First Follow-Up Descriptive Report

Graduate Longitudinal Study New Zealand

2016

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30 June 2016

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EXECUTIVE SUMMARY

The Graduate Longitudinal Study New Zealand (GLSNZ) appears to be the most comprehensive longitudinal lifecourse study of graduate outcomes to date (please see the GLSNZ Baseline Report[1] for a review of the international literature).

A total of 8,719 final-year university students from across New Zealand's eight universities participated in the 2011 GLSNZ Baseline Survey. These students are broadly representative of the approximately 35,000 students who graduated from New Zealand universities in that year. In 2014, approximately 2.5 years[2] after completing the Baseline Survey, participants were invited to complete the First Follow-up Survey. From the Baseline Cohort of 8,719, a total of 6,104 respondents (70%) participated in the First Follow-up Survey (henceforth referred to as the Follow-up Cohort).[3]

A broad range of men and women of all ages, ethnic backgrounds, fee-paying statuses, and course types completed a lengthy online survey of 600+ questions that took, on average, 45 minutes to complete (interquartile range = 36 to 60 minutes). The length is considerably longer than typically seen in this type of research.

The breadth and depth of this body of data is to be examined in detail and used to form the basis of a number of ongoing investigations. Specifically, GLSNZ investigators will initially examine: (i) Labour market outcomes and their mediators/moderators; (ii) issues of ethnicity and tertiary success, with particular emphasis on experiences of and outcomes for Māori and Pasifika learners; (iii) experiences of international students and the overseas export industry value of tertiary education in New Zealand; and (iv) the social benefits/good associated with aspects of university study.

Over time, the GLSNZ will provide critical information to both universities and government policy makers who are seeking robust information on the cost-effectiveness of their significant financial investment in university education by determining how this contributes to the social and economic goals of individual graduates and New Zealand society as a whole.

What follows is a brief descriptive summary of the data presented in the main body of this report. We do not describe all data, preferring instead to highlight selected findings of general interest. Nor do we seek to 'interpret' or extract meaning at this stage; this next step requires further, in-depth analyses continuing throughout 2015 and beyond, as described above. This report is best read in conjunction with the GLSNZ Baseline Report (see Footnote 1).

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[1] Tustin, K., Chee, K.-S., Taylor, N., Gollop, M., Taumoepeau, M., Hunter, J., Harold, G., & Poulton, R. (2012). *Extended Baseline Report: Graduate Longitudinal Study New Zealand*. Retrieved from https://www.glsnz.org.nz/files/GLSNZ-Baseline-Report.pdf.

[2] Mean (SD) = 2.59 (0.17) years; median = 2.55 years; range = 2.22-3.08 years; interquartile range = 2.48-2.69 years.

[3] Note that rates of attrition varied somewhat between socio-demographic groups. Specifically, among those more likely to have been non-responders at the First Follow-Up Survey were: Males, participants identifying as being of Asian ethnicity, younger participants, participants studying at lower NZQF levels in 2011, Management and Commerce students in 2011, and international non-PhD students in 2011 (please see Appendix 1 for more information), largest $\chi^2(6, N = 8694) = 360.83$, $p < .005$, $V = 0.20$. These effects were small, however, and the Follow-up Cohort remains broadly representative of all 2011 completions (please see Appendix 2 for more information about the composition of the Baseline and First Follow-up Cohorts as compared to overall national completions in 2011), largest $\chi^2(9, N = 41007) = 1063.25$, $p < .005$, $V = 0.16$.

Demographic Characteristics of the Follow-up Cohort

Female participants outnumbered males (64% vs. 36%) at the First Follow-up Survey as they did at the 2011 Baseline Survey (62% vs. 38%) and younger participants outnumbered older participants; most participants were under the age of 30 (61%) and a small number (2%) were over the age of 60. With regard to ethnicity, 75% self-reported European, 7.5% Māori, 4% Pacific Peoples, 19% Asian, and 3% Middle Eastern/Latin American/African or other ethnicities.

With respect to the study-related variables of participants' 2011 qualifications, 55% had been studying towards undergraduate qualifications in 2011, 24% were completing Level 8 post-graduate qualifications, 15% were completing Masters' qualifications (Level 9), and 6% were completing doctorate qualifications (Level 10). The most common field of study was Society and Culture (i.e., Humanities and Social Sciences) (23%), followed by Management and Commerce (17%), Health (14%), Education (13%), and Natural and Physical Sciences (13%). Over one third of participants had been studying part-time in 2011 (36%) and 12% were completing their study via extramural/distance learning courses.

Approximately 9% of participants were international fee-paying students in 2011, of whom 30% were completing doctoral-level qualifications (representing 2.8% of the total Follow-up Cohort).[4] Note that there were similar numbers of domestic doctoral students in the Follow-up Cohort (3.2%). The majority of the international fee-paying student participants listed their country of origin as located in North-East Asia (24%) (e.g., People's Republic of China, Republic of Korea), followed by South-East Asia (20%) (e.g., Malaysia, Indonesia, Viet Nam, Thailand), Southern and Central Asia (16%) (e.g., India, Pakistan), North-West Europe (13%) (e.g., United Kingdom, France, Germany), and the Americas (12%) (e.g., United States of America, Canada, South and Central America).

General and Background Information

In terms of relationship status, 31% were single, with the remainder either married, living together with their de facto partner, or in a relationship but not living together. A small number (3%) were divorced, separated, or widowed. With regard to family responsibilities, 27% of participants were parents.

One fifth of participants indicated that English was not their first language, with most reporting high levels of English fluency. Under 8% reported less than ideal levels of fluency in English (very low to moderate fluency). High levels of fluency in Te Reo Māori (1.3%) and sign language (4.7%) were rare.

Overall, 82% of participants were currently living in New Zealand (86% of domestic student participants and 44% of international student participants). Of those living overseas, domestic student participants were most likely to be residing in Australia (6%), followed by North-West Europe (3.5%) (e.g., United Kingdom, Germany, Netherlands). International student participants living overseas were most likely to be residing in South-East Asia (14%) (e.g., Malaysia, Indonesia, Thailand, Viet Nam), followed by The Americas (9%) (e.g., United States of America, Canada, South America), North-West Europe (7%), North-East Asia (7%) (e.g., Peoples Republic of China, Republic of Korea), and elsewhere in Oceania and Antarctica (7%) (e.g., Australia, Melanesia, Polynesia). Of those participants (domestic and international) currently living in New Zealand, over one third (39%) were living in the Auckland region, 19% in the Wellington region, 11% in the Canterbury region, and 7% in each of the Waikato and Otago regions. The large majority were residing in the major centres of these regions. Most of

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[4] Note that international PhD students were oversampled for the 2011 Baseline Survey – all international PhD students were invited to participate in the Baseline Survey.

those currently living in New Zealand had been living there for more than 12 months (82%), whereas 59% of those currently living overseas had been living there for more than 12 months.

In terms of parental relations, of the 90% of participants who indicated that their mother was still living, 79% stated that they enjoyed a very good relationship and had contact at least weekly. Of the 84% of participants who indicated that their father was still living, 70% stated that they enjoyed a very good relationship and 64% had contact at least weekly.

Since the 2011 Baseline Survey, 77% of participants indicated that they had been in full-time employment, 33% indicated that they had been in part-time employment, and 32% indicated that they had been establishing their careers further. Approximately 39% had been engaging in further study and 27% had been travelling or living overseas.

Nearly half (48%) of international student participants indicated that they had returned to live in their country of origin, with 43% remaining in New Zealand and 9% living elsewhere overseas. Of those international student participants living elsewhere overseas, 30% resided in Australia, 24% in the Americas (e.g., United States of America, Canada), 20% in North-West Europe (e.g., United Kingdom, Austria, France), and 11% in North-East Asia (e.g., Republic of Korea, Japan).

Nearly half (49%) of domestic student participants indicated that they had spent a total of a month or more overseas since the 2011 Baseline Survey – 5% for study (average of 9 months), 17% for work-related reasons (average of 13 months), and 37% for travel/holidays (average of 3 months).

Education

Overall, 95% of participants indicated that they had completed the qualification they were studying towards in 2011.[5] The highest completion rates were for Level 7 and 8 qualifications (96%), with completion rates for Level 9 qualifications slightly lower (92%), and completion rates for Level 10 qualifications at 86%. Of those who indicated that they had completed their 2011 qualification, 83% indicated that this qualification was their highest qualification. For the overwhelming majority of those who completed Level 9 and 10 qualifications, these qualifications were participants' highest qualifications (99% in each case). In contrast, for 79% and 78% of those who completed Level 7 and 8 qualifications, respectively, these qualifications were participants' highest qualifications. Participants' highest qualifications ranged from NZQF Level 1 to Level 10 qualifications; the majority (45%) held a Level 7 qualification, 25% held a Level 8 qualification, 21% held a Level 9 qualification, and 6% held a Level 10 qualification. The most common broad field of study of participants' highest qualifications was Society and Culture (21%), followed by Management and Commerce (17%), Health (14%), Natural and Physical Sciences (13%), and Education (12%). Broadly speaking, the field of study of participants' highest qualifications tended to match the field of study of the qualification that they were studying towards in 2011.

Nearly a quarter of participants indicated that they were currently enrolled in tertiary study at a university (20%), polytechnic (1%), or other provider (2%). Of those currently enrolled in tertiary study,

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[5] At the time of sample selection in 2011, final-year students were eligible to participate in the GLSNZ if they were enrolled in a programme of study (at level 7 or above) that would allow them to have completed the requirements for their qualification in 2011 (i.e., their normal annual course load would have allowed them to complete their qualification in 2011) (please see Appendix 5 for more information). Thus, there was a high likelihood that these participants would go on to graduate from their studies in 2011. There were, however, a minority of participants (3.5%) who indicated that they had not completed their 2011 qualification. The reasons for this failure to graduate are unclear but may include, for example, failing part of the course, delays with the research components of theses, or withdrawing from study for health or family reasons.

85% were enrolled at New Zealand institutions. The majority of those currently enrolled in tertiary study were completing qualifications at or above Level 7 (83%), with over half currently enrolled in Level 9 or 10 qualifications. The most common broad field of study of participants' current courses was Society and Culture (23%), followed by Health (18%), Management and Commerce (12%), Natural and Physical Sciences (10%), and Education (9%). Of the 75% of participants who indicated that they were <u>not</u> currently enrolled in tertiary study, 38% indicated that they would have liked to enrol in further study since the 2011 Baseline Survey. Reasons for not enrolling were mainly financial considerations (64%) and lack of time (48%).

In terms of awareness of distance learning options and Massive Open Online Courses (MOOCs), two thirds of participants indicated moderate to very good familiarity with the concept of distance learning, but only 21% indicated these levels of familiarity with MOOCs. Only 7% of participants had ever enrolled in a MOOC. Despite this, almost half of participants (48%) indicated that having universities offer MOOCs as a part of their programme would be a good or very good idea, with 56% of participants indicating that they would be likely or very likely to participate in a free MOOC focusing on a subject in which they were interested. The reasons given for considering taking a MOOC included increasing knowledge/skills in specific areas (76%), filling in knowledge gaps (58%), improving career prospects (54%), and for recreation/interest (47%).

University Experiences

Almost 80% of participants reported that they thought their study programme had been worth the investment (i.e., time, cost, and effort). A similar high percentage reported that their university experience had lived up to their expectations (73%). There was a considerable minority who reported less than desirable levels of satisfaction in these areas (21% and 27%, respectively). Approximately one third (33%) of participants said they had retained links with their university (e.g., via Alumni Associations), with many more (56%) retaining social connections formed at university. When asked if they could start their time at university over from the beginning, 87% indicated that they would probably or definitely go to the same university and 75% indicated that they would probably or definitely enrol in the same qualification. Importantly, approximately three quarters of participants evaluated their overall experience at university very positively, with 79% reporting that they would recommend their university to others.

In terms of the factors that participants thought made graduates more employable, those deemed most important were, in order: (i) Ensuring a good fit between skills taught and professional practice needs, (ii) critical thinking and analysis, and (iii) transferability of skills and knowledge. With regard to how participants perceived their university education as having benefited them or benefiting them in the future, the most frequently highly-rated were, in order: (i) Personal development, (ii) obtaining employment, and (iii) career development.

The Next 3 Years…

With regard to the near future (the next 3 years), three quarters of participants expected to pursue their career, and 27% planned to work in jobs that provided them with a wage (as opposed to pursuing a career).[6] About 30% planned to undertake further study, although almost half of this group (48%) did not yet know at which institution.

The majority of participants (91%) indicated that they were planning to undertake paid work in the next 3 years. Of these participants, 85% planned to work in New Zealand, 46% planned to work overseas, and 7% planned to work in their country of origin (respondents could choose multiple

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[6] Note that participants could select as many options as applied, hence they sum to in excess of 100%.

options, so they sum to in excess of 100%). Not surprisingly, these intentions differed for international versus domestic student participants. For non-PhD student participants, 87% of domestic versus 60% of international student participants planned to work in New Zealand. Approximately, 47% and 3% of domestic student participants planned to work overseas and in their country of origin, respectively. In contrast, 35% and 47% of international student participants planned to work overseas or in their country of origin, respectively. With respect to PhD students, 83% of domestic versus 49% of international student participants planned to work in New Zealand. Interestingly, similar percentages (47%) of domestic and international PhD student participants planned to work overseas, with 51% of international PhD student participants indicating that they planned to work in their country of origin. In terms of intended destinations for those planning to work overseas, 18% of domestic student participants planned to work in Australia, 14% in North-West Europe, and 6% in The Americas. Approximately 15% of domestic student participants indicated that they planned to work in multiple countries and a further 39% indicated that they were not yet sure of their exact destination. In contrast, 11% of international student participants planned to work in Australia, 8% in each of North-West Europe and The Americas, and 6% elsewhere overseas. Approximately 21% of international student participants planned to work in multiple countries and a further 41% indicated that they were not yet sure in which countries they would work.

The most common fields in which participants were planning to work were, in order: (i) Education and training (25%), (ii) health care and medical (20%), and (iii) academia (17%). In terms of what participants were looking for in a career/job, the most highly-ranked attributes were: (i) Job satisfaction, (ii) financial security, and (iii) a good work/life balance.

With regard to the more distant future (10 years' time), the most frequently endorsed options were: (i) Full-time employment (67%), (ii) partnered/married (46%), and (iii) establishing their career further (46%). Interestingly, these priorities differed somewhat from what participants indicated they had been doing over the previous 2 years. The top endorsements for the latter question were: (i) Full-time employment (77%), (ii) engaging in further study (39%), and (iii) part-time employment (33%). The largest differences between these two time points (previous 2 years versus in 10 years' time) were for: (i) Being partnered/married (14% vs. 46%, respectively), (ii) engaging in further study (39% vs. 15%, respectively), and (iii) parenting/caregiving (10% vs. 31%, respectively).

Employment

With regard to employment history, approximately 90% indicated that they had been in paid work since the 2011 Baseline Survey. Of those who had been employed, 37% indicated that they were already in the position while completing their qualification in 2011. The means by which participants obtained employment were through the internet (37%), through family, friends, or acquaintances (21%), or by contacting employers on their own initiative (20%). Since the 2011 Baseline Survey, 62% indicated having had more than one employer. Participants had, on average, two employers during that time frame. Almost half (45%) of the participants indicated that they had been employed for 30 or more months since the 2011 Baseline Survey;[7] on average, participants had been employed for about 2 years. The majority of participants rated their overall employability and skills as good or excellent (88%).

In total, 34% of participants indicated that they had experienced some period(s) of unemployment since the 2011 Baseline Survey, averaging about 6 months, but up to 30 or more months for some (2.4% of those who had experienced unemployment). About 21% of participants were actively looking

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[7] On average, there was a period of 31.1 months (SD = 2.0 months) between completion of the Baseline and First Follow-up Surveys; median = 30.7 months; range = 26.7-37.0 months; interquartile range = 29.7-32.2 months.

for paid work at the time that the 2014 Follow-up Survey took place; the majority (81%) were using the internet as a means of finding this work.

In terms of current employment, 81% indicated that they were currently employed. Of those, the majority (78%) were full-time salary/wage earners, 18% were part-time salary/wage earners, and 8% were self-employed either full- or part-time.[8] Participants indicated that they were paid to work, on average, 35 hours per week but that, in actuality, they worked an average of 39 hours per week. Just over half of the participants (55%) actually worked the same weekly hours that they were paid to work, with 43% indicating that they worked more hours per week than they were paid for, and a small minority (less than 3%) working fewer hours per week than they were paid for.

The most common fields in which participants were employed were: (i) Education and training (18%), (ii) health care and medical (15%), (iii) academia (6%), (iv) government (5%), and (v) science and technology (4%). Just over two thirds of participants had permanent or open-ended contracts, 19% had fixed-term contracts, 8% had temporary or casual contracts, and 5% were self-employed. Just under half of participants (48%) indicated that they had greater work responsibilities in that they supervised other workers (usually 10 or fewer other workers).

In terms of work attributes, the work was related to participants' field of study for about 64% of those employed. Similarly, 64% of those employed indicated that they were able to apply the skills they gained from their studies to their work. A larger proportion (71%), however, indicated that their knowledge and skills were well utilised in their work. Approximately 36% indicated that their work demanded more knowledge and skills than they could offer. A similar percentage were less than satisfied with their current work, with 28% indicating that they could not see themselves continuing this kind of work for the next 3 years. In terms of psychological job demands (e.g., having too high a workload to do everything well, being unclear about what one has to do, working under the pressure of time, etc.), participants indicated that their work was, on average, moderately demanding; however, a minority of participants (11%) did experience significant psychological job demands.

Financial Circumstances

Approximately 86% of participants indicated receiving some form of income within the last 12 months, the majority of which (92%) came from wages, salary, etc., paid by their employer. Of those participants reporting that they had received some income, the median income was NZ$40,001 to NZ$50,000. Approximately 44% of participants shared a household with a partner or spouse who contributed financially.

Three quarters of participants had taken out a student loan and the median loan debt was NZ$10,001 to NZ$15,000. Other debt (excluding mortgages) was very low (median = NZ$1 to NZ$5,000), as was property/mortgage debt (median = NZ$0). Asset values were similarly low (median = NZ$25,001 to NZ$30,000). Overall, few participants (4%) indicated high levels of economic strain, with the vast majority comfortably able to afford basic necessities such as accommodation, food, clothing, leisure activities, and other financial commitments.

Health, Behaviour, and Life Circumstances

In terms of health, 89% described their overall physical health as good or better, with 98% able to adequately carry out everyday physical activities. Approximately 7% of the cohort reported smoking at least one cigarette for a month or more during the past year. Just under 10% of participants drank

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[8] Note that participants could select as many options as applied, hence they sum to in excess of 100%.

no alcohol at the time of the survey, 44% drank at least once per week, with 8% drinking alcohol at least four times per week.

In terms of emotional well-being, the sample scores were normally distributed with a minority (1%) reporting low levels of well-being. On average, participants expressed high levels of satisfaction with their life so far (range = 0 (completely dissatisfied) to 10 (completely satisfied); mean = 7.20, SD = 1.90) and expected to be more satisfied with their lives in 10 years' time (mean, = 8.35, SD = 1.50).

The majority of participants (90%) indicated that they met socially with friends at least once a month, with fewer meeting socially with work colleagues and neighbours at least once a month (51% and 18%, respectively). Most participants indicated that they would be able to rely on family, friends, or other acquaintances for help in a range of situations, and at least 82% had themselves helped other family members or friends with some personal situations over the last year, with 54% indicating that they had helped other acquaintances in this way as well.

In terms of stressful life events that may have taken place since the 2011 Baseline Survey, 67% of participants indicated that they had experienced at least one stressful event during this time. The most commonly-experienced stressful events were: (i) The death of a relative or close friend (27%), (ii) difficulty paying bills (20%), and (iii) multiple residential changes (19%). Although these three events were the most commonly endorsed, their negative impacts (as rated by participants on impact scales ranging from 0 = none at all to 4 = a great deal) were among the lowest rated (means (SDs) of 2.75 (1.07), 2.54 (1.06), and 1.66 (1.20), respectively). On the other hand, the events that had the most negative impact on participants' lives were: (i) Being involved in a violent or abusive relationship (2%; mean = 3.36, SD = 0.91), (ii) other stressful events (the most common of which were relationship problems and work-related issues, e.g., work stress, job insecurity, difficult working relationships) (16%; mean = 3.21, SD = 1.00), and (iii) a disabling physical illness lasting a month or more (4%; mean = 3.20, SD = 0.93).

Community Engagement

Social agency, proactivity and tolerance of diversity were clearly valued and evident among participants, however, rates of participation in the local community were lower. In terms of belonging to different community groups or associations, participants were most likely to participate in sports, hobby, or leisure groups (54%), with smaller numbers participating in trade unions or professional organisations (40%), charitable organisations (34%), church or religious organisations (26%), political parties or associations (13%), or neighbourhood associations or groups (11%). Voting behaviour was higher at the national level (e.g., national government elections/referendums) than at the local level (e.g., city/district council elections), with 84% and 57%, respectively, indicating that they usually or always voted in each of these situations.

General Comments

Overall, 17% of participants chose to comment about the survey and/or study when invited to do so at the end of the survey. This feedback included some concern about the length of the survey, stylistic observations about the survey, and the provision of further, clarifying information to the GLSNZ team.

Then and Now

What follows are tables contrasting selected findings from the 2011 Baseline Survey and the 2014 First Follow-up Survey. Once again, we do not attempt to describe all data, but highlight findings of general interest. Nor do we seek to 'interpret' or extract meaning at this stage; this next step will require further, in-depth analyses. Note that, in all cases, data have been restricted to participants who answered each question at both time-points. As such, the comparisons presented in the following tables are not independent; the data are paired and reflect intra-individual change between the Baseline Survey and the First Follow-up Survey.

Table 1.01. General and background information at Baseline and First Follow-up Surveys

	Survey (%)			
Survey question	Baseline	First Follow-up	Test statistics	Meaning
1. Are you a parent?	22.6%	27.3%	N = 6093, p < .005, OR = 29.20 (95% CI‡ = 15.55-54.84)	Large effect*
2. What is your relationship status?			N = 6052, p < .005	Some change
Single	38.5%	31.1%		
In a relationship but not living together	20.0%	13.7%		
De facto	17.2%	23.1%		
Married/Civil Union	21.6%	29.4%		
Divorced/Separated	2.4%	2.4%		
Widowed/Surviving Civil Union	0.3%	0.3%		
3. Which of the following describes your current living arrangements?			N = 6075, p < .005	Some change
Living with friends or in a shared house	37.6%	28.9%		
Living with parents or guardians	20.3%	14.0%		
Living by myself	6.0%	8.2%		
Living with partner/spouse and/or children	33.9%	46.8%		
Living in a university hall or college of residence	1.7%	0.4%		
Other	0.4%	1.6%		

* The Odds Ratio (OR) measures the size of the effect of a statistically-significant McNemar test. OR effect sizes are defined as: 1.49 = small effect, 3.45 = medium effect, 9 = large effect. ‡ 95% CI = 95% confidence interval.

Participants were asked a series of questions at both Surveys regarding their relationship status, whether or not they were parents, and their current living arrangements.

To determine whether there was a change in the number of participants who were parents at the Baseline and First Follow-up Surveys, we subjected the data to a McNemar test. The McNemar test assesses whether or not there is a statistical difference between the proportions of participants who are parents at each Survey, for those participants who answered the question at both Surveys. As shown in Table 1.01, the proportion of participants who were parents increased from 22.6% at the Baseline Survey to 27.3% at the First Follow-up Survey, which is a statistically-significant difference. In order to provide a measure of the size of this statistically-significant difference, we calculated an Odds Ratio (OR). The Odds Ratio describes the odds of being a parent at the First Follow-up Survey but not at the Baseline Survey (or vice versa in a very small number of cases) relative to the odds of being a parent at both Surveys or not being a parent at either Survey (i.e., a change in parenthood status vs. stability in parenthood status). An OR of 1.49 can be considered a small effect size, an OR of 3.45 can be considered a medium effect size, and an OR of 9 can be considered a large effect size (see table note). In this case, the Odds Ratio was 29.20, which is defined as a large effect.

In order to determine whether there were changes in participants' relationship status and living arrangements, we subjected the data to tests of Marginal Homogeneity. Tests of Marginal Homogeneity assess whether the proportions of participants endorsing each relationship type or each type of living arrangement change from the Baseline Survey to the First Follow-up Survey, for those participants who answered each question at both Surveys. As shown in Table 1.01, there were marked changes in participants' relationship status and living arrangements from the Baseline Survey to the First Follow-up Survey. Specifically, participants were less likely to be single or in a relationship but not living together at the First Follow-up Survey than at the Baseline Survey. Conversely, participants were more likely to be in de facto relationships or married/in a civil union at the First Follow-up Survey than at the Baseline Survey. This finding is perhaps also reflected in the finding that almost half of participants at the First Follow-up Survey were living with their partner/spouse and/or children compared to a third at the Baseline Survey. Participants were less likely to be living with friends or in a shared house ("flatting") or living with their parents/guardians, but were more likely to be living alone at the First Follow-up Survey than at the Baseline Survey.

Table 1.02. Satisfaction with university and overall impressions at Baseline and First Follow-up Surveys

Survey question	Survey [Mean (SD)]		Test statistics	Meaning[*]
	Baseline	**First Follow-up**		
1. Overall, was your study programme worth the time, cost, and effort?[1]	4.13 (0.92)	4.13 (0.94)	$t(5933) = 0.39$, $p = .70$	No change
2. Did your overall experience at university meet your expectations? [1]	3.87 (0.96)	3.92 (0.95)	$t(5935) = 4.44$, $p < .005$, $d = 0.06$	Very small effect
3. Would you like to retain/have you retained links with your university (e.g., Alumni)? [1]	3.66 (1.10)	2.84 (1.29)	$t(5927) = 46.72$, $p < .005$, $d = 0.68$	Medium effect
4. Would you like to retain/have you retained social connections formed at university (e.g., class reunions, keeping in touch with university friends)? [1]	3.99 (1.15)	3.49 (1.40)	$t(5917) = 29.58$, $p < .005$, $d = 0.39$	Small effect
5. How would you evaluate your entire experience at your university? [2]	3.96 (0.80)	3.91 (0.85)	$t(5820) = 5.05$, $p < .005$, $d = 0.07$	Very small effect
6. Would you recommend your university to others? [1]	4.21 (0.94)	4.14 (0.95)	$t(5821) = 5.77$, $p < .005$, $d = 0.07$	Very small effect

[1] Response options ranged from 1 = Definitely no — 5 = Definitely yes. [2] Response options ranged from 1 = Poor — 5 = Excellent. [*] Cohen's d measures the size of the effect of a statistically-significant t-test. Effect sizes for Cohen's d are defined as: 0.2 = small effect, 0.5 = medium effect, 0.8 = large effect.

Participants were asked a series of questions at both Surveys regarding their overall satisfaction with their experience during their time at university and these data were subjected to separate, paired t-tests. A t-test compares whether the means of two groups are statistically different. In our case, participants' answers at the Baseline Survey can be paired with their answers at the First Follow-up Survey so we have used paired t-tests to determine whether their answers changed between the two Surveys. In instances in which there were statistically-significant differences between participants' answers at the Baseline Survey and at the First Follow-up Survey, we have estimated the sizes of these significant effects using Cohen's d. Cohen's d is an effect size measure of the difference between two means. An effect size of $d = 0.2$ can be considered a small effect size, $d = 0.5$ can be considered a medium effect size, and $d = 0.8$ can be considered a large effect size (see table note).

As shown in Table 1.02, overall, participants judged their time at university positively at both time points. Participants rated the perceived worth of their investment in university study (time, cost, effort) as highly at the Baseline Survey as they did at the First Follow-up Survey. In terms of whether university experience lived up to expectations, participants rated their overall experience at university as more likely to have met their expectations at the First Follow-up Survey than at the Baseline Survey, however, the size of this effect was very small and represents an increase of 0.05 points on a 5-point scale.

Participants also rated their entire experience at university very positively at both time points but there was a slight decrease in their evaluations from the Baseline Survey to the First Follow-up Survey. Similarly, participants reported that they would be very likely to recommend their university to others at both Survey time points but, again, there was a slight decrease in their perceived likelihood of recommending their university from the Baseline Survey to the First Follow-up Survey. Note that in both of these cases, the decreases amount to no more than 0.07 points on 5-point scales and the sizes of the effects are very small.

Where differences between the two Surveys become more apparent, however, are in the retention of links with one's university (formal and social). Of particular note is the finding that participants were less likely to have retained formal links (e.g., Alumni) with their university at the First Follow-Up Survey than they had intended to at the Baseline Survey. Initially, participants were keen to retain formal links with their university after leaving but their likelihood of actually doing so dropped to below the half-way point of the scale only 2.5 years after completing their studies. Similarly, participants were less likely to have retained social connections formed at university at the First Follow-Up Survey than they had intended to at the time of the Baseline Survey although the size of this effect was small.

Table 1.03. Employment and financial situation at Baseline and First Follow-up Surveys

Please note that the data in the following table have been restricted to participants aged 34 years and under at the time of the First Follow-Up Survey, in order to more accurately capture those participants entering employment for the first time after study rather than those participants who had already been in the workforce prior to undertaking their studies.

Survey question	Survey [% or Mean (SD)]		Test statistics	Meaning
	Baseline	First Follow-up		
1. Are you currently employed?	59.0%	86.0%	$N = 4113$, $p < .005$, $OR = 5.58$ (95% CI[‡] = 4.86-6.39)	Medium effect[*]
2. How much is this work related to your field of study?[1]	2.95 (1.57)	3.59 (1.41)	$t(2148) = 17.86$, $p < .005$, $d = 0.43$	Small effect[ǂ]
3. How much are you able to apply the skills you gained from your studies to your primary job (e.g., communication, analytical, teamwork, leadership, etc.)?[1]	3.33 (1.26)	3.65 (1.12)	$t(2146) = 10.68$, $p < .005$, $d = 0.27$	Small effect[ǂ]
4. Economic Situation[2]	17.73 (4.36)	19.68 (4.24)	$t(4032) = 26.02$, $p < .005$, $d = 0.45$	Small effect[ǂ]

[1] Response options ranged from 1 = Not at all — 5 = Very much. [2] Range = 5 (high economic strain) to 25 (low economic strain). [*] The Odds Ratio (OR) measures the size of the effect of a statistically-significant McNemar test. OR effect sizes are defined as: 1.49 = small effect, 3.45 = medium effect, 9 = large effect. [ǂ] Effect sizes for Cohen's *d* are defined as: 0.2 = small effect, 0.5 = medium effect, 0.8 = large effect. [‡] 95% CI = 95% confidence interval.

Participants were asked a series of questions at both Surveys regarding whether or not they were currently employed, how much their employment was related to their field of study, and their economic situation (ability to afford basic necessities such as accommodation, food, and clothing and ability to pay bills).

To determine whether there was a change in the number of participants who were employed at the Baseline and First Follow-up Surveys, we subjected the data to a McNemar test. The McNemar test assesses whether or not there is a statistical difference between the proportions of participants who were employed at each Survey, for those participants who answered the question at both Surveys. As shown in Table 1.03, there was an increase of 27% of participants who were employed from the Baseline Survey to the First Follow-up Survey, such that almost 9/10 participants were in employment at the First Follow-up Survey, compared to 6/10 at the Baseline Survey, which is a statistically-significant difference. In order to provide a measure of the size of this statistically-significant effect, we calculated an Odds Ratio (OR). The Odds Ratio describes the odds of being employed at the First Follow-up Survey but not at the Baseline Survey (or vice versa) relative to the odds of being employed at both Surveys or not being employed at either Survey (i.e., a change in employment status vs. stability). An OR of 1.49 can be considered a small effect size, an OR of 3.45 can be considered a medium effect size, and an OR of 9 can be considered a large effect size (see table note). In this case, the Odds Ratio was 5.58, which is defined as a medium effect.

The data regarding work attributes and participants' economic situations were subjected to separate, paired *t*-tests. A *t*-test compares whether the means of two groups are statistically different. In our case, participants' answers at the Baseline Survey can be paired with their answers at the First Follow-up Survey so we have used paired *t*-tests to determine whether their answers changed between the two Surveys. In instances in which there were statistically-significant differences between participants' answers at the Baseline Survey and at the First Follow-up Survey, we have estimated the sizes of these significant effects using Cohen's *d*. Cohen's *d* is an effect size measure of the difference between two means. An effect size of *d* = 0.2 can be considered a small effect size, *d* = 0.5 can be considered a medium effect size, and *d* = 0.8 can be considered a large effect size.

Overall, participants (who were employed at both Surveys) rated their work at the First Follow-up Survey as more highly related to their field of study than they rated their work at the Baseline Survey. There was also an increase in how much participants felt they were able to apply the skills they gained from their studies to their work from the Baseline Survey to the First Follow-up Survey. Note, however, that in both of these cases, the effects were relatively small and, even at the First Follow-up Survey the match between work attributes and field of study were far from perfect, instead falling in the mid ranges on both scales.

There was a statistically-significant improvement in participants' economic situations between the two Surveys, but this effect was also relatively small. In fact, it can be argued that participants were, overall, comfortably able to afford basic necessities such as accommodation, food, clothing, leisure activities, and other financial commitments at both Survey time points.

Table 1.04. Future plans and career aspirations at Baseline and First Follow-up Surveys

Survey question	Survey (%)		Test statistics	Meaning*
	Baseline	**First Follow-up**		
1. In the next 2/3 years do you intend to pursue a <u>career</u> (long-term progression), a <u>job</u> (something immediate that will provide you with a wage), or pursue further study? Select all that apply.				
Career	73.1%	79.7%	N = 5802, p < .005, OR = 1.59 (95% CI‡ = 1.44-1.76)	Small effect
Job	47.3%	28.7%	N = 5802, p < .005, OR = 2.76 (95% CI‡ = 2.51-3002)	Small effect
Further study	47.5%	31.0%	N = 5802, p < .005, OR = 2.68 (95% CI‡ = 2.43-2.95)	Small effect
Other	3.1%	4.7%	N = 5802, p < .005, OR = 1.61 (95% CI‡ = 1.31-1.97)	Small effect
2. In the next 2/3 years do you plan to…				
Work in New Zealand	84.4%	84.5%	N = 5535, p = .947	No change
Work overseas	36.8%	46.4%	N = 5535, p < .005, OR = 1.86 (95% CI‡ = 1.68-2.05)	Small effect
Work in your country of origin	7.1%	7.4%	N = 5535, p = .342	No change
3. What are you looking for in a career/job? (Top 7 at both time points)				
Financial security	70.4%	76.5%	N = 5761, p < .005, OR = 1.59 (95% CI‡ = 1.43-1.76)	Small effect
Job satisfaction	87.8%	90.8%	N = 5761, p < .005, OR = 1.48 (95% CI‡ = 1.30-1.70)	Very small effect
Opportunities for advancement	63.0%	65.2%	N = 5761, p = .002, OR = 1.16 (95% CI‡ = 1.05-1.27)	Very small effect
Opportunity to apply knowledge and skills	71.4%	70.8%	N = 5761, p = .405	No change
Intellectual challenge and stimulation	60.5%	66.8%	N = 5761, p < .005, OR = 1.52 (95% CI‡ = 1.39-1.68)	Small effect
Skill development	63.3%	64.8%	N = 5761, p = .054	No change
A good work/life balance	71.0%	75.3%	N = 5761, p < .005, OR = 1.35 (95% CI‡ = 1.23-1.49)	Very small effect

	Survey (%)			
Survey question	Baseline	First Follow-up	Test statistics	Meaning[*]
4. Where would you like to be in 10 years' time?				
In full-time employment	73.0%	70.7%	N = 5779, p < .005, OR = 1.23 (95% CI[‡] = 1.10-1.37)	Very small effect
In part-time employment	15.4%	17.2%	N = 5779, p = .001, OR = 1.25 (95% CI[‡] = 1.10-1.43)	Very small effect
Doing voluntary work	16.5%	18.9%	N = 5779, p < .005, OR = 1.28 (95% CI[‡] = 1.13-1.44)	Very small effect
Establishing my career further	51.8%	48.5%	N = 5779, p < .005, OR = 1.21 (95% CI[‡] = 1.11-1.32)	Very small effect
Engaging in further study	18.9%	15.7%	N = 5779, p < .005, OR = 1.36 (95% CI[‡] = 1.21-1.52)	Very small effect
(Living and) Working overseas	27.4%	21.6%	N = 5779, p < .005, OR = 1.58 (95% CI[‡] = 1.43-1.76)	Small effect
Self employed	17.5%	20.9%	N = 5779, p < .005, OR = 1.45 (95% CI[‡] = 1.29-1.64)	Very small effect
Partnered/married	51.6%	48.8%	N = 5779, p < .005, OR = 1.21 (95% CI[‡] = 1.10-1.33)	Very small effect
Parenting/caregiving	32.0%	32.6%	N = 5779, p = .364	No change
Retired	3.6%	5.2%	N = 5779, p < .005, OR = 2.24 (95% CI[‡] = 1.71-2.95)	Small effect
Other	0.8%	0.8%	N = 5779, p = .672	No change

[*] The Odds Ratio (OR) measures the size of the effect of a statistically-significant McNemar test. OR effect sizes are defined as: 1.49 = small effect, 3.45 = medium effect, 9 = large effect. [‡] 95% CI = 95% confidence interval.

Participants were asked a series of questions at both Surveys regarding their career aspirations and plans for the future. These data were subjected to separate McNemar tests. The McNemar tests assess whether or not there were statistical differences between the proportions of participants indicating specific career aspirations and plans for the future at the First Follow-up Survey compared to the Baseline Survey, for those participants who answered the questions at both Surveys. In instances in which there were statistically-significant differences between participants' answers at the Baseline Survey and at the First Follow-up Survey, we have estimated the sizes of these significant effects using Odds Ratios (OR). The Odds Ratio describes the odds of having various career aspirations and future plans at the First Follow-up Survey but not at the Baseline Survey (or vice versa) relative to the odds of having the same aspirations and plans at both Surveys or not having those particular aspirations or plans at either Survey (i.e., a change in plans/aspirations vs. stability). An OR of 1.49 can be considered a small effect size, an OR of 3.45 can be considered a medium effect size, and an OR of 9 can be considered a large effect size (see table note).

As shown in Table 1.04, participants' career plans for the near future differed between Survey time points. Relative to the Baseline Survey time point, at the First Follow-up Survey participants were more likely to wish to pursue a career, and less likely to wish to work a job (as opposed to a career) or pursue further study. At the Baseline Survey, almost half of participants expressed a desire to pursue further study in the following 2 years, however this number dropped to less than a third at the First Follow-up Survey. The same is true for those expressing a desire to work jobs. Note that each of these effects are small.

With regard to where in the world participants planned to work, roughly the same proportions of participants planned to work in New Zealand (~84%) or planned to work in their country of origin (~7%) at both Survey time points. At the Baseline Survey, approximately 37% of participants planned to work

overseas over the following 2 years. In contrast, at the First Follow-up Survey, 46% of participants planned to work overseas over the following 3 years (a small effect).

We asked participants what they were looking for in a career/job. The top seven endorsements at each Survey time point are shown in Table 1.04. At both the Baseline Survey and the First Follow-up Survey, equal proportions of participants endorsed the opportunity to apply knowledge and skills (~71%) and skill development (~64%) as important in their career. Slightly more participants at the First Follow-up Survey than at the Baseline Survey endorsed job satisfaction (91% vs. 88%, respectively), opportunities for advancement (65% vs. 63%, respectively), and a good work/life balance (75% vs. 71%, respectively), although note that these effects were very small. There were slightly larger differences in participants' endorsements at the First Follow-up Survey versus at the Baseline Survey for financial security (77% vs. 70%, respectively) and intellectual challenge/stimulation (67% vs. 61%). Note also that at the Baseline Survey, financial security was the fourth most endorsed factor but at the First Follow-up Survey it has jumped ahead to become the second most endorsed factor. Similarly, intellectual challenge/stimulation has jumped from seventh most endorsed factor at the Baseline Survey to fifth most endorsed factor at the First Follow-up Survey. Taken together, these findings suggest that financial security and intellectual challenge/stimulation, in particular, become more important to participants over time and exposure to the work force.

In terms of the more distant future (10 years' time), relative to the Baseline Survey, at the First Follow-up Survey participants were more likely to wish to be in part-time employment, be doing voluntary work, and be self-employed. On the other hand, relative to the Baseline Survey, at the First Follow-up Survey participants were less likely to wish to be in full-time employment, establishing their career further, engaging in further study, and be partnered/married. Note, however, that these differences (and the accompanying effect sizes) were very small. There was no change between Surveys in the proportion of participants who wished to be parenting/caregiving or who wished to be doing something other than the options provided. There were slightly larger differences/effects at the Baseline Survey versus at the First Follow-up Survey for those wishing to be living and working overseas in 10 years' time (27% vs. 22%, respectively) and those wishing to be retired in 10 years' time (4% vs. 5%, respectively). It is interesting to note that although nearly half of participants at the First Follow-up Survey planned to work overseas over the next 3 years, only a fifth planned to still be living and working overseas in 10 years' time.

Table 1.05. Health and well-being at Baseline and First Follow-up Surveys

Survey question	Survey [% or Mean (SD)]		Test statistics	Meaning
	Baseline	**First Follow-up**		
1. How would you rate your overall physical health?[1]	3.54 (0.97)	3.69 (0.95)	$t(5625) = 12.15, p < .005, d = 0.15$	Very small effect [1]
2. In the last 12 months, have you smoked at least 1 cigarette each day for a month or more?	8.2%	7.3%	$N = 5619, p = .003, OR = 1.45$ (95% CI[‡] = 1.13-1.84)	Very small effect [*]
3. How often do you have a drink containing alcohol?[2]				
Drink less at Follow-up than at Baseline		28.2%	$N = 5605, Z = -4.66, p < .005$	Some change
Drink more at Follow-up than at Baseline		32.6%		
Drink the same at both time points		39.2%		
4. How many standard drinks containing alcohol do you have on a typical day when you are drinking?[3]	3.90 (3.39)	3.20 (2.74)	$t(4876) = 18.53, p < .005, d = 0.22$	Small effect [1]
5. How often do you have 6 or more standard drinks on one occasion? [4]				
Binge drink less at Follow-up than at Baseline		31.6%	$N = 4887, Z = -15.52, p < .005$	Some change
Binge drink more at Follow-up than at Baseline		15.9%		
Binge drink the same at both time points		52.5%		
6. Mental well-being[5]	49.97 (7.84)	51.24 (8.22)	$t(5613) = 12.06, p < .005, d = 0.16$	Very small effect [1]

[1] Response options ranged from 1 = Poor — 5 = Excellent. [2] Response options: Never; Almost never; Less than once a month; Once a month; Once every 2 weeks; Once a week; 2 or 3 times a week; 4 or 5 times a week; 6 or 7 times a week. [3] Range: 1 — 25+. [4] Response options: Never; Once or twice a year; Less than monthly; Monthly; Weekly; Daily or almost daily. [5] Range = 14 (poor mental well-being) to 70 (high mental well-being). [*] The Odds Ratio (OR) measures the size of the effect of a statistically-significant McNemar test. OR effect sizes are defined as: 1.49 = small effect, 3.45 = medium effect, 9 = large effect. [1] Effect sizes for Cohen's d are defined as: 0.2 = small effect, 0.5 = medium effect, 0.8 = large effect. [‡] 95% CI = 95% confidence interval.

We asked participants a number of questions about their physical health and mental well-being at both Surveys.

The data regarding overall physical health were subjected to a paired *t*-test. A *t*-test compares whether the means of two groups are statistically different. In our case, participants' rating of their physical health at the Baseline Survey can be paired with their rating of their physical health at the First Follow-up Survey so we have used a paired *t*-test to determine whether participants' rating of their physical health changed between the two Surveys. As shown in Table 1.05, participants rated their overall physical health as better at the First Follow-up Survey than they did at the Baseline Survey. We estimated the size of this statistically-significant effect using Cohen's *d*. Cohen's *d* is an effect size measure of the difference between two means. An effect size of *d* = 0.2 can be considered a small effect size, *d* = 0.5 can be considered a medium effect size, and *d* = 0.8 can be considered a large effect size (see table note). In this case, the improvement in participants' rating of their physical health from the Baseline Survey to the First Follow-up Survey was a very small effect (*d* = 0.15).

In terms of health-related behaviours, the data regarding whether or not participants smoked cigarettes were subjected to a McNemar test. The McNemar test assesses whether or not there is a statistical difference between the proportions of participants who smoked at each Survey, for those participants who answered the question at both Surveys. As shown in Table 1.05, fewer participants smoked cigarettes at the First Follow-up Survey than did at the Baseline Survey, representing a decrease of almost 1%. We estimated the size of this statistically-significant effect using an Odds Ratio (OR). The Odds Ratio describes the odds of being a smoker at the Baseline Survey but not at the First Follow-up Survey (or vice versa) relative to the odds of being a smoker at both Surveys or not smoking at either Survey (i.e., a change in smoking behaviour vs. stability). An OR of 1.49 can be considered a small effect size, an OR of 3.45 can be considered a medium effect size, and an OR of 9 can be considered a large effect size (see table note). In this case, the OR of 1.45 represents a very small effect.

We asked participants how often they had a drink containing alcohol (range = 'Never' to '6 or 7 times a week') and also how often they had 6 or more standard drinks on one occasion (range = 'Never' to 'Daily or almost daily'), i.e., "binge" drinking. These data were subjected to separate Wilcoxon Signed Rank tests. The Wilcoxon Signed Rank tests measure whether drinking frequency or binge drinking frequency occurred with lower, the same, or higher frequency at the First Follow-up Survey compared to the Baseline Survey. As shown in Table 1.05, there was some change in both of these behaviours between the two Survey time points. Specifically, just under 40% of participants drank with the same frequency at the First Follow-up Survey as they did at the Baseline Survey. Of the remaining 60% whose drinking frequency changed between the two Survey time points, just under half reported drinking less frequently and just over half reported drinking more frequently at the First Follow-up Survey than at the Baseline Survey. With regard to binge-drinking behaviour, 53% reported the same frequency of binge-drinking episodes at both Survey time points. Almost a third of participants, however, showed evidence of decreasing the frequency with which they binge drank. In contrast, one in six participants reported more frequent binge drinking at the First Follow-up Survey than at the Baseline Survey. The number of standard drinks that participants reported consuming on a typical drinking occasion were subjected to a paired t-test. A t-test compares whether the means of two groups are statistically different. In our case, the number of drinks participants typically had at the Baseline Survey can be paired with the number of drinks they typically had at the First Follow-up Survey so we have used a paired t-test to determine whether participants' typically drank more or less between the two Surveys. As shown in Table 1.05, there was a small, but statistically significant, decrease in the number of drinks typically consumed at the First Follow-up Survey compared to at the Baseline Survey. We estimated the size of this statistically-significant effect using Cohen's d. Cohen's d is an effect size measure of the difference between two means. An effect size of $d = 0.2$ can be considered a small effect size, $d = 0.5$ can be considered a medium effect size, and $d = 0.8$ can be considered a large effect size (see table note). In this case, the decrease in the number of drinks typically consumed amounts to less than one standard drink and represents a small effect.

With regard to mental well-being, we asked participants a series of questions from the Warwick-Edinburgh Mental Well-being Scale. These data were also subjected to a paired t-test, which indicated that there was a slight improvement in mental well-being scores from the Baseline Survey to the First Follow-up Survey, however this effect was very small and scores were reasonably high at both Survey time points.

Table 1.06. Community participation at Baseline and First Follow-up Surveys

	Survey [Mean (SD)]			
Survey question	**Baseline**	**First Follow-up**	**Test statistics**	**Meaning [i]**
1. Participation in the local community[1]	1.86 (0.72)	1.80 (0.70)	$t(5527) = 7.62$, $p < .005$, $d = 0.08$	Very small effect
2. Social agency or proactivity in a social context[1]	3.09 (0.49)	3.12 (0.49)	$t(5527) = 4.29$, $p < .005$, $d = 0.05$	Very small effect
3. Tolerance of diversity[1]	3.31 (0.68)	3.33 (0.69)	$t(5480) = 2.31$, $p = .021$, $d = 0.03$	Very small effect
4. Overall social capital[1]	2.55 (0.47)	2.53 (0.46)	$t(5530) = 3.93$, $p = .001$, $d = 0.04$	Very small effect

[1] Range = 1 (low participation/agency/tolerance) to 4 (high participation/agency/tolerance). [i] Effect sizes for Cohen's *d* are defined as: 0.2 = small effect, 0.5 = medium effect, 0.8 = large effect.

We asked participants a series of questions at both Surveys about their participation in their local community, their social agency or proactivity in a social context, and their tolerance of diversity, which, taken together provide an overall measure of social capital. These data were subjected to separate, paired *t*-tests. A *t*-test compares whether the means of two groups are statistically different. In our case, participants' answers at the Baseline Survey can be paired with their answers at the First Follow-up Survey so we have used paired *t*-tests to determine whether their answers changed between the two Surveys. In instances in which there were statistically-significant differences between participants' answers at the Baseline Survey and at the First Follow-up Survey, we have estimated the sizes of these significant effects using Cohen's *d*. Cohen's *d* is an effect size measure of the difference between two means. An effect size of $d = 0.2$ can be considered a small effect size, $d = 0.5$ can be considered a medium effect size, and $d = 0.8$ can be considered a large effect size (see table note).

As shown in Table 1.06, relative to the Baseline Survey, participants showed lower levels community participation at the First Follow-up Survey, but higher levels of social agency/proactivity and tolerance of diversity. Despite the higher levels of agency and tolerance, however, overall social capital was lower at the First Follow-up Survey than it was at the Baseline Survey. Note, however, that each of these effects was very small.

The findings displayed in each of the preceding tables provides a flavour of the short-term change in the GLSNZ sample although what we have reported here only scratches the surface. There is clear potential for this wealth of data to inform research and policy in a number of areas and, as noted earlier, these data will provide the basis for further, ongoing investigations.

SAMPLE DESCRIPTION

Sample Response Rates

The First Follow-up Survey was administered from 7 March 2014 to 5 September 2014, approximately 2.5 years after the Baseline Survey.[9]

From the Baseline Cohort of 8,719, 70% participated in the First Follow-up Survey (N = 6,104). Table 2.01 shows response rates:

Table 2.01. Survey response rates

Response status	n	Percent
Total eligible	8,719	100%
Participants	6,104	70.0%
Non-participants:		
Not started	2,483	28.5%
Unsubscribed[*]	125	1.4%
Deceased[‡]	7	0.1%

[*] Participants who asked to be unsubscribed because they did not wish to participate. [‡] The GLSNZ team were informed of participants' deaths by those who knew them well (e.g., family members) in the course of attempting to contact them.

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[9] On average, there was a period of 2.59 years (SD = 0.17 years) between completion of the Baseline and First Follow-up Surveys; median = 2.55 years; range = 2.22-3.08 years; interquartile range = 2.48-2.69 years.

Sample Description

Basic Demographic Variables

Sex

Data are based on participants' responses to the item 'Are you? [Male; Female]'. If participants skipped this question (n = 5), data were supplemented from their response to the same question in the 2011 Baseline Survey (n = 4) or from demographic details provided by their University prior to the Baseline Survey (n = 1).

Note:
- There were 15 cases for which self-identified sex did not match sex as identified by the participants in the Baseline Survey. Specifically, six participants who identified as female in the Baseline Survey now indicated their sex as male and nine participants who identified as male in the Baseline Survey now indicated their sex as female. In all cases, sex identified by the participant at the most recent time point (2014 First Follow-up Survey) was used.

Table 2.02. Sex of participants

Sex	*n*	Percent
Male	2,195	36.0%
Female	3,909	64.0%
Total	6,104	100%

Age

Age information is based on participants' responses to the item 'What is your date of birth?' If participants skipped this question (*n* = 101), data were supplemented from their responses to the same question in the 2011 Baseline Survey (*n* = 90) or from demographic details provided by their university prior to the Baseline Survey (*n* = 11).

Age (years) was standardised as at the final day of the First Follow-up Survey (5 September 2014).

Note:
- There were 80 cases for whom self-identified date of birth did not match date of birth/age provided by the participants in the Baseline Survey. In all cases, date of birth information from both survey time points was compared with information provided by the universities and the date used was that in which there was agreement. Specifically, in 34 cases, date of birth given at the Follow-up Survey matched university-held date of birth and, in 43 cases, date of birth given at the Baseline Survey matched university-held date of birth. There were three cases in which there was no agreement in date of birth between all three sources – in each case, date of birth provided by the university was used.

Table 2.03. Age of participants

Age band	*n*	Percent
15-19 years	-	-
20-24 years	1,553	25.4%
25-29 years	2,158	35.4%
30-34 years	704	11.5%
35-39 years	454	7.4%
40-44 years	392	6.4%
45-49 years	292	4.8%
50-54 years	254	4.2%
55-59 years	166	2.7%
60-64 years	84	1.4%
65-69 years	33	0.5%
70+ years	14	0.2%
Total	6,104	100%

Ethnicity

Data are based on participants' responses to the item 'Which ethnic group(s) do you belong to?' Participants were able to select as many ethnicities as applied. This item replicates the ethnic identification item in the New Zealand Census of Population and Dwellings (2011).[10]

Table 2.04. Participants' endorsement of ethnicities as per NZ Census Categories

Ethnicity	*n*	Percent
New Zealand European	4,097	67.1%
Māori	455	7.5%
Samoan	96	1.6%
Cook Islands Māori	34	0.6%
Tongan	56	0.9%
Niuean	19	0.3%
Chinese	498	8.2%
Indian	249	4.1%
Other	1,213	19.9%
Total	6,717	110.0%

Note:
- This table lists the number of participants who endorsed each ethnicity, hence percentages do not sum to 100%. Percentages are expressed as number of endorsements/6,104 (total sample size). Note also that 13 participants elected to skip this question.

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[10] Statistics New Zealand Census (2011). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved from http://www.stats.govt.nz/census/2011-census/2011-census-forms-and-guidenotes.aspx

<u>Description of 'Other' Ethnicities</u>

Responses made by participants specifying 'other' ethnicities were grouped into 111 ethnicities with two further 'unclear' (n = 2 [0.2%]) and 'skipped specification' (n = 11 [0.9%]) categories. Of the new 'other' categories, the most frequently endorsed were:

Table 2.05. Participants' endorsement of 'other' ethnicities

"Other" ethnicity	*n*	Percent
British	86	7.1%
Korean	82	6.8%
South African	62	5.1%
Filipino	53	4.4%
Dutch	49	4.0%
German	47	3.9%
American	46	3.8%
European	44	3.6%
Australian	41	3.4%
Malay	40	3.3%
African	32	2.6%
English	28	2.3%
Taiwanese	28	2.3%
Canadian	27	2.2%
Sri Lankan	26	2.1%
Japanese	23	1.9%
Middle Eastern	23	1.9%
Vietnamese	22	1.8%
Latin American	20	1.6%
New Zealander	20	1.6%
Arab	19	1.6%
Asian	19	1.6%
Fijian	18	1.5%
French	18	1.5%
Indonesian	18	1.5%
Irish	16	1.3%
Malaysian Chinese	15	1.2%
Fijian Indian	14	1.2%
Pakistani	14	1.2%
Russian	14	1.2%
Thai	14	1.2%
Cambodian	11	0.9%
Scottish	11	0.9%
Remainder	200	16.5%
Unclear	2	0.2%
Skipped specification	11	0.9%
Total	1,213	100%

<u>Broad Categories of Ethnicities</u>

For broad categories of ethnicities, participants were assigned to a single ethnicity based on the ethnicity option(s) that they endorsed. If participants skipped the ethnicity item or provided an unclear response (n = 34), data were supplemented from the participant's response to the same question in the 2011 Baseline Survey (n = 29) or from demographic details provided by their university prior to the Baseline Survey (n = 2). In three cases there was no clear information from any source.

If participants endorsed more than one ethnicity, they were assigned to the 'Multiple' category, with the exception of participants who endorsed 'Māori' ethnicity – these participants were assigned to the Māori ethnic group.

Table 2.06. Participants' broad categories of ethnicities

Ethnicity	*n*	Percent
New Zealand European	3,591	58.8%
Māori	455	7.5%
Samoan	60	1.0%
Cook Islands Māori	10	0.2%
Tongan	40	0.7%
Niuean	9	0.1%
Chinese	446	7.3%
Indian	230	3.8%
Other	1,000	16.4%
Multiple	260	4.3%
Unclear	3	0.05%
Total	6,104	100%

Classification of Ethnicities

Participants' ethnic group endorsements were further classified into major ethnic groupings as per the New Zealand Standard Classification of Ethnicity.[11]

Table 2.07. Participants' endorsement of ethnicities as per NZ Standard Classification of Ethnicity

Ethnicity	*n*	Percent
European	4,576	75.0%
Māori	455	7.5%
Pacific Peoples	254	4.2%
Asian	1,153	18.9%
Middle Eastern/Latin American/African	145	2.4%
Other Ethnicity	23	0.4%
Total	6,606	108.2%

Note:
- This table lists the number of participants who endorsed each major ethnic group, hence percentages do not add to 100%. Percentages are expressed as number of endorsements/6,104 (total sample size). Note also that five participants elected to skip this question.

Broad Classification of Ethnicities

Participants were assigned to a single major ethnic group based on the ethnicity option(s) that they endorsed. If participants endorsed more than one ethnicity, they were assigned to the 'Multiple' category, with the exception of participants who endorsed 'Māori' ethnicity – these participants were assigned to the Māori ethnic group.

Table 2.08. Broad classification of ethnicities as per NZ Standard Classification of Ethnicity

Ethnicity	*n*	Percent
European	4,127	67.6%
Māori	455	7.5%
Pacific Peoples	168	2.8%
Asian	1,059	17.3%
Middle Eastern/Latin American/African	137	2.2%
Other Ethnicity	21	0.3%
Multiple	132	2.2%
Unclear	5	0.1%
Total	6,104	100%

[11] Statistics New Zealand (2005). *Ethnicity New Zealand Standard Classification 2005 (V1.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/ethnicity.aspx.

University Demographic Variables

NZQF Level & Qualification Type

Data are based on participants' responses to the item 'Please describe the qualification(s), and the main subject, you were studying towards in 2011.' If participants skipped this question (*n* = 100), data were supplemented from details provided by their university prior to the Baseline Survey. Each course was assigned to a qualification type and NZQF study level according to the New Zealand Qualifications Framework (NZQF).[12] The following table shows the qualification types that fall under each NZQF level.

Table 2.09. Qualification type and corresponding NZQF level

NZQF level	Qualification type	*n*	Percent
Level 7	Bachelor's degree	2,572	42.1%
	Double bachelor's degree	240	3.9%
	Graduate certificate	21	0.3%
	Graduate diploma	514	8.4%
	Sub-total	**3,347**	**54.8%**
Level 8	Bachelor's degree with honours	572	9.4%
	Double bachelor's degree with honours	3	0.05%
	Postgraduate certificate	208	3.4%
	Postgraduate diploma	705	11.5%
	Sub-total	**1,488**	**24.4%**
Level 9	Master's degree	902	14.8%
	Sub-total	**902**	**14.8%**
Level 10	Doctorate degree	367	6.0%
	Sub-total	**367**	**6.0%**
Total		**6,104**	**100%**

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[12] Statistics New Zealand (2003). *The New Zealand Register of Quality Assured Qualifications – Qualification Level 2003 (V1.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx.

Field of Study

Data are based on participants' responses to the item 'Please describe the qualification(s), and the main subject, you were studying towards in 2011.' If participants skipped this question (*n* = 100), data were supplemented from details provided by their university prior to the Baseline Survey. The main subject was assigned to a field of study according to the New Zealand Standard Classification of Education.[13] The following table shows the number of participants studying towards qualifications in each of the following broad fields of study.

Table 2.10. Broad field of study of participants' qualifications

Broad field of study	*n*	Percent
Society & Culture	1,492	24.4%
Management & Commerce	1,152	18.9%
Health	842	13.8%
Natural & Physical Sciences	816	13.4%
Education	812	13.3%
Creative Arts	387	6.3%
Engineering & Related Technologies	243	4.0%
Agriculture, Environmental & Related Studies	175	2.9%
Information Technology	168	2.8%
Architecture & Building	163	2.7%
Unclear	10	0.2%
Total	6,260	102.6%

Notes:
- This table lists the number of participants whose qualification(s) fell under each broad field of study. Percentages do not add to 100% because several students were studying towards double bachelor's degrees (i.e., double majors). Percentages are expressed as number of endorsements/6,104 (total sample size).
- 'Unclear' includes qualifications where the field of study was not provided by the participant or their university.

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[13] Statistics New Zealand (2009). *New Zealand Standard Classification of Education – Field of Study (V2.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx.

Participants were assigned to a single field of study based on the fields of study that their qualifications were assigned to. If more than one broad field of study was endorsed, responses were assigned to the 'Multiple' category.

Table 2.11. Single broad field of study of participants' qualifications

Broad field of study	*n*	Percent
Society & Culture	1,381	22.6%
Management & Commerce	1,057	17.3%
Health	832	13.6%
Education	799	13.1%
Natural & Physical Sciences	777	12.7%
Creative Arts	367	6.0%
Engineering & Related Technologies	239	3.9%
Agriculture, Environmental & Related Studies	174	2.9%
Architecture & Building	163	2.7%
Information Technology	159	2.6%
Multiple	146	2.4%
Unclear	10	0.2%
Total	6,104	100%

Note:
- 'Unclear' includes qualifications where the field of study was not provided by the participant or their university.

Detailed Fields of Study

The following table is a comprehensive list of the detailed and narrow fields of study encompassed by each of the broad fields of study described above.

Notes:
[1] NEC = Not Elsewhere Classified: Qualification fields that are infrequent or unanticipated.
[2] NFD = Not Further Defined: Qualification fields that cannot be coded to the most detailed level of the classification, but can be coded to a higher level of the classification.
[3] As per the assignation to single broad fields of study, participants whose qualifications fell into more than one narrow or detailed field of study were assigned to the 'Multiple' categories in each case.
[4] 'Unclear' includes qualifications where the field of study was not provided by the participant or their university.

Table 2.12. Detailed field of study of participants' qualifications

Broad Field - Narrow Field - Detailed Field	*n*	Percent
NATURAL & PHYSICAL SCIENCES		
Biological Sciences		
Biochemistry & Cell Biology	40	0.7%
Botany	15	0.2%
Ecology & Evolution	53	0.9%
Genetics	30	0.5%
Human Biology	78	1.3%
Marine Science	32	0.5%
Microbiology	24	0.4%
Neuroscience	29	0.5%
Zoology	50	0.8%
Biological Sciences NEC[1]	8	0.1%
Biological Sciences NFD[2]	14	0.2%
Total	373	6.1%
Chemical Sciences		
Chemical Sciences NFD[2]	58	1.0%
Total	58	1.0%
Earth Sciences		
Atmospheric Sciences	2	0.03%
Geology	39	0.6%
Geophysics	4	0.1%
Oceanography	4	0.1%
Soil Science	7	0.1%
Earth Sciences NEC[1]	5	0.1%
Earth Sciences NFD[2]	7	0.1%
Total	68	1.1%
Mathematical Sciences		
Mathematics	43	0.7%
Statistics	24	0.4%
Mathematical Sciences NFD[2]	1	0.02%
Total	68	1.1%
Physics & Astronomy		
Astronomy	1	0.02%
Physics	32	0.5%
Total	33	0.5%
Other Natural & Physical Sciences		
Food Science & Biotechnology	45	0.7%
Forensic Science	9	0.1%
Laboratory Technology	23	0.4%
Medical Science	68	1.1%
Pharmacology	11	0.2%
Total	156	2.6%

Broad Field - Narrow Field - Detailed Field	n	Percent
Natural & Physical Sciences NFD[2]		
Natural & Physical Sciences NFD[2]	21	0.3%
Total	21	0.3%
Total	**777**	**12.7%**
INFORMATION TECHNOLOGY		
Computer Science		
Computer Applications & Programming	8	0.1%
Formal Language Theory	1	0.02%
Networks & Communications	2	0.03%
Computer Science NFD[2]	89	1.5%
Total	100	1.6%
Information Systems		
Conceptual Modelling	1	0.02%
Database Management	1	0.02%
Systems Analysis & Design	4	0.1%
Information Systems NEC[1]	9	0.1%
Information Systems NFD[2]	32	0.5%
Total	47	0.8%
Other Information Technology		
Security Science	3	0.05%
Total	3	0.05%
Information Technology NFD		
Information Technology NFD[2]	6	0.1%
Total	6	0.1%
Multiple[3]		
Multiple[3]	3	0.05%
Total	3	0.05%
Total	**159**	**2.6%**
ENGINEERING & RELATED TECHNOLOGIES		
Aerospace Engineering & Technology		
Aircraft Operation	14	0.2%
Total	14	0.2%
Civil Engineering		
Building Services Engineering	1	0.02%
Construction Engineering	1	0.02%
Geotechnical Engineering	2	0.03%
Structural Engineering	3	0.05%
Transport Engineering	7	0.1%
Water & Sanitary Engineering	1	0.02%
Civil Engineering NEC[1]	1	0.02%
Civil Engineering NFD[2]	29	0.5%
Total	45	0.7%

Broad Field - Narrow Field - Detailed Field	n	Percent
Electrical & Electronic Engineering & Technology		
Communications Technologies	3	0.05%
Computer Engineering	9	0.1%
Electrical Engineering	20	0.3%
Electronic Engineering	10	0.2%
Total	42	0.7%
Geomatic Engineering		
Mapping Science	5	0.1%
Surveying	12	0.2%
Total	17	0.3%
Manufacturing, Engineering & Technology		
Manufacturing Engineering	17	0.3%
Textile Making	3	0.05%
Manufacturing, Engineering & Technology NFD[2]	2	0.03%
Total	22	0.4%
Maritime Engineering & Technology		
Marine Construction	1	0.02%
Total	1	0.02%
Mechanical & Industrial Engineering & Technology		
Industrial Engineering	7	0.1%
Mechanical Engineering	27	0.4%
Total	34	0.6%
Process & Resources Engineering		
Chemical Engineering	15	0.2%
Food Processing Technology	9	0.1%
Materials Engineering	5	0.1%
Total	29	0.5%
Other Engineering & Related Technologies		
Biomedical Engineering	5	0.1%
Environmental Engineering	6	0.1%
Engineering & Related Technologies NEC[1]	4	0.1%
Total	15	0.2%
Engineering & Related Technologies NFD[2]		
Engineering & Related Technologies NFD[2]	20	0.3%
Total	20	0.3%
Total	**239**	**3.9%**
ARCHITECTURE & BUILDING		
Architecture & Urban Environment		
Architecture	72	1.2%
Interior & Environmental Design	9	0.1%
Landscape Architecture	21	0.3%
Urban Design & Regional Planning	48	0.8%
Architecture & Urban Environment NEC[1]	1	0.02%
Total	151	2.5%

Broad Field - Narrow Field - Detailed Field	*n*	Percent
Building		
Building Construction Economics (including Quantity Surveying)	1	0.02%
Building Construction Management	6	0.1%
Building Science & Technology	5	0.1%
Total	12	0.2%
Total	**163**	**2.7%**
AGRICULTURE, ENVIRONMENTAL & RELATED STUDIES		
Agriculture		
Agricultural Science	22	0.4%
Animal Husbandry	5	0.1%
Crop Production	5	0.1%
Equine Trades	3	0.05%
Total	35	0.6%
Environmental Studies		
Land, Parks & Wildlife Management	4	0.1%
Environmental Studies NEC[1]	92	1.5%
Environmental Studies NFD[2]	6	0.1%
Total	102	1.7%
Forestry Studies		
Forestry Studies	6	0.1%
Total	6	0.1%
Horticulture & Viticulture		
Horticulture	16	0.3%
Viticulture	14	0.2%
Total	30	0.5%
Other Agriculture, Environmental & Related Studies		
Pest & Weed Control	1	0.02%
Total	1	0.02%
Total	**174**	**2.9%**
HEALTH		
Complementary Therapies		
Acupuncture	6	0.1%
Traditional Chinese Medicine	1	0.02%
Total	7	0.1%
Dental Studies		
Dental Hygiene & Therapy	12	0.2%
Dental Technology	3	0.05%
Dentistry	21	0.3%
Total	36	0.6%

Broad Field - Narrow Field - Detailed Field	*n*	Percent
Medical Studies		
General Medicine	53	0.9%
General Practice Medicine	9	0.1%
Internal Medicine	2	0.03%
Obstetrics & Gynaecology	5	0.1%
Paediatrics	15	0.2%
Pathology	2	0.03%
Psychiatry	1	0.02%
Surgery	2	0.03%
Medical Studies NEC[1]	3	0.05%
Total	92	1.5%
Nursing		
Midwifery	17	0.3%
Nursing	178	2.9%
Total	195	3.2%
Optical Science		
Optometry	12	0.2%
Total	12	0.2%
Pharmacy		
Pharmacy	61	1.0%
Total	61	1.0%
Public Health		
Community Health	27	0.4%
Environmental Health	3	0.05%
Epidemiology	17	0.3%
Hauora (Māori Health)	2	0.03%
Health Education, Promotion, Counselling	15	0.2%
Occupational Health & Safety	6	0.1%
Public Health NEC[1]	1	0.02%
Public Health NFD[2]	46	0.8%
Total	117	1.9%
Radiography		
Medical Imaging Technology (Radiography) & Radiation Therapy	5	0.1%
Total	5	0.1%
Rehabilitation Therapies		
Audiology	5	0.1%
Massage Therapy	1	0.02%
Occupational Therapy	15	0.2%
Physiotherapy	70	1.1%
Podiatry	2	0.03%
Speech Pathology	13	0.2%
Rehabilitation Therapies NEC[1]	5	0.1%
Rehabilitation Therapies NFD[2]	5	0.1%
Total	116	1.9%

Broad Field - Narrow Field - Detailed Field	*n*	Percent
Veterinary Studies		
Veterinary Science	11	0.2%
Veterinary Studies NEC[1]	2	0.03%
Total	13	0.2%
Other Health		
Human Movement & Sports Science	52	0.9%
Nutrition & Dietetics	49	0.8%
Paramedical Studies	12	0.2%
Health NEC[1]	18	0.3%
Multiple[3]	1	0.02%
Total	132	2.2%
Health NFD		
Health NFD[2]	46	0.8%
Total	46	0.8%
Total	**832**	**13.6%**
EDUCATION		
Curriculum & Education Studies		
Curriculum Studies	2	0.03%
Education Studies	76	1.2%
Total	78	1.3%
Teacher Education		
Bilingual Primary Teacher Training	1	0.02%
English Language Teaching (ESOL/EFL)	19	0.3%
Te Mātauranga Māori me te Whakangungu (Māori Education)	2	0.03%
Teacher Education: Early Childhood	124	2.0%
Teacher Education: General	21	0.3%
Teacher Education: Primary	210	3.4%
Teacher Education: Secondary	118	1.9%
Teacher Education: Special Education	12	0.2%
Teacher Education: Tertiary	9	0.1%
Teacher Professional Development	73	1.2%
Teacher Education NEC[1]	18	0.3%
Teacher Education NFD[2]	68	1.1%
Total	675	11.1%
Education NFD[2]		
Education NFD[2]	46	0.8%
Total	46	0.8%
Total	**799**	**13.1%**
MANAGEMENT & COMMERCE		
Accountancy		
Accounting	208	3.4%
Accountancy NEC[1]	2	0.03%
Total	210	3.4%

Broad Field - Narrow Field - Detailed Field	*n*	Percent
Banking, Finance & Related Fields		
Banking & Finance	79	1.3%
Insurance & Actuarial Studies	1	0.02%
Total	80	1.3%
Business & Management		
Business Management	247	4.0%
Education Administration	5	0.1%
Farm Management & Agribusiness	33	0.5%
Hospitality Management	14	0.2%
Human Resource Management	64	1.0%
Industrial Relations	19	0.3%
International Business	27	0.4%
Organisation Management	4	0.1%
Project Management	2	0.03%
Public & Health Care Administration	20	0.3%
Quality Management	2	0.03%
Tourism Management	32	0.5%
Business & Management NEC[1]	9	0.1%
Business & Management NFD[2]	11	0.2%
Total	489	8.0%
Sales & Marketing		
Advertising	11	0.2%
Marketing	156	2.6%
Public Relations	27	0.4%
Real Estate	14	0.2%
Sales	2	0.03%
Total	210	3.4%
Tourism		
Tourism Studies	5	0.1%
Total	5	0.1%
Other Management & Commerce		
e-Commerce	3	0.05%
Purchasing, Warehousing & Distribution	1	0.02%
Valuation	19	0.3%
Management & Commerce NEC[1]	12	0.2%
Total	35	0.6%
Management & Commerce NFD[2]		
Management & Commerce NFD[2]	23	0.4%
Total	23	0.4%
Multiple[3]		
Multiple[3]	5	0.1%
Total	5	0.1%
Total	**1,057**	**17.3%**

Broad Field - Narrow Field - Detailed Field	n	Percent
SOCIETY & CULTURE		
Behavioural Science		
Psychology	288	4.7%
Total	288	4.7%
Economics & Econometrics		
Economics	62	1.0%
Total	62	1.0%
Human Welfare Studies & Services		
Care for People with Disabilities	2	0.03%
Children's Services	1	0.02%
Counselling	28	0.5%
Social Work	31	0.5%
Welfare Studies	1	0.02%
Youth Work	4	0.1%
Total	67	1.1%
Language & Literature		
Foreign Languages	48	0.8%
Linguistics	34	0.6%
Literature	74	1.2%
Te Reo Māori	6	0.1%
Translating & Interpreting	7	0.1%
Total	169	2.8%
Law		
Business & Commercial Law	7	0.1%
Constitutional Law	1	0.02%
Criminal Law	3	0.05%
International Law	4	0.1%
Taxation Law	5	0.1%
Law NEC[1]	11	0.2%
Law NFD[2]	60	1.0%
Total	91	1.5%
Librarianship, Information Management & Curatorial Studies		
Curatorial Studies	9	0.1%
Librarianship & Information Management	16	0.3%
Total	25	0.4%
Philosophy & Religious Studies		
Philosophy	27	0.4%
Religious Studies	23	0.4%
Total	50	0.8%
Political Science & Policy Studies		
Policy Studies	37	0.6%
Political Science	82	1.3%
Total	119	1.9%

Broad Field - Narrow Field - Detailed Field	*n*	Percent
Sport & Recreation		
Sport & Recreation Activities	33	0.5%
Sports Coaching, Playing, Officiating & Instructing	4	0.1%
Sport & Recreation NEC[1]	9	0.1%
Total	46	0.8%
Studies in Human Society		
Anthropology	39	0.6%
Archaeology	9	0.1%
Art History	30	0.5%
Classics	17	0.3%
History	79	1.3%
Human Geography	69	1.1%
Sociology	54	0.9%
Tikanga - Māori Customs	13	0.2%
Studies in Human Society NEC[1]	1	0.02%
Multiple[3]	1	0.02%
Total	312	5.1%
Other Society & Culture		
Criminology	25	0.4%
Cultural Studies	11	0.2%
Society & Culture NEC[1]	6	0.1%
Total	42	0.7%
Society & Culture NFD[2]		
Society & Culture NFD[2]	21	0.3%
Total	21	0.3%
Multiple[3]		
Multiple[3]	89	1.5%
Total	89	1.5%
Total	**1,381**	**22.6%**
CREATIVE ARTS		
Communication & Media Studies		
Audio Visual Studies	48	0.8%
Journalism, Communication & Media Studies	51	0.8%
Multimedia Studies	1	0.02%
Written Communication	3	0.05%
Communication & Media Studies NEC[1]	4	0.1%
Communication & Media Studies NFD[2]	5	0.1%
Total	112	1.8%

Broad Field - Narrow Field - Detailed Field	n	Percent
Graphic & Design Studies		
Fashion Design	13	0.2%
Graphic Arts & Design Studies	104	1.7%
Textile Design	5	0.1%
Graphic & Design Studies NEC[1]	2	0.03%
Graphic & Design Studies NFD[2]	7	0.1%
Total	131	2.1%
Performing Arts		
Dance	1	0.02%
Drama & Theatre Studies	17	0.3%
Music	64	1.0%
Performing Arts NFD[2]	2	0.03%
Total	84	1.4%
Visual Arts & Crafts		
Fine Arts	24	0.4%
Mana Whakairo (Māori Carving)	1	0.02%
Photography	8	0.1%
Visual Arts & Crafts NFD[2]	4	0.1%
Total	37	0.6%
Other Creative Arts		
Creative Arts NEC[1]	3	0.05%
Total	3	0.05%
Total	**367**	**6.0%**
MULTIPLE[3]		
Multiple[3]		
Multiple[3]	146	2.4%
Total	146	2.4%
Total	**146**	**2.4%**
UNCLEAR[4]		
Unclear[4]		
Unclear[4]	10	0.2%
Total	10	0.2%
Total	**10**	**0.2%**
TOTAL	**6,104**	**100%**

EFTS (Equivalent Full-Time Student)

Data are based on information provided by the universities prior to the Baseline Survey in 2011 regarding whether each student was studying full-time or part-time. Full-time students were defined as those enrolled in a programme of study for the full year at 1 EFTS or for one semester at 0.5 EFTS. Part-time students were defined as those who did not meet the aforementioned requirements.

