# Immigrant Job Hunting, Labour Market Experiences, and Feelings about Occupational Satisfaction in New Zealand: An Exploratory Study

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We investigated how an integrated model of often under- or un-employed immigrants' (a) job-hunting behaviours pre-interview, (b) positive behaviours used at interview, (c) cognitive flexibility, (d) acculturation style, and (e) acculturation 'fit' between (d) and employers' preferred style of acculturation for immigrants to adopt, predict how close immigrants come to finding full employment; and how this proximity to full employment may relate to broader feelings about occupational life. Seventy predominantly skilled immigrants to New Zealand provided indices of (a) to (d) through a sample survey, whilst (e) was measured with the added assistance of 20 experienced recruitment agencies, interviewed by telephone. Path analysis suggested that feelings about occupational life are related to proximity to full employment, which is itself predicted by a combination of (a) and (d), but not (b), (c) or (e). Links between proximity to employment and feelings about occupational life in New Zealand were unexpectedly negative, but only moderately stable. Our findings may challenge some of the received wisdom in the vocational literature, but are nonetheless consistent with implicit prejudice from prospective employers, and with a lived vocational experience of relative deprivation amongst immigrants themselves.

The world today is increasingly characterised by movement of people and skill, via professionally skilled emigrants and immigrants, from one economy to another (Carmon, 1996). New Zealand is, hypothetically, part of this knowledge exchange, in that skilled immigrants are encouraged to enter the country through a system of points awarded for qualifications, years of on-job experience, and professional qualifications (New Zealand Immigration Service, 2002). Yet such initiatives lose their value if the same immigrants face barriers to full (i.e., appropriate) employment, for instance through prejudice and discrimination, once they arrive here and as such cannot fully use their skills

(Carr, 2004). Our research explores such challenges in the employment market psychologically, through the eyes of immigrants themselves. We also include observations from the perspective of potential employers. Principally however, we seek to identify (i) subjective barriers and facilitators to full employment, and (ii) how the human factors and perceptions in (i) may relate to feelings about occupational life in New Zealand.

## Highly Skilled Immigrants

Globally, under-employment and unemployment of immigrants is relatively common, even when they are highly skilled (International Labour Organization, 2004). Immigrant under-

employment and unemployment like this is now widely recognised in the global context, and in the substantial literature on migration and development economics, where it is termed "brain" waste" (Mahroum, 2000). In Canada for example, Aycan & Berry (1996) found that only 30.9% of their skilled immigrants from Turkey had found satisfactory work, with 36.4% being unemployed and 32.7% currently underemployed. In New Zealand, Oliver (2000) found over half of a sample of 39 professional immigrants had lowered their occupational status after moving to New Zealand, even after undertaking further occupational training. In a further New Zealand study, only 35% of skilled immigrants from Asia were in full time employment, 13% were in part time employment, 10% were in self-employment, and 42% were unemployed, after 2 years in the country (Chan, 2001). Even after a skilled job is found, New Zealand research by Winkelmann (1998) has found income differentials remain between immigrant workers and their New Zealand born counterparts.

Census data in New Zealand also reveals that immigrants often (a) have lower labour force participation than the New Zealand born population (particularly amongst immigrants from Asia and the Pacific), and also (b) tend to earn less income than New Zealand born employees (New Zealand Immigration Service, 2003). In the report, which also includes direct survey data from employers themselves, the labour market disadvantage is clearest for immigrants whose country of origin is somewhere other than Europe, South Africa or North America (termed, "ESANA"). The same comparative preferences are highlighted by the empirical study in Winkelmann (2000). Thus unemployment and underemployment may be serious issues in New Zealand, particularly amongst non-ESANA immigrant groups (for supporting qualitative data on this broad issue in the New Zealand context, Atkins & Fletcher, 2003; and, Firkin, Dupuis, & Meares, 2004).

#### Refugees and Asylum Seekers

In an increasingly global economy, mobility is becoming a privilege of the relatively highly skilled and educated (Carmon, 1996). Within a knowledge economy, countries are increasingly behaving like organizations (Atkins, 2003), or "Nations Inc," as they seek competitive advantage by recruiting the world's best talent to their ranks in the global economy (OECD, 2002). In New Zealand, for example, since the introduction of a points system (in 1991), many of the immigrants to our shores have ipso facto been relatively highly skilled and occupationally wellqualified. Yet it is important to note that not all immigrants to New Zealand are highly skilled and qualified. This is notably so when immigrants enter the country on humanitarian grounds, i.e., as refugees and asylum seekers, rather than through the skill-based points system (Gray & Elliot, 2001). Reflecting this broader pattern of immigration to New Zealand, and indeed within the wider global community in general, our study includes the experiences of a range of immigrants, from relatively low to highly skilled.

## A proposed model

According to leading figures in the field of migration, the psychology of immigrant integration is best organised around three key domains: Affect; behaviour; and cognition (Ward, Bochner & Furnham, 2001). These three principal domains of psychological process form a conceptual and theoretical basis for our model of job-hunting experiences, which is depicted in Figure 1 (after Atkins, 2003). The model in Figure 1 is highly exploratory. The model does however have a clear conceptual focus. This focus is centred upon the application of theoretical constructs within an applied setting of employment, for a particular group of widely skilled people: Immigrants to New Zealand.

## Affect

In Figure 1, affect is represented by feelings about occupational satisfaction in New Zealand. We know that migration is an emotionally upheaving process (Pedersen, 1995). A major component of that upheaval is finding work that suits one's qualifications and experience, or full employment (e.g., Abbott, Wong, Williams, Au, & Young, 1999). This process of finding work, and in particular work that fits one's talents and experience, influences occupational wellbeing (Hart & Cooper, 2002). A central underlying component of occupational wellbeing is affective. incorporating mood items such as anger, anxiety, and boredom (van Horn, Taris, Schaufeli, & Schreurs, 2004). Thus in our study, we decided to make the affective consequences of immigrant labour market experiences, and specifically measures related to mood, the principal criterion.

## Proximity to full employment

This is defined as finding a job that matches one's qualifications and experience. In a major overview of the psychometrics of vocational biases against immigrants in general, a conceptual distinction is made between

"access discrimination," i.e., at the entrance to organizations per se, and "treatment discrimination," which refers to immigrants being kept at a level below their talents, experience, or performance (Evers & van der Flier, 1998). Each of these two concepts reflects a lack of closeness - or acquired proximity - to full employment, that can have consequences for our criterion variable above, i.e., occupationallyrelated affect. In a major review of access discrimination for instance, it was shown that unemployment has negative consequences for affective mood, for example lowered self-esteem and mood depression (Fryer & Fagan, 2003). Under-employment can be a lifestyle choice for some people, but for others like immigrants, it can be an imposition - a form of treatment discrimination - with harmful affective consequences. Those harmful consequences are particularly likely for people who have been employed at a higher level, but are later compelled to accept lower status jobs (reflected as affective strain in a study of former executives by Feldman, Leana & Bolino, 2002). Promises broken by a negative mismatch between expectation and occupational outcome, has been found amongst immigrants to New Zealand (Abbott et al, 1999). In Abbott et al's study, major predictors of poor adjustment following migration to New Zealand were unemployment and expectations not being met, with underemployment being an additional risk for

Figure 1. An Integrative Model of Immigrant Job-Hunting (All linkages are positive)



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migrants resident for two years or less (for a relatively global review of broken promises in the context of immigration, see for example, Carr, 2004; for a vivid and moving case analysis of the broken promise, Chan, 2001).

