

# **The accounting brain drain**

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## **Abstract**

The 'brain drain' is the flow of human capital out of a country, particularly skilled individuals and tertiary graduates. Haylock (2005), observing that 80% of accounting firms are finding it difficult to find and retain good staff, asked, "Where have all the accountants gone?" Hooks (2005) replied, "Overseas, especially to the UK [United Kingdom] and Australia". Her reply was based on a survey of Kiwi expatriate business professionals (also reported in Inkson et al., 2004; Jackson et al., 2005; Hooks et al., 2005). This study extends their findings by surveying potential accountants before they leave New Zealand (NZ).

This survey of 177 accounting students in their third or fourth year of study found that 87% of the respondents intend to work overseas, especially in the UK and Australia. The reasons provided for intending to work overseas were heavily weighted towards higher incomes, developing their careers and having fun. This loss of graduates should be a concern for accounting firms, as it will add to the shortage of entry level accountants. Accounting firms may need to look outside NZ for skilled labour and may need to take advantage of international students already in NZ. Overall, there does not seem to be an end in sight to the brain drain of young accountants from NZ. NZ will continue to lose trained accountants to the UK and Australia and increasingly to other countries until we are able to offer them higher incomes and career opportunities.

Responses suggest that students will eventually return to NZ for family and lifestyle reasons, although these are less influential for students than for the expatriates in Hooks *et al.* (2005). However, NZ is attractive for its safety.. Return of the students could lead to a brain gain as suggested by Inkson et al. (1997) where expatriates return bringing new skills, knowledge and capital.

Until long-term strategies of economic growth can be put in place, firms will have to deal with the skills shortage in two ways: firstly, through attracting skilled workers from overseas, this could be achieved in part through retaining international students through the provision of work permits. Secondly, firms can build loyalty in order to retain current staff, as suggested by Boress (1999) and Haylock (2005). Thirdly, NZ needs long-term strategies of investment in technology to grow the economy as implemented by other countries such as India (Cervantes and Guellec, 2002).

## **Introduction**

The ‘brain drain’, also called the ‘talent flow’ (Hooks et al., 2005) and the ‘diaspora’ (Bryant and Law, 2004), is the flow of human capital out of a country, particularly the human capital of skilled individuals and tertiary graduates. The brain drain can occur either when someone is educated overseas and fails to return to their home country or when a graduate leaves to work overseas and does not return. With the latter, greater resources are lost from the educating country (Cervantes and Guellec, 2002). The brain drain is not only a problem for most developing countries due to a perceived lack of opportunities within these economies, but it is also a major concern to developed countries. For example, Jackson et al. (2005, p. 110) claim that media attention to the brain drain from New Zealand (NZ) has “provoked fears that New Zealand is permanently losing a large amount of its intellectual capital to larger and more affluent economies like the UK [United Kingdom], the USA [United States of America], and Australia”.

It has been a long-standing tradition for young Kiwis to go on “the big OE” (overseas experience), staying overseas for a few years then returning (Hooks *et al.*, 2005). However, in a small economy that has been changing over the years from agricultural to knowledge-based (Hooks *et al.*, 2005), the OE has become a problem. There have been increases in graduates leaving the country with some not returning, leading to the brain drain. This is a concern for the country, not only as it loses its ‘best and brightest’ but also because of the loss of inflows to the economy in the form of their skilled labour and the taxes they would have paid. Not only are these individuals likely to be on higher than average incomes but also they are in the age bracket of 25-35 that pay the most in taxes compared to the public goods they consume such as Education, Health and Benefits (Desai *et al.*, 2004). The brain drain is not only a loss to individual sectors of the economy but to society as a whole.

A very close substitute for “the OE” is the “expatriate assignment”, which is where the individual is working for an international company and the company initiates the overseas experience (Inkson *et al.*, 1997). The problem that arises from “the big OE” as opposed to the expatriate assignment is that, although people leave on their OE with the intention of returning, some may become focused on career development and stay away (Inkson and Myers, 2003). This is due to travellers’ finding greater opportunities for financial gains and challenges which are not available in NZ and therefore never returning (Inkson *et al.*, 2004).

With 80% of accounting firms struggling to find and retain staff (Haylock, 2005), the brain drain of accountants from NZ is a concern to accounting firms and the profession as a whole. This study, therefore, targets accounting students who are about to graduate from university and enter the accounting profession. An assessment is made of the magnitude of the brain drain in accounting, focusing on the factors that influence the decision by graduates to go overseas. This study also suggests solutions or ways of mitigating this problem in the accounting profession.

## **Literature**

The problem of the brain drain has been debated for more than three decades (see Beyer, 1972). Although the concern has primarily been about skilled workers migrating from developing to developed countries (e.g., Cervantes and Guellec, 2002; Desai *et al.*, 2004), it is also perceived to be a problem for developed countries, such as Canada (Cherry, 2000), the UK (Thornton, 2005), and NZ (Bushnell and Choy, 2001; Glass and Choy, 2001; Inkson and Myers, 2003; Collins, 2005).