Table 2.13. EFTS groupings of participants' enrolment

EFTS	*n*	Percent
Full-time	3,833	62.8%
Part-time	2,209	36.2%
Unclear	62	1.0%
Total	6,104	100%

Because one university defined full-time students as those studying at 0.8 EFTS or above, the following table displays the distribution of full- and part-time students excluding all participants from that university.

Table 2.14. EFTS groupings of participants' enrolment, excluding non-criterion university

EFTS	*n*	Percent
Full-time	3,207	63.7%
Part-time	1,768	35.1%
Unclear	62	1.2%
Total	5,037	100%

Mode of Study

Data are based on information provided by the universities prior to the Baseline Survey in 2011 regarding whether each participant was studying intramurally or extramurally (distance learning).

Table 2.15. Participants' mode of study

Mode of study	*n*	Percent
Extramural	741	12.1%
Intramural	5,363	87.9%
Total	6,104	100%

Student Status & Citizenship

Student status information is based on information provided by the universities prior to the Baseline Survey in 2011 regarding whether each participant was a domestic student or an international fee-paying student. In addition, in the Follow-up Survey, participants answered the question 'Did you begin studying at the university you were enrolled at in 2011 as an overseas/international student?' A total of 65 participants indicated that they were international students, but were listed by their university as domestic students. A further 37 participants indicated that they were domestic students, but were listed by their university as international students. In all 102 cases, information provided by the universities was used given that they are most likely to have accurate information regarding whether students were paying international or domestic fees.

Table 2.16. Domestic vs. international student status

Student status	*n*	Percent
Domestic	5,532	90.6%
International	572	9.4%
Total	6,104	100%

NZQF Level and Student Status

The following table shows the distribution of international and domestic students at each NZQF level of study. Note that we oversampled international NZQF level 10 students in 2011 (PhD and other doctoral students) by inviting all of these students to participate in the 2011 Baseline Survey.

Table 2.17. NZQF levels for international and domestic students

NZQF level	Student status					
	Domestic		International		Total	
Level 7	3,182	(52.1%)	165	(2.7%)	3,347	(54.8%)
Level 8	1,374	(22.5%)	114	(1.9%)	1,488	(24.4%)
Level 9	779	(12.8%)	123	(2.0%)	902	(14.8%)
Level 10	197	(3.2%)	170	(2.8%)	367	(6.0%)
Total	5,532	(90.6%)	572	(9.4%)	6,140	(100%)

Note:
- All percentages are expressed as proportions of the total sample (*n* = 6,104).

Country of Origin of International Student Participants

Country of origin information is based primarily on participants' responses to the item 'Please state your country of origin' (if participants had indicated that they were an international student in the preceding question, 'Did you begin studying at the university you were enrolled at in 2011 as an overseas/international student?'). If participants skipped this question (n = 59), data were supplemented from the following sources:

- An earlier survey item asking, 'What is your residency status? Select all that apply [NZ citizen/permanent resident; Australian citizen/permanent resident; International citizenship (specified)]' (n = 35).
- Participants' ethnicity as indicated in the ethnicity question in addition to the country of origin reported by participants at the 2011 Baseline Survey (n = 14).
- Participants' ethnicity as indicated in the ethnicity question in addition to participants' reported first language in the item 'Please state your first language' (n = 5).
- In five cases there was no clear information from any source.

Participants' country of origin was classified using the New Zealand Standard Classification of Countries.[14] If participants indicated more than one country of origin, they were assigned to the 'Multiple' category. The following table shows country of origin information for international students (n = 572).

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[14] Statistics New Zealand (1999). *Country – New Zealand Standard Classification 1999 – four numeric (V12.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/country.aspx.

Table 2.18. Country of origin of international student participants

Major Region - Minor Region - Country	*n*	Percent
OCEANIA AND ANTARCTICA		
Australia		
Australia	1	0.2%
Total	1	0.2%
Melanesia		
New Caledonia	2	0.3%
Papua New Guinea	5	0.9%
Solomon Islands	6	1.0%
Vanuatu	1	0.2%
Total	14	2.4%
Polynesia		
Fiji	6	1.0%
French Polynesia	1	0.2%
Samoa	2	0.3%
Tonga	4	0.7%
Total	13	2.3%
Total	**28**	**4.9%**
NORTH-WEST EUROPE		
United Kingdom		
Channel Islands	1	0.2%
England	5	0.9%
Scotland	3	0.5%
Unclear	7	1.2%
Total	16	2.8%
Ireland		
Ireland	1	0.2%
Total	1	0.2%
Western Europe		
Belgium	3	0.5%
France	14	2.4%
Germany	28	4.9%
Netherlands	1	0.2%
Switzerland	5	0.9%
Total	51	8.9%
Northern Europe		
Denmark	3	0.5%
Norway	2	0.3%
Sweden	2	0.3%
Total	7	1.2%
Total	**75**	**13.1%**

Major Region - Minor Region - Country	n	Percent
SOUTHERN AND EASTERN EUROPE		
Southern Europe		
Spain	2	0.3%
Total	2	0.3%
South Eastern Europe		
Cyprus	1	0.2%
Total	1	0.2%
Eastern Europe		
Hungary	1	0.2%
Russia	6	1.0%
Total	7	1.2%
Total	**10**	**1.7%**
NORTH AFRICA AND THE MIDDLE EAST		
North Africa		
Egypt	1	0.2%
Total	1	0.2%
Middle East		
Bahrain	5	0.9%
Iran	5	0.9%
Jordan	1	0.2%
Oman	2	0.3%
Saudi Arabia	18	3.1%
United Arab Emirates	1	0.2%
Total	32	5.6%
Total	**33**	**5.8%**
SOUTH-EAST ASIA		
Mainland South-East Asia		
Cambodia	6	1.0%
Laos	1	0.2%
Thailand	10	1.7%
Viet Nam	15	2.6%
Total	32	5.6%
Maritime South-East Asia		
Brunei Darussalam	2	0.3%
Indonesia	17	3.0%
Malaysia	48	8.4%
Philippines	6	1.0%
Singapore	6	1.0%
Timor-Leste	2	0.3%
Total	81	14.2%
Total	**113**	**19.8%**

Major Region - Minor Region - Country	n	Percent
NORTH-EAST ASIA		
North-East Asia		
China, People's Republic of	110	19.2%
Hong Kong	2	0.3%
Japan	8	1.4%
Korea, Republic of	10	1.7%
Macau	1	0.2%
Taiwan	6	1.0%
Total	137	24.0%
Total	**137**	**24.0%**
SOUTHERN AND CENTRAL ASIA		
Southern Asia		
Bangladesh	10	1.7%
India	52	9.1%
Maldives	4	0.7%
Nepal	4	0.7%
Pakistan	13	2.3%
Sri Lanka	8	1.4%
Total	91	15.9%
Central Asia		
Kazakhstan	1	0.2%
Total	1	0.2%
Total	**92**	**16.1%**
THE AMERICAS		
Northern America		
Canada	17	3.0%
United States of America	36	6.3%
Total	53	9.3%
South America		
Brazil	2	0.3%
Chile	4	0.7%
Colombia	1	0.2%
Total	7	1.2%
Central America		
Guatemala	2	0.3%
Honduras	1	0.2%
Mexico	4	0.7%
Nicaragua	1	0.2%
Total	8	1.4%
Total	**68**	**11.9%**

Major Region - Minor Region - Country			n	Percent
SUB-SAHARAN AFRICA				
	Central and West Africa			
		Cameroon	1	0.2%
		Nigeria	2	0.3%
		Total	3	0.5%
	Southern and East Africa			
		Kenya	3	0.5%
		Malawi	1	0.2%
		South Africa	2	0.3%
		Total	6	1.0%
	Total		**9**	**1.6%**
MULTIPLE				
	Multiple			
		Multiple	2	0.3%
		Total	2	0.3%
	Total		**2**	**0.3%**
UNCLEAR				
	Unclear			
		Unclear	5	0.9%
		Total	5	0.9%
	Total		**5**	**0.9%**
TOTAL			**572**	**100%**

DESCRIPTIVE ANALYSES OF GLSNZ VARIABLES

In the sections that follow, we present the data for each of the first Follow-up Survey items, except those that require further coding and analysis.

General and Background Information

General Demographics

I feel comfortable with my Māori identity.

n = 453 (7.4%) who indicated Māori ethnicity and answered the question.

4.0%	1	Strongly disagree
8.8%	2	
19.6%	3	
28.7%	4	
38.9%	5	Strongly Agree
453		*n*
3.90 (1.14)		Mean (SD)

Are you of Māori descent (i.e., did you have a Māori birth parent, grandparent or great-grandparent, etc.)?

9.2%	Yes
88.9%	No
1.5%	Don't know
0.4%	Skipped question

n = 562 reported being of Māori descent

Do you know the name(s) of your iwi (tribe or tribes)?

n = 562 (9.2%) participants who indicated they are of Māori descent and provided a response

88.1%	Yes
11.9%	No

If you know the name(s) of your iwi, please select all that apply:

n = 495 (88.1%) participants who indicated they are of Māori descent and knew the name(s) of their iwi (tribe)

Te Tai Tokerau/ Tāmaki-makaurau (Northland/ Auckland) Region
1.6%	Te Aupōuri
2.4%	Ngāti Kahu
-	Te Kawerau
2.0%	Ngāti Kurī
19.8%	Ngāpuhi
0.8%	Ngāpuhi ki Whaingaroa-Ngāti Kahu ki Whaingaroa
4.2%	Te Rarawa
0.2%	Te Roroa
1.2%	Ngāi Takoto
0.6%	Te Uri-o-Hau
1.6%	Ngāti Wai
4.2%	Ngāti Whātua

Hauraki (Coromandel) Region
0.4%	Ngāti Hako
-	Ngāti Hei
2.2%	Ngāti Maru (Hauraki)
0.6%	Ngāti Paoa
-	Patukirikiri
0.8%	Ngāti Porou ki Harataunga ki Mataora
-	Ngāti Pūkenga ki Waiau
-	Ngāti Rāhiri Tumutumu
0.4%	Ngāi Tai (Hauraki)
0.2%	Ngāti Tamaterā
-	Ngāti Tara Tokanui
0.6%	Ngāti Whanaunga

Waikato/ Te Rohe Pōtae (Waikato/ King Country) Region
0.4%	Ngāti Haua (Waikato)
6.5%	Ngāti Maniapoto
3.2%	Ngāti Raukawa (Waikato)
5.5%	Waikato

Te Arawa/ Taupō (Rotorua/ Taupō) Region
- 3.2%   Ngāti Pikiao (Te Arawa)
- 0.2%   Ngāti Rangiteaorere (Te Arawa)
- 1.6%   Ngāti Rangitihi (Te Arawa)
- 1.0%   Ngāti Rangiwewehi (Te Arawa)
-    -   Ngāti Tahu-Ngāti Whaoa (Te Arawa)
- 0.4%   Tapuika (Te Arawa)
- 0.4%   Tarāwhai (Te Arawa)
- 1.6%   Tūhourangi (Te Arawa)
- 5.3%   Ngāti Tūwharetoa
- 0.8%   Uenuku-Kōpako (Te Arawa)
-    -   Waitaha (Te Arawa)
- 4.6%   Ngāti Whakaue (Te Arawa)

Tauranga Moana/ Mātaatua (Bay of Plenty) Region
- 3.6%   Ngāti Awa
- 0.6%   Ngāti Manawa
- 0.4%   Ngāti Pūkenga
- 2.4%   Ngaiterangi
- 1.4%   Ngāti Ranginui
- 1.2%   Ngāi Tai (Tauranga Moana/ Mātaatua)
- 4.0%   Tūhoe
- 1.6%   Whakatōhea
- 2.0%   Te Whānau-a-Apanui
- 0.2%   Ngāti Whare

Taranaki Region
- 6.1%   Te Atiawa (Taranaki)
- 0.2%   Ngāti Maru (Taranaki)
- 1.2%   Ngāti Mutunga (Taranaki)
- 1.2%   Ngā Rauru
- 0.6%   Ngā Ruahine
-    -   Pakakohi
- 2.0%   Ngāti Ruanui
- 1.0%   Ngāti Tama (Taranaki)
-    -   Tangāhoe
- 2.4%   Taranaki

Te Tai Rāwhiti (East Coast) Region
- 1.8%   Te Aitanga-a-Māhaki
- 12.9% Ngāti Porou
- 1.6%   Rongowhakaata
-    -   Ngāi Tāmanuhiri

Te Matau-a-Māui/ Wairarapa (Hawke's Bay/ Wairarapa) Region
- 2.4% Ngāti Kahungunu ki Heretaunga
- 0.2% Ngāti Kahungunu ki Tamakinui-a-Rua
- 0.4% Ngāti Kahungunu ki Tamatea
- 3.8% Ngāti Kahungunu ki Te Wairoa
- 2.0% Ngāti Kahungunu ki Wairarapa
- 0.6% Ngāti Kahungunu ki Te Whanganui-a-Orotu
- 0.4% Rangitāne (Te Matau-a-Māui/ Hawke's Bay/ Wairarapa)
- 1.4% Rongomaiwahine (Te Māhia)
- 0.4% Ngāti Pāhauwera
- 0.4% Ngāti Rākaipaaka

Whanganui/ Rangitīkei (Wanganui/ Rangitīkei) Region
- 0.4% Ngāti Apa (Rangitīkei)
- 0.8% Te Ati Haunui-a-Pāpārangi
- 0.4% Ngāti Haua (Taumarunui)
- 0.2% Ngāti Hauiti

Manawatū/ Horowhenua/ Te Whanganui-a-Tara (Manawatū/ Horowhenua/ Wellington) Region
- 0.8% Te Atiawa (Te Whanganui-a-Tara/ Wellington)
- 0.2% Te Atiawa ki Whakarongotai
- 0.2% Muaūpoko
- 0.4% Rangitāne (Manawatū)
- 0.2% Ngāti Kauwhata
- 5.1% Ngāti Raukawa (Horowhenua/ Manawatū)
- 0.6% Ngāti Toarangatira (Te Whanganui-a-Tara/ Wellington)
- - Ngāti Tama ki Te Upoko o Te Ika (Te Whanganui-a-Tara/ Wellington)

Te Waipounamu/ Wharekauri (South Island/ Chatham Islands) Region
- - Ngāti Apa ki Te Rā Tō
- 1.0% Te Atiawa (Te Waipounamu/ South Island)
- 0.4% Ngāti Koata
- 0.2% Ngāti Kuia
- 2.4% Kāti Māmoe
- 0.2% Moriori
- 0.2% Ngāti Mutunga (Wharekauri/ Chatham Islands)
- 0.8% Rangitāne (Te Waipounamu/ South Island)
- 0.8% Ngāti Rārua
- 17.4% Ngāi Tahu / Kāi Tahu
- - Ngāti Tama (Te Waipounamu/ South Island)
- 0.2% Ngāti Toarangatira (Te Waipounamu/ South Island)
- 1.8% Waitaha (Te Waipounamu/ South Island)

Other
    2.6%   Other:
        Te Tai Tokerau/ Tāmaki-makaurau (Northland/ Auckland) Region
        0.2%   Ngāti Te Ata
        Waikato/ Te Rohe Pōtae (Waikato/ King Country) Region
        0.4%   Ngāti Hikairo ki Kawhia
        0.6%   Tainui
        Tauranga Moana/ Mātaatua (Bay of Plenty) Region
        0.4%   Ngāti Makino
        Te Tai Rāwhiti (East Coast) Region
        0.2%   Te Aitanga-a-Hauiti
        Whanganui/ Rangitīkei (Wanganui/ Rangitīkei) Region
        0.4%   Ngāti Rangi
        Region unclear
        0.2%   Ngāti Toarangatira
        0.2%   Ngāti Tura – Ngāti Te Ngakau

Note:
- Participants were able to endorse as many iwi as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the sample who indicated they were of Māori descent and knew the name(s) of their iwi (*n* = 495).

What is your relationship status?

  30.9%   Single
  29.2%   Married/Civil Union
  23.0%   De facto (living together as a couple but not married to, or in a Civil Union with, one another)
  13.7%   In a relationship but not living together
   2.4%   Divorced/Separated
   0.3%   Widowed/Surviving partner from a Civil Union
   0.5%   Skipped question

Are you a parent?

  27.2%   Yes
  72.6%   No
   0.2%   Skipped question

How many children do you have?

n = 1662 participants were parents

  2.13 (1.09)   Mean (SD)
       2.00   Median
       2.00   Mode
     1 - 11   Range

What age are your children (in years)?

The 1,662 participants who indicated that they were parents and reported the number of children they had, together had a total of 3,540 children. The age distribution of the 3,538 children for whom the participants listed their children's ages is:

7.2%	Less than 1 year
4.2%	1 year old
4.4%	2 years old
3.2%	3 years old
3.3%	4 years old
3.2%	5 years old
3.8%	6 years old
3.7%	7 years old
3.3%	8 years old
3.1%	9 years old
3.2%	10 years old
3.3%	11 years old
3.0%	12 years old
3.3%	13 years old
3.0%	14 years old
3.0%	15 years old
2.8%	16 years old
2.9%	17 years old
36.4%	18+ years old

Which of the following describes your current living arrangements? Select the option that best applies to you.

46.7%	Living with partner/spouse and/or children
28.8%	Living with friends or in a shared house
14.0%	Living with parents or guardians
8.2%	Living by myself
0.4%	Living in a university hall or college of residence
1.6%	Other:
	0.5% With family (siblings/extended)
	0.3% No fixed abode (e.g., without home, travelling, in process of moving)
	0.2% Boarding/homestay
	0.2% Employer accommodation
	0.1% Military barracks
	0.1% Own house
	0.05% Renting
	0.02% House-sitting
	0.02% Miscellaneous
	0.2% Unclear
0.3%	Skipped question

What is your residency status?

90.6%   New Zealand citizen/permanent resident
3.7%   Australian citizen/permanent resident
9.8%   International citizenship
0.4%   Skipped question

Note:
- Participants were able to endorse as many options as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104).

Participants who indicated that they held international citizenship (*n* = 596) were asked to specify their country of citizenship. Countries were classified using the New Zealand Standard Classification of Countries.[15] If participants indicated more than one country of origin, they were assigned to the 'Multiple' category. The following data show the major geographical areas in which those countries fell.

28.4%   North-West Europe
17.6%   South-East Asia
16.6%   North-East Asia
12.2%   The Americas
8.9%   Southern and Central Asia
4.9%   North Africa and the Middle East
4.9%   Oceania and Antarctica
2.0%   Southern and Eastern Europe
1.2%   Sub-Saharan Africa
2.2%   Multiple
0.3%   Unclear
0.8%   Skipped question

Note:
- Ordered from most to least frequently endorsed

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[15] Statistics New Zealand (1999). *Country – New Zealand Standard Classification 1999 – four numeric (V12.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/country.aspx.

Is English your first language?

79.7%   Yes
20.0%   No
 0.3%   Skipped question

Participants who indicated that English was not their first language (*n* = 1,221) were asked to specify their first language. Languages were classified using the Standard Classification of Language.[16] The following data show the most frequently specified first languages.

17.8%   Sinitic NFD[*] (Chinese)
 7.9%   Northern Chinese (Mandarin)
 6.1%   Korean
 5.2%   Yue (Cantonese)
 4.8%   German
 3.6%   Arabic
 3.6%   Hindi
 2.9%   Tagalog (Filipino)
 2.6%   Tongan
 2.5%   French
 2.5%   Malaysian
 2.5%   Afrikaans
 2.5%   Spanish
 2.1%   Samoan
 1.8%   Bahasa Indonesia
 1.8%   Russian
28.8%   Remainder/Other
 0.2%   Unclear
 0.7%   Skipped question

[*]NFD = Not Further Defined: Languages that cannot be coded to the most detailed level of the classification, but can be coded to a higher level of the classification.

How fluent in English are you?

n = 1,215 (19.9%) who indicated being non-native English speakers and answered the question.

0.1%	1	Not at all fluent
0.1%	2	
7.5%	3	
31.0%	4	
61.3%	5	Very fluent
1,215		*n*
4.53 (0.64)		Mean (SD)

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[16] Statistics New Zealand (1999). *Language – Standard Classification 1999 (V2.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/language.aspx.

How fluent in sign language are you?

n = 6,070 (99.4%) who answered the question.

87.5%	1	Not at all fluent
6.1%	2	
1.6%	3	
1.2%	4	
3.5%	5	Very fluent
6,070		*n*
1.27 (0.85)		Mean (SD)

How fluent in Te Reo Māori are you?

n = 6,066 (99.4%) who answered the question.

75.4%	1	Not at all fluent
21.0%	2	
3.3%	3	
0.8%	4	
0.5%	5	Very fluent
6,066		*n*
1.31 (0.62)		Mean (SD)

How confident do you feel in a Māori setting (e.g., on a marae, at a powhiri, attending hui or tangihanga)?

n = 6,039 (98.9%) who answered the question.

21.1%	1	Not at all confident
25.7%	2	
33.2%	3	
14.9%	4	
5.0%	5	Very confident
6,039		*n*
2.57 (1.13)		Mean (SD)

Where do you currently live? [City, town, or district & country]

Participants' current country of residence was classified using the New Zealand Standard Classification of Countries.[17] The following table shows country of residence information for international and domestic student participants.

Table 3.01. Country of residence of international and domestic student participants

Major Region - Minor Region - Country	Domestic	International	Total
OCEANIA AND ANTARCTICA			
New Zealand			
New Zealand	85.5%	44.2%	81.7%
Total	85.5%	44.2%	81.7%
Australia			
Australia	6.2%	3.0%	5.9%
Total	6.2%	3.0%	5.9%
Melanesia			
New Caledonia	-	0.2%	0.02%
Papua New Guinea	0.04%	0.9%	0.1%
Solomon Islands	0.04%	1.0%	0.1%
Vanuatu	0.02%	0.2%	0.03%
Total	0.1%	2.3%	0.3%
Polynesia			
Fiji	0.02%	0.7%	0.1%
French Polynesia	0.02%	0.2%	0.03%
Niue	0.02%	-	0.02%
Samoa	0.02%	0.5%	0.1%
Tonga	0.02%	0.3%	0.05%
Total	0.1%	1.7%	0.2%
Total	**91.9%**	**51.2%**	**88.1%**
NORTH-WEST EUROPE			
United Kingdom			
England	2.4%	1.0%	2.3%
Northern Ireland	0.02%	0.2%	0.03%
Scotland	0.2%	0.3%	0.2%
Wales	-	0.2%	0.02%
Total	2.7%	1.7%	2.6%
Ireland			
Ireland	0.04%	-	0.03%
Total	0.04%	-	0.03%

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[17] Statistics New Zealand (1999). *Country – New Zealand Standard Classification 1999 – four numeric (V12.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/country.aspx.

Major Region - Minor Region - Country	Domestic	International	Total
Western Europe			
Austria	0.02%	0.3%	0.05%
Belgium	-	0.5%	0.05%
France	0.1%	1.2%	0.2%
Germany	0.2%	2.3%	0.4%
Netherlands	0.2%	-	0.1%
Switzerland	0.1%	-	0.1%
Total	0.7%	4.4%	1.0%
Northern Europe			
Denmark	0.02%	0.7%	0.1%
Finland	0.02%	-	0.02%
Norway	0.04%	0.3%	0.1%
Sweden	0.04%	-	0.03%
Total	0.1%	1.0%	0.2%
Total	**3.5%**	**7.2%**	**3.8%**
SOUTHERN AND EASTERN EUROPE			
Southern Europe			
Italy	0.02%	0.2%	0.03%
Spain	0.1%	-	0.1%
Total	0.1%	0.2%	0.1%
South Eastern Europe			
Cyprus	-	0.2%	0.02%
Greece	0.02%	-	0.02%
Total	0.02%	0.2%	0.03%
Eastern Europe			
Czech Republic	0.02%	-	0.02%
Estonia	0.02%	-	0.02%
Hungary	0.1%	-	0.05%
Poland	0.02%	-	0.02%
Russia	-	0.2%	0.02%
Total	0.1%	0.2%	0.1%
Total	**0.3%**	**0.5%**	**0.3%**

Major Region - Minor Region - Country	Domestic	International	Total
NORTH AFRICA AND THE MIDDLE EAST			
Middle East			
Bahrain	0.02%	0.5%	0.1%
Iran	0.02%	-	0.02%
Iraq	0.02%	-	0.02%
Jordan	0.02%	-	0.02%
Kuwait	0.02%	-	0.02%
Oman	0.02%	0.3%	0.05%
Saudi Arabia	0.02%	1.7%	0.2%
Turkey	0.1%	-	0.05%
United Arab Emirates	0.2%	0.3%	0.2%
Total	0.3%	3.0%	0.6%
Total	**0.3%**	**3.0%**	**0.6%**
SOUTH-EAST ASIA			
Mainland South-East Asia			
Cambodia	-	0.7%	0.1%
Laos	0.02%	0.2%	0.03%
Thailand	0.1%	1.2%	0.2%
Viet Nam	0.1%	1.2%	0.2%
Total	0.1%	3.3%	0.4%
Maritime South-East Asia			
Brunei Darussalam	0.02%	0.3%	0.05%
Indonesia	0.02%	1.6%	0.2%
Malaysia	0.1%	6.3%	0.7%
Philippines	-	1.0%	0.1%
Singapore	0.1%	1.2%	0.2%
Timor-Leste	-	0.3%	0.03%
Total	0.3%	10.8%	1.3%
Total	**0.4%**	**14.2%**	**1.7%**
NORTH-EAST ASIA			
North-East Asia			
China, People's Republic of	0.4%	4.4%	0.8%
Hong Kong	0.2%	0.3%	0.2%
Japan	0.5%	0.9%	0.5%
Korea, Republic of	0.3%	1.0%	0.3%
Macau	0.02%	0.2%	0.03%
Taiwan	0.1%	0.5%	0.1%
Total	1.4%	7.3%	2.0%
Total	**1.4%**	**7.3%**	**2.0%**

Major Region - Minor Region - Country	Domestic	International	Total
SOUTHERN AND CENTRAL ASIA			
Southern Asia			
Bangladesh	-	1.0%	0.1%
India	0.1%	1.4%	0.3%
Maldives	0.02%	0.3%	0.05%
Nepal	0.02%	0.2%	0.03%
Pakistan	0.02%	1.4%	0.1%
Sri Lanka	0.02%	0.7%	0.1%
Total	0.2%	5.1%	0.7%
Central Asia			
Afghanistan	0.02%	-	0.02%
Kazakhstan	-	0.2%	0.02%
Total	0.02%	0.2%	0.03%
Total	**0.2%**	**5.2%**	**0.7%**
THE AMERICAS			
Northern America			
Bermuda	0.02%	-	0.02%
Canada	0.4%	2.3%	0.6%
United States of America	0.8%	4.4%	1.2%
Total	1.3%	6.6%	1.8%
South America			
Bolivia	0.02%	-	0.02%
Brazil	0.04%	0.3%	0.1%
Chile	0.02%	0.5%	0.1%
Colombia	-	0.2%	0.02%
Peru	0.02%	-	0.02%
Uruguay	-	0.2%	0.02%
Unclear	0.02%	-	0.02%
Total	0.1%	1.2%	0.2%
Central America			
Mexico	-	0.5%	0.05%
Nicaragua	-	0.2%	0.02%
Total	-	0.7%	0.1%
Caribbean			
Bahamas	0.02%	-	0.02%
Cayman Islands	0.02%	-	0.02%
Total	0.04%	-	0.03%
Total	**1.4%**	**8.6%**	**2.1%**

Major Region - Minor Region - Country	Domestic	International	Total
SUB-SAHARAN AFRICA			
Central and West Africa			
Nigeria	0.02%	-	0.02%
Total	0.02%	-	0.02%
Southern and East Africa			
Ethiopia	0.02%	-	0.02%
Kenya	-	0.5%	0.05%
Namibia	0.02%	-	0.02%
South Africa	0.1%	0.3%	0.1%
Uganda	0.02%	-	0.02%
Zimbabwe	0.02%	-	0.02%
Total	0.1%	0.9%	0.2%
Total	**0.1%**	**0.9%**	**0.2%**
UNCLEAR			
Unclear			
Unclear	0.04%	-	0.03%
Total	0.04%	-	0.03%
Total	**0.04%**	**-**	**0.03%**
SKIPPED QUESTION	0.3%	1.9%	0.5%
TOTAL	**90.6%**	**9.4%**	**100%**

Note:
- Percentages are expressed as proportions of the column totals with the exception of values in the 'TOTAL' row at the bottom of the table, which are expressed as proportions of the total sample (N = 6,104).

A total of 4,984 (81.7%) participants indicated that they were currently living in New Zealand. The regional and urban distribution of those living in New Zealand is shown in the table below.

Table 3.02. City/town and region of residence of participants living in New Zealand

Region - City/town	Percent	Region - City/town	Percent
NORTHLAND		WELLINGTON	
Whangarei	0.9%	Wellington	15.4%
Regional towns	0.7%	Lower Hutt	1.4%
Unclear	0.1%	Porirua	0.7%
Total	1.8%	Upper Hutt	0.5%
AUCKLAND		Regional towns	1.3%
Auckland	37.8%	Total	19.3%
Regional towns	1.0%	TASMAN	
Total	38.8%	Nelson	0.9%
WAIKATO		Regional towns	0.2%
Hamilton	4.9%	Unclear	0.04%
Regional towns	2.4%	Total	1.1%
Unclear	0.1%	MARLBOROUGH	
Total	7.4%	Blenheim	0.2%
BAY OF PLENTY		Regional towns	0.1%
Tauranga	1.8%	Unclear	0.02%
Rotorua	0.7%	Total	0.3%
Regional towns	0.7%	WEST COAST	
Unclear	0.04%	Greymouth	0.2%
Total	3.2%	Regional towns	0.1%
GISBORNE		Unclear	0.02%
Gisborne	0.5%	Total	0.3%
Total	0.5%	CANTERBURY	
HAWKE'S BAY		Christchurch	8.8%
Napier	0.9%	Regional towns	2.3%
Regional towns	0.6%	Unclear	0.1%
Unclear	0.08%	Total	11.2%
Total	1.7%	OTAGO	
TARANAKI		Dunedin	6.1%
New Plymouth	0.7%	Regional towns	0.9%
Regional towns	0.4%	Unclear	0.04%
Unclear	0.1%	Total	7.0%
Total	1.2%	SOUTHLAND	
MANAWATU-WANGANUI		Invercargill	0.8%
Palmerston North	3.2%	Regional towns	0.3%
Regional towns	1.2%	Unclear	0.02%
Unclear	0.1%	Total	1.1%
Total	4.4%	UNCLEAR	0.7%
TOTAL			**100%**

How long have you lived in the location (above) where you live now?

The following table shows the length of time living at their current location separately for those currently living in New Zealand and those living overseas. Excluded are data for participants whose country of residence is unclear (n = 2) or who skipped the question (n = 35).

Table 3.03. Length of time spent at current location for participants living in New Zealand and overseas

Time at current location	New Zealand	Overseas	Total
Less than 1 month	2.5%	5.7%	3.1%
1 to 6 months	10.1%	17.6%	11.5%
7 to 12 months	6.2%	18.1%	8.3%
More than 12 months	81.2%	58.6%	77.1%
Total	82.1%	17.9%	100%

Note:
- Percentages are expressed as proportions of the column totals with the exception of values in the 'Total' row at the bottom of the table, which are expressed as proportions of the row total (n = 6,067).

Is your mother/father still living?

	Mother			Father
90.4%	Yes		83.9%	Yes
8.8%	No		14.4%	No
0.1%	Don't know		0.8%	Don't know
0.1%	Not applicable		0.4%	Not applicable
0.5%	Skipped question		0.6%	Skipped question

How old is your mother/father (in years)?

The n refers to the number who indicated that their mother/father was still living and answered the question.

	Mother			Father
5,444	n		5,051	n
58.51 (8.69)	Mean (SD)		60.22 (8.16)	Mean (SD)
57.00	Median		59.00	Median
54.00	Mode		55.00	Mode
40 - 101	Range		40 - 97	Range

In general, would you say your mother's/father's health is…

The *n* refers to the number who indicated that their mother/father was still living and answered the question.

Mother		Father	
22.7%	Excellent	17.6%	Excellent
36.7%	Very good	35.5%	Very good
25.4%	Good	29.0%	Good
10.4%	Fair	11.9%	Fair
4.5%	Poor	4.4%	Poor
0.3%	Don't know	1.6%	Don't know
5,474	*n*	5,081	*n*

On a scale from 0 to 10, where 0 is very poor and 10 is excellent, how would you describe the quality of your relationship with your mother/father?

The *n* refers to the number who indicated that their mother/father was still living and answered the question.

Mother			Father		
1.0%	0	Very poor	2.3%	0	Very poor
0.9%	1		1.5%	1	
1.5%	2		2.1%	2	
1.5%	3		1.9%	3	
1.2%	4		2.1%	4	
2.9%	5		4.7%	5	
3.6%	6		5.3%	6	
8.1%	7		10.3%	7	
16.5%	8		16.5%	8	
20.7%	9		19.0%	9	
42.1%	10	Excellent	34.2%	10	Excellent
5,454		*n*	5,060		*n*
8.46 (2.08)		Mean (SD)	7.93 (2.47)		Mean (SD)

How often do you have contact with your mother/father, either in person or by any other means (e.g., phone, letter, email, skype, etc.)?

The *n* refers to the number who indicated that their mother/father was still living and answered the question.

Mother		Father	
23.2%	Daily	16.1%	Daily
23.9%	At least several times a week	16.3%	At least several times a week
32.1%	At least once a week	32.0%	At least once a week
16.0%	At least once a month	23.7%	At least once a month
3.3%	Several times a year	7.4%	Several times a year
0.8%	Less often	2.4%	Less often
0.7%	Never	2.0%	Never
5,471	*n*	5,078	*n*

Education

Since the first survey in 2011 I have been... Select all that apply.

77.0%   In full-time employment
38.5%   Engaging in further study
32.7%   In part-time employment
32.4%   Establishing my career further
27.1%   Travelling and/or living overseas
18.3%   Doing voluntary work
14.1%   Partnered/married
13.4%   Working overseas
 9.6%   Parenting/caregiving
 8.9%   Self employed
 0.3%   Retired
 1.5%   Other:
          0.5%   Unemployed
          0.1%   A beneficiary (illness/unemployment)
          0.1%   In casual/fixed-term employment
          0.1%   Completing studies
          0.1%   Experiencing health issues
          0.1%   Seeking employment
        0.05%   Deferred studies due to health
        0.05%   Undertaking an internship
        0.03%   In unspecified employment
        0.03%   Doing home/garden maintenance
        0.03%   Doing leisure/recreation activities
        0.03%   Miscellaneous
        0.03%   Writing
        0.02%   Undertaking a career change
        0.02%   Divorced/separated
        0.02%   In prison
        0.02%   Made redundant
        0.02%   Relocated
        0.02%   Supporting family
        0.02%   Taking time off
        0.02%   Trying to start a family
        0.02%   Undertaking work-place training
        0.02%   Unclear
        0.05%   Skipped question
 1.1%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (*N* = 6,104) who endorsed each item.

Did you begin studying at the university you were enrolled at in 2011 as an overseas/international student? If yes, please state your country of origin.

Participants' answers to these questions formed part of the basis for identifying international fee-paying students and their countries of origin as displayed in Tables 1.16 through to 1.18. Note that 65 participants indicated that they were an international student, but were listed by their university as domestic students. A further 37 participants indicated that they were a domestic student but were listed by their university as international students. The data in the series of questions that follow for international and domestic students are restricted to those whose self-identification of student status (international/domestic) matches the information provided by their universities.

Have you returned to live in your country of origin?

n = 517 (8.5%) who indicated international student status and were identified as international students by their universities.

- 48.2%   Yes, I have returned to live in my country of origin
- 42.6%   No, I have remained living in New Zealand
- 8.9%   No, I currently live in another country
- 0.4%   Skipped question

If participants indicated they were currently living in another country (n = 46), they were asked to indicate which country. Participants' current country of residence was classified using the New Zealand Standard Classification of Countries.[18]

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[18] Statistics New Zealand (1999). *Country – New Zealand Standard Classification 1999 – four numeric (V12.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/country.aspx.

Table 3.04. Country of residence of international student participants not living in New Zealand or in their country of origin

Major Region - Minor Region - Country	
OCEANIA & ANTARCTICA	
Australia	
Australia	30.4%
Total	30.4%
Polynesia	
Fiji	2.2%
Total	2.2%
Total	**32.6%**
NORTH-WEST EUROPE	
United Kingdom	
England	6.5%
Northern Ireland	2.2%
Total	8.7%
Western Europe	
Austria	4.3%
France	2.2%
Total	6.5%
Northern Europe	
Denmark	2.2%
Norway	2.2%
Total	4.3%
Total	**19.6%**
SOUTHERN & EASTERN EUROPE	
Southern Europe	
Italy	2.2%
Total	2.2%
Total	**2.2%**
NORTH AFRICA & THE MIDDLE EAST	
Middle East	
Oman	2.2%
United Arab Emirates	2.2%
Total	4.3%
Total	**4.3%**

Major Region - Minor Region - Country	
SOUTH-EAST ASIA	
Mainland South-East Asia	
Cambodia	2.2%
Total	2.2%
Maritime South-East Asia	
Singapore	2.2%
Total	2.2%
Total	**4.3%**
NORTH-EAST ASIA	
North-East Asia	
Hong Kong	2.2%
Japan	2.2%
Korea, Republic of	4.3%
Taiwan	2.2%
Total	10.9%
Total	**10.9%**
THE AMERICAS	
Northern America	
Canada	6.5%
United States of America	15.2%
Total	21.7%
South America	
Uruguay	2.2%
Total	2.2%
Total	**23.9%**
SUB-SAHARAN AFRICA	
Southern & East Africa	
South Africa	2.2%
Total	2.2%
Total	**2.2%**
TOTAL	**100%**

Since the first survey in 2011, have you spent a total of a month or more overseas, that is out of New Zealand, for study, work or travel/holiday? Select all that apply.

n = 5,421 (88.8%) who indicated domestic student status and were identified as domestic students by their universities.

Table 3.05. Overseas travel by domestic students

Overseas travel?	Percent	Months spent overseas [Mean (SD)]
Yes, for study	5.0%	9.40 (8.80)
Yes, for work-related reasons	16.7%	13.21 (10.28)
Yes, for travel/holiday	36.7%	2.97 (3.43)
No	50.4%	-
Skipped question	1.1%	-

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (*n* = 5,421) who endorsed each item.

Please describe the qualification(s), and the main subject, you were studying towards in 2011.

Participants' answers to this question formed part of the basis for identifying participants' level and field of study in 2011 as displayed in Tables 1.09 through to 1.12.

Did you complete the qualification you were studying towards in 2011?

The following table shows the percentage of participants who completed the qualification they were studying towards in 2011 as a function of the NZQF level of the qualification.

Table 3.06. Percent of participants who completed their 2011 qualification by the NZQF level of the qualification

NZQF level	Completed qualification?		
	Yes	No	Skipped question
Level 7	95.9%	2.3%	1.8%
Level 8	95.7%	2.5%	1.8%
Level 9	92.0%	6.5%	1.4%
Level 10	86.4%	10.6%	3.0%
Total	**94.7%**	**3.5%**	**1.8%**

Is this qualification your highest qualification?

The following table is based on information provided by *n* = 5,781 (94.7%) participants who indicated that they completed the qualification that they were studying towards in 2011 (above). It shows whether or not the qualification participants completed in 2011 is their highest qualification as a function of the NZQF level of the 2011 qualification.

Table 3.07. Percent of 2011 qualifications that represent participants' highest qualifications by the NZQF level of the 2011 qualification

NZQF level	Highest qualification?		
	Yes	**No**	**Skipped question**
Level 7	79.3%	20.6%	0.1%
Level 8	77.9%	22.0%	0.1%
Level 9	98.6%	1.4%	-
Level 10	99.4%	0.6%	-
Total	**82.8%**	**17.1%**	**0.1%**

Please describe your <u>highest</u> qualification, and the main subject.

Each qualification was assigned to a qualification type and NZQF study level according to the New Zealand Qualifications Framework (NZQF).[19] The following table shows the qualification types that fall under each NZQF level for the highest qualifications identified by participants, with 2011 qualification types for comparison.

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[19] Statistics New Zealand (2003). *The New Zealand Register of Quality Assured Qualifications – Qualification Level 2003 (V1.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx.

Table 3.08. Qualification type and corresponding NZQF level for 2011 qualifications and highest qualifications

NZQF level	Qualification type	2011 qual.	Highest qual.
Level 1	Certificate	-	0.02%
	Sub-total	**-**	**0.02%**
Level 2	Certificate	-	0.1%
	Sub-total	**-**	**0.1%**
Level 3	Certificate	-	0.2%
	Sub-total	**-**	**0.2%**
Level 5	Diploma	-	0.02%
	Sub-total	**-**	**0.02%**
Level 6	Diploma	-	0.02%
	Sub-total	**-**	**0.02%**
Level 7	Bachelor's degree	42.1%	35.2%
	Double bachelor's degree	3.9%	3.6%
	Certificate	-	0.1%
	Graduate certificate	0.3%	0.1%
	Graduate diploma	8.4%	6.2%
	Sub-total	**54.8%**	**45.2%**
Level 8	Bachelor's degree with honours	9.4%	10.4%
	Double bachelor's degree with honours	0.05%	0.03%
	Postgraduate certificate	3.4%	3.1%
	Postgraduate diploma	11.5%	11.3%
	Professional membership	-	0.03%
	Sub-total	**24.4%**	**24.8%**
Level 9	Master's degree	14.8%	21.2%
	Professional Certificate	-	0.02%
	Sub-total	**14.8%**	**21.2%**
Level 10	Doctorate degree	6.0%	5.7%
	Professional fellowship	-	0.1%
	Sub-total	**6.0%**	**5.8%**
Unclear	Overseas secondary school qualification	-	0.02%
	Unclear	-	0.4%
	Sub-total	**-**	**0.4%**
Skipped question		-	2.3%
Total		**100%**	**100%**

The following table compares the NZQF levels of participants' highest qualifications with those of the qualifications that they were studying towards in 2011.

Table 3.09 NZQF levels of highest qualifications by 2011 qualifications

NZQF Level:	NZQF Level: 2011 Qualification				
Highest qualification	**Level 7**	**Level 8**	**Level 9**	**Level 10**	**Total**
Level 1	0.03%				0.02%
Level 2	0.1%	0.1%			0.1%
Level 3	0.3%				0.2%
Level 5	0.03%				0.02%
Level 6	0.03%				0.02%
Level 7	81.1%	1.6%	2.0%	0.8%	45.2%
Level 8	9.8%	77.1%	3.9%	1.6%	24.8%
Level 9	5.5%	17.4%	91.6%	6.5%	21.2%
Level 10	0.2%	1.3%	0.8%	86.4%	5.8%
Unclear	0.5%	0.2%	0.1%	1.4%	0.4%
Skipped question	2.3%	2.4%	1.7%	3.3%	2.3%
Total	**54.8%**	**24.4%**	**14.8%**	**6.0%**	**100%**

Note:
- Percentages are expressed as proportions of the column totals with the exception of values in the 'Total' row at the bottom of the table, which are expressed as proportions of the row total (N = 6,104).

The main subject of participants' highest qualifications was assigned to a field of study according to the New Zealand Standard Classification of Education.[20] The following table shows the percentage of participants whose highest qualifications fell into each of the following broad fields of study, with 2011 qualification types for comparison.

Table 3.10. Broad field of study of participants' 2011 qualifications and highest qualifications

Broad field of study	2011 qual.	Highest qual.
Society & Culture	22.6%	21.4%
Management & Commerce	17.3%	17.2%
Health	13.6%	13.5%
Education	13.1%	11.9%
Natural & Physical Sciences	12.7%	12.8%
Creative Arts	6.0%	5.9%
Engineering & Related Technologies	3.9%	4.0%
Agriculture, Environmental & Related Studies	2.9%	2.9%
Architecture & Building	2.7%	2.7%
Information Technology	2.6%	2.7%
Mixed Field Programmes	-	0.3%
Multiple	2.4%	2.2%
Unclear	0.2%	0.3%
Skipped question	-	2.3%
Total	**100%**	**100%**

Notes:
- If more than one broad field of study was endorsed, responses were assigned to the 'Multiple' category.
- 'Unclear' includes qualifications where the field of study was not provided by the participant or their university.

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[20] Statistics New Zealand (2009). *New Zealand Standard Classification of Education – Field of Study (V2.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx.

The following table compares the field of study of participants' highest qualifications with those of the qualifications that they were studying towards in 2011.

Table 3.11. Field of study of highest qualifications by 2011 qualifications

Highest qualification: Broad field of study	2011 qualification: Broad field of study												Total
	1	2	3	4	5	6	7	8	9	10	12	13	
1. Natural & Physical Sciences	92.1%	1.3%	0.8%	-	4.0%	1.0%	3.6%	0.9%	0.5%	0.3%	1.4%	-	**12.8%**
2. Information Technology	0.3%	91.8%	0.8%	-	-	-	0.4%	0.2%	0.4%	-	0.7%	-	**2.7%**
3. Engineering & Related Technologies	0.5%	1.3%	93.7%	-	1.1%	-	0.3%	0.2%	0.4%	-	1.4%	-	**4.0%**
4. Architecture & Building	0.1%	-	0.4%	94.5%	-	-	0.1%	-	0.4%	0.3%	-	-	**2.7%**
5. Agriculture, Environmental & Related Studies	0.6%	-	0.8%	0.6%	90.8%	-	0.4%	0.1%	0.3%	-	0.7%	-	**2.9%**
6. Health	1.3%	-	-	-	-	94.6%	0.8%	0.5%	1.0%	0.3%	0.7%	-	**13.5%**
7. Education	0.9%	0.6%	-	-	-	0.5%	82.6%	0.4%	3.0%	2.5%	0.7%	-	**11.9%**
8. Management & Commerce	0.4%	0.6%	0.8%	0.6%	1.7%	0.5%	1.6%	92.8%	2.7%	0.3%	2.1%	-	**17.2%**
9. Society & Culture	0.6%	0.6%	0.4%	0.6%	-	0.8%	5.4%	1.6%	88.8%	1.4%	1.4%	-	**21.4%**
10. Creative Arts	-	-	-	0.6%	-	-	2.0%	0.1%	0.5%	91.3%	-	-	**5.9%**
11. Mixed Field Programmes	0.1%	-	-	-	0.6%	0.2%	0.3%	0.5%	0.1%	0.8%	-	-	**0.3%**
12. Multiple	-	-	-	-	-	-	0.3%	0.1%	0.1%	-	88.4%	-	**2.2%**
13. Unclear	0.6%	1.3%	-	-	-	-	0.3%	0.3%	0.2%	-	0.7%	20.0%	**0.3%**
Skipped question	2.3%	2.5%	2.1%	3.1%	1.7%	2.4%	2.1%	2.4%	1.5%	3.0%	2.1%	80.0%	**2.3%**
Total	**12.7%**	**2.6%**	**3.9%**	**2.7%**	**2.9%**	**13.6%**	**13.1%**	**17.3%**	**22.6%**	**6.0%**	**2.4%**	**0.2%**	**100%**

Note:
- Percentages are expressed as proportions of the column totals with the exception of values in the 'Total' row at the bottom of the table, which are expressed as proportions of the row total (*n* = 6,104).

Are you currently enrolled in tertiary study, either full-time or part-time? By tertiary study we mean at a university, polytechnic, or similar.

- 74.5%   No
- 19.7%   Yes, at a university
- 1.4%   Yes, at a polytechnic
- 2.4%   Yes, at another provider
- 2.1%   Skipped question

If participants indicated they were currently enrolled in any kind of tertiary study, they were asked to indicate the institution, from which we determined its country location.

Table 3.12. Location of current tertiary provider

Location	University	Polytechnic	Other provider	Total
New Zealand	84.0%	97.6%	82.1%	84.6%
Australia	7.2%	-	7.6%	6.8%
England	1.7%	-	2.8%	1.7%
United States of America	1.6%	-	2.1%	1.5%
Elsewhere overseas	5.2%	1.2%	1.4%	4.6%
Unclear	-	-	3.4%	0.3%
Skipped question	0.2%	1.2%	0.7%	0.3%
n	1,203	84	145	1,432

Note:
- Percentages are expressed as proportions of the column totals.

The series of tables that follow show the tertiary institutions at which participants were enrolled, for those enrolled at New Zealand institutions only.

Table 3.13. Percent of participants currently enrolled at New Zealand universities

University	Percent
University of Auckland	29.0%
Massey University	19.9%
University of Otago	17.9%
Victoria University of Wellington	10.8%
Auckland University of Technology	7.6%
University of Waikato	6.4%
University of Canterbury	5.8%
Lincoln University	2.6%
n	1,011

Table 3.14. Percent of participants currently enrolled at New Zealand polytechnics

Polytechnic	Percent
The Open Polytechnic of New Zealand	24.4%
Unitec New Zealand	13.4%
Southern Institute of Technology	11.0%
Christchurch Polytechnic Institute of Technology	9.8%
Nelson Marlborough Institute of Technology	7.3%
Waikato Institute of Technology	6.1%
Whitireia Community Polytechnic	6.1%
Wellington Institute of Technology	4.9%
Manukau Institute of Technology	3.7%
Aoraki Polytechnic	2.4%
Bay of Plenty Polytechnic	2.4%
Eastern Institute of Technology	2.4%
Otago Polytechnic	2.4%
Northland Polytechnic	1.2%
Tai Poutini Polytechnic	1.2%
Waiariki Institute of Technology	1.2%
n	82

Table 3.15. Percent of participants currently enrolled at other New Zealand providers

Other Provider	Percent
Te Wananga o Aotearoa	21.0%
New Zealand Institute of Chartered Accountants	15.1%
New Zealand Tertiary College	3.4%
ACG Yoobee School of Design	2.5%
Primary Industry Training Organisation	2.5%
Te Whare Wananga o Awanuiarangi	2.5%
Building & Construction Industry Training Organisation	1.7%
College of Law	1.7%
Computer Power Plus	1.7%
Laidlaw College	1.7%
Media Design School	1.7%
New Zealand Graduate School of Education	1.7%
New Zealand Institute of Management	1.7%
South Seas Film & Television School	1.7%
Other providers	37.8%
Unclear	1.7%
n	119

If participants indicated they were currently enrolled in any kind of tertiary study, they were asked to indicate the qualification/course. Each qualification was assigned to a qualification type and NZQF study level according to the New Zealand Qualifications Framework (NZQF).[21] The following table shows the percentage of participants currently enrolled at universities, polytechnics, and other providers, whose current courses fell into each of the following NZQF levels of study.

Table 3.16. NZQF level of study as a function of current tertiary provider type

NZQF Level	University	Polytechnic	Other provider	Total
Non-NZQF qualification	-	-	18.6%	1.9%
Papers only	1.6%	4.8%	-	1.6%
Level 1	-	1.2%	-	0.1%
Level 2	-	-	4.1%	0.4%
Level 3	0.1%	3.6%	6.2%	0.9%
Level 4	0.1%	3.6%	7.6%	1.0%
Level 5	0.2%	15.5%	9.0%	2.0%
Level 6	-	14.3%	4.8%	1.3%
Level 7	16.2%	29.8%	26.9%	18.1%
Level 8	14.7%	3.6%	0.7%	12.6%
Level 9	36.9%	2.4%	2.8%	31.4%
Level 10	25.1%	-	2.1%	21.3%
Unclear	4.4%	20.2%	16.6%	6.6%
Skipped question	0.7%	1.2%	0.7%	0.7%
n	1,203	84	145	1,432

Note:
- Percentages are expressed as proportions of the column totals.

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[21] Statistics New Zealand (2003). *The New Zealand Register of Quality Assured Qualifications – Qualification Level 2003 (V1.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx.

The main subject of these qualifications/courses was assigned to a field of study according to the New Zealand Standard Classification of Education.[22] The following table shows the percentage of participants currently enrolled at universities, polytechnics, and other providers, whose current courses fell into each of the following broad fields of study.

Table 3.17. Broad field of study as a function of current tertiary provider type

Broad field of study	University	Polytechnic	Other provider	Total
Society & Culture	21.4%	22.6%	32.4%	22.6%
Health	19.7%	20.2%	5.5%	18.3%
Management & Commerce	9.8%	10.7%	25.5%	11.5%
Natural & Physical Sciences	11.1%	1.2%	0.7%	9.5%
Education	8.6%	9.5%	8.3%	8.7%
Creative Arts	2.3%	16.7%	9.7%	3.9%
Engineering & Related Technologies	3.0%	3.6%	2.1%	2.9%
Architecture & Building	2.3%	4.8%	2.8%	2.5%
Information Technology	1.2%	2.4%	5.5%	1.7%
Agriculture, Environmental & Related Studies	1.5%	1.2%	2.8%	1.6%
Food, Hospitality & Personal Services	-	1.2%	2.8%	0.3%
Unclear	18.3%	4.8%	1.4%	15.8%
Skipped question	0.7%	1.2%	0.7%	0.7%
n	1,203	84	145	1,432

Note:
- Percentages are expressed as proportions of the column totals.

If you are not currently enrolled in tertiary study, would you have liked to enrol in further study since the first survey in 2011?

n = 4,546 (74.5%) who indicated that they were not currently enrolled in tertiary study.

38.0%   Yes
61.3%   No
 0.7%   Skipped question

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[22] Statistics New Zealand (2009). *New Zealand Standard Classification of Education – Field of Study (V2.0)*. Retrieved from http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/qualifications.aspx.

What were your reasons for not enrolling? Select all that apply.

n = 1,728 (38.0%) who indicated that they were not currently enrolled in tertiary study, but would have liked to enrol in further study.

- 47.6%   Lack of time
- 15.8%   Changes to the student allowance scheme
- 47.9%   Other financial reasons
- 11.7%   Geographical location (e.g., living too far away from a provider)
- 30.0%   Other:
    - 7.3%   Did enrol and complete
    - 4.5%   Establishing/furthering career
    - 4.3%   Family commitments
    - 1.6%   Application declined/insufficient prerequisites
    - 1.5%   Indecision on topic/field of study/institution
    - 1.4%   Physical/mental health issues
    - 1.1%   Travelling/living overseas
    - 0.9%   Course/programme/supervisor unavailable
    - 0.8%   Discontent with education/institution
    - 0.7%   Needed break from study
    - 0.7%   Timing
    - 0.6%   In process of enrolling
    - 0.5%   Personal reasons
    - 0.5%   Weighing cost vs. benefit
    - 0.4%   Employer unsupportive
    - 0.4%   Visa/residency issues
    - 0.3%   Did enrol; did not complete
    - 0.3%   Lack of motivation
    - 0.2%   Academic difficulty
    - 0.2%   Death of loved one
    - 0.2%   Missed application deadline
    - 0.2%   Pursuing other opportunities
    - 0.2%   Want to be sure
    - 0.1%   Other commitments
    - 0.4%   Miscellaneous
    - 0.3%   Unclear
    - 0.4%   Skipped question
- 0.8%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (*n* = 1,728) who endorsed each item.

How familiar are you with online courses sometimes called "distance learning" at some universities – that is, courses that are entirely or partially conducted over the Internet?

The *n* refers to the number who answered the question.

17.1%	1	Not at all familiar
15.4%	2	
21.3%	3	
18.6%	4	
27.5%	5	Very familiar
5,986		*n*
3.24 (1.44)		Mean (SD)

And how familiar are you with online university courses known as Massive Open Online Courses or MOOCs?

The *n* refers to the number who answered the question.

66.4%	1	Not at all familiar
12.9%	2	
10.0%	3	
5.7%	4	
5.0%	5	Very familiar
5,967		*n*
1.70 (1.16)		Mean (SD)

Have you ever enrolled in a MOOC through any institution/organisation (e.g., Coursera, Udacity, edX, MITx, etc.)?

91.2%	No
1.4%	Yes, I am currently enrolled
2.3%	Yes, I have completed one
2.9%	Yes, but I did not complete it
2.2%	Skipped question

Massive Open Online Courses or MOOCs are university courses that are taught entirely online and are usually free or available at a small cost to anyone who wants to participate. In most cases, MOOC participants do not receive university credit for their participation.

Using this scale, please rate how good or bad of an idea it is for universities to offer MOOCs as a part of their programme.

The *n* refers to the number who answered the question.

2.5%	1	Very bad idea
9.2%	2	
39.9%	3	
26.1%	4	
22.2%	5	Very good idea
5,807		*n*
3.56 (1.01)		Mean (SD)

If a free MOOC were offered in a subject in which you are interested, how likely would you be to participate?

The *n* refers to the number who answered the question.

7.2%	1	Not at all likely
10.8%	2	
26.5%	3	
30.4%	4	
25.1%	5	Very likely
5,863		*n*
3.55 (1.18)		Mean (SD)

For what reasons would you consider taking a MOOC? Select all that apply.

9.3%	I would not consider taking a MOOC

75.9%	To increase my knowledge/skills in a specific area
57.5%	To fill in gaps in my knowledge
54.0%	To improve my career prospects
47.0%	For recreation/interest
21.9%	To help me get a job
16.4%	To get a certificate/digital badge
15.9%	To try online education
13.7%	To see what MOOCs are
8.1%	To become part of an online community or meet new people
0.8%	Other:

        0.1%   Flexibility
        0.1%   For professional development
        0.1%   Unsure what MOOCs are
        0.05%   Participant listed specific course
        0.05%   To trial an area of interest
        0.03%   To challenge self
        0.03%   Free education
        0.03%   If recognised as of good standard
        0.03%   Unsure
        0.02%   If able to cross-credit
        0.05%   Miscellaneous
        0.05%   Unclear
        0.02%   Skipped question

4.0%	Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (n = 6,104) who endorsed each item.

Imagine that you completed a MOOC. Would you include this in a job application/in your CV?

4.4%	No
41.1%	Yes
50.5%	Possibly, it would depend on the job
4.0%	Skipped question

Your University Experience

Satisfaction with University

Overall, was your study programme worth the time, cost and effort?

The *n* refers to the number who answered the question.

1.5%	1	Definitely no
5.1%	2	
14.2%	3	
37.0%	4	
42.0%	5	Definitely yes
5,937		*n*
4.13 (0.94)		Mean (SD)

Did your overall experience at university meet your expectations?

The *n* refers to the number who answered the question.

1.8%	1	Definitely no
7.0%	2	
18.0%	3	
43.8%	4	
29.5%	5	Definitely yes
5,936		*n*
3.92 (0.95)		Mean (SD)

Have you retained links with your university (e.g., Alumni)?

The *n* refers to the number who answered the question.

16.4%	1	Definitely no
29.8%	2	
21.3%	3	
18.5%	4	
14.0%	5	Definitely yes
5,934		*n*
2.84 (1.29)		Mean (SD)

Have you retained social connections formed at university (e.g., class reunions, keeping in touch with university friends)?

The *n* refers to the number who answered the question.

11.9%	1	Definitely no
16.4%	2	
15.8%	3	
22.9%	4	
33.1%	5	Definitely yes
5,932	*n*	
3.49 (1.40)	Mean (SD)	

If you could start over, would you go to the same university?

The *n* refers to the number who answered the question.

2.4%	1	Definitely no
11.0%	2	Probably no
48.4%	3	Probably yes
38.2%	4	Definitely yes
5,932	*n*	
3.22 (0.73)	Mean (SD)	

If you could start over, would you choose to enrol in the same qualification?

The *n* refers to the number who answered the question.

5.0%	1	Definitely no
20.1%	2	Probably no
39.6%	3	Probably yes
35.3%	4	Definitely yes
5,930	*n*	
3.05 (0.87)	Mean (SD)	

Reflecting on Your University Experience

Looking back, to make graduates more employable, what level of importance do you think universities should give to:

Response options ranged from 1 = Low to 5 = High

Item	*n*	Mean (*SD*)	1	2	3	4	5
			Percent of endorsements				
Developing skills needed for professional practice.	5,905	4.50 (0.77)	0.7	1.9	7.1	27.7	62.6
Critical thinking and analysis.	5,859	4.53 (0.67)	0.1	0.6	7.4	29.5	62.3
Transferability of skills and knowledge.	5,854	4.49 (0.68)	0.1	0.7	7.6	33.0	58.6
Fieldwork, placements and internships.	5,902	4.35 (0.92)	2.0	2.8	10.8	27.1	57.3
Ensuring that teaching staff have current workplace experience and knowledge.	5,876	4.35 (0.86)	0.9	2.9	11.6	29.7	54.9
Creative/innovative thinking.	5,859	4.41 (0.74)	0.3	1.1	10.1	34.3	54.2
Excellence in written and oral communication skills.	5,859	4.40 (0.74)	0.3	0.9	11.3	34.3	53.3
Research skills (e.g., finding, evaluating, and filtering sources of information).	5,859	4.29 (0.80)	0.3	2.2	13.1	36.6	47.7
Laboratories/experiential learning.	5,857	4.23 (0.84)	0.8	2.3	14.6	37.6	44.7
High quality careers advice.	5,904	4.09 (0.98)	1.7	5.0	18.5	32.0	42.7
Ensuring that teaching staff have current research experience and knowledge.	5,879	4.13 (0.91)	1.1	4.0	17.2	36.0	41.8
Tutorials.	5,906	4.10 (0.90)	1.0	3.8	17.9	38.4	38.9
Encouraging students to study specific areas of interest in greater depth.	5,878	4.10 (0.88)	0.8	3.7	18.5	39.0	38.0
Teaching foundation skills like reading, writing, speaking and problem-solving.	5,906	3.76 (1.20)	5.6	11.2	19.8	28.9	34.6
Supportive learning environments (e.g., mentorship, pastoral care).	5,906	3.92 (0.99)	1.7	6.6	23.7	34.2	33.8
Preparation for employment in the international context.	5,877	3.82 (1.02)	2.2	7.4	26.9	33.4	30.1
Proficient use of technology and social media.	5,875	3.88 (0.96)	1.9	5.9	23.5	39.2	29.5
Lectures.	5,908	3.85 (0.96)	1.3	6.8	26.4	36.7	28.8
Encouraging engagement between students and the community.	5,878	3.79 (1.01)	2.2	7.9	26.8	34.8	28.3
Ability to meet the needs of Māori in your chosen profession.	5,810	3.07 (1.32)	16.9	15.2	28.9	21.5	17.4

Notes:
- Ordered from most to least frequently endorsed '5' ratings.
- The *n* refers to the number who answered the question.

Benefits of a University Education

We would like to know how <u>you</u> believe your university education <u>has benefited you or will benefit you</u> in the future. Please rate the extent to which you think your university education has provided you with a good basis for the following:

Response options ranged from 1 = Not at all to 5 = To a very high extent

Item	n	Mean (*SD*)	Percent of endorsements				
			1	2	3	4	5
Personal development?	5,826	4.11 (0.90)	1.4	3.8	15.6	41.4	37.9
Obtaining employment?	5,843	3.85 (1.16)	5.3	8.5	18.0	32.0	36.3
Your career?	5,843	3.81 (1.07)	4.1	7.5	20.6	38.4	29.3
Undertaking further study?	5,811	3.72 (1.08)	4.7	7.8	24.0	37.4	26.1
Being a role model (for education) within your own family or community?	5,820	3.60 (1.14)	6.6	9.6	24.4	36.2	23.2
Performing work tasks?	5,841	3.64 (1.02)	3.7	9.5	26.6	40.0	20.2
Geographic mobility, including moving overseas?	5,830	3.38 (1.19)	9.0	12.9	28.2	30.9	18.9
A good income?	5,838	3.41 (1.15)	7.7	13.0	27.7	33.9	17.7
Job security?	5,838	3.24 (1.21)	11.0	15.3	28.9	28.5	16.3
Acceptance by others?	5,816	3.39 (1.08)	6.6	11.4	33.0	34.3	14.6
Status and respect?	5,814	3.43 (1.05)	5.8	10.7	32.4	36.6	14.5
Enabling you to develop a secure identity?	5,804	3.27 (1.12)	8.4	13.9	32.9	31.6	13.2
Engagement with community?	5,832	3.01 (1.21)	13.6	19.9	31.1	22.9	12.4
Developing leadership skills?	5,823	3.19 (1.14)	9.3	17.3	30.7	30.8	11.9
Developing entrepreneurial skills?	5,816	2.62 (1.15)	20.4	25.0	32.7	15.8	6.1

Notes:
- Ordered from most to least frequently endorsed '5' ratings.
- The *n* refers to the number who answered the question.

Overall Impressions

How would you evaluate your *entire* experience at your university?

The *n* refers to the number who answered the question.

1.2%	1	Poor
4.5%	2	
19.7%	3	
51.3%	4	
23.3%	5	Excellent
5,822		*n*
3.91 (0.85)		Mean (SD)

Would you recommend your university to others?

The *n* refers to the number who answered the question.

1.5%	1	Definitely no
5.0%	2	
14.3%	3	
35.8%	4	
43.4%	5	Definitely yes
5,822		*n*
4.14 (0.95)		Mean (SD)

Aspirations, Goals and Values

Future Plans and Career Aspirations

In the next 3 years do you intend to pursue a <u>career</u> (long term progression), a <u>job</u> (something immediate that will provide you with a wage), or pursue further study? Select all that apply.

