



New Zealand  
Immigration Service  
*Te Ratonga Menene*

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Immigration Research Programme

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**Astronaut Families and Cosmonaut  
Couples**

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# **Astronaut families and cosmonaut couples**

## **1 Executive Summary**

### **1.1 Introduction**

“Astronaut migration” is a migration pattern first identified in the 1980s and refers to migrants who, after taking up residence, spend lengthy periods out of New Zealand. Typically, astronauts are believed to return to their country of origin to work or do business, leaving their spouses and children in New Zealand. “Cosmonaut migration” refers to childless migrants who engage in astronaut-like practices.

### **1.2 Objectives**

The objectives of the research were to determine the incidence and character of astronaut and cosmonaut migration to New Zealand. The project was undertaken in two parts. The first was a quantitative analysis of the time migrants spent out of New Zealand after taking up residence. The second was a review of the literature on astronaut migration.

### **1.3 Methods**

The quantitative research tracked the movements of a cohort of General Skills and business migrants approved for residence between 1 July 1997 and 31 December 1997. The proportion of time members of migrant families had spent out of New Zealand since taking up residence was calculated.

### **1.4 Findings and limitations**

The main finding was that while many migrants spent some time out of New Zealand, few with families were out of New Zealand for extended periods. The number of people included in applications appeared to be inversely proportional to the incidence of astronaut migration. The finding that the incidence of astronaut and cosmonaut migration was low needs to be considered within the context of a number of limitations. First, the analysis only included families and couples where all applicants in the residence application took up New Zealand residence. Second, during the latter part of the 1990s, measures to discourage the formation of astronaut families were introduced. Finally, the behaviour of a cohort of migrants approved for residence in 1997 may, or may not, be generalisable to subsequent cohorts.

## **1.5 Families**

About a third of children from two-parent families had at some point been in New Zealand with only one parent. Of those who had, the vast majority had been without a parent for very brief periods. Similarly, a quarter of children from one-parent families had been in New Zealand without a parent, again for relatively short periods. There were no significant differences in time out between selected nationalities.

## **1.6 Couples**

Migrants without children generally spent more time out of New Zealand. Members of over half the couples without children had been in New Zealand without their partners. The proportion varied with nationality. For example, about 80 percent of members of Pacific couples had spent time alone in New Zealand compared with 24 percent of Indian couples.

## **1.7 Singles**

Three-quarters of single migrants had spent time out of New Zealand since taking up residence. There was little difference between the selected nationalities.

## **1.8 Principal applicants**

Principal applicants' time out of New Zealand was also examined. The analysis of this differed from the others in that the time principal applicants were out of New Zealand included periods when other family members were also out. Further, due to the small size of groups, only the principal applicants of two-parent families were reported on. About 12 percent (78 principal) of these spent more than 80 percent of their time out of New Zealand since taking up residence. Over 25 percent of Asian (excluding Chinese and Indian) principal applicants, 18 percent of Chinese and 16 percent of Indian, 14 percent of European, 8 percent of United Kingdom and 7 percent of South African fell into this category.

## **1.9 Literature review**

Part two of the project reviewed the literature on astronaut migration. Very little literature was found. Most of the work had been done on ethnic Chinese migration and drew on data sets such as the 1986 and 1991 censuses and surveys. The research reviewed variously suggested that between 25 and 45 percent of Chinese migrant families were astronauts. Astronaut families formed in a number of ways. Some were by choice, while others were forced when migrants were not able to find suitable employment or business opportunities in New Zealand. The literature postulated that

astronaut families could be seen as a recent manifestation of the historical pattern Chinese family dispersal. Globalisation was also mentioned as a cause of astronauts.



# 1 Astronaut families and cosmonaut couples

## 1.1 Introduction

“Astronaut migration” is a migration pattern first identified in the 1980s and refers to migrants who, after taking up residence, spend lengthy periods out of New Zealand. Typically, astronauts are believed to return to their country of origin to work or do business while leaving their spouses and children in New Zealand<sup>1</sup>. The small amount of literature existing on the subject suggests that astronaut migrants tend to be from North Asia and that the practice is a consequence of an array of factors, including migrants’ inability to find suitable employment in New Zealand. To begin assessing the astronaut phenomenon, this research provides information on the incidence and characteristics of astronaut migration. A literature review of research on astronaut families was undertaken to augment the quantitative analysis.

## 1.2 Structure of the report

The research in this report is presented in two parts. The first is a quantitative analysis of New Zealand Immigration Service (NZIS) administrative data aimed at establishing the incidence of astronaut migrants and families, while part two is a literature review of recent research into astronaut migration. Part One of the report outlines the research objectives, followed by the methodology used, an overview of the analysis, a discussion of limitations of the research and the findings. In part 2 a review of literature about astronaut families is provided. The report finishes with a conclusion and appendices containing a detailed account of the methodology and data tables.

## 1.3 Background

The NZIS has been aware of astronaut migration for some time, however, the Service has not previously attempted to quantify its incidence. Scheduled changes to Returning Residents Visa (RRV) policy - which may promote astronaut migration - have created a new urgency to scope the incidence of astronaut migration<sup>2</sup>. The changes were to grant migrants indefinite RRVs as soon as they take up residence. The extant policy makes indefinite RRVs available only to migrants who display a level of commitment to New Zealand. “Commitment” has been variously defined for

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<sup>1</sup> Ho, Bedford and Goodwin (1997) Asian New Zealanders, Research on New Migrants, Aotearoa/New Zealand Migration Research Network, Research No. 3, Department of Sociology, Massey University Albany.

<sup>2</sup> The objectives of RRVs are: to protect the interests of New Zealand citizens and other people living permanently in New Zealand; to encourage those granted residence to show a commitment to New Zealand; and to assist the government in border control. In practice, migrants are given a two-year RRV upon taking up New Zealand residence and may qualify for subsequent or an indefinite RRV if certain residence conditions are met.

operational purposes as being present in New Zealand for a certain amount of time and/or enjoying New Zealand tax residence status. From 1995, to qualify for an indefinite RRV, migrants were required to either:

- have been in New Zealand for an aggregate of 184 days in each of the preceding two years; or
- have been in New Zealand for 41 days or more in each of the previous years and had been assessed as having New Zealand tax residence status during this time.

As stated above, astronaut migration refers to migrants who spend significant amounts of time offshore. Child migrants left with one or no parents in New Zealand are denoted “parachute” children. “Cosmonauts” are childless couples and individuals who have migration patterns similar to astronaut families. Astronaut outcomes may not be those intended in immigration policy - for example, parachute children may incur a greater than anticipated fiscal cost to New Zealand if their parents are not present to pay New Zealand taxes.

Astronaut families were first identified among Hong Kong and Taiwanese migrants. Families from North Asia are believed to form astronaut families in greater proportions than migrants from other regions. There is no consensus in the literature about the incidence and causes of astronaut migration. Early results from experimental work with a Statistics New Zealand synthetic database based on the 1986 census suggested that while a proportion of children of migrant families were in New Zealand without their parents, very few of them were living alone. Four surveys undertaken into recent Asian immigration to New Zealand reported astronaut families as accounting for between 25% and 45% of their samples.

The question of whether new migrants become astronauts by choice, or with reluctance because they unable to find suitable employment or business opportunities in the host country, is raised in the literature. A study in Auckland found that of their sample, most astronauts were aged 40-49 and only 15% were female. A majority of astronauts from Hong Kong were self-employed, while astronauts from Taiwan were made up equally of self-employed and salary earners. Three-quarters of astronaut spouses were not in the work force.