## Is there a problem?

There have been mixed opinions about whether the brain drain is actually occurring in NZ. Bushnell and Choy (2001) and Glass and Choy (2001) looked at the immigration and emigration statistics as well as skill levels. Recently published figures from Statistics NZ report that the number of permanent and long-term departures from NZ in 2007 increased by 9,000 on the previous year, including a net outflow of 28,000 to Australia (Bascand, 2008). However, Bushnell and Choy (2001) find that the loss of human resources to Australia is across all skill levels, rather than just the highly skilled, and therefore is not a drain solely of the highly skilled. Both Bushnell and Choy (2001) and Glass and Choy (2001) suggest there is no brain drain, claiming that the loss of skilled workers overseas is being offset by the immigration of more highly skilled workers. For example, there was a net inflow from the UK (7,100) and Asian countries (13,600) in 2007. The high net inflows at ages 16 and 19 were attributed by Bascand (2008) to overseas students' arrival, and net outflows in the 21-26 year old age group to their return to their home countries. Bascand (2008, p. 8) claims that important contributors to the high net inflows in the 28-31 year old age group were "people arriving for working holidays, as well as New Zealanders returning after working holidays". "There was a net inflow of 700 professionals in 2007 [compared to 2,100 in 2006 (Pink, 2007)] ... The gain of professionals is influenced by New Zealand's immigration policies, which target certain occupations as well as highly skilled and educated immigrants" (Bascand, 2008, p. 9). Although Bascand (2008) implies and Glass and Choy (2001) claim that the immigrants are more skilled than the emigrants, Bushnell and Choy (2001) do raise the point that immigrants may find it hard to use their skills in employment in NZ.

There are also conflicting viewpoints as to whether the brain drain causes losses or gains to the economy. The original opinion was that there is a loss to an economy through the brain drain (Joyce and Hunt, 1982). However, this is opposed by the ideas that there is a 'brain exchange' or 'talent flows' which either have little effect or that actually bring gains to the economy through the return of higher skilled expatriates from overseas (Inkson *et al.*, 1997). There may indeed be a gain to the economy through the return of these individuals. There is, however, a loss of their human capital resources while they are away and of their contributions to the economy through taxes.

Accountants are included in the highly skilled people who are leaving NZ for long periods or permanently. Gill (2001) noted that many newly emerged Chartered Accountants believe that there are higher salaries and greater job opportunities overseas and that in the long term the brain drain could result in a diminished pool of experienced professionals in NZ. Hooks *et al.*'s (2005) survey of expatriate business professionals received many responses from professionals in accounting, finance and related areas. Overall, their research found that Kiwis emigrate for reasons related to career opportunities and income and that they consider coming back for personal reasons such as family and lifestyle (Hooks *et al.*, 2005, Inkson *et al.*, 2004).

The universal language of accounting and the NZ Institute of Chartered Accountant's (NZICA's) reciprocal arrangements make it is easy for qualified accountants to work around the world. Therefore, it is an important area of study as accountants are highly skilled and their loss to the economy is part of the brain drain (Hooks *et al.*, 2005). Haylock (2005) reported that "at least 80% of accountants I have spoken to are short-staffed, some desperately so" (p.19). The loss of highly educated accountants overseas must have a negative impact on the skills shortage. Although the brain drain is not the sole contributor to this problem, the understanding and mitigating of the brain drain

effect could go a long way to easing the pressure of the skills shortage. This research is therefore of importance to the NZ accounting profession from a nation-wide economic perspective.

### **Where to and why?**

If we accept that the brain drain is occurring at least to some extent (Hooks *et al.*, 2005, Catley, 2001, Smart, 2006), the destination of these individuals is of interest. There is a common theme that Australia and the UK are the two most common destinations (Bushnell and Choy, 2001, Glass and Choy, 2001, Pink, 2007). The reason given for Australia being the number one destination is that the labour market between the two countries is thought of as one (Hooks *et al.*, 2005). This has been an increasing belief since the Australia New Zealand Closer Economic Trade Agreement (1983) and has affected all levels of the labour market (Bushnell and Choy, 2001). The motivating factors for emigration centre on financial reasons. Inkson and Myers (2003), in their exploration of 'the big OE', identify factors such as entrepreneurial opportunities and challenging work as reasons to work overseas. Similarly, Hooks *et al.* (2005) find the top three reasons people leave NZ are: boosting earnings power, having a good time and the pursuit of excellence. (The last two could be considered lifestyle reasons rather than financial.) Smart (2006) finds that there is a correlation between the size of student loan balances and the probability of moving overseas. It is more likely that within five years of finishing study the graduate with a loan balance over \$8000 will be overseas. Other significant factors are age (younger more likely to go overseas) and qualifications (higher more likely). Gender is not a significant factor (Smart, 2006).

Hooks *et al.* (2005) find that the top three factors keeping expatriates from returning to NZ are business/career opportunities, financial (pay and cost of living) and the tax system.

The factors pulling expatriates back to NZ are related to personal factors such as family, security, lifestyle, identity, social and recreational (Hooks *et al.*, 2005, Inkson *et al.*, 2004).

However, these prior studies have been criticised for focussing on returned travellers (Inkson and Myers, 2003) or NZ expatriates (Hooks *et al.*, 2005). Hall (2005) argues that the research into the brain drain does not take into consideration those that choose to stay in their home country. Therefore the research "can give a very distorted picture of both the magnitude of the brain drain and the causes of it" (p. 940). This study therefore, looks at accounting students as a whole, considering both those who intend to stay and those who intend to leave.

### **Countries' solutions to the brain drain**

According to Hall (2005), there is a general problem of stagnation in the growth of many western countries' populations. Therefore, to increase the stocks of knowledge workers, a country has to either reverse this population trend or invest heavily in education; both of these are long-term solutions. Immigration, including the return of expatriates, is only a short-term solution (Hall, 2005).