75.8%	Career
29.6%	Further study
27.3%	Job
4.5%	Other:

1.3%	Travel/live/work overseas
1.0%	Parenting/caregiving
0.9%	Start/build own business
0.4%	Personal goals
0.3%	Retirement
0.2%	Volunteer work
0.1%	Don't know
0.1%	Relocation
0.05%	Ministry
0.05%	Miscellaneous
0.1%	Unclear
0.05%	Skipped question

4.9%	Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104) who endorsed each item.

If participants indicated they planned to undertake further study, they were asked to indicate the institution, from which we determined its country location.

Table 3.18. Location of proposed tertiary provider

Location	Percent
New Zealand	42.2%
Australia	4.5%
England	1.4%
United States of America	1.2%
Elsewhere overseas	2.4%
Unknown/unclear	47.6%
Skipped question	0.6%
n	1,804

Table 3.19. Proposed tertiary providers of participants planning to undertake further study in New Zealand

Providers	Percent
UNIVERSITIES	
University of Auckland	26.0%
Massey University	17.8%
University of Otago	13.4%
Auckland University of Technology	8.0%
Victoria University of Wellington	8.0%
University of Canterbury	5.2%
University of Waikato	4.2%
Lincoln University	2.0%
Total	84.6%
POLYTECHNICS	
The Open Polytechnic of New Zealand	1.0%
Unitec New Zealand	1.0%
Christchurch Polytechnic Institute of Technology	0.7%
Nelson Marlborough Institute of Technology	0.4%
Wellington Institute of Technology	0.4%
Bay of Plenty Polytechnic	0.3%
Manukau Institute of Technology	0.3%
Southern Institute of Technology	0.3%
Eastern Institute of Technology	0.1%
Tai Poutini Polytechnic	0.1%
Total	4.6%
OTHER PROVIDERS	
New Zealand Institute of Chartered Accountants	2.6%
Te Wananga o Aotearoa	0.7%
CFA Institute	0.4%
Other providers	2.8%
Total	6.4%
UNKNOWN	4.3%
n	762

In the next 3 years, are you planning to undertake paid work?

90.8%   Yes
 4.4%   No
 4.8%   Skipped question

In the next 3 years do you plan to… Select all that apply.

n = 5,542 participants (90.8%) who indicated they were planning to undertake paid work in the question above

84.4%   Work in New Zealand
46.4%   Work overseas
 7.4%   Work in your country of origin
 0.2%   None of the above
 0.1%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (*n* = 5,542) who endorsed each item.

The following table displays the proportion of international and domestic student participants (PhD and non-PhD) who were planning to stay in New Zealand to work or to work overseas (either in their country of origin or another country).

Table 3.20. Relocation plans for the next three years of domestic vs. international student participants

Plans	PhD students		Non-PhD students		Total
	Domestic	**International**	**Domestic**	**International**	
Work in New Zealand	83.1%	48.7%	87.4%	59.6%	84.4%
Work overseas	47.2%	47.4%	47.1%	35.4%	46.4%
Work in your country of origin	6.2%	51.3%	3.3%	46.6%	7.4%
None of the above	-	-	0.1%	0.6%	0.2%
Skipped question	-	-	0.04%	0.6%	0.1%
n	178	156	4,869	339	5,542

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the column total (i.e., total number of domestic and international students).

The following table displays the intended destinations of international and domestic student participants who were planning to work overseas but not in their country of origin.

Table 3.21. Intended destinations of domestic vs. international student participants planning to work overseas (but not in their country of origin)

Major region - Minor region	Domestic	International	Total
Oceania & Antarctica			
Australia	17.6%	11.3%	17.1%
Other regions	0.8%	2.6%	1.0%
Total	18.4%	13.9%	18.1%
North-West Europe			
United Kingdom	11.6%	4.6%	11.1%
Other regions	2.0%	3.1%	2.1%
Total	13.6%	7.7%	13.2%
The Americas			
Northern America	5.3%	6.7%	5.4%
Other regions	0.4%	1.0%	0.4%
Total	5.6%	7.7%	5.8%
North-East Asia	3.1%	3.1%	3.1%
North Africa & the Middle East	0.9%	1.0%	0.9%
South-East Asia	0.7%	2.1%	0.8%
Sub-Saharan Africa	0.3%	-	0.3%
Southern & Eastern Europe	0.3%	-	0.2%
Southern & Central Asia	0.04%	-	0.04%
Multiple	14.8%	20.6%	15.2%
Unknown	38.7%	40.7%	38.8%
Unclear	3.4%	2.6%	3.3%
Skipped question	0.2%	0.5%	0.2%
n	2,376	194	2,570

Note:
- Percentages are expressed as proportions of the column total (i.e., total number of domestic and international students).

The following table displays the intended destinations of international and domestic student participants who were planning to work in their country of origin.

Table 3.22. Intended destinations of domestic vs. international student participants planning to work in their country of origin

Major region - Minor region	Domestic	International	Total
North-East Asia	26.4%	18.5%	21.8%
South-East Asia	7.5%	24.4%	17.2%
North-West Europe			
United Kingdom	13.8%	2.1%	7.0%
Other regions	4.0%	10.1%	7.5%
Total	17.8%	12.2%	14.6%
The Americas			
Northern America	8.0%	13.9%	11.4%
Other regions	0.6%	3.4%	2.2%
Total	8.6%	17.2%	13.6%
Oceania and Antarctica			
Polynesia	9.8%	2.5%	5.6%
Australia	11.5%	-	4.9%
Melanesia	0.6%	4.2%	2.7%
Total	21.8%	6.7%	13.1%
Southern and Central Asia	7.5%	10.5%	9.2%
North Africa and the Middle East	1.1%	6.7%	4.4%
Sub-Saharan Africa	5.2%	2.1%	3.4%
Southern and Eastern Europe	2.3%	1.3%	1.7%
Unclear	1.1%	-	0.5%
Skipped question	0.6%	0.4%	0.5%
n	174	238	412

Note:
- Percentages are expressed as proportions of the column total (i.e., total number of domestic and international students).

If you are seeking employment in the next 3 years what area/field are you planning to seek employment in? Select all that apply.

25.4%   Education and training
20.0%   Health care and medical
16.6%   Academia
14.2%   Government
14.1%   Science and technology
10.7%   Self employment
 9.0%   Consulting and strategy
 8.9%   Community services and development
 8.3%   Environment and conservation
 8.0%   Marketing and communications
 7.9%   Administration and office support
 7.2%   Information and communication technology
 6.6%   Arts
 6.2%   Banking and financial services
 5.8%   Media
 5.2%   Engineering
 4.9%   Human resources and recruitment
 4.8%   Hospitality and tourism
 4.7%   Accounting
 4.5%   Design and architecture
 4.3%   Sport and recreation
 4.2%   Farming and agriculture
 4.0%   Legal
 4.0%   Social work
 3.8%   Sales
 3.3%   Mining, resources and energy
 3.1%   Advertising
 2.9%   Retail and consumer products
 2.6%   Call centre and customer services
 2.5%   Manufacturing
 2.5%   Transport and logistics
 2.3%   Construction
 1.9%   Animal welfare
 1.8%   Real estate and property
 1.6%   Defence
 1.6%   Trades and services
 1.2%   Insurance and superannuation
 1.0%   Other:
     0.3%   Archaeology/Heritage
     0.3%   Project Management/Research
     0.1%   Undecided
     0.1%   Anything
    0.02%   Miscellaneous
     0.1%   Unclear
     0.1%   Skipped question
 0.8%   Skipped question

Note:

- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (n = 5,542) who indicated they were planning to undertake paid work in the next 3 years.

What are you looking for in a career/job? Please select all that apply.

86.0%   Job satisfaction
72.5%   Financial security
71.2%   A good work/life balance
67.1%   Opportunity to apply knowledge and skills
63.3%   Intellectual challenge and stimulation
61.7%   Opportunities for advancement
61.3%   Skill development
56.9%   The opportunity to make a contribution/difference
50.5%   Flexibility
48.2%   Opportunity to work with others
47.3%   Earning potential
47.2%   Job security
44.8%   Location
39.3%   Opportunity to travel or have an overseas experience
37.0%   Ethical workplace
35.2%   Respect
32.9%   Professional recognition
31.8%   Compatibility with workplace values
30.1%   Culturally aware workplace
29.6%   Opportunity for further study
29.4%   Environmentally aware workplace
20.0%   Meets family expectations
18.6%   Accommodates caregiving roles (e.g., parenting, caring for elderly family member)
17.9%   Status
13.4%   Opportunity to contribute to Māori community
10.9%   Opportunity to contribute to Pacific community
 0.9%   Other:
      0.3%   Opportunity to contribute to other communities
      0.1%   Creativity
      0.1%   Enjoyment
      0.1%   Supportive environment
     0.05%   Self-actualisation
     0.03%   Variety
     0.02%   Awareness of disabilities
     0.02%   Interest
     0.02%   Retired
      0.1%   Miscellaneous
      0.1%   Unclear
 5.3%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104) who endorsed each item.

Please rank the <u>top three</u> factors that are important to you in terms of choosing a career/job, <u>numbering from 1 as the most important</u>. (If you selected one factor, please rank it as 1. If you selected two factors, please rank them as 1 or 2 in order of importance)

The following table is based on the responses of 5,726 participants (93.8%) who answered the question and displays the cumulative percentages of participants ranking each factor as 1, 2, or 3.

Table 3.23. Cumulative percentages of factors rated as in the top three by participants

	Cumulative percent of endorsements		
Looking for?	**Rank 1**	**Rank 2**	**Rank 3**
Job satisfaction	30.7%	47.4%	58.1%
Financial security	19.0%	33.3%	45.0%
A good work/life balance	7.6%	17.7%	31.2%
Intellectual challenge and stimulation	8.0%	17.2%	24.7%
The opportunity to make a contribution/difference	8.6%	15.6%	22.8%
Opportunities for advancement	4.0%	10.0%	16.6%
Opportunity to apply knowledge and skills	4.3%	10.8%	16.5%
Earning potential	3.4%	8.8%	14.1%
Skill development	2.0%	6.1%	10.3%
Job security	2.4%	5.8%	8.8%
Flexibility	1.4%	4.0%	7.4%
Opportunity to travel or have an overseas experience	1.1%	3.0%	6.8%
Location	1.2%	3.5%	6.2%
Accommodates caregiving roles (e.g., parenting, caring for elderly family member)	1.9%	3.3%	4.5%
Opportunity to work with others	0.6%	2.3%	4.4%
Ethical workplace	0.9%	1.9%	3.2%
Compatibility with workplace values	0.8%	1.9%	3.1%
Professional recognition	0.5%	1.4%	2.7%
Respect	0.5%	1.3%	2.4%
Opportunity for further study	0.3%	0.8%	2.0%
Meets family expectations	0.3%	0.9%	1.6%
Opportunity to contribute to Māori community	0.5%	1.0%	1.5%
Environmentally aware workplace	0.2%	0.6%	1.3%
Status	0.1%	0.5%	1.0%
Culturally aware workplace	0.1%	0.5%	1.0%
Opportunity to contribute to Pacific community	0.2%	0.4%	0.7%
Other	0.2%	0.2%	0.3%

Notes:
- Percentages refers to the cumulative proportions of the sub-sample (*n* = 5,726) who gave each item a rank of 1, 2, or 3, hence row total percentages do not sum to 100%.
- Ordered from most to least frequently ranked in the top three.

Where would you like to be in 10 years' time? Select all that apply.

67.0%   In full-time employment
46.2%   Partnered/married
45.9%   Establishing my career further
30.9%   Parenting/caregiving
20.5%   Working overseas
19.8%   Self employed
17.9%   Doing voluntary work
16.3%   In part-time employment
14.9%   Engaging in further study
  4.9%   Retired
      -   Travelling and/or living overseas
  0.7%   Other:
       0.2%   Accomplished personal goals
       0.1%   Don't know
       0.1%   Financial independence
       0.1%   Happy
       0.1%   In good health
      0.05%   Alive
      0.03%   Debt-free
      0.02%   Deceased
      0.02%   Semi-retired
      0.02%   Undertaking/undertaken a career change
      0.02%   Miscellaneous
      0.02%   Unclear
      0.03%   Skipped question
  5.3%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104) who endorsed each item.

The following table compares participants' answers to the question of where they would like to be in 10 years' time with their answers to the same question, but with reference to what they had been doing over the previous 2 years.

Table 3.24. Participants' aspirations for the next 10 years compared to their activities over the previous 2 years

Activity	Last 2 years	10 years' time
In full-time employment	77.0%	67.0%
In part-time employment	32.7%	16.3%
Doing voluntary work	18.3%	17.9%
Establishing my career further	32.4%	45.9%
Engaging in further study	38.5%	14.9%
Working overseas	13.4%	20.5%
Travelling and/or living overseas	27.1%	-
Self employed	8.9%	19.8%
Partnered/married	14.1%	46.2%
Parenting/caregiving	9.6%	30.9%
Retired	0.3%	4.9%
Other	1.5%	0.7%
Skipped question	1.1%	5.3%

Notes:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104) who endorsed each item.
- The specifications for the "other" category have been removed from the table due to very few commonalities and low endorsements of the option.
- The top three endorsements at each time point are highlighted.

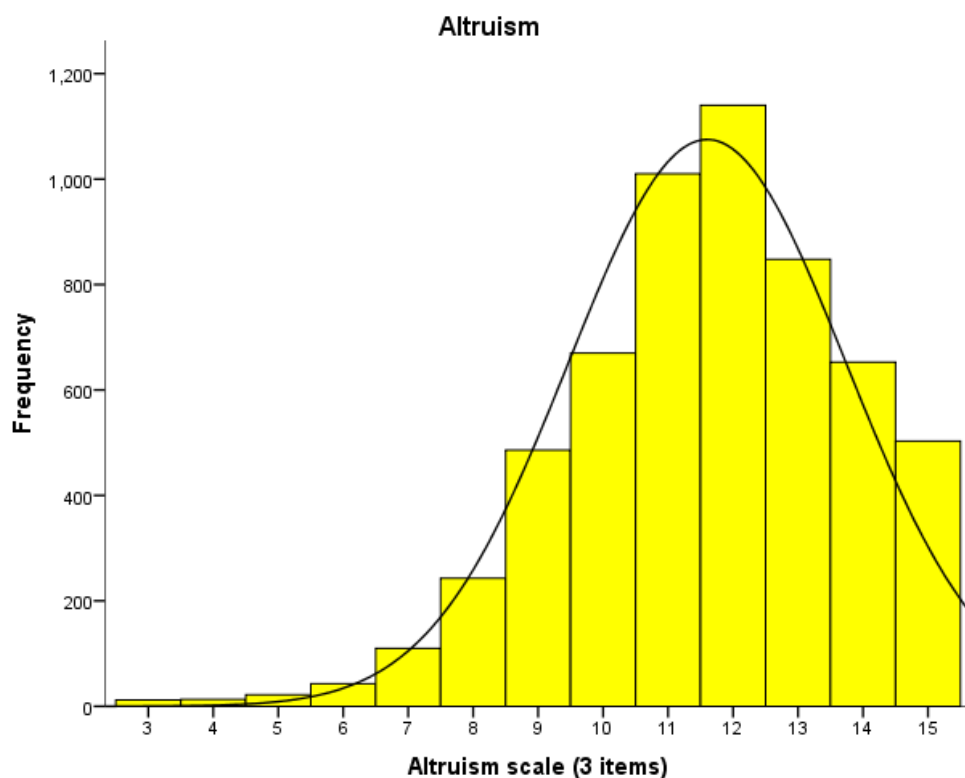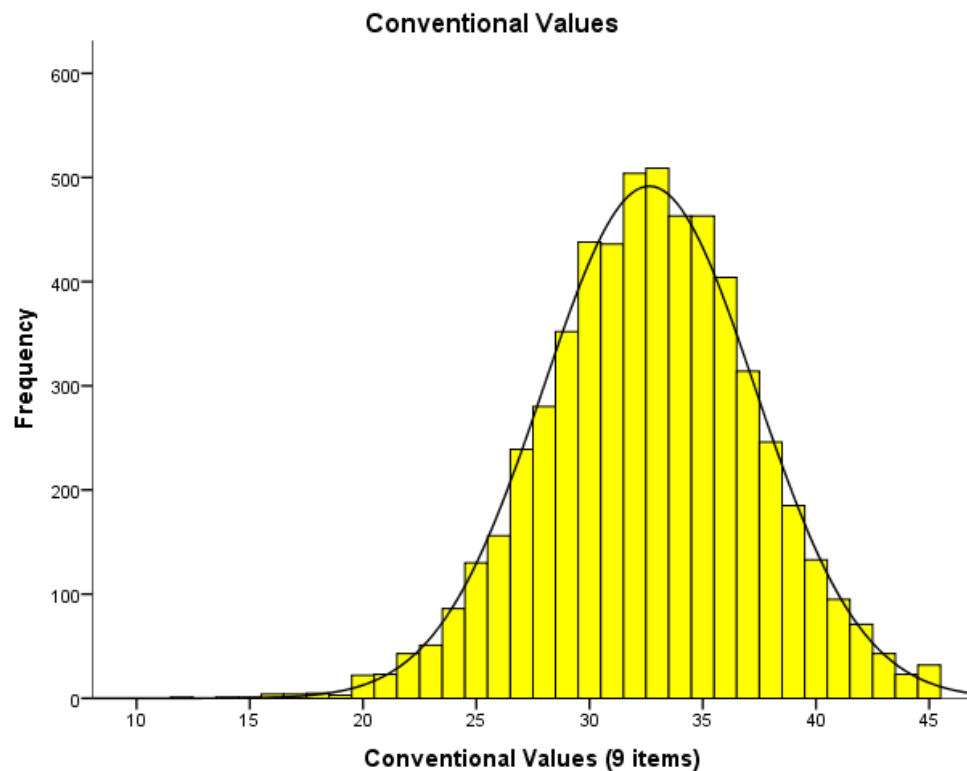**Goals, Aspirations and Values**

Please indicate how important each of the following are to you.

Response options: 1 - Not at all important; 2 - Not very important; 3 - Somewhat important; 4 - Very important; 5 - Extremely important

Question	n	Mean (SD)	Percent of endorsements				
			1	2	3	4	5
Being in good health?	5,762	4.58 (0.61)	0.1	0.4	4.8	31.3	63.4
Having a family-friendly work/life balance?	5,749	4.33 (0.79)	0.5	2.1	10.2	37.9	49.3
Working ethically?	5,761	4.34 (0.73)	0.3	1.3	9.7	41.1	47.6
Having a life-long partner?	5,733	4.15 (0.98)	1.7	4.7	16.8	29.8	46.9
Having children and a career?	5,693	3.87 (1.13)	5.0	7.3	19.5	32.4	35.9
Making a difference?	5,754	3.98 (0.85)	0.7	3.1	23.3	42.9	29.9
Travelling?	5,750	3.77 (0.98)	1.5	8.3	28.3	35.6	26.3
Contributing to environmental sustainability?	5,758	3.85 (0.90)	1.0	5.0	27.7	40.4	25.8
Being culturally responsive?	5,732	3.71 (0.96)	2.2	7.8	28.6	40.0	21.4
Being unselfish?	5,737	3.82 (0.84)	0.8	4.0	28.9	45.3	21.1
Contributing to iwi/society?	5,754	3.56 (1.06)	5.1	9.5	29.4	36.4	19.6
Professional recognition?	5,776	3.62 (0.92)	1.7	9.0	31.5	41.3	16.4
In general, how important are religious or spiritual beliefs in your day-to-day life?	5,725	2.45 (1.44)	37.7	19.9	16.8	11.4	14.3
Furthering your education?	5,773	3.40 (0.99)	3.2	13.8	36.5	32.7	13.8
Being entrepreneurial?	5,768	2.74 (1.09)	12.3	31.8	33.0	15.6	7.3
Having children rather than a career?	5,593	2.82 (1.10)	14.0	22.1	38.7	18.3	6.9
Having a career rather than children?	5,614	2.26 (1.05)	26.7	35.3	26.4	8.2	3.4

Notes:
- Ordered from most to least frequently endorsed '5' ratings.
- The n refers to the number who answered the question.

Conventional Values

Please indicate how important each of the following are to you.

Response options: 1 - Not at all important; 2 - Not very important; 3 - Somewhat important; 4 - Very important; 5 - Extremely important

- Owning your own home?
- Having a great deal of money?
- Having a well-paid job?
- Having a good reputation in the community?
- Working hard to get ahead?
- Having a university education?
- Saving money for the future?
- Being careful about what you spend?
- Being a religious/spiritual person?

Data were summed to create a total score for all nine items (min = 9, max = 45). If respondents had answered at least half of the questions, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (n = 58 cases). Higher scores reflect greater endorsement of conventional values.

5,760 (94.4%)	n (%)
32.64 (4.67)	Mean
33	Median
33	Mode
30 – 36	Interquartile range
12 – 45	Range
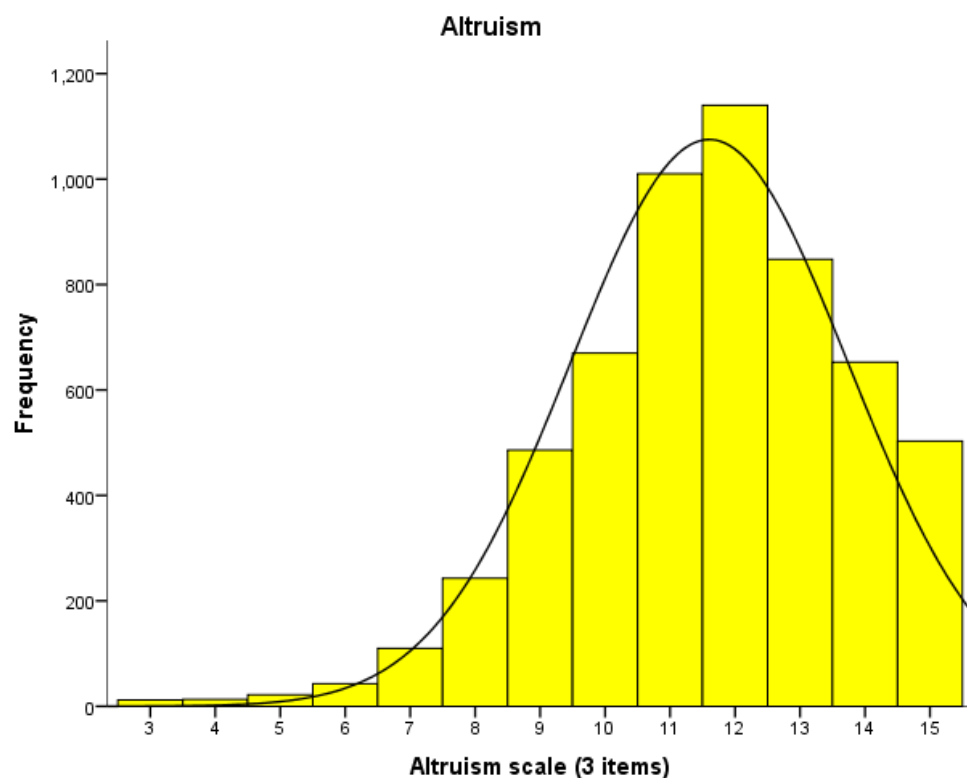
Conventional Values

Altruism

Please indicate how important each of the following are to you.

Response options: 1 - Not at all important; 2 - Not very important; 3 - Somewhat important; 4 - Very important; 5 - Extremely important

- Giving everyone an equal chance in life?
- Improving the welfare of people in need?
- Being unselfish

Data were summed to create a total score for all three items (min = 3, max = 15). If respondents had answered at least two of the questions, scores for the missing question were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (n = 31 cases). Higher scores reflect greater orientation towards altruistic values.

5,753 (94.2%)	n (%)
11.60 (2.14)	Mean
12	Median
12	Mode
10 – 13	Interquartile range
3 – 15	Range

Altruism

Employment

Employment Status

Have you had paid work since the first survey in 2011? Include self-employment and trainee jobs.

- 90.2%   Yes
- 3.9%   No
- 6.0%   Skipped question

How did you find this work? Select all that apply.

- 37.4%   I was already in the position when I was completing my qualification in 2011
- 37.1%   Through the internet
- 21.4%   Through family, friends or acquaintances
- 19.7%   Contacted employer on own initiative
- 14.9%   Approached by employer
- 8.4%   Through an employment agency
- 7.9%   Through work placement during study
- 6.6%   Through advertisements in the newspaper
- 3.8%   Set up my own business
- 1.1%   Contacted Work and Income to look for a job
- 0.9%   Contacted careers advisor or vocational guidance officers
- 3.1%   Other:
    - 1.4%   Advertisement through university
    - 0.5%   Field-specific recruitment scheme
    - 0.4%   Internal vacancy in organisation
    - 0.2%   Through voluntary work
    - 0.1%   Notice boards/fliers
    - 0.1%   Scholarship programme
    - 0.1%   Through an internship
    - 0.04%   Email advertisement
    - 0.1%   Miscellaneous
    - 0.2%   Unclear
- 0.1%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (n = 5,504) who indicated they had had paid work since 2011.

How many employers have you had altogether since the first survey in 2011? Include yourself if you have been self-employed. Include your current employer.

The *n* refers to the number who indicated they had had paid work since 2011 and answered the question.

37.6%	1 employer
34.6%	2 employers
16.6%	3 employers
6.0%	4 employers
2.5%	5 employers
1.1%	6 employers
0.4%	7 employers
0.3%	8 employers
0.1%	9 employers
0.8%	10+ employers
5,489	*n*
2.14 (1.40)	Mean (SD)

How many months in total have you been employed since the first survey in 2011?[23]

0.4%	1 month	1.5%	16 months
0.3%	2 months	0.8%	17 months
0.8%	3 months	3.7%	18 months
0.5%	4 months	1.9%	19 months
0.6%	5 months	3.2%	20 months
1.6%	6 months	0.8%	21 months
0.6%	7 months	1.6%	22 months
0.7%	8 months	1.3%	23 months
0.8%	9 months	9.7%	24 months
0.8%	10 months	2.8%	25 months
0.5%	11 months	4.0%	26 months
3.2%	12 months	4.1%	27 months
0.9%	13 months	3.3%	28 months
1.1%	14 months	2.4%	29 months
1.6%	15 months	44.6%	30+ months
	5,446	*n*	
	24.41 (7.31)	Mean (SD)	

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[23] On average, there was a period of 31.1 months (SD = 2.0 months) between completion of the Baseline and First Follow-up Surveys; median = 30.7 months; range = 26.7-37.0 months; interquartile range = 29.7-32.2 months.

How do you rate your overall employability and skills?

The *n* refers to the number who answered the question.

0.5%	1	Poor
1.8%	2	Weak
10.2%	3	Average
47.5%	4	Good
40.1%	5	Excellent
5,732		*n*
4.25 (0.75)		Mean (SD)

Have you ever been unemployed (that is, not employed *and* seeking employment) since the first survey in 2011?

59.7%	No
34.0%	Yes
6.2%	Skipped question

If participants indicated that they had been unemployed since the first survey, they were asked to indicate how many months, in total, they were unemployed.[24] The *n* refers to the number who indicated that they had been unemployed and answered the question.

16.5%	1 month	0.3%	16 months
17.0%	2 months	-	17 months
15.4%	3 months	1.2%	18 months
10.4%	4 months	0.5%	19 months
5.6%	5 months	0.6%	20 months
10.7%	6 months	0.1%	21 months
2.1%	7 months	0.2%	22 months
2.4%	8 months	0.2%	23 months
2.6%	9 months	1.7%	24 months
2.0%	10 months	0.3%	25 months
0.7%	11 months	0.1%	26 months
4.4%	12 months	0.1%	27 months
0.6%	13 months	0.1%	28 months
0.8%	14 months	0.2%	29 months
0.7%	15 months	2.4%	30+ months
	2,047	*n*	
	5.94 (6.41)	Mean (SD)	

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[24] On average, there was a period of 31.1 months (SD = 2.0 months) between completion of the Baseline and First Follow-up Surveys; median = 30.7 months; range = 26.7-37.0 months; interquartile range = 29.7-32.2 months.

Thinking of the last 4 weeks, have you actively tried to obtain paid work?

71.6%   No
20.5%   Yes
 7.8%   Skipped question

Select as many options as you need to show all the ways you looked for paid work in the last 4 weeks.

81.4%   Through the internet
34.7%   Contacted employer on own initiative
34.4%   Through family, friends or acquaintances
27.1%   Through an employment agency
26.4%   Through advertisements in the newspaper
14.7%   Approached by employer
 7.7%   Set up my own business
 6.4%   Contacted Work and Income to look for a job
 5.9%   Through work placement during study
 4.9%   Contacted careers advisor or vocational guidance officers
 2.2%   Other:
        1.2%   Internal vacancy in organisation
        0.2%   Advertisement through university
        0.2%   Email advertisement
        0.1%   Field-specific recruitment scheme
        0.1%   Notice boards/fliers
        0.3%   Miscellaneous
        0.2%   Unclear
 0.6%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (n = 1,254) who indicated that they had actively tried to obtain paid work in the last 4 weeks.

Are you currently employed?

12.5%   No
81.3%   Yes
 6.2%   Skipped question

Please select all that apply to your current employment.

77.6%   Full-time salary/wage earner
18.4%   Part-time salary/wage earner
 5.2%   Self-employed part-time
 3.2%   Self-employed full-time
 0.2%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (n = 4,962) who indicated that they are currently employed.

Participants who indicated that they are currently employed (n = 4,962) were asked to indicate how many hours per week they are paid to work in their primary job and, subsequently, how many hours per week they actually worked in their primary job. The following table shows the hours participants are paid to work versus actual hours worked.

Table 3.25. Weekly number of hours participants are paid to work in their primary job and actual hours worked

Weekly hours	Paid to work	Actually work
1 - 8 hours	4.3%	3.4%
9 - 16 hours	5.7%	5.3%
17 - 24 hours	5.9%	5.0%
25 - 32 hours	8.1%	7.3%
33 - 40 hours	66.0%	35.2%
41 - 48 hours	6.0%	23.9%
49 - 59 hours	2.4%	14.5%
60+ hours	1.6%	5.3%
n	4,900	4,912
Mean (SD)	35.30 (10.83)	38.97 (12.48)

Note:
- The n refers to the number who answered the question.

The following table shows the hours that participants are paid to work versus actual hours worked as a function of employment type (e.g., full-time wage, part-time wage, self-employed, etc.).

Table 3.26. Weekly number of hours that participants are paid to work in their primary job vs. actual hours worked as a function of employment type

Employment type	*n*	Mean (SD)	Median	Mode	I.Q. Range[*]	Range
Full-time salary/wage earners						
Paid to work	3,826	39.37 (5.76)	40	40	38 – 40	6 – 60+
Actually work	3,828	43.46 (7.78)	42	40	40 – 48	1 – 60+
Part-time salary/wage earners						
Paid to work	898	19.67 (10.92)	20	20	10 – 28	1 – 60+
Actually work	901	21.58 (12.06)	20	30	12 – 30	1 – 60+
Self-employed full-time						
Paid to work	153	35.76 (12.81)	40	40	30 – 40	1 – 60+
Actually work	157	40.59 (11.51)	40	40	35 – 50	10 – 60+
Self-employed part-time						
Paid to work	244	22.19 (12.78)	20	40	12 – 32	1 – 60+
Actually work	250	25.00 (12.93)	24	20	15 – 35	1 – 60+

[*] IQ range = interquartile range

The following table shows the hours that participants are paid to work and whether they actually work fewer, the same, or more hours than what they are paid to work.

Table 3.27. Weekly number of hours that participants are paid to work in their primary job and whether actual hours worked are the same, less, or more than paid hours

| Paid hours | Actual hours worked | | | Total |
	Less than paid	Same as paid	More than paid	
1 - 8 hours	-	70.3%	29.7%	4.3%
9 - 16 hours	3.2%	77.8%	19.0%	5.7%
17 - 24 hours	2.5%	65.6%	31.9%	5.8%
25 - 32 hours	2.3%	60.8%	36.9%	8.1%
33 - 40 hours	1.6%	48.3%	50.1%	66.0%
41 - 48 hours	8.2%	66.3%	25.5%	6.0%
49 - 59 hours	9.4%	64.1%	26.5%	2.4%
60+ hours	14.3%	85.7%	-	1.6%
Total	2.5%	55.0%	42.5%	100%

Note:
- Percentages are expressed as proportions of the row total, with the exception of values in the "Total" column, which are expressed as proportions of the total sub-sample (*n* = 4,891) who indicated they are currently employed and answered both questions.

Thinking of your primary job, what general area/field is it in? Please choose the <u>best</u> fit.

17.6%   Education and training
14.8%   Health care and medical
 5.9%   Academia
 5.2%   Government
 4.0%   Science and technology
 3.9%   Information and communication technology
 3.6%   Administration and office support
 3.3%   Accounting
 2.8%   Engineering
 2.6%   Hospitality and tourism
 2.5%   Retail and consumer products
 2.3%   Legal
 2.3%   Marketing and communications
 2.0%   Banking and financial services
 1.9%   Design and architecture
 1.9%   Farming and agriculture
 1.7%   Environment and conservation
 1.7%   Human resources and recruitment
 1.6%   Community services and development
 1.6%   Consulting and strategy
 1.6%   Sport and recreation
 1.5%   Social work
 1.4%   Call centre and customer services
 1.4%   Sales
 1.2%   Media
 1.2%   Transport and logistics
 1.1%   Arts
 1.0%   Manufacturing
 0.9%   Trades and services
 0.7%   Construction
 0.7%   Insurance and superannuation
 0.6%   Mining, resources and energy
 0.6%   Real estate and property
 0.5%   Defence
 0.4%   Advertising
 0.2%   Animal welfare
 0.3%   Other:
        0.2%   Project Management/Research
        0.1%   Archaeology/Heritage
      0.04%   Miscellaneous
      0.04%   Skipped question
 1.3%   Skipped question

Note:
- Based on responses of *n* = 4,962 participants who indicated they are currently employed.

Which of the following best describes your employment?

67.5%	Permanent or open-ended contract
11.9%	Fixed-term contract up to 12 months
7.6%	Temporary or casual
7.1%	Fixed-term contract more than 12 months
4.7%	Self-employed
1.2%	Skipped question

Note:
- Based on responses of n = 4,962 participants who indicated they are currently employed.

Do you supervise other people at work?

50.4%	No
29.5%	Yes, sometimes
18.9%	Yes, usually
1.1%	Skipped question

Note:
- Based on responses of n = 4,962 participants who indicated they are currently employed.

Participants who indicated that they sometimes or usually supervise other people at work (n = 2,402) were asked to indicate how many people they usually supervised.

86.5%	1 – 10 people
12.0%	11 – 50 people
0.8%	51 – 100 people
0.3%	101 – 200 people
0.4%	201 + people
2,350	n
8.13 (31.93)	Mean (SD)
3	Median
1	Mode
1 – 6	Interquartile range
1 – 918	Range

Note:
- The n refers to the number who indicated they supervise others at work and who answered the question (excluding 27 cases in which the response was unclear).

How much is this work related to your field of study?

10.8%	1	Not at all
9.2%	2	Very little
16.5%	3	Some
20.3%	4	Quite a bit
43.2%	5	Very much
4,894		*n*
3.76 (1.37)		Mean (SD)

Note:
- The *n* refers to the number who indicated they are currently employed and who answered the question.

How much are you able to apply the skills you gained from your studies to your primary job (e.g., communication, analytical, teamwork, leadership, etc.)?

3.9%	1	Not at all
9.6%	2	Very little
22.8%	3	Some
31.5%	4	Quite a bit
32.2%	5	Very much
4,893		*n*
3.79 (1.11)		Mean (SD)

Note:
- The *n* refers to the number who indicated they are currently employed and who answered the question.

To what extent are your knowledge and skills utilised in your current work?

4.3%	1	Not at all
8.7%	2	
16.5%	3	
31.0%	4	
39.5%	5	To a very high extent
4,892		*n*
3.93 (1.14)		Mean (SD)

Note:
- The *n* refers to the number who indicated they are currently employed and who answered the question.

To what extent does your current work demand more knowledge and skills than you can actually offer?

14.7%	1	Not at all
23.7%	2	
26.0%	3	
22.9%	4	
12.7%	5	To a very high extent
4,887		*n*
2.95 (1.25)		Mean (SD)

Note:
- The *n* refers to the number who indicated they are currently employed and who answered the question.

How satisfied are you with your current work?

4.0%	1	Very dissatisfied
10.0%	2	
21.6%	3	
37.0%	4	
27.4%	5	Very satisfied
4,892		*n*
3.74 (1.09)		Mean (SD)

Note:
- The *n* refers to the number who indicated they are currently employed and who answered the question.

Do you see yourself continuing this kind of work for the next 3 years?

10.5%	1	Definitely no
17.7%	2	Probably no
38.9%	3	Probably yes
32.9%	4	Definitely yes
4,890		*n*
2.94 (0.96)		Mean (SD)

Note:
- The *n* refers to the number who indicated they are currently employed and who answered the question.

Psychological Job Demands

Below are a set of questions that relate to job demands people may experience. Please tell us whether you experience the following in your <u>primary</u> job.

Response options: 0 - No; 1 - Sometimes; 2 - Yes

Item	*n*	No	Sometimes	Yes
Do you have to work under the pressure of time?	4,887	10.6%	44.2%	45.1%
Is your job hectic?	4,884	16.8%	56.0%	27.2%
Do you have too much work to do everything well?	4,882	30.9%	47.1%	22.0%
Do you have to work longer hours than you would like?	4,886	31.6%	46.9%	21.5%
Do you have to work too hard?	4,883	38.3%	45.6%	16.0%
Are you often unclear about what you have to do?	4,887	58.0%	34.6%	7.3%

Notes:
- The *n* refers to the number who indicated they are currently employed and who answered the question.
- Ordered from most to least frequently endorsed 'Yes' responses.

Participants' responses to these six questions were summed to create an overall measure of perceived psychological job demands (min = 0, max = 12). If respondents had answered at least half of the questions, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (*n* = 11 cases). Higher scores reflect greater perceived psychological job demands.

4,887 (80.1%)	*n* (%)
5.53 (2.90)	Mean
5	Median
6	Mode
3 – 8	Interquartile range
0 – 12	Range

Psychological Job Demands
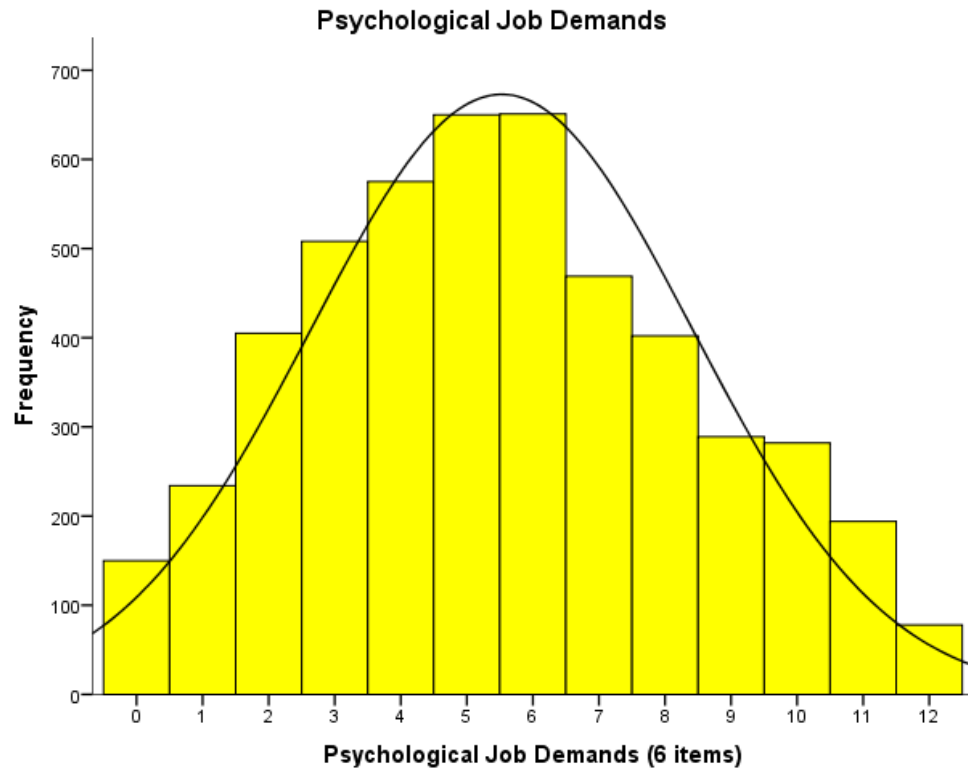
Earnings and Assets

Have you received income from any source within the last 12 months?

85.9%   Yes
6.5%   No source of income during that time
7.6%   Skipped question

Select as many options as you need to show all the ways you yourself got income in the 12 months ending today. DON'T count loans because they are not income.

92.0%   Wages, salary, commissions, bonuses, etc, paid by my employer
26.3%   Interest, dividends, rent, other investments
12.5%   Self-employment, or business I own and work in
6.8%   Student scholarships
4.2%   Student Allowance
3.8%   Other government benefits, government income support payments, war pensions, or paid parental leave
2.8%   Unemployment Benefit (now called Jobseeker Support)
1.1%   Domestic Purposes Benefit (now called Jobseeker Support, Sole Parent Support, Supported Living Payment, or Sole Parent Support Study Assistance)
1.0%   New Zealand Superannuation or Veteran's Pension
0.9%   Sickness Benefit (now called Jobseeker Support)
0.8%   Regular payments from ACC or a private work accident insurer
0.8%   Other superannuation, pensions or annuities (other than NZ Superannuation, Veteran's Pension or war pensions)
0.3%   Invalid's Benefit (now called Supported Living Payment)
6.1%   Other sources of income (e.g., child support, other support payments, inheritance, beneficiary to a trust, selling on auction sites, support from family, etc.):
    2.8%   Support from family
    1.1%   Child support
    0.6%   Inheritance
    0.5%   Beneficiary to a trust
    0.5%   Selling on auction sites
    0.1%   Donations, grants, honoraria, sponsorship
    0.1%   Support from church
    0.04%   Volunteer allowance
    0.1%   Miscellaneous
    0.1%   Unclear
    0.3%   Skipped question
0.2%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sub-sample (n = 5,234) who indicated that they have had some source of income during the last 12 months.

From all the sources of income marked above, what was your total income:
- **That you yourself got**
- **Before tax or anything was taken out of it**
- **In the 12 months ending today**

0.1%	Loss
0.1%	Zero income
2.8%	NZ$1 - NZ$5,000
4.1%	NZ$5,001 - NZ$10,000
4.2%	NZ$10,001 - NZ$15,000
4.4%	NZ$15,001 - NZ$20,000
4.4%	NZ$20,001 - NZ$25,000
5.1%	NZ$25,001 - NZ$30,000
4.8%	NZ$30,001 - NZ$35,000
6.8%	NZ$35,001 - NZ$40,000
17.1%	NZ$40,001 - NZ$50,000
14.2%	NZ$50,001 - NZ$60,000
7.7%	NZ$60,001 - NZ$70,000
5.8%	NZ$70,001 - NZ$80,000
4.1%	NZ$80,001 - NZ$90,000
2.6%	NZ$90,001 - NZ$100,000
1.9%	NZ$100,001 - NZ$110,000
1.0%	NZ$110,001 - NZ$120,000
0.9%	NZ$120,001 - NZ$130,000
0.5%	NZ$130,001 - NZ$140,000
0.6%	NZ$140,001 - NZ$150,000
1.1%	NZ$150,001 – NZ$250,000
0.3%	NZ$250,001 +:

- Range = NZ$251,000 – NZ$750,000

3.3%	Don't know
1.9%	Skipped question

Notes:
- Percentages are expressed as proportions of the total sub-sample (*n* = 5,234) who indicated that they have had some source of income during the last 12 months.
- The median income bracket is highlighted.

Do you share a household with a partner or spouse who contributes financially?

43.9%   Yes
48.2%   No
7.9%   Skipped question

What was the total income:
- **That your partner/spouse got**
- **Before tax or anything was taken out of it**
- **In the 12 months ending today**

0.1%   Loss
1.3%   Zero income
1.8%   NZ$1 - NZ$5,000
2.0%   NZ$5,001 - NZ$10,000
2.0%   NZ$10,001 - NZ$15,000
2.8%   NZ$15,001 - NZ$20,000
3.2%   NZ$20,001 - NZ$25,000
2.8%   NZ$25,001 - NZ$30,000
3.1%   NZ$30,001 - NZ$35,000
5.4%   NZ$35,001 - NZ$40,000
12.8%   NZ$40,001 - NZ$50,000
12.4%   NZ$50,001 - NZ$60,000
9.6%   NZ$60,001 - NZ$70,000
8.3%   NZ$70,001 - NZ$80,000
5.0%   NZ$80,001 - NZ$90,000
3.9%   NZ$90,001 - NZ$100,000
3.2%   NZ$100,001 - NZ$110,000
2.6%   NZ$110,001 - NZ$120,000
2.3%   NZ$120,001 - NZ$130,000
1.2%   NZ$130,001 - NZ$140,000
1.5%   NZ$140,001 - NZ$150,000
3.6%   NZ$150,001 – NZ$250,000
1.0%   NZ$250,001 +:
- Range = NZ$260,000 – NZ$600,000

5.6%   Don't know
2.6%   Skipped question

Notes:
- Percentages are expressed as proportions of the total sub-sample (*n* = 2,682) who indicated that they share a household with a partner or spouse who contributes financially.
- The median income bracket is highlighted.

Approximately how much student loan debt do you have?

17.3%   Didn't take out a student loan
15.9%   Zero
 2.6%   NZ$1 - NZ$5,000
 4.1%   NZ$5,001 - NZ$10,000
 5.5%   NZ$10,001 - NZ$15,000
 5.9%   NZ$15,001 - NZ$20,000
 5.8%   NZ$20,001 - NZ$25,000
 5.9%   NZ$25,001 - NZ$30,000
 5.4%   NZ$30,001 - NZ$35,000
 4.9%   NZ$35,001 - NZ$40,000
 6.5%   NZ$40,001 - NZ$50,000
 4.9%   NZ$50,001 - NZ$60,000
 2.5%   NZ$60,001 - NZ$70,000
 1.6%   NZ$70,001 - NZ$80,000
 0.9%   NZ$80,001 - NZ$90,000
 0.5%   NZ$90,001 - NZ$100,000
 0.4%   NZ$100,001+
  - Range = NZ$102,000 – NZ$257,000
 1.3%   Don't know
 7.9%   Skipped question

Note:
- The median student loan debt bracket is highlighted.

Approximately how much debt, <u>EXCLUDING MORTAGES</u>, do you have (e.g., overdrafts, hire purchases, credit card, other loans)?

42.6%	Zero
21.1%	NZ$1 - NZ$5,000
6.2%	NZ$5,001 - NZ$10,000
3.7%	NZ$10,001 - NZ$15,000
3.2%	NZ$15,001 - NZ$20,000
2.1%	NZ$20,001 - NZ$25,000
1.9%	NZ$25,001 - NZ$30,000
1.6%	NZ$30,001 - NZ$35,000
1.3%	NZ$35,001 - NZ$40,000
2.0%	NZ$40,001 - NZ$50,000
1.0%	NZ$50,001 - NZ$60,000
0.7%	NZ$60,001 - NZ$70,000
0.5%	NZ$70,001 - NZ$80,000
0.3%	NZ$80,001 - NZ$90,000
0.4%	NZ$90,001 - NZ$100,000
0.8%	NZ$100,001 - NZ$250,000
0.8%	NZ$250,001 - NZ$500,000
0.4%	NZ$500,001 - NZ$1,000,000
0.03%	NZ$1,000,001 +

- Range = Unclear

1.0%	Don't know
8.4%	Skipped question

Note:
- The median debt bracket is highlighted.

Do you share any of this debt with anyone else (e.g., spouse, partner, other family member)?

n = 2,929 who indicated they had at least some debt, as above.

30.2%	Yes
69.8%	No
0.1%	Skipped question

Approximately what proportion is your share of this debt?

n = 884 who indicated they had at least some debt and that the debt was shared.

7.8%	Less than half
72.2%	About half
14.5%	More than half
4.9%	Don't know
0.7%	Skipped question

Do you currently have any other <u>significant regular</u> financial commitments per annum (e.g., child care, kinship care (elderly relative, family overseas), child support, school fees, contributions to charitable organisations, church, religious organisations)? If yes, please specify how many significant regular financial commitments you have. <u>This excludes standard living costs (e.g., rent, mortgage payments, food, power, etc.).</u>

67.4%	No
12.3%	Yes, 1
6.3%	Yes, 2
3.0%	Yes, 3
1.3%	Yes, 4
0.5%	Yes, 5
0.3%	Yes, 6
0.2%	Yes, 7
0.1%	Yes, 8
0.1%	Yes, 9
0.3%	Yes, 10
8.2%	Skipped question

For those who indicated that they did have some significant regular financial commitments:

1,490	*n*
2.01 (1.56)	Mean (SD)
1	Median
1	Mode
1 – 2	Interquartile range
1 – 10	Range

Please specify the total annual amount.

n= 1,490 who endorsed having significant regular financial commitments

45.8%	NZ$1 - NZ$5,000
23.7%	NZ$5,001 - NZ$10,000
8.9%	NZ$10,001 - NZ$15,000
6.4%	NZ$15,001 - NZ$20,000
3.2%	NZ$20,001 - NZ$25,000
1.5%	NZ$25,001 - NZ$30,000
1.2%	NZ$30,001 - NZ$35,000
0.9%	NZ$35,001 - NZ$40,000
0.5%	NZ$40,001 - NZ$50,000
0.3%	NZ$50,001 - NZ$60,000
0.4%	NZ$60,001 - NZ$70,000
0.3%	NZ$70,001 - NZ$80,000
-	NZ$80,001 - NZ$90,000
0.3%	NZ$90,001 - NZ$100,000
0.1%	NZ$100,001 - NZ$250,000
0.2%	NZ$250,001 - NZ$500,000
0.1%	NZ$500,001 +

- Range = unclear

4.6%	Don't know
1.5%	Skipped question

Note:
- The median bracket is highlighted.

Do you share these commitments with anyone else (e.g., spouse, partner, other family member)?

n= 1,490 who endorsed having significant regular financial commitments

49.7%	Yes
49.9%	No
0.4%	Skipped question

Approximately what proportion is your contribution to these commitments?

n = 741 who endorsed having significant regular financial commitments and indicated that these commitments were shared

18.4%	Less than half
54.3%	About half
17.5%	More than half
9.0%	Don't know
0.8%	Skipped question

Approximately how much mortgage/property debt do you have?

66.9%	Zero
1.2%	NZ$1 - NZ$25,000
0.4%	NZ$25,001 - NZ$30,000
0.2%	NZ$30,001 - NZ$35,000
0.1%	NZ$35,001 - NZ$40,000
0.3%	NZ$40,001 - NZ$50,000
0.3%	NZ$50,001 - NZ$60,000
0.3%	NZ$60,001 - NZ$70,000
0.4%	NZ$70,001 - NZ$80,000
0.2%	NZ$80,001 - NZ$90,000
0.8%	NZ$90,001 - NZ$100,000
2.4%	NZ$100,001 - NZ$150,000
2.8%	NZ$150,001 - NZ$200,000
2.8%	NZ$200,001 - NZ$250,000
2.8%	NZ$250,001 - NZ$300,000
4.0%	NZ$300,001 - NZ$400,000
2.1%	NZ$400,001 - NZ$500,000
2.2%	NZ$500,001 - NZ$1,000,000
0.3%	NZ$1,000,001 +
	• Range = NZ$1,010,000 - NZ$1,600,000
0.7%	Don't know
8.8%	Skipped question

Note:
- The median debt bracket is highlighted.

Do you share any of this mortgage/property debt with anyone else (e.g., spouse, partner, other family member)?

n = 1,445 who indicated they had at least some mortgage/property debt, as above

74.5%	Yes
25.3%	No
0.1%	Skipped question

Approximately what proportion is your share of this mortgage/property debt?

n = 1,077 who indicated they had at least some mortgage/property debt and that the debt was shared

8.4%	Less than half
80.5%	About half
6.5%	More than half
4.2%	Don't know
0.4%	Skipped question

What is the approximate total value of your assets (e.g., savings, iPod, furniture, personal computer, car, house)?

1.1%	Zero
38.1%	NZ$1 - NZ$25,000
6.9%	NZ$25,001 - NZ$30,000
3.8%	NZ$30,001 - NZ$35,000
3.0%	NZ$35,001 - NZ$40,000
3.0%	NZ$40,001 - NZ$50,000
2.3%	NZ$50,001 - NZ$60,000
1.8%	NZ$60,001 - NZ$70,000
1.4%	NZ$70,001 - NZ$80,000
0.8%	NZ$80,001 - NZ$90,000
1.0%	NZ$90,001 - NZ$100,000
2.0%	NZ$100,001 - NZ$150,000
1.2%	NZ$150,001 - NZ$200,000
1.2%	NZ$200,001 - NZ$250,000
1.5%	NZ$250,001 - NZ$300,000
2.9%	NZ$300,001 - NZ$400,000
3.7%	NZ$400,001 - NZ$500,000
7.2%	NZ$500,001 - NZ$1,000,000
2.8%	NZ$1,000,001 +

- Range = NZ$1,000,001 - NZ$12,000,000

4.5%	Don't know
9.7%	Skipped question

Note:
- The median asset bracket is highlighted.

Do you share any of these assets with anyone else (e.g., spouse, partner, other family member)?

n = 5,169 who indicated they had at least some assets, as above

44.0%	Yes
56.0%	No
0.04%	Skipped question

Approximately what proportion is your share of these assets?

n = 2,272 who indicated they had at least some assets and that the assets were shared

10.3%	Less than half
71.7%	About half
14.0%	More than half
4.0%	Don't know
0.2%	Skipped question

Economic Situation
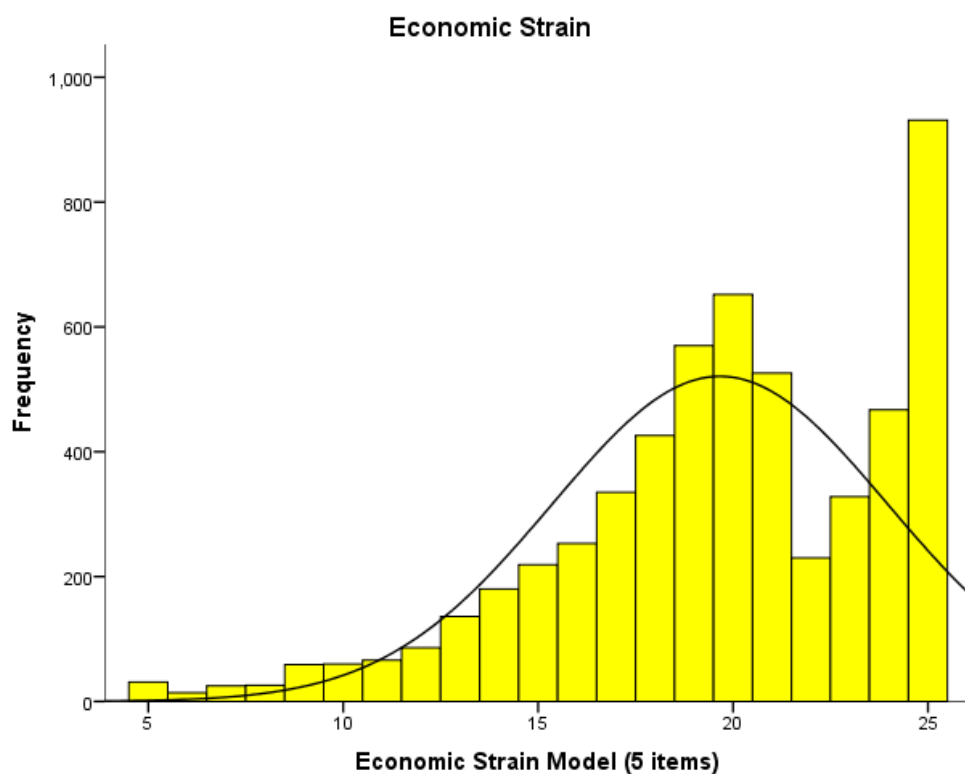
Please think about how you feel about your current financial situation. Indicate how much you agree or disagree with each statement.

Response options: 1 - Strongly disagree; 2 - Disagree; 3 - Neutral/mixed; 4 - Agree; 5 - Strongly agree

- I have enough money to afford the accommodation I/my family need(s).
- I have enough money to afford the clothing I/my family need(s).
- I have enough money to afford the food I/my family need(s).
- I have enough money to afford the leisure and recreational activities I/my family want(s).
- Over the past 12 months I/my family have had difficulty meeting my/our financial commitments.

Data were summed to create a total score for all five items after relevant items had been reverse coded (min = 5, max = 25). If respondents had answered at least half of the questions, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (*n* = 7 cases). Higher scores reflect less economic/financial strain.

5,620 (92.1%)	*n* (%)
19.66 (4.31)	Mean
20	Median
25	Mode
17 – 23	Interquartile range
5 – 25	Range

Economic Strain

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Health and Well-being

General Health

How would you rate your overall physical health?

1.3%	1	Poor
9.7%	2	Fair
28.4%	3	Good
40.0%	4	Very good
20.6%	5	Excellent
5,627		*n*
3.69 (0.95)		Mean (SD)

Note:
- The *n* refers to the number who answered the question.

Do you have a long-term medical condition, impairment or disability?

77.2%	No
14.9%	Yes
7.9%	Skipped question

If participants indicated that they had a long-term medical condition, impairment, or disability (*n* = 909), they were asked to specify what it was. Responses were classified using the International Statistical Classification of Diseases and Related Health Problems as a guide.[25]

15.8%	Musculoskeletal *(e.g., arthritis, lupus, limb pain)*
14.7%	Respiratory *(e.g., asthma, hayfever, sinusitis)*
12.4%	Mental *(e.g., depression, anxiety, behavioural disorders)*
9.0%	Endocrine *(e.g., thyroid problems, diabetes)*
7.9%	Circulatory *(e.g., rheumatic fever, hypertension)*
7.0%	Digestive *(e.g., liver, colon, stomach issues)*
6.3%	Eye *(e.g., vision problems)*
6.1%	Nervous *(e.g., brain injury, paralysis, epilepsy, multiple sclerosis)*
4.0%	Ear *(e.g., hearing problems)*
2.3%	Skin *(e.g., eczema, psoriasis)*
2.2%	Genitourinary *(e.g., kidney, bladder issues)*
1.4%	Cancer
0.6%	Blood *(e.g., blood disorders)*
0.6%	Infection *(e.g., hepatitis, malaria)*
3.7%	Other *(e.g., allergies, non-specific pain, amputations, learning disorders)*
5.9%	Skipped question

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[25] World Health Organization (2015). *International Statistical Classification of Diseases and Related Health Problems (10th Revision) (ICD-10)*. Retrieved from http://apps.who.int/classifications/icd10/browse/2015/en.

Does your condition, impairment or disability affect your work and/or studies?

n = 909 who indicated that they had a long-term medical condition, impairment, or disability in the question above

  60.8%   No
  39.2%   Yes

If yes, please specify the extent to which it affects your work and/or studies:

8.7%	1	Very little
26.7%	2	
33.4%	3	
19.9%	4	
11.2%	5	Very much
356	*n*	
2.98 (1.13)	Mean (SD)	

Note:
- The *n* refers to the number who indicated that they had a long-term medical condition, impairment, or disability that affects their work/studies and who answered the question.

To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries or moving a chair?

0.4%	1	Not at all
1.8%	2	A little
3.7%	3	Moderately
9.1%	4	Mostly
85.1%	5	Completely
5,622	*n*	
4.77 (0.64)	Mean (SD)	

Note:
- The *n* refers to the number who answered the question.

Does your health limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports?

1.2%	1	Cannot do
3.2%	2	Quite a lot
11.1%	3	Somewhat
22.2%	4	Very little
62.2%	5	Not at all
5,618	*n*	
4.41 (0.90)	Mean (SD)	

Note:
- The *n* refers to the number who answered the question.

Have you had an unintentional injury (i.e., an accident) in the last year that 24 hours later resulted in you not being able to do the things you normally do (e.g., housework, sport, work)? An unintentional injury includes things such as fractures, concussions, burns, etc., and may be the result of events such as a fall or car crash, etc.

70.8%   No
21.2%   Yes
 8.0%   Skipped question

In the last 12 months, have you smoked at least one cigarette each day for a month or more?

85.4%   No
 6.7%   Yes
 7.9%   Skipped question

How many cigarettes do you typically smoke each day?

406	n
6.05 (5.82)	Mean (SD)
5	Median
0	Mode
1 – 10	Interquartile range
0 – 40+	Range

Note:
- The n refers to the number who indicated that they had smoked in the last 12 months and answered the question.

Have you used cannabis in the last 12 months?

78.1%   No
13.7%   Yes
 8.2%   Skipped question

In the last 12 months, how many times have you used cannabis?

2.4%   1   Daily
2.2%   2   About 5 - 6 times a week
2.6%   3   About 3 - 4 times a week
2.0%   4   Twice a week
2.3%   5   Once a week
7.3%   6   Two to three times a month
5.3%   7   Once a month
6.5%   8   Once every 6 weeks in the last 12 months
25.2%   9   3 to 6 times in the last 12 months
44.2%   10   1 or 2 times in the last 12 months
834   *n*

Notes:
- The *n* refers to the number who indicated that they used cannabis in the last 12 months and answered the question.
- The median cannabis use bracket is highlighted.

How often do you have a drink containing alcohol?

  9.4% Never
  8.1% Almost never
  10.3% Less than once a month
  8.3% Once a month
  12.2% Once every two weeks
  16.7% Once a week
  18.8% Two or three times a week
  5.5% Four or five times a week
  2.6% Six or seven times a week
  8.1% Skipped question

Note:
- The median alcohol use bracket is highlighted.

How many standard drinks containing alcohol do you have on a typical day when you are drinking?

  5,024 *n*
  3.17 (2.73) Mean (SD)
  2 Median
  2 Mode
  2 – 4 Interquartile range
  1 – 25+ Range

Note:
- The *n* refers to the number who indicated that they drank at least some alcohol (i.e., excluding those who indicated that they never drank alcohol) and answered the question.

How often do you have six or more standard drinks on one occasion?

  29.0% Never
  30.5% Once or twice a year
  18.1% Less than monthly
  14.1% Monthly
  7.7% Weekly
  0.2% Daily or almost daily
  5,031 *n*

Notes:
- The *n* refers to the number who indicated that they drank at least some alcohol (i.e., excluding those who indicated that they never drank alcohol) and answered the question.
- The median bracket is highlighted.

Have you failed a police breathalyzer or blood alcohol test in the last year?

  91.7% No
  0.3% Yes
  8.0% Skipped question

General Feelings

Warwick-Edinburgh Mental Wellbeing Scale

Below are some statements about feelings and thoughts. Please select the option that best describes your experience of each of these over the last 2 weeks.

Response options: 1 - None of the time; 2 - Rarely; 3 - Some of the time; 4 - Often; 5 - All of the time

- I've been feeling optimistic about the future.
- I've been feeling useful.
- I've been feeling relaxed.
- I've been feeling interested in other people.
- I've had energy to spare.
- I've been dealing with problems well.
- I've been thinking clearly.
- I've been feeling good about myself.
- I've been feeling close to other people.
- I've been feeling confident.
- I've been able to make up my own mind about things.
- I've been feeling loved.
- I've been interested in new things.
- I've been feeling cheerful.

Data were summed to create a total score for all 14 items (min = 14, max = 70). If respondents had answered at least half of the questions, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (*n* = 21 cases). Higher scores reflect greater mental wellbeing.

5,614 (92.0%)	*n* (%)
51.24 (8.22)	Mean
52	Median
54	Mode*
46 – 56	Interquartile range
14 – 70	Range

* Multiple modes exist; the smallest value is shown.

Mental Well-being

Warwick-Edinburgh Mental Wellbeing Scale (14 items)
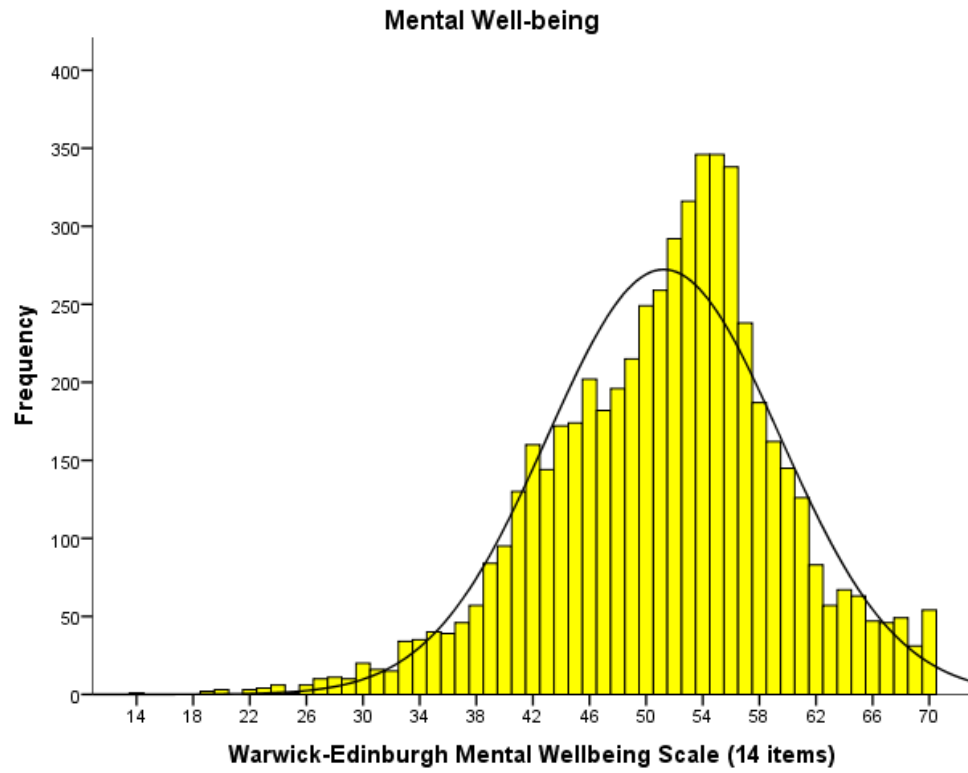
Rosenberg Self-Esteem Scale

Below is a list of statements dealing with your general feelings about yourself. Please indicate how much you agree or disagree with each statement. Your choices are:

Response options: 1 - Strongly disagree; 2 - Disagree; 3 - Agree; 4 - Strongly agree

- On the whole, I am satisfied with myself.
- I feel that I have a number of good qualities.
- I am able to do things as well as most other people.
- I feel that I'm a good person of worth, at least on an equal plane with others.
- I take a positive attitude toward myself.

Data were summed to create a total score for all five items (min = 5, max = 20). If respondents had answered at least half of the questions, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (n = 13 cases). Higher scores reflect higher self-esteem.

5,603 (91.8%)	n (%)
16.49 (2.55)	Mean
16	Median
15	Mode
15 – 19	Interquartile range
5 – 20	Range
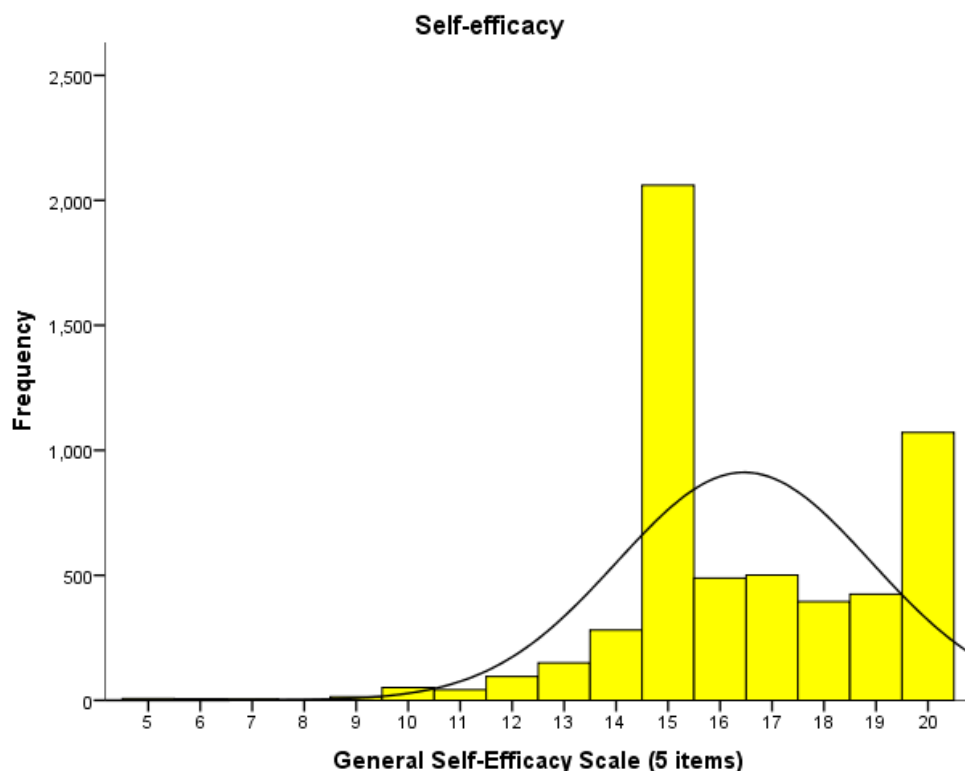
Self-esteem
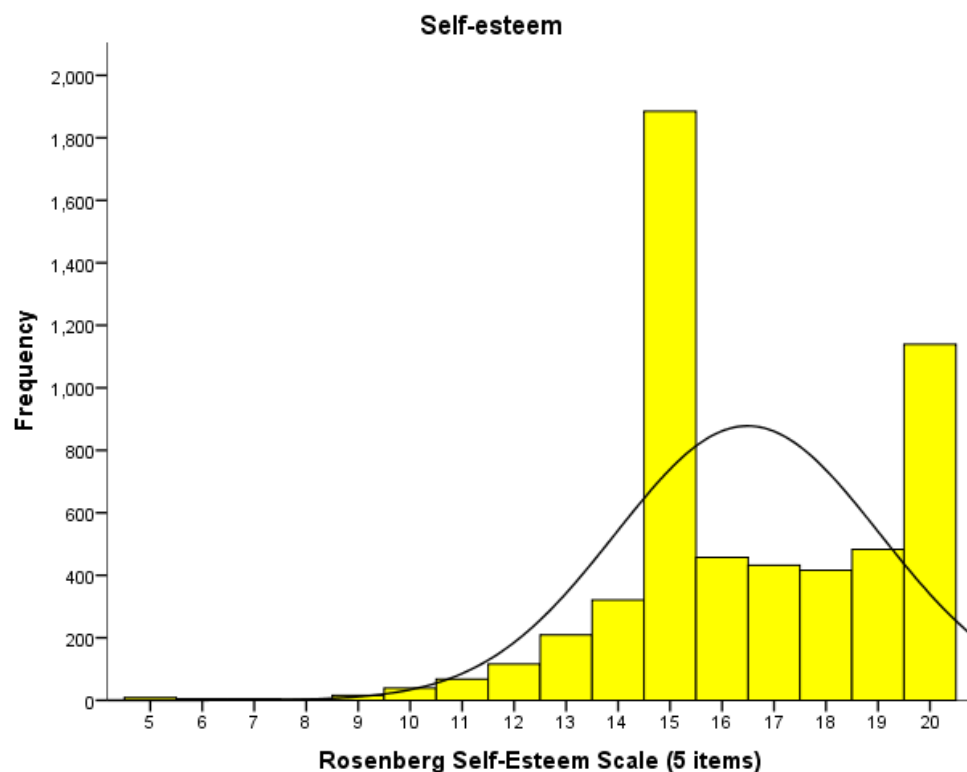
General Self-Efficacy Scale

Please indicate/rate the extent to which the following statements apply to you. Your choices are:

Response options: 1 - Not at all true; 2 - Hardly true; 3 - Moderately true; 4 - Exactly true

- I am confident that I could deal efficiently with unexpected events.
- Thanks to my resourcefulness, I know how to handle unforeseen situations.
- I can remain calm when facing difficulties because I can rely on my coping abilities.
- If I am in trouble, I can usually think of a solution.
- I can usually handle whatever comes my way.

