

PART 6. FLOWS ACROSS THE OCEANS

New Zealand

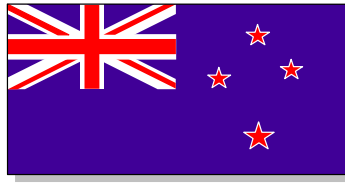


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Brain Drain, Intellectual Diaspora, Brain Exchange: Different Words One Phenomenon — Opportunity or a Disadvantage for New Zealand?

1. Preface

Brain drain, brain exchange, intellectual diaspora are only few of the words used to describe a phenomenon experienced by numerous countries around the world. Typically, the debate on the brain drain focuses on permanent and long-term migration (PLT), as flows of short-term visitors are either assumed to be irrelevant to the brain drain question (infact it goes without saying that people who do not stay away long- term have negligible human capital impacts), or because inflows and outflows of short-termers balance out over time¹. Most short-term flows are tourists, people visiting family, or business people.

Very little is known, from an empirical point of view, about the brain drain phenomenon in New Zealand. Besides the data obtained through the arrival and departure cards completed on arrival and departure, there are no other sources which can help quantify the characteristics and dimension of the flows.

Amongst other information sources analysed for this report, of particular relevance were:

- *Brain Drain or Brain Exchange* a working paper written by the New Zealand Ministry of Treasury.
- *Go West, Young Man, Go West!* A working paper written by the New Zealand Ministry of Treasury
- *Beyond the Brain Drain*, an on-line survey written by The University of Auckland Business School.
- Statistics from the last Census.

Our research has focussed on the characteristics of the flows which result in the departure of researchers, young professionals and business persons heading towards Australia, the US and United Kingdom. The structure of the flows have been observed within the following three main categories:

- Highly skilled
- Semi Skilled
- Low Skilled

2. Introduction

New Zealand has traditionally been a country of immigration. Immigration has played a major role, on the size, growth rate, age-sex structure and ethnic composition of New Zealand's population.

The end of World War II saw a certain degree of economic growth and the reintroduction, in 1947, of an immigration scheme to foster the arrival of workers from the Great Britain and from other countries in Europe and Pacific Islands countries.

¹ Quot. H. Glass, W.K. Choy (2001) "*Brain Drain or Brain Exchange*" Ministry of Treasury - New Zealand, working paper 01/22

In 1974 the Government interrupted open immigration from the United Kingdom and Ireland and set-up the same set of criteria for all immigrants. The Trans-Tasman Travel Agreement, allowing free movement of residents between Australia and New Zealand went unchanged.

During the last twenty years a decrease has occurred amongst immigrants coming from the British Isles and migration to and from Australia has become the largest in terms of volume.

According to Statistics New Zealand, the total number of arrivals jumped from 254,000 in 1968 to 2.8 million during the year ended 31 March 1999.

In 1990, a return to net population gains from migration was registered, which is the result of both increases in the number of permanent and long-term arrivals, and decreases in departures. In the year ended March 1991, there was a net gain of 11,616 people. By 1995 this had almost doubled to 21,697 people and by 1996 reached 29,832, the highest recorded gain of permanent and long-term migrants. However, in the year ended 31 March 1997 arrivals exceeded departures by 37,779. This was followed by a net emigration (excess of departures over arrivals) during the year ended 31 March 1999. The year ended March 1999 recorded permanent and long-term departures as again exceeding arrivals by 10,199.

The situation of highly skilled people, however, differs from that of the overall relation between arrivals and departures: In a recent article Mark Wilson² states that since 1995, New Zealand has slipped badly in its ability to retain highly-educated people, a phenomenon which has also been confirmed in a recent study cited in *The Economist* (10 July 1999).

The causes which seem to generate a phenomenon synthesized in term "brain drain" are many. These vary according to the different people involved in studying it. People at Government level often conclude that highly qualified workers leave New Zealand due to financial reasons. Researchers seem to think that salaries and changes in the tax rates are of minimal importance and that a larger factor is the lack of opportunities and career options. Last but not least, the point of view of entrepreneurs takes into consideration reasons concerning the easiness and number of opportunities existing outside New Zealand. In fact, the last group of persons are often motivated to leave because it is easier to invest and generate new business in countries such as the UK and USA or Australia.

One clear point emerging from the analysis is the difficulty to co-create plans of activity resulting from collaborative efforts. Interventions and strategies are often thought in the political "Ivory Towers" and then cascade down onto the different target groups.

3. Immigration and Emigration in New Zealand

3.1 Immigration Policy in New Zealand.

In 1986, New Zealand adopted a new immigration policy. The new policy implied the removal of the source country preference and the sole criteria for assessment moved to personal qualities including skills, qualifications and the potential of persons to contribute to New Zealand economically and socially and the potential of well being³.

In 1991, a new points based system was introduced under which residence in the country was

² M.Wilson (2002) "*Working conditions, not taxes, the problem with New Zealand*" in www.het.brown.edu

³ New Zealand Now (2002) "*People Born Overseas*"

permitted following the achievement of a minimum number of points and the successful completion of health and police checks. The points system was subsequently changed in 1995 and brought a more strict language requirement. Today, people who intend to relocate in New Zealand are classified under four categories:

- General Skills (typically persons entering the country under the previous point system).
- Business investors.
- Family.
- Humanitarian.