The need for increased investment in education is a common viewpoint, illustrated by policies that have been and are being implemented around the world to encourage the return of highly skilled individuals from overseas countries. Cervantes and Guellec (2002), believing that the key to addressing the brain drain is for governments to enhance science and technology policies and create conditions for innovation and entrepreneurship, provide examples of ways that many Governments around the world are attempting to fight the brain drain. Countries such as Taiwan, Korea and Ireland have had success through opening their economies to greater domestic investment in

innovation and research and development. Private networks that link overseas knowledge workers to networks in their home countries have been implemented by places such as India, Latin America, South Africa and Switzerland. In India's case this has been enhanced by legislative and tax rules which push those abroad to make investments back into India. To provide higher education and research opportunities, China implemented a project to turn 100 of its universities into world-class institutions. In the UK there are plans to increase incomes of post-doctorates and increase funding for the hiring of academic staff. This is mirrored by France's move to create 7000 teacher-researcher positions between 1997 and 2002, to retain talent and try to entice back those abroad. "Gang down the drain" (1993) reports that in Scotland, the brain drain has led to the University of Strathclyde starting a scheme of advertising in an attempt to lure back some of its graduates from overseas. In NZ, networks similar to those of India and Switzerland have been set up, such as the internet site [www.nzedge.com](http://www.nzedge.com). A site such as this enables expatriates to communicate with those still here and discuss the pros and cons of both being in NZ and being overseas.

### **Solutions for accountants**

The ability to retain and attract staff is the number one concern of public practice accountants in NZ (Haylock, 2005). Suggestions for improvement, in both the professional and academic literature focus around the different pools of labour and the factors that will retain staff or entice people to return.

In order to expand the pool of labour, Haylock (2005) suggests that on top of government incentives to induce women back earlier from parental leave, similar schemes be implemented to encourage the older generation to remain in work longer. Also Inkson *et al.* (1997) warn that companies will increasingly need to locate expertise on a short-term contracting basis, rather than expecting employees to commit to long-term promises of advancement.

Boress (1999) explains that small accounting firms cannot afford to compete with compensation plans of larger firms. Instead, these firms need to compete through offering flexibility of work, openness and inclusion in firm policies and strategies and recognition for jobs well done. Hooks (2005), too, suggests that the key factors are to increase career opportunities and financial compensation although she notes that family factors are also significant. Haylock (2005) examined the 20% of public practice accounting firms which were not having staffing problems, finding that factors which contributed to their success included: an attractive work environment, accessible managers and directors, good incentive schemes, succession plans in place and excellent training and development programmes. These mirror the main reasons for migration that were found by Hooks *et al.* (2005), which are financial and career opportunity based. This research contributes to the existing literature by obtaining students' perceptions as to whether these factors will induce future accountants to stay in NZ or to return after their overseas experience.

### **Research questions**

Prior research on the brain drain has used expatriates (Hooks *et al.*, 2005) or people who have returned after a period out of NZ (Inkson and Myers, 2003). This study extends the prior research by surveying students near to graduation, thus gaining views of potential accountants before they go overseas. It also includes reasons for not considering overseas experiences, thus satisfying some of Hall's (2005) concerns about neglecting those who stay.

This survey of 177 accounting students in their third or fourth year of study assesses where the students are planning to work over the next decade and the influence of different factors on their choices. It answers the following research questions:

What proportion of accounting students already intend to work overseas once qualified?

What could be changed to stem the flow of accountants overseas?

What are the influences on students' decisions to work overseas?

Is the perception of influences different between those students that are staying in NZ and those that plan to work overseas?

Is the perception of influences different between the accounting students and the expatriates studied by Hooks *et al.* (2005)?

## **Method**

The data were collected through a questionnaire administered halfway through the academic year to a final year undergraduate course in Accounting Theory and Applications and a postgraduate (honours) class. These two courses were chosen for their link to the NZICA membership requirements.

### **The questionnaire**

The first page of the questionnaire (attached as an appendix) contained demographic questions (relating to age, gender, student loan, intention to become a Chartered Accountant, majoring subject, and citizenship) and open-ended questions relating to intention to go overseas and the influences on this decision. The questionnaire also contained several of the questions from the questionnaire created by Hooks *et al.* (2005), namely those relating to factors that draw respondents either overseas or to NZ (question 11 in the appendix, reduced to 17 factors for conciseness), ranking of important aspects of life (Q 10), aspects of life respondents are most happy with (Q 12), and what being overseas is about (Q 13).

The open-ended verbal responses were coded into categories by the researchers, then put into frequency tables for comparison. The numerical responses were analysed by frequencies, means, *t*-tests<sup>1</sup> and non-parametric tests<sup>2</sup> for difference of means and correlations.

The students filled in the questionnaire in class because the researchers felt that a take home questionnaire might have resulted in a low response rate. This, however, may have caused respondents to rush and give little consideration to their responses. For example, the written answers to 'what could make you stay' and 'what could make you return?' were often brief.

As participants were from the University of Canterbury, results may not be applicable to the population of students throughout the country. Larger business centres, such as Auckland and Wellington, offer higher incomes and career opportunities to students, which may alter the perceptions of students from those areas about the brain drain. Though unlikely, the students studied may be different to previous and future years, which could also limit generalisability.

