMATION SCORES BY TYPE OF QUALIFICATION

	Mean	SD	Number
Graduate / Postgraduate Certificate / Diploma	1.94	0.54	322
Certificate / Diploma	1.94	0.58	478
Master's Degree	2.06	0.58	186
Bachelor's Degree	2.11	0.58	426
Ph.D.	2.12	0.57	392

Note: Ratings are made on 5 point scales with 1 = not at all difficult and 5 = extremely difficult.

TABLE 9: MEAN USEFULNESS OF INFORMATION SCORES BY TYPE OF QUALIFICATION

	Mean	SD	Number
Master's Degree	3.63	1.03	162
Bachelor's Degree	3.56	0.83	393
Ph.D.	3.54	0.88	420
Graduate / Postgraduate Certificate / Diploma	3.53	1.08	259
Certificate / Diploma	3.46	1.08	375

Note: Ratings are made on 5-point scales with 1 = not at all useful to 5 = extremely useful.

e. Informational Needs and English Language Proficiency

There was a slight, but significant, tendency for those with lower levels of English language proficiency to report information to be more difficult to obtain and to describe the information as less useful.

f. International Students' future plans

Based on reported future intentions, students were first grouped into one of two categories with respect to their future intentions, either staying in New Zealand for further study or employment or leaving New Zealand to work or study elsewhere. Of the 1,635 respondents who were grouped into one of these dichotomous categories, the majority of students (1178, 72%) indicated a desire to stay in New Zealand. The remaining 28% intended to leave the country.

Controlling for age, gender and length of residence in New Zealand, these intentions were examined in relation to students' region of origin and qualification sought. However, due to the relatively small numbers of students from North America, MELAA and the rest of the world, these groups were excluded from the analysis of regional origin. The findings reported below are based only on the responses of students from India, China, ASEAN, other Asian countries and Europe. In addition, the findings are limited to students seeking certificates, diplomas, Bachelor's, Master's and Ph.D. degree qualifications.

The results indicated that students from India expressed the intention to remain in New Zealand more frequently than students from Europe or other Asian countries. Students from Europe were the least likely to report an intention to stay. With respect to qualifications, Ph.D. students were most likely to report an intention to leave New Zealand.

Next, a comparison was made between those who intended to work in New Zealand and those with other future plans. Of the 1635 students who reported their intentions, 62.5% planned to work in New Zealand after the conclusion of their studies.

The findings further indicated that students from India were most likely to report the intention to work in New Zealand while students from Europe were the least likely to have this intention. In addition, students studying for certificates, diplomas and Master's degrees were more likely to state the intention to work in New Zealand than those studying for Bachelor's and Ph.D. degrees.

Discussion and Conclusion

1. INFORMATIONAL NEEDS

Overall, it appears that the Settlement, Protection and Attraction Branch of Immigration New Zealand, Ministry of Business, Innovation & Employment has a solid understanding of the information needs of incoming international students. The results of the study show that while current informational tools are adequately addressing the needs of most incoming international students, improvements can be made, particularly in providing information to Ph.D. and Bachelor's degree students.

Students coming to New Zealand to study for Bachelor's and Ph.D. degrees reported more difficulty in accessing information than those coming for certificate / diploma programmes. This suggests that the informational needs of international students within these specific qualification levels are not being met as effectively as those coming for other programmes of study. Given the government's objectives to increase the transition rate from study to residence for students completing bachelor's level qualifications and above and to double the number of international postgraduate students, it is important to consider this imbalance. Efforts to improve informational access for those students enrolled in undergraduate and doctoral programmes would be beneficial in this regard.

The informational areas rated the least difficult to access, 'Climate,' 'Shopping,' 'Food in NZ,' and 'NZ culture' were also rated as relatively less useful than most other topic areas. These results indicate that the least useful topics are the easiest to find for students and that current resources provide students with adequate information in these less important areas.

Alternatively, students rated 'immigration / visa information,' 'options for working after study,' 'medical care / health services in NZ,' 'support services for international students,' 'opportunities to work while studying,' and 'cost of living' as the most useful informational areas. Three of these, 'opportunities to work while studying,' 'cost of living,' and 'options for working after study' were also rated by students as the most difficult areas to obtain information about prior to settling in New Zealand. Given the importance of these informational areas to students, these topics should be highlighted and made easily accessible in the new NZ Ready content.

The open-ended survey items generated only minimal reference to new areas such as making friends/socialising, safety, police/emergency services, laws, scholarships, and dependent support. It may be helpful to also include some of these topic areas in the student content of the NZ Ready informational tool.