Another Auckland survey revealed that a large majority of that sample of migrants from Asia had RRVs, which allowed them multiple entry to New Zealand for up to four years after their initial arrival. The first return trip of these migrants was made soon after initial arrival, and an average number of return trips for those who had made at least one trip, was four.

The literature discusses Chinese emigration history and suggests that astronaut families may be a modern development not inconsistent with Chinese migration

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<sup>4</sup> CM Research, 1999, Migrants’ and Parents’ Experiences of Sponsoring, Elsie Ho, Richard Bedford, Joanne Goodwin, 1997 Astronaut Families: A Contemporary Migration Phenomenon.

Elsie Ho, Richard Bedford, Joanne Goodwin, 1999.

Pe-Pua, Mitchell, Iredale, Castles, 1996, Astronaut Families and Parachute Children: The Cycle of Migration between Honk Kong and Australia, Bureau of Immigration, Multicultural and Population Research.

patterns of the past. Furthermore, Asian astronaut families can perhaps best be understood as one manifestation of the increasing globalisation of economy and society.



## 2 Quantitative Objectives

The aim of the quantitative analysis was to establish whether astronaut migration to New Zealand was occurring and if it was, then to determine who the astronauts were. For example, by identifying demographic characteristics and the nationality of astronauts and cosmonauts. The specific objectives were:

- 1) To determine the time migrants spend in and out New Zealand after taking up residence; and
- 2) To determine the incidence of astronaut families in New Zealand.

### 2.1 Methodology

Quantitative analyses of NZIS Management Information System (MIS) data were the main methods used. The movements of a cohort of General Skills and Business migrants, who were approved for residence between 1 July 1997 and 31 December 1997, were tracked over a period of up to two and a half-years. The period started with the date when each migrant first took up residence in New Zealand to February 2000<sup>5</sup>. The periods each of the migrants had spent in, and out, of New Zealand were then calculated. Using online information from the migrants' residence applications, families were imputed and the time family members had spent out of New Zealand were also computed. This allowed a wide range of astronaut-incidence configurations to be identified. The analysis was complex and involved five computer programs. These were: Impromptu, SAS, Maple, Access and Excel. It was necessary to exclude from the analysis records that were not amenable to imputation. The effect was that only people in applications where all applicants arrived in New Zealand were analysed (See Appendix A for the detailed methodology).

### 2.2 Analysis

People and application units approved for residence, under the General Skills and Business policies, were the units of analysis. Several types of units were derived from the client numbers, ages and genders associated with each residence application. They were:

- Two-parent families;
- One-parent families;
- Couples without children; and
- Single migrants without children.

The other main variables taken into account were:

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<sup>5</sup> General Skills and Business migrants were selected as it seems unlikely that social migrants, such as parents and spouses, would form astronaut families.

<sup>6</sup> People approved under the 1991 General and Business policies were also included.

- the cumulative length of time migrants had been in New Zealand;
- the cumulative time migrants had spent out of New Zealand since taking up residence;
- the time parents, children and partners had been in and out of New Zealand together and apart; and
- nationality.

The time people were out of New Zealand is given in the data tables in the format as shown below. Time out was classified into seven bands to allow the extent of any astronaut migration to be gauged. The nationalities and region groupings used were: China, United Kingdom, India, South Africa, Asia, North America, Europe, Pacific and Other.

**Classification 1: The time out of New Zealand and nationalities and regions classifications**

0%	1-10%	11-20%	21-40%	41-60%	61-80%	>=81
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**2.3 Limitations of the quantitative findings**

It is not unlikely that the patterns identified in this research are specific to the cohort of migrants studied and may not be generalisable to previous subsequent cohorts. The window for movements was a maximum of two-and-a-half years – the period NZIS’s MIS has been running. It is conceivable that had a longer period been available, different findings may have emerged.

Because the research used administrative data, there are limitations in quality of some of the information. For example, inconsistencies in entering the marital status of migrants into NZIS’s Application Management System (AMS) were detected. As a consequence a system for imputing marital, or relationship, status was developed. Inevitably, there will be errors in the imputation.

Children were said to be dependent when they were aged 17 years or younger. It is likely that some children under 17 were not dependent and some older were.

Policies designed to minimise astronaut family formation were introduced in 1995 and later years. While it is not feasible to control for incremental policy changes, it is useful to interpret the findings of the study in light of the policy settings of the day.

Finally, the research in this report establishes the incidence of astronaut and cosmonaut migration. It is beyond the scope of this project to interpret whether a given incidence amounts to a “problem”.

### 3 Quantitative findings

#### 3.1 Introduction

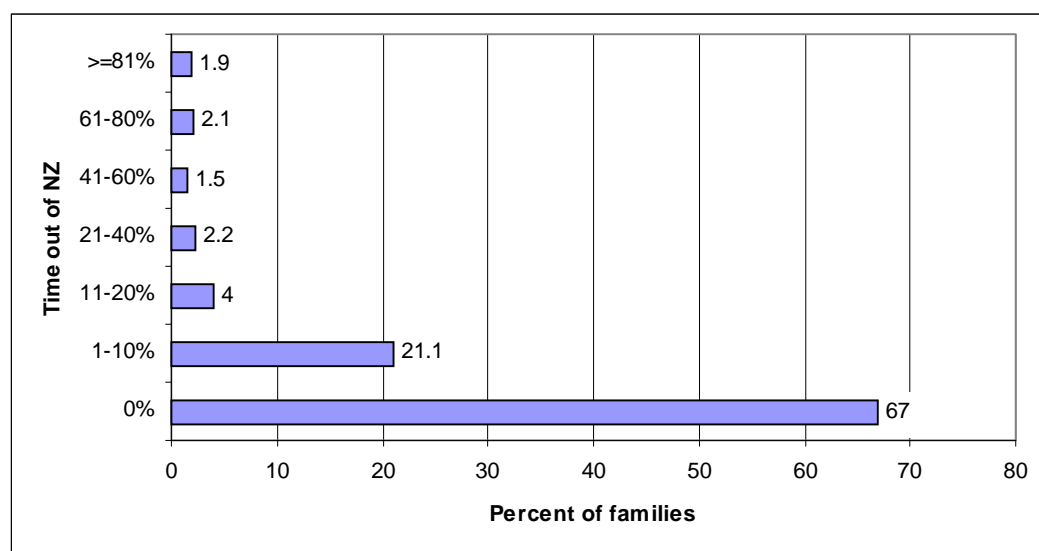
The incidence of astronaut migration in four groupings of migrants was examined. The groups were:

- *Classic astronaut families*, two-parent families with children aged 17 years or under, where one parent spends a proportion of time out of New Zealand without their family;
- *Arrant astronauts*, families with one or two parents and children aged 17 or under, where all parents spend a proportion of time out of New Zealand without their family;
- *Cosmonaut couples*, couples where one of a couple spends a large proportion of time out of New Zealand while the other is in; and
- *Cosmonauts*, single migrants who spend a large proportion of time out of New Zealand.

#### 3.2 Classic astronaut families

In total, a third of children in two parent families had for a time been in New Zealand while one parent was elsewhere. Figure 1, below, shows that the majority of these had been without a parent for between 1 and 10 percent of their total time in New Zealand. Less than 4 percent of children, or 27 families, had been without one parent for greater than 60 percent of the time. There were only some minor variations from the overall pattern between the various nationalities.