By and large immigrants relocate to New Zealand within the General Skills or Families categories.

3.2. Immigration and Emigration at a Glance

In New Zealand, highly skilled and well-read people are twice as likely to emigrate compared to their counterparts in the United States and nearly twice as likely as those in Chile⁴.

The World Competitiveness Report⁵ highlights that New Zealand's ability to retain skilled workers is similar to that of China and Venezuela. Emerging economies such as the Czech Republic and Thailand appear to be more capable of retaining their skilled workers (The Economist, 1999).

During 1999, the balance between departure and arrivals of permanent and long termers show a negative value. In fact departure exceeded arrivals by 11,370. In 1999 alone, 27,800 New Zealand citizens crossed the Tasman Sea to settle in Australia⁶ on a permanent basis, and most of these were of working age.

The New Zealander who were born in countries like Samoa, Tonga and Fiji and immigrated to Australia in 2001 were composed mainly (62%) of people aged between 20-44 years. Another 35% of New Zealand citizens who were born in New Zealand that immigrated last year were aged 20-34 years and 22% were aged under 10 year proving that a significant number of young families with young children are also immigrating.

In general terms New Zealand seems to be experiencing a downturn since 1995 in net migration. This could be caused by a combination of causes. Following the indication of the World Competitiveness Report⁷, New Zealand experienced a reduction in the number of immigrants, who are no longer settling as planned, while the number of New Zealanders travelling overseas long term is on the rise and fewer are those returning.

While permanent and long term arrivals decreased by 8% during 1999, permanent and long-term departures reached the rate of 11% in the same period (Statistic New Zealand, 1999).

One of the assumptions that could be made, regarding the downturn in the immigration flows,

⁴ World Competitiveness Report (1999)

⁵ Ibidem

⁶ Citaz. Y.Adams (2002) "*Brain Drain*", The New Zealand Edge

⁷ World Competitiveness Report (1999)

is that during the years of the high economic growth, particularly in sectors such as finance and IT, the demand of highly skilled workers was higher and better paid in other countries, making it difficult for New Zealand to match job offers on a global scale.

As a consequence of the downturn in immigration flows and the rise and duration of LPT (long and permanent term) departures, there is a need to rectify the imbalance caused by the loss of knowledge workers and to find ways of retaining and attracting back New Zealand graduate. It is of growing importance to create the conditions to attract knowledge workers from abroad and to exploit the knowledge and the networks of the New Zealanders who left years ago and who have now become part of the research and business community worldwide.

The aging population and a decline in the birth rate (10% below replacement level)⁸ suggests that, as in the case of Ireland, a good way to increase and improve the production of a larger knowledge base is to establish incentives which will attract highly skilled and knowledgeable immigrants. As many other countries experiencing the brain drain, New Zealand needs to (i) foster and encourage the arrival of skilled workers from other countries, (ii) more fully exploit the knowledge of its expatriates operating around the world and (iii) establish programs and investment which could reduce the numbers of those willing to leave due to lack of opportunities.

4. Brain Drain: The Numbers

There is little empirical evidence of the brain drain in New Zealand. Researchers are dependent upon arrival and departure card information. People are required to complete arrival and departure cards. The data are collected and maintained by Statistics New Zealand, and used to examine trends of people flows over time.

How long persons have been out of the country (for residents) and how long persons expect to reside in New Zealand (if not residents) are data collected on the arrival cards. The departure cards record how long people are planning to be away from New Zealand (for residents) and how long people have stayed (for non-residents).

The responses are used to classify people as either Permanent and Long-Term (PLT) Migrants or Short-Term Visitors. PLTs are persons who were away or intend to be away for at least one year and Short-term Visitors who were or intend to be away for less than one year. It is with this data, migration statistics are compiled. The problem is of course that people change their minds and the intended lengths of stay and/or absences can and do change⁹. Persons who stay away longer or shorter than intentions are part of the phenomenon known as Persons who state they intend to be abroad for less than a year (so on departure are not classified as "category jumping")

Occupation data is also collected on departure and arrival cards. While the occupational data are collected for all passengers, they are coded only for PLT arrivals and departures. So again, the data on occupation are not representative and less reliable. The large number of "not actively engaged" or "not specified" "claims calls into question the reliability of these

⁸ The data have been quantified on the basis of the 2001 New Zealand Census, New Zealand Statistics.

⁹ Quot. H.Glass, W,K,Choy "*Brain Drain or Brain Exchange?*" New Zealand Ministry of Treasury working paper.

skill breakdowns".¹⁰ In addition, after 1992 a new occupation classification was adopted and so time series are limited to 1993 to present. It is important to exercise caution when making observations about brain drain phenomenon which relies solely on these data.

Other sources of data have been used to estimate migration. In a recent article in *The New Zealand Edge*¹¹, Yvette Adams states that it is difficult to estimate the number of New Zealand citizens who currently live overseas on a permanent and/or long-term basis. On the basis of the figures obtained from countries overseas, one estimate is that 500,000 to 600,000 New Zealand-born persons live abroad. This is 14% of the current population of 3.8 inhabitants. The British Home Office accounts approximately at 31,000 New Zealanders currently living and working in the UK (15,000 men and 16,000 women). Over 209,000 New Zealanders are admitted in the UK every year; they then disperse throughout Europe.