Data were summed to create a total score for all five items (min = 5, max = 20). If respondents had answered at least half of the questions, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (*n* = 10 cases). Higher scores reflect a greater sense of general self-efficacy.

5,595 (91.7%)	*n* (%)
16.46 (2.45)	Mean
16	Median
15	Mode
15 – 19	Interquartile range
5 – 20	Range

Here is a scale from 0-10. On it "0" means that you are completely dissatisfied and "10" means that you are completely satisfied. Using the scale…
- **How dissatisfied or satisfied are you about the way your life has turned out so far?**
- **How dissatisfied or satisfied do you expect to be in ten years' time?**

Life so far	10 years' time		
0.6%	0.3%	0	Completely dissatisfied
0.8%	0.3%	1	
1.8%	0.3%	2	
3.0%	0.8%	3	
3.1%	0.8%	4	
5.0%	2.7%	5	
11.5%	3.5%	6	
23.1%	9.4%	7	
29.1%	29.0%	8	
14.2%	33.3%	9	
7.7%	19.7%	10	Completely satisfied
5,586	5,568		*n*
7.20 (1.90)	8.35 (1.50)		Mean (SD)
8	9		Median
8	9		Mode
6 – 8	8 – 9		Interquartile range
0 – 10	0 – 10		Range

Note:
- The *n* refers to the number who answered the question.

Some people feel that they have complete free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale to indicate how much freedom of choice and control you feel you have over the way your life turns out.

0.3%	1	No choice at all
0.5%	2	
1.5%	3	
2.1%	4	
3.2%	5	
7.1%	6	
17.0%	7	
28.4%	8	
19.0%	9	
21.1%	10	A great deal of choice
5,584		*n*
8.00 (1.67)		Mean (SD)
8		Median
8		Mode
7 – 9		Interquartile range
1 – 10		Range

Note:
- The *n* refers to the number who answered the question.

Social Support

Multidimensional Scale of Perceived Social Support

Social support was assessed using a standardised 12-item questionnaire designed to reflect three factor groups relating to the source of the support (family, friends, significant other).

Response options: 1 - Very Strongly Disagree; 2 - Strongly Disagree; 3 - Mildly Disagree; 4 - Neutral; 5 - Mildly Agree; 6 - Strongly Agree; 7 - Very Strongly Agree

- There is a special person who is around when I am in need. *[significant other]*
- There is a special person with whom I can share my joys and sorrows. *[significant other]*
- My family really tries to help me. *[family]*
- I get the emotional help and support I need from my family. *[family]*
- I have a special person who is a real source of comfort to me. *[significant other]*
- My friends really try to help me. *[friends]*
- I can count on my friends when things go wrong. *[friends]*
- I can talk about my problems with my family. *[family]*
- I have friends with whom I can share my joys and sorrows. *[friends]*
- There is a special person in my life who cares about my feelings. *[significant other]*
- My family is willing to help me make decisions. *[family]*
- I can talk about my problems with my friends. *[friends]*

Each source of support was coded as a subscale, by computing the sum of the items within each subscale (min = 4, max = 28). If respondents had answered at least half of the questions within each subscale, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (n = 12 cases (family), 9 cases (friends), 10 cases (significant other)). Higher scores within each subscale indicate greater social support.

Statistic	Source of support		
	Family	**Friends**	**Significant other**
n (%)	5,584 (91.5%)	5,574 (91.3%)	5,573 (91.3%)
Mean (SD)	23.10 (4,71)	22.29 (4.61)	23.07 (5.79)
Median	24	23	24
Mode	28	24	28
Interquartile range	21 – 27	20 – 25	20 – 28
Range	4 – 28	4 – 28	4 – 28

Family Support

Perceived Social Support - Family (4 items)

Friends' Support

Perceived Social Support - Friends (4 items)

Significant Other's Support

Perceived Social Support - Significant Other (4 items)
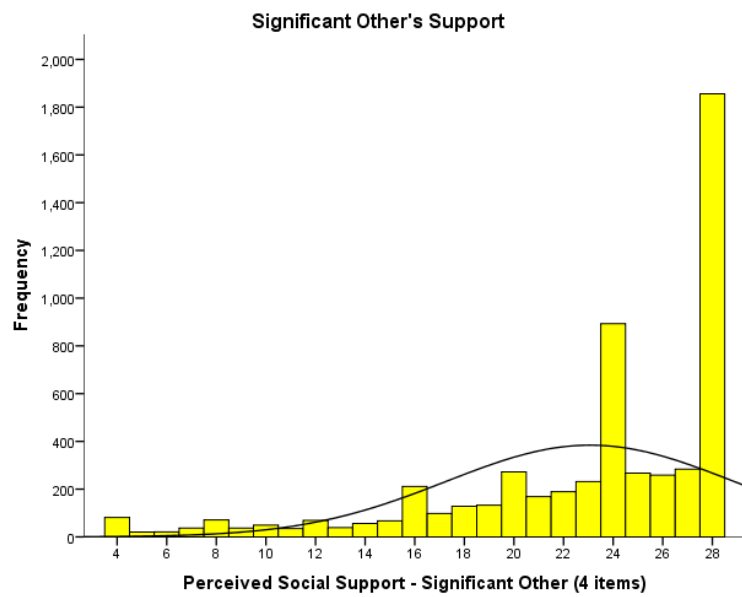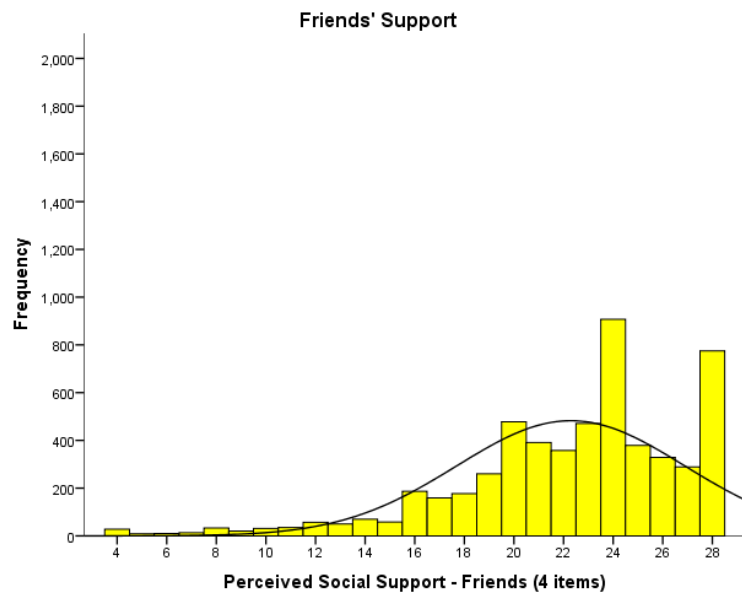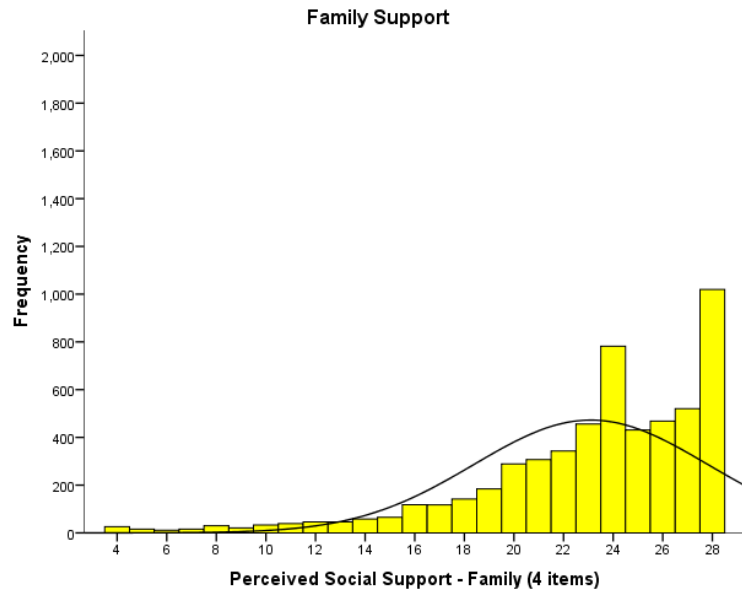
How often do you meet socially with…?

Friends	Work colleagues	Neighbours		
30.3%	5.9%	2.9%	1	Several times a week
30.7%	15.2%	4.3%	2	Once a week
19.9%	15.9%	5.2%	3	2 or 3 times a month
9.0%	15.1%	6.0%	4	Once a month
8.0%	26.0%	18.9%	5	Less than once a month
1.6%	14.7%	58.2%	6	Never
0.6%	7.2%	4.4%		N/A
5,579	5,573	5,577		*n*

Notes:
- The *n* refers to the number who answered the question.
- The median brackets are highlighted.

In which of the following situations would you be able to rely on [family/friends/work colleagues, neighbours, or acquaintances (others)] to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply.

Family	Friends	Others	
69.4%	68.2%	48.8%	Help if you were threatened, harassed or assaulted
71.1%	74.6%	30.4%	Discuss personal problems
61.5%	48.1%	19.9%	Borrow valuable goods (car, use of house, lawn mower, electric drill, etc.)
58.9%	43.0%	15.6%	Help with household tasks, shopping, gardening, etc.
48.1%	34.2%	27.9%	Help with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.
66.1%	23.0%	4.7%	Borrow money
43.3%	26.7%	8.7%	Occasional care for a dependant member of your household (child, elderly, disabled, etc.)
42.1%	15.1%	2.6%	Personal care including washing, dressing, eating, etc.
3.0%	5.6%	23.9%	None of the above
9.4%	9.5%	9.7%	Skipped question

Notes:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104).
- Ordered from most to least frequently endorsed overall.

In the last 12 months, did you, yourself, help or support [family/friends/work colleagues, neighbours, or acquaintances (others)]? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply.

Family	Friends	Others	
68.4%	72.9%	42.1%	Discussed personal problems
64.6%	39.8%	11.8%	Helped with household tasks, shopping, gardening, etc.
33.1%	30.9%	9.9%	Lent valuable goods (car, use of house, lawn mower, electric drill, etc.)
33.0%	21.3%	13.1%	Helped with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.
27.7%	21.4%	6.0%	Lent money
31.0%	13.6%	4.0%	Occasional care for a dependant member of their household (child, elderly, disabled, etc.)
22.9%	7.7%	1.9%	Provided personal care including washing, dressing, eating, etc.
8.1%	12.4%	5.6%	Helped them if they were threatened, harassed or assaulted
6.6%	8.5%	36.0%	None of the above
9.6%	9.7%	9.9%	Skipped question

Notes:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104).
- Ordered from most to least frequently endorsed overall.

Some people have extra family responsibilities because they look after someone who is dependant and needs help or care because this person is long-term ill, handicapped, disabled, etc. Do you provide regular care to a person(s) in this situation who is…? If so, approximately how many hours per week do you provide care to this person(s)?

Response	Percent	n	Hours of care per week				
			Mean (SD)	Median	Mode	I. Q. Range[**]	Range
19 years or under	2.8%	170	26.18 (23.37)	18	60+	6 − 60+	1 − 60+
20-64 years old	1.9%	112	9.53 (13.96)	4	1	2 − 10	1 − 60+
65 years or older	3.5%	210	9.23 (15.07)	4	1[*]	2 − 7	1 − 60+
None of the above	82.6%	-	-	-	-	-	-
Skipped question	9.7%	-	-	-	-	-	-

Notes:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104).
- The *n* refers to the number of participants who endorsed each option and answered the questions regarding hours of care given.
- [*] Multiple modes exist; the smallest value is shown.
- [**] IQ range = interquartile range

Personal Characteristics

Personal Style

Big Five Inventory

Personality was assessed using a standardised 44-item questionnaire designed to reflect five personality dimensions:[26]

- Extraversion: Implies an *energetic approach* toward the social and material world and includes traits such as sociability, activity, assertiveness, and positive emotionality.
- Agreeableness: Contrasts a *prosocial and communal orientation* toward others with antagonism and includes traits such as altruism, tender-mindedness, trust, and modesty.
- Conscientiousness: Describes *socially prescribed impulse control* that facilitates task- and goal-directed behaviour, such as thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks.
- Neuroticism: Contrasts emotional stability and even-temperedness with *negative emotionality*, such as feeling anxious, nervous, sad, and tense.
- Openness: Describes the breadth, depth, originality, and complexity of an individual's *mental and experiential life*.

Each personality dimension was coded as a subscale, by computing the mean of the items within each subscale, after relevant items had been reverse coded. If respondents had answered at least half of the questions within each subscale, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (n = 25 cases (extraversion), 20 cases (agreeableness), 18 cases (conscientiousness), 15 cases (neuroticism), 25 cases (openness)). Higher mean scores within each subscale indicate greater endorsement of those traits.

Dimension	*n* (%)	Mean (SD)	Median	Mode	I.Q. Range*	Range
Extraversion	5,547 (90.9%)	3.25 (0.77)	3.25	3.25	2.75 − 3.75	1.00 − 5.00
Agreeableness	5,543 (90.8%)	3.89 (0.56)	3.89	3.89	3.56 − 4.33	1.22 − 5.00
Conscientiousness	5,544 (90.8%)	3.85 (0.60)	3.89	3.78	3.44 − 4.33	1.11 − 5.00
Neuroticism	5,544 (90.8%)	2.76 (0.74)	2.75	2.88	2.25 − 3.25	1.00 − 5.00
Openness	5,543 (90.8%)	3.65 (0.56)	3.60	3.60	3.30 − 4.00	1.20 − 5.00

*IQ range = interquartile range

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[26] The definitions above were taken directly (as-is) from: John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big-Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York: Guilford Press.
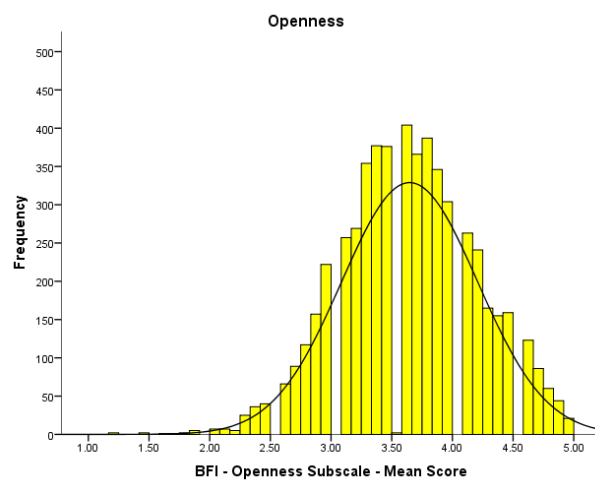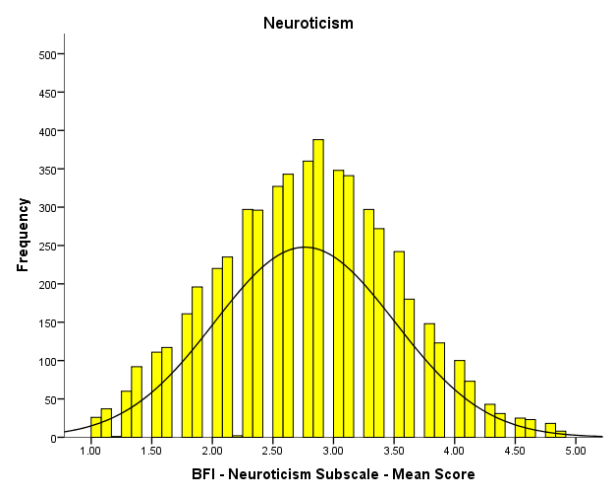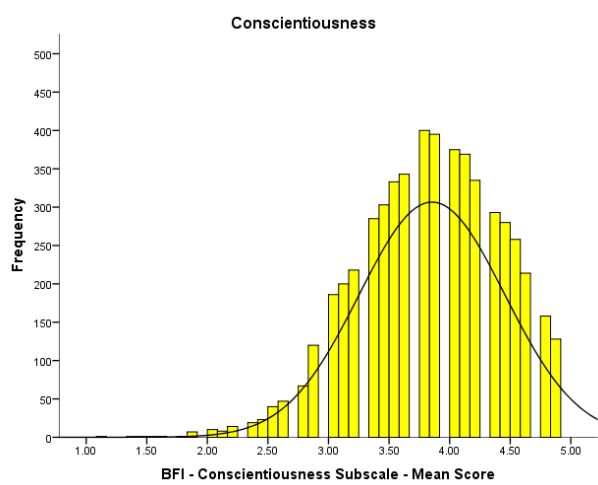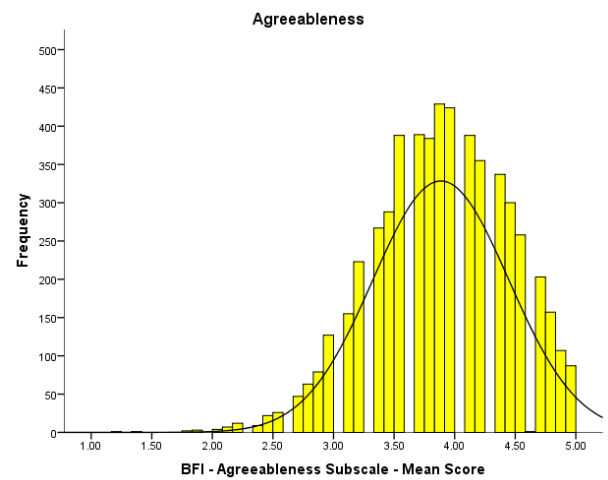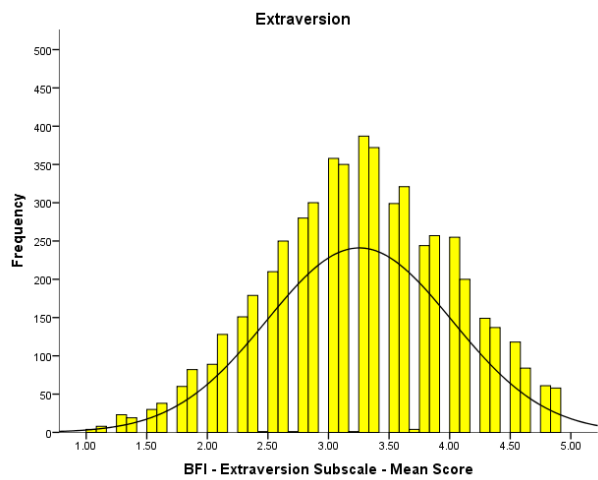
I see myself as someone who is mature for my age

1.4%	1	Disagree strongly
7.0%	2	Disagree a little
28.1%	3	Neither agree nor disagree
38.0%	4	Agree a little
25.6%	5	Agree strongly
5,527		*n*
3.79 (0.95)		Mean (SD)

Note:
- The *n* refers to the number of participants who answered the question.

Community Involvement

Local Community Involvement

Social Capital Questionnaire

Social capital was assessed using 15 items from the Social Capital Questionnaire. The 15 items comprise three factors, in addition to an overall measure of social capital comprising all 15 items.

These questions ask about your participation in your local community, that is, where you are living now. Please choose the option that best indicates your level of community involvement.

Response options: Range from 1 - No, not at all to 4 - Yes, frequently/definitely/very active, etc.

Participation in the local community:
- Do you help out a local group as a volunteer (e.g., marae, kōhanga reo, Girl Guides, Lifeline, kindergarten)?
- Have you attended a local community event in the past 6 months (e.g., church fair, school concert, craft exhibition)?
- Are you an active member of a local organisation or club (e.g., church, sport, craft, social club)?
- Are you on a management committee or organising committee for any local group or organisation (e.g., marae organisation, play centre)?
- In the past 3 years, have you ever joined a local community action to deal with an emergency?
- In the past 3 years, have you ever taken part in a local community project?
- Have you ever been part of a project to organise a new service in your area (e.g., youth club, Scout hall, child care, recreation for disabled)?

Social agency or proactivity in a social context:
- Have you ever picked up other people's rubbish in a public place?
- Do you go outside your local community to visit your family?
- If you need information to make a life decision, do you know where to find that information?
- If you disagree with what everyone else agreed on, would you feel free to speak out?
- If you have a dispute with your neighbours (e.g., over fences or dogs) are you willing to seek mediation?
- Do you take the initiative to do what needs to be done even if no one asks you to?

Tolerance of diversity:
- Do you think that multiculturalism makes life in your area better?
- Do you enjoy living among people of different lifestyles?

Each factor group was coded as a subscale, by computing the mean of the items within each subscale. In addition, overall social capital was assessed by computing the mean of all 15 items. If respondents had answered at least half of the questions within each subscale and overall, scores for the missing questions were generated using the mean score of all other questions that had been answered (and rounding to the nearest whole number) (*n* = 15 cases (participation), 96 cases (agency), 31 cases (tolerance), 135 cases (overall social capital)). Higher mean scores within each subscale and overall indicate greater social capital.

Statistic	Factor group			Overall
	Participation	Agency	Tolerance	
n (%)	5,536 (90.7%)	5,532 (90.6%)	5,521 (90.4%)	5,536 (90.7%)
Mean (SD)	1.80 (0.70)	3.12 (0.49)	3.33 (0.69)	2.53 (0.46)
Median	1.57	3.17	3.50	2.47
Mode	1.00	3.17*	4.00	2.40
Interquartile range	1.29 – 2.29	2.83 – 3.50	3.00 – 4.00	2.20 – 2.80
Range	1.00 – 4.00	1.00 – 4.00	1.00 – 4.00	1.00 – 4.00

*Multiple modes exist; the smallest value is shown.
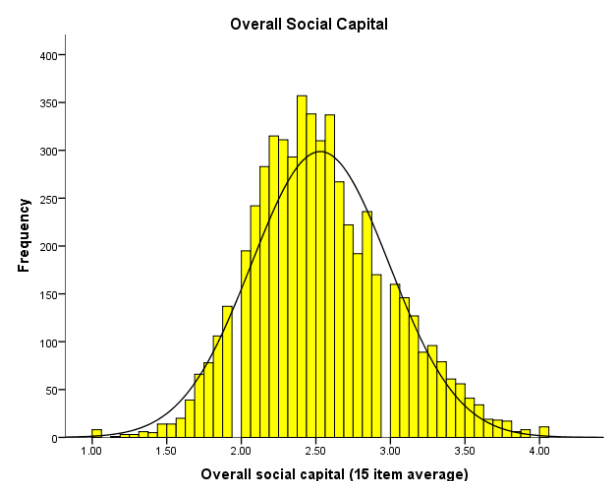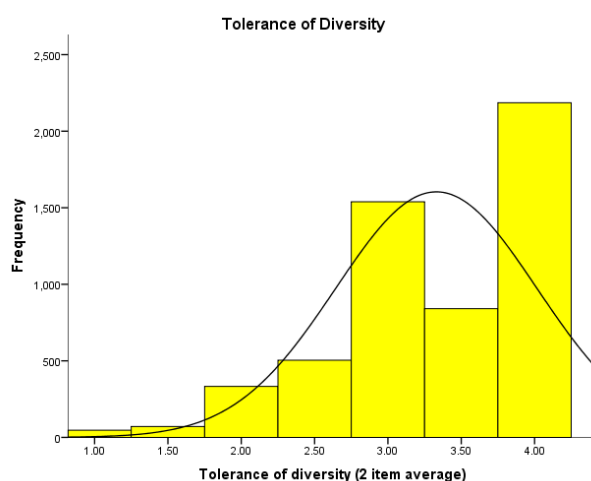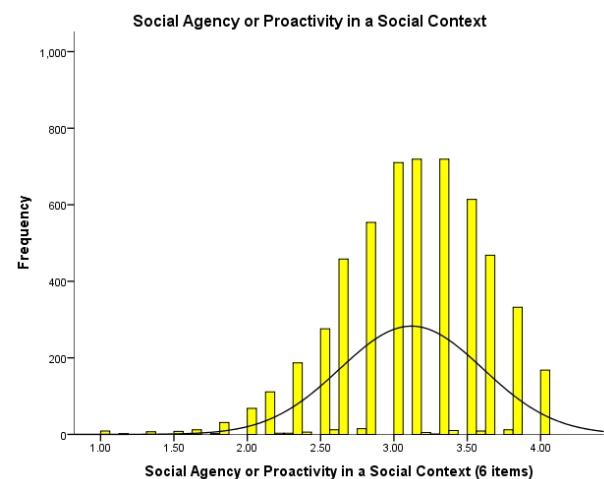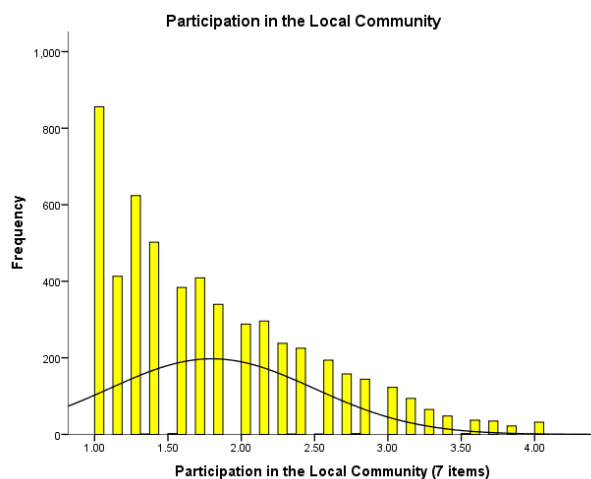
When elections take place, do you vote always, usually, sometimes, or never? Please tell us separately for each of the following levels:

- **Local level (e.g., city/district councils)**
- **National level (e.g., national government, referendums, etc.)**

Local	National		
32.5%	68.7%	1	Always
24.6%	15.0%	2	Usually
24.7%	9.4%	3	Sometimes
18.2%	7.0%	4	Never
5,497	5,497		*n*
2.29 (1.10)	1.55 (0.92)		Mean (SD)
2	1		Median
1	1		Mode
1 – 3	1 – 2		Interquartile range
1 – 4	1 – 4		Range

Note:
- The *n* refers to the number of participants who answered the questions.

People sometimes belong to different kinds of groups or associations. The list below contains different types of groups. For each type of group, please indicate whether you have participated in the activities of this group in the <u>past 12 months</u>.

Response options: 0 - I do not belong to such a group; 1 - I belong to such a group but never participate; 2 - I have participated once or twice; 3 - I have participated more than twice

Group	*n*	Mean (SD)	Percent of endorsements			
			0	1	2	3
A sports group, hobby or leisure club	5,518	1.46 (1.41)	46.0	2.0	11.5	40.4
A church or other religious organisation	5,508	0.67 (1.18)	73.7	3.9	4.7	17.8
A charitable organisation or group	5,515	0.80 (1.20)	66.0	4.9	11.8	17.4
A trade union or professional association	5,508	0.77 (1.08)	60.4	14.8	12.6	12.2
A political party, club or association	5,509	0.28 (0.78)	86.6	3.3	5.1	5.0
A neighbourhood association or group	5,517	0.23 (0.69)	89.0	2.8	4.9	3.4
Other associations or groups	5,497	0.13 (0.58)	95.0	0.4	1.3	3.3

Notes:
- Ordered from most to least frequently endorsed '3' ratings.
- The *n* refers to the number who answered the question.

If participants indicated that they had participated in other associations or groups, they were asked to specify the group(s)/association(s). Responses were classified into groups as follows:

0.8%	Parent/child community groups
0.7%	Student associations
0.5%	Expat community/cultural groups
0.5%	Other community groups
0.3%	Māori/iwi organisations/trusts
0.2%	Alumni associations
0.2%	School/education community groups
0.1%	Co-operative community groups
0.1%	Online communities
0.1%	Support groups
0.05%	Miscellaneous
0.2%	Unclear
0.7%	Skipped question
276	*n*

Note:
- The *n* refers to the number who endorsed some participation in other groups but note that percentages are expressed as proportions of the total sample (N = 6,104).

National/International Community Involvement

Are you an active member of a national/international organisation (e.g., Red Cross, Search and Rescue, Greenpeace, Amnesty International, World Vision)?

69.9%	1	No, not at all
14.1%	2	
11.8%	3	
4.1%	4	Yes, very active
5,525		*n*
1.50 (0.86)		Mean (SD)

Note:
- The *n* refers to the number of participants who answered the question.

Life Circumstances

Life Circumstances

Everyone deals with stressful events. Since the first survey in 2011, have any of the following happened to you? Select all that apply.

27.2%   Death of a relative or close friend
19.6%   Difficulty paying bills
19.3%   Multiple residential changes
12.9%   Not having enough money to pay for food or household expenses
12.8%   A break-up of a cohabiting, intimate relationship
10.7%   Experiencing a natural disaster
10.3%   Long-term unemployment (6 months or more)
 9.0%   Lacking money for medical expenses
 5.6%   A disabling injury lasting a month or more
 4.1%   A disabling physical illness lasting a month or more
 3.9%   Being made redundant
 2.1%   Problems with debt, such as having items repossessed
 1.9%   Being involved in a violent or abusive relationship
 1.2%   Being fired
 0.8%   Homelessness
15.7%   Other stressful event:
       6.1%   Relationship problems
       2.7%   Work-related issues
       1.9%   Health problems
       1.3%   Residential issues
       0.9%   Study-related issues
       0.4%   Crime/victimisation
       0.3%   Bereavement/loss
       0.2%   Accident
       0.1%   Financial issues
       0.4%   Miscellaneous
       0.1%   Unclear
       1.1%   Skipped question
23.3%   None of these events happened to me
 9.4%   Skipped question

Note:
- Participants were able to endorse as many items as applied, hence percentages do not sum to 100%. Percentages are expressed as proportions of the total sample (N = 6,104).

For the events you have told us about, how much negative impact did each one have on your life?

Response options: 0 - None at all to 4 - A great deal

Event	n	Mean (SD)	Percent of endorsements				
			0	1	2	3	4
Being involved in a violent or abusive relationship	117	3.36 (0.91)	-	6.8	8.5	26.5	58.1
Other stressful event	955	3.21 (1.00)	1.8	6.2	12.0	29.3	50.7
A disabling physical illness lasting a month or more	249	3.20 (0.93)	0.8	5.2	14.9	30.9	48.2
A break-up of a cohabiting, intimate relationship	778	3.04 (1.06)	1.7	9.1	17.4	27.6	44.2
Problems with debt, such as having items repossessed	126	2.91 (1.05)	3.2	5.6	23.8	31.7	35.7
Homelessness	49	2.65 (1.30)	8.2	12.2	20.4	24.5	34.7
Long-term unemployment (6 months or more)	629	2.61 (1.28)	7.2	15.6	18.9	26.2	32.1
A disabling injury lasting a month or more	344	2.80 (1.06)	2.0	11.0	22.7	33.4	30.8
Death of a relative or close friend	1,659	2.75 (1.07)	2.1	11.8	25.4	30.9	29.8
Not having enough money to pay for food or household expenses	785	2.75 (1.03)	2.0	10.6	24.2	36.7	26.5
Lacking money for medical expenses	550	2.63 (1.08)	2.0	15.5	25.5	31.6	25.5
Being fired	73	2.42 (1.28)	9.6	16.4	19.2	31.5	23.3
Experiencing a natural disaster	651	2.33 (1.21)	6.1	22.4	25.2	24.6	21.7
Difficulty paying bills	1,197	2.54 (1.06)	2.3	16.1	28.0	32.7	20.9
Being made redundant	239	2.33 (1.24)	8.8	20.1	20.1	31.8	19.2
Multiple residential changes	1,178	1.66 (1.20)	19.7	28.5	25.1	19.8	6.9

Notes:
- The *n* refers to the number of participants who had endorsed each option in the previous question and answered the questions regarding negative impact of the stressful events.
- Ordered from most to least frequently endorsed '4' ratings.

General Comments

General Comments

To help us plan better in the future, please tell us what you thought about the length of the survey.

- 8.1%   I'd be happy to answer more questions
- 35.9%   It was just about right
- 46.6%   It was too long
- 9.3%   Skipped question

If there is anything else you would like to mention about the survey or the study that you feel is important, please write it below.

- 73.9%   No comment provided
- 17.0%   Comment provided
- 9.1%   Skipped question

If participants provided a comment (*n* = 1,040), their response was classified as follows:

- 48.6%   Negative feedback about survey content (e.g., content/layout/format of the survey questions)
- 22.6%   Negative feedback about length of survey (e.g., survey was too long, inaccurate indication of time to complete)
- 21.1%   Clarification (e.g., extra information provided to clarify particular responses)
- 13.9%   Positive feedback (e.g., positive comments about the survey relating to both survey content and technical issues)
- 11.2%   Provision of extra information (e.g., comments about participants' lives not in the nature of clarification regarding future plans, family situations, reflections, other achievements, etc.)
- 10.5%   Other positive feedback (e.g., appreciation at being able to participate, expressions of interest in further results, well wishes)
- 5.9%   Other comments (e.g., direct comments to GLSNZ team to request email address changes, feedback/results, suggestions for data analysis, etc.)
- 5.4%   Negative feedback about technical issues (e.g., critical comments about how the website and online survey operated)
- 2.3%   Negative comments about participants' university or university study in general
- 1.4%   Suggestions to include prizes/incentives for completion
- 1.4%   Positive comments about participants' university or university study in general
- 1.0%   Privacy concerns (e.g., concern about privacy and confidentiality)
- 1.1%   Unclear

Note:
- Classification of responses into multiple categories was possible, hence percentages do not sum to 100%. Percentages are expressed as proportions of the sample who made a comment (*n* = 1,040).

APPENDIX 1: GLSNZ FOLLOW-UP SAMPLE COMPARISON WITH BASELINE

The following series of tables shows the proportion of the 2011 Baseline sample (N = 8,719) who participated in the 2014 Follow-up Survey. Note that for participants, data are based on participants' responses to the Follow-up Survey items, with information supplemented by Baseline Survey responses and university-provided information in cases where certain questions were skipped. For non-participants, data are based on Baseline Survey responses and university-provided information.

Note:
- Percentages are based on row totals, with the exception of percentages in the "Total" columns, which are based on the overall total (N = 8,719).

Table A1.01. Follow-up Survey response rates by sex

Sex	2014 Follow-up Survey					
	Participants		Non-participants		Total	
Male	2,195	(67.0%)	1,082	(33.0%)	3,277	(37.6%)
Female	3,909	(71.8%)	1,533	(28.2%)	5,442	(62.4%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Table A1.02. Follow-up Survey response rates by ethnicity

Ethnicity	2014 Follow-up Survey					
	Participants		Non-participants		Total	
European	4,127	(76.1%)	1,294	(23.9%)	5,421	(62.2%)
Māori	455	(72.7%)	171	(27.3%)	626	(7.2%)
Pacific Peoples	168	(66.1%)	86	(33.9%)	254	(2.9%)
Asian	1,059	(53.8%)	910	(46.2%)	1,969	(22.6%)
Middle Eastern/Latin American/African	137	(62.8%)	81	(37.2%)	218	(2.5%)
Other Ethnicity	21	(95.5%)	1	(4.5%)	22	(0.3%)
Multiple	132	(71.7%)	52	(28.3%)	184	(2.1%)
Unclear	5	(20.0%)	20	(80.0%)	25	(0.3%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Table A1.03. Follow-up Survey response rates by age

| Age band | 2014 Follow-up Survey | | | | | |
	Participants		Non-participants		Total	
20-24 years	1,553	(70.4%)	654	(29.6%)	2,207	(25.3%)
25-29 years	2,158	(66.1%)	1,107	(33.9%)	3,265	(37.4%)
30-34 years	704	(66.2%)	359	(33.8%)	1,063	(12.2%)
35-39 years	454	(71.7%)	179	(28.3%)	633	(7.3%)
40-44 years	392	(78.7%)	106	(21.3%)	498	(5.7%)
45-49 years	292	(76.4%)	90	(23.6%)	382	(4.4%)
50-54 years	254	(81.2%)	59	(18.8%)	313	(3.6%)
55-59 years	166	(82.2%)	36	(17.8%)	202	(2.3%)
60-64 years	84	(80.8%)	20	(19.2%)	104	(1.2%)
65-69 years	33	(91.7%)	3	(8.3%)	36	(0.4%)
70+ years	14	(87.5%)	2	(12.5%)	16	(0.2%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Note:
- Age bands are based on calculations of age as it would have been at the completion of the 2014 Follow-up Survey (5 September 2014).

Table A1.04. Follow-up Survey response rates by level of study

| NZQF Level | 2014 Follow-up Survey | | | | | |
	Participants		Non-participants		Total	
Level 7	3,347	(66.3%)	1,703	(33.7%)	5,050	(57.9%)
Level 8	1,488	(73.3%)	543	(26.7%)	2,031	(23.3%)
Level 9	902	(75.2%)	297	(24.8%)	1,199	(13.8%)
Level 10	367	(83.6%)	72	(16.4%)	439	(5.0%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Table A1.05. Follow-up Survey response rates by EFTS load

Total sample:

| EFTS Load | 2014 Follow-up Survey | | | | | |
	Participants		Non-participants		Total	
Full-time	3,833	(69.7%)	1,644	(30.3%)	5,497	(63.0%)
Part-time	2,209	(70.0%)	945	(30.0%)	3,154	(36.2%)
Unclear	62	(91.2%)	6	(8.8%)	68	(0.8%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Sample excluding non-criterion university:

| EFTS Load | 2014 Follow-up Survey | | | | | |
	Participants		Non-participants		Total	
Full-time	3,207	(69.8%)	1,387	(30.2%)	4,594	(63.8%)
Part-time	1,768	(69.8%)	765	(30.2%)	2,533	(35.2%)
Unclear	62	(91.2%)	6	(8.8%)	68	(0.9%)
Total	5,037	(70.0%)	2,158	(30.0%)	7,195	(100%)

Table A1.06. Follow-up Survey response rates by mode of study

Mode of Study	2014 Follow-up Survey					
	Participants		Non-participants		Total	
Extramural	741	(75.8%)	236	(24.2%)	977	(11.2%)
Intramural	5,363	(69.3%)	2,379	(30.7%)	7,742	(88.8%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Table A1.07. Follow-up Survey response rates by broad field of study

Field of Study	2014 Follow-up Survey					
	Participants		Non-participants		Total	
Natural & Physical Sciences	777	(72.0%)	302	(28.0%)	1,079	(12.4%)
Information Technology	159	(82.4%)	34	(17.6%)	193	(2.2%)
Engineering & Related Technologies	239	(69.3%)	106	(30.7%)	345	(4.0%)
Architecture & Building	163	(70.6%)	68	(29.4%)	231	(2.6%)
Agriculture, Environmental & Related Studies	174	(75.7%)	56	(24.3%)	230	(2.6%)
Health	832	(77.2%)	246	(22.8%)	1,078	(12.4%)
Education	799	(71.7%)	316	(28.3%)	1,115	(12.8%)
Management & Commerce	1,089	(60.6%)	709	(39.4%)	1,798	(20.6%)
Society & Culture	1,349	(74.9%)	453	(25.1%)	1,802	(20.7%)
Creative Arts	367	(66.7%)	183	(33.3%)	550	(6.3%)
Multiple	146	(83.9%)	28	(16.1%)	174	(2.0%)
Unclear	10	(8.1%)	114	(91.9%)	124	(1.4%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

Table A1.08. Follow-up Survey response rates by student fee-paying status for PhD and non-PhD students

Fee-paying status	2014 Follow-up Survey					
	Participants		Non-participants		Total	
Domestic students:						
Non-PhD	5,335	(71.2%)	2,154	(28.8%)	7,489	(85.9%)
PhD	197	(87.2%)	29	(12.8%)	226	(2.6%)
Total	5,532	(71.7%)	2,183	(28.3%)	7,715	(88.5%)
International students:						
Non-PhD	402	(50.8%)	389	(49.2%)	791	(9.1%)
PhD	170	(79.8%)	43	(20.2%)	213	(2.4%)
Total	572	(57.0%)	432	(43.0%)	1,004	(11.5%)
Total	6,104	(70.0%)	2,615	(30.0%)	8,719	(100%)

As shown in the preceding tables, rates of attrition varied somewhat between sociodemographic groups. Specifically, among those more likely to have been non-responders at the First Follow-Up Survey were: Males, participants identifying as being of Asian ethnicity, younger participants, participants studying at lower NZQF levels in 2011, Management and Commerce students in 2011, and international non-PhD students in 2011, largest $\chi^2(6, N = 8694) = 360.83$, $p < .005$, $V = 0.20$. These effects were small, however, and the Follow-up Cohort remains broadly representative of all 2011 completions (please see Appendix 2 for more information about the composition of the Baseline and First Follow-up Cohorts as compared to overall national completions in 2011).

APPENDIX 2: GLSNZ BASELINE & FOLLOW-UP SAMPLE COMPARISONS WITH 2011 COMPLETIONS

The following series of tables shows the sample distributions at the 2011 Baseline Survey and the 2014 Follow-up Survey with overall national completion data for 2011 (reference group). Note that for GLSNZ Follow-up participants, data are based on participants' responses to the 2014 Follow-up Survey items, with information supplemented by Baseline Survey responses and university-provided information in cases where certain questions were skipped. For those who completed the Baseline Survey, data are based on Baseline Survey responses and university-provided information. National 2011 completion data were obtained from each University in 2012.

Table A2.01. Sample comparisons by sex

| Sex | GLSNZ Survey | | | | 2011 completions | |
	Baseline		Follow-up			
Male	3,281	(37.6%)	2,195	(36.0%)	13,792	(39.5%)
Female	5,438	(62.4%)	3,909	(64.0%)	21,114	(60.5%)
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Table A2.02. Sample comparisons by ethnicity

| Ethnicity | GLSNZ Survey | | | | 2011 completions | |
	Baseline		Follow-up			
New Zealand European	4,647	(53.3%)	3,591	(58.8%)	18,293	(52.4%)
Māori	626	(7.2%)	455	(7.5%)	2,271	(6.5%)
Samoan	97	(1.1%)	60	(1.0%)	467	(1.3%)
Cook Islands Māori	15	(0.2%)	10	(0.2%)	102	(0.3%)
Tongan	50	(0.6%)	40	(0.7%)	209	(0.6%)
Niuean	10	(0.1%)	9	(0.1%)	67	(0.2%)
Chinese	896	(10.3%)	446	(7.3%)	4,063	(11.6%)
Indian	419	(4.8%)	230	(3.8%)	1,714	(4.9%)
Other	1,596	(18.3%)	1,000	(16.4%)	7,592	(21.7%)
Multiple	363	(4.2%)	260	(4.3%)	128	(0.4%)
Unclear	-	-	3	(0.05%)	-	-
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Table A2.03. Sample comparisons by age

Age band	GLSNZ Survey				2011 completions	
	Baseline		Follow-up			
15-19 years	15	(0.2%)	10	(0.2%)	44	(0.1%)
20-24 years	4,657	(53.4%)	3,187	(52.2%)	18,734	(53.7%)
25-29 years	1,493	(17.1%)	962	(15.8%)	6,587	(18.9%)
30-34 years	755	(8.7%)	542	(8.9%)	2,894	(8.3%)
35-39 years	544	(6.2%)	401	(6.6%)	1,996	(5.7%)
40-44 years	415	(4.8%)	330	(5.4%)	1,644	(4.7%)
45-49 years	342	(3.9%)	265	(4.3%)	1,311	(3.8%)
50-54 years	265	(3.0%)	216	(3.5%)	909	(2.6%)
55-59 years	153	(1.8%)	120	(2.0%)	515	(1.5%)
60-64 years	55	(0.6%)	48	(0.8%)	184	(0.5%)
65-69 years	13	(0.1%)	13	(0.2%)	53	(0.2%)
70+ years	12	(0.1%)	10	(0.2%)	35	(0.1%)
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Note:
- Age bands are based on calculations of age as it would have been at the completion of the Baseline Survey (16 December 2011).

Table A2.04. Sample comparisons by level of study

NZQF Level	GLSNZ Survey				2011 completions	
	Baseline		Follow-up			
Level 7	5,140	(59.0%)	3,347	(54.8%)	22,339	(64.0%)
Level 8	1,990	(22.8%)	1,488	(24.4%)	7,615	(21.8%)
Level 9	1,148	(13.2%)	902	(14.8%)	3,925	(11.2%)
Level 10	435	(5.0%)	367	(6.0%)	1,027	(2.9%)
Unclear	6	(0.1%)	-	-	-	-
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Table A2.05. Sample comparisons by EFTS load

Total sample:

EFTS Load	GLSNZ Survey				2011 completions	
	Baseline		Follow-up			
Full-time	5,497	(63.0%)	3,833	(62.8%)	21,304	(61.0%)
Part-time	3,154	(36.2%)	2,209	(36.2%)	13,159	(37.7%)
Unclear	68	(0.8%)	62	(1.0%)	443	(1.3%)
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Sample excluding non-criterion university:

EFTS Load	GLSNZ Survey				2011 completions	
	Baseline		Follow-up			
Full-time	4,594	(63.8%)	3,207	(63.7%)	19,883	(62.2%)
Part-time	2,533	(35.2%)	1,768	(35.1%)	11,663	(36.5%)
Unclear	68	(0.9%)	62	(1.2%)	443	(1.4%)
Total	7,195	(100%)	5,037	(100%)	31,989	(100%)

Table A2.06. Sample comparisons by mode of study

Mode of Study	GLSNZ Survey				2011 completions	
	Baseline		Follow-up			
Extramural	977	(11.2%)	741	(12.1%)	3,305	(9.5%)
Intramural	7,742	(88.8%)	5,363	(87.9%)	31,592	(90.5%)
Unclear	-	-	-	-	9	(0.03%)
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Table A2.07. Sample comparisons by broad field of study

Field of Study	GLSNZ Survey				2011 completions	
	Baseline		Follow-up			
Natural & Physical Sciences	1,079	(12.4%)	777	(12.7%)	7,216	(20.7%)
Information Technology	193	(2.2%)	159	(2.6%)		
Engineering & Related Technologies	345	(4.0%)	239	(3.9%)		
Agriculture, Environmental & Related Studies	230	(2.6%)	174	(2.9%)	211	(0.6%)
Health	1,078	(12.4%)	832	(13.6%)	3,639	(10.4%)
Education	1,115	(12.8%)	799	(13.1%)	4,745	(13.6%)
Management & Commerce	1,798	(20.6%)	1,089	(17.3%)	7,207	(20.6%)
Society & Culture	1,802	(20.7%)	1,349	(22.6%)	10,285	(29.5%)
Creative Arts	550	(6.3%)	367	(6.0%)		
Architecture & Building	231	(2.6%)	163	(2.7%)		
Multiple[*]	174	(2.0%)	146	(2.4%)	1,008	(2.9%)
Unclear	124	(1.4%)	10	(0.2%)	595	(1.7%)
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

Notes:
- Due to different classification methods, the national 2011 completions represent best approximates.
- [*] Includes PhD students for 2011 national completions only.

Table A2.08. Sample comparisons by student fee-paying status for PhD and non-PhD students

| Fee-paying status | GLSNZ Survey | | | | 2011 completions | |
	Baseline		Follow-up			
Domestic students:						
Non-PhD	7,492	(85.9%)	5,335	(87.4%)	30,086	(86.2%)
PhD	223	(2.6%)	197	(3.2%)	732	(2.1%)
Total	7,715	(88.5%)	5,532	(90.6%)	30,818	(88.3%)
International students:						
Non-PhD	792	(9.1%)	402	(6.6%)	3,793	(10.9%)
PhD	212	(2.4%)	170	(2.8%)	295	(0.8%)
Total	1,004	(11.5%)	572	(9.4%)	4,088	(11.7%)
Total	8,719	(100%)	6,104	(100%)	34,906	(100%)

As shown in the preceding tables, there were some differences between the Baseline and Follow-up Cohorts as compared to all national completions for 2011. Specifically, compared to all 2011 completions, the GLSNZ Baseline and Follow-up Cohorts were comprised of larger proportions of: Females, participants identifying as being of New Zealand European or Māori ethnicity, older participants, participants studying at NZQF level 10 in 2011 (including international PhD students), participants studying extramurally (via distance learning) in 2011, and participants studying towards qualifications in Health or Agriculture/Horticulture in 2011, largest χ^2(9, N = 41007) = 1063.25, p < .005, V = 0.16. These effects were small, however, and like the Baseline Cohort, the Follow-up Cohort remains broadly representative of all 2011 completions.

APPENDIX 3: GLSNZ MEASUREMENT BOOK

Measurement Book

Graduate Longitudinal Study
New Zealand

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Introduction

Each measure assessed in the Graduate Longitudinal Study is listed in this document. The official name of each measure is used as the heading for each section. Where measures do not have official names (e.g., collections of individual items, such as demographic variables), an arbitrary name has been assigned. See the Measurement Table in this document for an overview of all of the measures and time of assessment. The survey will be administered at 4 time points: **T0 = 2011**, **T2 = 2014**, **T5 = 2016**, **T10 = 2021**. For each measure, this document contains the following descriptive information:

Appears as: The name under which the measure appears in the survey and the section under which it falls.

Variable names begin with: The 2–5-letter abbreviation for the measure.

Description: A brief description of what the instrument measures.

Scale construction: Any subscales and the items that comprise each subscale.

References: References from which the measures have been taken or adapted along with descriptions of the original items and ways in which they have been adapted for inclusion in the GLSNZ survey.

Waves, N. of items, N. of cases: A table outlining each wave, the items that are administered at each wave, the total number of items administered, the number of respondents at each wave, and notes regarding which items are administered at each wave and whether there have been any subsequent additions/ changes to the items.

Wave	Items	N. of items	N. of cases	Notes
T0				
T2				
T5				
T10				

Scoring: An outline of how the items are scored, how final scores are calculated, formulae for creating scale scores (if applicable), minimum and maximum values, and descriptions of what the final scores mean.

Recoding: List of items requiring reverse coding before final scores can be calculated.

Psychometrics: Psychometric data, e.g., reliability alphas, acquiescence index, and ipsatizing.

Items appear in Codebook in section: The heading under which the measure appears in the codebook along with the item range.

Rewording of original scales: Tables detailing how the wording of items have changed from the original sources along with reasons for adaptation (if applicable).

Note: Items are referred to using the 2–5-letter abbreviation, followed by the item number, underscore, and time point number (**T0**, **T2**, **T5**, **T10**). TX denotes that the item refers to all time points. Example: Item 17 of the Academic Beliefs measure would be denoted as: AB17_TX.

Measurement Book Authors

The Graduate Longitudinal Study New Zealand Measurement Book was developed by the following members of the GLSNZ team:

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Measurement Table

Name of Measure(s)	Assessment Period			
	T0 – 2011 Baseline	T2 – 2014 2 year follow-up	T5 – 2016 5 year follow-up	T10 – 2021 10 year follow-up
SECTION 1: GENERAL AND BACKGROUND INFORMATION				
General Demographics and University Details (GDUD)	✔	✘	✘	✘
General Demographics (GDUD)	✘	✔	✔	✔
Education (GDUD)	✘	✔	✔	✔
SECTION 2: YOUR UNIVERSITY EXPERIENCE				
Satisfaction with University (SU)	✔	✔	✔	✔
Reflecting on Your University Experience (RUE)	✔	✔	✔	✔
Benefits of a University Education (BUE)	✔	✔	✔	✔
Academic Beliefs (AB)	✔	✘	✘	✘
Overall Impressions (OI)	✔	✔	✔	✔
SECTION 3: ASPIRATIONS, GOALS AND VALUES				
Future Plans and Career Aspirations (FPCA)	✔	✔	✔	✔
Goals, Aspirations and Values (GAV)	✔	✔	✔	✔
SECTION 4: EARNINGS AND ASSETS (T0)/EMPLOYMENT (T2, T5, T10)				
Employment Status (EA)	✘	✔	✔	✔
Earnings and Assets (EA)	✔	✔	✔	✔
SECTION 5: HEALTH AND WELL-BEING				
General Health (GH)	✔	✔	✔	✔
General Feelings (GF)	✔	✔	✔	✔
Social Support (MSPSS)	✔	✔	✔	✔
SECTION 6: PERSONAL CHARACTERISTICS				
Personal Style (BFI)	✔	✔	✔	✔
SECTION 7: COMMUNITY INVOLVEMENT				
Local Community Involvement (LCI)	✔	✔	✔	✔
National/International Community Involvement (NCI)	✔	✔	✔	✔

Name of Measure(s)	Assessment Period			
	T0 – 2011 Baseline	T2 – 2014 2 year follow-up	T5 – 2016 5 year follow-up	T10 – 2021 10 year follow-up
SECTION 8: SUCCESS FACTORS				
Success Factors (FS)	✓	✘	✘	✘
SECTION 9: GENERAL COMMENTS AND CONTACT DETAILS (T0)/LIFE CIRCUMSTANCES, GENERAL COMMENTS AND CONTACT DETAILS (T2, T5, T10)				
Life Circumstances (GC)	✘	✓	✓	✓
General Comments (GC)	✓	✓	✓	✓

Note: ✓ = Assessed; ✓ = To be assessed; ✘ = Not assessed

Academic Beliefs (AB)

Appears as: *Academic Beliefs* (under the wider heading *SECTION 2: YOUR UNIVERSITY EXPERIENCE (*T0*)*)

Variable names begin with: AB

Description: These questions examine the extent to which the participants' self-regard is based on their academic achievements. This questionnaire consists of items from three sources described below and assesses participants' levels of intellectual and academic engagement, academic self-esteem, and academic self-efficacy.

Scale construction:

Scale	Items
Academic engagement subscale (3 items)	AB1_TX, AB2_TX, AB3_TX
Academic self-esteem subscale (5 items)	AB4_TX, AB5_TX, AB6_TX, AB7_TX, AB8_TX
Academic self-efficacy subscale (5 items)	AB9_TX, AB10_TX, AB11_TX, AB12_TX, AB13_TX

References:

Items AB1_TX, AB2_TX, AB3_TX: These items form the academic engagement subscale and were adapted from:
- Major, B., Spencer S., Schmader, T., Wolfe, C., & Crocker, J. (1998). Coping with negative stereotypes about intellectual performance: The role of psychological disengagement. *Personality and Social Psychological Bulletin, 24,* 34-50. (see p.43)

Three disengagement questions have been reworded to be more oriented towards academic achievement rather than general testing or intelligence, e.g., Original: I really don't care what tests say about my intelligence, GLSNZ: I really don't care what academic achievements say about my intellectual capacity.

Items AB4_TX, AB5_TX, AB6_TX, AB7_TX, AB8_TX: These items form the academic self-esteem subscale and were taken as is from items 9, 35, 61, 87, 112 in:
- Marsh, H.W., & O'Neill, R. (1984). Self-descriptive questionnaire III: The construct validity of multidimensional self-concept ratings by late adolescents. *Journal of Educational Measurement, 21*, 153-174.

Items AB9_TX, AB10_TX, AB11_TX, AB12_TX, AB13_TX: These items form the academic self-efficacy subscale and were adapted from:

- Muris, P. (2001). A brief questionnaire for measuring self-efficacy in youths. *Journal of Psychopathology and Behavioral Assessment, 23*, 145-149.

Items have been reworded to specifically reflect a university context, e.g., Original: How well can you get teachers to help you when you get stuck on schoolwork? GLSNZ: I can get my lecturer/tutorial help when I am stuck on academic tasks.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	AB1_TX, AB2_TX, AB3_TX, AB4_TX, AB5_TX, AB6_TX, AB7_TX, AB8_TX, AB9_TX, AB10_TX, AB11_TX, AB12_TX, AB13_TX	13	8,719	All items administered.
T2	None	0	N/A	No items administered.
T5				
T10				

Scoring:

Items AB1_TX, AB2_TX, AB3_TX: Respondents indicate their answers on a 7-point Likert scale (Strongly disagree = 1 to Strongly agree = 7).

Items AB4_TX, AB5_TX, AB6_TX, AB7_TX, AB8_TX: Respondents indicate their answers on an 8-point Likert scale (Definitely false = 1, Definitely true = 8).

Items AB9_TX, AB10_TX, AB11_TX, AB12_TX, AB13_TX: Respondents indicate their answers on a 5-point Likert scale (Not at all = 1, Very well = 8).

Means:

Academic engagement: Sum items AB1_TX, AB2_TX, AB3_TX. Min score = 3, max score = 21. The higher the score, the higher the level of disengagement.
Academic self-esteem: Sum items AB4_TX, AB5_TX, AB6_TX, AB7_TX, AB8_TX. Min score = 5, max score = 40. The higher the score, the higher the level of academic self-esteem**.**
Academic self-efficacy: Sum items AB9_TX, AB10_TX, AB11_TX, AB12_TX, AB13_TX. Min score = 5, max score = 25. The higher the score, the higher the level of self-efficacy.

For each sub-scale, if respondents answer at least half of the questions, scores for the missing questions are pro-rated using the mean score of all other questions that have been answered (and rounding to the nearest whole number).

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Academic Beliefs, AB1_TX – AB13_TX (T0)

Rewording of original scales:

Item	GLSNZ Survey Item	Major et al. (1998) Item
AB1_TX	I really don't care what academic achievements say about my intellectual capacity.	I really don't care what tests say about my intelligence.
AB2_TX	Academic achievement will not change my opinion of how intelligent I am.	No intelligence test will ever change my opinion of how intelligent I am.
AB3_TX	How I do academically has little relation to who I really am.	How I do intellectually has little relation to who I really am.
Item	**GLSNZ Survey Item**	**Muris (2001) Item**
AB9_TX	How well can you get lecturers/tutors/supervisors to help you when you get stuck on academic tasks?	How well can you get teachers to help you when you get stuck on schoolwork?
AB11_TX	How well can you study for academic tests and exams?	How well can you study a chapter for a test?
AB12_TX	How well can you succeed in passing all your university courses?	How well do you succeed in passing all subjects?
AB13_TX	How well do you succeed in satisfying your lecturers/supervisors in academic tasks?	How well do you succeed in satisfying your parents with your schoolwork?

Benefits of a University Education (BUE)

Appears as: *Benefits of a University Education* (under the wider heading *SECTION 2: YOUR UNIVERSITY EXPERIENCE (*T0*)*)

Variable names begin with: BUE

Description: This questionnaire was constructed to assess the ways in which respondents believe their university education will be of benefit to them in the future in a range of different domains (e.g., work/career, personal and social development, etc.). The questionnaire consists of items from a range of sources described below.

Scale construction: N/A

References:

Items BUE1_TX, BUE2_TX, BUE3_TX, BUE9_TX, BUE13_TX: Adapted from the 2005 REFLEX Master Questionnaire (REFLEX - short for Research into Employment and professional FLEXibility). The REFLEX Master Questionnaire is part of the larger REFLEX project which assesses the skills graduates need in order to function effectively in the workforce post-graduation, the part played by higher education institutes in equipping graduates with these skills, and the problems that occur as graduates, higher education institutes, employers and other relevant parties each work towards fulfilling their own objectives and the way in which these problems might be addressed. The REFLEX project, a European Commission initiative, is financed as a Specific Targeted Research Project (STREP) of the European Union's Sixth Framework Programme. The project involves partners from fifteen countries (Austria, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, and the UK plus Belgium-Flanders, Czech Republic, Portugal, Switzerland, Japan, and Estonia that have received funding from national sources). The REFLEX Master Questionnaire is a survey of higher education graduates from nine European countries, approximately five years after qualification completion. The sample is comprised of bachelors and masters (or equivalent) programme graduates who received their degree in the 1999/2000 academic year. Items BUE1_TX, BUE2_TX, BUE3_TX, BUE9_TX, and BUE13_TX, which assess what the respondent thinks their study programme has been a good basis for, are adapted from section I1 of the REFLEX Master Questionnaire, which assesses evaluation of study programme.

- REFLEX (2005). REFLEX Master Questionnaire. *Specific Targeted Research Project (STREP) of the European Union's Sixth Framework Programme.* Retrieved February 22, 2011 from http://www.fdewb.unimaas.nl/roa/reflex/

Items BUE4_TX, BUE5_TX, BUE6_TX, BUE7_TX, BUE10_TX, BUE11_TX, BUE12_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a series of questions examining what respondents' believe are the benefits of a university education. The suggestions were submitted in a written report from Massey University to the GLSNZ team on 18 November 2010. The GLSNZ team constructed specific

questions in response to each area of interest outlined by Massey University staff. The wording was adapted to be consistent with other items in the questionnaire. Response options were also constructed.

- Massey University (2010, November). Benefits of a University Education items. *Feedback on the Graduate Longitudinal Study Draft Questionnaire Booklet*.

Item BUE8_TX: Developed by the GLSNZ team.

Item BUE14_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Otago University staff suggested a question examining whether respondents believe that the benefits of a university education include the development of leadership skills. The suggestion was submitted verbally by Otago University staff in a meeting held by the GLSNZ team to garner feedback on the draft survey on 10 November 2010. The GLSNZ team constructed a specific question in response to the suggestion made by Otago University staff. The wording was adapted to be consistent with other items in the questionnaire. Response options were also constructed.

- The University of Otago (2010, November). Leadership Skills item. *Verbal Communication*.

Item BUE15_TX: Following the Māori consultation process with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining whether respondents believe that the benefits of a university education include the development of a secure identity. The suggestion was submitted electronically by Massey University staff on 20 July 2011. The GLSNZ team constructed a specific question in response to the suggestion made by Massey University staff. The wording was adapted to be consistent with other items in the questionnaire. Response options were also constructed.

- Massey University (2011, July). Secure Identity item. *Email Communication*.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	BUE1_TX, BUE2_TX, BUE3_TX, BUE4_TX, BUE5_TX, BUE6_TX, BUE7_TX, BUE8_TX, BUE9_TX, BUE10_TX, BUE11_TX, BUE12_TX, BUE13_TX, BUE14_TX, BUE15_TX	15	8,719	All items administered.
T2	BUE1_TX, BUE2_TX, BUE3_TX, BUE4_TX, BUE5_TX, BUE6_TX, BUE7_TX, BUE8_TX, BUE9_TX, BUE10_TX, BUE11_TX, BUE12_TX, BUE13_TX, BUE14_TX, BUE15_TX	15		All items administered.
T5				
T10				

Scoring: For each item, respondents indicate their answer on a 5-point Likert scale (Not at all = 1, To a very high degree = 5). Min score = 15, max score = 75. A high score indicates that respondents believe to a greater extent that their study programme will be/has been a good basis for that particular outcome.

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Benefits of University Education, BUE1_TX – BUE15_TX.

Rewording of original scales:

Item	GLSNZ Survey Item	REFLEX Master Questionnaire 2005 Item	Reason(s) for adapting item
BUE1_TX	Obtaining employment?	Starting work?	Changed to make the question consistent with others in the set/survey.
BUE2_TX	Performing work tasks?	Performing your current work tasks?	'Current' deleted because respondents are still at university at T0.
BUE3_TX	Your career?	Future career?	'Future' deleted to make the question consistent with others in the set.
BUE9_TX	Personal development?	Your personal development?	'Your' deleted to make the question consistent with others in the set.
BUE13_TX	Developing entrepreneurial skills?	Development of entrepreneurial skills?	Tense changed to make the question consistent with others in the set.

Earnings and Assets (EA)

Appears as: *Earnings and Assets* (under the wider heading *SECTION 4: EARNINGS AND ASSETS (*T0*) or SECTION 4: EMPLOYMENT (*T2*)*)

Variable names begin with: EA

Description: These questions examine participants' current financial situation in terms of their financial demographics (income, debt, assets, financial commitments) and economic strain (ability to afford accommodation, food, clothing, leisure activities, bills). Note that 7 items concerning current employment (EA1_TX, EA2_TX, EA3_TX, EA4_TX, EA5_TX, EA6_TX, EA7_TX) were included under this heading at T0, but were moved under the 'Employment Status' subheading for T2 onwards. This questionnaire consists of items from several sources described below.

Scale construction:

Scale	Items
Economic Strain Model (modified) (5 items)	EA13_TX, EA14_TX, EA15_TX, EA16_TX, EA17_TX

References:

Items EA8_TX, EA41_TX: Adapted from the Dunedin Multidisciplinary Health and Development Study (DMHDS) and the New Zealand Census of Population and Dwellings (2011). The New Zealand census is conducted every five years to assess the number and type of people and dwellings there are in New Zealand. The census is carried out to help with planning public services (e.g., education, health, housing, and transport). It is also used to keep track of societal change. Taken from the Individual Form of the New Zealand Census of Population and Dwellings (2011), items EA8_TX and EA41_TX correspond to question 31 on the census form. Item EA8_TX assesses participants' own income from all sources and item EA41_TX assesses the income received by their partner/spouse (if they had indicated in item EA40_TX that they shared a household). For item EA8_TX, additional response options and specification for the highest income bracket (EA8a_TX) were added at T2.

- Statistics New Zealand Census (2011). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved February 13, 2011 from http://www.stats.govt.nz/census/2011-census/2011-census-forms-and-guidenotes.aspx

Items EA9_TX, EA10_TX, EA12_TX, EA42_TX: Questions regarding levels of student loan debt, other debt, and assets were adapted from the Dunedin Multidisciplinary Health and Development Study (DMHDS). Note that at T2, respondents were asked to specify the amount if their response fell in the highest bracket. For items EA10_TX and EA12_TX, additional specification questions regarding whether the debt/asset was shared and, if so, what proportion was shared were added at T2. Note also that item EA10_TX was altered at T2 to exclude mortgage debt (this was added as a stand-alone item EA42_TX).

Item EA11_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Victoria University staff suggested a question examining whether respondents had regular religious and extended family financial commitments. The question was submitted via email by Victoria University staff on 28 March 2011. Note that item EA11_TX was altered at **T2** to specify that standard living costs (e.g., rent, mortgage payments, food, power, etc.) were excluded. Note also that, at **T2**, respondents were asked to specify the amount if their response fell in the highest bracket. Additional specification questions regarding whether the financial commitments were shared and, if so, what proportion were shared were added at **T2**.

- Victoria University of Wellington (2011, March). Financial commitments item. *Email*.

Items EA13_TX, EA14_TX, EA15_TX, EA16_TX, EA17_TX: Adapted from the Iowa Youth and Family Project's 'Financial Strain Scale,' of which some items (items EA13_TX, EA14_TX, EA15_TX, and EA16_TX) were taken from Pearlin et al.'s (1981) 'Economic Strain Model.' Pearlin et al.'s Economic Strain Model was originally developed by Pearlin and Lieberman (1979). This scale and the other scales that Pearlin & Lieberman used in their longitudinal study are based on pilot interviews with 100 participants. These interviews were open-ended, unstructured discussions in which participants described some of the life strains that they faced and how they dealt with them. The authors developed the questions from thematic analysis of the pilot interviews; the final questions were identified after several pre-tests. In Pearlin & Lieberman (1979), the model was referred to as 'Economic, Persistent Problems.' The original scale contains nine items. NB: Item EA17_TX was originally adapted from the Iowa Youth and Family Project's 'Can't Make Ends Meet Scale' but is actually part of Pearlin & Lieberman's (1979) and Pearlin et al.'s (1981) 'Economic Strain Model.' The response scales for all of the items was reversed to maintain consistency with other items in the GLSNZ survey. Specifically, the original response scale was changed from: 1 = Strongly agree, 2 = Agree, 3 = Neutral/mixed, 4 = Disagree, 5 = Strongly disagree, to 1 = Strongly disagree, 2 = Disagree, 3 = Neutral/mixed, 4 = Agree, 5 = Strongly agree.

- Iowa Youth and Family Project Codebook. Items BF105003, BF105004, BF105007, BF105009, BF105011.
- Pearlin, L. I., & Lieberman, M. A. (1979). Social sources of emotional distress. *Research in Community and Mental Health*, *1*, 217-248.
- Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J. T. (1981). The stress process. *Journal of Health and Social Behavior*, *22*, 337-356.

Items EA39_TX: Adapted from the New Zealand Census of Population and Dwellings (2013). The New Zealand census is conducted every five years to assess the number and type of people and dwellings there are in New Zealand. The census is carried out to help with planning public services (e.g., education, health, housing, and transport). It is also used to keep track of societal change. Taken from the Individual Form of the New Zealand Census of Population and Dwellings (2013), item EA39_TX corresponds to question 30 on the census form and assesses the source of participants' income. The item was modified to reflect changes to Work and Income's terminology that took effect on 15 July 2013.

- Statistics New Zealand Census (2013). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved from http://www.stats.govt.nz/Census/2013-census/info-about-the-census/forms-guidenotes.aspx

Item EA40_TX: Adapted from the Dunedin Multidisciplinary Health and Development Study (DMHDS). Respondents are asked whether they share a household with a partner or spouse who contributes financially.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	EA8_TX, EA9_TX, EA10_TX, EA11_TX, EA12_TX, EA13_TX, EA14_TX, EA15_TX, EA16_TX, EA17_TX	10	8,719	All items administered.
T2	EA8_TX, EA9_TX, EA10_TX, EA11_TX, EA12_TX, EA13_TX, EA14_TX, EA15_TX, EA16_TX, EA17_TX, EA39_TX, EA40_TX, EA41_TX, EA42_TX	14		All items administered.
T5				
T10				

Scoring:

Item EA8_TX:
T0: Respondents indicate their current income on a 23-item scale (Loss; Zero income; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$150,000; NZ$150,001+; Don't know).
T2: Respondents indicate their current income on a 24-item scale (Loss; Zero income; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$150,000; NZ$150,001-NZ$250,000; NZ250,001+; Don't know). If respondents indicated that their income bracket was NZ$250,001+, they were asked to specify the amount in item EA8a_TX (open response).

Item EA9_TX:
T0: Respondents indicate their approximate student loan debt on an 18-item scale (Didn't take out a student loan; Zero; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$100,001+; Don't know).
T2: As for **T0**, but if respondents indicated that their student loan debt was NZ$100,001+, they were asked to specify the amount in item EA9a_TX (open response).