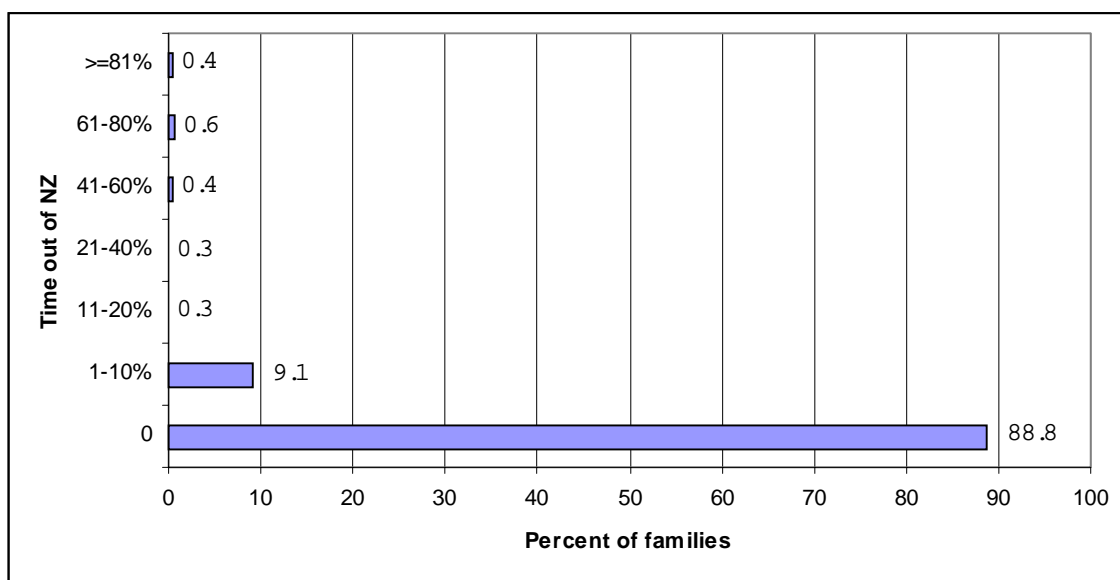
**Figure 1 Two-parent families: the percent of time one parent was out of New Zealand while others are in (N = 667 families)**



### 3.3 Arrant-astronaut families

Eleven percent of children in two-parent families had experienced a period when both of their parents were out of New Zealand at the same time. Figure 2, below, shows that for 9 percent of families, the proportion of time children were without both parents was 10 percent or less. Fewer than 2 percent, or 7 families, had no parents present for over 60 percent of the time. The differences by nationality were not significant, amounting to differences of 1 or 2 families.

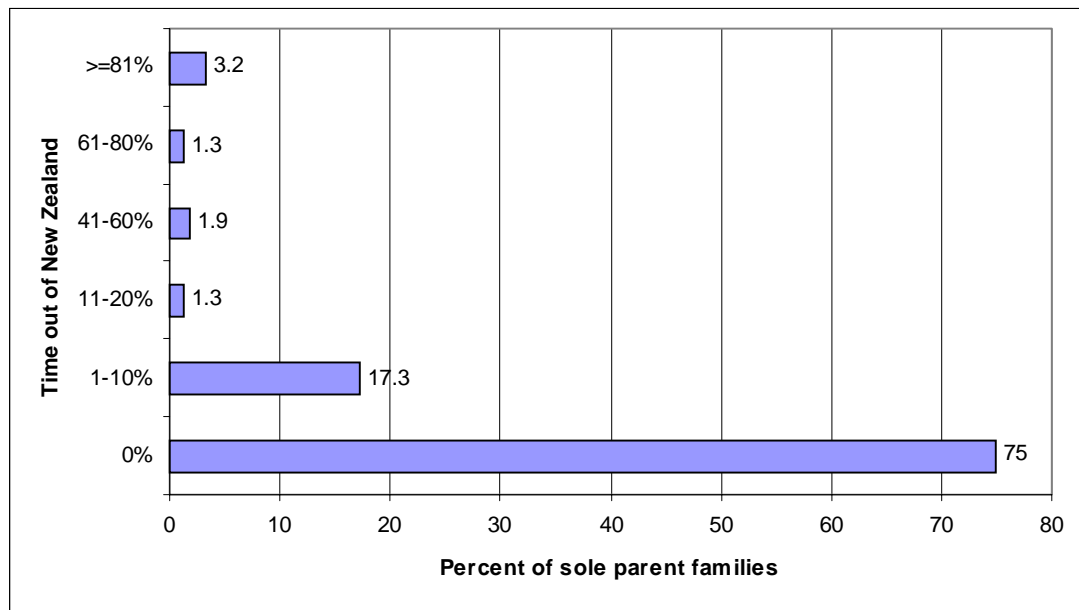
**Figure 2 Two-parent families: the percent of time two parents were out of New Zealand while their child(ren) were in (N = 667 families)**



### 3.4 Single parent arrant-astronaut families

A quarter of the children in single parent families had been in New Zealand without their parent. Figure 3 shows that the majority of those without a parent in New Zealand, were alone for periods of between 1 and 10 percent of the total period their family had been resident in New Zealand. Over 3 percent, or 7 families, had been left alone for over 80 percent of the same period. Again there were very minor differences by nationality.

**Figure 3 Single parent families: the percent of time the parent was out of New Zealand while child(ren) were in (N = 156 families)**