The overall number of expatriate New Zealand "knowledge workers" can only be guessed at, and incidental evidence suggests it's probably in the thousands.

These estimate represents only a part of the overall figure. As far as we have investigated we must rely on guesswork. Infact, beside the Auckland University web-based research, wich focused on a sample of 900 individuals, no basic research has been done in order to identify the main causes of New Zealand's brain drain, its extent and possible solutions.

A group of New Zealander researchers based overseas (Mark Wilson, Jolisa Gracewood, Richard Easther, Amanda Peet, Michelle Elleray and Alice TePunga Somerville) has recently produced a working document¹² submitted to the New Zealand Tertiary Education Advisory Commission. In the document, they urge the New Zealand Government to reasearch deeply into the topic of *brain drain*, claiming that one possible reason why so little is known about the phenomenon is that the issue does not fall neatly into the ambit of a single government department.

5. Brain Drain and the Status of Research in New Zealand

How do academic New Zealanders end up overseas in the first place? In the recent paper mentioned above, the main reason so many academics and researchers emigrate from New Zealand or fail to return is generated by the lack of opportunity to pursue an internationally recognised career in the country. For the authors of the paper, direct salary considerations play some role, but a relatively minor one. The main role - determining the brain drain is infact played by the low support - organisationally, financially and morally - necessary for a productive research programme.

Additionally, the lack of alternative and attractive opportunities to academic positions, specially in industry or the high-tech sector, are of major importance and strongly influencing the decision making process wich results in the permanent departures of highly skilled people.

¹⁰ Quot. ibidem

¹¹ Y.Adams (2002) "*Hot-Brain Drain*" *The New Zealand Edge* Feb.2002

¹² Quot. M.Wilson, J.Gracewood, R. Easther, A.Peet, M.Elleray, A. TePunga Somerville (2000) "*Submission to the Tertiary Education Advisory Commission*".

The status of research does not help. While New Zealand's universities are required to engage in excellent teaching and research, university funding is determined almost entirely by a single input - the EFTS based funding - which solely takes into consideration the teaching work of the university.

The fundings fluctuate as a roller coaster from one year to the other, making it difficult to sustain research programmes that require a longer timescale to produce excellent results. This of course hinders long term planning and new initiatives within the tertiary sector, as stated by the six researchers who produced the policy paper - which as obvious make it difficult to sustain the work or research groups.

6. The Characteristics of Skilled Migration

The recent working paper - on brain drain - written by the New Zealand Ministry of Treasury¹³ investigates the composition of the work force and the effects that migration has on the skills and age of the New Zealand workforce.

For the writers brain drain can be perceived as a problem solely if the people emigrating are more skilled than those immigrating and if for some reasons the latter are not absorbed by the labour market replacing the lost skills and knowledge. On the other hand, the outflows of low skilled people does not constitute a major problem at brain drain level.

As previously mentioned, the field is characterised by the lack of structured and empirical research and data on the outflows and inflows - beside those available on the basis of departure and arrivals card - and the unreliability of the occupational information as a consequence of the very large number of "not actively engaged" and "not specified". It is therefore very difficult to design a compelling analysis of the brain drain phenomenon capable of providing a clear and certain picture.

An additional problem is the difficulty in interpreting the arrival and departure cards information. Infact, it is not clear if the responses refer to the work status at the time of departing from the country of origin, or on expected occupational status on arrival, or something else (Lidgard 1993).

In its interpretation about the data collected through the arrival and departure cards, the Ministry of Treasury goes on explaining that not much can be said about the skills in the "not actively engaged" category.

Last but not least, there is a large percentage of migrants who "jump" category, phenomenon which normally relates to those who come as short-term visitors and end-up becoming permanent migrants.

Nothing or very little is known about this group, although as the Ministry of Treasury has stated in its working paper that it might be possible to track the skills of certain groups such as, for example, those of the students, through their other interactions with the Immigration Service.

The classification adopted for people arriving and departing on the basis of their skills comprises the following three categories¹⁴:

¹³ H.Glass, W.K. Choy, (2002) "*Brain Drain or Brain Exchange*", New Zealand Ministry of Treasury working paper

¹⁴ M. Shevland (1999) "*Recent external Migration Flows of Skilled New Zealand Workers*", unpublished

- *High-skilled*: refers to professionals, associate professionals, technicians and managers.
- *Semi Skilled*: refers to clerks, service and sales workers.
- *Low-Skilled*: refers to people involved with routine production work, manual labour.

Table 6. 1. Net PLT migration by imputed skill level 1992 to 2000.

