

**A STUDY ON EMIGRATION ATTITUDES OF
YOUNG SINGAPOREANS (2010)**

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AND
DEBBIE SOON**

March 2011
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A STUDY ON EMIGRATION ATTITUDES OF YOUNG SINGAPOREANS

Executive Summary

Research on emigration traditionally focuses on the experience of immigrants in the country of settlement. This method has inadvertently confined the empirical investigations to those who have left the country. This limited sampling frame does not address the broader social dynamics and attitudes associated with outbound migration.

The current study examines the intention to work and live abroad based on a representative sample of young Singaporeans residing in the city-state. Two thousand and thirteen (N = 2,013) Singaporeans between the ages of 19 to 30 years of age took part in this research (See Table 1.1). This study employed both quantitative and qualitative methods.

The study surveyed the attitudes of Singaporeans toward migration, foreign talent, national pride, economic security, subjective well-being, family ties, personal values and the factors which encouraged a sense of rootedness to Singapore. In addition, the respondents were asked to write a description of their lives in Singapore on a hypothetical blog for foreigners living in another country.

The research revealed that the intention to emigrate was positively associated with social norms that favoured overseas relocation, perceived social status enjoyed by overseas Singaporeans, socio-economic security offered by

overseas permanent residencies, self-rated competence to emigrate, and values that promote achievement and autonomy. This perception was reinforced by the perceived lack of upward mobility in Singapore. Intention to emigrate was inversely related to perceived threat from foreign talent, the sense of national pride, subjective well-being, and the strength of family ties (See Tables 1.17 and 1.18).

Similar to the findings from an empirical study conducted in 2006 (Leong, 2007), four distinct clusters of respondents emerged, namely, the Heartland Stayer, the Cosmopolitan Stayer, the Disengaged, and the Explorer (See Diagram 1). The characteristics of each cluster were largely corroborated by the narrative analyses.

The Heartland Stayers (26.5% of the sample) were not keen to relocate, did not view emigration as a socially acceptable behaviour, had strong family ties and national pride, and were optimistic about the long-term economic prospects of Singapore. This group had disproportionately more Singaporeans who spoke languages other than English at home, females, middle income families and were more likely to endorse communal values.

Like the Heartland Stayers, the Cosmopolitan Stayers (26.7% of the sample) expressed little intention to relocate overseas, indicated strong ties to the family and to the country, and held communal values. They reported a high level of well-being and believed that Singapore's economic future was

promising. But unlike the previous cluster, the Cosmopolitan Stayers viewed emigration as socially acceptable and considered themselves competent enough to leave if they wished to do so. Compared to the Heartland Stayers and the Disengaged, the Cosmopolitan Stayers were more likely to speak English at home, were better educated, and reported to be more affected by the presence of foreign talent in Singapore.

Amongst the four clusters, the Disengaged (26.5% of the sample) expressed the least positive experience on their personal well-being, were most pessimistic about Singapore's economic future, and reported weakest family ties and sense of national pride. The group had no inclination to relocate abroad and did not feel disadvantaged by the presence of foreign talent. Disproportionately more respondents in this category were from middle to high income families and stayed in bigger dwelling types. Post-hoc analysis found this cluster to have a lower rating on social mobility, higher levels of endorsement for openness and self-enhancement values.

Lastly, Explorers (20.2% of the sample) reported a keen interest in leaving Singapore, perceived emigration as socially acceptable, and believed that they possessed the relevant skills and networks to relocate. They were dissatisfied with their personal lives, did not feel proud of Singapore and were not optimistic about the city-state's economic future, although they enjoyed strong family ties. Like the Cosmopolitan Stayers, they felt that Singaporeans were short-changed by the presence of foreign talent. This cluster had

disproportionately more respondents who were male, English speakers, and better educated. Not surprisingly, post-hoc tests suggested that Explorers were more likely to embrace openness values, perceive emigrants to enjoy higher social status, and view emigration as a means of achieving greater socio-economic security.

When asked to choose from a list of factors that rooted them to the country, the presence of friends and family members, home ownership, and financial returns topped the list in that order (See Table 1.14). As such, the strategy in promoting rootedness among young Singaporeans would need to appeal to their emotive, socio-cultural engagement with family and friends as much as opportunities for home ownership and career development.

Next, a narrative capture component was incorporated in the research design to identify critical themes that past or present studies did not consider. The narrative section has offered us further insights into how young citizens perceive and rate various aspects of their lives in Singapore. This could serve to inform policy discussions concerning measures to improve national pride and on whether some of the factors of satisfaction or dissatisfaction are the very same issues that would cause respondents surveyed to express the desire to leave the country.

Analysis was conducted on the overall, developmental (19-24 years and 25-30 years) and cluster levels. The narrative analysis revealed areas of

satisfaction and dissatisfaction among young Singaporeans concerning their lives in the city-state. Three broad areas emerged from the analysis: (1) Pace of life and progress in Singapore; (2) Socio-cultural factors; and (3) Systemic, governmental, environmental and management aspects of life in Singapore.