Taking such findings to a logical conclusion, Figure 1 proposes that proximity to full employment (conceptually defined in terms of both unemployment and underemployment - i.e., access and treatment discrimination) will impact on feelings about occupational satisfaction in New Zealand. Specifically, and as indicated in the Figure 1 legend, we expect that greater proximity to full employment will be linked with increased positive feelings about occupational satisfaction in New Zealand (for an operational definition of proximity, see Materials [Guttman scaling procedures] below).

## Behaviour

(a) Pre-interview. According to the literature, proximity to finding employment will be influenced by the behaviours used prior to job interviews. These behaviours fall into three broad and interrelated categories (Huffman & Torres, 2001): Informal job searching methods (e.g., utilising networks); formal job searching methods (e.g., answering newspaper advertisements and approaching employment agencies); and direct approach methods (such as contacting potential employers in person). Each of these methods has been shown to add to the prospect of finding a job (Kanfer, Wanberg & Kantrowitz, 2001; Mau & Kopishchke, 2001 and McLachlan, 1999). Thus from Figure 1, and our review above, proximity to finding a job can be expected to be partially predicted by the utilisation of appropriate pre-interview behaviours. These behaviours have been widely identified in the literature, as well as textbooks (both industrial/ organizational, or "I/O" psychology, and vocational behaviour), as likely to boost the chances of securing a position (for examples, see Method, below). From Figure 1, the greater the number of such behaviours being used, the greater the chance there will be of gaining appropriate employment.

(b) Interview behaviours. If a potential employee's application has interested

the would-be employer, they may be granted an interview. Behaviours at interview play a major part in determining the outcome of the job attainment process, for example nonverbal behaviours in unstructured interviews (Anderson, 1992). Other factors influencing interview outcomes include physical appearance, grooming, dress, intelligence, skill, gender and ethnicity (Gatewood & Field, 1998). Whilst some of these factors are essentially unchangeable (e.g., gender and ethnicity), the current research study explores how some of the more freely chosen attributes (i.e., behaviours and skills) may or may not help to secure full employment, at interview, for immigrants. From the literature, and as reflected in Figure 1, proximity to finding employment will be partially predicted by the extent to which the immigrant adopts certain pre-specified interviewee behaviours. The interviewee behaviours chosen were identified from the job interview literature, and textbooks on this subject, as being either appropriate or not appropriate to display at and during a job interview. An example of such behaviours is making eye contact with an interviewer or interview selection panel (for a detailed review of these factors, Anderson, 1992; Carr, 2003; for a measure, see Materials, below).

## Cognition

(c) Cognitive Flexibility, Almost by definition perhaps, job hunting is about cognitive flexibility. This has been operationally defined as consisting of three interrelated domains: (a) Awareness that in any given situation there are options or alternatives available; (b) willingness to be flexible and adapt to the situation; and (c) self-efficacy in being flexible (Martin & Rubin, 1995, p. 623). Cognitive flexibility, according to Martin and Anderson (1996), is predictive of a person's confidence in communicating to strangers and reacting to new situations. Skills like this would logically appear to be useful for immigrants attempting to negotiate the employment market in New Zealand. Thus from Figure 1, if immigrants to New Zealand have high cognitive flexibility, they are predicted

to have found work more easily and successfully.

(d) Acculturation. The preceding sections have implicitly assumed that 'adaptiveness' is helpful to finding a job, which in the migration literature is known as acculturation. According to Berry (1990), acculturation takes on multiple forms, depending on an immigrant's answers to two key. questions: (1) is it considered to be of value to maintain your cultural identity and characteristics? (2) Is it considered to be of value to maintain relationships with your host culture? Based on an immigrant's answers to these two questions, Berry has operatively defined four possible acculturative "styles." These are: Integration (defined by a 'yes' answer to both questions); assimilation ('yes' to new culture, 'no' to culture-of-origin); separation ('no' to new culture, 'yes' to cultureof-origin); and marginalisation ('no' to both questions).

Acculturation style has been investigated in the United States, Canada and Europe (Berry, 1990), and amongst expatriate New Zealanders living overseas (Nesdale & Mak, 2000; Ward & Kennedy, 1994). Some of these studies have focused on acculturative stress and affect, and are therefore potentially relevant to the direct link between acculturation and occupational satisfaction, in our model. Specifically, the least stress-producing strategy is reported to be integration; with marginalisation reported to be the most stressful, and the other strategies producing intermediate degrees of stress (Berry, 1997). Hence, Figure 1 predicts a link between acculturation and feelings about occupational life in New Zealand, with integration producing the most positive affect. As well however, acculturation style has been linked to adaptation and adjustment within a new country (Ward & Kennedy, 1993). Logically and psychologically, adaptation and adjustment, through for example integration, reflect an increased capacity to "negotiate interactive aspects of the new culture" (Ward & Rana-Dauba, 1999, p. 424). Thus Figure 1 proposes a second, direct link, between acculturation style (specifically integration), and proximity to finding

a job that matches one's qualifications and experience.

(e) Acculturation 'Fit.' In a critical review of the literature on acculturation, Rudmin (2003) argues that acculturation 'fit' is relatively neglected: 'Fit' occurs when a immigrant's style of acculturation matches an acculturation style expected and preferred by the local community-of-destination. According to the hypothetical structure known as the 'Interactive Acculturation Model' (IAM), the closer the fit between the acculturation style chosen by an immigrant and the acculturation style preferred by a dominant local community, then joining that new community should be smoother for the immigrant (Bourhis, Moiese, Perreault & Senecal, 1997). Therefore, in Figure 1, the IAM predicts that as 'fit' between a immigrant's acculturation style and the style preferred by the employment community increases, the immigrant will be more likely to have found employment (separation and/or marginalisation could conceivably be preferred by employers in societies that practiced or condoned any form of segregation, such as apartheid and other essentially intolerant forms of biculturalism). This research sets out to explore how applicable the IAM model might be to New Zealand conditions, and the labour market conditions faced by immigrants to this country.

## Model Summary

From Figure 1, any degree of underemployment, including unemployment, is expected to negatively predict an immigrant's feelings about occupational satisfaction in New Zealand. Figure 1 also proposes that more positive feelings about occupational satisfaction in New Zealand will be linked to (ii) a closer proximity to full employment (conceptually and operationally defined as finding work that fits one's qualifications and level of experience). From Figure 1 also, proximity to full employment, in turn, will be partly predicted by a combination of increased pre-interview behaviours; more culturally appropriate interview behaviours; increased cognitive flexibility; integrative acculturation; and degree of acculturative fit between acculturation style adopted by the immigrant, and the style of acculturation expected of the immigrant by the wider community – including the community of prospective employers.