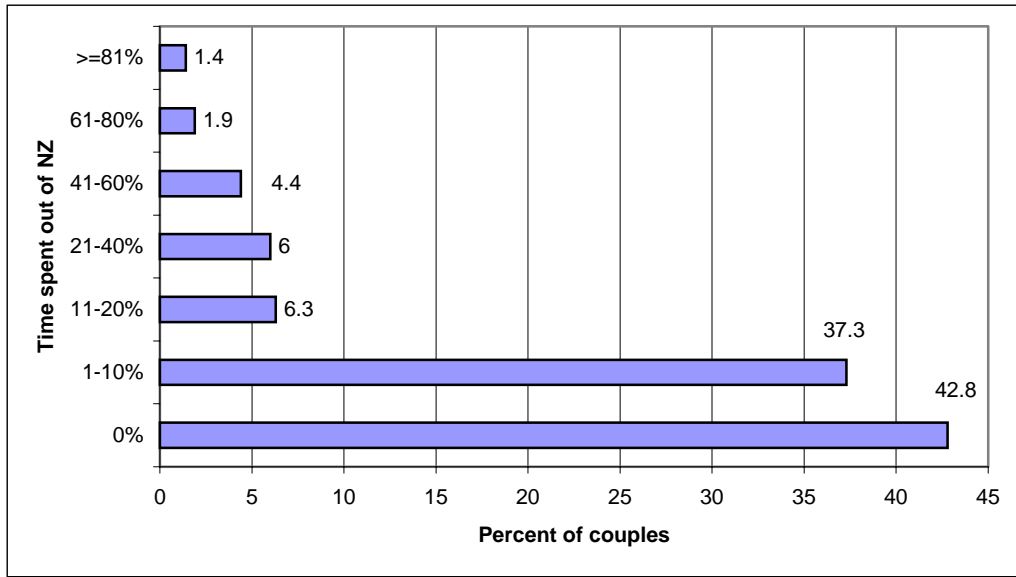


### 3.5 Cosmonaut couples

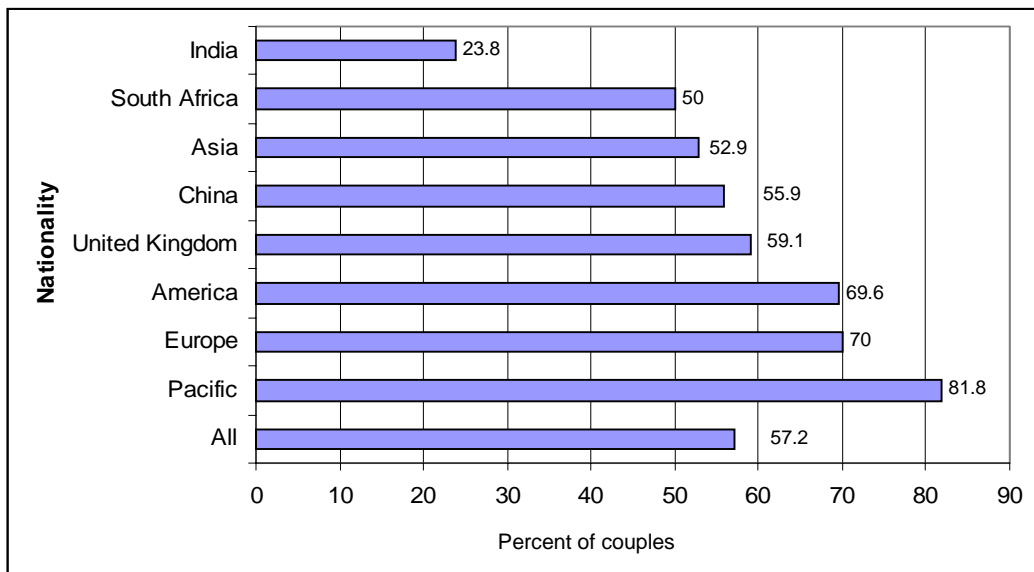
Fifty-seven percent of couples without children had spent time apart, where one member was in New Zealand and the other overseas. Most of such periods apart had been for between 1 to 10 percent of the time since the couple had taken up New Zealand residence. Figure 4, below, shows that only 3 percent, or 12 couples, had spent over 60 percent of the time apart.

The proportions of couples spending time apart varied considerably by nationality. Figure 5 shows that 60 percent of United Kingdom couples had spent some time apart, while only 24 percent of Indian couples had been apart.

**Figure 4 Couples without children: the percent of time one person in the couple was alone in New Zealand (N = 367)**



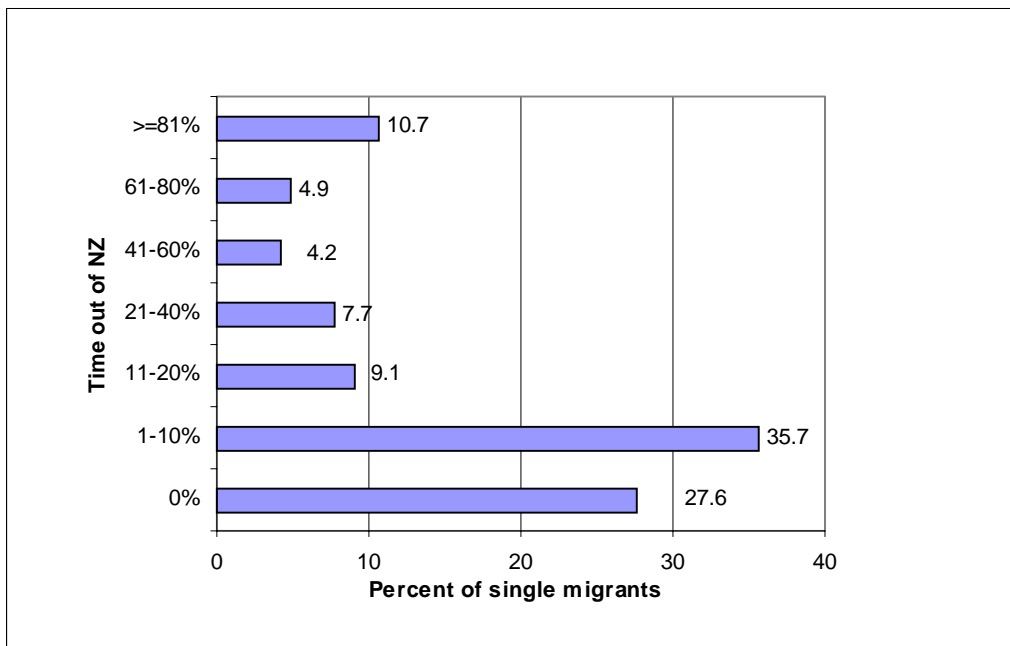
**Figure 5 Couples with no children: The time either member was left alone in New Zealand for any percent of time (N = 367) [The "Other" category was excluded from this table as it equalled 0]**



### 3.6 Single cosmonauts

Over 70 percent of single migrants spent some time out of New Zealand after taking up residence. Thirty-six percent had been out of New Zealand for between 1 and 10 percent of their time as residents, while 16 percent were out for over 60 percent of the period.

**Figure 6 Single migrants: the percent of time spent out of New Zealand since taking up residence (N = 997)**



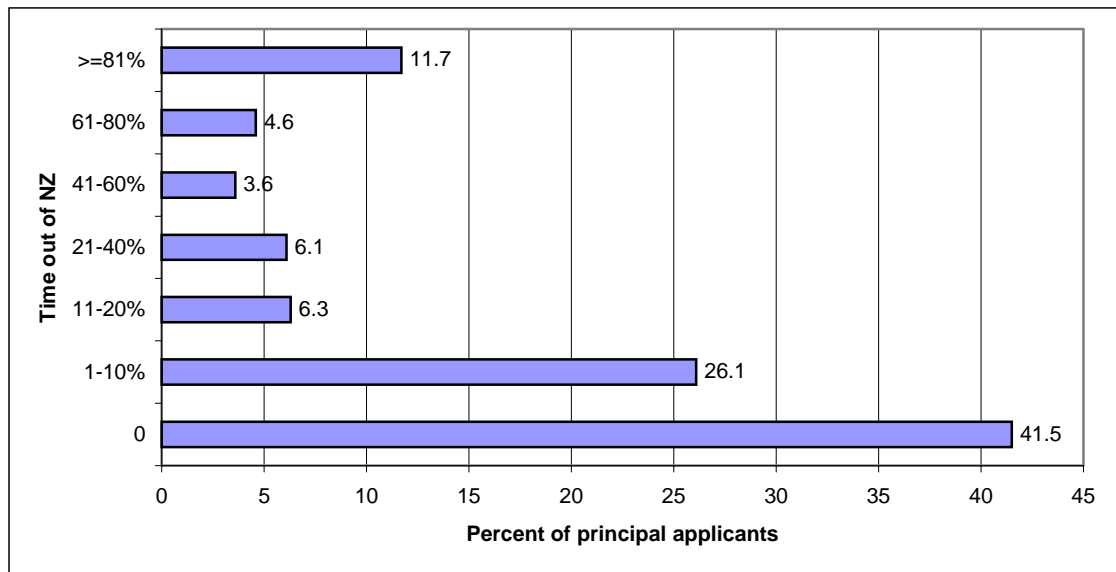
The incidence of time spent overseas after taking up residence varied with nationality. For example, 61 percent of single migrants from India spent time away from New Zealand, in comparison with 80 percent of United Kingdom migrants.

### 3.7 Principal applicants

This section examines the time principal applicants of two-parent families spent out of New Zealand. Other family types have not been included in this section because the numbers were insufficient for a meaningful analysis. Unlike the previous sections, the time out in this analysis includes time when family members accompanied the principal applicants.