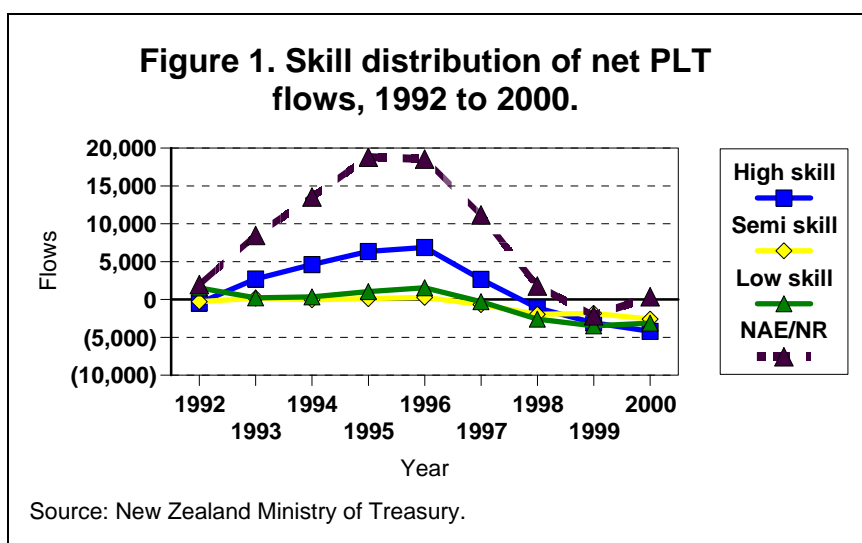
Year	High skill	Semi skill	Low skill	NAE or not specified	Total
1992	-446	-285	1,537	1,968	2,774
1993	2,710	185	222	8,460	11,577
1994	4,613	-29	356	13,538	18,478
1995	6,357	116	1,049	18,796	26,318
1996	6,891	275	1,556	18,546	27,268
1997	2,666	-666	-280	11,179	12,899
1998	-1,103	-1,946	-2,591	1,777	-3,863
1999	-3,079	-1,834	-3,488	-2,144	-10,545
2000	-4,197	-2,583	-3,108	360	-9,528
Total	14,412	-6,767	-4,747	72,480	75,378

Source: New Zealand Ministry of Treasury

Note: NAE Not Actively Engaged

As reported on table 6.I and as it can be seen from the figure 6.I, between 1998 and 2000 there has been a net outflow of people in the 3 categories. The balance highlighted by the net outflows indicates that more people have left the country compared to those who have arrived, both in highly and semi-skilled group, generating a "brain drain" from the country. The data anyhow should not be read in the light of a short span.

Infact, focussing on the category High Skilled workers on table 6.I, (which, more than the other, shows the brain drain), it goes without saying that the recent outflow registered between 1998 and 2000 is counterbalanced by the inflows acquired between 1993 and 1997, as clearly shown by Figure 1.



Moreover, not much can be said about the fourth group, the NAE - Not Actively Engaged or Not Specified. Infact this is the most important in volume and, at the saem time, the one

which showed the highest contribution to inflows in the past and a countertrend in the last two years. Who hides in the component "not specified" of this group and how big is the proportion of skilled and highly skilled people in the group, is not clear.

7. Emigration and Motivation: Who is Leaving and Why?

New Zealand has slowly but solidly conquered an important position in the global scene. It's a country that is not lagging behind. The larger cities are absorbing a lot in terms of diversity, wine bars, trendy cafes and a multitude of diverse restaurants to attract the young and trendy crowd are blossoming.

In terms of civil rights it is probably one of the most "open" and democratic country. In its parliament a Rastafarian and a transexual are elected.

Women are in all major constitutional positions and for the second time a woman is prime minister. New Zealand is also one of the first countries - in the world - to give women the right to vote, so people do not live the country for political asylum or for sexist repression.

Technology wise New Zealand is moving on fastly. Overall there has been an increase in employment in IT of 4.205 since 1990 (12..7%)¹⁵. Digital convergence is increasingly tying computer technology to telecommunications and broadcasting. Since 1992 there has been consistent growth in: computer manufacturing, telecommunications and electronic equipment manufacturing providing young talents new opportunities in challenging sectors.

New Zealand is ranked as one of the best internet savvy countries in the world, with web-sites that often reach international exposure and acclaim¹⁶.

So why does all these positives do not inspire national pride, why professional kiwis still leave? Are New Zealanders really escaping from their country?

A recent web-based survey on brain drain conducted by Auckland University Business School¹⁷ highlights that by and large the new Zealanders - who have moved to the four corners of the globe - have left relative comfort in search of new challenges and experiences, finding abroad various opportunities to apply their skills, competence and knowledge.

Highlights of the survey

- Over 900 new Zealanders responded to the web-based survey. The research has discovered that this young mobile generation is attracted by a variety of causes, from the overseas experience, the chance to earn higher wages, the need to pay back student debt and the limited career opportunities existing in their country.
- Last but not least they are also attracted by the better support that other countries give to business start-ups.
- The 900 expatriates (2/3 of which were male and 1/3 female mostly active in the IT, Finance, Sales and Consulting industries and 70% of which held a tertiary education) said that too much attention is paid to the "brain drain" while more should be done to foster

¹⁵ Ministry of Economic Development (1999) "Statistics on Information Technology in New Zealand" in www.med.govt.nz

¹⁶ Y.Adams (2002) "Hot- Brain Drain" The New Zealand Edge.

¹⁷ The University of Auckland Business School (2001) "Beyond the Brain Drain" online survey

the return of overseas skilled workers to New Zealand.