## **Conceptual Thrust**

The immigration-related literature, reviewed above, implies that the occupational and wider interests of immigrants to New Zealand will not necessarily be served by the kind of advice typically proffered in I/O and vocational psychology textbooks and journal articles, about "how to find a job that matches your skills and talents." Barriers such as implicit prejudice, for example, could conceivably render otherwise 'standard' job-hunting behaviours, and attitudes, less-than-fully efficacious. The conceptual thrust in this paper is to test some received wisdom in contemporary vocational psychology, in a potentially rather demanding sociocultural context.

More fundamentally, the study is a first attempt to understand jobhunting from a particular, and in some senses 'special' phenomenological perspective: that of the job-hunting immigrant. A priori, this ethos and purpose mean that the study is anchored in the points of view of immigrants themselves. Given this particular conceptual thrust in the study, an ethos of 'controlled observation' - with for instance comparison groups of job hunters born in New Zealand - was not considered central to our immediate purpose (see also, Discussion). In addition however, and being mindful of the critique advanced in Rudmin (2003, above), our Methodology below incorporates at least some sense of perspective from the community of employers themselves, via the operationally defined concept of acculturation fit.

## Method

## Participants

**Employment Community**. Subject Matter Experts were needed on the employment market in New Zealand. Yet we were reluctant to ask employers because of their direct interest in the employment selection process, and possible social desirability effects. In their stead therefore, we chose to approach employment and recruitment agencies. Specifically, we used the Auckland 2002 Yellow Pages directory to contact every fourth employment/ recruitment agency in the Auckland region to a total of 20 participants. Once approached, we spoke to recruiters with experience of working in placing full time workers, including immigrants.

Immigrant participants. The participants were 70 migrants and refugees currently resident in Auckland in 2003. These were recruited in two tiers. Questionnaires were firstly distributed to ethnic leaders at community centres within the Auckland region (resulting in 27 returns). Secondly, questionnaires were distributed to migrant students at Massey University on Auckland's North Shore (n = 43). This second tier of sampling was necessary because of a combination of potential distribution issues in the community centres, and a reticence or wariness on the part of immigrants to participate in any surveys that could possibly influence their residential status (see Procedure, below). No statistically significant differences were noted between the samples on the following socio-demographic variables: IELTS score, highest degree from home country, number of hours worked in a job, and time looking for a job. No differences were found on occupational satisfaction, and proximity to full employment. These results confirmed that the samples were indeed similar and therefore could be combined (noting here that below we examined prediction path weight stability across the samples -- see Results and Discussion). Classroom survey methods gave the lead author an opportunity to introduce the research in person, and thereby reassure potential participants about total confidentiality and anonymity. Whatever the recruitment channel, however, participation in this study was restricted to individuals who had been or were actively seeking full employment. International students without permanent residency were therefore excluded from the study.

Demographically, 76% of the immigrant sample comprised migrants (ipso facto, relatively skilled because they had entered New Zealand under

the points system) and 13% were refugees. In keeping with these figures, 61 percent of the sample already possessed a Bachelor degree or higher. The sample was reasonably balanced across gender (55:45 percent, male: female) and age (18-57 years). English was a second language for the majority of the participants (n = 58), with IELTS scores ranging from 5.0 to 7.5, a mean of 6.3, and an SD = .69 (note however that only 50% of the sample answered this particular question, and it is not a requirement for refugees). The IELTS score measures English capability on a scale from 0 to 9 (measured 1 to 9), with 0 representing no knowledge of English at all and 9 representing the fluency of a native speaker. The IELTS examination is standardised throughout the world and is moderated for consistency. The score required to enter academic institutions in New Zealand is generally 6.5 or 7.0. Hence the overall language skill in our sample (mean IELTS score = 6.2) was reasonably high.

Exactly half of the sample originated from countries in Asia, with the rest of the sample being diverse in their continents-of-origin (for a detailed breakdown, see Mace, 2004). The mean length of time that the immigrants had spent in New Zealand was 31.75 months (*SD* = 30.41), with a range from 1-156 months. Although the latter (156 months) case was a statistical outlier on this particular variable (the next case down for instance was 120 months, or 10 years), we retained these participants because disadvantage in the New Zealand labour market, for immigrants to New Zealand, has been shown to persist for at least 10 years and possibly beyond (New Zealand Immigration Service, 2003, p. 133). Nonetheless, we tested whether the outlier case on length of residency was also an outlier on the key predictor variables in Figure 1, using Mahalanobis distance - Like the other participants in the sample this case was not a multivariate outlier. Based on two direct questions about employment and under-employment (see Mace, 2004), fifty-five percent were currently unemployed, with 23 of the remaining 32 participants being under-employed. Overall therefore, and consistent with the broad patterns identified by the New

Zealand Immigration Service (2003) and other research studies (above), there is a pattern of unemployment and under-employment amongst these immigrants to New Zealand in our sample.

## Materials

Telephone Survey form. After a brief introduction to the ambit of the research, participants from the recruitment organizations in Auckland were asked to rank order the acculturation styles (presented in a rotated order) that they believed the employment community would prefer in an immigrant job applicant, from integration vs. assimilation to separation vs. marginalisation. The definitions of these acculturation styles were standardised to the same as the definition given in the immigrants' questionnaire (see below; for details of definitional instructions, Mace, 2004). As well as the recruitment agencies, we also asked our immigrant participants to estimate what they saw as New Zealand employers' perceived preference for immigrants' acculturation style within the workplace.

Immigrant Survey form. Rapport Building: Critical Incident Technique (CIT). Devised by Flanagan (1954), and used for example with refugee participants in Kanyangale and MacLachlan (1995), CIT is a narrative technique that asks people to recount their most significant experiences in a life domain, such as job-hunting. Critical incidents can be positive or negative, depending on the outcome of the situation. In our study, we used CIT as a way of encouraging all the participants to open up and build rapport, and to provide information for a qualitative analysis (reported below). The questions asked were open-ended questions that were coded by the lead author and another independent coder (for estimates of inter-rater reliability, see Results: Qualitative data, for Coefficients Kappa).

Occupational satisfaction in New Zealand: The Faces Scale. The Faces measure is a single item consisting of seven circular faces reflecting emotions from very happy (smiling face, 1) through neutral (4) to very unhappy (frowning face, 7). Despite its single

item, the Faces scale has a respectable track record in measurement domains related to ours. It has for instance provided measures of quality of life (Beckie & Hayduk, 1997), job satisfaction across cultures (Roberts, Glick, & Rotchford, 1982), and overall wellbeing in cultural context (Yang, 2002). It has also specifically been used to measure affective constructs such as tedium (Pines & Kafry, 1978) and depression, again in cross-cultural context (Matthey, Barnett, & Elliot, 1997). Finally, the Faces Scale has been found to provide a more balanced measure of positive and negative affect than either the Job Descriptive Index, or Minnesota Satisfaction Questionnaire, or Job Affect Scale (Brief & Roberson, 1989).