### **The sample**

The population consisted of 177 students. There were 164 on the roll for the undergraduate course. However, only 130 students were at the lecture in which the

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<sup>1</sup> *t*-tests were used to test differences between this study and Hooks *et al.* (2005) as the required information was not available to perform non-parametric tests.

<sup>2</sup> One sample, Kolmogorov-Smirnov tests were used to check if the data was normally distributed. None of the data showed a normal distribution, therefore non-parametric tests for difference of means and correlations were used.

questionnaire was administered, and 94 of these participated. Thus response rates were 72% of those present on the day the questionnaire was administered and 57% of the course enrolment. From the 13 students in the honours class there were 11 responses, a response rate of 85%.

Of the sample, 57% were female, which is similar to the female proportion of the population (55%). This contrasts with the 33% in Hooks *et al.* (2005) and the NZICA's membership statistics of just under 36% in 2006 (NZICA, 2006). Eighty one percent of the sample plan to become Chartered Accountants and 98% were accounting majors, which is consistent with the link between these two courses and the NZICA requirements. Table 1 illustrates the age distribution in the sample.

**Table 1: Age distribution of the sample**

Age	Frequency	Percent
<20	4	3.8
20-24	74	70.5
25-29	13	12.4
30-34	7	6.7
35-39	2	1.9
40-49	4	3.8
50-59	1	1.0

*n*=105

NZ citizens made up 66% of the sample; the remainder were divided equally between permanent residents of NZ and citizens of another country.

Thirty-eight percent of the students estimated they would have a zero student loan balance at the end of study. Twenty-six percent estimated that the loan balance would be \$10,000-\$20,000 and 18% would have \$20,000-\$30,000.

## Findings

Ninety (87%) of the students are planning to travel overseas to work in the near future. Of these 90 students, 54% are planning to work in the UK, 49% in Australia, 31% in Asia and 22% in America (11 in the US, 7 in Canada and 2 in South American countries). The destinations of NZ citizens and Permanent residents going overseas were: UK (66%), Australia (49%), America (26%) and Asia (20%).<sup>3</sup> However, not all of those going overseas plan to leave immediately: 14 of the 90 (16%) plan to stay in NZ until they have qualified as CA, and another 9 (10%) want to get some work experience in NZ before leaving – six of the nine are citizens of other countries who will then return home.

Pearson correlations were calculated to test for links between the countries of destination and demographic variables such as citizenship, age, gender and student loan balance. In all the following findings, high statistical significance ( $p < 0.001$ ) is marked (\*\*\*) ,  $p < 0.010$  (\*\*) and  $p < 0.100$  (\*).

In regard to the country of destination, students planning to work in the UK are also likely to be planning to work in America ( $r = 0.275^{**}$ ). Students that plan to work in Asia do not intend to work in either the UK ( $r = -0.478^{***}$ ) or America ( $r = -0.292^{**}$ ) and vice versa. That is, the students appear to choose between Asia and the other destinations.

Analysis of student destination by citizenship shows that NZ citizens are inclined to work in the UK ( $r = 0.459^{***}$ ) but not in Asia ( $r = -0.533^{***}$ ). Citizens of another

<sup>3</sup> These percentages relating to country of destination do not sum to 100% as some respondents plan to work in two or more other countries.



country are planning to work in Asia ( $r=0.495^{***}$ ) and are not inclined to work in the UK ( $r=-0.411^{***}$ ). This finding suggests that citizens of other countries (over 80% of whom are Asian) are planning to return to their home country to work; this was confirmed by the six internationals who said they were returning home.

Age influences the decision to work overseas ( $r=-0.279^{**}$ ), with younger students being more likely to plan to work overseas. However, age is only significantly correlated with the UK as a destination ( $r=-0.224^{**}$ ), indicating that the younger students are more likely to plan to work in the UK. The students going to the UK were likely to have higher loan balances than other students ( $r=0.347^{***}$ ) and those intending to go to Asia to work were likely to have a lower loan balance ( $r=-0.366^{***}$ ). These results could indicate the students' perception of higher incomes and more favourable exchange rates in the UK enabling them to pay off their loans. There were no other significant correlations between gender, student loan balance and becoming a chartered accountant with students' decisions to work overseas, indicating that the decision was unaffected by these demographics.

In an open-ended question, students were asked to provide reasons for their chosen destinations. The answers were categorised as shown in Table 2. The most common reasons related to higher incomes (37%) and greater career opportunities (24%).

**Table 2: Reasons for the country of destination**

Reason	Frequency	Percentage
Higher income	33	37
Career opportunities	22	24
Family/friends	14	16
Lifestyle	13	14
Going home	12	13
Travel opportunities	10	11
Work experience	9	10
New experiences	7	8
Weather	5	6
Location	2	2
Similar to NZ	2	2
Expand contacts	1	1
Lower tax	1	1
Less racism	1	1
Paying off student loan	1	1

$n=90$

Students planning to go overseas supplied reasons that would make them stay in NZ (see Table 3). The most common responses were that incomes (54%) and career opportunities (23%) needed to increase. Sixteen percent of students planning to go overseas commented that “*nothing*” could make them stay in NZ.