- The interviewees feel that simply relying on the excellent lifestyle in New Zealand is no longer sufficient to attract "brains" to the country.
- Over 600 respondents express their concern with the loss of skills and talents and how this loss is, will and may - even more than currently - impact the New Zealand's economy. In fact, the loss of skills often goes together with a loss in resources and, as obvious, a loss deriving from lower tax-revenues generated by high-income professionals.
- To name a few, for the respondents New Zealand will have a smaller chance to drive its companies forward and lead in the global market following the increase in the departure of highly knowledgeable professionals.
- While many respondents believe that the current state of the economy was to blame and actually be the main cause of the "brain drain", others considered the brain drain to be a significant factor in economic development in so being one of the causes undermining New Zealand's economy.
- Despite their departure the expatriates still have strong feelings and consider New Zealand to be their home. The lack of business opportunity in IT, the business sector and Venture Capital are limiting the chances for skilled workers - in these occupational classes - to work, contributing to make them leaving and most probably not returning. But why do they go?
- More than 80%¹⁸ of the respondents - to the online survey - highlighted that the level of pay is one of the reasons for leaving. A factor becoming even more relevant when a student loan has to be paid back, which makes the ratio between the wage and the student loan relevant in the decision making process.
- Some of the respondents claimed that in their new jobs overseas they can earn four times as much for the same position held in NZ. Others find it easier to advance in their career.
- A good 50% of the interviewees claimed that the chances to start a new business through tax incentives, government fundings and venture capitalist is higher and easier outside NZ.
- A relatively small percentage of respondents thought the government to be responsible for the high rate of brain drain in the country (only 20%).
- The New Zealanders who are part of the survey feel that, travelling overseas is part of a developing process and almost an inherent component of their culture.
- To travel, to go abroad is a key to growth both from a personal and a professional standpoint. The respondents to the Auckland Business School research also felt that abroad - and especially in Australia, the UK and the US - the chances to find interesting job opportunities are higher, and it's easier to increase the earning capacity. Respondents are not induced to go back to NZ due to a lack of incentives. An additional difficulty - for many of the respondents - was finding a job without work experience in New Zealand.
- Quite a significant number of the respondents (155) felt that the money is not the main reason for leaving, and that too much attention is paid to this variable, obscuring other

¹⁸ Quot. "Hot Brain Drain"

important factors driving the decision to depart.

- The research went further and investigated in the wish of the interviewees. Answering the question "what single change in government policy do you advocate" many (33%) highlighted: taxation, investment in R&D and general government support to new business venture.
- Many respondents also felt that a reduction or cancellation of student loans might be considered a key strategic factor to reduce the number of departures and to keep skilled people in the country. Others believed however that higher salaries and lower taxes would have easily helped to pay back student loans, so student loans were not considered a priority to act upon.
- Some interviewees felt that the quality of education had to be improved from a funding perspective. Some suggestions around the increase in their number of scholarships, the reduction of cost of education, free tertiary education which could help to increase the skill and knowledge base in the country, were made.
- The final question of the research aimed at capturing the respondent's perception of the future in absence of change.
- Many respondents thought that in the long term the future of NZ could be affected by the lack of skilled and professional people.
- One-third of the respondents predicted a strong decline in the country's overall business performance, followed by a further aging of population, increasing welfare costs and a declining tax base.
- Overall the 900 respondents have designed and imagined quite a difficult framework for NZ as a result of the increasing phenomenon of brain drain.
- The research discovered also that many of the respondents would go back to New Zealand one day.

New Zealand appears to be - for a large number of the younger population and increasingly so for those aged between 20 to 35 - a good place to grow-up and to retire. In those years in between, though, it often doesn't *do it* for young generations.

8. The Relations Between the Tax System and R&D

A recent article published in the Deloitte and Touche Tohmatsu web-site¹⁹ reports that New Zealand's 2001 spending on R&D was NZ\$ 473 million, the bulk of which is spent to purchase R&D outputs mainly from the public sector (Crown Research Institutes), approach which leaves the private sector with small chances to be supported in its new initiatives in R&D. The current situation seems not to be helped by the tax regime which Bradley and Wilkie describe as being more appropriate for the Industrial Age than the New Technology one.

In fact R&D expenditure can only be tax "deductible where there is direct connection between that expenditure and earning taxable income. But where the expenditure is capital in nature a

¹⁹ I. Bradley, C. Wilkie (2001) "Brain Drain - If Australia is worried, should New Zealand be terrified" in www.deloitte.co.nz

deduction will only be available"²⁰:

Through the depreciation regime, which it is accepted does not apply to all capital R&D expenditure; or

If it comes within the specific deduction allowed for "scientific research" a term that is not defined for tax purposes and the meaning of which is unclear.

Bradley and Wilkie go on defining the tax regime as unacceptable as it does not allow to deduct all the expenses private companies sustain for R&D. The Government new initiative at tax level seems not to guarantee a reverse in the current trend leaving the current situation almost unchanged.