To measure mood on the Faces scale, and in accordance with the focus of the study, we asked each of the immigrant sample respondents, "How do you feel about your experiences of job searching in New Zealand and its outcome?" Raw data from this scale were normally distributed throughout its range, with a mean score tending slightly towards unhappy (mean = 4.27, standard deviation = 1.84). A second DV relating to affect was originally included, but respondents had difficulty with the language used (Mace, 2004).

Proximity to full employment: A Guttman Scalogram. Used in previous research to measure rural-urban migration (Buggie & Makubalo, 1987), we developed a Guttman measure of how close each participant had come to finding a job that matched their qualifications. From an initial pool of 11 items (Mace, 2004), and following the standardised scaling procedure for Guttman scale development detailed for example in Robson (2002), we derived a Guttman Scalogram of seven items, with a (satisfactory) Coefficient of Reproducibility = 0.93. The items in this scalogram ranged from "Seen jobs advertised in newspapers (most distal from finding full employment, as distinct from being either un- or underemployed) to "Currently working in a job that matches your qualifications" (most proximal to finding full employment). This included both job search and job match as elements in the finding of "full employment."

For the following measures, Principal Components Analysis (PCA) was used. Typically, the subject to variable ratio for PCA should be about 5:1 with at least one hundred subjects (Bryant & Yarnold, 2000). Whilst our sample size was towards the lower end, one should keep in mind the exploratory nature of this research. Also, we wanted to get an indication of the dimensionality of these measures to provide us with some meaningful information that could be used in subsequent analyses. In general, the results for the PCA were all interpretable and the factors identified were commensurate with theoretical expectations.

Behaviours used to find a job: Inventory Measure. A review of the literature (journal articles, textbooks on I/O psychology and vocational behaviour) generated a set of 13 separate inventory ("Yes/No") items theoretically linked to job-hunting success (e.g., Aamodt, 2004; Huffman & Torres, 2001). With one item excluded due to low communality ("placed advertisements"), the remaining items all loaded clearly onto a single component, with a Coefficient Alpha ( $\alpha$ ) = .78. Thus, pre-interview behaviour was measured on the following 12-item, 12-point index;

Which of these have you done to find a job that matches your qualifications (tick all that apply):

- Answered advertisements (either in newspapers or in professional journals)
- Approached employers directly (either by mail or in person or by telephone)
- Asked friends or relatives about jobs (either at their place of work or elsewhere)
- Went to employment agencies
- Went to Work and Income New Zealand (WINZ)
- Contacted professional organisations
- Been to career fairs or job days
- Placed advertisements in professional journals or in the newspapers
- Volunteered in organizations
- Wrote a curriculum vitae/résumé
- Researched jobs at the local library or on the Internet
- Gained more qualifications (either in same area or different area)
- Gone to courses to help improve your job finding skills

Interview Behaviours: A frequency scale. Interview behaviour was measured using a 5-point scale, reflecting frequency of usage of specific behaviours in a job interview in New Zealand: "Which of the following would you normally do in a job interview here in New Zealand? Please choose from 1=never, 2=rarely, 3=some of the time, 4=most of the time, or 5=always." An initial item pool of 23 items was derived from the literature (again, using journal articles and textbooks on I/O psychology and vocational behaviour). Assuming that interview behaviours (being focused on a single episode, the interview) are reasonably well linked, this item pool was then reduced to the following 10 items, using a combination of item-corrected total score correlations and Coefficient Alpha. Results from PCA suggested two components: 'Relationship-focused' interview behaviours ("Have a firm handshake." loading .75, "Learn about the company before the interview," .71, "Use humour in the interview," .71, "Ask questions about the company and job," .66, "Show confidence," .52, and "Promote yourself," .39). Relatively more 'Taskfocused' behaviours comprised, "Focus on what the company can do for you," .832, "Talk about your people skills," .814, "Promote yourself," .610, and "Show confidence," .38. Coefficients a for these two components, respectively, were .72 (6 items) and .65 (4 items).

Cognitive Flexibility: The Cognitive Flexibility Scale. The item pool for this instrument was developed (but never tested) in Martin and Rubin (1995). It consists of 12 questions with a 6-point Likert scale ranging from Strongly Agree to Strongly Disagree. PCA on our data suggested four factors, with only the first of these being clearly interpretable, as cognitive flexibility, and the remainder being non-interpretable (for details, Mace, 2004). The items loading onto this factor were: "I am willing to listen and consider alternatives for handling a problem;" "I have difficulty in using my knowledge about a topic in real life situations" (reverse coded); "I have the self-confidence necessary to try different ways of behaving;" and, "I am able to act appropriately for the situation I find myself in." These items were therefore combined into a single four-item index of cognitive flexibility, with  $\alpha = .62$ .

Although somewhat truncated from the original theoretical measure, our revised index provides a coherent, empirically derived, and in-context measure of cognitive flexibility.

Acculturation Styles: The Acculturation Index. Developed in Ward and Rana-Deuba (1999), this index includes 20 life domains (e.g., 'dress'), which are rated by the person, in terms of how much they are influenced by 'host' culture (culture-of-destination) and, separately, 'home' culture (culture-of-origin) on a rating scale ranging from 1 ='not very important' to 7 = 'very important.' Principal Components Analysis could not be performed on this 40-item instrument, as the factorability statistics were not satisfactory. Instead, we were obliged to rely on a combination of item-corrected total score correlation. and coefficient a. For each 20-item dimension of instrument (home and host culture), one item was eventually removed through that iterative process (final  $\alpha = .87$  for both dimensions).

The reported salience for identity. of both home versus host culture, was then used to operationally define acculturation style (after Berry, 1990). In previous research, acculturation style (integration, assimilation, separation and marginalisation) has been computed using median splits, on each of the two dimensions above (identify with home and identify with host culture). In the current study however, a median split was deemed not feasible, since the data were largely distributed in the upper half of each scale, with no clear midpoints at which to make a meaningful division. Thus, we were obliged to index/score identification with home (culture-oforigin) and with New Zealand (cultureof-destination) separately.

Acculturation Fit: Rank Order Measure. This measure required input from both the immigrants and our recruiters (noting the latter, in our sample, all had experience of working in immigrant recruitment). Both sets of participants were asked: "Please rank these statements, from (1) agree with most to (4) agree with least. If an immigrant comes to a new country, they should: Adopt the new culture and keep their own culture as well;" "Adopt the new culture and put their own culture in the background;" "Keep their own culture and put the new culture

in the background;" and, "They should ignore both their own culture and the new culture and look after themselves." On the recruitment industry side, the participants were asked to rank these same statements in order of employer preference (see Telephone Survey form, above). The mean rank preference given by these participants then provided a 4item listing of community preferences, against which each immigrant participant's own self-rankings could be compared for 'fit:' To calibrate this index of fit, we calculated and used Kendall's tau for each immigrant participant. In operational terms that is (and following Atkins, 2003), we reasoned that higher positive correlations reflected better fit between the immigrant's style and the style probably preferred by the prospective employers.