**Table 3: What could make students stay?**

Reason	Frequency	Percentage
Higher income	49	54
Career opportunities	21	23
Family/friends	15	17
Nothing	14	16
Lifestyle	8	9
Better work experience	5	6

Terrorism/War/Safety	4	4
Student loan write off	4	4
Permanent residence/visa	4	4
Work/life balance	4	4
Options for travel	2	2
Challenge	2	2
Cheaper housing	1	1

*n*=90

Those planning to travel were asked to name the factors that would make them return to NZ. The main reasons are shown in Table 4. Highest was family and friends (37%), followed by greater career opportunities (24%) and incomes (23%). Eight percent of NZ citizens or permanent resident respondents stated that “*nothing*” would make them return.

**Table 4: What could make them return?**

<b>Reason</b>	<b>Frequency</b>	<b>Percentage %</b>
Family/friends	33	37
Career opportunities	22	24
Higher income	21	23
Lifestyle	17	19
Nothing	7	8
Safety	7	8
Environment	6	7
Being homesick	4	4
Retirement	3	3
Student loan paid off	2	2
Work/life balance	2	2
Improved cost of living	2	2
Permanent residence/visa	1	1
Good welfare system	1	1

*n*=90

The fifteen students intending to stay in NZ stated the following reasons for not travelling overseas: satisfaction with NZ (beauty, peace, environment, etc) (7), family/friends (6), lifestyle (3), higher income (2) and safety (1).

#### **Personal factors influencing migration**

The students were asked to rank six factors from most to least important to themselves and then the same six factors according to what they were ‘happiest with now’. In order to compare to the analysis in Hooks *et al.* (2005), the orders were reversed so that a higher number meant higher importance/happiness (i.e., 6 was the most important/happiest; 1 the least). The means of the six factors in each category are presented in Table 5.

**Table 5: Personal influences on migration**

<b>Most important</b>	<b>Mean</b>	<b>Happiest with now</b>	<b>Mean</b>
Family	5.21	Family	4.79
Lifestyle	3.83	Friendship	4.36
Friendship	3.63	Achievement	3.82
Achievement	3.43	Lifestyle	3.72
Money	3.41	Money	2.50
Influence	1.48	Influence	1.81

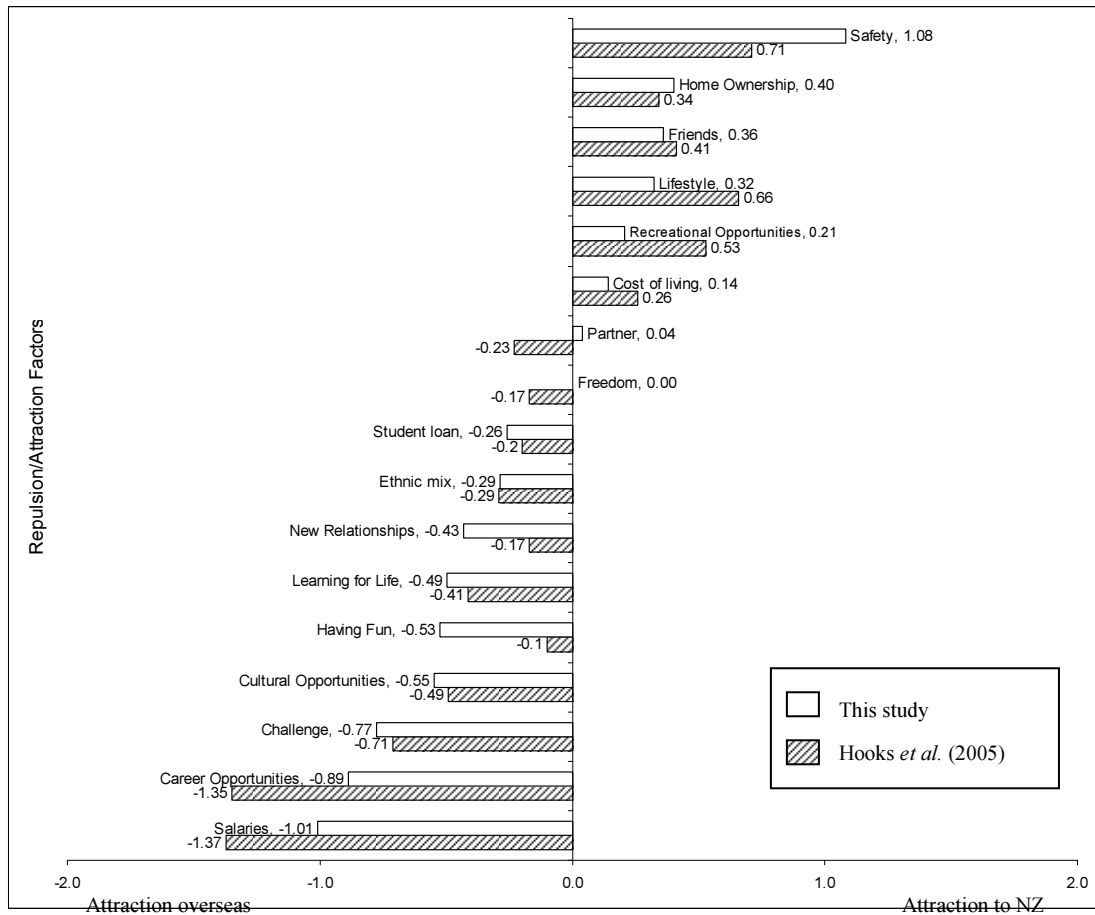
The most important factor was family which was ranked in the top two by 83% of students. Next were lifestyle and friendship, which ranked in the top two 34% and 38% respectively. In contrast, influence ranked last 77% of the time and money was ranked top by only 4% of students. Hooks *et al.* (2005, p.12) found this low ranking of money "interesting when salaries are a high attractor to overseas employment". However, this may be because respondents were asked to *rank* the personal factors that influence migration, which does not provide any measure of the *importance* of each factor. A rating system would have provided more useful and accurate information. The ranking system could also have induced socially expected answers, where money 'should' be ranked below family etc.