Item EA10_TX:
T0: Respondents indicate their approximate debt from all other sources on a 17-item scale (Zero; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$100,001+; Don't know).
T2: Respondents indicate their approximate debt from other sources (excluding mortgages) on a 20-item scale (Zero; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$100,001-NZ$250,000; NZ$250,001-NZ$500,000; NZ$500,001-NZ$1,000,000; NZ$1,000,001+; Don't know). If respondents indicated that their debt was NZ$1,000,001+, they were asked to specify the amount in item EA10a_TX (open response). If respondents indicated that they had at least some debt, they indicated whether or not they shared this debt with anyone else (EA10a1_TX). If so, they indicated the proportion of their share (EA10a2_TX): Less than half; about half; more than half; don't know.

Item EA11_TX:

T0: Respondents indicate whether they have any other significant regular financial commitments per annum. If so, respondents indicate the accompanying total annual amount on an 18-item scale (NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$100,001 – NZ$250,000; NZ$250,001 – NZ$500,000; NZ$500,001+; Don't know).

T2: As for **T0**, but if respondents indicated that their financial commitments were NZ$500,001+, they were asked to specify the amount in item EA11a1_TX (open response). If respondents indicated that they had at least some financial commitments, they indicated whether or not they shared these with anyone else (EA11a2_TX). If so, they indicated the proportion of their share (EA11a3_TX): Less than half; about half; more than half; don't know.

Item EA12_TX:

T0: Respondents indicate the approximate total value of their assets on a 19-item scale (Zero; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$100,001 – NZ$250,000; NZ$250,001 – NZ$500,000; NZ$500,001+; Don't know).

T2: Respondents indicate the approximate total value of their assets on a 20-item scale (Zero; NZ$1-NZ$25,000; NZ$5,000 increments from NZ$25,001 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$50,000 increments from NZ$100,001 to NZ$300,000; NZ$100,000 increments from NZ$300,001 to NZ$500,000; NZ$500,001 – NZ$1,000,000; NZ$1,000,001+; Don't know). If respondents indicated that their asset value was NZ$1,000,001+, they were asked to specify the amount in item EA12a_TX (open response). If respondents indicated that they had at least some assets, they indicated whether or not they shared these assets with anyone else (EA12a1_TX). If so, they indicated the proportion of their share (EA12a2_TX): Less than half; about half; more than half; don't know.

Items EA13_TX, EA14_TX, EA15_TX, EA16_TX, EA17_TX: Respondents indicate their answers on 5-point Likert scales (Strongly disagree = 1, Disagree = 2, Neutral/mixed = 3, Agree = 4, Strongly Agree = 5). Sum all items. Min score = 5, max score = 25. A higher score indicates less economic/financial strain (after item EA17_TX reverse coded).

Item EA39_TX: Respondents indicate whether they have received any income within the last 12 months (0 = No; 1 = Yes) and then specify the source of the income from a number of options, including "other" (and specifying other in item EA39ota_TX). Any number of options able to be selected (0 = Selected; 1 = Not selected).

Item EA40_TX: Respondents indicate whether they share a household with a partner or spouse who contributes financially (0 = No; 1 = Yes).

Item EA41_TX: Respondents indicate their partner's income (if EA40_TX = 1) on a 24-item scale (Loss; Zero income; NZ$5,000 increments from NZ$1 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$150,000; NZ$150,001-NZ$250,000; NZ$250,001+; Don't know). If respondents indicated that their partner's income bracket was NZ$250,001+, they were asked to specify the amount in item EA41a_TX (open response).

Item EA42_TX: Respondents indicate their approximate mortgage/property debt on a 20-item scale (Zero; NZ$1-NZ$25,000; NZ$5,000 increments from NZ$25,001 to NZ$40,000; NZ$10,000 increments from NZ$40,001 to NZ$100,000; NZ$50,000 increments from NZ$100,001 to NZ$300,000; NZ$300,001-NZ$400,000; NZ$400,001-NZ$500,000; NZ$500,001-NZ$1,000,000; NZ$1,000,001+; Don't know). If respondents indicated that their debt was NZ$1,000,001+, they were asked to specify the amount in item EA42a_TX (open response). If respondents indicated that they had at least some debt, they indicated whether or not they shared this debt with anyone else (EA42a1_TX). If so, they indicated the proportion of their share (EA42a2_TX): Less than half; about half; more than half; don't know.

Recoding: Item EA17_TX

Psychometrics:

Items appear in Codebook in section: Earnings and Assets, EA8_TX – EA17_TX (T0, T2) and EA39_TX –EA42_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	NZ Census Item
EA39_TX	Have you received income from any source within the last 12 months? • No source of income during that time • Yes If yes, select as many options as you need to show all the ways you yourself got income in the 12 months ending today. DON'T count loans because they are not income: • Wages, salary, commissions, bonuses, etc, paid by my employer • Self-employment, or business I own and work in • Interest, dividends, rent, other investments • Regular payments from ACC or a private work accident insurer • New Zealand Superannuation or Veteran's Pension • Other superannuation, pensions or annuities (other than NZ Superannuation, Veteran's Pension or war pensions) • Unemployment Benefit (now called Jobseeker Support) • Sickness Benefit (now called Jobseeker Support) • Domestic Purposes Benefit (now called Jobseeker Support, Sole Parent Support, Supported Living Payment, or Sole Parent Support Study Assistance) • Invalid's Benefit (now called Supported Living Payment) • Student Allowance • Other government benefits, government income support payments, war pensions, or paid parental leave • Student scholarships • Other sources of income (e.g., child support, other support payments, inheritance, beneficiary to a trust, selling on auction sites, support from family, etc.). Please specify _____	Mark as many spaces as you need to show all the ways you yourself got income in the 12 months ending today. DON'T count loans because they are not income. • wages, salary, commissions, bonuses, etc, paid by my employer • self-employment, or business I own and work in • interest, dividends, rent, other investments • regular payments from ACC or a private work accident insurer • New Zealand Superannuation or Veteran's Pension • other superannuation, pensions or annuities (other than NZ Superannuation, Veteran's Pension or war pensions) • Unemployment Benefit • Sickness Benefit • Domestic Purposes Benefit • Invalid's Benefit • Student Allowance • other government benefits, government income support payments, war pensions, or paid parental leave • other sources of income, counting support payments from people who do not live in my household or • no source of income during that time

Item	GLSNZ Survey Item	NZ Census Item	DMHDS Item
EA8_TX	T0: Please indicate your current income per annum (include loans, scholarships and benefits etc.) T2: From all the sources of income marked above, what was your total income: • That you yourself got • Before tax or anything was taken out of it • In the 12 months ending today	From all the sources of income you marked in question 30, what will the total income be: • that you yourself got • before tax or anything was taken out of it • in the 12 months that will end on 31 March 2011	For your main job, how much do you earn per year before taxes are taken out?
EA41_TX	What was the total income: • That your partner/spouse got • Before tax or anything was taken out of it • In the 12 months ending today	From all the sources of income you marked in question 30, what will the total income be: • that you yourself got • before tax or anything was taken out of it • in the 12 months that will end on 31 March 2011	Thinking about all the sources of income that your spouse/partner received (and using the currency of the country in which your spouse/partner lived this past year): • What was the total income that your partner got in the last 12 months • From all sources, not just their job • Before tax or anything else was taken out of it?

Item	GLSNZ Survey Item		DMHDS Item
EA40_TX	Do you share a household with a partner or spouse who contributes financially? • No • Yes		Do you share a household with a partner or spouse? • No • Yes

Item	GLSNZ Survey Item	Pearlin & Lieberman (1979) Item	Pearlin et al. (1981) Item	Iowa Youth & Families Project Item
EA13_TX	T0: I have enough money to afford the accommodation I need. T2: I have enough money to afford the accommodation I/my family need(s).	At the present time are you able to afford: A home that is large enough and comfortable enough for (you/your family)?	At the present time: Are you able to afford a home suitable for (yourself/your family)?	I have enough money to afford the kind of home I would to have.

Item	GLSNZ Survey Item	Pearlin & Lieberman (1979) Item	Pearlin et al. (1981) Item	Iowa Youth & Families Project Item
EA14_TX	T0: I have enough money to afford the clothing I need. T2: I have enough money to afford the clothing I/my family need(s).	How often does it happen that you don't have enough money to afford: The kind of clothing (you/your family) should have?	At the present time: Do you have enough money for the kind of clothing (you/your family) should have?	I have enough money to afford the kind of clothing I should have.
EA15_TX	T0: I have enough money to afford the food I need. T2: I have enough money to afford the food I/my family need(s).	How often does it happen that you don't have enough money to afford: The kind of food (you/your family) should have?	At the present time: Do you have enough money for the kind of food (you/your family) should have?	I have enough money to afford the kind of food I should have.
EA16_TX	T0: I have enough money to afford the leisure and recreational activities I want. T2: I have enough money to afford the leisure and recreational activities I/my family want(s).	How often does it happen that you don't have enough money to afford: The kind of leisure activities that (you/your family) want(s)?	At the present time: Do you have enough money for the leisure activities (you/your family) want(s)?	I have enough money to afford the kind of leisure and recreational activities I want to participate in.
EA17_TX	T0: Over the past 12 months I have had difficulty meeting my financial commitments. T2: Over the past 12 months I/my family have had difficulty meeting my/our financial commitments.	How much difficulty do you have in meeting the monthly payments on (your/your family's) bills?	Do you have a great deal, some, a little, or no difficulty in paying your bills?	Think back over the past 12 months and tell us how much difficulty you had with paying your bills. Would you say you had... 1 = A great deal of difficulty, 2 = Quite a bit of difficulty, 3 = Some difficulty, 4 = A little difficulty, 5 = No difficulty at all

Education (GDUD)

Appears as: *Education* (**T2**) (under the wider heading *SECTION 1: GENERAL AND BACKGROUND INFORMATION*)

Variable names begin with: GDUD

Description: This questionnaire was added at **T2** constructed to assess participants' university qualifications, activities since the first survey in 2011, and attitudes towards online learning. The questionnaire consists of items from several sources described below.

Scale construction: N/A

References:

Items GDUD35_TX, GDUD36_TX, GDUD37_TX, GDUD39_TX, GDUD40_TX, GDUD41_TX, GDUD43_TX, GDUD44_TX, GDUD45_TX: Developed by the GLSNZ team. Item GDUD35_TX was designed to mirror item FPCA6_TX but with reference to past, instead of future activities. This item asks respondents to indicate their activities since the first survey in 2011. Items GDUD36_TX and GDUD37_TX were designed for international students to tap their country of origin and whether or not they have since returned to live there. Items GDUD39_TX, GDUD40_TX, and GDUD41_TX were designed to assess what qualifications respondents were studying towards in 2011, whether they completed the qualification, and whether it is their highest qualification. Items GDUD43_TX, GDUD44_TX, and GDUD45_TX were designed to assess whether respondents were currently enrolled in tertiary study and, if not, their reasons for not enrolling (if they had wanted to).

Item 38_TX: Adapted from the 2005 REFLEX Master Questionnaire (REFLEX - short for <u>R</u>esearch into <u>E</u>mployment and professional <u>FLEX</u>ibility). The REFLEX Master Questionnaire is part of the larger REFLEX project which assesses the skills graduates need in order to function effectively in the workforce post-graduation, the part played by higher education institutes in equipping graduates with these skills, and the problems that occur as graduates, higher education institutes, employers and other relevant parties each work towards fulfilling their own objectives and the way in which these problems might be addressed. The REFLEX project, a European Commission initiative, is financed as a Specific Targeted Research Project (STREP) of the European Union's Sixth Framework Programme. The project involves partners from fifteen countries (Austria, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, and the UK plus Belgium-Flanders, Czech Republic, Portugal, Switzerland, Japan, and Estonia that have received funding from national sources). The REFLEX Master Questionnaire is a survey of higher education graduates from nine European countries, approximately five years after qualification completion. The sample is comprised of bachelors and masters (or equivalent) programme graduates who received their degree in the 1999/2000 academic year. Item GDUD38_TX, which asks whether respondents (domestic students only) have spent time outside of New Zealand since the first survey for study, work, or travel/holiday, is adapted from section K (About yourself) of the REFLEX Master Questionnaire.

- REFLEX (2005). REFLEX Master Questionnaire. *Specific Targeted Research Project (STREP) of the European Union's Sixth Framework Programme.* Retrieved February 22, 2011 from http://www.fdewb.unimaas.nl/roa/reflex/

Item GDUD42_TX: Adapted from the New Zealand Census of Population and Dwellings (2013). The New Zealand census is conducted every five years to assess the number and type of people and dwellings there are in New Zealand. The census is carried out to help with planning public services (e.g., education, health, housing, and transport). It is also used to keep track of societal change. Taken from the Individual Form of the New Zealand Census of Population and Dwellings (2013), item GDUD42_TX corresponds to question 28 on the census form and assesses respondents' highest qualification.
- Statistics New Zealand Census (2013). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved from http://www.stats.govt.nz/Census/2013-census/info-about-the-census/forms-guidenotes.aspx

Items GDUD46_TX, GDUD47_TX, GDUD49_TX, GDUD50_TX: Adapted from the MOOCs Nationwide Survey (2013) commissioned by Brodeur Partners. The MOOCs Nationwide Survey is based on a survey of 1,300 Americans conducted in 2013, and assesses the perception of Massive Open Online Courses (MOOCs) among U.S. students and parents of students and the overall immediate impact MOOCs will have on higher education. The survey measured awareness of online courses generally and MOOCs specifically, baseline opinion of MOOCs, opinion after receiving a neutral description, and the impact of MOOC-participation on attendance and donation decisions. Items GDUD46_TX, GDUD47_TX, GDUD49_TX, and GDUD50_TX are taken from items in the MOOCs Nationwide Survey (2013), as supplied by:
- Jerry Johnson, Executive Vice President – Strategic Planning, Brodeur Partners, Washington DC.

Items GDUD48_TX, GDUD52_TX: Adapted from the ECAR Study of Undergraduate Students and Technology (2013). The Educause Centre for Analysis and Research (ECAR) has surveyed undergraduate students annually since 2004 about technology in higher education. In 2013, ECAR collaborated with more than 250 higher education institutions across 13 countries to collect responses from more than 112,000 undergraduate students about their technology experiences and expectations. The findings help educators and higher education institutions better understand how students experience technology on their respective campuses and the ways in which new, better, or more technology can impact students' relationship with information technology. Item GDUD48_TX is adapted from item 4.5 of the ECAR survey questionnaire and asks whether respondents have ever enrolled in a MOOC. Item GDUD52_TX is adapted from item 4.6 of the ECAR survey questionnaire and asks whether respondents would include completion of a MOOC on their CV.
- Dahlstrom, E, Walker, J.D., & Dziuban, C. (with a foreword by G. Morgan) (2013). *ECAR Study of Undergraduate Students and Information Technology* (Research Report). Louisville, CO: EDUCAUSE Center for Analysis and Research. Available from: http://www.educause.edu/ecar.

Item GDUD51_TX: Adapted from the Edinburgh MOOCs Survey. In January 2013, the University of Edinburgh launched six MOOCs on the Coursera virtual learning environment platform. These were short fully-online courses, each lasting either 5 or 7 weeks, and they had a total initial enrolment of just over 309,000 learners. A total of n = 45,182 enrolees completed an Entry survey and n = 15,351 enrolees completed an Exit survey. Item GDUD51_TX is adapted from item 5 of the Entry survey and asks respondents for what reasons would they consider taking a MOOC.

- MOOCs@Edinburgh Group (2013). *MOOCs @ Edinburgh 2013: Report #1*. Edinburgh: The University of Edinburgh. Retrieved from: http://hdl.handle.net/1842/6683

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	None	0	N/A	None administered.
T2	GDUD35_TX, GDUD36_TX, GDUD37_TX, GDUD38_TX, GDUD39_TX, GDUD40_TX, GDUD41_TX, GDUD42_TX, GDUD43_TX, GDUD44_TX, GDUD45_TX, GDUD46_TX, GDUD47_TX, GDUD48_TX, GDUD49_TX, GDUD50_TX, GDUD51_TX, GDUD52_TX	18		All items administered.
T5				
T10				

Scoring:

Item GDUD35_TX: Respondents indicate what they have been doing since the first survey in 2011, with option to specify other in GDUD35ota_TX. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD36_TX: Respondents indicate whether they were enrolled as an international student in 2011 (Yes; No, I was a domestic student). If yes, respondents state their country of origin (string).

Item GDUD37_TX: If respondents were international students, they indicate whether they have returned to their country of origin (Yes, I have returned to live in my country of origin; No, I have remained living in New Zealand; No, I currently live in another country). If respondents live in another country, they state which country in GDUD37a_TX (string).

Item GDUD38_TX: If respondents were domestic students, they indicate whether they have spent more than a month overseas since 2011 for study, work, or travel, or not at all. Any number of options able to be selected (0 = Not selected; 1 = Selected). If respondents endorse any kind of travel, they specify the number of months spent overseas separately for each type of travel in items GDUD38aa_TX, GDUD38ba_TX, and GDUD38ca_TX (string).

Item GDUD39_TX: Respondents describe the qualification (GDUD39a_TX) they were studying towards in 2011 and the main subject(s) (GDUD39b_TX) (string).

Item GDUD40_TX: Respondents indicate whether they completed the qualification specified in GDUD39_TX (Yes, No) and, if yes, the level of the qualification achieved (GDUD40a_TX) (string).

Item GDUD41_TX: If respondents completed the qualification specified in GDUD39_TX, they indicated whether this was their highest qualification (Yes, No).

Item GDUD42_TX: If respondents indicated that the qualification specified in GDUD39_TX was not their highest qualification, they state their highest qualification (GDUD42a_TX) and the main subject(s) (GDUD42b_TX) (string). Note that answers from item GDUD39_TX to be replicated here if it was respondents' highest qualification.

Item GDUD43_TX: Respondents indicate whether they are currently enrolled in tertiary study (No; Yes, at a university; Yes, at a polytechnic; Yes, at another provider). If respondents indicated any kind of tertiary study, they specified the institution (GDUD43ba1_TX, GDUD43ca1_TX, or GDUD43ota1_TX) and the qualification/course (GDUD43ba2_TX, GDUD43ca2_TX, or GDUD43ota2_TX) (string).

Item GDUD44_TX: If respondents were not enrolled in tertiary study, they indicate whether they would have liked to enrol in further study (Yes, No).

Item GDUD45_TX: If respondents would have like to enrol in further study, they indicate their reasons for not enrolling, with option to specify "other" in GDUD45ota_TX. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD46_TX: Respondents indicate their familiarity with online courses on a 5-point Likert scale (1 = Not at all familiar to 5 = Very familiar).

Item GDUD47_TX: Respondents indicate their familiarity with MOOCs on a 5-point Likert scale (1 = Not at all familiar to 5 = Very familiar).

Item GDUD48_TX: Respondents indicate whether they have ever enrolled in a MOOC (No; Yes, I am currently enrolled; Yes, I have completed one; Yes, but I did not complete it).

Item GDUD49_TX: Respondents indicate the merit of universities offering MOOCs on a 5-point Likert scale (1 = Very bad idea to 5 = Very good idea).

Item GDUD50_TX: Respondents indicate their likelihood of participating in a MOOC on a 5-point Likert scale (1 = Not at all likely to 5 = Very likely).

Item GDUD51_TX: Respondents indicate why they would consider taking a MOOC, with option to specify "other" in GDUD51ota_TX. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD52_TX: Respondents indicate whether they would include completion of a MOOC on their CV (No; Yes; Possibly, it would depend on the job).

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: Education, GDUD35_TX – GDUD52_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	REFLEX Item	Reason(s) for adapting item
GDUD38_TX	Since the first survey in 2011, have you spent a total of a month or more overseas, that is out of New Zealand, for study, work or travel/holiday? Select all that apply. • Yes, for study: ___ months • Yes, for work-related reasons: ___ months • Yes, for travel/holiday: ___ months • No	Have you spent any time abroad *since* graduating from higher education for study or work? • Yes, ___ months for study • Yes, ___ months for work-related reasons • No	Item limited to a month or more to exclude trivial amounts of travel. Option for holiday travel added for completeness.
Item	**GLSNZ Survey Item**	**NZ Census (2013) Item**	**Reason(s) for adapting item**
GDUD42_TX	Please describe your <u>highest</u> qualification, and the main subject. • Qualification (and level, if applicable) • Main subject(s)	Print your highest qualification, and the main subject, for example: *Qualification: TRADE CERTIFICATE* *Subject: ELECTRICAL ENGINEERING* • Qualification (and level, if applicable) • Subject	Examples removed as this is a university sample.

Item	GLSNZ Survey Item	ECAR (2013) Item	Reason(s) for adapting item
GDUD48_TX	Have you ever enrolled in a MOOC through any institution/organisation (e.g., Coursera, Udacity, edX, MITx, etc.)? No; Yes, I am currently enrolled; Yes, I have completed one; Yes, but I did not complete it	In the past year, have you taken a MOOC (massive open online course) through any institution/organization (e.g., Coursera, Udacity, edX, MITx, etc.)? No, and I don't know what a MOOC is; No; Yes, but I didn't complete one; Yes, and I completed one	Time frame expanded to 'ever' given that MOOCs are relatively less known in NZ. Additional response option for current enrolment added for completeness.
GDUD52_TX	Imagine that you completed a MOOC. Would you include this in a job application/in your CV? No; Yes; Possibly, it would depend on the job	When you think about documenting the Skills you gain during your higher education experiences, which of these would you include in your application portfolio for an employment interview? Select all that apply. • Undergraduate degree/diploma from an accredited college or university • Certificate from an accredited college or university program • Certificate from an industry-based training program • Certificate of completion from an institution/organization offering freely-available course content • Digital badge or patch that represents a skills-based competency or completed activity • N/A • Other, please specify	Item simplified to target MOOCs only.

Item	GLSNZ Survey Item	Edinburgh MOOCs Survey (2013) Item	Reason(s) for adapting item
GDUD51_TX	For what reasons would you consider taking a MOOC? Select all that apply. • I would not consider taking a MOOC • To get a certificate/digital badge • To increase my knowledge/skills in a specific area • To improve my career prospects • To become part of an online community or meet new people • To try online education • To see what MOOCs are • To help me get a job • To fill in gaps in my knowledge • For recreation/interest • Other, please specify	What do you hope to get out of the MOOCs you are enrolled on? *(select all that apply)* • To get a certificate • Learn new things • Improve my career prospects • Meet new people • Try online education • See what MOOCs are • Browse Edinburgh's offering • Unsure	Item adapted for generality and worded hypothetically. Additional response options added for completeness.

Employment Status (EA)

Appears as: *Earnings and Assets* (under the wider heading *SECTION 4: EARNINGS AND ASSETS (*T0*)*) or as *Employment Status* (under the wider heading *SECTION 4: EMPLOYMENT (*T2*)*)

Variable names begin with: EA

Description: These questions examine participants' previous and current employment. Note that 7 items concerning current employment (EA1_TX, EA2_TX, EA3_TX, EA4_TX, EA5_TX, EA6_TX, EA7_TX) were included under the 'Earnings and Assets heading at **T0**, but were moved under the 'Employment Status' subheading for **T2** onwards. This questionnaire consists of items from several sources described below.

Scale construction:

Scale	Items
Psychological Job Demands (6 items)	EA33_TX, EA34_TX, EA35_TX, EA36_TX, EA37_TX, EA38_TX

References:

Items EA1_TX, EA2_TX, EA3_TX: Adapted from the University of Otago 2009 Graduate Opinion Survey. The survey has been conducted annually since 1998 and is targeted at individuals who have graduated in the preceding 18- to 24-month period. The survey is divided into five sections in total. Section A asks participants about their course details. Section B concerns graduates' perspectives on their learning while at Otago University using the Course Experience Questionnaire (CEQ). In Section C, individuals who completed postgraduate qualifications are asked to evaluate the quality of supervision and support they received as postgraduate students. Section D examines whether a range of skills were developed at University and the extent to which these skills have transferred to life beyond university. The final section, Section E, asks respondents to provide some basic demographic information. The results of this annual survey are used to for Departmental Reviews, the University's yearly Statement of Objectives, and its Annual Report. The items adapted for the GLSNZ's Earnings and Assets (EA) section are taken from the demographics section (Section E) of the University of Otago Graduate Opinion Survey. Items EA1_TX, EA2_TX, and EA3_TX are adapted from question E10 of the Graduate Opinion Survey, which assesses respondents' current employment status. The response options for item EA1_TX were extended to include a 'self-employed' option. At **T2**, item EA1_TX was altered to include a screening question of whether the respondent was currently employed before indicating the type of employment. These options were changed from full-time, part-time, and self-employed at **T0** to full-time salary/wage earner, part-time salary/wage earner, self-employed full-time, and self-employed part-time at **T2**.

In addition to providing their job title and employer details in item EA2_TX, respondents were also asked to indicate the number of hours they work per week in item EA3_TX. At **T2**, item EA3_TX was split into two sub-questions: how many hours the respondent is paid to work and how many hours they actually work.

- University of Otago (2009). *2009 Graduate Opinion Survey: Summary report, September 2009*. Dunedin, NZ: University of Otago.

Items EA4_TX, EA5_TX: Designed by the GLSNZ team to tap the primary tasks performed by respondents in their jobs and the qualifications needed (if any) to do the job. The wording of these items was altered slightly at **T2** for clarity.

Item EA6_TX: Adapted from the Postgraduate Student Engagement Questionnaire (PSEQ). The PSEQ is a questionnaire in the Postgraduate Survey of Student Engagement (POSSE). The PSEQ is conducted as part of the Australian Council for Educational Research's (ACER) Australasian Survey of Student Engagement (AUSSE). The aim of the AUSSE is to assess students' engagement in university study to help institutions evaluate and improve the quality of education that students receive. The AUSSE was conducted for the first time in 2007, with 25 Australian and New Zealand universities taking part. In 2008, 29 institutions participated and in 2009, 35 institutions participated. The PSEQ is one of three surveys run by the AUSSE. The AUSSE also runs the Student Engagement Questionnaire (SEQ), which assesses first- and third-year undergraduate students' engagement and the Staff Student Engagement Questionnaire (SSEQ), which assesses staff perspectives on student engagement. The PSEQ is adapted from the SEQ to assess postgraduate students. It is completed online and takes around 15 minutes. The PSEQ was trialed in 2009 on a group of Australian universities and was offered to all institutions taking part in the AUSSE from 2010. The PSEQ contains six student engagement scales (Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experiences, Supportive Learning Environment, and Work Integrated Learning) and seven outcome measures (Higher-Order Thinking, General Learning Outcomes, General Development Outcomes, Career Readiness, Average Overall Grade, Departure Intention, and Overall Satisfaction). Data is also collected on individual demographics and educational contexts. Item EA6_TX was adapted from a Career Readiness (outcome measure) item in the PSEQ assessing how much the respondent's work is related to their field of study.

- The Australian Council for Educational Research (ACER) (2010). *The Postgraduate Student Engagement Questionnaire (PSEQ) from the Postgraduate Survey of Student Engagement (POSSE): The Australasian Survey of Student Engagement (AUSSE).* Retrieved February 18, 2011 from http://ausse.acer.edu.au/images/docs/AUSSE_2010_POSSE.pdf

Item EA7_TX: Designed by the GLSNZ team to tap to what extent respondents are using the skills gained from their studies to their current job. The wording of this item was altered slightly at **T2** to reflect past tense.

Items EA18_TX, EA19_TX, EA20_TX, EA21_TX, EA23_TX, EA24_TX, EA25_TX, EA29_TX, EA30_TX, EA31_TX: Adapted from the 2005 REFLEX Master Questionnaire (REFLEX - short for Research into Employment and professional FLEXibility) and the New Zealand Census of Population and Dwellings (2013). The REFLEX Master Questionnaire is part of the larger REFLEX project which assesses the skills graduates need in order to function effectively in the workforce post-graduation, the part played by higher education institutes in equipping graduates with these skills, and the problems that occur as graduates, higher education institutes, employers and other relevant parties each work towards fulfilling their own objectives and the way in which these problems might be

addressed. The REFLEX project, a European Commission initiative, is financed as a Specific Targeted Research Project (STREP) of the European Union's Sixth Framework Programme. The project involves partners from fifteen countries (Austria, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, and the UK plus Belgium-Flanders, Czech Republic, Portugal, Switzerland, Japan, and Estonia that have received funding from national sources). The REFLEX Master Questionnaire is a survey of higher education graduates from nine European countries, approximately five years after qualification completion. The sample is comprised of bachelors and masters (or equivalent) programme graduates who received their degree in the 1999/2000 academic year. Items EA18_TX, EA19_TX, and EA25_TX which ask whether the respondents have been in paid work since the first survey, how they found this work, and the ways in which they have looked for paid work in the last 4 weeks (if they have been actively looking as indicated in EA24_TX) are adapted from section C of the REFLEX Master Questionnaire, which assesses the transition from study to work. Items EA20_TX, EA21_TX, EA23_TX, and EA24_TX, which ask how many employers respondents have had since the first survey, how many months they have been employed, whether they have been unemployed, and whether they have been actively looking for work are adapted from section E of the REFLEX Master Questionnaire, which assesses employment history and current situation. Items EA29_TX, EA30_TX, and EA31_TX, which ask the extent to which respondents' knowledge/skills are used in their work and their satisfaction with their work are taken as-is from section F of the REFLEX Master Questionnaire, which assesses current work. The New Zealand census is conducted every five years to assess the number and type of people and dwellings there are in New Zealand. The census is carried out to help with planning public services (e.g., education, health, housing, and transport). It is also used to keep track of societal change. Taken from the Individual Form of the New Zealand Census of Population and Dwellings (2013), items EA19_TX and EA25_TX correspond to question 44 on the census form and assesses the ways in which respondents have looked for work.

- REFLEX (2005). REFLEX Master Questionnaire. *Specific Targeted Research Project (STREP) of the European Union's Sixth Framework Programme.* Retrieved February 22, 2011 from http://www.fdewb.unimaas.nl/roa/reflex/
- Statistics New Zealand Census (2013). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved from http://www.stats.govt.nz/Census/2013-census/info-about-the-census/forms-guidenotes.aspx

Items EA22_TX, EA27_TX, EA32_TX: Adapted from the Graduate Pathways Questionnaire (GPQ). The GPQ is a questionnaire in the Graduate Pathways Survey (GPS). The GPS was conducted by the Australian Council for Educational Research (ACER) in 2008. The GPS assessed all Australian domestic residents who had completed a bachelor degree in 2002. The aim of the GPS was to evaluate employment outcomes five years after graduates had completed their bachelor degrees, the way in which such outcomes changed over time, the paths graduates took on their way to these outcomes, and the variables that influenced these outcomes. Between July and October 2008, the GPQ was sent out to all Australian domestic residents who had completed a bachelor degree in 2002. A total of 9,238 graduates' responses were received (approximately 12% response rate). Information was collected on graduates' demographic and bachelor degree(s) and their education and employment activities one (2003), three (2005), and five (2008) years after graduation. Item EA22_TX, which assesses respondents' rating of their overall employability is adapted from the employment history section of the GPQ. Item EA27_TX, which assesses the type of respondents' employment, and item EA32_TX, which asks whether respondents see themselves continuing this kind of work for the next 3 years, are adapted from the employment history section of the GPQ.

- Coates, H., & Edwards, D. (2009). The 2008 graduate pathways survey: Graduates' education and employment outcomes five years after completion of a bachelor degree at an Australian university. *Higher Education Research.* Retrieved February 19, 2011 from http://research.acer.edu.au/higher_education/12

Item EA26_TX: This item was designed by the GLSNZ team to assess the general area/field of the respondent's primary job. The response options were adapted from a list of job classifications on the New Zealand job website 'Seek' and correspond to the options for item FPCA3_TX. Response options were adapted so that the list was more comprehensive. In several instances where a series of jobs were listed together as one option, the GLSNZ team split the list up so that each job corresponded to a separate response option. 'Social work' and 'Academia' were added as response options.
- Seek (2011). *Job classifications*. Retrieved February 24, 2011 from http://www.seek.co.nz/

Item EA28_TX: Adapted from the World Values Survey 2010-2014. The World Values Survey (WVS) is a global network of social scientists studying changing values and their impact on social and political life, headquartered in Stockholm, Sweden. The survey started in 1981 and consists of nationally-representative surveys conducted in almost 100 countries, using a common questionnaire. The WVS is the largest non-commercial, cross-national, time series investigation of human beliefs and values, currently including interviews with almost 400,000 respondents. The WVS seeks to help scientists and policy makers understand changes in the beliefs, values and motivations of people throughout the world. Item EA28_TX is adapted from item V234 in the WVS.
- WORLD VALUES SURVEY Wave 6 2010-2014 OFFICIAL AGGREGATE v.20140429. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer: Asep/JDS, Madrid SPAIN. Retrieved from http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp

Items EA33_TX, EA34_TX, EA35_TX, EA36_TX, EA37_TX, EA38_TX: Taken as-is from the Dunedin Multidisciplinary Health and Development Study (DMHDS). Respondents are asked how frequently they experience each of 6 potential psychological job demands.
- Melchior, M., Caspi, A., Milne, B. J., Danese, A., Poulton, R., & Moffitt, T. E. (2007). Work stress precipitates depression and anxiety in young, working women and men. *Psychological Medicine*, *37*, 1119-1129. doi:10.1017/S0033291707000414

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	EA1_TX, EA2_TX, EA3_TX, EA4_TX, EA5_TX, EA6_TX, EA7_TX	7	8,719	All items administered.
T2	EA1_TX, EA2_TX, EA3_TX, EA4_TX, EA5_TX, EA6_TX, EA7_TX, EA18_TX, EA19_TX, EA20_TX, EA21_TX, EA22_TX, EA23_TX, EA24_TX, EA25_TX, EA26_TX, EA27_TX, EA28_TX, EA29_TX, EA30_TX, EA31_TX, EA32_TX, EA33_TX, EA34_TX, EA35_TX, EA36_TX, EA37_TX, EA38_TX	28		All items administered.
T5				
T10				

Scoring:

Item EA1_TX:
T0: Respondents indicate whether or not they were currently employed (No, Yes – full-time, Yes – part-time, Yes – self-employed).
T2: Respondents indicate whether or not they were currently employed (No, Yes). If yes, they indicated the type of employment (full-time salary/wage earner, part-time salary/wage earner, self-employed full-time, and self-employed part-time). Any number of options able to be selected (0 = Selected; 1 = Not selected).

Item EA2_TX: If employed, respondents indicate their job title and employer for their primary job. Open response.

Item EA3_TX:
T0: If employed, respondents indicate total number of hours worked per week (in their primary job). Open response.
T2: If employed, respondents indicate total number of hours they are paid to work per week (in their primary job) (EA3_TX) and the number of hours they actually work (EA3a_T2). Response options ranged from 1 = 1 hour to 60 = 60+ hours).

Item EA4_TX: If employed, respondents indicate the main duties of their primary job (5 lines available).

Item EA5_TX: If employed, respondents indicate the qualifications needed to do the job (5 lines available).

Item EA6_TX: Respondents indicate on a 5-item scale (1 = Not at all, 2 = Very little, 3 = Some, 4 = Quite a bit, 5 = Very much) how much their work is related to their field of study.

Item EA7_TX: Respondents indicate on a 5-item scale (1 = Not at all, 2 = Very little, 3 = Some, 4 = Quite a bit, 5 = Very much) how much they are able to apply skills gained from their studies to their job.

Item EA18_TX: Respondents indicate whether or not they have had paid work since the first survey (No, Yes).

Item EA19_TX: If respondents have had paid work since the first survey (an answer of 'yes' to EA18_TX), they indicate how they found this work. Any number of options able to be selected (0 = Selected; 1 = Not selected), including 'other' (plus specification in EA19ota_TX).

Item EA20_TX: If respondents have had paid work since the first survey (an answer of 'yes' to EA18_TX), they indicate how many employers they have had since the first survey. Response options ranged from 1 = 1 employer to 10 = 10+ employers.

Item EA21_TX: If respondents have had paid work since the first survey (an answer of 'yes' to EA18_TX), they indicate how many months they have been employed since the first survey. Response options ranged from 1 = 1 month to 30 = 30+ months.

Item EA22_TX: Respondents indicate how they rate their overall employability/skills on a 5-point Likert scale (Poor = 1, Weak = 2, Average = 3, Good = 4, Excellent = 5).

Item EA23_TX: Respondents indicate whether or not they have been unemployed since the first survey (No, Yes). If yes, participants specify the number of months of unemployment in item EA23a_TX (response options range from 1 = 1 month to 30 = 30+ months).

Item EA24_TX: Respondents indicate whether or not they have tried to obtain work in the last 4 weeks (No, Yes).

Item EA25_TX: If respondents have tried to obtain work in the last 4 weeks (an answer of 'yes' to EA24_TX), they indicate how they have been looking for work. Any number of options able to be selected (0 = Selected; 1 = Not selected), including 'other' (plus specification in EA25ota_TX).

Item EA26_TX: If employed, respondents indicate the general area/field, selecting one from a list of 37 options. If 'other' was endorsed, respondents specified the field in item EA26ota_TX.

Item EA27_TX: If employed, respondents indicate the type of their employment (Temporary or casual; Fixed-term contract up to 12 months; Fixed-term contract more than 12 months; Permanent or open-ended contract; Self-employed).

Item EA28_TX: If employed, respondents indicate whether they supervise other people at work (no; yes, sometimes; yes, usually). If respondents supervise other people, they indicate how many people they supervise in item EA28a_TX (open response).

Item EA29_TX: Respondents indicate the extent to which their knowledge and skills are utilised in their work on a 5-point Likert scale (Not at all = 1, To a very high extent = 5).

Item EA30_TX: Respondents indicate the extent to which their current work demands more knowledge and skills than they can offer on a 5-point Likert scale (Not at all = 1, To a very high extent = 5).

Item EA31_TX: Respondents indicate how satisfied they are with their current work on a 5-point Likert scale (Very dissatisfied = 1, to Very satisfied = 5).

Item EA32_TX: Respondents indicate whether they see themselves continuing this kind of work for the next 3 years on a 4-point Likert scale (Definitely no = 1, Probably no = 2, Probably yes = 3, Definitely yes = 4).

Items EA33_TX, EA34_TX, EA35_TX, EA36_TX, EA37_TX, EA38_TX: Respondents indicate if they experience each of 6 potential psychological job demands (0 = No; 1 = Sometimes; 2 = Yes). Sum all items. Min score = 0, max score = 12. A higher score indicates greater psychological job demands.

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: Earnings and Assets: EA1_TX – EA7_TX (T0) and Employment Status: EA1_TX – EA7_TX; EA18_TX –EA38_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	PSEQ Item
EA6_TX	How much is this work related to your field of study?	If you are working for pay, how much is this work related to your field of study?

Item	GLSNZ Survey Item	REFLEX Item
EA18_TX	Have you had paid work since the first survey in 2011? Include self-employment and trainee jobs. • No • Yes	Have you ever had paid work since graduation in 1999/2000? · Exclude jobs that you left within 6 months of graduation · Include self-employment · Include trainee jobs • yes, I continued (for more than 6 months) the work I already had during study • yes, I have started to work • no
EA20_TX	How many employers have you had altogether since the first survey in 2011? Include yourself if you have been self-employed. Include your current employer. • Response options range from 1 employer to 10+ employers	How many employers have you had altogether since graduation in 1999/2000? · Including yourself if you have been self- employed · Including current employer • Open response
EA21_TX	How many months in total have you been employed since the first survey in 2011? • Response options range from 1 month to 30+ months	How long in total have you been employed since graduation in 1999/2000? • Open response

Item	GLSNZ Survey Item	REFLEX Item
EA23_TX	Have you ever been unemployed (that is, not employed *and* seeking employment) since the first survey in 2011? • No • Yes If yes, how many months, in total, were you unemployed? • Response options range from 1 month to 30+ months	Have you ever been unemployed (that is, not employed **and** seeking employment) since graduation in 1999/2000? • Yes, ___ times for a total of approximately ___ months • No
EA24_TX	Thinking of the last 4 weeks, have you actively tried to obtain paid work? • No • Yes	Have you actively tried to obtain (other) paid work in the past 4 weeks? • Yes • No • No, but I am awaiting the results of earlier job applications

Item	GLSNZ Survey Item	GPQ Item
EA22_TX	How do you rate your overall employability and skills? • Poor • Weak • Average • Good • Excellent	How did you rate your overall employability and skills? • Poor • Weak • Average • Good • Excellent
EA27_TX	Which one of the following best describes your employment? • Temporary or casual • Fixed-term contract up to 12 months • Fixed-term contract more than 12 months • Permanent or open-ended contract • Self-employed	Which one of the following best described your employment? • Temporary or casual • Fixed-term contract up to 12 months • Fixed-term contract more than 12 months • Permanent or open-ended contract
EA32_TX	Do you see yourself continuing this kind of work for the next three years? • Definitely no • Probably no • Probably yes • Definitely yes	Did you see yourself continuing this kind of work for the next three to five years? • Definitely no • Probably no • Probably yes • Definitely yes

Item	GLSNZ Survey Item	REFLEX Item	Census Item
EA19_TX	How did you find this work? Select all that apply. • I was already in the position when I was completing my qualification in 2011 • Through advertisements in the newspaper • Through an employment agency • Through the internet • Contacted employer on own initiative • Approached by employer • Through work placement during study • Through family, friends or acquaintances • Set up my own business • Contacted Work and Income to look for a job • Contacted careers advisor or vocational guidance officers • Other (please specify)	How did you find this work? *Single answer only* • through advertisement in newspaper • through public employment agency • through private employment agency • through internet • contacted employer on own initiative • approached by employer • through work placement during higher education • through family, friends or acquaintances • through help of higher education institution • set up my own business • other *(please specify)*	Mark as many spaces as you need to show all the ways you looked for paid work in the last 4 weeks. • looked at job advertisements • wrote, phoned or applied in person to an employer • contacted Work and Income to look • for a job • contacted friends or relatives for help in finding a job • contacted career advisers or vocational guidance officers • other method(s), for example: *contacted other employment agency placed an advertisement about a job took steps to set up own business*
EA25_TX	Select as many options as you need to show all the ways you looked for paid work in the last 4 weeks. • Through advertisements in the newspaper • Through an employment agency • Through the internet • Contacted employer on own initiative • Approached by employer • Through work placement during study • Through family, friends or acquaintances • Set up my own business • Contacted Work and Income to look for a job • Contacted careers advisor or vocational guidance officers • Other (please specify)		

Item	GLSNZ Survey Item	World Values Survey Item
EA28_TX	Do you supervise other people at work? • No • Yes, sometimes • Yes, usually If yes, at any one time, approximately how many people do you usually supervise? (open response)	Do you or did you supervise other people at work? • Yes • No

Factors of Success (FS)

Appears as: *Factors of Success* (under the wider heading *SECTION 8: SUCCESS FACTORS*) (**T0**)

Variable names begin with: FS

Description: These items were designed to measure barriers to success and to determine whether there were any factors that helped or hindered the successful completion of the respondent's qualification(s) and what those factors were.

Scale construction: N/A

References: Developed by the GLSNZ team in response to suggestions from Pacific Islands pilot participants (2011).

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	FS1_TX, FS2_TX	2	8,719	All items administered.
T2	None	0	N/A	None administered.
T5				
T10				

Scoring:

Item FS1_TX: Respondents indicated whether or not there were any factors that hindered the completion of their qualification and what those factors were.

Item FS2_TX: Respondents indicated whether or not there were any factors that helped the completion of their qualification and what those factors were.

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: Success Factors, FS1_TX – FS2_TX (**T0**)

Rewording of original scales: N/A

Future Plans and Career Aspirations (FPCA)

Appears as: *Future Plans and Career Aspirations* (under the wider heading *SECTION 3: ASPIRATIONS, GOALS AND VALUES*) (T0, T2)

Variable names begin with: FPCA

Description: This questionnaire was constructed to assess respondents' future plans and career aspirations. Questions assess whether respondents intend to pursue a career, a job, or further study. Also assessed are respondents' plans for the next two years, the field they intend to seek employment in and what it is they are looking for in a career/job. Respondents are also asked what is most important to them in terms of choosing a career/job and the income they hope to earn. Finally, respondents are asked where they would like to be in 10 years time. The questionnaire consists of items from a range of sources described below.

Scale construction: N/A

References:

Items FPCA1_TX, FPCA4_TX, FPCA5_TX, FPCA6_TX: These questions and response options were developed by the GLSNZ team from a set of basic questions (without response options) supplied by the New Zealand Ministry of Education and Ministry of Women's Affairs, each of whom contracted the GLSNZ to ask a series of questions. The Ministry of Education is specifically interested in determining whether international PhD graduates are entering the New Zealand labour market, following the introduction of the 'domestic fees for international PhDs' policy. The Ministry of Women's Affairs is interested in examining what differences there are, with regard to employment outcomes and career progression, for male and female graduates. Ultimately, the Ministry of Women's Affairs aim to determine the factors that contribute to income differences between male and female graduates soon after leaving university. The questions that each of the Ministries contributed overlapped considerably (the Ministry of Education contributed an additional question not put forward by the Ministry of Women's Affairs). The Ministry of Women's Affairs suggested a question asking what graduates are looking for in a career and whether they are looking for a career and a job. The Ministry of Education also suggested a question what graduates are looking for in a career. From these two suggestions, the GLSNZ team created two questions. Item FPCA1_TX asks whether respondents intend to pursue a career or a job. The question was expanded to include examples and a third option (further study). A set of responses corresponding to the options outlined in the question was developed by the GLSNZ team. Note that the reference point for this question was changed from 'in the next 2 years' at T0 to 'in the next 3 years' at T2. At T2, the 'all of the above' option was removed. Item FPCA4_TX asks what factors respondents are looking for in a career. A set of response options was developed by the GLSNZ team. Item FCPA5_TX was requested by both ministries to tap 3 the most important factors among respondents' choices in the previous question (item FCPA4_TX). Item FCPA6_TX was requested by both ministries to determine where respondents would like to be in 5, 10 years time. The question was adapted so that it referred to one specific time point (10 years). It was considered too confusing to refer to two time points (which might yield very different responses) within

one question. A set of response options was developed by the GLSNZ team. At **T2**, the option 'living and working overseas' (**T0**) was split into 2 options: 'Working overseas' and 'travelling and/or living overseas.'

- The New Zealand Ministry of Education (2010). *Contract for the provision of services in relation to a survey of international PhD graduates as part of the 2011 Graduate Longitudinal Study.*
- The New Zealand Ministry of Women's Affairs (2010). *Contract with the Graduate Longitudinal Study New Zealand.*

Item FPCA2_TX: Adapted from the Postgraduate Student Engagement Questionnaire (PSEQ). The PSEQ is a questionnaire in the Postgraduate Survey of Student Engagement (POSSE). The PSEQ is conducted as part of the Australian Council for Educational Research's (ACER) Australasian Survey of Student Engagement (AUSSE). The aim of the AUSSE is to assess students' engagement in university study to help institutions evaluate and improve the quality of education that students receive. The AUSSE was conducted for the first time in 2007, with 25 Australian and New Zealand universities taking part. In 2008, 29 institutions participated and in 2009, 35 institutions participated. The PSEQ is one of three surveys run by the AUSSE. The AUSSE also runs the Student Engagement Questionnaire (SEQ), which assesses first- and third-year undergraduate students' engagement and the Staff Student Engagement Questionnaire (SSEQ), which assesses staff perspectives on student engagement. The PSEQ is adapted from the SEQ to assess postgraduate students. It is completed online and takes around 15 minutes. The PSEQ was trialed in 2009 on a group of Australian universities and was offered to all institutions taking part in the AUSSE from 2010. The PSEQ contains six student engagement scales (Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experiences, Supportive Learning Environment, and Work Integrated Learning) and seven outcome measures (Higher-Order Thinking, General Learning Outcomes, General Development Outcomes, Career Readiness, Average Overall Grade, Departure Intention, and Overall Satisfaction). Data is also collected on individual demographics and educational contexts. Item FPCA2_TX is adapted from a Departure Intention (outcome measure) item in the PSEQ assessing future plans. Note that the reference point for this question was changed from 'in the next 2 years' at **T0** to 'in the next 3 years' at **T2** to reflect the interval between survey phases.

- The Australian Council for Educational Research (ACER) (2010). *The Postgraduate Student Engagement Questionnaire (PSEQ) from the Postgraduate Survey of Student Engagement (POSSE): The Australasian Survey of Student Engagement (AUSSE).* Retrieved February 18, 2011 from http://ausse.acer.edu.au/images/docs/AUSSE_2010_POSSE.pdf

Item FPCA3_TX: Following consultation with GLSNZ stakeholders regarding the contents of the survey, Ministry of Education staff suggested a question examining what area/field respondents plan to seek employment in. The suggestion was submitted verbally by the Ministry of Education staff in a meeting held by the GLSNZ team to garner feedback on the draft survey on 2 November 2010. The wording of the question was adapted so that it was consistent with other items in the questionnaire. The response options were adapted from a list of job classifications on the New Zealand job website 'Seek.' Response options were adapted so that the list was more comprehensive. In several instances where a series of jobs were listed together as one option, the GLSNZ team split the list up so that each job corresponded to a separate response option. 'Social work' and 'Academia' were added as response options. Note that the reference point for this question was changed from 'in the next 2 years' at **T0** to 'in the next 3 years' at **T2** to reflect the interval between survey phases.

- The Ministry of Education (2010, November). Field of Employment item. *Verbal Communication*.
- Seek (2011). *Job classifications*. Retrieved February 24, 2011 from http://www.seek.co.nz/

Item FPCA7_TX: Designed by the GLSNZ team as a screen question to determine whether or not participants intended to undertake paid work in the next 3 years (**T2**).

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	FCPA1_TX, FPCA2_TX, FPCA3_TX, FPCA4_TX, FPCA5_TX, FPCA6_TX	6	8,719	All items administered.
T2	FCPA1_TX, FPCA2_TX, FPCA3_TX, FPCA4_TX, FPCA5_TX, FPCA6_TX, FPCA7_TX	7		All items administered.
T5				
T10				

Scoring:

Item FCPA1_TX:
T0: Respondents indicate whether they intend to seek a career, a job, pursue further study (specifying at which institution), all of these options, or other (specifying other). Any number of options able to be selected (0 = Not selected; 1 = Selected).
T2: Respondents indicate whether they intend to seek a career, a job, pursue further study (specifying at which institution), or other (specifying other). Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item FCPA2_TX: If respondents had indicated that they intended to pursue employment, they indicated whether they plan to work in New Zealand, work overseas (specifying country), work in their country of origin (specifying country), or none of the above. Any number of options able to be selected.

Item FCPA3_TX: If respondents had indicated that they intended to pursue employment, they indicate in which field. Option to specify other fields available (FPCA3ota_TX). Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item FCPA4_TX: Respondents indicate what they are looking for in a career/job. Option to specify other factors available (FPCA4ota_TX). Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item FCPA5_TX: Respondents rank the top 3 factors that are most important to them.

Item FCPA6_TX: Respondents indicate where they would like to be in 10 years time. Any number of options able to be selected (0 = Not selected; 1 = Selected). Option to specify "other" in item FPCA6ota_TX.

Item FPCA7_TX: Respondents indicate whether they intend to undertake paid work (No, Yes).

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: Future Plans and Career Aspirations, FPCA1_TX – FPCA6_TX (T0) and FPCA1_TX – FPCA7_TX (T2).

Rewording of original scales:

Item	GLSNZ Survey Item	PSEQ (2010) Item	Reason(s) for adapting item
FPCA2_TX	In the next 2(T0)/3(T2) years do you plan to… Select all that apply. Work in New Zealand Work overseas, please specify where: Work in your country of origin, please specify where: None of the above	What are your plans for next year? Mark all that apply. Continue with current study; Shift to another university; Move to vocational education and training; Leave university before finishing qualification; Change to another qualification; Leave university having completed qualification	Time frame changed from one to two years to ensure consistency with other questions. Response options were changed because the GLSNZ team was interested in establishing where respondents intended to work (in New Zealand or offshore). The preceding question in the survey (FCPA1_TX) tapped whether respondents intended to go into further study and thus the PSEQ response options were considered unnecessary.

General Comments (GC)

Appears as: *General Comments* under the wider heading *SECTION 9: GENERAL COMMENTS AND CONTACT DETAILS* (**T0**) and *SECTION 8: LIFE CIRCUMSTANCES, GENERAL COMMENTS AND CONTACT DETAILS* (**T2**)

Variable names begin with: GC

Description: These items were included at the end of the entire survey so that respondents could provide additional information, feedback, or clarify responses already given, should they wish to do so.

Scale construction: N/A

References:

Item GC_TX: Developed by the GLSNZ team in response to suggestions from Māori pilot participants (2011).

Item GC4_TX: Designed by the GLSNZ team to assess respondents' perceptions of the length of the survey.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	GC_TX	1	8,719	Item administered.
T2	GC_TX, GC4_TX	2		All items administered.
T5				
T10				

Scoring:

Item GC1_TX: Open-field response format.

Item GC4_TX: Respondents indicated what they thought of the survey's length (I'd be happy to answer more questions; It was just about right; It was too long).

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: General Comments, GC_TX (T0) and GC1_TX, GC4_TX (T2)

Rewording of original scales: N/A

General Demographics and University Details (GDUD)

Appears as: *General Demographics and University Details* (T0) or *General Demographics* (T2) (under the wider heading *SECTION 1: GENERAL AND BACKGROUND INFORMATION*)

Variable names begin with: GDUD

Description: This section was constructed to assess participants' personal details (e.g., date of birth, gender, ethnicity), background (e.g., schooling, parents' education and occupation), residency status and English language skills (e.g., English language fluency, English language tests taken), and university enrolment details (e.g., reasons for attending particular university, choosing a topic/field). The questionnaire consists of items from several sources described below. At T2, it was expanded to include items assessing respondents' contact with their parents.

Scale construction: N/A

References:

Items GDUD1_TX, GDUD6_TX, GDUD7_TX, GDUD9_TX, GDUD17_TX , GDUD18_TX , GDUD19_TX: Developed by the GLSNZ team. Note that item GDUD7_TX was altered at T2 to include a further sub-question asking respondents' to indicate the age(s) of their children.

Items GDUD2_TX, GDUD3_TX, GDUD4_TX, GDUD5_TX: Taken from the New Zealand Census of Population and Dwellings (2011). The New Zealand census is conducted every five years to assess the number and type of people and dwellings there are in New Zealand. The census is carried out to help with planning public services (e.g., education, health, housing, and transport). It is also used to keep track of societal change. Taken from the Individual Form of the New Zealand Census of Population and Dwellings (2011), item GDUD2_TX corresponds to question 3 on the census form and assesses respondents' sex. Adapted from the same Individual Form of the New Zealand Census of Population and Dwellings (2011), item GDUD3_TX corresponds to question 11 on the census form and assesses respondents' ethnicity. Item GDUD4_TX is adapted from question 14 on the same Individual Form and assesses whether participants are of Māori descent. Item GDUD5_TX is taken from question 15 on the Individual Form and asks participants of Māori descent to list their iwi (tribes) and rohe (iwi area).
- Statistics New Zealand Census (2011). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved February 13, 2011 from http://www.stats.govt.nz/census/2011-census/2011-census-forms-and-guidenotes.aspx

Item GDUD8_TX: Adapted from the Postgraduate Student Engagement Questionnaire (PSEQ). The PSEQ is a questionnaire in the Postgraduate Survey of Student Engagement (POSSE). The PSEQ is conducted as part of the Australian Council for Educational Research's (ACER) Australasian Survey of Student

Engagement (AUSSE). The aim of the AUSSE is to assess students' engagement in university study to help institutions evaluate and improve the quality of education that students receive. The AUSSE was conducted for the first time in 2007, with 25 Australian and New Zealand universities taking part. In 2008, 29 institutions participated and in 2009, 35 institutions participated. The PSEQ is one of three surveys run by the AUSSE. The AUSSE also runs the Student Engagement Questionnaire (SEQ), which assesses first- and third-year undergraduate students' engagement and the Staff Student Engagement Questionnaire (SSEQ), which assesses staff perspectives on student engagement. The PSEQ is adapted from the SEQ to assess postgraduate students. It is completed online and takes around 15 minutes. The PSEQ was trialed in 2009 on a group of Australian universities and was offered to all institutions taking part in the AUSSE from 2010. The PSEQ contains six student engagement scales (Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experiences, Supportive Learning Environment, and Work Integrated Learning) and seven outcome measures (Higher-Order Thinking, General Learning Outcomes, General Development Outcomes, Career Readiness, Average Overall Grade, Departure Intention, and Overall Satisfaction). Data is also collected on individual demographics and educational contexts. Item GDUD8_TX is adapted from an individual demographics item in the PSEQ assessing current living arrangements.

- The Australian Council for Educational Research (ACER) (2010). *The Postgraduate Student Engagement Questionnaire (PSEQ) from the Postgraduate Survey of Student Engagement (POSSE): The Australasian Survey of Student Engagement (AUSSE).* Retrieved February 18, 2011 from http://ausse.acer.edu.au/images/docs/AUSSE_2010_POSSE.pdf

Items GDUD15_TX, GDUD16_TX, GDUD22_TX: Adapted from the University of Otago 2009 Graduate Opinion Survey. The survey has been conducted annually since 1998 and is targeted at individuals who have graduated in the preceding 18- to 24-month period. The survey is divided into five sections in total. Section A asks participants about their course details. Section B concerns graduates' perspectives on their learning while at Otago University using the Course Experience Questionnaire (CEQ). In Section C, individuals who completed postgraduate qualifications are asked to evaluate the quality of supervision and support they received as postgraduate students. Section D examines whether a range of skills were developed at University and the extent to which these skills have transferred to life beyond university. The final section, Section E, asks respondents to provide some basic demographic information. The results of this annual survey are used for Departmental Reviews, the University's yearly Statement of Objectives, and its Annual Report. All of the items adapted for the GLSNZ's General Demographics and University Details (GDUD) section are taken from the demographics section (Section E) of the University of Otago Graduate Opinion Survey. Item GDUD15_TX is adapted from question E2 and assesses respondents' residency status. Note that this item was changed at **T2** so that respondents were able to select multiple options (and thereby negating the need for a "multiple citizenship") option. Item GDUD16_TX is adapted from question E5 and evaluates whether respondents' first language is English. Item GDUD22_TX is adapted from question E8 and asks respondents to indicate why they chose to study at the institution they attended. The response options for this item were expanded by GLSNZ to include suggestions from stakeholders and pilot participant groups.

- University of Otago (2009). *2009 Graduate Opinion Survey: Summary report, September 2009*. Dunedin, NZ: University of Otago.
- Statistics New Zealand*. Documentation about the directory of regional statistics.* Retrieved October 14, 2010 from http://www2.stats.govt.nz/domino/external/web/DRS02.nsf/21.%20Supporting%20Documentation/About%20the%20Directory%20of%20Regional%20Statistics?OpenDocument

Items GDUD10_TX, GDUD11_TX, GDUD12_TX, GDUD13_TX: Adapted from the Graduate Pathways Questionnaire (GPQ). The GPQ is a questionnaire in the Graduate Pathways Survey (GPS). The GPS was conducted by the Australian Council for Educational Research (ACER) in 2008. The GPS assessed all Australian domestic residents who had completed a bachelor degree in 2002. The aim of the GPS was to evaluate employment outcomes five years after graduates had completed their bachelor degrees, the way in which such outcomes changed over time, the paths graduates took on their way to these outcomes, and the variables that influenced these outcomes. Between July and October 2008, the GPQ was sent out to all Australian domestic residents who had completed a bachelor degree in 2002. A total of 9,238 graduates' responses were received (approximately 12% response rate). Information was collected on graduates' demographic and bachelor degree(s) and their education and employment activities one (2003), three (2005), and five (2008) years after graduation. Items GDUD10_TX, GDUD11_TX, GDUD12_TX, and GDUD13_TX are adapted from the demographics section of the GPQ. Responses to these items, which assess the highest level of education completed by the respondent's mother and father and their respective occupations, are used as an index of the respondent's socioeconomic status.

- Coates, H., & Edwards, D. (2009). The 2008 graduate pathways survey: Graduates' education and employment outcomes five years after completion of a bachelor degree at an Australian university. *Higher Education Research.* Retrieved February 19, 2011 from http://research.acer.edu.au/higher_education/12

Item GDUD14_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Victoria University staff suggested a question examining whether the respondent was the first member of his/her family to attend university in an effort to assess social mobility. The suggestion was submitted verbally by Victoria University staff in a meeting held by the GLSNZ team to garner feedback on the draft survey on 2 November 2010.

- Victoria University of Wellington (2010, November). Social mobility item. *Verbal Communication*.

Item GDUD20_TX: Following the Māori consultation process with GLSNZ partners regarding the contents of the survey, Massey University staff and AUT staff suggested a question examining respondents' fluency in Teo Reo Māori. The suggestions were submitted electronically by Massey University staff on 20 July 2011 and by AUT staff on 14 June 2011. The GLSNZ team constructed a specific question in response to these suggestions.

- Massey University (2011, July). Te Reo Māori Fluency item. *Email Communication*.
- Auckland University of Technology (AUT) (2011, June). Te Reo Māori Fluency item. *Email Communication*.

Item GDUD21_TX: Following the Māori consultation process with GLSNZ partners regarding the contents of the survey, AUT staff suggested a question examining respondents' fluency in sign language. The suggestion was submitted electronically by AUT staff on 14 June 2011. The GLSNZ team constructed a specific question in response to this suggestion.

- Auckland University of Technology (AUT) (2011, June). Sign Language Fluency item. *Email Communication*.

Item GDUD24_TX: This item was developed in response to a question supplied by the New Zealand Ministry of Education and Ministry of Women's Affairs regarding why respondents chose their particular field of study. The item was adapted from the 2003 Career Path Survey of Former Particle Physics and Astronomy Research Council (PPARC) PhD Students. DTZ Pieda Consulting and Swift Research Ltd conducted the survey on behalf of PPARC. The aim of the

survey was to examine the sorts of careers that former PhD students had gone into and how valuable PhD programmes were once graduates were in the workforce. Study participants were comprised of individuals who took up a PPARC PhD award between 1992/93 and 1995/96. The study served as an update on an earlier study conducted in 1995. The 1995 study recruited former PPARC PhD students whose awards ended between 1986/88. The 2003 study's specific objectives were to determine whether there had been any change since the 1995 study in the sorts of job sectors that PPARC PhD students went into, how easy it was for PPARC PhD students to find jobs, respondents' reasons for completing a PPARC PhD, and whether the skills attained as a result of completing a PPARC PhD had changed since the 1995 study. Item GDUD24_TX is adapted from 'Part A: Your PhD' (question 7) of the survey and examines respondents' reasons for undertaking a PhD in the particular area they chose.

- Research Councils UK: Science and Technology Facilities Council (2003). *A study of the career paths of PPARC PhD students*. Retrieved February 22, 2011 from http://www.so.stfc.ac.uk/publications/PDF/PiedaNewCohort.pdf
- The New Zealand Ministry of Education (2010). *Contract for the provision of services in relation to a survey of international PhD graduates as part of the 2011 Graduate Longitudinal Study.*
- The New Zealand Ministry of Women's Affairs (2010). *Contract with the Graduate Longitudinal Study New Zealand.*

Items GDUD23_TX, GDUD25_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Victoria University staff suggested that for items GDUD22_TX and GDUD24_TX, respondents should be asked to rank order the selections they had made in order to determine the relative importance of respondents' reasons for attending their particular university (item GDUD22_TX) and their reasons for choosing their field of study (item GDUD24_TX). The suggestion was submitted via email by Victoria University staff on 28 March 2011.

- Victoria University of Wellington (2011, March). Item rankings. *Email Communication*.

Items GDUD 26_TX, GDUD27_TX: Adapted from van der Meer et al. (2010) who surveyed 135 self-identified Māori students at the University of Otago in 2008 about their opinions on a range of issues related to their studies and their knowledge and use of support structures in the university. Items GDUD26_TX and GDUD27_TX ask about Māori respondents' perceptions of their Māori identity and their feelings of confidence in a Māori setting, respectively. Examples were added to item GDUD27_TX to make the item clearer and the response scale was altered slightly. Item GDUD26_TX was taken as-is from van der Meer et al.

- van der Meer, J., Scott, S., & Neha, T. (2010). Retention of first-year Māori students at university. *MAI Review*, *2*.

Item GDUD28_TX: Adapted from the New Zealand Census of Population and Dwellings (2013). The New Zealand census is conducted every five years to assess the number and type of people and dwellings there are in New Zealand. The census is carried out to help with planning public services (e.g., education, health, housing, and transport). It is also used to keep track of societal change. Taken from the Individual Form of the New Zealand Census of Population and Dwellings (2013), item GDUD28_TX corresponds to question 5 on the census form and assesses where respondents currently reside.

- Statistics New Zealand Census (2013). *New Zealand Census of Population and Dwellings, Individual Form*. Retrieved from http://www.stats.govt.nz/Census/2013-census/info-about-the-census/forms-guidenotes.aspx

Items GDUD29_TX, GDUD34_TX: Adapted from the International Social Survey Programme (ISSP) (2001) – Social Relational and Support Systems (Social Networks II) Questionnaire. The ISSP is a continuing annual programme of cross-national collaboration on surveys covering topics important for social science research. It brings together pre-existing social science projects and coordinates research goals, thereby adding a cross-national, cross-cultural perspective to the individual national studies. As of 2012, members include 49 countries. Item GDUD29_TX was adapted from Q36 of the ISSP Social Networks II Questionnaire and assess how long respondents' have lived where they currently reside. Item GDUD34_TX was adapted from Q9 – Q12 of the ISSP Social Networks II Questionnaire and assess how often respondents' have contact with each of their parents.

- SSP Research Group (2003): *International Social Survey Programme: Social Relations and Support Systems / Social Networks II - ISSP 2001*. GESIS Data Archive, Cologne. ZA3680 Data file Version 1.0.0. [doi:10.4232/1.3680](https://dbk.gesis.org). Retrieved from: https://dbk.gesis.org/dbksearch/sdesc2.asp?no=3680.

Items GDUD30_TX, GDUD31_TX, GDUD33_TX: Adapted from the National Survey of Families and Households (NSFH). The NSFH was designed to provide a broad range of information on family life to serve as a resource for research across disciplinary perspectives. Life-history information was collected from participants, including: The respondent's family living arrangements in childhood, departures and returns to the parental home, and histories of marriage, cohabitation, education, fertility, and employment. The design permits the detailed description of past and current living arrangements and other characteristics and experiences, as well as the analysis of the consequences of earlier patterns on current states, marital and parenting relationships, kin contact, and economic and psychological well-being. Interviews were conducted in 1987-88 (Wave 1), 1992-94 (Wave 2), and 2001-2003 (Wave 3). Items GDUD30_TX and GDUD31_TX are taken from items RF1, RF2, RF4, and RF5 and ask whether respondents' parents are still living and, if so, how old they are. Item GDUD33_TX is adapted from items RF18 and RF30 and assess the quality of respondents' relationships with their parents.

- Sweet, J. A., & Bumpass, L. L. (2002). *The National Survey of Families and Households - Waves 1, 2, and 3: Data description and documentation*. Center for Demography and Ecology, University of Wisconsin-Madison (http://www.ssc.wisc.edu/nsfh/home.htm). Retrieved from: http://www.ssc.wisc.edu/nsfh/codedata3.htm.

Item GDUD 32_TX: This items concern the general health of respondents' parents are taken from the Dunedin Multidisciplinary Health and Development Study (DMHDS) Diagnostic Interview Schedule.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	GDUD1_TX, GDUD2_TX, GDUD3_TX, GDUD4_TX, GDUD5_TX, GDUD6_TX, GDUD7_TX, GDUD8_TX, GDUD9_TX, GDUD10_TX, GDUD11_TX, GDUD12_TX, GDUD13_TX, GDUD14_TX, GDUD15_TX, GDUD16_TX, GDUD17_TX, GDUD18_TX, GDUD19_TX, GDUD20_TX, GDUD21_TX, GDUD22_TX, GDUD23_TX, GDUD24_TX, GDUD25_TX	25	8,719	All items administered.
T2	GDUD1_TX, GDUD2_TX, GDUD3_TX, GDUD4_TX, GDUD5_TX, GDUD6_TX, GDUD7_TX, GDUD8_TX, GDUD15_TX, GDUD16_TX, GDUD17_TX, GDUD20_TX, GDUD21_TX, GDUD26_TX, GDUD27_TX, GDUD28_TX, GDUD29_TX, GDUD30_TX, GDUD31_TX, GDUD32_TX, GDUD33_TX, GDUD34_TX	22		All items administered.
T5				
T10				

Scoring:

Item GDUD1_TX: Respondents enter their date of birth in dd/mm/yyyy format.

Item GDUD2_TX: Respondents indicate their sex (1 = Male, 2 = Female).

Item GDUD3_TX: Respondents indicate their ethnicity (specifying other in GT3ota_TX). Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD4_TX: Respondents indicate whether they are of Māori descent (1 = Yes, 0 = No, 99 = Don't know).

Item GDUD5_TX: If respondents indicated that they are of Māori descent (item GDUD4_TX), they indicate whether they know the name of their iwi (1 = Yes, 0 = No). If yes, respondents select their iwi from a comprehensive list (specifying other in GDUD5ota_TX). Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD6_TX: Respondents indicate their relationship status (Single; In a relationship but not living together; De facto; Married/civil union; Divorced/separated; Widowed).

Item GDUD7_TX:
T0: Respondents indicate whether they are a parent (Yes, No) and, if yes, how many children they have (1 = 1 to 20 = 20) in item GDUD7a_TX.
T2: Respondents indicate whether they are a parent (Yes, No) and, if yes, how many children they have (1 = 1 to 20 = 20) in item GDUD7a_TX. Respondents who have children are then asked to specify the age of each child (0 = Less than 1 year; 1 = 1 year; ... etc.; to 18 = 18+ years) in item GDUD7b_TX.

Item GDUD8_TX: Respondents indicate their living arrangements (specifying other in GDUD8ota_TX) (Living with friends or in a shared house; Living with parents/guardians; Living by self; Living with partner/spouse and/or children; Living in a university hall/college of residence; Other).

Item GDUD9_TX: Respondents indicate their most recent secondary school (string).

Items GDUD10_TX, GDUD12_TX: Respondents indicate the highest level of education completed by their father and mother, respectively (No secondary school; Some/all secondary school; Vocational certificate/diploma; Undergraduate qualification; Postgraduate qualification; Not sure; N/A).

Items GDUD11_TX, GDUD13_TX: Respondents indicate the most recent main occupation of their father and mother, respectively (string).

Item GDUD14_TX: Respondents indicate whether they are first in their family to attend university (1 = Yes, 0 = No).

Item GDUD15_TX:
T0: Respondents indicate their residency status (NZ citizen/resident; Australian citizen/resident; International citizenship; Multiple citizenship), specifying international citizenship (GDUD15a_TX) and multiple citizenship (GDUD15b_TX).
T2: Respondents indicate their residency status (NZ citizen/resident; Australian citizen/resident; International citizenship), specifying international citizenship (GDUD15ca_TX). Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD16_TX: Respondents indicate whether English is their first language (Yes, No). If no, they indicate their first language (string) in GDUD16a_TX.

Items GDUD17_TX, GDUD20_TX, GDUD21_TX: Respondents indicate their levels of fluency in English (if English is not their first language), Te Reo Māori, and sign language, respectively, on 5-point Likert scales (Not at all fluent = 1, Very fluent = 5). Min score = 1, max score = 5 for each item. A higher score indicates greater proficiency in the language.