Demographic information. A final section of the immigrant participants' questionnaire covered the demographics of age, sex, gender, length of time spent looking for a job, length of time in New Zealand, the highest qualification obtained prior to coming to New Zealand, and the immigrant's **IELTS** (International English Language Testing System) score on arrival in New Zealand. As we have seen, the IELTS question was answered by just 50% of the sample. This IELTS score variable did not however correlate with proximity to finding employment (r = .104, p = .551, 2-tailed), and was subsequently not included in further analyses.

#### Procedure

*Recruitment organizations.* During working hours, 20 recruitment agencies were contacted by telephone. On being connected to someone dealing with permanent work, the survey was briefly described and convenient times established. Two of the participants chose to respond electronically to the questions. On completion of the interview, the participants were fully debriefed.

*Immigrant participants*. The instrument set was carefully constructed, with the help of immigrants who had diverse levels of English, and also with Subject Matter Experts (Psychology instructors, Teacher of English as a Second language, and Recruitment and

Placement professionals working to help immigrants to find employment). On completion of a final pilot test by a small subset of 17 immigrants to New Zealand, the questionnaire responses were inspected visually for overall comprehension by the researchers. Changes to the instrument included replacing the Acculturation Index question stems, from a stem reflecting how similar the respondent is to the relevant culture in each domain, to a stem reflecting the importance of maintaining the cultures in the relevant domains (this seemed to reflect more accurately what was being measured in this survey).

Following pilot testing, 300 questionnaires were distributed to different ethnic leaders, people who assist immigrants to find jobs, and community centres. All questionnaires contained free post envelopes, which were to be mailed back, once completed, to the lead author. It is possible that due to this method of distribution, not all of these questionnaires reached the participants. Later, it became apparent from informal reports from other researchers and immigrant representatives themselves that immigrants, particularly from Chinese countries- and communities-of-origin, are often very wary of completing questionnaires. There is suspicion that their views will be reported to government agencies, and thereby jeopardise their residential status.

Given the issue just identified, we decided to rely in turn on faceto-face appeals, with full pre-brief, to student classrooms, in order to reassure the potential participants, in person, of complete confidentiality and anonymity. Many of the students at Massey University are themselves international migrants, who are working or have looked for work in New Zealand. After obtaining permission to approach these students during class time, and distributing 150 questionnaires, we were able to recruit a further 43 volunteers to the study. At this point, we combined the two samples for analysis.

#### Results

#### Employment Community

Table 1 summarises the data we obtained from our participating recruiters based in the Auckland region. From Table 1, the sampled recruitment agencies tended to estimate that employers would prefer immigrants to be 'integrationist' in their acculturation style (mean rank score = 1.5). There was a second estimated preference among potential employers for 'assimilation' (mean rank score = 1.9). A total of 55% of the recruitment agency participants ranked integration as their first choice, compared to 45% who ranked assimilation as their first choice. For the rank data as a whole (i.e., across all four styles), Kendall's Coefficient of Concordance  $\omega = .561$  (chi-square = 33.68, df = 3, p < .001). Hence the mean preferences contained in Table 1 are significantly non-randomly distributed. Using a Binomial test for pair-wise comparisons (i.e., comparisons between preferences for two styles at a time), there is no statistical evidence that integration is preferred over assimilation. nor that separation is preferred over marginalisation. Both integration and assimilation are however preferred over both separation and marginalisation (p <.005). The common denominator in both integration and assimilation, compared to separation and marginalisation, is a requirement that immigrants adapt themselves in some way to the norms and customs predominating in New Zealand at the present time.

From Table 1, the immigrants perceive variations in the rank order

Table 1: Mean Rank Preferences among prospective employers for Immigrant Acculturation – estimated by Recruitment Agents (n =20), and estimated by Immigrant sample (n = 70)

| *          | lr | tegration | As | simila | ation | Separation | Marginalisation |
|------------|----|-----------|----|--------|-------|------------|-----------------|
| Recruiters |    | 1.5       |    | 1.9    |       | 3.3        | <b>3.5</b>      |
| Immigrants |    | 2.2       |    | 2.2    |       | 2.9        | 2,8             |

Note - The immigrants in this sample tended to rank integration and assimilation less high than did employers/recruitment agencies, whereas the pattern reverses for separation and marginalisation (i.e., immigrants tend to rank these higher than their employer/recruitment agency counterparts).

of acculturation styles preferred by employers ( $\omega = .093$ , Chi-square = 16.81, df = 3, p = .001).Using the Binomial test, and converging with the pattern in employer preferences estimated by our sample of recruitment agencies, integration and assimilation are estimated (by our immigrant sample) to be preferred (by potential employers) over both separation and marginalisation (p = .008).

#### Testing the Model in Figure 1

Prior to testing, all key elements in the model were examined and showed near normal distribution with skewness and kurtosis statistics within the ranges allowable for path analysis. A full table of descriptive statistics for elements in the dataset, as well as a table of correlations between these variables. are provided as appendices A & B (page 108). Because of the exploratory nature of the research, the relatively small sample, and following Grimm and Arnold (2000), we used a significance level of p < .10 for all the analyses. Structural equation modelling was not possible given the sample size (again, however, we point to the exploratory nature of the research, and acknowledge that the sample size is small, and we encourage caution in the interpretation of these results). We therefore employed multiple regression analyses within a path analysis format. Following Schumacker and Lomax (1996), paths were progressively dropped from the analysis as they became non-significant, a single path at a time. The output from this analysis is shown in Figure 2, which gives the remaining significant paths (p <.10) with the standardised beta weights for comparisons.

From Figure 2, feelings about occupational satisfaction in New Zealand are linked to proximity of finding work, yielding a standardised beta weight of 0.29. Since higher values on the Faces scale reflect greater unhappiness with the job-hunting process in New Zealand, the relationship is in reality negative (however, see Figure 2 and Discussion below concerning the instability of this path weight across samples). Figure 2 also shows that proximity to finding work is positively associated with pre-interview behaviours (0.47) and with adaptation to Figure 2. Path analysis indicating significant paths and standardised beta weights (all linkages shown are significant at p < 0.10)



Note 1 - Feelings about occupational life in New Zealand are measured on a reversed scale, with higher scores = lowered satisfaction. Thus this 0.29 path weight is counter to expectation (and also unstable across the students and non-students: betas = .10 and .49 respectively)

Note 2 - Direct effects of the two antecedent exogenous predictors (i.e., the two predictors remaining stable across student and non-student sub-samples) were tested for direct/partially-mediated effects on Occupational Satisfaction in New Zealand. These were non-significant. Effects from "Pre-interview Behaviours" were found to be fully-mediated by "Proximity to Full Employment" -- while Cultural Assimilation had no apparent effects on Occupational Satisfaction in New Zealand (beyond its weak but significant effect on "Proximity").