Wilcoxon signed ranks tests for each factor, comparing the 'most important' and 'happiest with now' rankings, showed that all factors except lifestyle were ranked significantly lower in the 'happiest with now' category compared to the 'most important' category: friendship ( $z=-5.299^{***}$ ), money ( $z=-4.922^{***}$ ), family ( $z=-3.520^{***}$ ), influence ( $z=-3.214^{***}$ ), achievement ( $z=-2.446^*$ ) and lifestyle ( $z=-1.166$ ). Mann-Whitney U tests checked for significant differences in the influencing factors between those staying in NZ and those going overseas. There were no significant differences in the 'most important' rankings; however, the 'happiest with now' category had two significant differences. Students planning to work overseas were happier with both their present lifestyle ( $z=-2.512^*$ ) and their friendships ( $z=-1.829^*$ ). Differences between the students in this study and the expatriates in Hooks *et al.* (2005) were tested using *t*-tests. Students ranked money ( $t=2.662^{**}$ ) of higher importance and friendship ( $t=-2.210^*$ ) and lifestyle ( $t=-1.753^*$ ) of lower importance than the expatriates. In the happiest with now category, four factors were significantly different. Money ( $t=-7.843^{***}$ ) and influence ( $t=-3.769^{***}$ ) were ranked lower by students, whereas family ( $t=4.329^{***}$ ) and friendship ( $t=6.237^{***}$ ) were both ranked higher by the students compared to the rankings by the expatriates.

#### **Attraction factors towards NZ or overseas**

From a list of 17 factors, students were required to rate the influence each had on them. The ratings were on a scale from 'Strongly towards NZ' (1) to 'Strongly toward overseas' (5), with 3 as neutral. As in Hooks *et al.* (2005), the ratings were translated to a scale from 'Strongly towards overseas' (-2) to 'Strongly towards NZ' (2) with zero as the neutral (see Fig. 1). In this study, safety is the strongest influence drawing students towards NZ, followed by home ownership and friends. The most important influences drawing students overseas were salaries and career opportunities. Differences between the student data and the results of Hooks *et al.* (2005) were tested using *t*-tests. The potential for safety ( $t=3.603^{***}$ ) was a greater drawcard towards NZ for students than for expatriates, whereas expatriates were drawn to NZ more by the cost of living ( $t=-5.756^{***}$ ), recreational opportunities ( $t=3.239^{**}$ ), lifestyle ( $t=3.073^{**}$ ) and home ownership ( $t=-2.693^{**}$ ). A possible reason for these differences is that the expatriates are older and have already experienced living overseas, so they have experienced higher costs of living, lack of recreational opportunities, etc. and can see more lifestyle benefits of living in NZ.

**Figure 1: Factors attracting respondents overseas or to New Zealand**



Students are more attracted overseas by the potential for having fun ( $t=4.206^{***}$ ) and developing new relationships ( $t=3.009^{**}$ ), whereas expatriates were attracted overseas by career opportunities ( $t=-4.385^{***}$ ), salaries ( $t=-3.156^{**}$ ), partners ( $t=-2.583^*$ ) and freedom ( $t=-1.719^*$ ).

Mann-Whitney independent samples tests were used to analyse whether students going overseas perceived these factors differently compared to students staying in NZ. The students planning to work overseas experience greater attraction to overseas for having fun ( $z=2.145^*$ ), higher salaries ( $z=2.136^*$ ), career opportunities ( $z=2.005^*$ ), the challenge ( $z=1.692^*$ ), a partner ( $z=1.866^*$ ) and the freedom ( $z=1.845^*$ ). Students intending to stay in NZ were more attracted to NZ by home ownership ( $z=2.280^*$ ), lifestyle ( $z=2.261^*$ ), friends ( $z=2.244^*$ ) and the cost of living ( $z=2.034^*$ ).

**What being overseas is about**

As in Hooks *et al.* (2005), students were asked to rank nine factors from most (1) to least (9) important to obtain insight into what respondents perceive that 'being overseas is about'. Frequencies for each factor were calculated then translated into percentages (see Table 6). The mean for each factor was calculated to rank the factors from most to least important, with a lower mean representing a greater importance.

**Table 6: What being overseas is about**

Motivator	Importance									Mean
	Most							Least		
	1	2	3	4	5	6	7	8	9	
Boosting earnings power	24	28	15	8	6	7	8	1	3	3.22

Having a good time	38	13	10	8	8	10	0	6	7	3.40
Pursuit of excellence	17	24	14	18	6	6	10	5	1	3.59
Working hard	5	5	15	20	16	11	10	14	5	5.14
Leadership potential	4	8	14	13	14	15	18	9	5	5.13
Learning to solve problems	3	7	14	11	17	17	11	15	5	5.30
Being upwardly mobile	3	8	9	11	13	15	20	11	10	5.61
Becoming a winner	5	7	7	8	16	11	15	19	13	5.89
Being an ambassador for NZ	1	1	2	3	6	6	8	21	52	7.76

'Boosting earnings power' was the most important reason for going overseas, with 53% ranking it in the top two. 'Having a good time' ranked second with 51% ranking it in the top two. 'Being an ambassador for NZ' was least important being ranked in the bottom two by 73% of respondents.