In order to push their research forward, many private companies are either deducting their R&D costs which implies a risk of penalties and disputes with the Inland Revenue or alternatively some tax payers do misclassify R&D costs under other tax classification in their financial accounts, making impossible to quantify how much is invested in New Zealand in R&D. However, the tax system is not the only cause to have driven so much "brain" outside the country. A lack in international competitiveness in R&D is considerably affecting the quality and investment on R&D projects and so the potential to attract highly qualified researchers.

9. Government Initiatives to Attract Skilled Migrants

In a recent press release from the New Zealand Government²¹ Immigration Minister Lianne Dalziel states that "demand from skilled migrants seeking New Zealand residence is so high, the government has extended residence approvals in the general skills category by 3,500, taking the stream's total from 27,000 to 32,500".

The Minister of Immigration states - in her press release - that to foster migration of highly skilled migrants to New Zealand has been a key focus of the current government via the establishment of several initiatives.

A large number of the government's initiatives - on immigration - have blossomed after discussion at the government-business forums, some of these initiatives are the talent visa, the skill shortage initiative and the regional immigration initiative which will go live shortly. All these initiatives and proposals have contributed and will reinforce the government commitment to a balanced immigration policy, said Lianne Dalziel.²²

The Ministry of Immigration confirms that the latest migration statistics showed the first net inflow since 1997. The latest data demonstrate that in the year ending December 2001, the net inflow registered 9,700 permanent and long-term arrivals this compares with a net outflow of 11,300 departures registered on December 2000.²³

²⁰ Quot. ibidem

²¹ H.L. Dalziel (2002) Skilled migrants on the increase in www.executive.govt.nz/speech

²² Quot ibidem

²³ Quot ibidem

10. Recent Immigration Flows to New Zealand

Over the last 20 years the characteristics of flows have changed considerably²⁴. While between 1979 and the mid-80ies the number of immigrants arriving to live in New Zealand was quite steady, from 1985 a modest increase has been registered up until the early 1990s. From 1993 until early in 1996 the number of long term arrivals have increased sharply. Overall since the mid-1980s the number of overseas nationals departing have remained relatively stable and so the migration of overseas nationals has followed the same pattern as for arrivals, peaking in the 1996 March year, but subsequently declining²⁵.

In the recent years some trends can be highlighted with regards to the composition of the immigration population. Since European settlement early after the second world war, the flows from Pacific Islands constitute the second largest group.

The increase in the flows from the Pacific Islands follows the establishment of the brief visa-waiver experiment between December 1986 and February 1987, and the chance for *overstayers* to regularise their position.

Consistent immigration and new flows are registered from Asia since 1989. This is due - among other things - to the policy aiming at fostering foreign investment to the political uncertainty in Taiwan and Hong Kong and to a sharp increase in the migration from Korea.

A relevant increase has also been registered from Northern Africa and especially from South Africa (the immigration has more than doubled between 1991 and 1996) probably due to the political uncertainty following the end of apartheid and the introduction of the points system in New Zealand.

British and Irish remain the countries of origin of the largest immigrant group in New Zealand, despite all the changes registered in the immigration flows. The two ethnic groups make up to 6.7% of the resident population (Statistics New Zealand 1996).

Immigration provides today New Zealand with an opportunity to attract highly skilled people, with the knowledge and competence to foster the development of a knowledge economy.

This should be considered while defining the immigration policy so to limit barriers and impediments and easier the process of attracting high calibre people and to counterbalance the loss of New Zealand brains.

In order to increase the flows of intellectual capital to New Zealand it is strategic to help the country to become a desirable destination in the global arena.

While immigration policies have attempted to address the country's economic and labour market needs, there is some evidence that they are not working as they might.

The effects generated by the points system highlights that the immigration policy might be too slow to respond to changing conditions in the labour market and inappropriate to attract the right skilled workers.

While New Zealand experienced a rapid growth in the number of immigrants from Asian countries in the early 1990, a downturn has been registered since 1996 from countries such as

²⁴ Statistics New Zealand, External Migration, 1979-1998

²⁵ Quot. (2001) People Born Overseas Chapter 1 pag 13. In People Born Overseas

Hong Kong, Taiwan and South Korea which have traditionally supplied knowledge workers to New Zealand in the past.

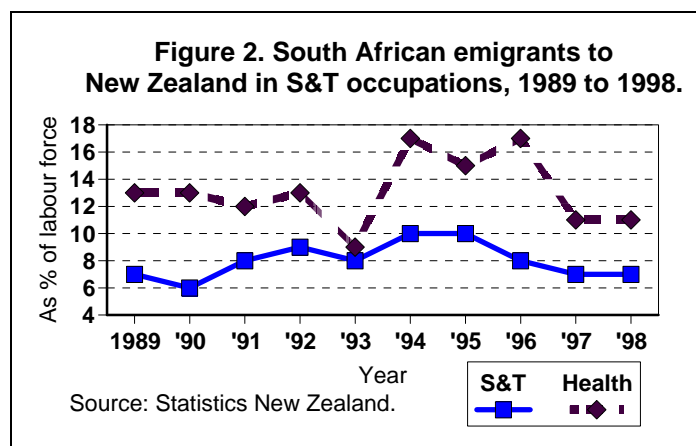
In order to increase the flows of IT workers to New Zealand the Government has recently lowered the requirements to obtain work permit emphasizing the work experience versus formal qualifications (Wells, 1999). While this is a necessary mechanism to increase the number of knowledge workers in the IT sector, still appear not to be a sufficient criteria to attract the required workers in the sector.