On the overall level, young Singaporeans surveyed reported greater satisfaction on socio-cultural factors, and of systemic, governmental, environmental and management factors. Conversely, the hectic pace of life and stress were the most frequently mentioned factors of dissatisfaction for respondents. Unexpectedly, the results indicated that the multicultural fabric and the enthusiasm for food contributed to the sense of satisfaction and pride in the Republic (See Diagram 2). There were no significant differences between the two developmental groups of young Singaporeans in the narrative analyses.

On the cluster level, analysis across the four typologies consistently indicated that a secure and stable environment, a diverse multicultural landscape, the wide ranging recreation options, food and the environment were notable determinants of satisfaction. The overarching area of pace and progress in Singapore as it concerned stress, the pace of life and cost of living was the most consistent source of dissatisfaction across the four profiles.

The Cosmopolitan Stayers were the most satisfied cluster and they were notably pleased with the local education system in comparison with

respondents from other clusters. The Heartland Stayers were the next most satisfied, but were somewhat dissatisfied with the pace of life, work experience and stress in the country, like their counterparts in the Disengaged cluster.

The Disengaged were the most negative cluster, with the most number of respondents reporting bad experiences in the work and the education system. The distinctive feature of both the Disengaged and the Explorers was of how socio-cultural factors outweighed systemic, governmental, environmental, and management aspects of life as an overarching area of satisfaction. For Heartland and Cosmopolitan Stayers, the reverse was true, with systemic, governmental, environmental and management aspects of life outweighing socio-cultural factors as an overarching area of satisfaction.

A comparison of the qualitative with quantitative findings offered new insights on the relationship between factors of satisfaction or dissatisfaction, and the intention to emigrate. In the narrative research, the Heartland Stayers and the Disengaged were comparatively more dissatisfied with work and education, but the results from the quantitative analysis showed that they were unlikely to relocate overseas because of that. On the other hand, Cosmopolitan Stayers and Explorers reported fewer negative experiences on work and education in the narrative analysis, but they were more likely to view emigration as a solution to work and education needs in the quantitative survey.

When evaluating both quantitative and qualitative data, a paradox of success seems to have emerged. A significant number of respondents from privileged backgrounds were either socially disconnected (Disengaged) or had expressed a strong desire to relocate abroad (Explorers). Furthermore, respondents who were comparatively more educated (Cosmopolitan Stayers and Explorers) expressed a greater concern about the economic and social threats from foreign talent.

Overall, the results suggest that there is a need for policymakers to increase engagement with the young, mobile, and highly educated Singaporeans. In the endeavour to retain Singaporeans, it is important for policymakers to complement the current emphasis on national obligations with policies that would encourage stronger family and friendship ties, which emerged as critical factors of rootedness. It is also necessary for policymakers to address the work-life balance in Singapore which came up as a key area of dissatisfaction in the study. The findings also signal a need to preserve our unique food culture and revisit policies that could promote or hinder the development of Singapore's heritage food sector.

A STUDY ON EMIGRATION ATTITUDES OF YOUNG SINGAPOREANS

1. INTRODUCTION

Singapore, like other developed economies in Asia, is confronted with two critical but inter-related demographic challenges. First, an increasing number of Singaporeans are either delaying marriage or deciding to have fewer children. In 2010, the Total Fertility Rate was a dismal 1.16 children per women (Singapore Department of Statistics, 2011), far below the recommended replacement rate of 2.10.

Second, the percentage of people aged 65 years and above, currently at 8.8%, is projected to hit 18.7% by 2030 based on official government projections (Ministry of Community Development, Youth, and Sports). The old-age support ratio – defined as the number of working adults supporting a dependent individual – will decrease from 8.3 persons in 2009 to 2.9 in 2030 (Saw, 2007). There will be fewer productive adults to finance the budgetary needs of an ageing society. A persistently low fertility rate and a greying society will have significant impact on the country's economic vibrancy and the levels of social support among families in Singapore.

To this end, the policymakers have adopted a multi-prong, whole-of-government approach in dealing with the impending challenges. On procreation matters, many new or enhanced programmes have been introduced to defray the cost of child-care and other medical and education

related expenses. A better work-life balance and family-oriented policies were advocated by the government in support of a children-friendly environment (The Straits Times, August 19, 2008). On the economic front, the retirement age was raised to 62 years of age (The Straits Times, September 4, 2010) and the contribution to Central Provident Fund (CPF) was adjusted to make the employment of senior citizens more attractive, indirectly alleviating the pressure that the elderly might place on the national budget (The Straits Times, December 16, 2006).