Mann-Whitney independent sample tests checked for significant differences in the way students perceived these factors between those who plan to leave NZ and those who are staying. Those that are planning to work overseas rank boosting earnings ( $z=1.850^*$ ) and pursuit of excellence ( $z=1.709^*$ ) as being more representative of 'what being overseas is about' than those staying in NZ. There were no other significant differences between the two groups.

However, students who are citizens of other countries are likely to perceive different benefits from going away from NZ, such as returning to their home countries permanently. This would be different from the perceived benefits of going overseas for a short period, such as taking a 'big OE'. When considering only NZ citizens, boosting earnings ( $z=2.036^*$ ) and leadership ( $z=2.000^*$ ) are perceived to better represent what being overseas is about by those going overseas than by those staying in NZ.

When comparing 'what being overseas is about' to Hooks *et al.* (2005), the students in this study ranked 'pursuit of excellence' ( $t=3.316^{**}$ ) and 'becoming a winner' ( $t=1.794^*$ ) as more representative of 'what being overseas is about' than the expatriates in Hooks *et al.* (2005). 'Being an ambassador for NZ' ( $t=-7.404^{***}$ ) and 'learning to solve problems' ( $t=-1.676^*$ ) were ranked lower by students.

## Discussion

This study finds 87% of accounting students intending to work overseas. This is considerably higher than the findings of other studies; for example, LEK Consulting (2001) found 33% of degree graduates considered going overseas (in the 20-29 age group this was up to 50%); and more recently, Collins (2005) reported that 24% of NZ-born graduates live overseas. The high proportion in this study signifies that accounting students as opposed to graduates in general have a greater propensity to move overseas to gain work experience.

As found in both the general and the accounting literature (Glass and Choy, 2001, Hooks *et al.*, 2005 and Inkson and Myers, 2003), the most popular intended destinations are the UK followed closely by Australia. This study supports Inkson *et al.*'s (1997) claim that New Zealanders are increasingly taking other options than the usual UK trip for their overseas experience, with 32% having Asia as a destination and 22% America.

This study does not support Smart's (2006) findings that size of student loan and level of university education are related to the decision to work overseas. However, we did find that students with higher student loan balances were more inclined to choose the UK as a destination.

This study shows that the brain drain does not seem to be an issue of permanent loss to NZ, where travellers never return. Responses suggest that, in line with Hooks *et al.* (2005), students will eventually return to NZ for family and lifestyle reasons. This could lead to a 'brain gain' as suggested by Inkson *et al.* (1997) where expatriates return bringing new skills, knowledge and capital. However, 8% of NZ citizen students responded specifically that "nothing" could make them return.

The reasons provided for intending to work overseas were heavily weighted towards higher incomes and career opportunities. Students saw travelling overseas as a way to boost their earnings potential and to have fun. The factor 'pursuit of excellence' ranked of significantly higher importance to students compared to the expatriates, which adds to the idea that they intend to travel to develop their careers.

A contradiction exists in both Hooks *et al.* (2005) and this study. 'Family', 'lifestyle' and 'friends' are the factors linked to migration that rank highest in the categories 'most important' and 'happiest with now'. However, the strongest attractions to overseas are 'salaries' and 'career opportunities'. In addition, the students ranked several personal factors significantly differently from the expatriates of Hooks *et al.* (2005). In particular, students ranked 'money' and 'influence' lower in the 'happiest with now' category, which may be due to low-income jobs while studying and 66% of student respondents incurring student debt. Students also ranked 'family' and 'friendship' higher in the 'happiest with now' category than the expatriates did. Factors such as the greater benefit of 'boosting earnings power' and the greater attractors (salaries and career opportunities) overseas for the students leaving NZ compared to students staying, show why students plan to work overseas. Therefore, the conjecture is that students heading overseas are willing to leave family and friends, at least in the short-term, in order to make gains in money and influence. This confirms the literature (Hooks *et al.*, 2005, Inkson and Myers, 2003) which claims that individuals work overseas for financial and career development reasons.

Although this study confirms findings that workers are attracted to NZ for lifestyle reasons (Hooks *et al.*, 2005), it shows that these have less influence on students. This lesser attraction to NZ, however, may be offset to some extent by the higher attraction of safety.

The strongest influences drawing students toward NZ were safety and home ownership. Safety was a significantly larger attraction to NZ for the students than for expatriates. What constitutes safety is hard to define as it may have been interpreted in terms of both terrorist activity overseas and the existence of a social safety net of family, friends and familiarity of surroundings in NZ. However, this finding does correspond with the Ministry of Education's (2005) finding that overseas travel decreased after the 2001 terrorist attacks in America.