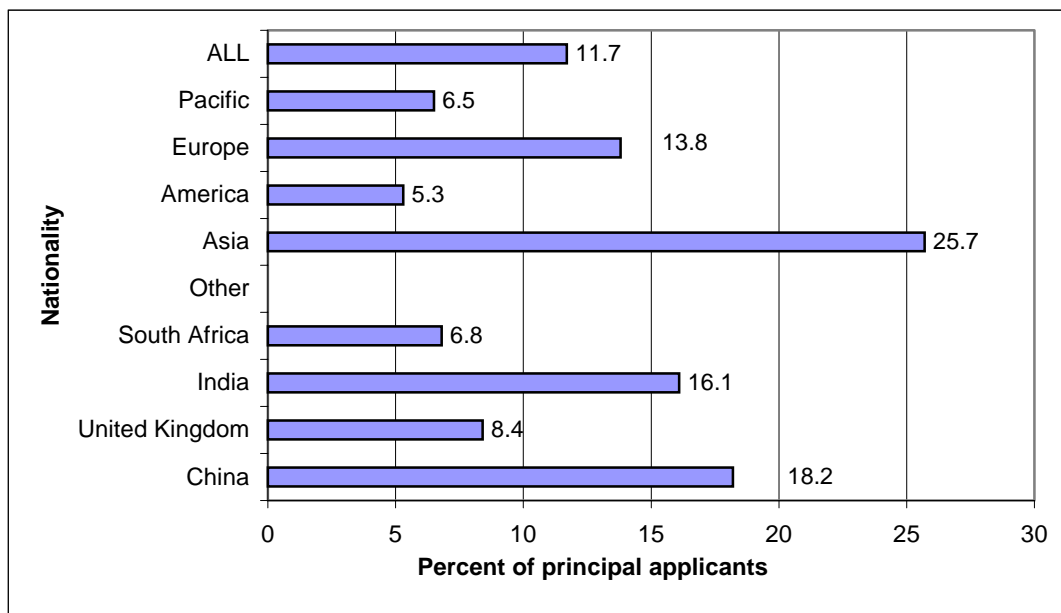
Figure 7, below, shows that 16 percent (109) of the principal applicants of two-parent families spent over 60 percent of their time since taking up residence out of New Zealand.

**Figure 7 Couples with children: the time principal applicants spent out of New Zealand (N = 667)**



Almost 12 percent of principal applicants had been out of New Zealand for over 80 percent of the time. Figure 8 gives a breakdown of these 78 people by their nationalities. There appear to be marked differences by nationalities, however, the scale of each nationality must be taken into account. For example, the 27 percent of Asian principal applicants amounted to 26 people, while the 7 percent of South Africans represented 15 people.

**Figure 8 Couples with children: the proportion of principal applicants spending over 80 percent of their time out of New Zealand (N= 592)**



## 4 Part 2 Literature review on astronaut families

### 4.1 Introduction

This section provides a review of literature dealing with astronaut migration. Reflecting the volume of, and directions in, the literature, the review is brief and focuses on Asian astronauts.

### 4.2 Definitions

The term “astronaut families” was coined by the Hong Kong mass media to describe contemporary dispersed, middle-class, nuclear families. Astronaut families often begin with one spouse and children settling in a host country while the other spouse, usually the husband continues with his business in Hong Kong, periodically shuttling between the two places.<sup>7</sup> An associated concept, “parachute kids” refers to children left in the new host country without one or both of their parents.<sup>8</sup> Australian researchers further classify astronaut families into three types:

*“Reluctant astronauts”*: families that originally intend to settle permanently in the host country but then change their plans, usually because of difficulties in finding employment or establishing a business. The aim is that one day the returnee will permanently rejoin the family.

*“Willing astronauts”*: families that intend part of the family to settle permanently in the host country while one or more members continue working or doing business in their country of origin. The astronauts shuttle back and forth to maintain family bonds, but the long-term intention is for the whole family to return to the host country when and if circumstances allow.

*“Ambivalent astronauts”*: families who intend some members to settle permanently in the host country while other family members return permanently to the country of origin<sup>9</sup>

### 4.3 Asian immigration and the prevalence of astronaut families

The influx of Asian migrants to New Zealand from the mid-1980s was stimulated both by major changes in New Zealand’s immigration policy as well as by economic, social and political “push” factors in the countries of origin. The 1987 Immigration Act removed New Zealand’s legislated preference for migrants from the traditional source countries, such as the United Kingdom, and established that the selection of new migrants would be on the basis of personal merit without discrimination on the grounds of race, national or ethnic origin.<sup>10</sup> Rapidly rising incomes, asset inflation, pollution and social stress increased emigration from Taiwan. In Hong Kong the

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<sup>7</sup> Kwok Bun Chan

<sup>8</sup> Ho et al 1997

<sup>9</sup> Pe-Pua et al 1996 p65

<sup>10</sup> Review of Immigration Policy 1986 cited in Beal and Sos pg 53

nervousness about the Colony's return to Chinese sovereignty in July 1997 seems to have been the major "push" factor to explain the increase in emigration in the early 1990s.<sup>11,12</sup>

The new immigration policies were designed to attract highly educated, skilled professionals and relatively wealthy entrepreneurs. The prevalence of astronaut families in New Zealand is difficult to determine. Everyone arriving in or departing from New Zealand is required to complete an Arrival or Departure card, which is collected by Customs Officers and coded by Statistics New Zealand. However, for reasons of privacy, arrival and departure information cannot be matched to individuals and therefore gives only a crude measure of movements in and out of the country.<sup>13</sup>

Experimental work undertaken by the Migration Research Team at the University of Waikato used a synthetic database created by Statistics New Zealand from the 1986 Census, analysed it with the Supercross package and found that it is possible to identify "parachute kids" and link them with their families. These researchers found that while 17 percent of "Hong Kong children" in New Zealand in 1986 were not living with their parents, only 0.6 percent of them were living alone<sup>14</sup>.

Ho and her colleagues found indirect evidence for the presence of astronaut families through examining the 1991 census data.<sup>15</sup> When analysing the age-sex structure of the Hong Kong Chinese population in Auckland, these authors found a strong dominance of females in the 20-49 age groups. They believe these figures indicated the presence of astronaut families headed by females while the male was back working in Hong Kong. Their finding that 46 percent of the Hong Kong Chinese population in Auckland was under 20 years of age, compared with 29 percent in this age cohort in the Hong Kong population, suggested to them the presence of "parachute kids" in Auckland.<sup>16</sup>

While surveys may not be a reliable way to establish prevalence, four surveys undertaken into recent Asian immigration in New Zealand reported astronaut families as 25 percent<sup>17</sup>, 30 percent<sup>18</sup>, 31 percent<sup>19</sup> and 45 percent<sup>20</sup> of their samples respectively. Ho and her colleagues' note that these figures are likely to be under-representations as families may be reluctant to participate in such surveys when the head of the household is absent.

New Zealand is not the only country to experience astronaut families of Hong Kong Chinese. Estimates from official surveys undertaken in Hong Kong suggest that at least 12 percent of those who left in the 10 years before 1992 may have returned.<sup>21</sup>

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<sup>11</sup> Beal and Sos 1999 p51

<sup>12</sup> Skeldon 1995

<sup>13</sup> Ho et al 1997

<sup>14</sup> Ho et al 1997

<sup>15</sup> Ho and Farmer 1994 cited in Ho et al 1997

<sup>16</sup> Ho et al 1997

<sup>17</sup> Lidgard 1996, cited in Ho et al 1997

<sup>18</sup> Friesen and Ip 1997

<sup>19</sup> Boyer 1996, cited in Ho et al 1997

<sup>20</sup> Ho 1996 cited in Ho et al 1997

<sup>21</sup> Skeldon 1995

#### 4.4 “Willing” or “reluctant”

The question of whether new migrants become “astronauts” by choice, or because they cannot find suitable employment or business opportunities in the host country, is raised in the literature. From their survey of astronaut families in Sydney, Pe-Pua and her colleagues concluded that for many of their sample the original intention was to live and work in Australia. However, the relatively poor conditions of employment in Australia compared with Hong Kong, encouraged some of them to return to Hong Kong.