Last but not least, there has been a calibrated increase in net in-migration to top up the population and meet other labour and economic imperatives. According to the latest census, Singapore's residential population (i.e., citizens and permanent residents) increased from 3.2 million to 3.7 million between 2000 and 2010 (Singapore Department of Statistics, 2010). The inflow of migrants, at an average of 50,000 new permanent residents (PR) each year (2001 to 2010), mitigates the effects of the anaemic biological population growth rate but it has triggered concerns from Singaporeans. The influx of foreigners has caused heightened competition for resources such as school placements, scholarships, and housing, resulting in higher costs of living. It is also blamed for the congestion in the transport systems and hospitals. Some Singaporeans also hold the view that the new arrivals would, in time, dilute and even change local norms and values (The Straits Times, October 24, 2009).

1.1 The Brain Drain

While the demographic indicators clearly showed a net gain of people in Singapore over time, there have been suggestions that increasing number of Singaporeans were exiting or planning to leave the city-state to work and live overseas. Official data suggested that 180,000 Singaporeans are currently residing abroad (National Population Secretariat, 2010, p.22) and more people are expected to leave as Singapore becomes ever more integrated with the global economy.

In a parliamentary debate in 2008, Deputy Prime Minister Wong Kan Seng said that the number of persons who applied for the Certificate of No Criminal Conviction (CNCC) had nearly tripled since 1998. The CNCC is a proxy indicator of emigration trend as it is a requirement for the application of long-term residential visas by many of the developed countries that Singaporeans wish to move to. According to DPM Wong, approximately 68% of the applications were made for the final purpose of migration (Ministry of Home Affairs, 2008).

More recently, media reports revealed that the New Zealand Immigration Service had received overwhelming interest from Singaporeans for their work, education and long-term residential visas. More than 4,500 Singaporeans had registered their interest with the immigration office in a three-month period after the programme was launched and 78% of the global enquiries originated from Singapore (The Straits Times, March 17, 2010).

In an international opinion poll in 2006, it was reported that 53% of young Singaporeans expressed the intention to emigrate permanently (The Straits Times, July 25, 2006). This figure was greater than the number of young residents wishing to permanently emigrate from the lesser developed countries, such as India (39%) and Malaysia (28%). As a result, there has been a proliferation of migration agencies in Singapore over the years. There were fewer than eight agencies before 2002, but by the end of 2006, this number had grown to about 15 to 20 (The Straits Times, October 11, 2006).

In a community event in 2009, Senior Minister Goh Chok Tong noted that an increasing number of young and talented Singaporeans had chosen to work and live overseas. Media coverage on the findings of a 10-year longitudinal data set showed that more than 20% of top performing junior college students were presently working abroad. According to Senior Minister Goh, the continuation of such a trend would hollow out our talent pool (The Straits Times, 28 June 2009). In an interview with the United Press International in 2009, Minister Mentor Lee Kuan Yew said that brain drain was a “pretty serious” problem and that “Singapore is losing 4 to 5 percent of the top 30 percent of its population every year” (Channel News Asia, February 14, 2008). In the Economic Strategies Committee (ESC) report published last year, the committee emphasised the need for policymakers to deepen and strengthen emotional ties between overseas Singaporeans and Singapore as increasing number of Singaporeans venture abroad for their career and educational pursuits (Economic Strategies Committee, January 2010). Clearly, the issue

on brain drain and permanent emigration are of perennial concerns among Singapore political leaders.

1.2 Challenges in Emigration Research

Although the issue of outward migration of Singaporeans appears to be important, it is surprising that the phenomenon has not been well-understood and the empirical research in this field remains limited and scant. This may partly be due to the difficulty in obtaining credible, accurate estimations on the number of Singaporeans intending to relocate abroad and the challenge of finding these people for studies. Moreover, it is also challenging to define emigration or relocation for both conceptual and empirical reasons.

First, there has been no formal or informal agreement on the definition of the term, either in local or international studies, although it has been generally used to describe long-term or permanent departure with little or no intention of returning to the country of origin. From anecdotal observations, it is not unusual to find that the different sojourning objectives are mutually-reinforcing. For instance, an international student may find the overseas experience so enriching that he decides to stay on as a permanent resident (PR) in the recipient country. In some instances, international education offers an alternate route to obtaining long-term residency as immigration authorities tend to favour those who have completed tertiary education in their countries (e.g., *The Straits Times*, August 23, 2007). It has been reported that some international students have taken advantage of this policy and

signed up for courses that have a greater impact on their application for permanent residency (The Straits Times, April 9, 2007).

Second, it is an uphill task to collect reliable data on the number and opinions of people who have emigrated, not just among those who have given up their Singapore citizenship but also among those who intend to stay away for long periods though not leading to citizenship in the recipient country. Currently the CNCC offers a proxy measure on the pulse of outward migration. However, the outcome of individual applications for permanent residency is unknown to policymakers. While direct interviews and focus group discussions with overseas Singaporeans may provide a rich source of information, these may be tainted with cognitive dissonance and the fear of losing 'face' should the person express a lower standard of living in the adopted country. The selective sampling and retrospective nature of past empirical research are major limitations noted by researchers. The current methodology and study will therefore complement previous investigations on emigration.