New Zealand culture (0.19), both path weights significant (p < .10). However, Cognitive Flexibility did not perform as expected in our original model. As mentioned above, due to concerns about sample differences (students versus nonstudents), we assessed the stability of our antecedent or exogenous predictors. Those exogenous predictors surviving into Figure 2 performed similarly across these two subsets of our respondents. Cognitive Flexibility was not stable in these tests, but instead was very weak (-0.04 < r < 0.03) and reversed in valence (i.e., direction of effect) across these two respondent types. It was therefore deleted from our analyses.

#### Qualitative data

We also content analysed the critical incidents given by the immigrants who took part in the survey. Following Flanagan (1954), separate content analyses were undertaken for the positive and negative incidents. These were analysed by the lead author and an independent coder whose ratings together demonstrated good inter-rater reliability (Coefficients Kappa = 0.72and 0.76, for details and calibration criteria, Robson, 2002). A summary of the themes found in the positive and the negative critical incidents is given in Table 2.

From Table 2, the themes themselves are relatively self-evident. What is more interesting perhaps is what is not included in the remarks themselves. In Table 2 for instance, there are no 'extreme' or 'hot' emotions, such as anger, frustration, or betrayal. Instead, the picture is more one of disappointment and relatively 'flat' affect. Illustrative comments (with grammar/spelling not

| Table 2 | Content | analysis  | summary o | ficrifical | incidents |  |
|---------|---------|-----------|-----------|------------|-----------|--|
|         | CONCOLL | ana y 313 | Summary   | n onuoai   | noucins   |  |

| Fr                                           | requency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Percentage of                                                                                                                                                 | 1.               |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|                                              | oquonoj                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | responses                                                                                                                                                     |                  |
| <u>i</u> i i i i i i i i i i i i i i i i i i | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 24%                                                                                                                                                           | 513              |
|                                              | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 16%                                                                                                                                                           |                  |
|                                              | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 11%                                                                                                                                                           |                  |
| 11 A                                         | .i 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                               | -0               |
|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                               |                  |
|                                              | . <b>8</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 11%                                                                                                                                                           |                  |
| Angelian y                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                               | 11               |
|                                              | n in the second se | 1999 10 17 17 1997<br>11 18 1997 8 1997<br>12 1997 8 1997<br>12 1997 1 17 1997<br>13 1997 8 1997<br>13 1997 8 1997<br>13 1997 8 1997<br>13 1997 8 1997 7 1997 | 17 24%<br>11 16% |

Note - Themes mentioned by less than 10 percent of participants are not included (these can be found however in Mace, 2004)

modified) are: "I made phone call to ask for job opportunity and one of the recipients though hadn't got a vacancy for me but encouraged me to continue on;" "Over 90% reply to application are declined reply [no reply];" "But it was unsuccessful for reasons unknown to me, though I fared very well and had the required experience. Ever since that I am not called for any interview, though I applied for about 40 jobs." These are relatively 'flat' replies, not simply reflections of disinterest in finding work (which would contradict the statements above, and would to that extent be an unlikely explanation). Hence we think that the qualitative data reflect more of a stunned disbelief, or comparatively "flat affect."

## Discussion

## Summary of Findings

The core finding of the study is that based on a tentative but integrative conceptual model, a number of psychological variables partially predict both proximity to finding full employment, and affect connected to that full employment. As predicted in the literature on job-search, pre-interview job-seeking behaviours were positively predictive of finding full employment. While this may seem a commonsense conclusion, the ensemble of factors in this research had not been tested together previously, within this kind of population (i.e., amongst immigrants to New Zealand). Adaptation to and identification with perceived New Zealand norms was a positive predictor of current proximity to full employment. Finally, an unexpected - negative - linkage was found between (i) proximity to full employment and (ii) feelings about occupational life in New Zealand. Thus the results of this study, exploratory and tentative though they are, carry food for thought about existing theory.

## Theory

The original theoretical rationale for conducting this study was that some of the received wisdom in the job search literature might not hold for immigrants seeking full employment. The theory-based notions under-girding interview preparation were supported by the data. Acculturation theory was partially supported by the finding that

assimilation tendencies are linked to finding full employment. Yet behaviours at interview and degree of fit between job hunter and potential employer were not statistically predictive of proximity to finding full employment. Moreover, proximity to finding full employment was not reliably and logically predictive of occupational satisfaction in New Zealand. In fact, the relations in our study were both negative and unstable (standardized betas of .49 and .10 -- but negative given the above-described valence of the faces scale -- for nonstudents and students respectively). Counter-conventional findings like these indicate that we must search a little outside the conventional boundaries for explanatory theory.

Motivational Gravity. With respect to theoretically appropriate and helpful mindset being counter-productive, the concept of "motivational gravity" may provide some explanation (Carr & MacLachlan, 1997). Motivational gravity is a subjective state in which positive mindsets can be reacted to badly by others (Rundle & Carr, this volume). For example, high achievers and individuals, who exceed performance and career expectations for their group, sometimes experience selection biases that help to 'keep them in their place,' much as gravity sometimes brings us down to earth with a bump. Downward thrusts like this, i.e., from above in an organization's structure, contrast with Tall Poppy Syndrome, which occurs when there is downward pull from below (or what is termed, in Motivational Gravity Theory, Pull Down). In the nomenclature of Motivational Gravity Theory, when employees, or would-be employees, feel kept in their (unemployed or underemployed) place, this often requires the possession and felt exertion of organisational, Position power, or "Push Down" (Carr & MacLachlan, 1997). Some not unfamiliar examples of Push Down might include for instance: Insecure supervisors who give talented supervisees reduced performance appraisal ratings, in order to help protect their own position in the organization (Bau & Dyck, 2002); and selection decisions, whereby a greater number of achievements on a job application actually lead to ratings of reduced job suitability (Smith & Carr, 2002).

Thus, some of the job applicants in our own study may have subjectively experienced some (affectively negative) motivational gravity Push Down (for a detailed discussion of Push Down, in the context of immigration to New Zealand, Carr, 2004).

Relative Deprivation. This theory is directly relevant to our seemingly contrary finding, that the closer participants had come to finding a job, the less happy they were with occupational life in New Zealand (as reflected on the Faces scale). The theory of "Relative Deprivation" was originally developed in response to the seemingly paradoxical findings, whereby strategic business units with the highest promotion prospects in organizations, also had the lowest morale (Stouffer, Suchman, DeVinney, Star, & Williams, 1949). Stouffer et al's counter-intuitive finding was explained and resolved by the idea that participants in the units with higher promotion prospects had developed inflated or raised expectations of promotion, that could not in fact logically be met by any organization. In short that is, we cannot all be promoted to senior ranks, or be awarded performance bonuses and the like. Ironically therefore, members of potentially privileged groups, because of resource constraints and the psychology of expectation, can be left feeling relatively deprived, compared to those who make it to the top.