The students compared to the expatriates rated factors attracting respondents to NZ (lifestyle, recreational opportunities, home ownership and cost of living) significantly lower. This study finds that lifestyle factors do 'pull' students towards NZ rather than overseas; however, this is at a significantly lesser influence than experienced by the expatriates of Hooks *et al.* (2005). When comparing within the student sample, the factors 'increasing leadership potential' and 'boosting earnings power' had higher rankings by the students going overseas compared to those staying in NZ. The findings within the student sample and compared to the expatriates suggest that career development is of greater importance to the students leaving NZ than other factors of 'the big OE'. The implication of these findings is that to retain and attract younger workers to NZ, firms must compete further through salaries and career opportunities. This corresponds with Haylocks' (2005) finding that the accounting firms successful

at retaining and attracting staff have the qualities of superior compensation and development schemes.

## **Conclusion**

Of concern to accounting firms will be the fact that nine out of ten accounting graduates intend to work overseas in the near future. This loss of graduates should be a concern for accounting firms, as it will add to the shortage of entry level accountants. Accounting firms may need to look outside NZ for skilled labour and may need to take advantage of international students already in NZ.

This study aimed to increase the knowledge on the brain drain in accounting through focusing on accounting students and determining the perceptions of both those planning to do a 'big OE' and those intending to stay in NZ. It also compared the student perceptions to those of expatriate accountants studied by Hooks *et al.* (2005), to assess whether there was a difference of perceptions between these two groups who are at different stages of their accounting careers.

The reasons provided for intending to work overseas were heavily weighted towards higher incomes and career opportunities. Although this study confirms findings that workers are attracted to NZ for lifestyle reasons (Hooks *et al.*, 2005) it shows that these have less influence on students. This lesser attraction to NZ, however, may be offset to some extent by the higher attraction of safety. These findings indicate a need for greater compensation and career development schemes to attract and retain NZ graduates.

Of the personal factors that influence migration, the most important finding relates to the 'happiest with now' category. These showed that students were happier with present family, friends and lifestyle but not as happy with money and influence compared to the expatriates. This implies that students are prepared to trade these higher ranked factors for opportunities to increase influence and money.

The consideration of 'what being overseas is about' showed that students saw it firstly as a way to boost their earnings potential and to have fun. The factor 'pursuit of excellence' ranked of significantly higher importance to students compared to the expatriates, which adds to the idea that they intend to travel to develop their careers.

Overall, there does not seem to be an end in sight to the brain drain of young accountants from NZ. NZ will continue to lose trained accountants to the UK and Australia and increasingly to other countries until we are able to offer them higher incomes and career opportunities. Lifestyle factors have a lesser influence on attracting students to work in NZ; this however may change after experiencing life overseas. Until long-term strategies of economic growth can be put in place, firms will have to deal with the skills shortage in two ways: firstly, through attracting skilled workers from overseas; this could be achieved in part through retaining international students through the provision of work permits. Secondly, firms can build loyalty in order to retain current staff, as suggested by Boress (1999) and Haylock (2005). Thirdly, NZ needs long-term strategies of investment in technology to grow the economy as implemented by other countries such as India (Cervantes and Guellec, 2002).

## **Opportunities for future research**

The research on the 'brain drain' so far has tended to focus on university students as a whole regardless of area of study or on accountants that are already working overseas. This research adds to the understanding of the brain drain by showing how accounting students are thinking, before even making the move overseas, and comparing them to those intending to stay behind. This study has added to the understanding of the

future implications of the brain drain in the NZ accountancy profession and shed some light on the factors that could mitigate any future problems associated with it. However, there are a number of ways this field of research could be progressed. This study focused on students soon to graduate from the University of Canterbury but future studies could target accountants early in their careers. Graduates who are soon to become Chartered Accountants would be an interesting group to study. Replication of this study throughout NZ's universities would gain greater generalisability. Further studies could also contain interviews or follow up questions after the questionnaire to gain a greater understanding of the responses. Linking reasons to countries of destination and rating instead of ranking the most important personal factors could also lead to increased understanding.

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<b>This factor draws me:</b>	<b>Strongly towards NZ</b>	<b>Towards NZ</b>	<b>Neutral</b>	<b>Towards Overseas</b>	<b>Strongly towards Overseas</b>
Salaries	1	2	3	4	5
Safety and security	1	2	3	4	5
Lifestyle	1	2	3	4	5
Career opportunities	1	2	3	4	5
Friends	1	2	3	4	5
Cost of living	1	2	3	4	5
Cultural opportunities	1	2	3	4	5
Sports and recreational opportunities	1	2	3	4	5
Developing new relationships	1	2	3	4	5
Having fun	1	2	3	4	5
Paying off student loan	1	2	3	4	5
Ethnic mix	1	2	3	4	5
Learning for Life	1	2	3	4	5
Partner (long-term)	1	2	3	4	5
Challenge	1	2	3	4	5
Home ownership	1	2	3	4	5
Freedom to do what I like	1	2	3	4	5

12) Which aspects of your life are you most happy with at the present time? Please rank order the following from **'1' for the most happy with** to **'6' for the least happy with**.

Friendship                       Lifestyle                       Achievement  
 Influence                               Money                               Family

13) For me as a person, being overseas is about? Please rank order the following from **'1' for the most important** to **'9' for the least important** to you.

The pursuit of excellence                       Learning to solve problems  
 Working hard     Fulfilling leadership potential  
 Boosting earning power                               Being an ambassador for NZ  
 Becoming 'a winner'                               Having a good time  
 Being 'upwardly mobile'

After completion, please give your student ID Number to go into the draw for one of two \$50 Westfield shopping vouchers. Winning ID numbers to be announced at next weeks lecture. I do not have access to ID numbers so this will still be anonymous.

Thank you for your participation.