A different tack was taken in a nationwide study on emigration attitudes among young Singaporeans in late 2006 (Leong, 2007). The investigation targeted tertiary students from the local polytechnics (Singapore Polytechnic, Ngee Ann Polytechnic, Nanyang Polytechnic, Republic Polytechnic and Temasek Polytechnic) and public universities (National University of Singapore, Nanyang Technological University, and Singapore Management

University). One thousand nine hundred and fifteen participants, all Singapore citizens aged between 16 to 26 years old, were asked to fill in a survey on their perceptions of emigration and foreign talent. The survey provided a snapshot of how young Singaporeans viewed issues on emigration, working and living abroad, national pride, impact of foreign talent, subjective well-being, family relations, Singapore's long-term economic outlook, and personal values¹.

The study revealed intriguing results relating to respondents' opinions on outward migration. For instance, close to 30% of the participants said that they had thought about working and living abroad 'Very Frequently', or 'All the Time'; about 15% thought about permanent emigration 'Very Frequently', or 'All the Time'; 42.7% agreed or strongly agreed that 'Getting a PR status in another country is becoming a popular trend among the young in Singapore'; and 74% and 61% of the respondents indicated that emigration was a solution to work and educational needs, respectively.

Four distinct groups emerged through cluster analysis of the respondents. They were labelled as the Connected Stayer, the Disenchanted, the Marginalised Stayer, and the Explorer. Each cluster had a unique

¹ The data was collected through several channels. With support of the administration departments, the polytechnic students filled in an online version of the survey; the authenticity of their citizenship was verified at the point when they collect their token of appreciation two weeks later. The surveys from university undergraduates were collected mainly at the lectures and with the support of the instructors contacted by the Principal Investigator. Most of the lectures were cross faculty modules, and as such, it has a broad base of students from a variety of disciplines. The citizenship of participants was verified at the point of survey completion. Finally, the investigators also surveyed respondents at the libraries and common areas at the three varsities. This was undertaken to further reach out to undergraduates from a diverse range of background and subject majors.

demographic profile and they reported different cluster loadings. The Connected Stayer, comprising 22.82% of the sample, had little intention to migrate. People in this cluster reported a high degree of national pride, life satisfaction, and a strong family bonding. They also believed that Singapore's economic future was promising. Although the Connected Stayer did not see themselves as competent enough to emigrate, they did not feel deprived by the presence of foreign talent. Respondents in this cluster endorsed communal and conservative values.

The Disenchanted cluster, comprising 20.73% of the sample, may be regarded as the antithesis of the former group. The respondents in this cluster indicated a strong desire to relocate permanently. They felt disconnected from their families and in their relations with the nation state; they rated their personal well-being more negatively and they felt uncertain about the country's economic prospects. They believed foreign talent has deprived Singaporeans of opportunities and resources. This group of respondents embraced mainly openness and achievement-oriented values.

In the Explorer cluster, comprising 24.75% of the sample, the respondents reported a strong desire to leave Singapore but concurrently indicated a strong bonding with the family. They enjoyed a high level of life satisfaction and were confident of the nation's long term economic prospects. Although they considered themselves talented and mobile, they also viewed foreign

talent as depriving Singaporeans of resources and opportunities. This cluster of respondents adopted openness and achievement-oriented values.

Lastly, the Marginalised Stayers were not inclined to leave Singapore and they viewed themselves as lacking the relevant qualifications to migrate. Compared to the Connected Stayers, the former felt disconnected from their families and they expressed lower levels of personal life satisfaction. The reduced sense of well-being however did not influence their perceptions of foreign talent as they continue to view them in a neutral or moderately positive light. The Marginalised Stayer adopted achievement-oriented values.

The overall findings suggested that the decision to remain in Singapore was a complex matter. The choice was a function of many factors and a multi-dimensional, non-monolithic view of outward migration was warranted.

The current study aimed to replicate the 2006 survey with a few additional questions. In particular, an unstructured narrative component was incorporated to complement the quantitative analysis. The longitudinal design offered an opportunity to examine temporal changes in attitudes.

2. METHOD

2.1 Participants

A total of 2,013 Singapore citizens between 19-30 years old took part in the survey. Respondents were randomly chosen from different private and public

residential estates in Singapore. The demographic breakdown of the final sample can be found in Table 1.1.

2.2 Instrument

For the purpose of comparison, the questionnaire replicated many of the attitudinal and socio-psychological measurements used in the 2006 survey. These included: 'Intention to emigrate', 'Social norms', 'Social status', 'Socio-economic security', 'Social mobility', 'Ability to emigrate', 'Relative deprivation', 'National pride', 'Subjective well-being', 'Singapore's economic future', 'Family ties', and 'Personal values orientation'. In addition to these variables, the participants answered a 26-item checklist on the factors that made them feel rooted to Singapore. The psychometric properties of the instruments can be found in Table 1.2. The following sections provide details of these measurements.