Item GDUD18_TX: If English is not respondents' first language, they indicate whether they were required to take a test of English proficiency (Yes, No). If yes, respondents specify the test taken in item GDUD18a_TX.

Item GDUD19_TX: If English is not respondents' first language, and they were required to take a test of English proficiency, they indicate whether the test taken is sufficient for success in NZ universities (Yes, No).

Item GDUD22_TX: Respondents indicate why they chose the university they attended, specifying other in GDUD22ota_TX. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD23_TX: Respondents rank the top 3 reasons from item GDUD22_TX.

Item GDUD24_TX: Respondents indicate why they chose their topic/field of study, specifying other in GDUD24ota_TX. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item GDUD25_TX: Respondents rank the top 3 reasons from item GDUD24_TX.

Item GDUD 26_TX: If respondents select Māori ethnicity in item GDUD3_TX, they indicate how comfortable they are with their Māori identity on a 5-point Likert scale (1 = Strongly disagree to 5 = Strongly agree).

Item GDUD 27_TX: Respondents indicate how confident they feel in a Māori setting on a 5-point Likert scale (1 = Not at all confident to 5 = Very confident).

Item GDUD 28_TX: Respondents indicate the city, town, or district (GDUD28a_TX) and country (GDUD28b_TX) in which they currently live (string).

Item GDUD 29_TX: Respondents indicate how long they have lived where they currently live (1 = Less than 1 month; 2 = 1 to 6 months; 3 = 7 to 12 months; 4 = More than 12 months).

Item GDUD 30_TX: Respondents indicate whether their mother (GDUD30a_TX) and father (GDUD30b_TX) are still living (0 = No, 1 = Yes, 99 = Don't know, 88 = N/A).

Item GDUD 31_TX: If their parents are still living, respondents indicate the current ages (in years) of their mother (GDUD31a_TX) and father (GDUD31b_TX) (string).

Item GDUD 32_TX: If their parents are still living, respondents describe the health of their mother (GDUD32a_TX) and father (GDUD32b_TX) on a 5-point Likert Scale ranging from 1 = Excellent to 5 = Poor, and an additional option (99 = Don't know).

Item GDUD 33_TX: If their parents are still living, respondents describe the quality of their relationship with their mother (GDUD33a_TX) and father (GDUD33b_TX) on an 11-point Likert Scale ranging from 0 = Very poor to 10 = Excellent.

Item GDUD 34_TX: If respondents' parents are still living, they indicate how often they have contact with their mother (GDUD34a_TX) and father (GDUD34b_TX) (1 = Daily; 2 = At least several times a week; 3 = At least once a week; 4 = At least once a month; 5 = Several times a year; 6 = Less often; 7 = Never).

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: General Demographics and University Details, GDUD1_TX – GDUD25_TX (**T0**) and General Demographics, GDUD1_TX - GDUD8_TX; GDUD15_TX – GDUD17_TX; GDUD20_TX; GDUD21_TX; GDUD26_TX – GDUD34_TX (**T2**)

Rewording of original scales:

Item	GLSNZ Survey Item	NZ Census (2011) Item	Reason(s) for adapting item
GDUD4_TX	Are you of Māori descent (i.e., did you have a Māori birth parent, grandparent or great-grandparent, etc.)?	Are you descended from a Māori (that is, did you have a Māori birth parent, grandparent or great-grandparent, etc)?	Capitalised first letter of response options to ensure item followed same format as other response options in GLSNZ survey. Wording of question adapted slightly to render it less abrupt.
Item	**GLSNZ Survey Item**	**NZ Census (2013) Item**	**Reason(s) for adapting item**
GDUD28_TX	Where do you currently live? City, town or district **and** country: _____	Where do you usually live? Options included for full street address.	For confidentiality reasons, we only requested city/town of residence rather than full street address.
Item	**GLSNZ Survey Item**	**ACER PSEQ (2010) Item**	**Reason(s) for adapting item**
GDUD8_TX	Which of the following describes your current living arrangements? Select the option that best applies to you. Living with friends or in a shared house; Living with parents or guardians; Living by myself; Living with partner/spouse and/or children; University hall or college of residence; Other, please specify:	Which of the following describes your current living arrangement? Select the option that best applies to you. On campus in a university college or hall of residence; Off campus student accommodation; Living with friends or in a share house; Living with parents or guardians; Living by yourself; Living with a partner or children; Other	Changed order in which response options presented so that options likely to be selected most often presented at top of list. Wording of some response options adapted to better reflect NZ context. 'Off campus student accommodation' option omitted as 'University hall or college of residence' option was considered to capture both on-campus and off-campus student accommodation.

Item	GLSNZ Survey Item	GPQ (2008) Item	Reason(s) for adapting item
GDUD10_TX	What is the highest level of education completed by your father/male caregiver? Did not attend secondary school; Some or all of secondary school; Vocational certificate or diploma (e.g., certificate in construction); Undergraduate university degree, certificate, or diploma; Postgraduate university degree, certificate, or diploma; Not sure; N/A	What is the highest level of education completed by your father? No school or primary school; Some or all of secondary school; Vocational certificate or diploma; University degree or diploma; Not sure	'Male caregiver' was added to the question to cover instances in which the respondent does not have a father or was raised by another male. The response option 'No school or primary school' was omitted to suit the New Zealand context. The response option 'University degree or diploma' was extended to include 'certificate.' 'Undergraduate' preceded the list of qualifications. 'Postgraduate university degree or diploma' was added as a response option as it was considered important to note the level of qualification parents had attained. 'N/A' was added as an option to cover instances in which the respondent does not know their father. Example added to 'Vocational Certificate...' to clarify.
GDUD11_TX	What is your father/male caregiver's current or most recent <u>main</u> occupation (e.g., schoolteacher, sales manager, homemaker)? (Open response); N/A	What was your father's main occupation during your final year of primary school? For example: SCHOOL TEACHER, KITCHEN HAND, SALES MANAGER, UNEMPLOYED, HOME DUTIES	'Male caregiver' was added to the question to cover instances in which the respondent does not have a father or was raised by another male. 'Current or most recent' main occupation was considered more relevant than 'during your final year of primary school.' The list of examples was shortened in the interests of brevity. 'N/A' was added as an option to cover instances such as when the respondent does not know their father.
GDUD12_TX	As per item GDUD11_TX but with reference to mother/female caregiver.		
GDUD13_TX	As per item GDUD12_TX but with reference to mother/female caregiver.		

Item	GLSNZ Survey Item	Otago Graduate Opinion Survey Item	Reason(s) for adapting item
GDUD15_TX	What is your residency status? **T0**: New Zealand citizen/permanent resident; Australian citizen/permanent resident; International citizenship (i.e., do not have Australian or New Zealand permanent citizenship/residency), please specify:; Multiple citizenship (e.g., dual citizenship) **T2**: New Zealand citizen/permanent resident; Australian citizen/permanent resident; International citizenship, please specify ___	Student status in your final year: New Zealand student; Australian student; International student *(does not include holders of Australian or New Zealand permanent residency)*	Question reworded so that it was more explicit about the fact that it was citizenship/residency status that was of interest. The term 'student status' was considered too vague. Item changed at T2 to allow respondents to select multiple options, negating the need for the "multiple citizenship" option.
GDUD16_TX	Is English your first language?	Is your first language English?	Question reworded so that it was more direct.

Item	GLSNZ Survey Item	Otago Graduate Opinion Survey Item	Reason(s) for adapting item
GDUD22_TX	Why did you choose the university you are currently attending? Select all those that apply. Family connection; Talking to older students or graduates; Friends were attending same university; The academic reputation of the university; The opportunity to work with a particular academic; The university offered the course/programme relevant to the career I sought to pursue; Costs (e.g., living, travel, fees); Culturally appropriate programmes of study; Campus lifestyle; Good halls of residence; Course/ programme availability; Good support systems (e.g. Maori, Pacific Island and International support); Location; It was the nearest university; Advice from teacher/career adviser; University marketing (e.g., open days, advertisement); Scholarship(s) availability; To enjoy new places; To meet new people; To increase independence; Other, please specify:	Why did you choose to study at the University of Otago? *(select up to 3 from the following)* Family connection and/or talking to older students or graduates; The academic reputation of the University; Campus lifestyle and good Halls of Residence; Course available only at Otago; Nearest university; To enjoy new places, people and to increase independence; Other *(please specify)*	The question was adapted so it applied to Universities in general (not just the University of Otago). Respondents were permitted to select as many options as they felt applied. The list of response options was extended to render it more comprehensive. Some response options that contained two parts (e.g., 'Campus lifestyle and good Halls of Residence') were separated as both were considered areas of interest and leaving them combined would have prevented the GLSNZ team from drawing specific conclusions about respondents' motivations for attending a particular University.

Item	GLSNZ Survey Item	PPARC PhD Survey (2003) Item	Reason(s) for adapting item
GDUD24_TX	Why did you choose your particular topic/field of study? Select all those that apply. A strong interest in the topic/field; Wanted to pursue a career in this topic/field; To increase my earning potential; Lower course fees; Did not know what else to do (e.g., no career plans at the time); No suitable alternative employment; Friend(s)/peer(s) were pursuing this field; Recommendation of careers adviser and/or someone working in the field; Recommendation of teacher(s); Family expectations; Other, please specify:	Why did you decide to study for a PhD in your subject area? PLEASE ✓ ALL THAT APPLY AND THEN ✓ THE MAIN REASON A 'love' of the subject/research; Wanted to pursue a career in academia/research; To enhance general career prospects; Did not know what else to do (eg no career plans at the time); No suitable alternative employment; Friends/peers were taking PhDs; Encouraged by college/university staff or parents/family to do it; Enjoyed university life; Other *(please provide details below)*	Items adapted to suit New Zealand context. Items and wording of question adapted to suit the general student population rather than PhD students specifically. More options added to capture a wider range of potential reasons for choosing a particular field.
Item	**GLSNZ Survey Item**	**van der Meer et al. (2010) Item**	**Reason(s) for adapting item**
GDUD27_TX	How confident do you feel in a Māori setting (e.g., on a marae, at a powhiri, attending hui or tangihanga)? Response options: 1 = Not at all confident to 5 = Very confident	I feel confident in a Māori setting. Response options: 1 = Strongly disagree to 5 = Stronly agree	Examples added to clarify question. Item (and corresponding response options) reworded to question, rather than statement, format to conform to format of preceding items.

Item	GLSNZ Survey Item	ISSP Item (2001)	Reason(s) for adapting item
GDUD29_TX	How long have you lived in the location (above) where you live now? Less than 1 month; 1 to 6 months; 7 to 12 months; More than 12 months	How long have you lived in the city, town or local community where you live now? Since birth; Since the year _____	Specific response options added for ease and clarity.
GDUD34_TX	How often do you have contact with your <u>mother</u> (GDUD34a_TX)/<u>father</u> (GDUD34b_TX), either in person or by any other means (e.g., phone, letter, email, skype, etc.)? Daily; At least several times a week; At least once a week; At least once a month; Several times a year; Less often; Never	How often do you see or visit your father/mother? He lives in the same household as I do; Daily; At least several times a week; At least once a week; At least once a month; Several times a year; Less often; Never; My father is no longer alive; I don't know where my father lives How often do you have any other contact with your father/mother besides visiting, either by telephone, letter, fax or e-mail? Daily; At least several times a week; At least once a week; At least once a month; Several times a year; Less often; Never;	Items condensed into one single item looking at all types of contact (in person + other). Items altered to reflect change in technology.
Item	GLSNZ Survey Item	NSFH (2002) Item	Reason(s) for adapting item
GDUD33_TX	On a scale from 0 to 10, where 0 is very poor and 10 is excellent, how would you describe the quality of your relationship with your <u>mother</u> (GDUD33a_TX)/<u>father</u> (GDUD33b_TX)?	Taking all things together, on a scale from 0 to 10, where 0 is really bad and 10 is absolutely perfect, how would you describe your relationship with your mother/father?	Item adapted to stress 'quality' of relationship. Likert scale anchors amended to be less emotive.

General Feelings (GF)

Appears as: *General Feelings* (under the wider heading *SECTION 5: HEALTH AND WELL-BEING*)

Variable names begin with: GF

Description: This questionnaire was constructed to assess respondents' mental well-being, self-esteem, general self-efficacy, and life satisfaction. The questionnaire consists of items from several sources described below.

Scale construction:

Scale	Items
Warwick-Edinburgh Mental Well-being Scale (14 items)	GF1_TX, GF2_TX, GF3_TX, GF4_TX, GF5_TX, GF6_TX, GF7_TX, GF8_TX, GF9_TX, GF10_TX, GF11_TX, GF12_TX, GF13_TX, GF14_TX
Rosenberg Self-Esteem Scale (5 items)	GF15_TX, GF16_TX, GF17_TX, GF18_TX, GF19_TX
General Self-Efficacy Scale (5 items)	GF20_TX, GF21_TX, GF22_TX, GF23_TX, GF24_TX

References:

Items GF1_TX, GF2_TX, GF3_TX, GF4_TX, GF5_TX, GF6_TX, GF7_TX, GF8_TX, GF9_TX, GF10_TX, GF11_TX, GF12_TX, GF13_TX, GF14_TX: Items taken directly from the Warwick-Edinburgh Mental Well-being Scale. This scale consists of 14 items that assess positive mental health (mental well-being). The scale examines positive thoughts and feelings, including both hedonic and eudaimonic perspectives. These aspects of mental health include positive affect (feelings of optimism, cheerfulness, and relaxation), satisfying interpersonal relationships, and positive functioning (energy, clear thinking, self acceptance, personal development, competence, and autonomy).

- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*(63). doi: 10.1186/1477-7525-5-63

Items GF15_TX, GF16_TX, GF17_TX, GF18_TX, GF19_TX: Items taken directly from the Rosenberg Self-Esteem Scale. This scale consists of 10 items; 5 items were selected for inclusion in the GLSNZ survey. The scale measures personal self-esteem. It was developed on 5,024 high school students from 10 randomly-selected schools in New York State.

- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Wylie, C. R. (1974). *The self-concept: Revised edition*. Lincoln, NE: University of Nebraska Press.
- Crandal, R. (1973). The measurement of self-esteem and related constructs. In J. P. Robinson & P. R. Shaver (Eds), *Measures of social psychological attitudes: Revised edition* (pp. 80-82). Ann Arbor, MI: ISR.

Items GF20_TX, GF21_TX, GF22_TX, GF23_TX, GF24_TX: Items taken directly from the General Self-Efficacy Scale (GSE). The original version was German but it has since been revised and is now available in 33 languages. The scale consists of 10 items and was developed to assess general sense of perceived self-efficacy with the aim of predicting individuals' ability to cope with daily hassles as well as adaptation after experiencing different kinds of stressful life events. After pilot testing of 164 3rd-year students at the University of Otago in July 2007, 5 items with the highest alphas were included in the survey.

- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.

Items GF25_TX, GF26_TX: Items designed to measure current and expected life satisfaction and adapted from Layard et al. (2013), using the British Cohort Study (BCS). The 1970 British Cohort Study was designed to compare those mothers and babies who had problems, with those who did not. The study first took place in 1970 and included all of the babies born in one week (N = ~17,200). Information was collected on the family background of the mother, her pregnancy and labour, and about her baby at birth and in the first week of life. In 1975, the families from the original birth survey were re-interviewed to see how healthy the children were now, how they were getting on at school, etc. Since then there have been seven other major surveys, attempting to trace all those born in the week of the original 1970 survey – in 1980, 1986, 1996, 1999/2000, 2004/5, 2008 and most recently in 2012 when study members were aged 42. Items GF25_TX and GF26_TX are adapted from items LIFESAT1 and LIFESAT2, respectively, of the 2012 BCS.

- 1970 British Cohort Study (2012). *Age 42 follow-up: Main stage questionnaire*. Centre for Longitudinal Studies, Institute of Education, University of London. Retrieved from: http://www.cls.ioe.ac.uk/page.aspx?&sitesectionid=1118&sitesectiontitle=Questionnaires.
- Layard, R., Clark, A. E., Cornaglia, F., Powdthavee, N., & Vernoit, J. (2013). What predicts a successful life? A life-course model of well-being. IZA *Discussion Paper No. 7682*. Bonn, Germany: IZA.

Item GF27_TX: Item designed to measure perceived locus of control and taken directly from World Values Survey 2010-2014. The World Values Survey (WVS) is a global network of social scientists studying changing values and their impact on social and political life, headquartered in Stockholm, Sweden. The survey started in 1981 and consists of nationally-representative surveys conducted in almost 100 countries, using a common questionnaire. The WVS is the largest non-commercial, cross-national, time series investigation of human beliefs and values, currently including interviews with almost 400,000 respondents. The WVS seeks to help scientists and policy makers understand changes in the beliefs, values and motivations of people throughout the world. Item GF27_TX is taken from item V55 in the WVS.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	GF1_TX, GF2_TX, GF3_TX, GF4_TX, GF5_TX, GF6_TX, GF7_TX, GF8_TX, GF9_TX, GF10_TX, GF11_TX, GF12_TX, GF13_TX, GF14_TX, GF15_TX, GF16_TX, GF17_TX, GF18_TX, GF19_TX, GF20_TX, GF21_TX, GF22_TX, GF23_TX, GF24_TX	24	8,719	All items administered.
T2	GF1_TX, GF2_TX, GF3_TX, GF4_TX, GF5_TX, GF6_TX, GF7_TX, GF8_TX, GF9_TX, GF10_TX, GF11_TX, GF12_TX, GF13_TX, GF14_TX, GF15_TX, GF16_TX, GF17_TX, GF18_TX, GF19_TX, GF20_TX, GF21_TX, GF22_TX, GF23_TX, GF24_TX, GF25_TX, GF26_TX, GF27_TX	27		All items administered.
T5				
T10				

Scoring:

Items GF1_TX, GF2_TX, GF3_TX, GF4_TX, GF5_TX, GF6_TX, GF7_TX, GF8_TX, GF9_TX, GF10_TX, GF11_TX, GF12_TX, GF13_TX, GF14_TX: Respondents indicate their answers to each item on a 5-point Likert scale (None of the time = 1, Rarely = 2, Some of the time = 3, Often = 4, All of the time = 5). Sum all items (all items have equal weights). Min score = 14, max score = 70. A higher score indicates better mental wellbeing.

Items GF15_TX, GF16_TX, GF17_TX, GF18_TX, GF19_TX: Respondents indicate their answers to each item on a 4-point Likert scale (Strongly disagree = 1, Disagree = 2, Agree = 3, Strongly agree = 4). Sum all items. Min score = 5, max score = 20. A higher score indicates higher self-esteem.

Items GF20_TX, GF21_TX, GF22_TX, GF23_TX, GF24_TX: Respondents indicate their answers to each item on a 4-point Likert scale (Not at all true = 1, Hardly true = 2, Moderately true = 3, Exactly true = 4). Sum all items. Min score = 5, max score = 20. A higher score indicates a greater sense of general self-efficacy.

Items GF25_TX, GF26_TX: Respondents indicate their answers to each item on an 11-point Likert scale (Completely dissatisfied = 0; Completely satisfied = 10).

Item GF27_TX: Respondents indicate their perceived locus of control on a 10-point Likert scale (No choice at all = 1; A great deal of choice = 10).

Recoding: None.

Psychometrics:

Items appear in Codebook in section: General Feelings, GF1_TX – GF24_TX (T0); GF1_TX – GF27_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	British Cohort Study Item
GF25_TX	Here is a scale from 0-10. On it "0" means that you are completely dissatisfied and "10" means that you are completely satisfied. Using the scale... How dissatisfied or satisfied are you about the way your life has turned out so far?	Here is a scale from 0 to 10, where '0' means that you are completely dissatisfied and '10' means that you are completely satisfied. Please select the number which corresponds with how satisfied or dissatisfied you are with the way life has turned out so far.
GF26_TX	How dissatisfied or satisfied do you expect to be in ten years' time?	And finally, please use the scale once more to show how you expect to be in ten years' time.

General Health (GH)

Appears as: *General Health* (under the wider heading *SECTION 5: HEALTH AND WELL-BEING*)

Variable names begin with: GH

Description: This questionnaire asks respondents questions about their general health including their physical health, routine physical activities, and smoking and drinking habits. The questions are from a variety of sources described below.

Scale construction: N/A

References:

Items GH1_TX, GH4_TX: Item GH1_TX is a specific rating of physical health and item GH4_TX is a rating of ability to carry out everyday physical activities adapted from the 10-item Global Health scale from:

- Patient Reported Outcomes Measurement Information System (PROMIS) Health Organization (2009). *Global Items, v.1.1*. Retrieved March 3, 2011 from http://www.nihpromis.org/default.aspx

Items GH2_TX, GH3_TX: Adapted from the University of Otago 2009 Graduate Opinion Survey. The survey has been conducted annually since 1998 and is targeted at individuals who have graduated in the preceding 18- to 24-month period. The survey is divided into five sections in total. Section A asks participants about their course details. Section B concerns graduates' perspectives on their learning while at Otago University using the Course Experience Questionnaire (CEQ). In Section C, individuals who completed postgraduate qualifications are asked to evaluate the quality of supervision and support they received as postgraduate students. Section D examines whether a range of skills were developed at University and the extent to which these skills have transferred to life beyond university. The final section, Section E, asks respondents to provide some basic demographic information. The results of this annual survey are used for Departmental Reviews, the University's yearly Statement of Objectives, and its Annual Report. The items adapted for the GLSNZ's General Health (GH) section are taken from the demographics section (Section E) of the University of Otago Graduate Opinion Survey. Items GH2_TX and GH3_TX are adapted from question E3 of the Graduate Opinion Survey, which asks respondents to indicate if they have a long-term medical condition/ impairment/ disability and, if so, the nature of the impairment (e.g., hearing, visual, psychological, etc.). Respondents are also asked if their impairment has affected their studies. Item GH3_TX was adapted to include impacts on work as well as studies. If respondents indicate that their impairment had affected their work/ studies, they were also asked to rate the extent to which it had done so (Very little = 1 to Very much = 5). Note that item GH3_TX (and sub-question GH3a_TX) were altered slightly at T2 to emphasise work over studies given respondents current life stage.

- University of Otago (2009). *2009 Graduate Opinion Survey: Summary report, September 2009*. Dunedin, NZ: University of Otago.

Item GH5_TX: This item is a rating of ability to carry out strenuous physical activities adapted from the 10-item Physical Functioning – Short Form 1 from:

- Patient Reported Outcomes Measurement Information System (PROMIS) Health Organization (2009). *Physical Function – Short Form 1.* Retrieved March 3, 2011 from http://www.nihpromis.org/default.aspx

Items GH6_TX, GH7_TX: These items concern smoking habits and are adapted from the Dunedin Multidisciplinary Health and Development Study (DMHDS) Diagnostic Interview Schedule.

- Kim-Cohen, J., Caspi, A., Moffitt, T., Harrington, H., Milne, B., & Poulton, R. (2003). Prior juvenile diagnoses in adults with mental disorder. *Archives of General Psychiatry*, *60*, 709-717.

This interview schedule was originally published in:

- Robins, L., Helzer, H., Croughan, J., & Ratcliff, K. (1981). National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics, and validity. *Archives of General Psychiatry, 38*, 381-389.

Items GH8_TX, GH9_TX, GH10_TX: These items concern alcohol consumption habits and are adapted from the three items of the Alcohol Use Disorders Identification Test (AUDIT). The AUDIT was developed from a 6-country World Health Organisation (WHO) collaborative project to design a screening measure for harmful alcohol consumption. A 150-item assessment schedule was administered to 1888 individuals (48% were drinkers – the 36% of non-drinkers and 16% of alcoholics formed reference groups for instrument validation). The 150-item assessment schedule included socio-demographic variables, presenting conditions, current symptomatology, past medical history, alcohol consumption, other substance use, diet, drinking behaviour, psychological reactions to alcohol, alcohol-related problems, family history of alcoholism, and self-perception of an alcohol problem. From the 150 items in the assessment schedule, 10 items were selected for inclusion in the full AUDIT. These items measure alcohol consumption, drinking behaviour, and alcohol-related problems. Items GH8_TX, GH9_TX, and GH10_TX are adapted from the 3 items of the AUDIT – Consumption subscale (AUDIT-C), which measure usual frequency of drinking, the quantity consumed, and the frequency of episodic heavy drinking. The AUDIT-C has similar specificity and sensitivity to the full AUDIT. The full AUDIT correctly classified 99% of alcoholics as using alcohol harmfully. Only 0.5% of non-drinkers scored highly on the AUDIT. Item GH9_TX contains a graphic illustrating examples of what constitutes a standard drink.

- Saunders, J. B., Aasland, O. G., Babor, T. F., De La Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption–II. *Addiction*, *88*, 791-804.
- Kypri, K., McCambridge, J., Cunnigham, J. A., Vater, T., Bowe, S., De Graaf, B., Saunders, J. B., & Dean, J. (2010). Web-based alcohol screening and brief intervention for Māori and non-Māori: The New Zealand e-SBINZ trials. *BioMed Central (BMC) Public Health*, *10*. doi:10.1186/1471-2458-10-781 http://www.biomedcentral.com/1471-2458/10/781

Item GH11_TX: This item assesses unintentional injuries within the previous 12 months and was designed by Professor Jennie Connor and Mei-Ling Blank (Department of Preventive and Social Medicine, University of Otago) with the aim of relating this to alcohol consumption (alcohol-related harm). The wording of this question was suggested by Professor John Langley (Dunedin School of Medicine, University of Otago). His recommendations were: (1) It should not ask

about service use (related to health services access issues such as SES and distance to clinics, etc.); (2) the recall period should be no more than one year; (3) there should be a 24-hour threshold to exclude minor/trivial injuries; and (4) it would be useful to include a list of common injuries and events to aid recall.

Items GH12_TX, GH13_TX: These items were designed to measure cannabis use and were adapted from the 2007/2008 New Zealand Alcohol and Drug Use Survey (NZADUS). The 2007/08 NZADUS was carried out by the New Zealand Ministry of Health and measured self-reported alcohol, illicit and other drug use for recreational purposes, including consumption patterns, risk and protective behaviours associated with alcohol and drug use, harmful effects and help seeking, among the usually resident New Zealand population aged 16–64 years living in permanent private dwellings. Items GH12_TX and GH13_TX were adapted from items C3.03 and C3.04, respectively, of the NZADUS.

- Ministry of Health (2010). *Methodology Report for the 2007/08 New Zealand Alcohol and Drug Use Survey*. Wellington: Ministry of Health. Retrieved from: http://www.health.govt.nz/publication/methodology-report-2007-08-new-zealand-alcohol-and-drug-use-survey.

Item GH14_TX: This item assesses a hazardous driving behaviour and was designed by Professor Jennie Connor and Mei-Ling Blank (Department of Preventive and Social Medicine, University of Otago) with the aim of relating this to alcohol consumption (alcohol-related harm).

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	GH1_TX, GH2_TX, GH3_TX, GH4_TX, GH5_TX, GH6_TX, GH7_TX, GH8_TX, GH9_TX, GH10_TX	10	8,719	All items administered.
T2	GH1_TX, GH2_TX, GH3_TX, GH4_TX, GH5_TX, GH6_TX, GH7_TX, GH8_TX, GH9_TX, GH10_TX, GH11_TX, GH12_TX, GH13_TX, GH14_TX	14		All items administered.
T5				
T10				

Scoring:

Item GH1_TX: Respondents rate their overall physical health on a 5-item scale (Poor, Fair, Good, Very good, Excellent). Responses assigned numerical values: 1 = Poor, 5 = Excellent. Min score = 1, max score = 5. A higher score indicates better physical health.

Item GH2_TX: Respondents indicate whether or not they have a medical condition/ impairment/ disability (Yes, No). If yes, participants indicate the nature of the impairment (GH2a_TX).

Item GH3_TX: Respondents who indicate an impairment are asked to indicate whether it affects their work/studies (Yes/No). If so, respondents indicate the extent of the impairment in item GH3a_TX on a 5-point Likert scale (Very little = 1 to Very much = 5). Min score = 1, max score = 5. A higher score indicates greater impairment.

Item GH4_TX: Respondents indicate the extent to which they are able to carry out everyday physical activities (Not at all; A little; Moderately; Mostly; Completely). Responses to be assigned numerical values: 1 = Not at all, 5 = Completely. Min score = 1, max score = 5. A higher score indicates greater ability to carry out everyday physical activities.

Item GH5_TX: Respondents indicate the extent to which their health limits them in doing vigorous physical activities (Cannot do; Quite a lot; Somewhat; Very little; Not at all). Responses to be assigned numerical values: 1 = Cannot do, 5 = Not at all. Min score = 1, max score = 5. A higher score indicates greater ability to do vigorous physical activities.

Item GH6_TX: Respondents indicate if they have smoked at least once per day for a month or more in the last 12 months (Yes, No).

Item GH7_TX: Respondents indicate how many cigarettes they smoke each day from 0 to 40+.

Item GH8_TX: Respondents indicate how often they have drinks containing alcohol (Never; Almost never; Less than once a month; Once a month; Once every two weeks; Once a week; Two or three times a week; Four or five times a week; Six or seven times a week). Responses assigned numerical values: 1 = Never, 9 = Six or seven times a week. Min score = 1, max score = 9. A higher score indicates greater frequency of usual drinking.

Item GH9_TX: Respondents indicate the number of alcoholic drinks typically consumed on a typical day from 1 to 25+. Responses assigned numerical values: 1 = 1, 25 = 25+ or more. Min score = 1, max score = 25. A higher score indicates greater quantity of drinks consumed.

Item GH10_TX: Respondents indicate how often they consume 6 or more drinks on one occasion (Never; Once or twice a year; Less than monthly; Monthly; Weekly; Daily or almost daily). Responses assigned numerical values: 1 = Never, 6 = Daily or almost daily. Min score = 1, max score = 6. A higher score indicates greater frequency of episodic heavy drinking.

Item GH11_TX: Respondents indicate if they have had an unintentional injury in the last year (Yes, No).

Item GH12_TX: Respondents indicate if they have used cannabis in the last 12 months (Yes, No).

Item GH10_TX: If respondents have used cannabis in the last 12 months, they indicate how many times they have used it in the last 12 months (Daily, about 5-6 times a week, about 3-4 times a week, twice a week, once a week, two to three times a month, once a month, once every 6 weeks, 3 to 6 times, 1 or 2

times). Responses assigned numerical values: 1 = Daily, 10 = 1 or 2 times in the last 12 months. Min score = 1, max score = 10. A lower score indicates greater frequency of cannabis use.

Item GH14_TX: Respondents indicate if they have failed a police breathalyzer or blood alcohol test in the last year (Yes, No).

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: General Health, GH1_TX – GH10_TX (T0); GH1_TX – GH14_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	PROMIS Global Health Item
GH1_TX	How would you rate your overall physical health?	In general, how would you rate your physical health?
Item	**GLSNZ Survey Item**	**University of Otago Graduate Opinion Survey Item**
GH2_TX	Do you have a long-term medical condition, impairment or disability? No; Yes, please specify:	Do you have a long term medical condition, impairment or disability? No; Yes (please specify: Hearing, Visual, Physical, Learning, Psychological/Psychiatric, Other [please specify])
GH3_TX	T0: Has your condition, impairment or disability affected your studies and/or work? If yes, please specify the extent to which it has affected your studies and/or work. T2: Does your condition, impairment or disability affect your work and/or studies? If yes, please specify the extent to which it affects your work and/or studies:	If YES did your condition, impairment or disability affect your studies?
Item	**GLSNZ Survey Item**	**PROMIS Physical Function Item**
GH5_TX	Does your health limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports?	Does your health now limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports?

Item	GLSNZ Survey Item	AUDIT-C item
GH8_TX	How often do you have a drink containing alcohol? Never; Almost never; Less than once a month; Once a month; Once every two weeks; Once a week; Two or three times a week; Four or five times a week; Six or seven times a week	How often do you have a drink containing alcohol? Never; Monthly or less; Two to four times a month; Two to three times a week; Four or more times a week
GH9_TX	How many standard drinks containing alcohol do you have on a typical day when you are drinking? 1; 2; 3; 4; 5; 6; 7; 8; 9; 10; 11; 12; 13; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25+	How many drinks containing alcohol do you have on a typical day when you are drinking? 1 or 2; 3 or 4; 5 or 6; 7 to 9; 10 or more
GH10_TX	How often do you have six or more standard drinks on one occasion? Never; Once or twice a year; Less than monthly; Monthly; Weekly; Daily or almost daily	How often do you have six or more drinks on one occasion? Never; Less than monthly; Monthly; Weekly; Daily or almost daily

Goals, Aspirations and Values (GAV)

Appears as: *Goals, Aspirations and Values* (under the wider heading *SECTION 3: ASPIRATIONS, GOALS AND VALUES*)

Variable names begin with: GAV

Description: These questions examine respondents' conventional values (goals and behaviours in relation to economic and social success in society), personal values and goals, religiosity/ spirituality, and self-serving and altruistic attitudes. The items are from several sources described below.

Scale construction:

Scale	Items
Conventional values (9 items)	GAV1_TX, GAV2_TX, GAV3_TX, GAV8_TX, GAV11_TX, GAV12_TX, GAV14_TX, GAV15_TX, GAV27_TX
Personal values and goals (15 items)	GAV4_TX, GAV5_TX, GAV6_TX, GAV9_TX, GAV10_TX, GAV16_TX, GAV17_TX, GAV18_TX, GAV19_TX, GAV21_TX, GAV22_TX, GAV23_TX, GAV24_TX, GAV25_TX, GAV26_TX
Religiosity scale (1 item)	GAV28_TX
Self-serving and altruism scale (3 items)	GAV7_TX, GAV13_TX, GAV20_TX

References:

Items GAV1_TX, GAV2_TX, GAV3_TX, GAV8_TX, GAV11_TX, GAV12_TX, GAV14_TX, GAV15_TX, GAV27_TX: Adapted from the Iowa Youth and Family Project's 'Conventional Values' scale. The reference in the Iowa Youth and Family Project measurement book states that: "These scales were adapted from measures developed for a multisite study on the cases and correlates of delinquency sponsored by the Office of Juvenile Justice and Delinquency Prevention conducted by T. Thornberry, D. Huizinga, and R. Loeber (Thornberry, Personal Communication, 1989)."

- Iowa Youth and Family Project Codebook. Items BF204001, BF204002, BF204003, BF204004, BF204007, BF204008, BF204009, BF204010, BF201011. Items GAV1_TX, GAV2_TX, GAV3_TX, GAV8_TX, GAV11_TX, GAV12_TX, GAV14_TX, and GAV15_TX also appear in:
- Whitbeck, L. B., Simons, R. L., Conger, R. D., & Lorenz, F. O. (1989). Value socialization and peer group affiliation among early adolescents. *The Journal of Early Adolescence*, *9*, 436-453.

Whitbeck et al. (1989) describe a 10-item scale measuring success-oriented values. Of these values, 8 were adapted for the GLSNZ survey. The original source (Thornberry) is an unpublished manuscript:

- Thornberry, T. (1988). *Rochester youth development study*. Unpublished manuscript, School of Criminal Justice, State University of New York, Albany.

Items GAV4_TX, GAV5_TX, GAV6_TX, GAV9_TX, GAV16_TX, GAV17_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested 6 questions examining the importance of contributing to society, working ethically and sustainably, being recognised as a professional, being entrepreneurial, and studying towards a qualification. The suggestions were submitted in writing by Massey University staff; report dated 18 November 2010. On the basis of these suggestions, the GLSNZ team created questions and response options.

- Massey University (2010, November). Goals, Aspirations and Values items. *Feedback on the Graduate Longitudinal Study Draft Questionnaire Booklet*.

Items GAV7_TX, GAV13_TX, GAV20_TX: Adapted from the Iowa Youth and Family Project's Self-serving and Altruism scale. NB: Items were taken from the Altruism Subscale only. Reference information from the Iowa Youth and Families Project's measurement book indicates that the scale was developed by Les Whitbeck. Whitbeck et al. (1989) state that "altruistic values were measured by 10 items from the Braithwaite and Law (1985) adaptation of Rokeach's Value Survey (1973). ... It is derived from Rokeach's Value Survey, which is a standard value measure that has been used extensively for research. It differs from Rokeach's measure in that it is more extensive and involves rating values, rather than ranking values in terms of importance" (p. 442). NB: Rokeach's value survey consists of two sets of 18 values, which participants were asked to rank-order. Of the 36 values, Braithwaite and Law (1985) included 4 values in their value-rating survey. Braithwaite and Law asked participants to rate the personal importance of a number of values separated into 3 inventories. The Goal and Social Values Inventories included items addressing (1) international harmony and equality, (2) national strength and order, (3) traditional religiosity, (4) personal growth and inner harmony, (5) physical well-being, (6) secure and satisfying interpersonal relationships, (7) social standing, (8) social stimulation, and (9) individual rights. The Mode Values Inventory included items addressing (1) positive orientation to others, (2) competence and effectiveness, (3) propriety in dress and manners, (4) religious commitment, (5) assertiveness, (6) withdrawal from others, (7) carefreeness, (8) honesty, (9) thriftiness, and (10) getting ahead. In the GLSNZ survey, items GAV7_TX and GAV13_TX were included from the 'international harmony and equality' items (Goal and Social Values Inventories) and item GAV20_TX was included from the 'religious commitment' items (Mode Values Inventory). The response scale was changed to render it more consistent with other items in the GLSNZ survey and the 'Goals, Aspirations and Values section in particular (see section on 'Rewording of original scales').

- Braithwaite, J., & Law, H. (1985). Structure of human values: Testing the adequacy of the Rokeach value survey. *Journal of Personality and Social Psychology*, *49*, 250-263.
- Iowa Youth and Family Project Codebook. Items BF204023, BF204028, BF204034.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Whitbeck, L. B., Simons, R. L., Conger, R. D., & Lorenz, F. O. (1989). Value socialization and peer group affiliation among early adolescents. *Journal of Early Adolescence*, *9*, 436-453.

Items GAV10_TX, GAV21_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Canterbury University staff suggested questions examining the importance of a family-friendly work/life balance and the importance of making a difference. The suggestions were submitted verbally by Canterbury University staff in a meeting held by the GLSNZ team to garner feedback on the draft survey on 15 November 2010. The GLSNZ team created questions and response options for these suggestions.

- The University of Canterbury (2010, November). Work/life balance and making a difference items. *Verbal Communication*.

Items GAV18_TX, GAV19_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested 2 questions examining the importance of being in good health and travelling. The suggestions were submitted in writing by Massey University staff; report dated 9 March 2011. On the basis of these suggestions, the GLSNZ team created questions and response options.

- Massey University (2011, March). Goals, Aspirations and Values items. *Feedback on the Graduate Longitudinal Study Penultimate Draft Questionnaire*.

Item GAV22_TX: Following the Māori consultation process with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining the importance of being culturally responsive. The suggestion was submitted electronically by Massey University staff on 20 July 2011. The GLSNZ team constructed a specific question and response options (to conform with other items in the questionnaire) in response to this suggestion.

- Massey University (2011, July). Cultural Responsivity item. *Email Communication*.

Items GAV23_TX, GAV24_TX, GAV25_TX, GAV26_TX: Following consultation with GLSNZ partners regarding the contents of the survey, the Ministry of Women's Affairs suggested questions examining the relative importance family and career aspirations. The Ministry of Women's Affairs is interested in examining what gender differences there are in respondents' aspirations. The suggestions were submitted verbally by Ministry of Women's Affairs staff in a meeting held by the GLSNZ team to garner feedback on the draft survey on 2 November 2010. From these suggestions, the GLSNZ team created 4 questions and response options.

- The New Zealand Ministry of Women's Affairs (2010, November). Family and career aspirations items. *Verbal Communication*.

Items GAV28_TX: Adapted from the Iowa Youth and Family Project's Religiosity scale. Reference information from the Iowa Youth and Families Project measurement book indicates that the questions were adapted from a survey by Kessler and that items come from diverse sources including the Gallup Poll (Fundamentalism). NB: item GAV27_TX is from the Religious 1 subscale. The response options for item GAV27_TX were adapted to be consistent with response options of the other items in the questionnaire (Original response options were: Very important = 1, Fairly important = 2, Not too important = 3, Not at all important = 4).

- Iowa Youth and Family Project Codebook. Item BF204039.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	GAV1_TX, GAV2_TX, GAV3_TX, GAV4_TX, GAV5_TX, GAV6_TX, GAV7_TX, GAV8_TX, GAV9_TX, GAV10_TX, GAV11_TX, GAV12_TX, GAV13_TX, GAV14_TX, GAV15_TX, GAV16_TX, GAV17_TX, GAV18_TX, GAV19_TX, GAV20_TX, GAV21_TX, GAV22_TX, GAV23_TX, GAV24_TX, GAV25_TX, GAV26_TX, GAV27_TX, GAV28_TX	28	8,719	All items administered.
T2	GAV1_TX, GAV2_TX, GAV3_TX, GAV4_TX, GAV5_TX, GAV6_TX, GAV7_TX, GAV8_TX, GAV9_TX, GAV10_TX, GAV11_TX, GAV12_TX, GAV13_TX, GAV14_TX, GAV15_TX, GAV16_TX, GAV17_TX, GAV18_TX, GAV19_TX, GAV20_TX, GAV21_TX, GAV22_TX, GAV23_TX, GAV24_TX, GAV25_TX, GAV26_TX, GAV27_TX, GAV28_TX	28		All items administered.
T5				
T10				

Scoring: Respondents indicate their answers on 5-point Likert scales (Not at all important = 1, Not very important = 2, Somewhat important = 3, Very important = 4, Extremely important = 5).

Means:
Conventional values: Sum items GAV1_TX, GAV2_TX, GAV3_TX, GAV8_TX, GAV11_TX, GAV12_TX, GAV14_TX, GAV15_TX, GAV27_TX. Min score = 9, max score = 45. The higher the score, the greater the endorsement of conventional values.
Self-serving and altruism: Sum items GAV7_TX, GAV13_TX, GAV20_TX. Min score = 3, max score = 15. A higher score indicates a greater altruistic orientation.

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: Goals, Aspirations and Values, GAV1_TX – GAV28_TX

Rewording of original scales:

Item	GLSNZ Survey Item	Whitbeck et al. (1989) Item	Iowa Youth & Family Project Item
GAV1_TX	Owning your own home?	To own your own home	To own your own home
GAV2_TX	Having a great deal of money?	To have a great deal of money	To have a great deal of money
GAV3_TX	Having a well-paid job?	To have a good-paying job	To have a good-paying job
GAV8_TX	Having a good reputation in the community?	To have a good reputation in the community	To have a good reputation in the community
GAV11_TX	Working hard to get ahead?	To work hard to get ahead	To work hard to get ahead
GAV12_TX	Having a university education?	To have a college education	To have a college education
GAV14_TX	Saving money for the future?	To save money for the future	To save money for the future
GAV15_TX	Being careful about what you spend?	To be careful about what you spend	To be careful about what you spend
GAV21_TX	Being a religious/spiritual person?	N/A	To be a religious person

Item	GLSNZ Survey Item	Rokeach (1973) Item	Braithwaite & Law (1985) Item	Whitbeck et al. (1989) Item	Iowa Youth & Family Project Item
Response scale	1 = Not at all important, 2 = Not very important, 3 = Somewhat important, 4 = Very important, 5 = Extremely important	Rank ordering of items	1 = I reject this as a guiding principle in my life, 2 = I am inclined to reject this as a guiding principle in my life, 3 = I neither reject nor accept this as a guiding principle in my life, 4 = I am inclined to accept this as a guiding principle in my life, 5 = I accept this as a guiding principle in my life, 6 = I accept this as very important as a guiding principle in my life, 7 = I accept this as of the greatest importance as a guiding principle in my life	1 = I very strongly reject this rule or goal to 7 = I very strongly accept this rule or goal	1 = I very strongly reject this rule or goal, 2 = I somewhat reject this rule or goal, 3 = I neither reject nor accept this rule or goal, 4 = I slightly accept this rule or goal, 5 = I somewhat accept this rule or goal, 6 = I strongly accept this rule or goal, 7 = I very strongly accept this rule or goal
GAV7_TX	Giving everyone an equal chance in life?	Equality (brotherhood, equal opportunity for all)	Equal opportunity for all: giving everyone an equal chance in life	Equal opportunity for all: giving everyone an equal chance in life	To have equal opportunity for all: giving everyone an equal chance in life.
GAV13_TX	Improving the welfare of people in need?		A good life for others: improving the welfare of all people in need	Improving the welfare of people in need: a good life for others	To improve the welfare of people in need: a good life for others.
GAV20_TX	Being unselfish?		Self-sacrificing: putting the interest of others before your own	Unselfish: putting the interests of others before your own	To be unselfish: putting the interests of others before your own.

Life Circumstances (GC)

Appears as: *Life Circumstances* under the wider heading *SECTION 8: LIFE CIRCUMSTANCES, GENERAL COMMENTS AND CONTACT DETAILS* (**T2**)

Variable names begin with: GC

Description: These items were included to assess the stressful events that respondents may have experienced since 2011, and the negative impact of those events.

Scale construction: N/A

References:

Items GC2_TX, GC3_TX: These items concern stressful life events and are adapted from the Dunedin Multidisciplinary Health and Development Study (DMHDS) Diagnostic Interview Schedule. The DMHDS Diagnostic Interview Schedule comprises 17 items relating to employment problems, financial problems, housing problems, health problems, and relationship problems, which respondents are then asked to rate the negative impact of. In the GLSNZ survey, 15 of these items were adapted and an additional item concerning natural disasters was added (designed by the GLSNZ team).

- Caspi, A., Moffitt, T. E., Thornton, A., Freedman, D., Amell, J. W., Harrington, H., Smeijers, J., & Silva, P. A. (1996). The life history calendar: A research and clinical assessment method for collecting retrospective event-history data. *International Journal of Methods in Psychiatric Research*, *6*, 101–14.
- Caspi, A., Sugden, K., Moffitt, T. E., Taylor, A., Craig, I. W., Harrington, H., McClay, J., Mill, J., Martin, J., Braithwaite, A., & Poulton, R. (2003). Influence of life stress on depression: Moderation by a polymorphism in the 5-HTT gene. *Science*, *301*, 386-389.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	None	0	N/A	None administered.
T2	GC2_TX, GC3_TX	2		All items administered.
T5				
T10				

Scoring:

Item GC2_TX: Respondents indicate whether or not they have experienced any of 16 life events (+ one option if none of the events were applicable). Option to specify other life events available (GC2ota_TX). Any number of life events able to be selected (0 = Not selected; 1 = Selected).

Item GC3_TX: Respondents indicate the negative impact of the life events they endorsed in item GC2_TX on 5-point Likert scales (None at all 0 = 1 to A great deal = 4).

Recoding: N/A

Psychometrics:

Items appear in Codebook in section: Life Circumstances, GC2_TX – GC3_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	Dunedin Study Item
GC2_TX	Everyone deals with stressful events. Since the first survey in 2011, have any of the following happened to you? Select all that apply. • Long-term unemployment (6 months or more) • Being made redundant • Being fired • Problems with debt, such as having items repossessed • Not having enough money to pay for food or household expenses • Lacking money for medical expenses • Difficulty paying bills • Homelessness • Multiple residential changes • A disabling physical illness lasting a month or more • A disabling injury lasting a month or more • Being involved in a violent or abusive relationship • A break-up of a cohabiting, intimate relationship • Death of a relative or close friend • Experiencing a natural disaster • Other stressful event, please specify _____ • None of these events happened to me	Have any of the following events occurred to you: • Long-term unemployment • Being made redundant • Losing a job because the company moved • Being fired • Financial problems • Problems with debt, such as having items repossessed • Not having enough money to pay for food or household expenses • Lacking money for medical expenses • Difficulty paying bills • Homelessness • Multiple residential changes • A disabling physical illness lasting a month or more • A disabling injury • Being involved in a physically violent relationship • A break-up of a cohabiting, intimate relationship • Death of a relative or close friend • Other
GC3_TX	For the events you have told us about, how much negative impact did each one have on your life? Response options ranged from 0 = None at all to 4 = A great deal	For those events that have occurred, how much negative impact did this have on your life? Response options ranged from 0 = None at all to 4 = A great deal

Local Community Involvement (LCI)

Appears as: *Local Community Involvement* (under the wider heading *SECTION 7: COMMUNITY INVOLVEMENT*)

Variable names begin with: LCI

Description: This questionnaire addresses the extent to which people engage within a participative community by asking respondents about their participation in community networks, social proactivity, and tolerance of social diversity. Collectively, several items within this questionnaire are designed to assess an individual's level of social capital determined by their levels of community participation and the social cohesion that arises from that participation.

Scale construction:

Scale	Items
Participation in the local community (7 items)	LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX
Social agency or proactivity in a social context (6 items)	LCI8_TX, LCI9_TX, LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX
Tolerance of diversity (2 items)	LCI14_TX, LCI15_TX
Overall social capital (15 items)	LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX, LCI8_TX, LCI9_TX, LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX, LCI14_TX, LCI15_TX

References:

Items LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX, LCI8_TX, LCI9_TX, LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX, LCI14_TX, LCI15_TX: These 15 items were selected from a larger (36-item) instrument called the Social Capital Questionnaire. The 36 items in the Social Capital Questionnaire form 8 factors. The 15 items in the GLSNZ survey represent 3 factors: (i) Participation in the local community (7 items), (ii) social agency or proactivity in a social context (6 items), and (iii) tolerance of diversity (2 items). Examples (or additional examples) were added to items LCI1_TX, LCI2_TX , LCI3_TX, LCI4_TX, and LCI7_TX in order to better suit the New Zealand context.

- Onyx, J., & Bullen, P. (2000). Measuring social capital in five communities. *The Journal of Applied Behavioral Science, 36,* 23-42.

Items LCI16_TX, LCI17_TX: Adapted from the World Values Survey 2010-2014. The World Values Survey (WVS) is a global network of social scientists studying changing values and their impact on social and political life, headquartered in Stockholm, Sweden. The survey started in 1981 and consists of nationally-representative surveys conducted in almost 100 countries, using a common questionnaire. The WVS is the largest non-commercial, cross-national, time series investigation of human beliefs and values, currently including interviews with almost 400,000 respondents. The WVS seeks to help scientists and policy makers

understand changes in the beliefs, values and motivations of people throughout the world. Items LCI16_TX and LCI17_TX are adapted from items V226 and V227, respectively, in the WVS.

- WORLD VALUES SURVEY Wave 6 2010-2014 OFFICIAL AGGREGATE v.20140429. World Values Survey Association (www.worldvaluessurvey.org). Aggregate File Producer: Asep/JDS, Madrid SPAIN. Retrieved from http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp

Items LCI18_TX, LCI19_TX, LCI20_TX, LCI21_TX, LCI22_TX, LCI23_TX, LCI24_TX: Taken from the International Social Survey Programme (ISSP) (2001) – Social Relational and Support Systems (Social Networks II) Questionnaire. The ISSP is a continuing annual programme of cross-national collaboration on surveys covering topics important for social science research. It brings together pre-existing social science projects and coordinates research goals, thereby adding a cross-national, cross-cultural perspective to the individual national studies. As of 2012, members include 49 countries. Items LCI18_TX, LCI19_TX, LCI20_TX, LCI21_TX, LCI22_TX, LCI23_TX, and LCI24_TX taken from Q21 of the ISSP Social Networks II Questionnaire and assess respondents' participation in various community groups or associations.

- SSP Research Group (2003): International Social Survey Programme: Social Relations and Support Systems / Social Networks II - ISSP 2001. GESIS Data Archive, Cologne. ZA3680 Data file Version 1.0.0. doi:10.4232/1.3680. Retrieved from: https://dbk.gesis.org/dbksearch/sdesc2.asp?no=3680.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX, LCI8_TX, LCI9_TX, LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX, LCI14_TX, LCI15_TX	15	8,719	All items administered.
T2	LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX, LCI8_TX, LCI9_TX, LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX, LCI14_TX, LCI15_TX, LCI16_TX, LCI17_TX, LCI18_TX, LCI19_TX, LCI20_TX, LCI21_TX, LCI22_TX, LCI23_TX, LCI24_TX	24		All items administered.
T5				
T10				

Scoring:

Items LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX, LCI8_TX, LCI9_TX, LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX, LCI14_TX, LCI15_TX: Respondents indicate their answers on 4-point Likert scales. For items LCI1_TX, LCI2_TX, LCI3_TX, LCI4_TX, LCI5_TX, LCI6_TX, LCI7_TX, LCI8_TX, and LCI9_TX, respondents rate how often they engage in community-related behaviours on scales ranging from No, not at all = 1 to Yes, frequently/definitely/very active, etc. = 4. Note that there are varying degrees of frequency for each 'Yes, frequently/definitely/very active' item (e.g., at least once a week, at least 3, at least 5 times, etc.). For items LCI10_TX, LCI11_TX, LCI12_TX, LCI13_TX, LCI14_TX, and LCI15_TX, respondents indicate how they might behave in certain situations on scales ranging from No, not all = 1 to Yes, definitely = 4. Each of the 3 factors is coded as a subscale, by computing the *mean* of the items within each

subscale (see Scale construction table above). Higher mean scores within each subscale indicate greater endorsement of those traits. A score for overall social capital is derived by computing the *mean* of all 15 items (see Scale construction table above).

Items LCI16_TX, LCI17_TX: Respondents indicate how often they vote at the local and national level, respectively, using 4-point Likert scales (1 = Always, 2 = Usually, 3 = Sometimes, 4 = Never). A lower score indicates great frequency of voting.

Items LCI18_TX, LCI19_TX, LCI20_TX, LCI21_TX, LCI22_TX, LCI23_TX, LCI24_TX: Respondents indicate their level of participation in various community groups/associations (0 = I do not belong to such a group; 1 = I belong to such a group but never participate; 2 = I have participated once or twice; 3 = I have participated more than twice). If respondents indicate that they participate (in some way) in other associations or groups (LCI24_TX), they specify the group in item LCI24ota_TX. Higher scores indicate greater participation.

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Local Community Involvement, LCI1_TX – LCI15_TX (T0); LCI1_TX – LCI24_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	Onyx & Bullen (2000) Item	Reason(s) for adapting item
LCI13_TX	Do you take the initiative to do what needs to be done even if no one asks you to?	At work, do you take the initiative to do what needs to be done even if no one asks you to?	As the respondents were still students at T0, we did not want to make this item inapplicable to students who had not yet worked in paid employment.

Item	GLSNZ Survey Item	World Values Survey Item	Reason(s) for adapting item
LCI16_TX, LCI17_TX	When elections take place, do you vote always, usually, sometimes or never? Please tell us separately for each of the following levels: • Local level (e.g., city/district councils) • National level (e.g., national government, referendums, etc.)	When elections take place, do you vote always, usually or never? Please tell me separately for each of the following levels: • Local level • National level	Examples added for clarity. An additional response option, "sometimes," was added for completeness.

National/International Community Involvement (NCI)

Appears as: *National/International Community Involvement* (under the wider heading *SECTION 7: COMMUNITY INVOLVEMENT*)

Variable names begin with: NCI

Description: This item addresses the extent to which people are active members of national/international organisations.

Scale construction: N/A

References: This item was developed by the GLSNZ team in response to feedback from a pilot group of Pacific Islands students. The question was designed to mirror item LCI3_TX with a focus on national/international community involvement rather than local community involvement.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	NCI1_TX	1	8,719	Item administered.
T2	NCI1_TX	1		Item administered.
T5				
T10				

Scoring: Respondents indicate their answers on a 4-point Likert scale ranging from: No, not at all = 1 to Yes, very active = 4. Min score = 1, max score = 4. The higher the score, the higher the respondent's national/international community involvement.

Recoding: None.

Psychometrics:

Items appear in Codebook in section: National/International Community Involvement, NCI1_TX

Rewording of original scales: N/A

Overall Impressions (OI)

Appears as: *Overall Impressions* (under the wider heading *SECTION 2: YOUR UNIVERSITY EXPERIENCE)*

Variable names begin with: OI

Description: These items assess respondents' overall experience at university and whether they would recommend their university to others.

Scale construction: N/A

References:

Item OI1_TX: Adapted from the Postgraduate Student Engagement Questionnaire (PSEQ). The PSEQ is the survey instrument for the Postgraduate Survey of Student Engagement (POSSE). The PSEQ is conducted as part of the Australian Council for Educational Research's (ACER) Australasian Survey of Student Engagement (AUSSE). The aim of the AUSSE is to assess students' engagement in university study to help institutions evaluate and improve the quality of education that students receive. The AUSSE was conducted for the first time in 2007, with 25 Australian and New Zealand universities taking part. In 2008, 29 institutions participated and in 2009, 35 institutions participated. The PSEQ is one of three surveys run by the AUSSE. The AUSSE also runs the Student Engagement Questionnaire (SEQ), which assesses first- and third-year undergraduate students' engagement and the Staff Student Engagement Questionnaire (SSEQ), which assesses staff perspectives on student engagement. The PSEQ is adapted from the SEQ to assess postgraduate students. It is completed online and takes around 15 minutes. The PSEQ was trialed in 2009 on a group of Australian universities and was offered to all institutions taking part in the AUSSE from 2010. The PSEQ contains six student engagement scales (Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experiences, Supportive Learning Environment, and Work Integrated Learning) and seven outcome measures (Higher-Order Thinking, General Learning Outcomes, General Development Outcomes, Career Readiness, Average Overall Grade, Departure Intention, and Overall Satisfaction). Data is also collected on individual demographics and educational contexts. Item OI1_TX is adapted from one of the 'Overall Satisfaction' outcome measures.

- The Australian Council for Educational Research (ACER) (2010). *The Postgraduate Student Engagement Questionnaire (PSEQ) from the Postgraduate Survey of Student Engagement (POSSE): The Australasian Survey of Student Engagement (AUSSE).* Retrieved February 18, 2011 from http://ausse.acer.edu.au/images/docs/AUSSE_2010_POSSE.pdf

Item OI2_TX: Pacific Islands pilot participants in 2011 suggested an item asking whether respondents would recommend their university to others as a measure of general satisfaction. The GLSNZ team designed the question and response options.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	OI1_TX, OI2_TX	2	8,719	All items administered.
T2	OI1_TX, OI2_TX	2		All items administered.
T5				
T10				

Scoring:

Item OI1_TX: Respondents indicate their answer on a 5-point Likert scale ranging from: Poor = 1 to Excellent = 5. Min score = 1, max score = 5. The higher the score, the more positive the respondent's experience at university.

Item OI2_TX: Respondents indicate their answer on a 5-point Likert scale ranging from: Definitely no = 1 to Definitely yes = 5. Min score = 1, max score = 5. The higher the score, the more likely the respondent is to recommend their university to others.

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Overall Impressions, OI1_TX – OI2_TX

Rewording of original scales:

Item	GLSNZ Survey Item	PSEQ (2010) Item	Reason(s) for adapting item
OI1_TX	How would you evaluate your entire experience at your university? Poor = 1 to Excellent = 5	How would you evaluate your entire educational experience at this institution? Poor; Fair; Good; Excellent	The question was adapted so that the wording was consistent with other items in the survey. A 5-point Likert scale was used to record responses in the interests of consistency with other response options in the survey.

Personal Style (BFI)

Appears as: *Personal Characteristics* (T0) or *Personal Style* (T2) (under the wider heading *SECTION 6: PERSONAL CHARACTERISTICS (T0, T2)*)

Variable names begin with: BFI

Description: These questions assess five dimensions of personality from the Big Five Inventory: Extraversion, agreeableness, conscientiousness, neuroticism, and openness. There is an additional question added at T2, altered to conform to the same question style as the personality questions.

Scale construction:

Sub-scale	Items
Extraversion (8 items)	BFI1_TX, BFI6_TX, BFI11_TX, BFI16_TX, BFI21_TX, BFI26_TX, BFI31_TX, BFI36_TX
Agreeableness (9 items)	BFI2_TX, BFI7_TX, BFI12_TX, BFI17_TX, BFI22_TX, BFI27_TX, BFI32_TX, BFI37_TX, BFI42_TX
Conscientiousness (9 items)	BFI3_TX, BFI8_TX, BFI13_TX, BFI18_TX, BFI23_TX, BFI28_TX, BFI33_TX, BFI38_TX, BFI43_TX
Neuroticism (8 items)	BFI4_TX, BFI9_TX, BFI14_TX, BFI19_TX, BFI24_TX, BFI29_TX, BFI34_TX, BFI39_TX
Openness (10 items)	BFI5_TX, BFI10_TX, BFI15_TX, BFI20_TX, BFI25_TX, BFI30_TX, BFI35_TX, BFI40_TX, BFI41_TX, BF44_TX

References:

Items BFI1_TX to BFI44_TX: Items were taken directly from:
- John, O. P., Donahue, E.M., & Kentle, R.L. (1991). *The Big Five Inventory – Versions 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.

See also:
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big-Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York, NY: Guilford Press.

Item BFI45_TX: This item is designed to measure self-perceived maturity and was suggested by Professor Jennie Connor and Mei-Ling Blank (Preventive and Social Medicine, University of Otago). It was adapted from:
- Winograd, R. P., Littlefield, A. K., & Sher, K. J. (2012). Do people who "Mature Out" of drinking see themselves as more mature? *Alcoholism: Clinical and Experimental Research, 36,* 1212-1218. doi: 10.1111/j.1530-0277.2011.01724.x.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	BFI1_TX, BFI2_TX, BFI3_TX, BFI4_TX, BFI5_TX, BFI6_TX, BFI7_TX, BFI8_TX, BFI9_TX, BFI10_TX, BFI11_TX, BFI12_TX, BFI13_TX, BFI14_TX, BFI15_TX, BFI16_TX, BFI17_TX, BFI18_TX, BFI19_TX, BFI120_TX, BFI21_TX, BFI22_TX, BFI23_TX, BFI24_TX, BFI25_TX, BFI26_TX, BFI27_TX, BFI28_TX, BFI29_TX, BFI30_TX, BFI31_TX, BFI32_TX, BFI33_TX, BFI34_TX, BFI35_TX, BFI36_TX, BFI37_TX, BFI38_TX, BFI39_TX, BFI40_TX, BFI41_TX, BFI42_TX, BFI43_TX, BFI44_TX	44	8,719	All items administered.
T2	BFI1_TX, BFI2_TX, BFI3_TX, BFI4_TX, BFI5_TX, BFI6_TX, BFI7_TX, BFI8_TX, BFI9_TX, BFI10_TX, BFI11_TX, BFI12_TX, BFI13_TX, BFI14_TX, BFI15_TX, BFI16_TX, BFI17_TX, BFI18_TX, BFI19_TX, BFI120_TX, BFI21_TX, BFI22_TX, BFI23_TX, BFI24_TX, BFI25_TX, BFI26_TX, BFI27_TX, BFI28_TX, BFI29_TX, BFI30_TX, BFI31_TX, BFI32_TX, BFI33_TX, BFI34_TX, BFI35_TX, BFI36_TX, BFI37_TX, BFI38_TX, BFI39_TX, BFI40_TX, BFI41_TX, BFI42_TX, BFI43_TX, BFI44_TX, BFI45_TX	45		All items administered.
T5				
T10				

Scoring: Participants indicate their answers on a 5-point Likert scale (Disagree strongly = 1, Disagree a little = 2, Neither agree nor disagree = 3, Agree a little = 4, Agree strongly = 5). Min score = 44, max score = 220. Each personality dimension is coded as a subscale, by computing the *mean* of the items within each subscale (see Scale construction table above), after relevant items have been reverse coded (see Recoding below). Higher mean scores within each subscale indicate greater endorsement of those traits.

Recoding:

Extraversion: BFI6_TX, BFI21_TX, BFI31_TX
Agreeableness: BFI2_TX, BFI12_TX, BFI27_TX, BFI37_TX
Conscientiousness: BFI8_TX, BFI18_TX, BFI23_TX, BFI43_TX
Neuroticism: BFI9_TX, BFI24_TX, BFI34_TX
Openness: BFI35_TX, BFI41_TX

Psychometrics:

Acquiescence Index and Ipsatizing (person-centered z scores) items:

For computation instructions and SPSS syntax refer to Appendix 4.2 of:

- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big-Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York, NY: Guilford Press.

Reliability alphas:

Items appear in Codebook in section: Personal Characteristics (T0): BFI1_TX – BFI44_TX or Personal Style (T2): BFI1_TX – BFI45_TX

Rewording of original scales:

Item	GLSNZ Survey Item	Winograd et al. (2012)	Reason(s) for adapting item
BFI45_TX	I see myself as someone who: • Is mature for my age *Response options*: 1 = Disagree strongly, 2 = Disagree a little, 3 = Neither agree nor disagree, 4 = Agree a little, 5 = Agree strongly	I feel mature for my age Response options: 0 = Strongly disagree, 1 = Disagree, 2 = Neither agree nor disagree, 3 = Agree, 4 = Strongly agree	Changed to make the question consistent with others in the set.

Reflecting on Your University Experience (RUE)

Appears as: *Reflecting on Your University Experience* (under the wider heading *SECTION 2: YOUR UNIVERSITY EXPERIENCE*)

Variable names begin with: RUE

Description: This questionnaire was constructed to assess the importance respondents place on various aspects of their educational experience for enhancing graduates' employability and skills. The questionnaire consists of items from a variety of sources described below.

Scale construction: N/A

References:

Items RUE1_TX, RUE2_TX, RUE3_TX, RUE4_TX, RUE5_TX, RUE6_TX, RUE7_TX, RUE9_TX, RUE10_TX: Adapted from the Graduate Pathways Questionnaire (GPQ). The GPQ is the survey instruments for the Graduate Pathways Survey (GPS). The GPS was conducted by the Australian Council for Educational Research (ACER) in 2008. The GPS assessed all Australian domestic residents who had completed a bachelor degree in 2002. The aim of the GPS was to evaluate employment outcomes five years after graduates had completed their bachelor degrees, the way in which such outcomes changed over time, the paths graduates took on their way to these outcomes, and the variables that influenced these outcomes. Between July and October 2008, the GPQ was sent out to all Australian domestic residents who had completed a bachelor degree in 2002. A total of 9,238 graduates' responses were received (approximately 12% response rate). Information was collected on graduates' demographic and bachelor degree(s) and their education and employment activities one (2003), three (2005), and five (2008) years after graduation. The items in the GLSNZ survey were adapted from the bachelor degree(s) section of the GPQ. These items assess the extent to which respondents agree or disagree with a series of statements concerning ways in which their study programme could have been improved. Items were adapted so that the wording of the questions was better suited to Likert-scale response options (see 'Rewording of original scales' below). In addition, 5-point Likert scales (Low = 1 to High = 5) were used to record responses instead of the 3-item response set in the GPQ (Low, Medium, High) to maintain consistency with other response options in the survey.

- Coates, H., & Edwards, D. (2009). The 2008 graduate pathways survey: Graduates' education and employment outcomes five years after completion of a bachelor degree at an Australian university. *Higher Education Research.* Retrieved February 19, 2011 from http://research.acer.edu.au/higher_education/12

Item RUE8_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Lincoln University staff suggested a question examining the importance of practical or experiential learning (e.g., field trips or laboratories). The suggestion was submitted in writing from Lincoln University to the GLSNZ

team on 29 March 2011. The GLSNZ team constructed a question and accompanying response options to address the area of interest outlined by Lincoln University.

- Lincoln University (2011, March). Practical learning item. *Lincoln University's Comments on GLSNZ Questionnaire*.

Items RUE11_TX, RUE13_TX, RUE15_TX, RUE16_TX, RUE18_TX, RUE19_TX: Developed by the GLSNZ team to tap areas not covered by the other items in the section but deemed to be important aspects of university experience. The wording of the items followed the same format as the preceding items.

Item RUE12_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining whether respondents' believe that enhanced use of technology and social media would have improved their study programme. The suggestion was submitted in a written report from Massey University to the GLSNZ team on 18 November 2010. The GLSNZ team constructed a question and accompanying response options to address the area of interest outlined by Massey University.

- Massey University (2010, November). Technology and social media item. *Feedback on the Graduate Longitudinal Study Draft Questionnaire Booklet*.

Item RUE14_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Victoria University staff suggested a question examining the importance respondents place on preparation for employment in the international context. The suggestion was submitted via email from Victoria University to the GLSNZ team on 23 March 2011. The GLSNZ team constructed a question and accompanying response options to address the area of interest outlined by Victoria University.

- Victoria University of Wellington (2011, March). International employment market item. *Graduate Longitudinal Study New Zealand - Feedback to date.* Via email.

Item RUE17_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining the importance respondents place on creative/innovative thinking. The suggestion was submitted in a written report from Massey University to the GLSNZ team on 9 March 2011. The GLSNZ team constructed a question and accompanying response options to address the area of interest outlined by Massey University.

- Massey University (2011, March). Creative/innovative thinking item. *Feedback on the Graduate Longitudinal Study Penultimate Draft Questionnaire*.

Item RUE20_TX: Following the Māori consultation process with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining the importance of being able to meet the needs of Māori in one's chosen profession. The suggestion was submitted electronically by Massey University staff on 20 July 2011. The GLSNZ team constructed a specific question and response options (to conform with other items in the questionnaire) in response to this suggestion.

- Massey University (2011, July). Meeting Needs of Māori item. *Email Communication*.

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	RUE1_TX, RUE2_TX, RUE3_TX, RUE4_TX, RUE5_TX, RUE6_TX, RUE7_TX, RUE8_TX, RUE9_TX, RUE10_TX, RUE11_TX, RUE12_TX, RUE13_TX, RUE14_TX, RUE15_TX, RUE16_TX, RUE17_TX, RUE18_TX, RUE19_TX, RUE20_TX	20	8,719	All items administered.
T2	RUE1_TX, RUE2_TX, RUE3_TX, RUE4_TX, RUE5_TX, RUE6_TX, RUE7_TX, RUE8_TX, RUE9_TX, RUE10_TX, RUE11_TX, RUE12_TX, RUE13_TX, RUE14_TX, RUE15_TX, RUE16_TX, RUE17_TX, RUE18_TX, RUE19_TX, RUE20_TX	20		All items administered.
T5				
T10				

Scoring: Respondents indicate the importance of each item on a 5-point Likert scale (Low = 1, High = 5).

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Reflecting on Your University Experience, RUE1_TX – RUE20_TX

Rewording of original scales:

Item	GLSNZ Survey Item	GPQ (2008) Item	Reason(s) for adapting item
RUE1_TX	Developing skills needed for professional practice.	Focus more on developing capabilities needed for professional success.	'Capabilities' changed to 'skills' to make the question clearer for students – suggestion from MoE (2011). 'Succes' changed to 'practice' to generalise question.
RUE2_TX	Teaching foundation skills like reading, writing, speaking and problem-solving.	Have greater focus on skills like reading, writing, speaking and problem-solving.	'Foundation' added to make it clear that these are lower-level, basic skills.
RUE3_TX	High quality careers advice.	Enhance careers advice.	Use of 'enhance' is confusing – item reworded for greater clarity.
RUE4_TX	Supportive learning environments (e.g., mentorship, pastoral care).	Develop more supportive learning environments.	Examples added to assist respondents.
RUE5_TX	Fieldwork, placements and internships.	Introduce more fieldwork, placements and internships.	Wording changed to be less biased.
RUE6_TX	Lectures.	Have fewer lectures and more seminars, workshops and symposia.	Item split into 2 questions to be less biased and to assess the importance of each aspect rather than pitting each teaching style against the other. The terms used were also adapted to suit the New Zealand context.
RUE7_TX	Tutorials.		
RUE9_TX	Encouraging students to study specific areas of interest in greater depth.	Encourage students to study specific areas of interest in greater depth.	Present participle 'ing' used to conform with other items in the set.
RUE10_TX	Ensuring that teaching staff have current workplace experience and knowledge.	Ensure that teaching staff have current workplace experience and knowledge.	