A recent study published by the New Zealand Ministry of Economic Development²⁶ states that because the Country pays knowledge workers relatively poorly compared to most knowledge-driven economies, knowledge workers from other countries intending to migrate or work in New Zealand must trade off high earnings against other factors. In this light a number of reasons could make New Zealand attractive to knowledge workers, namely:

- The absence of tax on capital gains compared to the US, where citizen pay 28% on federal tax and up to 5-10% state capital gains tax, if a business is sold.
- No estate duty.
- A state-of-the-art telecommunications network.
- An excellent life-style at moderately inexpensive costs.

A case of Brain Gain: The South Africans

In the recent years South Africa has provided a significant number of skilled worker to various country around the globe amongst which New Zealand.



The number of professionals emigrating from South Africa increased consistently in 1993 just before the 1994 election (Figure 2).

In New Zealand immigration from South Africa - for the groups observed - registered a significant increase immediately before the 1994 political elections and rebalanced or fallen off right after that date. Overall during the last decade an estimated 10,000 South African

²⁶ Quot. (1999) Ministry of Economic Development *Statistics on Information Technology in New Zealand*, www.med.govt.nz

working in the S&T and Health and Medicine emigrated.

Let us do a short diversion in our narrative path, to focus on the South African situation. In a recent article D. Kaplan²⁷ states that the emigration of graduates is lowering GDP by 0.37% per annum and that R 67.8 billion of investment in human capital left South Africa in 1997. Beside the export of human capital, emigration also results in the export of real and financial assets²⁸.

The decrease in supply of skilled workers, as a result of consistent flows has determined an increase in the price/wage of qualified personnel in the country.

The large outflows of skilled emigrants from South Africa can be partially counterbalanced by an organised use of their scientific and humanistic diaspora. For Meyer and Brown²⁹ (1999) this strategy is used by 35 countries/region in the globe. Meyer thinks that human capital is not wasted through physical mobility but is multiplied by the socio-professional networks that may be mobilised through individual expatriates (Meyer et al, 1997)³⁰. SANSa, a South African Network of Skills Abroad was established at the end of 1998 following this vision. More than 1800 members, spread in 57 countries are part of SANSa. SANSa's skills are accessible via IT networks

11. What Opportunities are Generated from the Brain Drain? Is New Zealand Profiting?

The case of sansa introduces a question: how it is possible to benefit from brain drain? What can New Zealand learn from other countries and from its intellectual diaspora. In 2001 Bedford³¹ argued that "rather than focusing solely on the apparent brain drain, one should work towards a remote mobilisation of New Zealanders abroad (the diaspora), an approach essentially based on the idea that any country could benefit from connectivity and networking".

How is this possible, what is the rest of the world doing? In 1999 Meyer and Brown identified 41 knowledge networks around the globe. The identified networks have the goal to create connectivity and exchange of skills and knowledge between the intellectual diaspora and the home country. While many countries such as Colombia, Taiwan, France and Ireland have active networks, none was identified for New Zealand.

But what is the level of success of these networks, and how do we assess whether they are successful? As pointed out by Meyer and Brown to claim success of the network - as a form of measurement which highlights the contribution that they have provided to the development of the source country - is not an easy task.

The forms of exchanges that occur between the network and the source country - at various levels - are not always measurable from a statistical point of view and they can produce indirect benefits in the long term which might be difficult to be attributed to the network.

²⁷ D.Kaplan, J.B. Meyer, M.Brown (2001) "*Brain Drain: New Data, New Option*"

²⁸ Quot. ibidem

²⁹ J. Meyer and M.Brown (1999) "*Scientific Diasporas: A New Approach to the Brain Drain*". Management of Social Transformations Discussion Paper Series - No. 41.

³⁰ Meyer et al (1997) "*Turning Brain Drain into Brain Gain: the Colombian Experience of the Diaspora Option*". Science, Technology and Society, vol.2, no.2

³¹ R.Bedford (2001), "*Reflection on the Spatial Odysseys of New Zealanders*" Unpublished conference paper.

As connectivity happens via e-mails, exchange of data, virtual chat rooms, etc. and often the results of what was initially an informal conversation might result in high value products as often happens with bright ideas, one could wonder and argue whether it is really important to assess the value and the quality of networks from a traditional and empirical point of view.

Increasingly so the establishment of international networks is perceived as a real need in New Zealand and is becoming part of the academic and public debate.

In the proposal written for the Tertiary Education Advisory Commission, Wilson, Gracewood, Easter, Peet, Ellery and TePunga Sommerville have suggested a web-based "brain trust" to access and to use to best effect the New Zealand's intellectual diaspora. The system is composed of two parts, namely: a voluntary directory of expatriate New Zealanders a comprehensive one-stop shopping offering information about opportunities in New Zealand for smart people.

The researchers think that this system "will encourage the flow of skills and knowledge amongst the expatriate community and New Zealand as well as being useful in linking expatriate New Zealanders (and talented others) with employment opportunities in New Zealand for smart people"³².