2.2.1 Intention to Emigrate

The 5-item scale required respondents to rate the frequency with which they thought of working or living in another country for the following reasons: (1) overseas education, (2) better job prospects, (3) setting up a business, (4) to work and live in another country for an extended period of time, and (5) emigrating to another country to live there permanently. Each of the five measurements was scored on a 5-item Likert scale of 1(Never) to 5 (All the time). Higher scores denote a greater desire to relocate overseas. See Table 1.3.

2.2.2 Likelihood of Emigration in the Next Five Years

The single-item question required participants to answer the question on whether they would actively look for the opportunity to migrate in the next five years: 'I will actively examine the possibility of emigrating to another country within the next five years.' Respondents rated on a 5-point scale with end points indicating 1(Strongly Disagree) to 5(Strongly Agree). Higher scores denote a greater inclination to leave (See Table 1.4).

2.2.3 Ability to Emigrate

The 4-item scale measured respondents' self-reported ability and eligibility to relocate abroad. An example was: 'I can easily migrate to other countries if I want to do so'. Respondents rated on a 5-point Likert scale with end points indicating 1(Strongly Disagree) to 5(Strongly Agree). Higher scores denote greater perceived capability to emigrate (See Table 1.5).

2.2.4 Attitude towards Emigration

The 15-item instrument measured three interrelated psychological components: Social Norm (3 items), Social Status (2 items), and Socio-Economic Security (10 items)(See Table 1.6). They represented the push-and-pull factors known in human geography and in the theory of planned migration behaviours (Abrams, Hinkle, & Tomlins, 1999). Examples of the scale were: 'Many of my Singaporean friends want to emigrate' (Social Norm), 'People who have successfully emigrated overseas enjoy a higher social status compared to those who remain in Singapore' (Social Status),

and 'Emigrating overseas can provide a backup plan in case Singapore fails' (Socio-Economic Security). Respondents rated on a 5-point Likert scale how much they agreed with each item using the end point indicating 1(Strongly Disagree) to 5(Strongly Agree). Higher rating score indicated a more receptive attitude towards relocation. For the ease of interpretation, the composite instrument will be analysed as a single attitudinal measurement (Emigration Attitude) in the cluster analysis, but as three separate predictors (Social Norm, Social Status, and Socio-Economic Security) in the linear hierarchical regression models.

2.2.5 Social Mobility

The 2-item instrument asked respondents for their views on upward social mobility in Singapore. The two items were: 'I prefer to improve my socio-economic well-being in Singapore (e.g., by studying and working hard) rather than to emigrate for a better life' and 'I can achieve the things that I want even without leaving Singapore'. The respondents responded on a 5-point Likert scale ranging from 1(Strong Disagree) to 5(Strongly Agree). Higher scores indicate perceived availability of opportunities for upward social mobility (See Table 1.7).

2.2.6 Threats from Foreign Talent

The 2-item measurement revealed the degree of economic and socio-cultural encroachment that the respondents felt. The two items were: 'Our job security is compromised due to the influx of foreign talent,' (economic threat)

and 'Having too many foreign talent in Singapore dilute the cohesiveness of our society' (socio-cultural threat). Respondents rated on a 5-point Likert scale ranging from 1(Strong Disagree) to 5(Strongly Agree). Higher scores indicate greater perceived threats from foreign talent (See Table 1.8).

2.2.7 Relative Deprivation

The 5-item scale showed the degree of perceived inequality between foreign talent and the locals as a result of Singapore's labour policies. An example of relative deprivation: 'Singaporeans shoulder more social responsibilities compared to foreign talents'. Respondents rated each item on a 5-point Likert scale ranging from 1(Strong Disagree) to 5(Strongly Agree). Higher scores reveal greater perceived deprivation due to the presence of foreign talent (See Table 1.9).

2.2.8 National Pride

The 5-item instrument was adopted from an established measure on national pride designed by the National Opinion Research Centre (Smith and Jarkko, 1998). An example of the scale: 'I would prefer to be a citizen of Singapore than any other country in the world'. Respondents rated on 5-point Likert scale of the extent of their agreement on each item based on a 1(Strongly Disagree) to 5 (Strongly Agree) end points. Higher rating scores indicate greater levels of national collective pride in Singapore (See Table 1.10). Comparatives scores on National Pride from other countries can be found in Table 1.11.

2.2.9 Subjective Well-Being

The 5-item instrument measured respondents' level of socio-psychological satisfaction (Diener, Emmons, Larsen, and Griffen, 1985). Respondents rated their agreement with each statement using a 5-point Likert scale ranging from 1(Strongly Disagree) to 5(Strongly Agree). An example of the scale: 'I am satisfied with my life'. Higher scores indicate greater satisfaction (See Table 1.12).