Beal and Sos in their discussion of Taiwanese immigration to New Zealand say that many migrants misinterpreted the points system, and did not understand the autonomy of the professional bodies which regulated entry into various occupations. They write:

Consequently many immigrants were denied access to employment opportunities commensurate with their qualifications. The lack of recognition of their skills in New Zealand by professional bodies, combined with a lack of English skills and unfamiliarity with the New Zealand culture and business practices resulted in unemployment and underemployment of many professional immigrants.<sup>22</sup>

Friesen and Ip have a similar view and comment that it is not surprising that highly qualified and skilled people look for transnational opportunities if they fail to find them, or are unable to access them, in New Zealand.<sup>23</sup>

#### 4.5 Demographic profile

A survey conducted in ten Auckland secondary schools in 1995 collected information from Hong Kong Chinese, Taiwanese, and Korean immigrant children, and their parents. Four-hundred and forty-one students returned survey forms, a response rate of 77 percent. The response rate for parents was much lower with 124 (28 percent) returning survey forms. Two items in the student questionnaire were used to determine whether the student might be a “parachute kid”. The students were asked whether their mother and father both lived in New Zealand for most of the time in a year, and if not living with their parents, what their living arrangements might be. Less than half of the students from the Hong Kong and Taiwanese groups were living most of the time with both parents. Of the 56 families identified by the researchers as astronaut families, 35 were from Hong Kong (52 percent of the 67 respondent families from Hong Kong), 18 from Taiwan (46 percent of the 39 respondent families from Taiwan), and 3 from Korea (17 percent of the 18 respondent families from Korea). As astronaut families from Korea were under-represented, they were excluded from the demographic analysis. The researchers found that of the others, most astronauts were aged 40-49 and only 15 percent were female. A majority of astronauts from Hong Kong were self-employed; astronauts from Taiwan were made

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<sup>22</sup> Beal and Sos 1999 p56

<sup>23</sup> Friesen and Ip 1997

up equally of self-employed and salary earners. Three-quarters of astronaut spouses were not in the work force.<sup>24</sup> An Australian study of 60 astronaut families yielded a similar profile.<sup>25</sup>

#### 4.6 Patterns of return

Friesen and Ip reported on a sample of 375 self-selected primary migrants from Asia resident in Auckland in 1996. They found 83 percent of their sample had RRVs, which allowed them multiple entry to New Zealand for up to four years after their initial arrival. Three-quarters of respondents had made at least one return trip. The average number of return trips for primary migrants was three, or four for those who had made at least one trip. The most common reasons given for the trips were “holiday” or “visiting relatives”, followed by reasons related to business activity.<sup>26</sup> The Australian survey of 60 Hong Kong Chinese astronaut families in Sydney found that in these families 55 of the principal applicants had returned to Hong Kong to continue work or business. Twenty-nine spouses also returned to Hong Kong. Fifty-one of the principal applicants returned to Hong Kong within four months of arrival in Australia. The pattern of time spent in Hong Kong and Australia varied considerably. Thirty-nine of the principal applicants spent the majority or all of their time in Hong Kong; 20 spent school holidays in Australia; 17 visited Australia about twice a year; one rarely visited and one had never returned. The majority of spouses spent more time in Australia than in Hong Kong, and only 10 of 129 children were classed as returnees.<sup>27</sup>

#### 4.7 Issues

The literature reviewed for this report includes some comment on, but little hard evidence of, the potential costs and benefits of the astronaut phenomenon. However, it does raise several issues for discussion. For the Chinese, migration and family dispersal is not a new phenomenon, and has occurred before both in response to adverse conditions in the country of origin as well as new opportunities in host countries. Commentators note that some appreciation of the history of Chinese migration is important to an understanding the astronaut phenomenon.<sup>28, 29</sup> Skeldon discusses the concept of “sojourner”, a word commonly used to describe Chinese temporarily away from their homeland who continuously thought of returning to China. Sojourners may or may not have been a uniquely Chinese phenomenon, but throughout history it has been a distinguishing feature of Chinese population movement. Skeldon writes that the sojourner concept is important to understanding Chinese migration today:

Thus has the modern sojourner evolved: the person who commutes or circulates over long distances with place of residence in Canada

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<sup>24</sup> Ho et al 1997

<sup>25</sup> Pe-Pua et al 1996

<sup>26</sup> Friesen and Ip 1997 p11

<sup>27</sup> Pe-Pua et al 1996

<sup>28</sup> Chan

<sup>29</sup> Skeldon 1994

or Australia but place of business in both North American and Asian (or other) locations. This scenario can also apply to the highly paid professionals and even bureaucrats who have technically “settled” in Canada but continue to work in Hong Kong.<sup>30</sup>

A recurring theme in the literature on Asian astronaut families is the part that migration has to play in the globalisation of economy and society. Skeldon asserts that the concept of “astronauts” challenges some long held and deeply felt beliefs about the association of people and place. He writes:

The idea that immigrants move to a new country to stay there and eventually become citizens is pivotal to the spirit of the immigration philosophies of the main settler societies.<sup>31</sup>

He goes on to question whether such beliefs are still viable:

Yet the realities, particularly in the age of a global economy, are different. In an era when money can flow from Hong Kong, Toronto or Sydney at the touch of a button, it hardly seems logical to expect business or professional people to restrict their movements.<sup>32</sup>

Pe-Pua and her colleagues express similar views:

Globalisation is leading to much greater and more complex flows of capital, commodities, information and ideas in all directions. Movements of people are closely linked to these flows. The revolution in transport and communications means that even long-distance migrations are no longer irreversible and absolute steps. It is easy for immigrants to keep in touch with their country of origin and to move frequently between sending and receiving countries. Moreover, it is possible to maintain social and economic activities and relationships in both countries. In other words it is now possible to be an active member of two (or more) different societies.<sup>33</sup>

Friesen and Ip describe the benefits of transnational networks in this way:

The networks of overseas Chinese facilitate successful investment projects around the world and are based on a range of social relationships which reflect ethnic loyalties and considerations but which transcend the nation state.<sup>34</sup>

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<sup>30</sup> Skeldon 1994

<sup>31</sup> Skeldon 1995 p12

<sup>32</sup> Skeldon 1995 p12

<sup>33</sup> Pe-Pua et al 1996 p68

<sup>34</sup> Freidsen and Ip 1997 p11



## 5 Conclusion

The objectives of this research were to establish the prevalence and character of astronaut and cosmonaut migration to New Zealand. The quantitative part of the study focussed on the time people spent out of New Zealand since taking up residence. The main finding was that while many migrants spent some time out of New Zealand, few were out of New Zealand for extended periods. Families with children had the lowest incidence of astronaut migration of all the groupings analysed.

Only about a third of children from two-parent families had at some point been in New Zealand with only one parent. Of those who had, the vast majority had been without one parent for very brief periods. Similarly, a quarter of children from one-parent families had been in New Zealand without a parent, again for relatively short periods. There were not significant differences in time out between selected nationalities. It should be noted that children in New Zealand without parents were not necessarily entirely alone. They could for example be living with other caregivers such as an older sibling, other relatives or boarding.

Migrants without children generally spent more time out of New Zealand. Members of over half the couples without children had been alone in New Zealand without their partners. Three-quarters of single migrants had spent time out of New Zealand since taking up residence. There was little difference between the selected nationalities.

Principal applicants' in two-parent families time out of New Zealand was also examined. About 12 percent of these spent more than 80 percent of their time out of New Zealand since taking up residence. It should be noted that this analysis included periods when other parents were also out of the country.