Satisfaction with University (SU)

Appears as: *Satisfaction with University* (under the wider heading *SECTION 2: YOUR UNIVERSITY EXPERIENCE*)

Variable names begin with: SU

Description: This questionnaire was constructed to assess respondents' satisfaction with university. Respondents are asked whether they are satisfied with: The careers advice they received, the online learning environment at their university, and the facilities and services available. They are also asked whether their study programme has been 'worth it,' whether their expectations have been met, whether they would like to retain links with their university, and how they evaluate their entire educational experience at university. The questionnaire consists of items from several sources described below.

Scale construction:

Scale	Items
Careers advice (4 items)	SU1_TX, SU2_TX, SU3_TX, SU4_TX
Use of technology (8 items)	SU5_TX, SU6_TX, SU7_TX, SU8_TX, SU9_TX, SU10_TX, SU11_TX, SU12_TX
Satisfaction with services/facilities (13 items)	SU13_TX, SU14_TX, SU15_TX, SU16_TX, SU17_TX, SU18_TX, SU19_TX, SU20_TX, SU21_TX, SU22_TX, SU23_TX, SU24_TX, SU25_TX
General impressions (6 items)	SU26_TX, SU27_TX, SU28_TX, SU29_TX, SU30_TX, SU31_TX

References:

Items SU1_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining the extent to which respondents sought careers advice and what types of advice they sought. The suggestion was submitted in a written report from Massey University to the GLSNZ team on 18 November 2010. The GLSNZ team constructed a question addressing the area of interest outlined by Massey University and developed a set of response options.

- Massey University (2010, November). Careers advice item. *Feedback on the Graduate Longitudinal Study Draft Questionnaire Booklet*.

Items SU2_TX, SU3_TX, SU4_TX, SU5_TX, SU6_TX, SU7_TX, SU8_TX, SU9_TX, SU10_TX, SU11_TX, SU12_TX: Adapted from the Postgraduate Student Engagement Questionnaire (PSEQ). The PSEQ is the survey instrument for the Postgraduate Survey of Student Engagement (POSSE). The PSEQ is conducted as part of the Australian Council for Educational Research's (ACER) Australasian Survey of Student Engagement (AUSSE). The aim of the AUSSE is to assess students' engagement in university study to help institutions evaluate and improve the quality of education that students receive. The AUSSE was conducted

for the first time in 2007, with 25 Australian and New Zealand universities taking part. In 2008, 29 institutions participated and in 2009, 35 institutions participated. The PSEQ is one of three surveys run by the AUSSE. The AUSSE also runs the Student Engagement Questionnaire (SEQ), which assesses first- and third-year undergraduate students' engagement and the Staff Student Engagement Questionnaire (SSEQ), which assesses staff perspectives on student engagement. The PSEQ is adapted from the SEQ to assess postgraduate students. It is completed online and takes around 15 minutes. The PSEQ was trialed in 2009 on a group of Australian universities and was offered to all institutions taking part in the AUSSE from 2010. The PSEQ contains six student engagement scales (Academic Challenge, Active Learning, Student and Staff Interactions, Enriching Educational Experiences, Supportive Learning Environment, and Work Integrated Learning) and seven outcome measures (Higher-Order Thinking, General Learning Outcomes, General Development Outcomes, Career Readiness, Average Overall Grade, Departure Intention, and Overall Satisfaction). Data is also collected on individual demographics and educational contexts.

- The Australian Council for Educational Research (ACER) (2010). *The Postgraduate Student Engagement Questionnaire (PSEQ) from the Postgraduate Survey of Student Engagement (POSSE): The Australasian Survey of Student Engagement (AUSSE).* Retrieved February 18, 2011 from http://ausse.acer.edu.au/images/docs/AUSSE_2010_POSSE.pdf

Items SU13_TX, SU14_TX, SU15_TX, SU16_TX, SU17_TX, SU18_TX, SU19_TX, SU20_TX, SU21_TX, SU22_TX, SU23_TX, SU24_TX, SU25_TX, SU28_TX: Developed by the GLSNZ team. Items SU20_TX, SU21_TX, SU22_TX, SU23_TX, and SU24_TX were developed in response to suggestions from Māori and Pacific Islands pilot participants in 2011. Note that item SU28_TX was altered to past tense at T2 onwards to reflect that respondents will have completed study.

Item SU26_TX, SU30_TX, SU31_TX: Adapted from the Graduate Pathways Questionnaire (GPQ). The GPQ is the survey instrument for the Graduate Pathways Survey (GPS). The GPS was conducted by the Australian Council for Educational Research (ACER) in 2008. The GPS assessed all Australian domestic residents who had completed a bachelor degree in 2002. The aim of the GPS was to evaluate employment outcomes five years after graduates had completed their bachelor degrees, the way in which such outcomes changed over time, the paths graduates took on their way to these outcomes, and the variables that influenced these outcomes. Between July and October 2008, the GPQ was sent out to all Australian domestic residents who had completed a bachelor degree in 2002. A total of 9,238 graduates' responses were received (approximately 12% response rate). Information was collected on graduates' demographic and bachelor degree(s) and their education and employment activities one (2003), three (2005), and five (2008) years after graduation. Item SU26_TX is adapted from the bachelor degree(s) section of the GPQ. This item assesses how worthwhile the respondent considers their study programme to have been. Note that item SU26_TX was altered to past tense at T2 onwards to reflect that respondents will have completed study. Items SU31_TX and SU31_TX were adapted from the bachelor degree(s) section of the GPQ. These items assess whether the respondent would choose the same university and qualification, respectively, were they to start over again.

- Coates, H., & Edwards, D. (2009). The 2008 graduate pathways survey: Graduates' education and employment outcomes five years after completion of a bachelor degree at an Australian university. *Higher Education Research.* Retrieved February 19, 2011 from http://research.acer.edu.au/higher_education/12

Item SU27_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Massey University staff suggested a question examining whether respondents' expectations of university have been met. The suggestion was submitted in a written report from Massey University to the GLSNZ team on 18 November 2010. The GLSNZ team constructed a question and accompanying response options addressing the area of interest outlined by Massey University. Note that item SU27_TX was altered to past tense at **T2** onwards to reflect that respondents will have completed study.

- Massey University (2010, November). Expectation met item. *Feedback on the Graduate Longitudinal Study Draft Questionnaire Booklet.*

Item SU29_TX: Following consultation with GLSNZ partners regarding the contents of the survey, Ministry of Education (MoE) staff suggested a question examining whether respondents' would like to retain social connections formed at university. The suggestion was submitted in a written report from the MoE to the GLSNZ team on 17 March 2011. The GLSNZ team constructed a question and accompanying response options addressing the area of interest outlined by the MoE. Note that item SU29_TX was altered to past tense at **T2** onwards to reflect that respondents will have completed study.

- Ministry of Education (2011, March). Social connections item. *Ministry of Education comments on the draft GLSNZ questionnaire.*

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	SU1_TX, SU2_TX, SU3_TX, SU4_TX, SU5_TX, SU6_TX, SU7_TX, SU8_TX, SU9_TX, SU10_TX, SU11_TX, SU12_TX, SU13_TX, SU14_TX, SU15_TX, SU16_TX, SU17_TX, SU18_TX, SU19_TX, SU20_TX, SU21_TX, SU22_TX, SU23_TX, SU24_TX, SU25_TX, SU26_TX, SU27_TX, SU28_TX, SU29_TX	29	8,719	All items administered.
T2	SU26_TX, SU27_TX, SU28_TX, SU29_TX, SU30_TX, SU31_TX	6		All items administered.
T5				
T10				

Scoring:

Item SU1_TX: Respondents indicate whether or not (1 = yes, 0 = no) they sought careers advice at their university and, if so, the type of careers advice sought (open-field response).

Item SU2_TX: Respondents indicate the source of careers advice (open-field response).

Item SU3_TX: Respondents indicate the quality of careers advice received on a 4-item scale (1 = Poor, 2 = Fair, 3 = Good, 4 = Excellent).

Item SU4_TX: Respondents indicate availability of careers advice on a 4-item scale (1 = Poor, 2 = Fair, 3 = Good, 4 = Excellent).

Items SU5_TX, SU6_TX, SU7_TX, SU8_TX, SU9_TX: Respondents indicate their answers on 4-point Likert scales with a 'Not applicable' option (1 = Never, 2 = Sometimes, 3 = Often, 4 = Very often). A higher score indicates a greater use of online resources for university work.

Item SU10_TX: Respondents indicate their answer on a 4-point Likert scale (1 = Very little, 2 = Some, 3 = Quite a bit, 4 = Very much). A higher score indicates greater emphasis on using computers in academic work at the respondent's university.

Item SU11_TX: Respondents indicate their answer on a 4-point Likert scale (1 = Very little, 2 = Some, 3 = Quite a bit, 4 = Very much). A higher score indicates a greater perceived knowledge and skill of information technology due to experience at university.

Item SU12_TX: Respondents indicate how much study they do online on a 4-item scale (1 = None, 2 = About a quarter, 3 = About half, 4 = All or nearly all).

Items SU13_TX, SU14_TX, SU15_TX, SU16_TX, SU17_TX, SU18_TX, SU19_TX, SU20_TX, SU21_TX, SU22_TX, SU23_TX, SU24_TX, SU25_TX: Respondents indicate their level of satisfaction on 5-point Likert scales (Not at all satisfied = 1, Not very satisfied = 2, Somewhat satisfied = 3, Very satisfied = 4, Extremely satisfied = 5) + additional 'N/A', 'Did not use' (eligible to use service/facility but chose not to use it), and 'Used external' (chose to use a service/facility that is not run by a university provider) options. A higher score indicates greater satisfaction with facilities and services at university.

Items SU26_TX, SU27_TX, SU28_TX, SU29_TX: Respondents indicate their answers on 5-point Likert scales (Definitely no = 1, Definitely yes = 5). A higher score indicates greater satisfaction with university experience.

Items SU30_TX, SU31_TX: Respondents indicate whether they would go to the same university and study the same qualification, respectively, on 4-point Likert scales (1 = Definitely no, 2 = Probably no, 3 = Probably yes, 4 = Definitely yes). A higher score indicates greater likelihood of each.

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Satisfaction with University, SU1_TX – SU29_TX (T0); SU26_TX – SU31_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	PSEQ (2010) Item	Reason(s) for adapting item
SU2_TX	Where did you seek careers advice from (e.g., careers advisor, tutors, academic advisor, web-based, career seminar)?	Overall, how would you evaluate the quality of careers advice that you have received from people outside university (e.g. employers, professional associations, personal networks etc.)?	Question adapted to evaluate quality of careers advice from *within* the institutes respondents attend as this was considered of greater interest and relevance than advice received from individuals outside the institute. The question was split into 3 questions assessing quality and availability as well as the source of the support for more fine-grained analysis.
SU3_TX	Overall, how would you evaluate the <u>quality</u> of careers advice that you have received at your university?		
SU4_TX	Overall, how would you evaluate the <u>availability</u> of careers advice that you have received at your university?		
SU5_TX	Asked questions or contributed to discussions online.	Asked questions or contributed to discussions in class or online.	Adapted to refer only to online learning context.
SU6_TX	Made an online presentation.	Made a class or online presentation.	
SU7_TX	Used library resources online.	Used library resources on campus or online.	
Item	GLSNZ Survey Item	GPQ (2008) Item	Reason(s) for adapting item
SU26_TX	Overall, has your study programme been worth the time, cost and effort? Definitely no = 1 to Definitely yes = 5	Overall, was your bachelor degree study worth the cost, time and effort? Definitely no; Probably no; Probably yes; Definitely yes	Wording changed from past tense to present tense given that respondents are still attending university at T0 (note that wording amended to past tense again at T2). Order that some of the words are presented in altered to reflect level of importance. A 5-point Likert scale was used to record responses in the interests of consistency with other response options in the survey.
SU30_TX	If you could start over, would you go to the same university?	If you could start over again, would you go to the same university?	Wording amended slightly for clarity.
SU31_TX	If you could start over, would you choose to enrol in the same qualification?	If you could start over again, would you choose to do the same bachelor degree(s)?	

Social Support (MSPSS)

Appears as: *Social Support* (under the wider heading *SECTION 5: HEALTH AND WELL-BEING*)

Variable names begin with: MSPSS

Description: This questionnaire contains 12 questions assessing the level of subjective social support from family, friends, and one's significant other, as well as 10 questions assessing the giving and receiving of help to/from family, friends, and neighbours/acquaintances.

Scale Construction: The 12 items from the Multidimensional Scale of Perceived Social Support (MSPSS) divide into factor groups relating to the source of the social support:

Scale	Items
Family (4 items)	MSPSS3_TX, MSPSS4_TX, MSPSS8_TX, MSPSS11_TX
Friends (4 items)	MSPSS6_TX, MSPSS7_TX, MSPSS9_TX, MSPSS12_TX
Significant other (4 items)	MSPSS1_TX, MSPSS2_TX, MSPSS5_TX, MSPSS10_TX

References:

Items MSPSS1_TX, MSPSS2_TX, MSPSS3_TX, MSPSS4_TX, MSPSS5_TX, MSPSS6_TX, MSPSS7_TX, MSPSS8_TX, MSPSS9_TX, MSPSS10_TX, MSPSS11_TX, MSPSS12_TX: The Multidimensional Scale of Perceived Social Support (MSPSS) was developed to assess subjective social support. The original scale contained 24 items from which 12 remained after factor analysis indicated that half of the items did not directly measure perceived social support. The 12 remaining items divide into 3 factor groups relating to the source of the support (family, friends, significant other), with 4 items in each group. The items in the GLSNZ survey were taken as-is from the 12 items of the MSPSS.

- Zimet, G. D., Dahlem, N.W, Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*, 30-41.
- Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, *55*, 610-617.
- Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, *28*, 391-400.

Items MSPSS13_TX, MSPSS14_TX, MSPSS15_TX, MSPSS16_TX, MSPSS17_TX, MSPSS18_TX, MSPSS19_TX, MSPSS20_TX, MSPSS21_TX, MSPSS22_TX: These items were designed to measure social interaction with and the giving and receiving of help to/from family, friends, and neighbours/acquaintances and were adapted from the Special Eurobarometer Nº223. Eurobarometer is a series of public opinion surveys conducted regularly on behalf of the European Commission since 1973. These surveys address a wide variety of topical issues relating to the European Union throughout the EU Member States. Special Eurobarometer reports are based on in-depth thematical studies carried out for various services of the European Commission or other EU Institutions and integrated in Standard Eurobarometer's polling waves. The Special Eurobarometer Nº223 focuses on social capital and contains responses from 25,978 interviews carried out in 2004. Items MSPSS13_TX, MSPSS14_TX, and MSPSS15_TX are adapted from item QD5 of the Special Eurobarometer and assess how often respondents meet socially with friends, work colleagues, and neighbours, respectively. Items MSPSS16_TX, MSPSS17_TX, and MSPSS18_TX are adapted from item QD6 of the Special Eurobarometer and assess in which types of situations respondents would be able to rely on family, friends, and other acquaintances, respectively, for help. Items MSPSS19_TX, MSPSS20_TX, and MSPSS21_TX are adapted from item QD7 of the Special Eurobarometer and assess in which types of situations respondents have helped family, friends, and other acquaintances, respectively, over the last 12 months. Item MSPSS22_TX is adapted from item QD11 of the Special Eurobarometer and asks whether respondents care for anyone who is dependant.

- European Commission (2005). *Special Eurobarometer 223 / Wave 62.2 – TNS Opinion & Social: Social Capital*. Retrieved from: http://ec.europa.eu/public_opinion/archives/eb_special_240_220_en.htm

Waves, N. of items, N. of cases:

Wave	Items	N. of items	N. of cases	Notes
T0	MSPSS1_TX, MSPSS2_TX, MSPSS3_TX, MSPSS4_TX, MSPSS5_TX, MSPSS6_TX, MSPSS7_TX, MSPSS8_TX, MSPSS9_TX, MSPSS10_TX, MSPSS11_TX, MSPSS12_TX	12	8,719	All items administered.
T2	MSPSS1_TX, MSPSS2_TX, MSPSS3_TX, MSPSS4_TX, MSPSS5_TX, MSPSS6_TX, MSPSS7_TX, MSPSS8_TX, MSPSS9_TX, MSPSS10_TX, MSPSS11_TX, MSPSS12_TX, MSPSS13_TX, MSPSS14_TX, MSPSS15_TX, MSPSS16_TX, MSPSS17_TX, MSPSS18_TX, MSPSS19_TX, MSPSS20_TX, MSPSS21_TX, MSPSS22_TX	22		All items administered.
T5				
T10				

Scoring:

Items MSPSS1_TX, MSPSS2_TX, MSPSS3_TX, MSPSS4_TX, MSPSS5_TX, MSPSS6_TX, MSPSS7_TX, MSPSS8_TX, MSPSS9_TX, MSPSS10_TX, MSPSS11_TX, MSPSS12_TX: Respondents indicate their agreement with each statement on 7-point Likert scales (Very strongly disagree = 1, Strongly disagree = 2, Mildly disagree = 3, Neutral = 4, Mildly agree = 5, Strongly agree = 6, Very strongly agree = 7). Sum items. Min score = 12, max score = 84. Higher scores indicate greater overall perceived social support. Calculate the *mean* of the items within each subscale (see Scale construction table above). Higher mean scores within each subscale indicate greater social support.

Items MSPSS13_TX, MSPSS14_TX, MSPSS15_TX: Respondents indicate their social interaction with friends, colleagues, and neighbours (1 = Several times a week; 2 = Once a week; 3 = 2 or 3 times a month; 4 = Once a month; 5 = Less than once a month; 6 = Never; 88 = N/A).

Items MSPSS16_TX, MSPSS17_TX, MSPSS18_TX: Respondents indicate in which types of situations they would be able to rely on family, friends, and other acquaintances, respectively, for help. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Items MSPSS19_TX, MSPSS20_TX, MSPSS21_TX: Respondents indicate in which types of situations they have provided help to family, friends, and other acquaintances, respectively, in the last 12 months. Any number of options able to be selected (0 = Not selected; 1 = Selected).

Item MSPSS22_TX: Respondents indicate whether they care for anyone who is dependant within 3 major age brackets. Any number of options able to be selected (0 = Not selected; 1 = Selected). If respondents indicate yes to any of the above, they indicate how many hours per week they provide care (1 = 1 hour to 60 = 60+ hours).

Recoding: None.

Psychometrics:

Items appear in Codebook in section: Social Support, MSPSS1_TX – MSPSS12_TX (T0); MSPSS1_TX – MSPSS22_TX (T2)

Rewording of original scales:

Item	GLSNZ Survey Item	Special Eurobarometer Item
MSPSS13_TX	*How often do you...?* Meet socially with friends? Response options: Several times a week; Once a week; 2 or 3 times a month; Once a month; Less than once a month; Never; N/A	*How often do you...?* Meet socially with friends? Response options: Several times a week; Once a week; 2 or 3 times a month; Once a month; Less than once a month; Never; Don't know
MSPSS14_TX	*How often do you...?* Meet socially with work colleagues outside working time? Response options as above.	*How often do you...?* Meet work colleagues outside working time? Response options as above.
MSPSS15_TX	*How often do you...?* Meet socially with neighbours? Response options as above.	*How often do you...?* Meet socially with neighbours? Response options as above.

Item	GLSNZ Survey Item	Special Eurobarometer Item
MSPSS16_TX	In which of the following situations would you be able to rely on **family** to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply. *Response options:* • Help with household tasks, shopping, gardening, etc. • Occasional care for a dependant member of your household (child, elderly, disabled, etc.) • Personal care including washing, dressing, eating, etc. • Help with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc. • Discuss personal problems • Borrow money • Borrow valuable goods (car, use of house, lawn mower, electric drill, etc.) • Help if you were threatened, harassed or assaulted • None of the above	In which of the following situations would you be able to rely on friends, work colleagues, neighbours or acquaintances to receive help or support? (Please note that we do not mean people who would be paid for it) *Response options:* • Help with household tasks, shopping, gardening, etc. • Occasional care for a dependant member of your household (child, elderly, disabled, etc.) • Personal care including washing, dressing, eating, etc. • Help with paperwork for getting social benefits, prepare tax returns, getting a phone or another service, etc. • Discuss personal problems • Borrow money • Borrow valuable goods (car, use of house, lawn mower, electric drill, etc.) • Help in case you were threatened, harassed or assaulted • None of these situations • Don't know
MSPSS17_TX	In which of the following situations would you be able to rely on **friends** to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply. Response options as above.	
MSPSS18_TX	In which of the following situations would you be able to rely on **work colleagues**, **neighbours** or **acquaintances** to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply. Response options as above.	

Item	GLSNZ Survey Item	Special Eurobarometer Item
MSPSS19_TX	In the last 12 months, did you, yourself, help or support **family**? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply. *Response options:* • Helped someone with household tasks, shopping, gardening, etc. • Occasionally cared for a dependant person living in someone's household (child, elderly, disabled, etc.) • Provided personal care including washing, dressing, eating, etc. • Helped with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc. • Discussed personal problems • Lent money to someone • Lent valuable goods (car, use of house, lawn mower, electric drill, etc.) to someone • Helped someone you know who was threatened, harassed or assaulted • None of the above	And in which of the following situations did you, yourself, help or support friends, work colleagues, neighbours or other acquaintances in the past twelve months? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for) *Response options:* • Help someone with household tasks, shopping, gardening, etc. • Occasional care for a dependant person living in someone's household (child, elderly, disabled, etc.) • Personal care including washing, dressing, eating, etc. • Help with paperwork for getting social benefits, prepare tax returns, getting a phone or another service, etc. • Discuss personal problems • Lend money to someone • Lend valuable goods (car, use of house, lawn mower, electric drill, etc.) to someone • Help in case someone you know were threatened, harassed or assaulted • None of these situations • Don't know
MSPSS20_TX	In the last 12 months, did you, yourself, help or support **friends**? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply. Response options as above.	
MSPSS21_TX	In the last 12 months, did you, yourself, help or support work **colleagues**, **neighbours** or **acquaintances**? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply. Response options as above.	

Item	GLSNZ Survey Item	Special Eurobarometer Item
MSPSS22_TX	Some people have extra family responsibilities because they look after someone who is dependant and needs help or care because this person is long-term ill, handicapped, disabled, etc. Do you provide regular care to a person(s) in this situation who is…? • Aged 19 years or under • Between 20 and 64 years old • 65 years or older • None of the above If yes to any of the above, respondents indicated how many hours per week they spent helping from 1 hour to 60+ hours.	Some people have extra family responsibilities because they look after someone who is dependant and need help or care because this person is long-term ill, handicapped, disabled, etc. Do you provide regular care to someone in this situation who is…? • aged 19 or under • between 20 and 64 • 65 or over

APPENDIX 4: GLSNZ CODE BOOK

Code Book

Graduate Longitudinal Study New Zealand

First Follow-up

Programming Notes:

General key for responses:

Male = 1, Female = 2
No = 0, Yes = 1
Don't know = 99
N/A = 88
Other = 77
Participant elects to skip question = 6666
Questions that participants are ineligible to answer (see table below) = 88

There should be no blank cells for any question – every cell should contain either a value or string of text.

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Thank you very much for signing on to do the 2-year follow-up survey. We really appreciate the contribution that you are making. Please know that a number of questions will be repeated from the first survey that you completed in mid- to late 2011 so that we can track change. Please answer all questions where possible and/or applicable.

SECTION 1: GENERAL AND BACKGROUND INFORMATION

General Demographics

We would like to begin by asking you some general questions about your background.

GDUD1_T2   1.   What is your date of birth? (dd/mm/yyyy)   _ _ / _ _ / _ _ _ _

GDUD2_T2   2.   Are you?   1 = Male
          2 = Female

3.   Which ethnic group(s) do you belong to? Please select the option(s) that apply to you.

		Not selected	Selected
GDUD3a_T2	New Zealand European	0	1
GDUD3b_T2	Māori	0	1
GDUD3c_T2	Samoan	0	1
GDUD3d_T2	Cook Islands Māori	0	1
GDUD3e_T2	Tongan	0	1
GDUD3f_T2	Niuean	0	1
GDUD3g_T2	Chinese	0	1
GDUD3h_T2	Indian	0	1
GDUD3ot_T2	Other (e.g., Dutch, Japanese, Tokelauan)	0	1

GDUD3ota_T2   If **GDUD3ot_T2** = 1, please specify other ethnic group(s): _____

GDUD26_T2   4. If **GDUD3b_T2** = 1: I feel comfortable with my Māori identity.

Strongly disagree   Strongly agree
1   2   3   4   5

GDUD4_T2   5. Are you of Māori descent (i.e., did you have a Māori birth parent, grandparent or great-grandparent, etc.)?

1 = Yes
0 = No (Go to **GDUD6_T2**)
99 = Don't know (Go to **GDUD6_T2**)

GDUD5_T2   6. Do you know the name(s) of your iwi (tribe or tribes)?

1 = Yes
0 = No (Go to **GDUD6_T2**)

If **GDUD5_T2** = 1, please select all that apply: (Drop down boxes with regions then iwi)

	Region	Iwi	Not selected	Selected
GDUD5a1_T2	**Te Tai Tokerau/ Tāmaki-**	Te Aupōuri	0	1
GDUD5a2_T2	**makaurau (Northland/**	Ngāti Kahu	0	1
GDUD5a3_T2	**Auckland) Region**	Te Kawerau	0	1
GDUD5a4_T2		Ngāti Kurī	0	1
GDUD5a5_T2		Ngāpuhi	0	1
GDUD5a6_T2		Ngāpuhi ki Whaingaroa-Ngāti Kahu ki Whaingaroa	0	1
GDUD5a7_T2		Te Rarawa	0	1
GDUD5a8_T2		Te Roroa	0	1
GDUD5a9_T2		Ngāi Takoto	0	1
GDUD5a10_T2		Te Uri-o-Hau	0	1
GDUD5a11_T2		Ngāti Wai	0	1
GDUD5a12_T2		Ngāti Whātua	0	1
GDUD5b1_T2	**Hauraki (Coromandel)**	Ngāti Hako	0	1
GDUD5b2_T2	**Region**	Ngāti Hei	0	1
GDUD5b3_T2		Ngāti Maru (Hauraki)	0	1
GDUD5b4_T2		Ngāti Paoa	0	1
GDUD5b5_T2		Patukirikiri	0	1
GDUD5b6_T2		Ngāti Porou ki Harataunga ki Mataora	0	1
GDUD5b7_T2		Ngāti Pūkenga ki Waiau	0	1
GDUD5b8_T2		Ngāti Rāhiri Tumutumu	0	1
GDUD5b9_T2		Ngāi Tai (Hauraki)	0	1
GDUD5b10_T2		Ngāti Tamaterā	0	1
GDUD5b11_T2		Ngāti Tara Tokanui	0	1
GDUD5b12_T2		Ngāti Whanaunga	0	1
GDUD5c1_T2	**Waikato/ Te Rohe Pōtae**	Ngāti Haua (Waikato)	0	1
GDUD5c2_T2	**(Waikato/ King Country)**	Ngāti Maniapoto	0	1
GDUD5c3_T2	**Region**	Ngāti Raukawa (Waikato)	0	1
GDUD5c4_T2		Waikato	0	1
GDUD5d1_T2	**Te Arawa/ Taupō**	Ngāti Pikiao (Te Arawa)	0	1
GDUD5d2_T2	**(Rotorua/ Taupō) Region**	Ngāti Rangiteaorere (Te Arawa)	0	1
GDUD5d3_T2		Ngāti Rangitihi (Te Arawa)	0	1
GDUD5d4_T2		Ngāti Rangiwewehi (Te Arawa)	0	1
GDUD5d5_T2		Ngāti Tahu-Ngāti Whaoa (Te Arawa)	0	1
GDUD5d6_T2		Tapuika (Te Arawa)	0	1
GDUD5d7_T2		Tarāwhai (Te Arawa)	0	1
GDUD5d8_T2		Tūhourangi (Te Arawa)	0	1
GDUD5d9_T2		Ngāti Tūwharetoa	0	1
GDUD5d10_T2		Uenuku-Kōpako (Te Arawa)	0	1
GDUD5d11_T2		Waitaha (Te Arawa)	0	1
GDUD5d12_T2		Ngāti Whakaue (Te Arawa)	0	1

	Region	Iwi	Not selected	Selected
GDUD5e1_T2	**Tauranga Moana/**	Ngāti Awa	0	1
GDUD5e2_T2	**Mātaatua (Bay of Plenty)**	Ngāti Manawa	0	1
GDUD5e3_T2	**Region**	Ngāti Pūkenga	0	1
GDUD5e4_T2		Ngaiterangi	0	1
GDUD5e5_T2		Ngāti Ranginui	0	1
GDUD5e6_T2		Ngāi Tai (Tauranga Moana/ Mātaatua)	0	1
GDUD5e7_T2		Tūhoe	0	1
GDUD5e8_T2		Whakatōhea	0	1
GDUD5e9_T2		Te Whānau-a-Apanui	0	1
GDUD5e10_T2		Ngāti Whare	0	1
GDUD5f1_T2	**Taranaki Region**	Te Atiawa (Taranaki)	0	1
GDUD5f2_T2		Ngāti Maru (Taranaki)	0	1
GDUD5f3_T2		Ngāti Mutunga (Taranaki)	0	1
GDUD5f4_T2		Ngā Rauru	0	1
GDUD5f5_T2		Ngā Ruahine	0	1
GDUD5f6_T2		Pakakohi	0	1
GDUD5f7_T2		Ngāti Ruanui	0	1
GDUD5f8_T2		Ngāti Tama (Taranaki)	0	1
GDUD5f9_T2		Tangāhoe	0	1
GDUD5f10_T2		Taranaki	0	1
GDUD5g1_T2	**Te Tai Rāwhiti (East**	Te Aitanga-a-Māhaki	0	1
GDUD5g2_T2	**Coast) Region**	Ngāti Porou	0	1
GDUD5g3_T2		Rongowhakaata	0	1
GDUD5g4_T2		Ngāi Tāmanuhiri	0	1
GDUD5h1_T2	**Te Matau-a-Māui/**	Ngāti Kahungunu ki Heretaunga	0	1
GDUD5h2_T2	**Wairarapa (Hawke's**	Ngāti Kahungunu ki Tamakinui-a-Rua	0	1
	Bay/ Wairarapa) Region			
GDUD5h3_T2		Ngāti Kahungunu ki Tamatea	0	1
GDUD5h4_T2		Ngāti Kahungunu ki Te Wairoa	0	1
GDUD5h5_T2		Ngāti Kahungunu ki Wairarapa	0	1
GDUD5h6_T2		Ngāti Kahungunu ki Te Whanganui-a-Orotu	0	1
GDUD5h7_T2		Rangitāne (Te Matau-a-Māui/ Hawke's Bay/ Wairarapa)	0	1
GDUD5h8_T2		Rongomaiwahine (Te Māhia)	0	1
GDUD5h9_T2		Ngāti Pāhauwera	0	1
GDUD5h10_T2		Ngāti Rākaipaaka	0	1
GDUD5i1_T2	**Whanganui/ Rangitīkei**	Ngāti Apa (Rangitīkei)	0	1
GDUD5i2_T2	**(Wanganui/ Rangitīkei)**	Te Ati Haunui-a-Pāpārangi	0	1
GDUD5i3_T2	**Region**	Ngāti Haua (Taumarunui)	0	1
GDUD5i4_T2		Ngāti Hauiti	0	1

	Region	Iwi	Not selected	Selected
GDUD5j1_T2	**Manawatū/ Horowhenua/ Te Whanganui-a-Tara (Manawatū/ Horowhenua/ Wellington) Region**	Te Atiawa (Te Whanganui-a-Tara/ Wellington)	0	1
GDUD5j2_T2		Te Atiawa ki Whakarongotai	0	1
GDUD5j3_T2		Muaūpoko	0	1
GDUD5j4_T2		Rangitāne (Manawatū)	0	1
GDUD5j5_T2		Ngāti Kauwhata	0	1
GDUD5j6_T2		Ngāti Raukawa (Horowhenua/ Manawatū)	0	1
GDUD5j7_T2		Ngāti Toarangatira (Te Whanganui-a-Tara/ Wellington)	0	1
GDUD5j8_T2		Ngāti Tama ki Te Upoko o Te Ika (Te Whanganui-a-Tara/ Wellington)	0	1
GDUD5k1_T2	**Te Waipounamu/ Wharekauri (South Island/ Chatham Islands) Region**	Ngāti Apa ki Te Rā Tō	0	1
GDUD5k2_T2		Te Atiawa (Te Waipounamu/ South Island)	0	1
GDUD5k3_T2		Ngāti Koata	0	1
GDUD5k4_T2		Ngāti Kuia	0	1
GDUD5k5_T2		Kāti Māmoe	0	1
GDUD5k6_T2		Moriori	0	1
GDUD5k7_T2		Ngāti Mutunga (Wharekauri/ Chatham Islands)	0	1
GDUD5k8_T2		Rangitāne (Te Waipounamu/ South Island)	0	1
GDUD5k9_T2		Ngāti Rārua	0	1
GDUD5k10_T2		Ngāi Tahu / Kāi Tahu	0	1
GDUD5k11_T2		Ngāti Tama (Te Waipounamu/ South Island)	0	1
GDUD5k12_T2		Ngāti Toarangatira (Te Waipounamu/ South Island)	0	1
GDUD5k13_T2		Waitaha (Te Waipounamu/ South Island)	0	1
GDUD5ot_T2	**Other**		0	1
GDUD5ota_T2	If **GDUD5ot_T2** = 1, please specify: _____			
GDUD6_T2	7. What is your relationship status?	1 = Single 2 = In a relationship but not living together 3 = De facto (living together as a couple but not married to, or in a Civil Union with, one another) 4 = Married/Civil Union 5 = Divorced/Separated 6 = Widowed/Surviving Civil Union		
GDUD7_T2	8. Are you a parent?	1 = Yes 0 = No		

GDUD7a_T2   If **GDUD7_T2** = 1, how many children do you have:

1 = 1
2 = 2
3 = 3
4 = 4
etc., to... 20 = 20

If **GDUD7_T2** = 1, what age are your children (in years)? (Note: Please insert boxes for the number of children specified in **GDUD7a_T2**. The remaining cells should be assigned values of 88)

GDUD7b1_T2	Child 1	For each child the
GDUD7b2_T2	Child 2	response options are:
GDUD7b3_T2	Child 3	
GDUD7b4_T2	Child 4	0 = Less than 1 year
GDUD7b5_T2	Child 5	1 = 1 year
GDUD7b6_T2	Child 6	2 = 2 years
GDUD7b7_T2	Child 7	3 = 3 years
GDUD7b8_T2	Child 8	etc., to...
GDUD7b9_T2	Child 9	18 = 18+ years
GDUD7b10_T2	Child 10	
GDUD7b11_T2	Child 11	
GDUD7b12_T2	Child 12	
GDUD7b13_T2	Child 13	
GDUD7b14_T2	Child 14	
GDUD7b15_T2	Child 15	
GDUD7b16_T2	Child 16	
GDUD7b17_T2	Child 17	
GDUD7b18_T2	Child 18	
GDUD7b19_T2	Child 19	
GDUD7b20_T2	Child 20	

GDUD8_T2   9. Which of the following describes your current living arrangements? Select the option that best applies to you.

1 = Living with friends or in a shared house
2 = Living with parents or guardians
3 = Living by myself
4 = Living with partner/spouse and/or children
5 = Living in a university hall or college of residence
77 = Other

GDUD8ota_T2   If **GDUD8_T2** = 77, please specify: _____

10. What is your residency status? Select all that apply.

		Not selected	Selected
GDUD15a_T2	New Zealand citizen/permanent resident	0	1
GDUD15b_T2	Australian citizen/permanent resident	0	1
GCUD15c_T2	International citizenship	0	1

GDUD15ca_T2   If **GDUD15c_T2** = 1, please specify international citizenship: _____

GDUD16_T2   11. Is English your first language?

1 = Yes (go to **GDUD21_T2**)
0 = No

GDUD16a_T2   If **GDUD16_T2** = 0, please state your first language: _____

		Not at all fluent				Very fluent

GDUD17_T2   12. How fluent in English are you?

Not at all fluent   Very fluent
1   2   3   4   5

GDUD21_T2   13. How fluent in sign language are you?

Not at all fluent   Very fluent
1   2   3   4   5

GDUD20_T2   14. How fluent in Te Reo Māori are you?

Not at all fluent   Very fluent
1   2   3   4   5

GDUD27_T2   15. How confident do you feel in a Māori setting (e.g., on a marae, at a powhiri, attending hui or tangihanga)?

Not at all confident   Very confident
1   2   3   4   5

16. Where do you currently live?

GDUD28a_T2   City, town or district: _____

GDUD28b_T2   Country: _____

GDUD29_T2   17. How long have you lived in the location (above) where you live now?

1 = Less than 1 month
2 = 1 to 6 months
3 = 7 to 12 months
4 = More than 12 months

Next we have some questions about your parents, or those who have played a parenting role for you.

GDUD30a_T2   18. Is your <u>mother</u> still living? (if **GDUD30a_T2** = 0, 88, or 99 skip items **GDUD31a_T2**, **GDUD32a_T2**, **GDUD33a_T2**, and **GDUD34a_T2**)

0 = No
1 = Yes
99 = Don't know
88 = Not applicable

GDUD30b_T2   19. Is your <u>father</u> still living? (if **GDUD30b_T2** = 0, 88, or 99 skip items **GDUD31b_T2**, **GDUD32b_T2**, **GDUD33b_T2**, and **GDUD34b_T2**)

0 = No
1 = Yes
99 = Don't know
88 = Not applicable

GDUD31a_T2   20. How old is your <u>mother</u> (in years)? If unsure, please give your best estimate.   ___ years

GDUD31b_T2   21. How old is your <u>father</u> (in years)? If unsure, please give your best estimate.   ___ years

GDUD32a_T2   22. In general, would you say your <u>mother's</u> health is...

1 = Excellent
2 = Very good
3 = Good
4 = Fair
5 = Poor
99 = Don't know

GDUD32b_T2   23. In general, would you say your <u>father's</u> health is...

1 = Excellent
2 = Very good
3 = Good
4 = Fair
5 = Poor
99 = Don't know

GDUD33a_T2   24. On a scale from 0 to 10, where 0 is very poor and 10 is excellent, how would you describe the quality of your relationship with your <u>mother</u>?

Very poor   Excellent
0 1 2 3 4 5 6 7 8 9 10

GDUD33b_T2   25. On a scale from 0 to 10, where 0 is very poor and 10 is excellent, how would you describe the quality of your relationship with your <u>father</u>?

Very poor   Excellent
0 1 2 3 4 5 6 7 8 9 10

GDUD34a_T2   26. How often do you have contact with your <u>mother</u>, either in person or by any other means (e.g., phone, letter, email, skype, etc.)?

1 = Daily
2 = At least several times a week
3 = At least once a week
4 = At least once a month
5 = Several times a year
6 = Less often
7 = Never

GDUD34b_T2   27. How often do you have contact with your <u>father</u>, either in person or by any other means (e.g., phone, letter, email, skype, etc.)?

1 = Daily
2 = At least several times a week
3 = At least once a week
4 = At least once a month
5 = Several times a year
6 = Less often
7 = Never

Education

Now we would like to ask you some questions about what you have been doing over the last couple of years, your qualifications, and then any further study you may be undertaking.

1. Since the first survey in 2011 I have been... Select all that apply.

		Not selected	Selected
GDUD35a_T2	In full-time employment	0	1
GDUD35b_T2	In part-time employment	0	1
GDUD35c_T2	Doing voluntary work	0	1
GDUD35d_T2	Establishing my career further	0	1
GDUD35e_T2	Engaging in further study	0	1
GDUD35f_T2	Working overseas	0	1
GDUD35k_T2	Travelling and/or living overseas	0	1
GDUD35g_T2	Self employed	0	1
GDUD35h_T2	Partnered/married	0	1
GDUD35i_T2	Parenting/caregiving	0	1
GDUD35j_T2	Retired	0	1
GDUD35ot_T2	Other	0	1

GDUD35ota_T2   If **GDUD35ot_T2** = 1, please specify: _____

GDUD36_T2   2. Did you begin studying at the university you were enrolled at in 2011 as an overseas/international student?   0 = No, I was a domestic student (go to **GDUD38_T2** series)
1 = Yes

GDUD36a_T2   If **GDUD36_T2** = 1, please state your country of origin: _____

GDUD37_T2   3. Have you returned to live in your country of origin? (after this questions and any specifications, go to **GDUD39_T2** series)   1 = Yes, I have returned to live in my country of origin
2 = No, I have remained living in New Zealand
3 = No, I currently live in another country

GDUD37a_T2   If **GDUD37_T2** = 3, please state which country: _____

4. Since the first survey in 2011, have you spent a total of a month or more overseas, that is out of New Zealand, for study, work or travel/holiday? Select all that apply.

		Not selected	Selected
GDUD38a_T2	Yes, for study	0	1
GDUD38b_T2	Yes, for work-related reasons	0	1
GDUD38c_T2	Yes, for travel/holiday	0	1
GDUD38d_T2	No	0	1

GDUD38aa_T2   If **GDUD38a_T2** = 1, how many months did you spend overseas for study? _____
GDUD38ba_T2   If **GDUD38b_T2** = 1, how many months did you spend overseas for work-related reasons? _____
GDUD38ca_T2   If **GDUD38c_T2** = 1, how many months did you spend overseas for a holiday? _____

5. Please describe the qualification(s), and the main subject, you were studying towards in 2011.

GDUD39a_T2   Qualification(s) (and level, if applicable): _____

GDUD39b_T2   Main subject(s): _____

GDUD40_T2   6. Did you complete the qualification you were studying towards in 2011 (above)?   0 = No (go to **GDUD42_T2** series)
     1 = Yes

GDUD40a_T2   If **GDUD40_T2** = 1, Level of qualification achieved (e.g., first-class honours, merit, etc.). If unsure or not applicable, please write N/A: _____

GDUD41_T2   7. Is this qualification your highest qualification?   0 = No
     1 = Yes (go to **GDUD43_T2** series)

8. Please describe your <u>highest</u> qualification, and the main subject. (For those who indicated **GDUD41_T2** = 1 please autofill, if possible, with responses to items **GDUD39a_T2** and **GDUD39b_T2**, respectively)

GDUD42a_T2   Qualification (and level, if applicable): _____

GDUD42b_T2   Main subject(s): _____

GDUD43_T2   9. Are you currently enrolled in tertiary study, either full-time or part-time? By tertiary study we mean at a university, polytechnic, or similar.   0 = No
     1 = Yes, at a university
     2 = Yes, at a polytechnic
     3 = Yes, at another provider

GDUD43ba1_T2   If **GDUD43_T2** = 1, please specify University institution: _____

GDUD43ba2_T2   If **GDUD43_T2** = 1, please specify University qualification/course: _____

GDUD43ca1_T2   If **GDUD43_T2** = 2, please specify Polytechnic institution: _____

GDUD43ca2_T2   If **GDUD43_T2** = 2, please specify Polytechnic qualification/course: _____

GDUD43ota1_T2   If **GDUD43_T2** = 3, please specify provider: _____

GDUD43ota2_T2   If **GDUD43_T2** = 3, please specify qualification/course: _____

GDUD44_T2   10. If **GDUD43_T2** = 0, Would you have liked to enrol in further study since the first survey in 2011?   0 = No (go to **GDUD46_T2** series)
     1 = Yes

11. If **GDUD44_T2** = 1, What were your reasons for not enrolling? Select all that apply.

		Not selected	Selected
GDUD45a_T2	Lack of time	0	1
GDUD45b_T2	Changes to the student allowance scheme	0	1
GDUD45c_T2	Other financial reasons	0	1
GDUD45d_T2	Geographical location (e.g., living too far away from a provider)	0	1
GDUD45ot_T2	Other	0	1

GDUD45ota_T2   If **GDUD45ot_T2** = 1, please specify: _____

Next we have some questions about online education; that is, classes conducted over the Internet that can be taken for university credit, personal enrichment, professional development, or other business-related reasons.

GDUD46_T2	12. How familiar are you with online courses sometimes called "distance learning" at some universities – that is, courses that are entirely or partially conducted over the Internet?	Not at all familiar · · · Very familiar 1 · 2 · 3 · 4 · 5
GDUD47_T2	13. And how familiar are you with online university courses known as Massive Open Online Courses or MOOCs?	Not at all familiar · · · Very familiar 1 · 2 · 3 · 4 · 5
GDUD48_T2	14. Have you ever enrolled in a MOOC through any institution/organisation (e.g., Coursera, Udacity, edX, MITx, etc.)?	0 = No 1 = Yes, I am currently enrolled 2 = Yes, I have completed one 3 = Yes, but I did not complete it

(To follow on a new page please)

Massive Open Online Courses or MOOCs are university courses that are taught entirely online and are usually free or available at a small cost to anyone who wants to participate. In most cases, MOOC participants do not receive university credit for their participation.

GDUD49_T2	15. Using this scale, please rate how good or bad of an idea it is for universities to offer MOOCs as a part of their programme.	Very bad idea · · · Very good idea 1 · 2 · 3 · 4 · 5
GDUD50_T2	16. If a free MOOC were offered in a subject in which you are interested, how likely would you be to participate?	Not at all likely · · · Very likely 1 · 2 · 3 · 4 · 5

17. For what reasons would you consider taking a MOOC? Select all that apply.

		Not selected	Selected
GDUD51_T2	I would not consider taking a MOOC	0	1
GDUD51a_T2	To get a certificate/digital badge	0	1
GDUD51b_T2	To increase my knowledge/skills in a specific area	0	1
GDUD51c_T2	To improve my career prospects	0	1
GDUD51d_T2	To become part of an online community or meet new people	0	1
GDUD51e_T2	To try online education	0	1
GDUD51f_T2	To see what MOOCs are	0	1
GDUD51g_T2	To help me get a job	0	1
GDUD51h_T2	To fill in gaps in my knowledge	0	1
GDUD51i_T2	For recreation/interest	0	1
GDUD51ot_T2	Other	0	1

GDUD51ota_T2   If **GDUD51ot_T2 =** , please specify: _____

GDUD52_T2	18. Imagine that you completed a MOOC. Would you include this in a job application/in your CV?	0 = No 1 = Yes 2 = Possibly, it would depend on the job

SECTION 2: YOUR UNIVERSITY EXPERIENCE

Now we would like you to reflect on your time at university (i.e., the one you were attending in 2011) and your satisfaction and views regarding the benefits of your education.

Satisfaction with University

			Definitely no				Definitely yes
SU26_T2	19.	Overall, was your study programme worth the time, cost and effort?	1	2	3	4	5
SU27_T2	20.	Did your overall experience at university meet your expectations?	1	2	3	4	5
SU28_T2	21.	Have you retained links with your university (e.g., Alumni)?	1	2	3	4	5
SU29_T2	22.	Have you retained social connections formed at university (e.g., class reunions, keeping in touch with university friends)?	1	2	3	4	5

SU30_T2   23. If you could start over, would you go to the same university?

1 = Definitely no
2 = Probably no
3 = Probably yes
4 = Definitely yes

SU31_T2   24. If you could start over, would you choose to enrol in the same qualification?

1 = Definitely no
2 = Probably no
3 = Probably yes
4 = Definitely yes

Reflecting on Your University Experience

Looking back, to make graduates more employable, what level of importance do you think universities should give to:

			Low				High
RUE1_T2	1.	Developing skills needed for professional practice.	1	2	3	4	5
RUE2_T2	2.	Teaching foundation skills like reading, writing, speaking and problem-solving.	1	2	3	4	5
RUE3_T2	3.	High quality careers advice.	1	2	3	4	5
RUE4_T2	4.	Supportive learning environments (e.g., mentorship, pastoral care).	1	2	3	4	5
RUE5_T2	5.	Fieldwork, placements and internships.	1	2	3	4	5
RUE6_T2	6.	Lectures.	1	2	3	4	5
RUE7_T2	7.	Tutorials.	1	2	3	4	5
RUE8_T2	8.	Laboratories/experiential learning.	1	2	3	4	5
RUE9_T2	9.	Encouraging students to study specific areas of interest in greater depth.	1	2	3	4	5
RUE10_T2	10.	Ensuring that teaching staff have current workplace experience and knowledge.	1	2	3	4	5
RUE11_T2	11.	Ensuring that teaching staff have current research experience and knowledge.	1	2	3	4	5
RUE12_T2	12.	Proficient use of technology and social media.	1	2	3	4	5
RUE13_T2	13.	Encouraging engagement between students and the community.	1	2	3	4	5
RUE14_T2	14.	Preparation for employment in the international context.	1	2	3	4	5
RUE15_T2	15.	Critical thinking and analysis.	1	2	3	4	5
RUE16_T2	16.	Transferability of skills and knowledge.	1	2	3	4	5
RUE17_T2	17.	Creative/innovative thinking.	1	2	3	4	5
RUE18_T2	18.	Excellence in written and oral communication skills.	1	2	3	4	5
RUE19_T2	19.	Research skills (e.g., finding, evaluating, and filtering sources of information).	1	2	3	4	5
RUE20_T2	20.	Ability to meet the needs of Māori in your chosen profession.	1	2	3	4	5

Benefits of a University Education

We would like to know how <u>you</u> believe your university education <u>has benefited you or will benefit you</u> in the future. Please rate the extent to which you think your university education has provided you with a good basis for the following:

			Not at all			To a very high extent	
BUE1_T2	1.	Obtaining employment?	1	2	3	4	5
BUE2_T2	2.	Performing work tasks?	1	2	3	4	5
BUE3_T2	3.	Your career?	1	2	3	4	5
BUE4_T2	4.	A good income?	1	2	3	4	5
BUE5_T2	5.	Job security?	1	2	3	4	5
BUE6_T2	6.	Geographic mobility, including moving overseas?	1	2	3	4	5
BUE7_T2	7.	Engagement with community?	1	2	3	4	5
BUE8_T2	8.	Being a role model (for education) within your own family or community?	1	2	3	4	5
BUE9_T2	9.	Personal development?	1	2	3	4	5
BUE10_T2	10.	Acceptance by others?	1	2	3	4	5
BUE11_T2	11.	Status and respect?	1	2	3	4	5
BUE12_T2	12.	Undertaking further study?	1	2	3	4	5
BUE13_T2	13.	Developing entrepreneurial skills?	1	2	3	4	5
BUE14_T2	14.	Developing leadership skills?	1	2	3	4	5
BUE15_T2	15.	Enabling you to develop a secure identity?	1	2	3	4	5

Overall Impressions

Thinking about your time at the university you were attending in 2011…

			Poor				Excellent
OI1_T2	1.	How would you evaluate your *entire* experience at your university?	1	2	3	4	5

			Definitely no				Definitely yes
OI2_T2	2.	Would you recommend your university to others?	1	2	3	4	5

In this section we are interested in your career aspirations and plans for the next 3 years, as well as your personal goals, values and aspirations.

Future Plans and Career Aspirations

1. In the next 3 years do you intend to pursue a <u>career</u> (long-term progression), a <u>job</u> (something immediate that will provide you with a wage), or pursue further study? Select all that apply.

		Not selected	Selected
FPCA1a_T2	Career	0	1
FPCA1b_T2	Job	0	1
FPCA1c_T2	Further study	0	1
FPCA1ot_T2	Other	0	1

FPCA1ca_T2	If **FPCA1c_T2** = 1, please specify institution for further study (if not known at this stage, please type 'unknown'): _____
FPCA1ota_T2	If **FPCA1ot_T2** = 1, please specify other plans: _____

FPCA7_T2	2. In the next 3 years, are you planning to undertake paid work?	0 = No (go to **FPCA4_T2** series) 1 = Yes

3. In the next 3 years do you plan to… Select all that apply.

		Not selected	Selected
FPCA2a_T2	Work in New Zealand	0	1
FPCA2b_T2	Work overseas	0	1
FPCA2c_T2	Work in your country of origin	0	1
FPCA2d_T2	None of the above	0	1

FPCA2ba_T2	If overseas (**FPCA2b_T2** = 1), please specify where (if unsure where, write 'unknown'): _____
FPCA2ca_T2	If in your country of origin (**FPCA2c_T2** = 1), please specify where: _____

4. If you are seeking employment in the next 3 years what area/field are you planning to seek employment in? Select all that apply.

		Not selected	Selected
FPCA3a_T2	Academia	0	1
FPCA3b_T2	Accounting	0	1
FPCA3c_T2	Administration and office support	0	1
FPCA3d_T2	Advertising	0	1
FPCA3e_T2	Animal welfare	0	1
FPCA3f_T2	Arts	0	1
FPCA3g_T2	Banking and financial services	0	1
FPCA3h_T2	Call centre and customer services	0	1
FPCA3i_T2	Community services and development	0	1
FPCA3j_T2	Construction	0	1
FPCA3k_T2	Consulting and strategy	0	1
FPCA3l_T2	Defence	0	1
FPCA3m_T2	Design and architecture	0	1
FPCA3n_T2	Education and training	0	1
FPCA3o_T2	Engineering	0	1
FPCA3p_T2	Environment and conservation	0	1
FPCA3q_T2	Farming and agriculture	0	1
FPCA3r_T2	Government	0	1
FPCA3s_T2	Health care and medical	0	1
FPCA3t_T2	Hospitality and tourism	0	1
FPCA3u_T2	Human resources and recruitment	0	1
FPCA3v_T2	Information and communication technology	0	1
FPCA3w_T2	Insurance and superannuation	0	1
FPCA3x_T2	Legal	0	1
FPCA3y_T2	Manufacturing	0	1
FPCA3z_T2	Marketing and communications	0	1
FPCA3aa_T2	Media	0	1
FPCA3ab_T2	Mining, resources and energy	0	1
FPCA3ac_T2	Real estate and property	0	1
FPCA3ad_T2	Retail and consumer products	0	1
FPCA3ae_T2	Sales	0	1
FPCA3af_T2	Science and technology	0	1
FPCA3ag_T2	Self employment	0	1
FPCA3ah_T2	Social work	0	1
FPCA3ai_T2	Sport and recreation	0	1
FPCA3aj_T2	Trades and services	0	1
FPCA3ak_T2	Transport and logistics	0	1
FPCA3ot_T2	Other	0	1

FPCA3ota_T2   If **FPCA3ot_T2** = 1, please specify: _____

5. What are you looking for in a career/job? Please select all that apply.

		Not selected	Selected
FPCA4a_T2	Financial security	0	1
FPCA4b_T2	Job satisfaction	0	1
FPCA4c_T2	Opportunities for advancement	0	1
FPCA4d_T2	Flexibility	0	1
FPCA4e_T2	Opportunity to apply knowledge and skills	0	1
FPCA4f_T2	Opportunity to work with others	0	1
FPCA4g_T2	Opportunity to travel or have an overseas experience	0	1
FPCA4h_T2	Opportunity for further study	0	1
FPCA4i_T2	Earning potential	0	1
FPCA4j_T2	Location	0	1
FPCA4k_T2	Compatibility with workplace values	0	1
FPCA4l_T2	Status	0	1
FPCA4m_T2	Respect	0	1
FPCA4n_T2	Intellectual challenge and stimulation	0	1
FPCA4o_T2	Skill development	0	1
FPCA4p_T2	The opportunity to make a contribution/difference	0	1
FPCA4q_T2	Professional recognition	0	1
FPCA4r_T2	Job security	0	1
FPCA4s_T2	A good work/life balance	0	1
FPCA4t_T2	Meets family expectations	0	1
FPCA4u_T2	Accommodates caregiving roles (e.g., parenting, caring for elderly family member)	0	1
FPCA4v_T2	Ethical workplace	0	1
FPCA4w_T2	Culturally aware workplace	0	1
FPCA4x_T2	Environmentally aware workplace	0	1
FPCA4y_T2	Opportunity to contribute to Māori community	0	1
FPCA4z_T2	Opportunity to contribute to Pacific community	0	1
FPCA4ot_T2	Other	0	1

FPCA4ota_T2   If **FPCA4ot_T2** = 1, please specify: _____

6. Please rank the **top 3** factors that are important to you in terms of choosing a career/job, **numbering from 1 as the most important**. (If you selected one factor, please rank it as 1. If you selected two factors, please rank them as 1 or 2 in order of importance) *Note*: Items not selected in **FPCA4_T2** series to be assigned value of 88.

		Rank
FPCA5a_T2	Financial security	
FPCA5b_T2	Job satisfaction	
FPCA5c_T2	Opportunities for advancement	
FPCA5d_T2	Flexibility	
FPCA5e_T2	Opportunity to apply knowledge and skills	
FPCA5f_T2	Opportunity to work with others	
FPCA5g_T2	Opportunity to travel or have an overseas experience	
FPCA5h_T2	Opportunity for further study	
FPCA5i_T2	Earning potential	
FPCA5j_T2	Location	
FPCA5k_T2	Compatibility with workplace values	
FPCA5l_T2	Status	
FPCA5m_T2	Respect	
FPCA5n_T2	Intellectual challenge and stimulation	
FPCA5o_T2	Skill development	
FPCA5p_T2	The opportunity to make a contribution/difference	
FPCA5q_T2	Professional recognition	
FPCA5r_T2	Job security	
FPCA5s_T2	A good work/life balance	
FPCA5t_T2	Meets family expectations	
FPCA5u_T2	Accommodates caregiving roles (e.g., parenting, caring for elderly family member)	
FPCA5v_T2	Ethical workplace	
FPCA5w_T2	Culturally aware workplace	
FPCA5x_T2	Environmentally aware workplace	
FPCA5y_T2	Opportunity to contribute to Māori community	
FPCA5z_T2	Opportunity to contribute to Pacific community	
FPCA5ot_T2	Other	

7. Where would you like to be in 10 years time? Select all that apply.

		Not selected	Selected
FPCA6a_T2	In full-time employment	0	1
FPCA6b_T2	In part-time employment	0	1
FPCA6c_T2	Doing voluntary work	0	1
FPCA6d_T2	Establishing my career further	0	1
FPCA6e_T2	Engaging in further study	0	1
FPCA6f_T2	Working overseas	0	1
FPCA6k_T2	Travelling and/or living overseas	0	1
FPCA6g_T2	Self employed	0	1
FPCA6h_T2	Partnered/married	0	1
FPCA6i_T2	Parenting/caregiving	0	1
FPCA6j_T2	Retired	0	1
FPCA6ot_T2	Other	0	1

FPCA6ota_T2   If **FPCA6ot_T2** = 1, please specify: _____

Goals, Aspirations and Values

Please indicate how important each of the following are to you.

1 - Not at all important
2 - Not very important
3 - Somewhat important
4 - Very important
5 - Extremely important

			Not at all important			Extremely important	
GAV1_T2	1.	Owning your own home?	1	2	3	4	5
GAV2_T2	2.	Having a great deal of money?	1	2	3	4	5
GAV3_T2	3.	Having a well-paid job?	1	2	3	4	5
GAV4_T2	4.	Professional recognition?	1	2	3	4	5
GAV5_T2	5.	Furthering your education?	1	2	3	4	5
GAV6_T2	6.	Being entrepreneurial?	1	2	3	4	5
GAV7_T2	7.	Giving everyone an equal chance in life?	1	2	3	4	5
GAV8_T2	8.	Having a good reputation in the community?	1	2	3	4	5
GAV9_T2	9.	Contributing to iwi/society?	1	2	3	4	5
GAV10_T2	10.	Making a difference?	1	2	3	4	5
GAV11_T2	11.	Working hard to get ahead?	1	2	3	4	5
GAV12_T2	12.	Having a university education?	1	2	3	4	5
GAV13_T2	13.	Improving the welfare of people in need?	1	2	3	4	5
GAV14_T2	14.	Saving money for the future?	1	2	3	4	5
GAV15_T2	15.	Being careful about what you spend?	1	2	3	4	5
GAV16_T2	16.	Working ethically?	1	2	3	4	5
GAV17_T2	17.	Contributing to environmental sustainability?	1	2	3	4	5
GAV18_T2	18.	Being in good health?	1	2	3	4	5
GAV19_T2	19.	Travelling?	1	2	3	4	5
GAV20_T2	20.	Being unselfish?	1	2	3	4	5

		Not at all important			Extremely important	
GAV21_T2	21. Having a family-friendly work/life balance?	1	2	3	4	5
GAV22_T2	22. Being culturally responsive?	1	2	3	4	5
GAV23_T2	23. Having a life-long partner?	1	2	3	4	5
GAV24_T2	24. Having a career rather than children?	1	2	3	4	5
GAV25_T2	25. Having children rather than a career?	1	2	3	4	5
GAV26_T2	26. Having children and a career?	1	2	3	4	5
GAV27_T2	27. Being a religious/spiritual person?	1	2	3	4	5
GAV28_T2	28. In general, how important are religious or spiritual beliefs in your day-to-day life?	1	2	3	4	5

SECTION 4: EMPLOYMENT

Employment Status

In this section, we'd like to go back and fill in the picture in terms of <u>all</u> of your work activities over the last couple of years since the first survey in 2011.

EA18_T2	1. Have you had paid work since the first survey in 2011? Include self-employment and trainee jobs.	0 = No (go to **EA22_T2**) 1 = Yes

2. How did you find this work? Select all that apply.

		Not selected	Selected
EA19a_T2	I was already in the position when I was completing my qualification in 2011	0	1
EA19b_T2	Through advertisements in the newspaper	0	1
EA19c_T2	Through an employment agency	0	1
EA19d_T2	Through the internet	0	1
EA19e_T2	Contacted employer on own initiative	0	1
EA19f_T2	Approached by employer	0	1
EA19g_T2	Through work placement during study	0	1
EA19h_T2	Through family, friends or acquaintances	0	1
EA19i_T2	Set up my own business	0	1
EA19j_T2	Contacted Work and Income to look for a job	0	1
EA19k_T2	Contacted careers advisor or vocational guidance officers	0	1
EA19ot_T2	Other	0	1

EA19ota_T2   If **EA19ot_T2** = 1, please specify: _____

EA20_T2	3. How many employers have you had altogether since the first survey in 2011? Include yourself if you have been self-employed. Include your current employer.	1 = 1 employer 2 = 2 employers 3 = 3 employers etc., to… 10 = 10+ employers
EA21_T2	4. How many months in total have you been employed since the first survey in 2011?	1 = 1 month 2 = 2 months 3 = 3 months etc., to… 30 = 30+ months
EA22_T2	5. How do you rate your overall employability and skills?	1 = Poor 2 = Weak 3 = Average 4 = Good 5 = Excellent
EA23_T2	6. Have you ever been unemployed (that is, not employed *and* seeking employment) since the first survey in 2011?	0 = No 1 = Yes

EA23a_T2	If **EA23_T2** = 1, how many months, in total, were you unemployed?	1 = 1 month 2 = 2 months 3 = 3 months etc., to… 30 = 30+ months

EA24_T2	7. Thinking of the last 4 weeks, have you actively tried to obtain paid work?	0 = No (go to **EA1_T2**) 1 = Yes

8. Select as many options as you need to show all the ways you looked for paid work in the last 4 weeks.

		Not selected	Selected
EA25a_T2	Through advertisements in the newspaper	0	1
EA25b_T2	Through an employment agency	0	1
EA25c_T2	Through the internet	0	1
EA25d_T2	Contacted employer on own initiative	0	1
EA25e_T2	Approached by employer	0	1
EA25f_T2	Through work placement during study	0	1
EA25g_T2	Through family, friends or acquaintances	0	1
EA25h_T2	Set up my own business	0	1
EA25i_T2	Contacted Work and Income to look for a job	0	1
EA25j_T2	Contacted careers advisor or vocational guidance officers	0	1
EA25ot_T2	Other	0	1

EA25ota_T2   If **EA25ot_T2** = 1, please specify: _____

Now we'd like to focus on your current job and the stresses and challenges you may face in your work, if applicable.

EA1_T2	9. Are you currently employed?	0 = No (go to **EA39_T2**) 1 = Yes

If **EA1_T2** = 1, please select all that apply to your current employment.

		Not selected	Selected
EA1a_T2	Full-time salary/wage earner	0	1
EA1b_T2	Part-time salary/wage earner	0	1
EA1c_T2	Self-employed full-time	0	1
EA1d_T2	Self-employed part-time	0	1

Please answer the questions that follow with reference to your <u>primary</u> job.

10. What is your primary job? Please list your job title and employer (including yourself if you are self-employed).

EA2pr1_T2   Job title: _____

EA2pr2_T2   Employer (e.g., the company/institution that pays your wages/salary). Put your company's name if you are self-employed. If you do not have a company, please type "self":
_____

EA3_T2   11. Approximately how many hours per week are you paid to work in your primary job?

1 = 1 hour
2 = 2 hours
3 = 3 hours
etc., to…
60 = 60+ hours

EA3a_T2   12. Approximately how many hours per week do you actually work in your primary job?

1 = 1 hour
2 = 2 hours
3 = 3 hours
etc., to…
60 = 60+ hours

EA4_T2   13. Thinking of your primary job, please list the main duties/activities (one per line): (open-type text box)

_____

EA5_T2   14. Thinking about your primary job, what qualifications/experience does a person need to do this job well (either formal training or work experience can count)? (open-type text box)

_____

EA26_T2   15. Thinking of your primary job, what general area/field is it in? Please choose the <u>best</u> fit (one only)

1 = Academia
2 = Accounting
3 = Administration and office support
4 = Advertising
5 = Animal welfare
6 = Arts
7 = Banking and financial services
8 = Call centre and customer services
9 = Community services and development
10 = Construction
11 = Consulting and strategy
12 = Defence
13 = Design and architecture
14 = Education and training
15 = Engineering
16 = Environment and conservation
17 = Farming and agriculture
18 = Government
19 = Health care and medical
20 = Hospitality and tourism
21 = Human resources and recruitment
22 = Information and communication technology
23 = Insurance and superannuation
24 = Legal
25 = Manufacturing
26 = Marketing and communications
27 = Media
28 = Mining, resources and energy
29 = Real estate and property
30 = Retail and consumer products
31 = Sales
32 = Science and technology
33 = Social work
34 = Sport and recreation
35 = Trades and services
36 = Transport and logistics
77 = Other

EA26ota_T2   If **EA26_T2** = 77, please specify: _____

Please answer the questions that follow with reference to your <u>primary</u> job.

EA27_T2   16. Which one of the following best describes your employment?

1 = Temporary or casual
2 = Fixed-term contract up to 12 months
3 = Fixed-term contract more than 12 months
4 = Permanent or open-ended contract
5 = Self-employed

EA28_T2   17. Do you supervise other people at work?

0 = No
1 = Yes, sometimes
2 = Yes, usually

EA28a_T2   If **EA28_T2** ≠ 0, At any one time, approximately how many people do you usually supervise?   ___ people

Thinking back to the qualification(s) you were studying towards in 2011 and your <u>primary</u> job…

EA6_T2	18. How much is this work related to your field of study?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much
EA7_T2	19. How much are you able to apply the skills you gained from your studies to your primary job (e.g., communication, analytical, teamwork, leadership, etc.)?	1 = Not at all 2 = Very little 3 = Some 4 = Quite a bit 5 = Very much

Please answer the questions that follow with reference to your <u>primary</u> job.

EA29_T2	20. To what extent are your knowledge and skills utilised in your current work?	Not at all To a very high extent 1 2 3 4 5
EA30_T2	21. To what extent does your current work demand more knowledge and skills than you can actually offer?	Not at all To a very high extent 1 2 3 4 5
EA31_T2	22. How satisfied are you with your current work?	Very dissatisfied Very satisfied 1 2 3 4 5
EA32_T2	23. Do you see yourself continuing this kind of work for the next three years?	1 = Definitely no 2 = Probably no 3 = Probably yes 4 = Definitely yes

Below are a set of questions that relate to job demands people may experience. Please tell us whether you experience the following in your <u>primary</u> job.

		No	Sometimes	Yes
EA33_T2	24. Do you have to work longer hours than you would like?	0	1	2
EA34_T2	25. Do you have to work under the pressure of time?	0	1	2
EA35_T2	26. Do you have too much work to do everything well?	0	1	2
EA36_T2	27. Is your job hectic?	0	1	2
EA37_T2	28. Are you often unclear about what you have to do?	0	1	2
EA38_T2	29. Do you have to work too hard?	0	1	2

Earnings and Assets

Next we would like to ask you some general questions about your finances. We are interested in mapping change over time. Please select the response that best describes your current financial situation.

EA39_T2	1. Have you received income from any source within the last 12 months?		0 = No source of income during that time (go to **EA40_T2**) 1 = Yes

If **EA39_T2** = 1, Select as many options as you need to show all the ways you yourself got income in the 12 months ending today. DON'T count loans because they are not income.

		Not selected	Selected
EA39a_T2	Wages, salary, commissions, bonuses, etc, paid by my employer	0	1
EA39b_T2	Self-employment, or business I own and work in	0	1
EA39c_T2	Interest, dividends, rent, other investments	0	1
EA39d_T2	Regular payments from ACC or a private work accident insurer	0	1
EA39e_T2	New Zealand Superannuation or Veteran's Pension	0	1
EA39f_T2	Other superannuation, pensions or annuities (other than NZ Superannuation, Veteran's Pension or war pensions)	0	1
EA39g_T2	Unemployment Benefit (now called Jobseeker Support)	0	1
EA39h_T2	Sickness Benefit (now called Jobseeker Support)	0	1
EA39i_T2	Domestic Purposes Benefit (now called Jobseeker Support, Sole Parent Support, Supported Living Payment, or Sole Parent Support Study Assistance)	0	1
EA39j_T2	Invalid's Benefit (now called Supported Living Payment)	0	1
EA39k_T2	Student Allowance	0	1
EA39l_T2	Other government benefits, government income support payments, war pensions, or paid parental leave	0	1
EA39m_T2	Student scholarships	0	1
EA39ot_T2	Other sources of income (e.g., child support, other support payments, inheritance, beneficiary to a trust, selling on auction sites, support from family, etc.)	0	1

EA39ota_T2 If EA39ot_T2 = 1, please specify: _____

EA8_T2

2. From all the sources of income marked above, what was your total income:
   - That you yourself got
   - Before tax or anything was taken out of it
   - In the 12 months ending today

   (Assign a value of 88 to those who selected item **EA39_T2**)

1 = Loss
2 = Zero income
3 = NZ$1 - NZ$5,000
4 = NZ$5,001 - NZ$10,000
5 = NZ$10,001 - NZ$15,000
6 = NZ$15,001 - NZ$20,000
7 = NZ$20,001 - NZ$25,000
8 = NZ$25,001 - NZ$30,000
9 = NZ$30,001 - NZ$35,000
10 = NZ$35,001 - NZ$40,000
11 = NZ$40,001 - NZ$50,000
12 = NZ$50,001 - NZ$60,000
13 = NZ$60,001 - NZ$70,000
14 = NZ$70,001 - NZ$80,000
15 = NZ$80,001 - NZ$90,000
16 = NZ$90,001 - NZ$100,000
17 = NZ$100,001 - NZ$110,000
18 = NZ$110,001 - NZ$120,000
19 = NZ$120,001 - NZ$130,000
20 = NZ$130,001 - NZ$140,000
21 = NZ$140,001 - NZ$150,000
22 = NZ$150,001 - NZ$250,000
23 = NZ$250,001 +
99 = Don't know

EA8a_T2

If **EA8_T2** = 23, please specify amount.