2.2.10 Singapore's Economic Future

The 3-item scale measured the respondents' view on Singapore's economic prospects in the next 10 years. The items covered the different perspectives of economic well-being including the availability of jobs for Singaporeans and the country's ability to attract foreign investment. Respondents rated on a 5-point Likert scale with end points indicating 1(Strongly Disagree) to 5(Strongly Agree). Higher ratings indicated greater economic certainty and security (See Table 1.13).

2.2.11 Family Ties

The 3-item measure was based on a scale developed by Gaines et al (1997) to determine how important family ties were to respondents. An example of the instrument: 'I know that my family has my best interests in mind.' Participants rated each item using a 5-point Likert scale ranging from 1(Strong Disagree) to 5(Strongly Agree); higher ratings are an indication of stronger family ties (See Table 1.14).

2.2.12 Personal Values

The measurement was based on Schwartz's Values Survey (Schwartz, 2006). It comprised 21 items organised around ten value types or four higher order value dimensions (Schwartz, 2006). The respondents were shown 21 hypothetical individuals and a snapshot of their respective personality profiles. The respondents rated how similar they were to the person in the description based on a 5-point Likert scale ranging from 1(Not like me at all) to 5(Very much like me). Each narrative exemplified one of the ten value types proposed in the Schwartz's model. For example, a Universalism-value narrative is 'He/she thinks it is important that everyone in the world be treated equally; believes that everyone should have equal opportunities in life.' Higher scores on each value type would indicate a greater endorsement of the respective belief system. Descriptive statistics for the overarching values can be found in Table 1.2.

2.2.13 Factors of Rootedness

The respondents were shown a 26-item checklist and asked to indicate the top five items that made them feel rooted to Singapore. The checklist covered four broad categories of factors: (1) Quality of life (e.g., home ownership, public health and safety), (2) Finance and Career (e.g., Economic opportunities and dynamism, career development), (3) Social Bonding and Well-being (e.g., Having family members here, a fair, compassionate and caring society), and (4) Socio-political considerations (e.g., meritocracy in public administration, political stability) (See Table 1.15).

2.3 Data Collection

Data collection commenced in December 2009 and ended in March 2010. The fieldwork was conducted by an external market survey company. A quota sampling method was adopted, using age, gender, and race of Singaporean residents as reported in the population census as the parameters for the sample quota.

2.4 Data Analysis

The data was analysed using both quantitative and qualitative methods. The two methodologies offered a different lens to understanding emigration attitudes, and segmenting respondents.

2.4.1 Quantitative Analysis

2.4.1.1 Multivariate Statistical Analyses

The percentage of agreement on each item was presented, followed by the overall descriptive statistics showing the mean, standard deviation, range, Cronbach's alphas, inter-scale correlations, and two linear multiple hierarchical regression models involving two dependent variables: the composite measure on 'Intention to emigrate' and the single-item instrument 'I will actively examine the possibility of emigrating to another country in the next 5 years' (1- Strongly Disagree, 5-Strongly Agree)(See Tables 1.2 to 1.17).

2.4.1.2 Temporal Changes

The responses to each item in the 2006 and 2010 surveys were compared to examine for the attitudinal changes across time. The sample in the first data set was limited to students from the local polytechnics and universities. As such, only full-time students from local tertiary institutions were selected for the temporal comparison. The data was filtered based on demographic questions relating to their study/work status and the current educational institution that they were attending.

2.4.1.3 Age as a Covariate

The respondents in the current investigation ranged from 19 to 30 years of age. In order to account for possible developmental changes in attitudes, the analysis was segmented into two groups: respondents from the late teens to early twenties (19-24 years) and those from mid-twenties to thirty years (25-30 years). Not surprisingly, there were more full time students in the former category; 50.7% of the respondents in the 19-24 year old group were full time students, compared to just 6.5% of them in the 25-30 year old category. The two groups were compared on the range of measurements.

2.4.1.4 Cluster Analysis

In the first study conducted in 2006, the cluster analysis generated a typology with four distinct groups named as Disconnected Stayer, Connected Stayer, Disenchanted, and Explorer. Each cluster has a unique profile of socio-psychological and demographic attributes. The current study utilised a

similar K-Means cluster analysis with the identical independent variables used in the 2006 study. These were: 'Intention to emigrate', 'Ability to emigrate', 'Attitude towards emigration', 'Singapore's economic future', 'Relative deprivation', 'National pride', 'Subjective well-being', and 'Family ties'. The demographic profiles and loadings on the socio-psychological measurements were compared across the clusters in the current research.