Part two of the project reviewed the literature on astronaut migration. Very little literature was found. Most of the work had been done on ethnic Chinese migration and drew on data sets such as the 1986 and 1991 censuses and surveys. The research reviewed variously suggested that between 25 to 45 percent of Chinese migrant families were astronauts. Astronaut families formed in a number of ways. Some were by choice, while others were forced when migrants were not able to find suitable employment or business opportunities in New Zealand. The literature postulated that astronaut families could be seen as a recent manifestation of the historical pattern Chinese family dispersal. Globalisation was also mentioned as a cause of astronauts.

A number of limitations apply to this research. First, the quantitative analysis only included families and couples where all applicants in the residence application took up New Zealand residence. Second, during the latter part of the 1990s, the NZIS introduced measures to discourage the formation of astronaut families. The measures may have dampened any tendencies to become astronauts or cosmonauts. Finally, the behaviour of a cohort of migrants approved for residence in 1997 may not be generalisable to subsequent cohorts.

The quantitative part of this project does not provide many clues as to why astronaut and cosmonaut migration occurs, although it does supply a reasonably sound indication of the incidence. It is clear that astronaut and cosmonaut migration is

practised by migrants of all nationalities, and is not confined to Asian migrants alone. It is of note that the astronaut incidence figures produced in previous research tended to be higher than those in this report. One explanation for the discrepancies could be that different populations were sampled. Also the research undertaken by the NZIS was based on the movements of migrants rather than small surveys or secondary data-sets.

## 6 References

- Beal T and Sos F, 1999, Astronauts from Taiwan Asia Pacific Research Institute.
- Chan KB, 1997, A family affair: Migration, dispersal and the emergent identity of the Chinese cosmopolitan, in *Diaspora*.
- Freisen W and Ip M, 1997, New Chinese New Zealanders: Profile of a transnational community in Auckland, In *East Asian New Zealand Research on New Migrants*, Aotearoa New Zealand Migration Research Network, Paper No 3 1997, Department of Sociology, Massey University, Albany.
- Ho E, Bedford R and Goodwin J, 1997, Astronaut families: A contemporary migration phenomenon, in *East Asian New Zealand Research on New Migrants*, Aotearoa New Zealand Migration Research Network, Paper No 3 1997, Department of Sociology, Massey, University Albany.
- Pe-Pua R, Mitchell C, Iredale C and Castles C, 1996, Astronaut families and parachute children: The cycle of migration between Hong Kong and Australia, Centre for Multicultural Studies, University of Wollongong.
- Skeldon R, The population connection, *People and Places*, 1995, Vol. 3 No 2 9-15.
- Skeldon R (ed), 1994, Reluctant Exiles? Migration from Hong Kong and the new overseas Chinese, Hong Kong University Press.



## 7 Appendix A Methodology

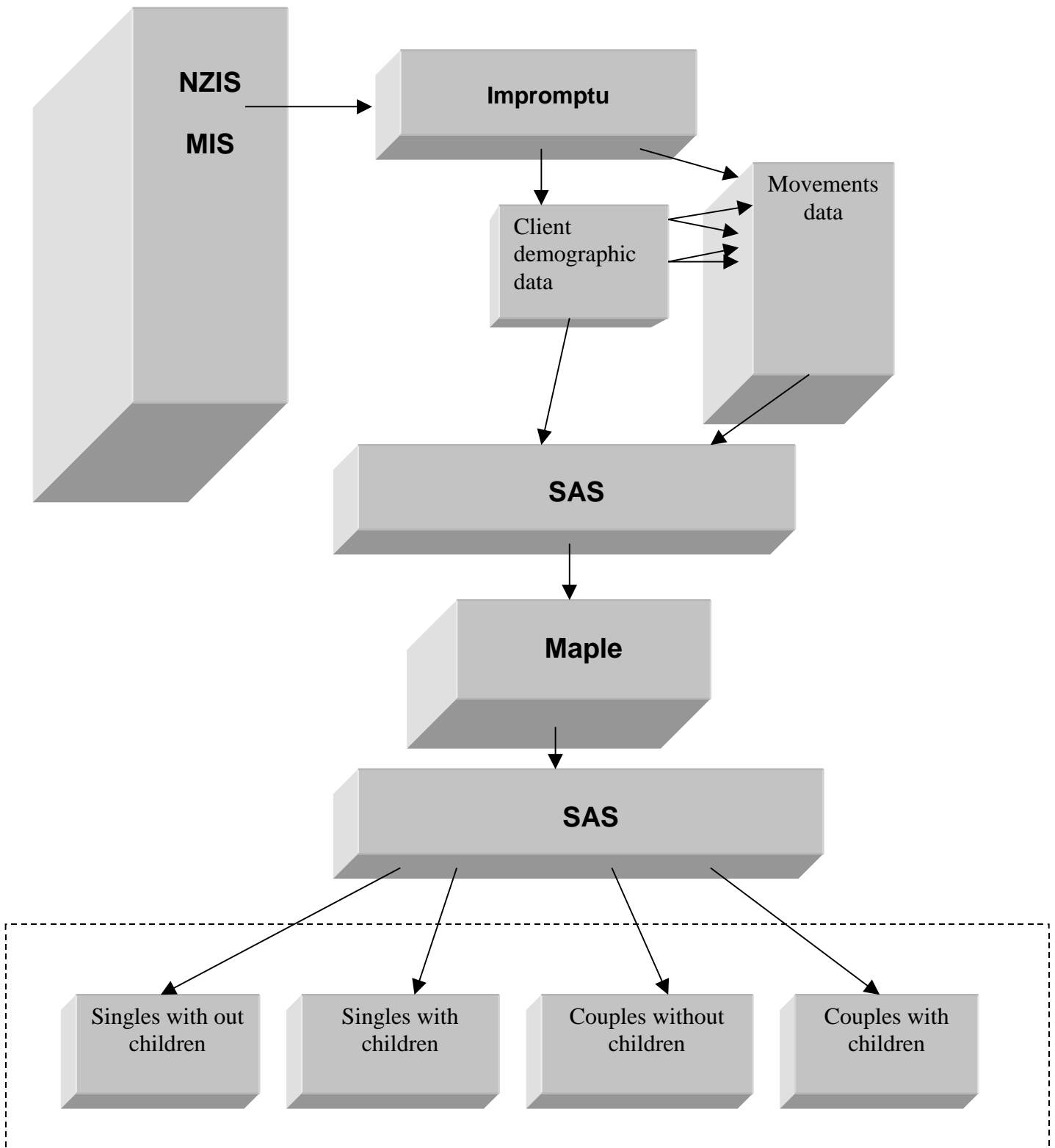
Diagram 1, below, is a representation of the process used to create the data set for the quantitative analysis. A number of steps were involved:

- I. NZIS's MIS was queried with Impromptu to get the client numbers of all people approved for residence under the Business and General Skills policies between 1 July 1997 and 31 December 1997.
- II. Two further Impromptu queries were written and run. The first picked up the demographic characteristics of the people identified in the first query, while the second retrieved the same peoples' movement in and out of New Zealand. The results of these queries were saved to a .csv – comma delimited files.
- III. The .csv were concatenated in SAS and two further files were created: pmove.txt and astros.txt. pmove.txt gave the time since taking up residence of every person in the data set. Some imputation of arrival date was required so that time out of New Zealand could be calculated.
- IV. The astros.txt was loaded into Maple, which analysed time out, by family type. These were couples with children, single parent families, couples without children, and single migrants. It was necessary to impute marital status, so that a “family” type analysis could be undertaken for each person in the data set. These four files were the basis for the quantitative findings.

There some limitations in the data sets, that should noted:

- I. Only people residence applications where all applicants listed on the original application actually arrived in New Zealand were included.
- II. Unresolvable inconsistencies resulted in a proportion of people being excluded from the analysis.