NZ$___

EA40_T2

3. Do you share a household with a partner or spouse who contributes financially?

0 = No (Go to **EA9_T2**)
1 = Yes

EA41_T2

4. What was the total income:
   - That your partner/spouse got
   - Before tax or anything was taken out of it
   - In the 12 months ending today

   (Assign a value of 88 to those who indicated **EA40_T2** = 0)

1 = Loss
2 = Zero income
3 = NZ$1 - NZ$5,000
4 = NZ$5,001 - NZ$10,000
5 = NZ$10,001 - NZ$15,000
6 = NZ$15,001 - NZ$20,000
7 = NZ$20,001 - NZ$25,000
8 = NZ$25,001 - NZ$30,000
9 = NZ$30,001 - NZ$35,000
10 = NZ$35,001 - NZ$40,000
11 = NZ$40,001 - NZ$50,000
12 = NZ$50,001 - NZ$60,000
13 = NZ$60,001 - NZ$70,000
14 = NZ$70,001 - NZ$80,000
15 = NZ$80,001 - NZ$90,000
16 = NZ$90,001 - NZ$100,000
17 = NZ$100,001 - NZ$110,000
18 = NZ$110,001 - NZ$120,000
19 = NZ$120,001 - NZ$130,000
20 = NZ$130,001 - NZ$140,000
21 = NZ$140,001 - NZ$150,000
22 = NZ$150,001 - NZ$250,000
23 = NZ$250,001 +
99 = Don't know

EA41a_T2 If **EA41_T2** = 23, please specify amount. NZ$___

EA9_T2 5. Approximately how much student loan debt do you have?

1 = Didn't take out a student loan
2 = Zero
3 = NZ$1 - NZ$5,000
4 = NZ$5,001 - NZ$10,000
5 = NZ$10,001 - NZ$15,000
6 = NZ$15,001 - NZ$20,000
7 = NZ$20,001 - NZ$25,000
8 = NZ$25,001 - NZ$30,000
9 = NZ$30,001 - NZ$35,000
10 = NZ$35,001 - NZ$40,000
11 = NZ$40,001 - NZ$50,000
12 = NZ$50,001 - NZ$60,000
13 = NZ$60,001 - NZ$70,000
14 = NZ$70,001 - NZ$80,000
15 = NZ$80,001 - NZ$90,000
16 = NZ$90,001 - NZ$100,000
17 = NZ$100,001 +
99 = Don't know

EA9a_T2 If **EA9_T2** = 17, please specify amount. NZ$___

EA10_T2 6. Approximately how much debt, **EXCLUDING MORTGAGES**, do you have (e.g., overdrafts, hire purchases, credit card, other loans)?

1 = Zero
2 = NZ$1 - NZ$5,000
3 = NZ$5,001 - NZ$10,000
4 = NZ$10,001 - NZ$15,000
5 = NZ$15,001 - NZ$20,000
6 = NZ$20,001 - NZ$25,000
7 = NZ$25,001 - NZ$30,000
8 = NZ$30,001 - NZ$35,000
9 = NZ$35,001 - NZ$40,000
10 = NZ$40,001 - NZ$50,000
11 = NZ$50,001 - NZ$60,000
12 = NZ$60,001 - NZ$70,000
13 = NZ$70,001 - NZ$80,000
14 = NZ$80,001 - NZ$90,000
15 = NZ$90,001 - NZ$100,000
16 = NZ$100,001 - NZ$250,000
17 = NZ$250,001 - NZ$500,000
18 = NZ$500,001 - NZ$1,000,000
19 = NZ$1,000,001 +
99 = Don't know

EA10a_T2 If **EA10_T2** = 19, please specify amount. NZ$___

EA10a1_T2 If **EA10_T2 ≠ 1**, do you share any of this debt with anyone else (e.g., spouse, partner, other family member)?

0 = No
1 = Yes

EA10a2_T2 If **EA10a1_T2 = 1**, approximately what proportion is your share of this debt?

1 = Less than half
2 = About half
3 = More than half
99 = Don't know

EA11_T2	7. Do you currently have any other <u>significant</u> <u>regular</u> financial commitments per annum (e.g., child care, kinship care (elderly relative, family overseas), child support, school fees, contributions to charitable organisations, church, religious organisations)? If yes, please specify how many significant regular financial commitments you have. **This excludes standard living costs (e.g., rent, mortgage payments, food, power, etc.)**	0 = No (go to **EA42_T2**) 1 = Yes, 1 2 = Yes, 2 3 = Yes, 3 4 = Yes, 4 etc., to... 10 = Yes, 10
EA11a_T2	If **EA11_T2** ≠ 0, please specify the total annual amount.	1 = NZ$1 - NZ$5,000 2 = NZ$5,001 - NZ$10,000 3 = NZ$10,001 - NZ$15,000 4 = NZ$15,001 - NZ$20,000 5 = NZ$20,001 - NZ$25,000 6 = NZ$25,001 - NZ$30,000 7 = NZ$30,001 - NZ$35,000 8 = NZ$35,001 - NZ$40,000 9 = NZ$40,001 - NZ$50,000 10 = NZ$50,001 - NZ$60,000 11 = NZ$60,001 - NZ$70,000 12 = NZ$70,001 - NZ$80,000 13 = NZ$80,001 - NZ$90,000 14 = NZ$90,001 - NZ$100,000 15 = NZ$100,001 - NZ$250,000 16 = NZ$250,001 - NZ$500,000 17 = NZ$500,001 + 99 = Don't know
EA11a1_T2	If **EA11_T2** = 17, please specify amount.	NZ$___
EA11a2_T2	If **EA11_T2** ≠ 0, do you share these commitments with anyone else (e.g., spouse, partner, other family member)?	0 = No 1 = Yes
EA11a3_T2	If **EA11a1_T2** = 1, approximately what proportion is your contribution to these commitments?	1 = Less than half 2 = About half 3 = More than half 99 = Don't know

EA42_T2 8. Approximately how much mortgage/property debt do you have?

1 = Zero
2 = NZ$1 - NZ$25,000
3 = NZ$25,001 - NZ$30,000
4 = NZ$30,001 - NZ$35,000
5 = NZ$35,001 - NZ$40,000
6 = NZ$40,001 - NZ$50,000
7 = NZ$50,001 - NZ$60,000
8 = NZ$60,001 - NZ$70,000
9 = NZ$70,001 - NZ$80,000
10 = NZ$80,001 - NZ$90,000
11 = NZ$90,001 - NZ$100,000
12 = NZ$100,001 - NZ$150,000
13 = NZ$150,001 - NZ$200,000
14 = NZ$200,001 - NZ$250,000
15 = NZ$250,001 - NZ$300,000
16 = NZ$300,001 - NZ$400,000
17 = NZ$400,001 - NZ$500,000
18 = NZ$500,001 - NZ$1,000,000
19 = NZ$1,000,001 +
99 = Don't know

EA42a_T2 If **EA42_T2** = 19, please specify amount.   NZ$___

EA42a1_T2 If **EA42_T2 ≠ 1**, do you share any of this mortgage/property debt with anyone else (e.g., spouse, partner, other family member)?

0 = No
1 = Yes

EA42a2_T2 If **EA42a1_T2 = 1**, approximately what proportion is your share of this mortgage/property debt?

1 = Less than half
2 = About half
3 = More than half
99 = Don't know

EA12_T2 9. What is the approximate total value of your assets (e.g., savings, iPod, furniture, personal computer, car, house)?

1 = Zero
2 = NZ$1 - NZ$25,000
3 = NZ$25,001 - NZ$30,000
4 = NZ$30,001 - NZ$35,000
5 = NZ$35,001 - NZ$40,000
6 = NZ$40,001 - NZ$50,000
7 = NZ$50,001 - NZ$60,000
8 = NZ$60,001 - NZ$70,000
9 = NZ$70,001 - NZ$80,000
10 = NZ$80,001 - NZ$90,000
11 = NZ$90,001 - NZ$100,000
12 = NZ$100,001 - NZ$150,000
13 = NZ$150,001 - NZ$200,000
14 = NZ$200,001 - NZ$250,000
15 = NZ$250,001 - NZ$300,000
16 = NZ$300,001 - NZ$400,000
17 = NZ$400,001 - NZ$500,000
18 = NZ$500,001 - NZ$1,000,000
19 = NZ$1,000,001 +
99 = Don't know

EA12a_T2 If **EA12_T2** = 19, please specify amount.   NZ$___

EA12a1_T2   If **EA12_T2** ≠ 1, do you share any of these assets with anyone else (e.g., spouse, partner, other family member)?   0 = No
1 = Yes

EA12a2_T2   If **EA12a1_T2 = 1**, approximately what proportion is your share of these assets?   1 = Less than half
2 = About half
3 = More than half
99 = Don't know

Please think about your current financial situation. Indicate how much you agree or disagree with each statement.

> **1 - Strongly disagree**
> **2 - Disagree**
> **3 - Neutral/mixed**
> **4 - Agree**
> **5 - Strongly agree**

		Strongly disagree			Strongly agree	
		1	2	3	4	5
EA13_T2	10. I have enough money to afford the accommodation I/my family need(s).	1	2	3	4	5
EA14_T2	11. I have enough money to afford the clothing I/my family need(s).	1	2	3	4	5
EA15_T2	12. I have enough money to afford the food I/my family need(s).	1	2	3	4	5
EA16_T2	13. I have enough money to afford the leisure and recreational activities I/my family want(s).	1	2	3	4	5
EA17_T2	14. Over the past 12 months I/my family have had difficulty meeting my/our financial commitments.	1	2	3	4	5

SECTION 5: HEALTH AND WELL-BEING

General Health

We would now like to ask a few questions regarding your general health and well-being.

GH1_T2
1. How would you rate your overall physical health?

1 = Poor
2 = Fair
3 = Good
4 = Very good
5 = Excellent

GH2_T2
2. Do you have a long-term medical condition, impairment or disability?

0 = No (go to **GH4_T2**)
1 = Yes

GH2a_T2
If **GH2_T2** = 1, please specify: _____

GH3_T2
3. Does your condition, impairment or disability affect your work and/or studies?

0 = No (go to **GH4_T2**)
1 = Yes

GH3a_T2
If **GH3_T2** = 1, please specify the extent to which it affects your work and/or studies:

Very little · · · · · Very much
1   2   3   4   5

GH4_T2
4. To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries or moving a chair?

1 = Not at all
2 = A little
3 = Moderately
4 = Mostly
5 = Completely

GH5_T2
5. Does your health limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports?

1 = Cannot do
2 = Quite a lot
3 = Somewhat
4 = Very little
5 = Not at all

GH11_T2
6. Have you had an unintentional injury (i.e., an accident) in the last year that 24 hours later resulted in you not being able to do the things you normally do (e.g., housework, sport, work)? An unintentional injury includes things such as fractures, concussion, burns, etc., and may be the result of events such as a fall or car crash, etc.

0 = No
1 = Yes

GH6_T2
7. In the last 12 months, have you smoked at least 1 cigarette each day for a month or more?

0 = No (go to **GH12_T2**)
1 = Yes

GH7_T2
8. How many cigarettes do you typically smoke each day?

0 = 0
1 = 1
2 = 2
3 = 3
4 = 4
etc., to…
40 = 40+

The next questions are about the use of cannabis. By cannabis we mean all types of marijuana, pot, grass, weed, hash and hash oil.

GH12_T2   9.   Have you used cannabis in the last 12 months?   0 = No (go to **GH8_T2**)
                                                                        1 = Yes

GH13_T2   10. If **GH12_T2** = 1, In the last 12   1 = Daily
                  months, how many times have you   2 = About 5 - 6 times a week
                  used cannabis?   3 = About 3 - 4 times a week
                                                         4 = Twice a week
                                                         5 = Once a week
                                                         6 = Two to three times a month
                                                         7 = Once a month
                                                         8 = Once every 6 weeks in the last 12 months
                                                         9 = 3 to 6 times in the last 12 months
                                                         10 = 1 or 2 times in the last 12 months

GH8_T2   11. How often do you have a drink containing   1 = Never (go to **GH14_T2**)
                  alcohol?   2 = Almost never
                                                                  3 = Less than once a month
                                                                  4 = Once a month
                                                                  5 = Once every two weeks
                                                                  6 = Once a week
                                                                  7 = Two or three times a week
                                                                  8 = Four or five times a week
                                                                  9 = Six or seven times a week

GH9_T2   12. How many standard drinks containing alcohol do you have on a typical day when you are drinking?

1 = 1
2 = 2
3 = 3
4 = 4
etc., to…
25 = 25+

What's a Standard Drink?

One glass, bottle or can of beer

One small glass of wine

A double measure of spirits (30mls)

Pre-mixed drink (e.g. Cruiser, Stoli)
1.5 drinks

A jug of beer equals
3 drinks

A bottle of wine equals
7.5 drinks

GH10_T2   13. How often do you have six or more standard drinks on one occasion?

1 = Never
2 = Once or twice a year
3 = Less than monthly
4 = Monthly
5 = Weekly
6 = Daily or almost daily

GH14_T2   14. Have you failed a police breathalyzer or blood alcohol test in the last year?

0 = No
1 = Yes

General Feelings

Below are some statements about feelings and thoughts. Please select the option that best describes your experience of each of these over the last 2 weeks.

       1 - None of the time
       2 - Rarely
       3 - Some of the time
       4 - Often
       5 - All of the time

		None of the time				All of the time
GF1_T2	1. I've been feeling optimistic about the future.	1	2	3	4	5
GF2_T2	2. I've been feeling useful.	1	2	3	4	5
GF3_T2	3. I've been feeling relaxed.	1	2	3	4	5
GF4_T2	4. I've been feeling interested in other people.	1	2	3	4	5
GF5_T2	5. I've had energy to spare.	1	2	3	4	5

Over the last 2 weeks…

GF6_T2	6. I've been dealing with problems well.	1	2	3	4	5
GF7_T2	7. I've been thinking clearly.	1	2	3	4	5
GF8_T2	8. I've been feeling good about myself.	1	2	3	4	5
GF9_T2	9. I've been feeling close to other people.	1	2	3	4	5
GF10_T2	10. I've been feeling confident.	1	2	3	4	5

Over the last 2 weeks…

GF11_T2	11. I've been able to make up my own mind about things.	1	2	3	4	5
GF12_T2	12. I've been feeling loved.	1	2	3	4	5
GF13_T2	13. I've been interested in new things.	1	2	3	4	5
GF14_T2	14. I've been feeling cheerful.	1	2	3	4	5

Below is a list of statements dealing with your general feelings about yourself. Please indicate how much you agree or disagree with each statement. Your choices are:

      1 - Strongly disagree
      2 - Disagree
      3 - Agree
      4 - Strongly agree

		Strongly disagree			Strongly agree
GF15_T2	15. On the whole, I am satisfied with myself.	1	2	3	4
GF16_T2	16. I feel that I have a number of good qualities.	1	2	3	4
GF17_T2	17. I am able to do things as well as most other people.	1	2	3	4
GF18_T2	18. I feel that I'm a good person of worth, at least on an equal plane with others.	1	2	3	4
GF19_T2	19. I take a positive attitude toward myself.	1	2	3	4

Please indicate/rate the extent to which the following statements apply to you.

Your choices are:

      1 – Not at all true
      2 – Hardly true
      3 – Moderately true
      4 – Exactly true

		Not at all true			Exactly true
GF20_T2	20. I am confident that I could deal efficiently with unexpected events.	1	2	3	4
GF21_T2	21. Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4
GF22_T2	22. I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4
GF23_T2	23. If I am in trouble, I can usually think of a solution.	1	2	3	4
GF24_T2	24. I can usually handle whatever comes my way.	1	2	3	4

Here is a scale from 0-10. On it "0" means that you are completely dissatisfied and "10" means that you are completely satisfied.

Completely dissatisfied   0 1 2 3 4 5 6 7 8 9 10   Completely satisfied

Using the scale...

		Completely dissatisfied Completely satisfied
GF25_T2	25. How dissatisfied or satisfied are you about the way your life has turned out so far?	0 1 2 3 4 5 6 7 8 9 10
GF26_T2	26. How dissatisfied or satisfied do you expect to be in ten years' time?	0 1 2 3 4 5 6 7 8 9 10
GF27_T2	27. Some people feel they have complete free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale to indicate how much freedom of choice and control you feel you have over the way your life turns out.	No choice at all A great deal of choice 1 2 3 4 5 6 7 8 9 10

Social Support

We are interested in the amount and type of support you give and receive. First, we would like to know how you feel about the following statements. Read each statement carefully. Please indicate how you feel about each statement.

Your choices are:

> **1 - Very Strongly Disagree**
> **2 - Strongly Disagree**
> **3 - Mildly Disagree**
> **4 - Neutral**
> **5 - Mildly Agree**
> **6 - Strongly Agree**
> **7 - Very Strongly Agree**

			Very strongly disagree					Very strongly agree

MSPSS1_T2   1. There is a special person who is around when I am in need.   1 2 3 4 5 6 7

MSPSS2_T2   2. There is a special person with whom I can share my joys and sorrows.   1 2 3 4 5 6 7

MSPSS3_T2   3. My family really tries to help me.   1 2 3 4 5 6 7

MSPSS4_T2   4. I get the emotional help and support I need from my family.   1 2 3 4 5 6 7

MSPSS5_T2   5. I have a special person who is a real source of comfort to me.   1 2 3 4 5 6 7

MSPSS6_T2   6. My friends really try to help me.   1 2 3 4 5 6 7

MSPSS7_T2   7. I can count on my friends when things go wrong.   1 2 3 4 5 6 7

MSPSS8_T2   8. I can talk about my problems with my family.   1 2 3 4 5 6 7

MSPSS9_T2   9. I have friends with whom I can share my joys and sorrows.   1 2 3 4 5 6 7

MSPSS10_T2   10. There is a special person in my life who cares about my feelings.   1 2 3 4 5 6 7

MSPSS11_T2   11. My family is willing to help me make decisions.   1 2 3 4 5 6 7

MSPSS12_T2   12. I can talk about my problems with my friends.   1 2 3 4 5 6 7

How often do you…?

MSPSS13_T2 13. Meet socially with friends?

1 = Several times a week
2 = Once a week
3 = 2 or 3 times a month
4 = Once a month
5 = Less than once a month
6 = Never
88 = N/A

MSPSS14_T2 14. Meet socially with work colleagues outside working time?

1 = Several times a week
2 = Once a week
3 = 2 or 3 times a month
4 = Once a month
5 = Less than once a month
6 = Never
88 = N/A

MSPSS15_T2 15. Meet socially with neighbours?

1 = Several times a week
2 = Once a week
3 = 2 or 3 times a month
4 = Once a month
5 = Less than once a month
6 = Never
88 = N/A

16. In which of the following situations would you be able to rely on **family** to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply.

		Not selected	Selected
MSPSS16a_T2	Help with household tasks, shopping, gardening, etc.	0	1
MSPSS16b_T2	Occasional care for a dependant member of your household (child, elderly, disabled, etc.)	0	1
MSPSS16c_T2	Personal care including washing, dressing, eating, etc.	0	1
MSPSS16d_T2	Help with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.	0	1
MSPSS16e_T2	Discuss personal problems	0	1
MSPSS16f_T2	Borrow money	0	1
MSPSS16g_T2	Borrow valuable goods (car, use of house, lawn mower, electric drill, etc.)	0	1
MSPSS16h_T2	Help if you were threatened, harassed or assaulted	0	1
MSPSS16i_T2	None of the above	0	1

17. In which of the following situations would you be able to rely on **friends** to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply.

		Not selected	Selected
MSPSS17a_T2	Help with household tasks, shopping, gardening, etc.	0	1
MSPSS17b_T2	Occasional care for a dependant member of your household (child, elderly, disabled, etc.)	0	1
MSPSS17c_T2	Personal care including washing, dressing, eating, etc.	0	1
MSPSS17d_T2	Help with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.	0	1
MSPSS17e_T2	Discuss personal problems	0	1
MSPSS17f_T2	Borrow money	0	1
MSPSS17g_T2	Borrow valuable goods (car, use of house, lawn mower, electric drill, etc.)	0	1
MSPSS17h_T2	Help if you were threatened, harassed or assaulted	0	1
MSPSS17i_T2	None of the above	0	1

18. In which of the following situations would you be able to rely on **work colleagues**, **neighbours** or **acquaintances** to provide you with help or support? (Please note that we do not mean people who would be paid for it). Select all that apply.

		Not selected	Selected
MSPSS18a_T2	Help with household tasks, shopping, gardening, etc.	0	1
MSPSS18b_T2	Occasional care for a dependant member of your household (child, elderly, disabled, etc.)	0	1
MSPSS18c_T2	Personal care including washing, dressing, eating, etc.	0	1
MSPSS18d_T2	Help with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.	0	1
MSPSS18e_T2	Discuss personal problems	0	1
MSPSS18f_T2	Borrow money	0	1
MSPSS18g_T2	Borrow valuable goods (car, use of house, lawn mower, electric drill, etc.)	0	1
MSPSS18h_T2	Help if you were threatened, harassed or assaulted	0	1
MSPSS18i_T2	None of the above	0	1

19. In the last 12 months, did you, yourself, help or support **family**? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply.

		Not selected	Selected
MSPSS19a_T2	Helped a family member with household tasks, shopping, gardening, etc.	0	1
MSPSS19b_T2	Occasionally cared for a dependant person living in a family member's household (child, elderly, disabled, etc.)	0	1
MSPSS19c_T2	Provided personal care including washing, dressing, eating, etc.	0	1
MSPSS19d_T2	Helped with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.	0	1
MSPSS19e_T2	Discussed personal problems	0	1
MSPSS19f_T2	Lent money to a family member	0	1
MSPSS19g_T2	Lent valuable goods (car, use of house, lawn mower, electric drill, etc.) to a family member	0	1
MSPSS19h_T2	Helped a family member who was threatened, harassed or assaulted	0	1
MSPSS19i_T2	None of the above	0	1

20. In the last 12 months, did you, yourself, help or support **friends**? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply.

		Not selected	Selected
MSPSS20a_T2	Helped a friend with household tasks, shopping, gardening, etc.	0	1
MSPSS20b_T2	Occasionally cared for a dependant person living in a friend's household (child, elderly, disabled, etc.)	0	1
MSPSS20c_T2	Provided personal care including washing, dressing, eating, etc.	0	1
MSPSS20d_T2	Helped with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.	0	1
MSPSS20e_T2	Discussed personal problems	0	1
MSPSS20f_T2	Lent money to a friend	0	1
MSPSS20g_T2	Lent valuable goods (car, use of house, lawn mower, electric drill, etc.) to a friend	0	1
MSPSS20h_T2	Helped a friend who was threatened, harassed or assaulted	0	1
MSPSS20i_T2	None of the above	0	1

21. In the last 12 months, did you, yourself, help or support work **colleagues**, **neighbours** or **acquaintances**? (Please note that we do not mean help provided in the context of a formal organisation, or help you have been paid for). Select all that apply.

		Not selected	Selected
MSPSS21a_T2	Helped someone with household tasks, shopping, gardening, etc.	0	1
MSPSS21b_T2	Occasionally cared for a dependant person living in someone's household (child, elderly, disabled, etc.)	0	1
MSPSS21c_T2	Provided personal care including washing, dressing, eating, etc.	0	1
MSPSS21d_T2	Helped with paperwork for getting government benefits, preparing tax returns, getting a phone or another service, etc.	0	1
MSPSS21e_T2	Discussed personal problems	0	1
MSPSS21f_T2	Lent money to someone	0	1
MSPSS21g_T2	Lent valuable goods (car, use of house, lawn mower, electric drill, etc.) to someone	0	1
MSPSS21h_T2	Helped someone you know who was threatened, harassed or assaulted	0	1
MSPSS21i_T2	None of the above	0	1

22. Some people have extra family responsibilities because they look after someone who is dependant and needs help or care because this person is long-term ill, handicapped, disabled, etc. Do you provide regular care to a person(s) in this situation who is…?

		Not selected	Selected
MSPSS22a_T2	Aged 19 years or under	0	1
MSPSS22b_T2	Between 20 and 64 years old	0	1
MSPSS22c_T2	65 years or older	0	1
MSPSS22d_T2	None of the above	0	1

MSPSS22aa_T2	If **MSPSS22a_T2** = 1, approximately how many hours per week do you provide care to this person(s) aged 19 years or under?	1 = 1 hour 2 = 2 hours 3 = 3 hours etc., to… 60 = 60+ hours
MSPSS22ba_T2	If **MSPSS22b_T2** = 1, approximately how many hours per week do you provide care to this person(s) aged 20-64 years?	1 = 1 hour 2 = 2 hours 3 = 3 hours etc., to… 60 = 60+ hours
MSPSS22ca_T2	If **MSPSS22c_T2** = 1, approximately how many hours per week do you provide care to this person(s) aged 65+?	1 = 1 hour 2 = 2 hours 3 = 3 hours etc., to… 60 = 60+ hours

Personal Style

Below are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please select an option to indicate the extent to which you agree or disagree with that statement.

1 - Disagree strongly
2 - Disagree a little
3 - Neither agree nor disagree
4 - Agree a little
5 - Agree strongly

I see myself as someone who…

			Disagree strongly				Agree strongly
BFI1_T2	1.	Is talkative.	1	2	3	4	5
BFI2_T2	2.	Tends to find fault with others.	1	2	3	4	5
BFI3_T2	3.	Does a thorough job.	1	2	3	4	5
BFI4_T2	4.	Is depressed, blue.	1	2	3	4	5
BFI5_T2	5.	Is original, comes up with new ideas.	1	2	3	4	5
BFI6_T2	6.	Is reserved.	1	2	3	4	5
BFI7_T2	7.	Is helpful and unselfish with others.	1	2	3	4	5
BFI8_T2	8.	Can be somewhat careless.	1	2	3	4	5
BFI9_T2	9.	Is relaxed, handles stress well.	1	2	3	4	5
BFI10_T2	10.	Is curious about many different things.	1	2	3	4	5
BFI11_T2	11.	Is full of energy.	1	2	3	4	5
BFI12_T2	12.	Starts quarrels with others.	1	2	3	4	5
BFI13_T2	13.	Is a reliable worker.	1	2	3	4	5
BFI14_T2	14.	Can be tense.	1	2	3	4	5
BFI15_T2	15.	Is ingenious, a deep thinker.	1	2	3	4	5
BFI16_T2	16.	Generates a lot of enthusiasm.	1	2	3	4	5
BFI17_T2	17.	Has a forgiving nature.	1	2	3	4	5
BFI18_T2	18.	Tends to be disorganised.	1	2	3	4	5

Personal Style

		Disagree strongly				Agree strongly
BFI19_T2	19. Worries a lot.	1 2 3 4 5				
BFI20_T2	20. Has an active imagination.	1 2 3 4 5				
BFI21_T2	21. Tends to be quiet.	1 2 3 4 5				
BFI22_T2	22. Is generally trusting.	1 2 3 4 5				
BFI23_T2	23. Tends to be lazy.	1 2 3 4 5				
BFI24_T2	24. Is emotionally stable, not easily upset.	1 2 3 4 5				
BFI25_T2	25. Is inventive.	1 2 3 4 5				
BFI26_T2	26. Has an assertive personality.	1 2 3 4 5				
BFI27_T2	27. Can be cold and aloof.	1 2 3 4 5				
BFI28_T2	28. Perseveres until the task is finished.	1 2 3 4 5				
BFI29_T2	29. Can be moody.	1 2 3 4 5				
BFI30_T2	30. Values artistic, aesthetic experiences.	1 2 3 4 5				
BFI31_T2	31. Is sometimes shy, inhibited.	1 2 3 4 5				
BFI32_T2	32. Is considerate and kind to almost everyone.	1 2 3 4 5				
BFI33_T2	33. Does things efficiently.	1 2 3 4 5				
BFI34_T2	34. Remains calm in tense situations.	1 2 3 4 5				
BFI35_T2	35. Prefers work that is routine.	1 2 3 4 5				
BFI36_T2	36. Is outgoing, sociable.	1 2 3 4 5				
BFI37_T2	37. Is sometimes rude to others.	1 2 3 4 5				
BFI38_T2	38. Makes plans and follows through with them.	1 2 3 4 5				
BFI39_T2	39. Gets nervous easily.	1 2 3 4 5				
BFI40_T2	40. Likes to reflect, play with ideas.	1 2 3 4 5				
BFI41_T2	41. Has few artistic interests.	1 2 3 4 5				
BFI42_T2	42. Likes to cooperate with others.	1 2 3 4 5				
BFI43_T2	43. Is easily distracted.	1 2 3 4 5				
BFI44_T2	44. Is sophisticated in art, music, or literature.	1 2 3 4 5				
BFI45_T2	45. Is mature for my age.	1 2 3 4 5				

SECTION 7: COMMUNITY INVOLVEMENT

Local Community Involvement

These questions ask about your participation in your local community, that is, where you are living now. Please choose the option that best indicates your level of community involvement.

			No, not at all			Yes, often (at least once a week)
LCI1_T2	1.	Do you help out a local group as a volunteer (e.g., marae, kōhanga reo, Girl Guides, Lifeline, kindergarten)?	1	2	3	4

			No, not at all			Yes, several (at least 3)
LCI2_T2	2.	Have you attended a local community event in the past 6 months (e.g., church fair, school concert, craft exhibition)?	1	2	3	4

			No, not at all			Yes, very active
LCI3_T2	3.	Are you an active member of a local organisation or club (e.g., church, sport, craft, social club)?	1	2	3	4

			No, not at all			Yes, several (at least 3)
LCI4_T2	4.	Are you on a management committee or organising committee for any local group or organisation (e.g., marae organisation, play centre)?	1	2	3	4

			No, not at all			Yes, frequently (at least 5 times)
LCI5_T2	5.	In the past 3 years, have you ever joined a local community action to deal with an emergency?	1	2	3	4

			No, not at all			Yes, frequently (at least 3 times)
LCI6_T2	6.	In the past 3 years, have you ever taken part in a local community project?	1	2	3	4

			No, not at all			Yes, several times (at least 3)
LCI7_T2	7.	Have you ever been part of a project to organise a new service in your area (e.g., youth club, Scout hall, child care, recreation for disabled)?	1	2	3	4

			No, never			Yes, frequently
LCI8_T2	8.	Have you ever picked up other people's rubbish in a public place?	1	2	3	4

			No, not much			Yes, nearly always
LCI9_T2	9.	Do you go outside your local community to visit your family?	1	2	3	4

LCI10_T2   10. If you need information to make a life decision, do you know where to find that information?

No, not at all   Yes, definitely
1   2   3   4

LCI11_T2   11. If you disagree with what everyone else agreed on, would you feel free to speak out?

No, not at all   Yes, definitely
1   2   3   4

LCI12_T2   12. If you have a dispute with your neighbours (e.g., over fences or dogs) are you willing to seek mediation?

No, not at all   Yes, definitely
1   2   3   4

LCI13_T2   13. Do you take the initiative to do what needs to be done even if no one asks you to?

No, not at all   Yes, definitely
1   2   3   4

LCI14_T2   14. Do you think that multiculturalism makes life in your area better?

No, not at all   Yes, definitely
1   2   3   4

LCI15_T2   15. Do you enjoy living among people of different lifestyles?

No, not at all   Yes, definitely
1   2   3   4

When elections take place, do you vote always, usually, sometimes or never? Please tell us separately for each of the following levels:

LCI16_T2   16. Local level (e.g., city/district councils)

1 = Always
2 = Usually
3 = Sometimes
4 = Never

LCI17_T2   17. National level (e.g., national government, referendums, etc.)

1 = Always
2 = Usually
3 = Sometimes
4 = Never

People sometimes belong to different kinds of groups or associations. The list below contains different types of groups. For each type of group, please indicate whether you have participated in the activities of this group in the past 12 months.

> **0 = I do not belong to such a group**
> **1 = I belong to such a group but never participate**
> **2 = I have participated once or twice**
> **3 = I have participated more than twice**

LCI18_T2	18. A political party, club or association	0	1	2	3
LCI19_T2	19. A trade union or professional association	0	1	2	3
LCI20_T2	20. A church or other religious organisation	0	1	2	3
LCI21_T2	21. A sports group, hobby or leisure club	0	1	2	3
LCI22_T2	22. A charitable organisation or group	0	1	2	3
LCI23_T2	23. A neighbourhood association or group	0	1	2	3
LCI24_T2	24. Other associations or groups	0	1	2	3

LCI24ota_T2   If **LCI24_T2** ≠ 0, please specify association(s)/group(s) _____

National/International Community Involvement

This question asks about your involvement in national or international organisations. Please choose the option that best indicates your level of involvement.

			No, not at all			Yes, very active
NCI1_T2	1.	Are you an active member of a national/international organisation (e.g., Red Cross, Search and Rescue, Greenpeace, Amnesty International, World Vision)?	1	2	3	4

SECTION 8: LIFE CIRCUMSTANCES, GENERAL COMMENTS AND CONTACT DETAILS

Thanks, you're almost there!

Life Circumstances

1. Everyone deals with stressful events. Since the first survey in 2011, have any of the following happened to you? Select all that apply.

		Not selected	Selected
GC2a_T2	Long-term unemployment (6 months or more)	0	1
GC2b_T2	Being made redundant	0	1
GC2c_T2	Being fired	0	1
GC2d_T2	Problems with debt, such as having items repossessed	0	1
GC2e_T2	Not having enough money to pay for food or household expenses	0	1
GC2f_T2	Lacking money for medical expenses	0	1
GC2g_T2	Difficulty paying bills	0	1
GC2h_T2	Homelessness	0	1
GC2i_T2	Multiple residential changes	0	1
GC2j_T2	A disabling physical illness lasting a month or more	0	1
GC2k_T2	A disabling injury lasting a month or more	0	1
GC2l_T2	Being involved in a violent or abusive relationship	0	1
GC2m_T2	A break-up of a cohabiting, intimate relationship	0	1
GC2n_T2	Death of a relative or close friend	0	1
GC2o_T2	Experiencing a natural disaster	0	1
GC2ot_T2	Other stressful event	0	1
GC2p_T2	None of these events happened to me	0	1

GC2ota_T2   If **GC2ot_T2** = 1, please specify other stressful event: _____

2. For the events you have told us about, how much negative impact did each one have on your life? *Note*: Items not selected in **GC2_T2** series to be assigned value of 88.

		None at all				A great deal
GC3a_T2	Long-term unemployment (6 months or more)	0	1	2	3	4
GC3b_T2	Being made redundant	0	1	2	3	4
GC3c_T2	Being fired	0	1	2	3	4
GC3d_T2	Problems with debt, such as having items repossessed	0	1	2	3	4
GC3e_T2	Not having enough money to pay for food or household expenses	0	1	2	3	4
GC3f_T2	Lacking money for medical expenses	0	1	2	3	4
GC3g_T2	Difficulty paying bills	0	1	2	3	4
GC3h_T2	Homelessness	0	1	2	3	4
GC3i_T2	Multiple residential changes	0	1	2	3	4
GC3j_T2	A disabling physical illness lasting a month or more	0	1	2	3	4
GC3k_T2	A disabling injury lasting a month or more	0	1	2	3	4
GC3l_T2	Being involved in a violent or abusive relationship	0	1	2	3	4
GC3m_T2	A break-up of a cohabiting, intimate relationship	0	1	2	3	4
GC3n_T2	Death of a relative or close friend	0	1	2	3	4
GC3o_T2	Experiencing a natural disaster	0	1	2	3	4
GC3ot_T2	Other stressful event	0	1	2	3	4

General Comments

And finally, we'd like to know how you found the survey in terms of length and any other comments you may have about the survey or the study in general.

GC4_T2	1. To help us plan better in the future, please tell us what you thought about the length of the survey.	1 = I'd be happy to answer more questions 2 = It was just about right 3 = It was too long
GC_T2	2. If there is anything else you would like to mention about the survey or the study that you feel is important, please write it below: _____	

Contact Details

Contact details section to come after thank you statement, etc., and not linked with responses to rest of survey.

APPENDIX 5: GLSNZ PROJECT DEVELOPMENT, POLICIES AND PROCEDURES

Project Development, Procedures and Policies

Graduate Longitudinal Study New Zealand

Contents

SECTION 1: BACKGROUND TO THE GRADUATE LONGITUDINAL STUDY NZ

Introduction

The Graduate Longitudinal Study New Zealand (GLSNZ) was commissioned by the Tertiary Education Commission and aims to understand the value of a New Zealand tertiary education by exploring how graduates fare in the years following university, in terms of their lifestyles, employment, career development, and their health and well-being. It replaces the 35-year-old Graduate Destinations Survey that questioned all New Zealand university graduates about their employment outcomes six months after graduation.

The Graduate Destinations Survey

The Graduate Destinations Survey, undertaken annually from 1973 until 2007, asked all New Zealand university graduates from the previous year about their employment outcomes in the period following graduation. The survey suffered from low response rates (the National average over 2004, 2005 and 2006 was 29.2%) and did not address a broad range of questions that universities increasingly wished to ask of their graduates. Its value was also limited by the fact that it only surveyed graduates once in the year after their graduation.

In 2008, a strategic review of the Graduate Destinations Survey was collectively undertaken by the universities under the auspices of the New Zealand Vice-Chancellors' Committee (NZVCC). This review led to a decision by the NZVCC that the existing survey be discontinued, and a longitudinal study instituted as its successor.

The National Centre for Lifecourse Research

The National Centre for Lifecourse Research (NCLR), based at the University of Otago, was selected in 2009 to undertake the high-level research design and survey implementation for the new longitudinal study. The NCLR specialises in longitudinal study development and implementation, with both the Dunedin Multidisciplinary Health and Development Study and the Christchurch Health and Development Study as partners. This made the NCLR the ideal base to develop and implement a longitudinal study of New Zealand university graduates.

The Graduate Longitudinal Study New Zealand (GLSNZ)

The GLSNZ will provide critical information to both universities and government policy makers as they try to optimise the value of the New Zealand university experience and its potential impact on social, educational and wider societal outcomes.

A longitudinal study of New Zealand university graduates will, by tracking a sample over time, provide a rich picture of both graduates' careers and other life outcomes. International evidence suggests that the greatest impacts of a university education became apparent over a period of years following graduation, rather than in the year immediately following graduation.[27] The current trend towards increased mobility, both across jobs over a working career and geographically, make it more important than ever to understand how graduate outcomes develop and change over time. There is a growing

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[27] Purcell *et al.* "The Class of '99: A study of the early labour market experience of recent graduates", October 2005, A Research Centre of the University of the West of England and Warwick Institute for Employment Research.

interest in measuring a wider range of outcomes than employment, and many of these have a strong longitudinal dimension. Participants were invited to complete the baseline survey in 2011 (Baseline), completed a follow-up in 2014 (Two-year follow-up), and will complete further online surveys five years (2016) and ten years (2021) post-graduation.

The universities are also mindful of (1) an increasing emphasis within Government education agencies on tracking outcomes over time (e.g., transitions from school to tertiary study), and (2) developments in information and communication technology, which make pan-university study a viable option. The new longitudinal study has been developed in a manner that complements these priorities.

GLSNZ Research Team

Director and Principal Investigator:
    Professor Richie Poulton (NCLR, University of Otago)
Project Manager:
    Dr Karen Tustin (NCLR, University of Otago)
Co-investigators:
    Dr Jackie Hunter (Department of Psychology, University of Otago)
    Dr Kaa-Sandra Chee (NCLR, University of Otago)
    Megan Gollop (Children's Issues Centre, University of Otago)
    Dr Mele Taumoepeau (Department of Psychology, University of Otago)
    Dr Reremoana Theodore (NCLR, University of Otago)
    Associate Professor Nicola Taylor (Children's Issues Centre, University of Otago)
    Professor Gordon Harold (University of Sussex)
Administrators:
    Michelle McCann (Dunedin Multidisciplinary Health & Development Research Unit, University of Otago)
    Jocelyn Diedrichs (Children's Issues Centre, University of Otago)
Computer Programmer and Website Manager:
    Blair Hughson (Core Development)
Communications and Marketing Consultant:
    Brigid Feely (To Be Frank copywriters)
Pastoral Care Advisor:
    Sean Hogan (Dunedin Multidisciplinary Health & Development Research Unit, University of Otago)
Data Management Consultant:
    Antony Ambler (MRC Social, Genetic & Developmental Psychiatry Centre, Kings College London)

Steering Group

The GLSNZ Steering Group was formed by Universities New Zealand and was comprised of representatives from several NZ universities and Universities New Zealand (UNZ). The Steering Group helped to initiate the study.

Members:
- **Mr David Thomson** (Chairperson) – Director, Planning and Funding, University of Otago;
- **Ms Pamela Moss** – Director, Planning Office, University of Auckland;
- **Ms Pam Thorburn** – Director, Central Student Administration, Victoria University of Wellington;
- **Mr Malcolm Rees** – Quality Manager, Academic, Massey University;
- **Ms Penny Fenwick** – Executive Director, UNZ.

Full Stakeholder Group

The full stakeholder group was comprised of representatives from each of the eight NZ universities, the three funding institutions, and UNZ.

Members:
- Steering Group members as listed above
- **Mr Robert Daldy** – Research Manager, Strategic Developments, Information Research Unit, AUT;
- **Ms Helen Pridmore** – Head of Planning, Policy and Information, University of Waikato;
- **Professor Sheelagh Matear** – Assistant VC, Academic, Lincoln University;
- **Dr Erik Brogt** – Lecturer, Academic Development Group, University of Canterbury;
- **Ms Caroline Boyd** – Principal Policy Analyst, Ministry of Women's Affairs;
- **Mr Brett Parker** – Senior Policy Analyst, International Policy and Development, Ministry of Education;
- **Mr Matt Huntington** – Strategic Communications Manager, UNZ.

Funding

Financial support was provided primarily by the Tertiary Education Commission with supplementary support from the Ministry for Woman's Affairs and Ministry of Education, International Division, for 2010 and 2011. This covered the developmental phase of the GLSNZ, sample recruitment and implementation of the initial baseline phase of the study.

Universities New Zealand – Te Pōkai Tara, in conjunction with the Vice Chancellors of all the NZ Universities, funded the study during 2012. Funding for the Two-year follow-up (2013-2014) and all future phases of the study through to 2021 will be provided by Universities New Zealand – Te Pōkai Tara.

SECTION 2: PROJECT PROCEDURES – BASELINE

Phase 1 – Survey Development

Survey Design

The Study's methodology, survey design, and instrument selection was informed by the experience of the NCLR team. It was also informed by direct contact with researchers conducting graduate outcome research, both here in New Zealand and overseas. These exchanges were augmented by information obtained via extensive literature searches. As is always the case at this stage of the research process, considerable time and resources was expended on getting this core element of the GLSNZ right.

For a detailed list of the scales used please see the "GLSNZ Measurement Book." A copy of the baseline survey administered in 2011 is outlined in the "GLSNZ Code Book." Both of these documents are available in the 2012 Extended Baseline Report.

Pilot Testing

During the survey development phase in 2010 and 2011, the survey was tested with several different pilot groups to ensure its content was relevant, its length was acceptable, it was culturally sensitive and it was measuring what was intended to be measured. The feedback provided by these pilot groups enabled the survey instrumentation and scales to be modified (or replaced) as appropriate.

- General population pilot - 9 December 2010
    26 students including 5 international students and 1 distance student, age range 20 to 45 years old.
- Māori student pilot - 31 March 2011
    4 students from different faculties, age range 23 to 43 years old.
- Pacific Island student pilot - 31 March 2011
    4 students from different faculties, age range 20 to 41 years old.
- Psychology student pilot - 13 July 2011
    180 x 300 level students.

Stakeholder Consultation

Each of the GLSNZ stakeholders were individually visited multiple times throughout the survey development process to obtain their feedback on the survey instrument as it was developed.

In October and November 2010, the GLSNZ Project Manager, Kaa-Sandra Chee, and Co-investigator, Nicola Taylor, travelled to each University to meet with all the individual stakeholders to consult them on the research design, sample recruitment process and to obtain feedback on the draft survey instrument.

Individual Stakeholder Meetings:
- AUT – 27 October, 2010
- University of Waikato – 27 October 2010
- University of Auckland – 28 October 2010
- Victoria University of Wellington – 2 November 2010
- Ministry of Education – 2 November 2010
- Ministry of Women's Affairs – 2 November 2010
- Massey University – 3 November 2010

- University of Otago – 10 November 2010
- Lincoln University – 15 November 2010
- University of Canterbury – 15 November 2010

Cultural Consultation

The survey went through extensive Māori and Pacific Island consultation in 2011 with various Māori and Pacific Island committees, groups and individuals from each university being asked for feedback. Consultation with Te Kahui Amokura, the Universities NZ Māori Consultation Committee, was also undertaken and feedback received and included in the survey instrumentation.

Multi-region Ethical Application

The study protocol was submitted to the Multi-region Ethics Committee on 7 June 2011 and approved on 4 July 2011, reference number: MEC-11-EXP-049. Amendments to the instrumentation were approved on 18 November 2011.

Online Survey Development and Testing

The online survey was developed in conjunction with the company Core Development. The design, structure, and applicability of the online survey was developed by the managing director, Blair Hughson. The online survey and data storage development was custom designed for the GLSNZ project.

Extensive testing of the online instrument was completed May through July 2011. Different groups worked through the online survey to test its usability and storage functionality. The instrumentation was also tested to ensure that the correct questions were being asked of the participants. Tests were completed by Core Development to ensure that overloading of the server was not going to impact the speed and usability of the survey.

Phase 2 – Survey Implementation

University Roadshow

During March, April and May 2011, the Director, Richie Poulton, and the Project Manager, Kaa-Sandra Chee, travelled to each university to update them on the project as the launch date drew nearer. These trips also provided an opportunity for further feedback to be obtained on the near-final draft of the survey instrument. The GLSNZ Communications and Marketing Consultant, Brigid Feely, accompanied Professor Poulton and Dr Chee on several of these visits.

- Victoria University of Wellington – 8 March 2011
- University of Canterbury – 23 March 2011
- Lincoln University – 23 March 2011
- University of Waikato – 13 April 2011
- AUT – 11 May 2011
- University of Auckland – 11 May 2011
- Massey University – 17 May 2011
- University of Otago – 23 May 2011

Cohort Identification

The sample cohort was defined by the GLSNZ to encompass the diversity of the eight university stakeholders. The sample definition and number of students were defined for each university by the GLSNZ research team.

The sample was defined by the broad GLSNZ domains of:
- Agriculture/Horticulture
- Commerce/Business
- Education
- Health Sciences
- Humanities/Arts/Social Sciences
- Law
- Sciences/Engineering

Within each domain the cohort was divided further into:
- Undergraduate vs. Postgraduate
- Full time vs. Part time
- Extramural vs. Intramural
- Domestic vs. International
- Male vs. Female
- Ethnicity
- Age bands (4 year bands 15-70 years, then 70+)

A copy of the Sample Recruitment Guidelines is found in the Appendix.

Brand & Website Development

The GLSNZ brand and website were developed in conjunction with three external companies - To Be Frank, Core Development and BrandAid Design Communications. The brief was to attract students as potential study participants with an edgy, funky and attractive design and written material, but to also ensure that a professional and informative message was communicated.

Videos of the GLSNZ team and a Voxpop of students were put on the website to give a visual and personal touch to the project. Videos were developed in conjunction with the external companies Video Factory and To Be Frank. Filming for the videos took place on the 25 May 2011 for the GLSNZ team and on the 2 and 7 June 2011 for the student Voxpop.

Marketing, Communications and National Launch

The communications plan was designed to expose final year students to the project at least three times before they were invited to participate. The communications at each university started six weeks before the university's study launch date via various methods i.e. chalking, posters, lecturer's slides, bookmarks, staff t-shirts, etc.

The GLSNZ National Launch was held on 22 June 2011. The study was promoted to the NZ public via specific media pitching with the NZ Herald, regional newspapers and national radio. The GLSNZ website (www.glsnz.org.nz) was also launched on this date.

Recruitment

Approximately 14,000 final-year university students – broadly representative of the 40,000 students completing their studies at New Zealand's eight universities during 2011 – were invited to participate. The study roll-out was staggered across each university during July and September 2011:

- University of Auckland – 31 July 2011;
- Lincoln University – 31 July 2011;
- AUT – 21 August 2011;
- Massey University – 11 September 2011;
- University of Waikato – 11 September 2011;
- University of Otago – 18 September 2011;
- Victoria University of Wellington – 18 September 2011;
- University of Canterbury – 18 September 2011;

Students were made aware of the GLSNZ project via a six week marketing campaign at their universities prior to being invited to participate. This awareness campaign comprised bookmarks, posters, t-shirts on staff, PowerPoint slides in lectures, facebook and twitter social networking alerts. Primer emails were also sent to final year students to create a buzz around campus about the project. This campaign ensured that the students knew about the project before they received an invitation to participate.

The participants were notified they were invited to be part of the study by a written and physically posted letter from their respective Vice Chancellors (VC). This letter was sent with a GLSNZ pen. One university did not physically send out the letter but chose to email it to their students. This letter outlined the importance of the study and also served to verify that the study was a legitimate NZ university endorsed research project. The VC letter was followed four days later by an email with the participant's unique code and password to log onto the survey via the GLSNZ website. This invitation email was sent out on a Sunday to capture the student online audience.

The survey invitees were monitored and those that had started the survey but had not completed were sent email reminders at 24 hours followed by a 1 week reminder if they had not re-logged into the survey. The survey invitees that had not engaged with the survey were sent weekly email reminders to log on and complete the survey. The language in these follow up emails was carefully constructed to ensure that the students were getting different stimulation and to create a personal incentive to participate. There were three follow up emails in the three weeks following the start of each universities survey release date sent out on Sundays. The last email reminder was a short video of a student reading out other 'hypothetical' students' positive comments about the survey and what they thought of it.

Two post-exam emails were sent out to those invitees that had not engaged with the survey since being invited. The final email to be sent out from the GLSNZ team was on 11 December 2011 informing participants they had one week to complete the survey.

Call Centre

From 22 August to 9 December 2011 a Call Centre operated with eight part-time employees (listed below). They were trained to phone those students who had been invited to participate in the study but who had not engaged with the survey within the first four weeks and also to follow up on those students that had started the survey but not completed it. Students were called up to four times to

notify them they had been selected to participate in the GLSNZ. The Call Centre operated from 11am to 8pm each day with the employees working hours that could fit around their personal timetables.

Call Centre Staff: Amelia Welsh, Corey Fulop, Eliana Glover, Esmay Eteuati, Matthew Gray, Rebecca Diedrichs, Vivian Rewi, Zara Coghill.

Data Cleaning

As students from each university completed the baseline survey the preliminary data was checked for anomalies and internal consistency. This was a visual check of the data looking for empty data points and implausible responses as well as noting for any repeated errors or inconsistencies.

90 hours were devoted to data cleaning by an experienced Master's level Data Manager (Mr Antony Ambler).

Phase 3 – Information Dissemination

Reports

The research report with the 2011 baseline results was released in early 2012 and was made available on the GLSNZ website along with summaries of findings relating to Pasifika, Māori, and international participants, factors contributing to university success and participants' contribution to society.

All eight NZ universities received a copy of the Baseline Report as well as two individualised reports presenting each particular university's baseline findings alongside those of the overall sample.

Publications and Reports

Theodore, R. F., Tustin, K., Kiro, C., Gollop, M., Taumoepeau, M., Taylor, N., Chee, K., Hunter, J., & Poulton, R. (in press). Māori university graduates: Indigenous participation in higher education. *Higher Education Research and Development.*

Blank, M-L., Connor, J., Gray, A., & Tustin, K. (2015). Screening for hazardous alcohol use among university students using individual questions from the Alcohol Use Disorders Identification Test-Consumption. *Drug and Alcohol Review*. doi: 10.1111/dar.12272.

Tustin, K. (2013). Assessing the long-term value of tertiary education in New Zealand. *Genius: The magazine of the Association of Commonwealth Universities Graduate Employment Network*, *Issue 8*, 4-5.

Tustin, K., Chee, K-S., Taylor, N.J., Gollop, M., Taumoepeau, M., Hunter, J., Harold, G., & Poulton, R. (2012). *Synopsis report: Graduate Longitudinal Study New Zealand*. Dunedin: University of Otago National Centre for Lifecourse Research.

Conferences and presentations

Tustin, K., Theodore, R. F., & Taumoepeau, M. (2015, June). *The Graduate Longitudinal Study NZ*. Invited speakers at the Global Women Diversity and Inclusion MeetUp, Auckland, New Zealand.

Taumoepeau, M. (2015, May). *The Graduate Longitudinal Study NZ*. Invited speaker at the Pacific Islands Research and Student Support Unit (PIRSSU), Division of Health Sciences, University of Otago, Dunedin, New Zealand.

Theodore, R. F., Tustin, K., Kiro, C., & Poulton, R. (2015, January). *Māori university graduates: Analysis of the Graduate Longitudinal Study New Zealand.* Paper presented at the Hawaii International Conference on Education, Honolulu, Hawaii.

Tustin, K. (2014, November). *The Graduate Longitudinal Study NZ*. Invited speaker at the National Liaison Officers Conference, University of Otago, Dunedin, New Zealand.

Theodore, R. F., et al. (2014, June). *Findings from the Graduate Longitudinal Study: Māori university graduates*. Invited speaker at Careers New Zealand, Wellington, New Zealand.

Tustin, K., Poulton, R., et al. (2013, July). *The Graduate Longitudinal Study NZ*. Invited plenary speaker at the Association of Commonwealth Universities 2nd Graduate Employment Network Conference, Auckland, New Zealand.

Theodore, R. F., Tustin, K., Kiro, C., Poulton, R., et al. (2013, October). *Māori university graduates: University experiences and career aspirations*. Invited speaker at the Department of Education research seminar, Victoria University, Wellington, New Zealand.

Theodore, R. F., Tustin, K., Poulton, R., Kiro, C., et al. (2013, July). *Māori university graduates: Findings from the Graduate Longitudinal Study New Zealand*. Presentation at Kimihia, rangahau te wānanga inamata. New Zealand Association for Research in Education (NZARE) seminar: Current Issues in Higher Education Research, Wellington, New Zealand.

Note that dissemination of the baseline findings is ongoing.

SECTION 3: PROJECT PROCEDURES – FIRST FOLLOW-UP

Phase 1 – Survey Development

Survey Design

The First Follow-Up Survey was designed by the GLSNZ team. It repeated and/or adapted many of the measures from the baseline survey. Some measures were added and some deleted to reflect the participants' stage of life 2 years post-graduation.

For a detailed list of the scales and questions used please see the "GLSNZ Measurement Book." A copy of the Two-year follow-up survey administered in 2014 is outlined in the "GLSNZ Code Book." Both documents are appended to the First Follow-up Descriptive Report.

Online Survey Development and Testing

The online survey was developed in conjunction with the company Core Development. The design, structure, and programming of the online survey was developed by the managing director, Blair Hughson. The format closely followed that used at Baseline to ensure consistency. The online survey and data storage development was custom designed for the GLSNZ project.

Piloting and testing of the online instrument was completed in early 2014. The research team and their associates worked through the online survey to test its usability and storage functionality. The instrumentation was also tested to ensure that the correct questions were being asked of the participants. Tests were completed by Core Development to ensure that overloading of the server was not going to impact the speed and usability of the survey.

Ethical Application

A Category A application for ethical approval was submitted to the University of Otago Human Ethics Committee, and approval was granted on 22 July 2013 (reference code: 13/194). The Committee requested that participating universities provide letters of approval to re-contact former students, which were provided.

Phase 2 – Survey Implementation

Recruitment

The 8917 participants who completed the Baseline survey in 2011 were invited to participate in the follow-up survey on March 7, 2014. The survey closed at 5 pm on September 5, 2014.

The participants were invited to participate via the email address/es that they supplied at the time they completed the baseline survey. This invitation included the participant's unique code (study member number) and password to log on to the survey via the GLSNZ website. This initial invitation email was targeted, with variations to the invitation email being sent to Māori, Pasifika and international students.

The survey invitees' responses were monitored and those who had started the survey but had not completed or those who had not engaged with the survey were sent nuanced email reminders: once every two weeks initially and then, in the final 5 weeks, weekly reminders. Some of these reminder

emails were modified and targeted towards specific groups, such as Māori and Pasifika participants, or as a function of fee status (domestic or international); study domain; and university attended.

The final email sent out from the GLSNZ team was on 28 August 2014 informing participants they had 48 hours to complete the survey.

Paper copies of the survey were available for those participants who did not have access to a computer and/or the internet to complete the survey online. These were administered by post and responses entered manually online by the research team under the participant's unique code.

If the invitation email was unable to be delivered (soft or hard bounced) the research team tried various, and multiple, approaches to obtain a current email address for the participant. Approximately 42% of the participants provided the contact details of alternative contacts (such as family or friends) when they completed the baseline survey in 2011. If available, the alternative contacts were contacted via email and/or phone to ask for the participant's current email address (or telephone number). Invitations were then sent via email to the participant (either directly or via the alternative contact depending on their preference). In cases where the alternative contact only provided a telephone number the participant was contacted by phone to ask for their current email address. In some instances, the alternative contact passed on the GLSNZ contact details to the participant.

Participants whose email adddresses appeared to be valid and for whom alternative contacts were given who had not engaged with the survey after 2 weeks were also followed up as outlined above. From 30 June to 28 August 2014 a Call Centre operated with three part-time employees (Kate Marshall, Rebecca Reid and Courtney Fox). They were trained to phone the alternative contacts listed by the participants who had not yet engaged with the survey. The Call Centre operated mainly in the evenings (Monday-Thursday). Call Centre staff made three attempts to contact either the alternative contact/s or the participant before leaving a message if an answer service was available.

If the participant had provided no alternative contacts or the alternative contact did not respond or was unable to be contacted, Karen Tustin and Nicola Davis searched for the participant online, using such sites as LinkedIn. The participant was then contacted by phone or email to obtain or verify a current email address.

Monitoring/Support

An 0800 number [0800 GRADUATE (0800 472 382)] operated from 9 am to 10 pm each day for participants who had any questions or needed assistance completing the survey. Participants were also able to make queries or requests for assistance via the GLSNZ email address (enquiries@glsnz.org.nz).

Responses to the survey were monitored daily. Any responses (particularly to the final open question that asked for general comments), phone calls or emails from participants that were concerning were discussed with the GLSNZ advisor Sean Hogan who provided advice or followed up directly with any participants where appropriate. The GLSNZ website also supplied a list of links to services and organisations that provide information and support on a range of issues.

Data Cleaning

As participants completed the survey the preliminary data was checked for anomalies and internal consistency. This was a visual check of each day's data looking for empty data points and implausible responses as well as noting and recording any repeated errors or inconsistencies.

90 hours were devoted to data cleaning by an experienced Master's level Data Manager (Mr Antony Ambler).

Phase 3 – Information Dissemination

The breadth and depth of this body of data is to be examined in detail and used to form the basis of a number of ongoing investigations in 2015 and beyond. Specifically, GLSNZ investigators will initially examine: (i) Labour market outcomes and their mediators/moderators; (ii) issues of ethnicity and tertiary success, with particular emphasis on experiences and outcomes for Māori and Pasifika learners; (iii) experiences of international students and the overseas export industry value of tertiary education in New Zealand; and (iv) the social benefits/good associated with aspects of university study.

SECTION 4: GLSNZ POLICIES

Unique Identifiers

All participants have been assigned random unique identifier numbers. This enables data to be analysed without the identity of the participants being known.

Contact with Study Members

Written contact with study members will be over the signature of the Director, Professor Richie Poulton. However, for the purposes of recruitment or pastoral care, designated and approved GLSNZ team members are able to contact study members directly, either by phone or email.

Confidentiality of Individual Data

All information collected is for research purposes only. Information is strictly confidential and is never released to anyone outside the study unless the study members request it.

Under no circumstances will names of study members be given to the media or institutions, even with the study member's consent. Individual data will never be published. Participant names and individual identifying characteristic data will be securely stored separately from survey results and statistical data.

Confidentiality of Institutional Data

The primary purpose of GLSNZ is to investigate the life trajectory of graduates from New Zealand universities as a whole (with appropriate sub-analysis by qualification and qualification level, and by group traits such as gender, ethnicity, etc). The GLSNZ is not, however, designed to serve as a study of the trajectory of groups of students from one university against equivalent groups of students from another institution.

For this reason, data in the form of institutional league tables will not be published. Care will also be taken to ensure that data that could easily be aggregated into an institutional league table format by a third party will not be published.

Documentation and Security of Data

For maximum use and protection of the data both now and in the future all data sets will be securely held by the National Center for Lifecourse Research. The data will be securely archived, thoroughly documented and readily available to the present and future project team members.

Data will only be used by authorized persons and no individual data will be given to any unauthorized third person.

Guardianship of and Responsibilities for Use of Data

The NCLR is the primary guardian of the data and is responsible for all data collected as part of the GLSNZ, regardless of the source of funding. Universities NZ and the universities individually, will support the NCLR in its role of guardianship over the data and in its acceptance or resistance of any requests for reports or data.

Those who have access to the data, via direct permission of the Director (or nominee), must keep the data secure, and should not pass it on to another person or institution without the knowledge and approval of the Director/s (or nominee). The NCLR will keep a register of all those who have data sets and ensure that all who have access to the data understand and abide by these policies.

Access to Data by Researchers other than the Director

The Director/s, consulting with others as appropriate, may approve access to the data by suitably qualified researchers who apply to use it.

Publishing

Presentation findings (in the form of academic papers, reports, presentations, and media releases) using GLSNZ data must be approved by the Director/s or nominee.

Protocol for the Release of Graduate Longitudinal Study New Zealand (GLSNZ) Data[28]

1. **Purpose of the study**

    1. The purpose of the Graduate Longitudinal Study New Zealand (GLSNZ) is to investigate and provide information about the life trajectory of graduates from New Zealand universities as a whole (with appropriate sub-analysis by qualification and qualification level, and by group traits such as gender, ethnicity, etc).

    2. The (GLSNZ) is undertaken on behalf of the New Zealand Universities and provides participating universities with information about the outcomes of university study as a whole with appropriate sub-analysis, at the institutional, qualification and qualification level, and by group traits such as gender, ethnicity, etc.

    3. The study also provides the opportunity for authorised researchers to further analyse the data collated through the study and for the findings to be published in academic research publications.

2. **Confidentiality of Individual Data**

    1. Study participants' names and personal details which could lead to the identification of individuals will remain confidential to the study and will not be released to the media or the public.

    2. Participant names and individual identifying characteristic data will be securely stored separately from survey results and statistical data.

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[28] In February 2014, the Vice Chancellors agreed that this protocol should be adopted.

3. Custodianship of and Responsibilities for Use of Data

1. The National Center for Lifecourse Research (NCLR) is the primary custodian and as such is responsible for the data collected as part of the GLSNZ on behalf of Universities NZ and the participating universities and its use within the terms of this agreement.

2. Universities NZ and the universities individually will support the NCLR in its role as custodian over the data.

3. Access to the data will be made available by the Director (or nominee) to authorised researchers. Those provided with access must keep the data secure, and are bound by the confidentiality arrangements set out in this agreement. The NCLR will keep a register of all those who have data sets and ensure that all who have access to the data understand and abide by these policies.

4. Documentation and Security of Data

1. The NCLR will hold and retain the official study data on behalf of the study commissioners (Universities NZ) and the participating Universities. These data will be securely archived, thoroughly documented and readily available to the present and future project team members.

2. Data will be used by authorized persons and no individual data will be given to any unauthorized third person.

5. Institutional Reports

1. Institutional reports will be made available to participating institutions to allow institutions to understand outcomes for students and to improve outcomes and services.

2. The institutional reports are not to be used to make comparisons between participating institutions or used to create league tables.

3. Information provided in the institution reports is not to be released to the media, or to any other third party other than in 4.

4. Information provided in the institution report may be used at the whole of institution level to meet outcome reporting requirements.

5. Information at the global level (i.e. results for the study cohort as a whole, as opposed to sub-cohorts for a particular institution) can be used to provide factual information to students and their families about employment outcomes at the qualification level and broad area of study.

6. The format of reports provided to institutions will allow the institution to undertake analysis and understand the outcomes of study for the institution's qualifications, areas of study and for groups of students. The data provided for this purpose will not allow individuals to be identified.

7. Within 18 months of the release of its institution-specific report, each institution will provide a brief report to the GLSNZ team outlining the use that has been made of the report and impact it has had on the institution.

8. Authorised researchers will not be permitted to identify individual Universities in any findings in which GLSNZ data has been used without the express approval of each institution.

6. Access to Data by authorised Researchers

1. The Director, in consultation with the Steering Committee, may approve suitably qualified researchers to have access to the data. Such researchers will be formally designated as GLSNZ Associated Researchers, and may use the data under the conditions set out in this policy.

2. Presentation of findings (in the form of academic papers, reports, presentations, and media releases) using GLSNZ data must be approved by the Director or nominee.

Policy for Māori Research

Māori university graduates reflect Māori potential, achievement, success and futures. The Graduate Longitudinal Study New Zealand (GLSNZ) policy for Māori research is based on the acknowledgement of the need to maximise the Study's contribution to sustaining and improving positive Māori outcomes. The policy has a commitment to the Treaty of Waitangi including the retention of Māori control (tino rangatiratanga) over Māori resources (Article 2), including Māori analyses and data. Article 3 provides a right to equitable outcomes.

The policy has been led by Māori in partnership with the Study leadership.

Protection of Māori participants: The GLSNZ has obligations to its Māori participants and it is critical to have policies that protect and uphold their integrity.

GLSNZ researchers' responsibilities: All researchers involved in the study and utilising data collected as a part of the study, should be aware of, and follow through on, the following: (a) ethnicity-related analyses will be done in partnership with Māori GLSNZ researchers, (b) Māori researchers will lead studies relevant to Māori using data collected in the GLSNZ, (c) the need to consult with key Māori stakeholders, and (d) the importance of dissemination beyond normal academic channels (e.g., dissemination hui, government agencies).

Data analyses and report writing: A key concern for the GLSNZ is superficial analyses of data to simply identify differences or deficits between ethnic groups. The cumulative effect of these types of studies is stigmatising and not of benefit for Māori. In addition to the above responsibilities - any research identifying ethnic differences needs to: (a) incorporate information on the broader context (e.g., historical and political factors), (b) where possible undertake additional analyses to examine the source of the difference/s, and (c) include policy recommendations for its resolution.

Workforce development: Building Māori research capacity and capability is a medium and long-term goal of the GLSNZ. All GLSNZ researchers will look for opportunities to support Māori research workforce development.

New policy mechanisms: As new issues relevant to Māori arise, these will be addressed and incorporated into the GLSNZ Policy for Māori Research document.

APPENDIX: SAMPLE RECRUITMENT GUIDELINES

GLSNZ Definitions

GLSNZ Student cohort

A representative sample of students intending to complete a <u>Bachelor's degree or above (i.e. level 7 or above, Postgraduate Diploma, Masters, PhD), in 2011,</u> are eligible for inclusion in the cohort.

2011 Final Year Students

All students who are in a programme of study that will <u>potentially allow them to complete the requirements for their qualification in 2011</u> (i.e. their normal annual course load will allow them to complete their qualification in 2011).

This includes:
- Students that have the potential to complete their qualification during the first or second semesters in 2011.

This does <u>not</u> include:
- Students who completed their qualification during the 2011 summer school.

GLSNZ Domains

- Agriculture/Horticulture
- Commerce/Business
- Education
- Health Sciences
- Humanities/Arts/Social Sciences
- Law
- Sciences/Engineering

Refer to "Domain Constituents" section below for breakdown of each university.

It is important not to count students twice, e.g., if they enrolled in a conjoint/double degree, the <u>highest</u> qualification or the qualification that takes the <u>longest time</u> to complete should be the one that is used for sampling purposes. When the two degrees are of the same duration (e.g., BA, BCom) use the primary faculty to define that student.

A small number of students are completing both undergraduate and postgraduate qualifications. In this case the highest level qualification should be the one that is used for sampling purposes.

Note: PhDs are to be assigned to the GLSNZ Domain in which their host department falls.

Other information required for each Domain:

Sex
- Male
- Female

Ethnicity
- New Zealand European
- Māori
- Samoan
- Cook Islands Maori
- Tongan
- Niuean
- Chinese
- Indian
- Other (e.g., Dutch, Japanese, Tokelauan)

Full-time vs. Part-time
- Full-time = A student enrolled in a programme of study for the full year equates to 1EFTS. A student enrolled full-time for a semester equates to 0.5EFTS.
- Part-time = A student that does not meet the requirements above as full-time.

Undergraduate (UG) vs. Postgraduate (PG)
- UG = Bachelors (including Honours*), conjoint/double degree Bachelors.
- PG = Graduate Certificates, Graduate Diplomas, Postgraduate Certificates, Postgraduate Diplomas, Masters (including Honours), PhD.

Note: there will be situations where some students completing their fourth year will be coded as undergraduates (i.e. BA(hons), whereas other students completing their fourth year will be coded as postgraduates (e.g., postgraduate diploma in Arts). Both are level 8 qualifications according to the National Qualifications Framework. They can be grouped together at a later date as required.

Intramural vs. Extramural
- If 50% or more of total EFTS are internal papers = Internal.
- If greater than 50% of total EFTS are extramural papers = Extramural.

International vs. Domestic
- Separate into either "International" or "Domestic", i.e., we do not need to know the country of the international student.
- Include all international PhDs

Age
- 15–19 Years
- 20–24 Years
- 25–29 Years
- 30–34 Years
- 35–39 Years
- 40–44 Years
- 45–49 Years
- 50–54 Years
- 55–59 Years
- 60–64 Years
- 65–69 Years
- 70 Years and Over

GLSNZ Domain Constituents

University	AGRICULTURE/ HORTICULTURE	COMMERCE/ BUSINESS	EDUCATION	HEALTH SCIENCES	HUMANITIES/ARTS/ SOCIAL SCIENCES	LAW	SCIENCES/ENGINEERING
Waikato		Management School	Education		Arts & Social Sciences	Law	Computing & Mathematical Sciences Science and Engineering
Canterbury		Commerce	Education Teaching & Learning		Creative Arts Humanities & Social Sciences	Law	Engineering and Forestry Science
Lincoln	Agriculture & Life Sciences	Commerce			Environment, Society & Design		
Massey	Veterinary Science	Business	Education		Creative Arts/Design Humanities & Social Sciences		Science
Otago		Commerce	Education	Health Sciences	Humanities		Science
AUT		Business	Education	Health Sciences	Applied Humanities Arts Design & Creative Tech	Law	Health & Environment Computer/Maths Sciences Engineering
Victoria		Commerce & Administration	Education		School of Music Architecture & Design Humanities & Social Science	Law	Science
Auckland		Business & Economics	Education	Medical & Health Sciences	Creative Arts & Industries Arts	Law	Science Engineering