2.4.2 Qualitative Analysis

The qualitative analysis was based on a narrative capture technique. The respondents were asked to write a short narrative about their lives in Singapore for a hypothetical blog to be read by "foreigners". The open-ended format allowed participants to contribute any personal story that they considered appropriate without confining it to the framework of any social constructs or psychological attributes. The chronicles were analysed in a ground-up manner with the SenseMaker software, which facilitates the collection, labelling and study of narratives.

3. RESULTS

The results will be presented in the following order: The first group of findings shows the descriptive statistics for each item followed by a correlation matrix and linear hierarchical regression models with intention to emigrate and plans for emigration in the next 5 years as the dependent measures. The second group of findings presents the temporal comparison of data from the 2006 and 2010 surveys. The third group of findings presents the comparison of findings

for respondents in their early twenties and those from mid-twenties to thirty years of age to examine if there is any developmental effect on emigration attitudes. The fourth section presents the findings of a cluster analysis followed by a cluster comparison based on a range of psychological attributes and demographic indicators. The final section presents the findings of the narrative capture analysis.

3.1 Quantitative Analysis

The descriptive statistics can be found in Tables 1.3 to 1.17. Questions on the different type and duration of relocation were incorporated. On intention to work and live abroad (See Table 1.3), 22.8% of the sample said they thought about working and living in another country for an extended period of time 'Very Frequently' or 'All the Time'; 21.2% indicated that they thought of permanent emigration 'Very Frequently' or 'All the Time'; and between 16% to 18.7% of the sample said they have thought of studying abroad, search for overseas job prospects, or setting up an overseas business 'Very Frequently' or 'All the Time'. On the statement 'I will actively examine the possibility of emigrating to another country within the next 5 years,' 26.4% of the respondents indicated that they 'Agree' or 'Strongly Agree' (See Table 1.4). The preferred emigration destinations can be found in Table 1.16.

Emigration-related questions can be differentiated into five major constructs, namely social norms, social status, social-economic security, social mobility and self-rated ability to emigrate (See Tables 1.5 to 1.7). About one-third of

the sample believed that obtaining of permanent residency (PR) status abroad had gained momentum among young Singaporeans (33%), and gaining permanent residency status abroad could be regarded as a symbol of personal success and achievement (33.2%). Moreover, application to be a PR abroad was perceived as inevitable in light of Singapore's competitive environment (43.3%) and it offered opportunities in other countries (36.8%). Having said this, close to half of the sample were optimistic about the opportunities for upward mobility in Singapore. About a quarter to one-third of the sample felt they were competent enough to emigrate, either because of their family or business networks or the skills and qualifications that they possessed. Respondents selected Australia (21.7%), United States of America (13.6%), and United Kingdom (9.7%) as their top three countries of preferred emigration destination (See Table 1.16).

The sentiment on foreign talent was somewhat negative. Approximately 40% of the respondents felt that the influx of foreigners had undermined job security and diluted societal cohesiveness (See Table 1.8). Forty-five percent of the sample felt that foreign talent was using Singapore as a stepping stone to other developed countries, and 49.7% of the sample believed that foreign talent were here just for the benefits. Not surprisingly, more than half of the sample indicated that they would like to see fewer foreigners in Singapore (52.6%) (See Table 1.17).

The ratings on national pride can be found in Table 1.10. In order to appreciate the significance of the data, the figures were compared against similar surveys on national pride conducted in recent years. Table 1.11 shows the percentage of agreement and the mean score of national pride with other similar surveys. The ratings from the current sample were significantly lower in comparison with a recent study, the National Orientation Survey 4 (NOS4) (Tan & Koh, 2010). It was not clear if the difference was a result of a genuine disparity in rating scores or was it due to a revised rating scale in the NOS4 survey where there was no 'Neutral' answer option. Comparison with other countries on the identical measurement and rating scale revealed a marginally lower score vis-à-vis other developed economies like United States of America, United Kingdom, and Japan. It should also be noted that the current sample comprised people between the ages of 19 to 30 years only, whereas the data from NOS4 and the ones conducted abroad were based on national samples.

The reactions of young Singaporeans on other facets of social and personal lives were generally positive. Measurements on subjective well-being, perceived economic prospects and strength of family bonding revealed mainly positive sentiments. For instance, more than two-thirds of the participants viewed their family as a key social institution in their lives, and more than half of the sample believed that Singapore will remain prosperous in the next ten years (See Tables 1.12 to 1.14). On the factors of rootedness, the participants were asked to choose five items from a 26-item checklist that

made them feel rooted to Singapore. The five factors that topped the list were: (1) Having friends here (39.8%), (2) Having family members here (39%), (3) Home ownership (33.4%), (4) Financial reward (31.9%), and a tie between (5) Public health and safety (27.5%), and Equal opportunities for everyone (27.5%) (See Table 1.15).