**Diagram 1 Data extraction and analysis process**



## 8 Appendix B Data Tables

**Data Table 1 Two-parent families: the proportion of time one parent was out of New Zealand while the children are in with one parent**

Nationality	Time out of New Zealand since taking up residence															
	0		1-10		11-20		21-40		41-60		61-80		81-100		100	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
China	28	63.6	4	9.1	2	4.5	2	4.5	2	4.5	3	6.8	3	6.8	44	100
UK	100	64.5	43	27.7	4	2.6	3	1.9	1	0.6	4	2.6	.	.	155	100
India	41	73.2	7	12.5	6	10.7	1	1.8	1	1.8	.	.	.	.	56	100
SA	163	73.8	43	19.5	5	2.3	3	1.4	2	0.9	.	.	5	2.3	221	100
Other	8	72.7	2	18.2	.	.	.	.	.	.	1	9.1	.	.	11	100
Asia	62	61.4	18	17.8	6	5.9	3	3	3	3	4	4	5	5	101	100
America	6	31.6	9	47.4	3	15.8	.	.	.	.	1	5.3	.	.	19	100
Europe	21	72.4	5	17.2	.	.	2	6.9	.	.	1	3.4	.	.	29	100
Pacific	18	58.1	10	32.3	1	3.2	1	3.2	1	3.2	.	.	.	.	31	100
ALL	447	67	141	21.1	27	4	15	2.2	10	1.5	14	2.1	13	1.9	667	100

**Data Table 2 Two-parent families: the proportion of time both parents were out of New Zealand while the children are in**

Time out of New Zealand since taking up residence																
	0		1-10		11-20		21-40		41-60		61-80		81-100		100	
Nationality	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
China	42	95.5	1	2.3	.	.	.	.	1	2.3	.	.	.	.	44	100
UK	136	87.7	17	11	.	.	.	.	.	.	2	1.3	.	.	155	100
India	54	96.4	2	3.6	.	.	.	.	.	.	.	.	.	.	56	100
SA	199	90	19	8.6	.	.	.	.	.	.	.	.	3	1.4	221	100
Other	11	100	.	.	.	.	.	.	.	.	.	.	.	.	11	100
Asia	86	85.1	9	8.9	1	1	1	1	2	2	2	2	.	.	101	100
America	14	73.7	4	21.1	1	5.3	.	.	.	.	.	.	.	.	19	100
Europe	26	89.7	3	10.3	.	.	.	.	.	.	.	.	.	.	29	100
Pacific	24	77.4	6	19.4	.	.	1	3.2	.	.	.	.	.	.	31	100
ALL	592	88.8	61	9.1	2	0.3	2	0.3	3	0.4	4	0.6	3	0.4	667	100

**Data Table 3 Single parent families: the proportion of time parents out of New Zealand while the children were in**

Time out of New Zealand since taking up residence														
	0		1-10		11-20		41-60		61-80		81-100		100	
Nationality	n	%	n	%	n	%	n	%	n	%	n	%	n	%
China	10	62.5	3	18.8			.	.	1	6.3	2	12.5	16	100
UK	13	68.4	5	26.3	1	5.3	.	.			.	.	19	100
India	13	81.3	2	12.5	.	.	.	.			1	6.3	16	100
SA	43	87.8	5	10.2	.	.	.	.			1	2	49	100
Other	3	100	.	.	.	.					.	.	3	100
Asia	18	64.3	7	25	.	.	2	7.1			1	3.6	28	100
America	2	100	.	.	.	.					.	.	2	100
Europe	7	70	1	10			1	10	1	10	.	.	10	100
Pacific	8	61.5	4	30.8	1	7.7	.	.			.	.	13	100
ALL	117	75	27	17.3	2	1.3	3	1.9	2	1.3	5	3.2	156	100

**Data Table 4 Couples without children: the time one member was out of New Zealand while other was in**

Time out of New Zealand since taking up residence																
	0		1-10		11-20		21-40		41-60		61-80		81-100		100	
Nationality	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
China	15	44.1	10	29.4	2	5.9	2	5.9	3	8.8	2	5.9	.	.	34	100
UK	52	40.9	54	42.5	6	4.7	6	4.7	5	3.9	2	1.6	2	1.6	127	100
India	16	76.2	5	23.8	.	.	.	.	.	.	.	.	.	.	21	100
SA	29	50	17	29.3	5	8.6	5	8.6	.	.	.	.	2	3.4	58	100
Other	.	.	2	100	.	.	.	.	.	.	.	.	.	.	2	100
Asia	24	47.1	15	29.4	4	7.8	5	9.8	2	3.9	1	2	.	.	51	100
America	7	30.4	11	47.8	2	8.7	.	.	2	8.7	1	4.3	.	.	23	100
Europe	12	30	16	40	4	10	3	7.5	3	7.5	1	2.5	1	2.5	40	100
Pacific	2	18.2	7	63.6	.	.	1	9.1	1	9.1	.	.	.	.	11	100
ALL	157	42.8	137	37.3	23	6.3	22	6	16	4.4	7	1.9	5	1.4	367	100

**Data Table 5 Couples without children: the proportion of time principal applicants spent out of New Zealand**

Time out of New Zealand since taking up residence																
	0		1-10		11-20		21-40		41-60		61-80		81-100		100	
Nationality	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
China	14	41.2	5	14.7	3	8.8	2	5.9	2	5.9	1	2.9	7	20.6	34	100
UK	27	21.3	52	40.9	11	8.7	13	10.2	7	5.5	5	3.9	12	9.4	127	100
India	13	61.9	2	9.5	.	.	2	9.5	1	4.8	.	.	3	14.3	21	100
SA	23	39.7	19	32.8	5	8.6	3	5.2	1	1.7	1	1.7	6	10.3	58	100
Other	.	.	2	100	.	.	.	.	.	.	.	.	.	.	2	100
Asia	15	29.4	13	25.5	2	3.9	2	3.9	4	7.8	2	3.9	13	25.5	51	100
America	4	17.4	8	34.8	2	8.7	5	21.7	1	4.3	.	.	3	13	23	100
Europe	13	32.5	14	35	4	10	2	5	4	10	1	2.5	2	5	40	100
Pacific	2	18.2	8	72.7	.	.	.	.	.	.	1	9.1	.	.	11	100
ALL	111	30.2	123	33.5	27	7.4	29	7.9	20	5.4	11	3	46	12.5	367	100

**Data Table 6 Singles: the proportion of time single cosmonauts were out of New Zealand**

Time out of New Zealand since taking up residence																
	0		1-10		11-20		21-40		41-60		61-80		81-100		100	
Nationality	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
China	29	31.2	17	18.3	15	16.1	10	10.8	6	6.5	6	6.5	10	10.8	93	100
UK	58	19.8	139	47.4	31	10.6	29	9.9	9	3.1	13	4.4	14	4.8	293	100
India	34	39.1	18	20.7	7	8	6	6.9	3	3.4	4	4.6	15	17.2	87	100
SA	41	31.3	57	43.5	7	5.3	4	3.1	6	4.6	5	3.8	11	8.4	131	100
Other	6	30	5	25	1	5	1	5	.	.	3	15	4	20	20	100
Asia	47	27.5	53	31	11	6.4	12	7	10	5.8	9	5.3	29	17	171	100
America	16	30.8	11	21.2	3	5.8	8	15.4	1	1.9	4	7.7	9	17.3	52	100
Europe	27	30.7	30	34.1	11	12.5	2	2.3	5	5.7	4	4.5	9	10.2	88	100
Pacific	12	28.6	19	45.2	3	7.1	3	7.1	1	2.4	.	.	4	9.5	42	100
ALL	270	27.6	349	35.7	89	9.1	75	7.7	41	4.2	48	4.9	105	10.7	977	100