That said, it is worth noting that the number one topic area outlined in both the difficulty and useful open-ended responses was "institution-related issues". International students come to New Zealand to study, but appear to face challenges in accessing the relevant information for their programmes. Institutions should be encouraged to assess their informational tools to ensure that incoming students are provided with the necessary information and guidance to be successful.

Although most difficulty ratings were lower than the midpoint and most usefulness ratings were higher than the midpoint, further differences across groups were evident. International students from Asia, with the exception of India reported more difficulty in obtaining information. As Asia is the primary source of international students in New Zealand, this higher level of difficulty in obtaining information could hinder the desired increase in student numbers.

Finally, respondents with lower English language proficiencies tended to report more difficulties in finding information. While tertiary students are expected to have a minimum English proficiency prior to enrolment, useful information may be difficult to find for students with lower levels of English proficiency prior to their departure to New Zealand.

2. RETAINING INTERNATIONAL STUDENTS

The study indicates that a large majority of students intend to remain in New Zealand after completion of their current programme of study and 62.5% plan to find work, suggesting that the international student pool provides a good source of skilled migrants for the country. These findings support the usefulness of providing students with information about the pathways to work visas and available resources on employment opportunities.

Despite students' generally strong desire to find work in New Zealand, those completing Bachelor's and doctoral degrees were less likely to plan for this than those enrolled for certificates, diplomas or Master's degrees. The finding that completing Ph.D. students were less likely to seek employment here is not surprising given that there are limited

opportunities in New Zealand for those aiming to use their highly specialist qualifications in a career. However, given the government priority to increase the transition from study to residence for graduates with Bachelor's degrees, the reasons for their relatively low intended uptake of employment opportunities might be explored in future research.

Regional variations indicated that Asian students were more likely to stay than Europeans, and among these, Indian students were the most likely to remain.

3. CONCLUDING COMMENTS

The study was based on the responses of 2370 international tertiary students who shared their views on the accessibility and usefulness of information about study in New Zealand. The results of the research showed that although available information was generally viewed as useful, some areas of information were considered more helpful than others. In addition, accessibility of information was found to vary across students' region of origin and by the type of qualification sought. The trends indicate that providing more material on employment-related issues and the cost of living and more accessible information for those enrolled for higher-level qualifications would most effectively address students' needs. The findings also point to a single source of information about study in New Zealand as a means of reducing regional variations in information accessibility.

The research findings have clear implications for the planned expansion of the NZReady web-site to cater for international students. However, the results should be interpreted within the limitations of the research sample, which was not representative of international tertiary students in New Zealand. The response rate for usable surveys was 10%. There were relatively low numbers of students from North America and MELAA countries, and post-graduate students were over-represented in the sample.

Finally, the research was limited to students who had already begun studies in New Zealand. In future it may be worthwhile to survey students who are in the process of deciding where to study to determine if the information tools affect their decision-making processes and outcomes.

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Appendix A: Survey Items

SURVEY: LIVING AND STUDYING IN NEW ZEALAND

About You

Instructions: Please complete the following questions about yourself.

1. What is your country of origin? INCLUDED A DROP DOWN LIST OF COUNTRIES
2. What is your gender? Male Female
3. What is your age (in years)?
4. What type of qualification are you studying toward?
 - Certificate or Diploma
 - Bachelor's degree
 - Graduate Certificate or Graduate Diploma
 - Postgraduate Certificate or Postgraduate Diploma
 - Master's degree
 - PhD degree
 - Other (please specify)
5. How long have you studied in New Zealand (please indicate in number of years and months)? Years Months
6. In what region of New Zealand are you studying? INCLUDED A DROP DOWN LIST OF REGIONS
7. What type of accommodation are you living in while studying in New Zealand?
 - In a student hostel/hall of residence
 - In rental accommodation (e.g. flat)
 - In your own home
 - In a homestay (living with a family in New Zealand)
 - In a relative's home
 - Other (please specify)

Before travelling to New Zealand

Instructions: How difficult was it for you to find information about the following areas before arriving in New Zealand (NZ) to study?