Since Stouffer's time, the concept of relative deprivation has been used to account for the so-called [inverted] 'J-curve,' where rising expectations are dashed by perceived broken promises, leading to sharp drops in morale (Davies, 1969). More recently, disappointments like this have been linked precisely to a "broken promise" of under-employment following immigration (Carr, 2004). In such situations, the referent for relative deprivation is the wider majority of citizenry in full employment, i.e., the working population in general. In our own study, most of the immigrant participants had not actually managed to find work - making it possible that their sense of disappointment stems from psychosocial processes akin to relative deprivation. As well, those participants near (but not at) the top of our Guttman index, may have been experiencing under-employment, which has been described as "as, or more psychologically corrosive than unemployment" (Fryer & Fagan, 2003, p. 92). Thus, the reason why our immigrants were less happy the *closer* to finding employment may be that they had the keenest sense of relative deprivation, at that particular point in their careers. Expressed a little differently, it may be better never to promise full-employment at all, rather than to fully promise it but only partially deliver on that promise (Carr, 2004).

Alternatively, it is possible that expectations have already been reduced prior to migration. For example, government videos may be giving more of a "realistic job preview" about occupational life here in New Zealand, and this is possibly why we found comparatively flat affect in our qualitative data. Certainly, "flat" affect is not quite fully compatible with relative deprivation (which is more akin to hot than cold cognition). Hence, we would argue that future research is needed to address the point at which affect may become depressed, thereby either averting or exacerbating a sense of broken promise.

## Limitations and Extensions

This study offers an exploratory glimpse at some of the psychological processes that may be occurring as immigrants to New Zealand seek employment. In any exploratory study, sample size and statistical power can be an issue, and this is clearly the case in our study, with the limited respondents we could (with difficulty) persuade to participate. The response rate, while seeming low, is not we gather atypical in attempted survey work with immigrants to New Zealand. Lack of trust on the part of immigrants is understandable however, given the under-employment and unemployment of immigrants that we, and many others, have documented (e.g., Introduction, above). Nonetheless, we would like to see the model in Figure 1, tested with a greater number of participants. Augmenting N, on both immigrant and employer sides, could for example provide a fuller and fairer test of the potential for the concept of 'fit' to have predictive power, with respect to immigrants finding full employment in a host country: In the present study, whilst immigrants ranked integration higher than assimilation (post hoc, Binomial

p < .001), we could not confidently establish such an ordering amongst the comparatively smaller sample of recruitment agencies. One way to foster trust and rapport would be to translate the questionnaires into "home" (i.e., country-of-origin) languages. Alternatively, sample surveys may continue to be hampered by low response rates for as long as perceived discrimination itself continues. In that case, relatively qualitative approaches may be more appropriate than their more quantitative, sample-survey cousins.

The sample could also be broadened in scope of countries-of-origin sampled, to include for instance more "ESANA" immigrants. This would however reduce the extent to which the model was focused on a special, relatively occupationally disadvantaged, population. A more productive strategy might consist for example of replicating the study with a sample of ESANA immigrants that are otherwise identical to the current sample. Indeed, with added statistical power, a range of demographic and other variables could be included in testing the model (this testing was not possible in the present study, due to power constraints, even though we did measure some of the following variables, see Mace, 2004). The demographic variables to be assessed might include for instance cultural, age and gender differences, differences in the educational systems leading to named degrees, industry, sector, and job type. A wider sample base would also help address possibilities of self-selection, and associated questions of self-report (although we see comparatively little reason for the respondents in our study to inflate their complaints, given the fear of 'discovery' by government agencies, above). Also it is possible that as the sample size is increased, Cognitive Flexibility (especially if a specifically vocational measure could be adapted) may become a significant influence in the model. Finally, we would like to see more research focusing on the positive psychology of migration, for instance the extent to which the immigration experience helps to build hardiness and resilience (Lopez, Haigh, & Burney, 2004).

Despite these limitations in the study, ascertaining generalisability of the findings was never a key aim in the research. The actual purpose of the research was far more modest - namely to test whether some of the received wisdom in I/O psychology, and vocational guidance, could conceivably reach some limits in the context of immigration to, and hunting for full employment in contemporary New Zealand. Without research like the current study, the kinds of questions discussed above might not in fact ever be raised. Limitations in statistical power notwithstanding however, we believe that the study has detected several interesting empirical linkages. and to that extent has achieved its primary, exploratory purpose. The challenge now as we see it is to open up this research vein, by theorising and conducting more substantive studies of a similar nature.

## Implications for Practice

Until the above tests are conducted, we cannot make any firm recommendations for managing the issue of immigrant under-employment in this country. At the same time nonetheless, the data we have gathered do contain some relevant implications for a modicum of professional refocusing. Much of the existing research and comment on immigration and employment (and thereby perhaps professional practice in this area) has focused on the psychology of the immigrants themselves, thereby risking a fundamental attribution error. Up to a point, by focusing on the psychology of immigrants and not employers, we ourselves have possibly fallen into the same trap. The difference with our data however is that they imply the added presence of systemic factors in the process of hunting for full employment. Specifically for example, the incapacity of traditional variables like positive interview behaviours and cognitive flexibility to assist the employment search implies the existence of at least some systemic biases on the part of prospective employers (this does not exclude dispositional factors among migrants too, of course). Added to this, the fact that success in finding full employment was predicted by identification with New Zealand culture but not with culture-of-origin suggests that prospective employers are, possibly, partly over-emphasising similarity and familiarity, at the expense of diversity and heterogeneity (Carr & Coates, 2003). Thus a principle implication of our study is that some of the research and resources currently being directed 'at' immigrants themselves might be redirected, towards our employment community itself. Such research could eventually be used to help design, implement, and evaluate awareness and best practice training interventions, for both employers and immigrants alike.

## Conclusion

This effort marks a humble but intriguing beginning for the study of immigrant integration by New Zealand I/O psychologists. Our initial foray into this domain indicates that I/O psychology does have a contribution to make, not only to integration within New Zealand, but also to organisational best practice and the overall affective tone of occupational life for special populations such as ours. Ultimately, we believe that the kind of model we are proposing in this paper has the potential to make a contribution to reducing brain waste, and under-employment of immigrants more internationally. If we are serious about building knowledge economies, and about keeping our promises concerning reasons to immigrate, a responsive contribution, from I/O psychology, is arguably in fact overdue. With its history of social responsiveness and innovation, New Zealand, and I/O psychology in New Zealand in particular, could conceivably help lead the way in working to resolve a global issue.