The first part of the proposed system - the directory - could be designed so to have an interdisciplinary nature, it would extend beyond the borders of academia and the professions and would offer a single point of contact for searchers. One could imagine, for example, a New Zealand company seeking accounting representation in the US and searching in the directory under New Zealanders working in American accounting firms, so to identify accountants who are familiar with both the New Zealand and the American accounting systems.

This network could be integrated with a "one-stop shop" that collates information about research, funding, networking, and "smart industry" opportunities in New Zealand. Putting all the relevant information in one place will not only provide easier access for people both at home and overseas.

12. A Closer look at Brain Drain

Although the focus of this paper has been on the loss of New Zealand talents for the benefit of foreign economies, it could be useful to look at the phenomenon with a wider and deeper perspective with a view to understand the implications of the loss of intellectual capital. It seems that studies and researches mainly focus on the "drain" of those streams of people who have left New Zealand. This is just part of the all picture. There are certainly other equally important phenomena which are not described or named as "brain drain" but which certainly are, namely:

- mature students who resign from their course of studies due to the high costs and the long time to pay back loans;
- the high tuition costs, specially in certain subjects such as law and medicine which become an impediment for low and middle income people;
- the loss of students within the humanities and pure science who are no longer perceived

³² Quotation M. Wilson, J. Gracewood, R. Easter, A. Peet, M. Ellery, A. TePunga Somerville (2000) "*Submission to the Tertiary Education Advisory Commission*".

by students or employers relevant to a "knowledge economy"

- the weak offer of post-graduate courses at times and/or via methods convenient for professionals and business people who wish to stay plugged into the new trends and novelties in their fields.

These phenomena do certainly contribute to the loss of brain within the New Zealand's economy and strongly affect its overall performance. The brain drain should so be addressed and looked at following a wider analysis of the phenomenon and with a view to understand, to interpret and to find solutions which are capable of addressing the overall picture and not simply some part of it.

13. Conclusions

Is brain drain a real problem for NZ? In general despite the fact that there seems to be no convincing evidence of a brain drain, this does not mean that the New Zealand should not activate to create the professional and living conditions to attract the highly skilled, a statement that acquires an even more important meaning when the New Zealand current reality is mirrored with that of its competitors in the Pacific.

New Zealand must respond to the increasing competition in the international labour market for high skilled people. In order to do so New Zealand should focus on increasing its attractiveness by improving its economic position versus its competitors.

This strategy should be jointly played by the Government and other sectors of the economy, one way of which is to raise - at all levels - the overall efficiency and productivity. This will allow organisations to pay higher salaries so to attract the high-skilled.

The use of newer and more challenging technologies can also play a fundamental role in attracting the high skilled.

However New Zealand is - and will probably still be - a country of destination for so many people gravitating in the Pacific and presumably, even a more passive way of dealing with brain drain, will still contribute high skilled people to the country, who will move to New Zealand simply for the good living conditions, the marvellous scenery, the low level of pollution, so simply marketing New Zealand might help.

The brain drain could also be dealt with by mobilising the New Zealand diaspora so to benefit from connectivity and networking.

14. References

- D. Kaplan, J.B Meyer, M. Brown (2001) "*Brain Drain: New Data, New Option*"
- H. Glass, W.K. Choy (2001) "*Brain Drain or Brain Exchange*" Ministry of Treasury - New Zealand, working paper 01/22
- M.Wilson (2002) "*Working conditions, not taxes, the problem with New Zealand*" in www.het.brown.edu
- New Zealand Now (2002) "*People Born Overseas*"
- World Competitiveness Report (1999)
- Y.Adams (2002) "*Brain Drain*", The New Zealand Edge
- Y.Adams (2002) "*Doing for themselves what their country cannot do for them*", The New Zealand Edge
- M. Shevland (1999) "*Recent external Migration Flows of Skilled New Zealand Workers*", unpublished report, New Zealand Ministry of Education.
- Ministry of Economic Development (1999) "*Statistics on Information Technology in New Zealand*" in www.med.govt.nz.
- The University of Auckland Business School (2001) "*Beyond the Brain Drain*" online survey
- I.Bradley, C.Wilkie (2001) "*Brain Drain - If Australia is worried, should New Zealand be terrified*" in www.deloitte.co.nz
- H.L. Dalziel (2002) "*Skilled migrants on the increase*" in www.executive.govt.nz/speech
- Statistics New Zealand, External Migration, 1979-1998.
- New Zealand Now (2001) "*People Born Overseas*"
- R.Bedford (2001), "*Reflection on the Spacial Odysseys of New Zealanders*", Unpublished conference paper.
- M.Wilson, J.Gracewood, R. Easther, A.Peet, M.Elleray, A. TePunga Somerville (2000) "*Submission to the Tertiary Education Advisory Commission*".
- The New Zealand Herald (2002), "*Getting expat Kiwis on the network*", Editorial
- J. Lidgard (1994), "*Return Migration of New Zealanders: A profile of 1990 Returnees*", New Zealand Journal of Geography, April.
- J.Lidgard, R.Bedford (1999), "*New Zealand's International Migration System at the end of the 20th Century: Review and Prospect*" New Zealand Population Review, Vol. 25.