(If you did not try to find information on an area, please click "not Applicable")

	Not at all difficult	Slightly (a little) difficult	Moderately difficult	Very Difficult	Extremely Difficult	Not Applicable
1. Where to live / information about regions in NZ	1	2	3	4	5	6
2. Finding accommodation	1	2	3	4	5	6
3. Cost of living	1	2	3	4	5	6
4. Climate (e.g. weather)	1	2	3	4	5	6
5. Immigration/Visa information	1	2	3	4	5	6
6. Opportunity to work while studying	1	2	3	4	5	6
7. Work rights in NZ	1	2	3	4	5	6
8. Options for working after study	1	2	3	4	5	6
9. How well are NZ qualifications recognised internationally	1	2	3	4	5	6
10. Getting a tax (IRD) number	1	2	3	4	5	6
11. Banking (e.g. opening a bank account)	1	2	3	4	5	6
12. Driving in NZ (e.g. getting a driver license, traffic rules)	1	2	3	4	5	6
13. Shipping and relocating possessions	1	2	3	4	5	6

14. Medical care/ Health services in NZ	1	2	3	4	5	6
15. Language and communication	1	2	3	4	5	6
16. NZ culture	1	2	3	4	5	6
17. Sports, recreation and leisure activities	1	2	3	4	5	6
18. Religious and other community groups	1	2	3	4	5	6
19. Food in New Zealand	1	2	3	4	5	6
20. Public transport	1	2	3	4	5	6
21. Shopping	1	2	3	4	5	6
22. Support services for international students	1	2	3	4	5	6

Instructions: Was there any other information that you found difficult to find (please specify)?

Instructions: Based on your experience as an international student in New Zealand, how useful would it have been to receive information about the following areas while deciding to study in New Zealand?

(If the information on an area is not relevant to you, please click "Not Applicable"):

	Not at all useful	Slightly (a little) useful	Moderately useful	Very Useful	Extremely Useful	Not Applicable
1. Where to live / information about regions in NZ	1	2	3	4	5	6
2. Finding accommodation	1	2	3	4	5	6
3. Cost of living	1	2	3	4	5	6
4. Climate (e.g. weather)	1	2	3	4	5	6
5. Immigration/Visa information	1	2	3	4	5	6
6. Opportunity to work while studying	1	2	3	4	5	6
7. Work rights in NZ	1	2	3	4	5	6
8. Options for working after study	1	2	3	4	5	6
9. How well are NZ qualifications recognised internationally	1	2	3	4	5	6
10. Getting a tax (IRD) number	1	2	3	4	5	6
11. Banking (e.g. opening a bank account)	1	2	3	4	5	6
12. Driving in NZ (e.g. getting a driver license, traffic rules)	1	2	3	4	5	6
13. Shipping and relocating possessions	1	2	3	4	5	6
14. Medical care/ Health services in NZ	1	2	3	4	5	6

15. Language and communication	1	2	3	4	5	6
16. NZ culture	1	2	3	4	5	6
17. Sports, recreation and leisure activities	1	2	3	4	5	6
18. Religious and other community groups	1	2	3	4	5	6
19. Food in New Zealand	1	2	3	4	5	6
20. Public transport	1	2	3	4	5	6
21. Shopping	1	2	3	4	5	6
22. Support services for international students	1	2	3	4	5	6

Instructions: Was there any other information that you would have found useful while deciding to study in New Zealand (please specify)?

Instructions: Immediately after you complete your current programme of study, what is the next thing you are most likely to do?

- Enrol in further studies in your home country
- Enrol in further studies at the same educational institution in New Zealand
- Enrol in further studies at another educational institution in New Zealand
- Enrol in further studies in another country overseas
- Find a job in your home country
- Find a job in New Zealand
- Find a job in another country
- No plans for the future yet
- Other (please specify)

Appendix B: Notes on Data Management and Analysis

Case-wise deletion was used for missing data except in the calculation of the total difficulty and total usefulness scores. For these calculations the mean item score was used for all cases in which at least 80% of the responses were returned (i.e., responses were available for at least 18 of the 22 items). The mean difficulty score (2.03, SD = 0.57) was based on the responses of 1,634 students. The mean usefulness score (3.51, SD = 0.99) was based on the responses of 1,442 students.

Group comparisons for the usefulness and difficulty ratings (e.g. across region or origin, region of residence, qualification sought) were made with Analyses of Variance (ANOVA) and Games Howell post-hoc tests. The Games Howell tests are typically used when sample sizes are unequal and homogeneity of variance is not assumed. Nevertheless, the low numbers of students from North America, MELAA and "rest of the world" suggest that the comparisons of these groups should be viewed with caution. Co-variables were not used in these analyses. Only statistically significant results are presented in this report.

Pearson correlations were used to examine the relationship between English language proficiency and difficulty in obtaining information ($r = -.12, p < .001$) and usefulness of information ($r = .09, p < .001$). The results indicate that greater proficiency was associated with less difficulty and greater usefulness. Though statistically significant, the relationships are not strong and again should be viewed with caution.

Logistic regression was used to predict the likelihood of students staying versus leaving New Zealand on the basis of region of origin and qualification. Due to the low number of students from North America, MELAA and "rest of the world," the analysis was confined to students from Asian and European countries. For the same reason, "other" as a category of qualification sought was also excluded from the analysis.