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## Appendix A: Means and Standard Deviation Table

Statistics

|                        | Occupational<br>satisfaction<br>in NZ | Pre-<br>interview<br>behaviour |         | Relationship<br>interview<br>behaviours | Assimilation<br>to NZ<br>culture | Acculturation<br>fit<br>rank | Cognitive<br>Flexibility<br>score | Proximity<br>to full<br>employment | IELTS<br>score<br>on entry |
|------------------------|---------------------------------------|--------------------------------|---------|-----------------------------------------|----------------------------------|------------------------------|-----------------------------------|------------------------------------|----------------------------|
| Valid                  | 67                                    | 70                             | . 68    | 67                                      | 66                               | 57                           | 69                                | 70                                 | 35                         |
| Missing                | 3                                     | 0                              | 2       | 3                                       | 4                                | 13                           | 1                                 | 0                                  | 35                         |
| Mean                   | 4.27                                  | 5.54                           | 89.93   | 18.25                                   | 74.85                            | .44451                       | 45.96                             | 3.81                               | 6.343                      |
| Std. Error of Mean     | .225                                  | .351                           | 2.460   | .450                                    | 1.956                            | .069928                      | .691                              | .267                               | .1173                      |
| Median                 | 4.00                                  | 6.00                           | 88.50   | 19.00                                   | 75.50                            | .66700                       | 47.00                             | 4.00                               | 6.500                      |
| Std. Deviation         | 1.839                                 | 2.933                          | 20.288  | 3.686                                   | 15.893                           | .527941                      | 5.741                             | 2.235                              | .6942                      |
| Variance               | 3.381                                 | 8.600                          | 411.592 | 13.586                                  | 252.592                          | .278722                      | 32.954                            | 4.994                              | .4819                      |
| Skewness               | 048                                   | .087                           | 807     | 608                                     | 109                              | -1.158                       | 453                               | 298                                | 165                        |
| Std. Error of Skewnes  | s .293                                | .287                           | .291    | .293                                    | .295                             | .316                         | .289                              | .287                               | .398                       |
| Kurtosis               | -1.110                                | 565                            | 1.869   | 355                                     | 165                              | .617                         | .020                              | -1.095                             | 337                        |
| Std. Error of Kurtosis | .578                                  | .566                           | .574    | .578                                    | .582                             | .623                         | .570                              | .566                               | .778                       |
| Range                  | 6                                     | 12                             | 108     | 16                                      | 73                               | 2.000                        | 27                                | 7                                  | 2.5                        |
| Minimum                | 1                                     | 0                              | 21      | 9                                       | 38                               | -1.000                       | 31                                | 0                                  | 5.0                        |
| Maximum                | 7                                     | 12                             | 129     | 25                                      | 111                              | 1.000                        | 58                                | 7                                  | 7.5                        |
| the provide the        |                                       |                                |         |                                         |                                  |                              |                                   |                                    | -                          |

## Appendix B: Spearman's rho Correlations between variables

| Spearman's rho                                                                                                                                                                                                                                                                                                                                          |                            | Occupational<br>satisfaction<br>in NZ | Proximity<br>to full<br>employment |            | Assimilation to NZ culture | Relationship<br>interview<br>behaviour | Here's What<br>I can do<br>for you | Pre-<br>interview<br>behaviour | Assimilation<br>to home<br>culture |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------|------------------------------------|------------|----------------------------|----------------------------------------|------------------------------------|--------------------------------|------------------------------------|
| Occupational satisfaction                                                                                                                                                                                                                                                                                                                               | Correlation<br>Coefficient | 1.000                                 | .297*                              | .009       | .025                       | .010                                   | 108                                | .297*                          | .086                               |
| 2 tailed S<br>N                                                                                                                                                                                                                                                                                                                                         | 2 tailed Sig.<br>N         | 67                                    | .015<br>67                         | .944<br>67 | .848<br>63                 | .939<br>64                             | .394<br>64                         | .015<br>67                     | .494<br>65                         |
| Proximity to full employment                                                                                                                                                                                                                                                                                                                            | Correlation<br>Coefficient | .297*                                 | 1.000                              | 012        | .287*                      | .075                                   | 104                                | .539**                         | 024                                |
|                                                                                                                                                                                                                                                                                                                                                         | Sig. (2-tailed<br>N        | )  .015<br>67                         | 70                                 | .920<br>69 | .020<br>66                 | .545<br>67                             | .400<br>67                         | .000<br>70                     | .844                               |
| Cognitive<br>Flexibility                                                                                                                                                                                                                                                                                                                                | Correlation<br>Coefficient | .009                                  | 012                                | 1.000      | .391**                     | .332**                                 | .284*                              | .174                           | 68<br>.101                         |
| a dia mandri dia mandri<br>Mandri dia mandri dia ma<br>Mandri dia mandri dia ma | Sig. (2-tailed)<br>N       | ) .944<br>67                          | .920<br>69                         | 69         | .001<br>65                 | .006<br>66                             | .021<br>66                         | .153<br>69                     | .414<br>67                         |
| Assimilation to<br>NZ culture                                                                                                                                                                                                                                                                                                                           | Correlation<br>Coefficient | .025                                  | .287*                              | .391**     | 1.000                      | .200                                   | .409**                             | .251*                          | .133                               |
|                                                                                                                                                                                                                                                                                                                                                         | Sig. (2-tailed)<br>N       | .848<br>63                            | .020<br>66                         | .001<br>65 | 66                         | .117<br>63                             | .001<br>63                         | .042<br>66                     | .286<br>66                         |
| Relationship<br>Interview                                                                                                                                                                                                                                                                                                                               | Correlation<br>Coefficient | .010                                  | .075                               | .332**     | .200                       | 1.000                                  | .373**                             | .217                           | .008                               |
| behaviours                                                                                                                                                                                                                                                                                                                                              | Sig. (2-tailed)<br>N       | .939<br>64                            | .545<br>67                         | .006<br>66 | .117<br>63                 | 67                                     | .002<br>67                         | .077<br>67                     | .950<br>65                         |
| Here's What I<br>can do for you                                                                                                                                                                                                                                                                                                                         | Correlation<br>Coefficient | 108                                   | 104                                | .284*      | .409**                     | .373**                                 | 1.000                              | 047                            | .188                               |
|                                                                                                                                                                                                                                                                                                                                                         | Sig. (2-tailed)<br>N       | .394<br>64                            | .400<br>67                         | .021<br>66 | .001<br>63                 | .002<br>67                             | 67                                 | .707<br>67                     | .133<br>65                         |
|                                                                                                                                                                                                                                                                                                                                                         | Correlation<br>Coefficien  | .297*                                 | .539**                             | .174       | .251*                      | .217                                   | 047                                | 1.000                          | .008                               |
|                                                                                                                                                                                                                                                                                                                                                         | Sig. (2-tailed)<br>N       | .015<br>67                            | .000<br>70                         | 153<br>69  | .042<br>66                 | .077<br>67                             | .707<br>67                         | 70                             | .947<br>68                         |
|                                                                                                                                                                                                                                                                                                                                                         | Correlation<br>Coefficient | .086                                  | 024                                | .101       | .133                       | .008                                   | .188                               | .008                           | 1.000                              |
|                                                                                                                                                                                                                                                                                                                                                         | Sig. (2-tailed)<br>N       | .494<br>65                            | .844<br>68                         | .414<br>67 | .286<br>66                 | .950<br>65                             | .133<br>65                         | .947<br>68                     | 68                                 |

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).