The correlations between the key instruments can be found in Table 1.18. The intention to work and live abroad was positively correlated with ability to emigrate, perceived social norm, status, and socio-economic security, but negatively associated with threats from foreign talent, national pride, family ties, subjective well-being, Singapore's economic future, and social mobility. Future migration plan, based on the single item question on their intention to migrate in the next five years, was positively correlated with migration ability, norm, status, socio-economic security, threats and deprivation from foreign talent; whilst inversely associated with national pride and social mobility.

Following the simple correlational analyses, two linear hierarchical regression models were constructed using the composite measure on 'Intention to emigrate' and the single-item instrument on emigration plans in the next 5 years as the dependent variables. Regression models are generally more reliable in explaining differences in the dependent measures as they account for the covariance between the multiple instruments. The results can be found in Table 1.19.

For the current intention to relocate, the analysis revealed significant effects from age, social norm, status, socio-economic security, social mobility, ability to emigrate, foreign talent threats, national pride, family ties, subjective well-being, and an orthogonal pair of bipolar value dimensions measuring the openness-conservation dimension, and the self-enhancement-self-transcendence dimension². The predictors collectively explained 21% of the variance in each of the two regression models. Respondents who reported higher 'Intention to emigrate' were younger, embraced openness and self-enhancement values, considered emigration as a socially desirable trend, believed overseas Singaporeans enjoyed higher social status, and believed overseas permanent residency can offer an added layer of socio-economic security. This group of respondents also believed that the opportunities for improving their standard of living in Singapore were limited; those who expressed confidence in their ability to relocate were more likely to show higher intention to emigrate. On the other hand, those who expressed a stronger sense of national pride, a family bonding, and a higher level of personal life satisfaction were less likely to think of migration. Threats from foreign talent predicted migration intention but in the intuitively opposite direction - an increased sense of threat was associated with a lower desire to relocate (See Table 1.19).

For future migration plans (in the next five years), the foregoing significant predictors apply except for age, threats from foreign talent, and self-

² Conceptually, Openness and Conservation values each falls in the opposite end of a bipolar continuum. Self-enhancement and Self-transcendence values has a similar structure (See Schwartz, 2006).

enhancement-transcendence values. The pattern of association between the predictors and the dependent measure was identical to the regression model for the contemporary migration plan.

3.2 Temporal Changes

On the whole, the percentage of agreement across the range of measurements had decreased with the exception for the rating on subjective well-being and ability to emigrate (See Tables 2.1 to 2.8). There was a marginal increase in the percentage of respondents who wanted to emigrate for good. In 2006, 15.1% indicated that they thought about relocating permanently abroad 'Very Frequently' or 'All the Time'. The corresponding figure for this statement has increased to 23.9% in the 2010 survey. In comparison with the participants from the first survey three years ago, the current sample has less variability in the ratings compared to the data in 2006 (See Table 2.8). Due to the different data collection methods across the two samples (convenient sampling in campus in 2006, versus door-to-door quota sampling in 2010), the findings must be interpreted with caution.

3.3 Age as a Covariate

The data was segmented into two age categories to study potential developmental changes in attitudes and perceptions. Respondents of ages between 19 to 24 years were organised into one group, and those between 25 to 30 years old were organised into a second. The survey results found marginal but statistically significant differences between the two age groups

on a range of socio-psychological measures (See Table 3.1). Respondents in the 25 to 30 years category reported a higher level of endorsement for self-enhancement values, expressed a lower intention to relocate and demonstrated weaker family ties.

The analysis also revealed significant differences on the factors of rootedness, namely: (1) Home ownership, (2) Variety of entertainment, cultural and leisure activities, (3) Economic opportunities and dynamism, (4) Having friends here, (5) Having family members here, (6) Openness to diversity, and (7) Political stability. Home ownership, variety of social activities, economic opportunities, and openness to diversity were rated more highly by respondents in the 25 to 30 years age category, but having friends and family members in Singapore, and political stability were regarded as more important considerations for rootedness among those aged between 19 to 24 years.

3.4 Cluster Analysis

The K-means cluster analysis found the four-cluster solution to be the most informative. Based on their socio-psychological profiles and demographic background, respondents were labelled as: Heartland Stayer, Cosmopolitan Stayer, Disengaged, and Explorer (See Table 4.1). A schematic overview of their socio-psychological profiles can be found in Diagram 1, and the demographic background of the clusters in Table 4.2; multivariate ANOVA and post-hoc Bonferroni analyses revealed significant differences between

the four clusters for the entire range of attributes (Hotelling's $T = 3.84$, $F(51, 5975)=149.83$, $p<.001$). Descriptive statistics on the socio-psychological instruments and the checklist on factors of rootedness can be found in Table 4.3 and Table 4.4, respectively.

The Heartland Stayers (26.5% of the sample) expressed the lowest intention to relocate among the four groups, held less favourable opinions toward emigration, claimed to have stronger ties to their families and to Singapore, and were optimistic about the long-term economic prospects in Singapore. This group comprised disproportionately more respondents in the 19-24 year-old bracket (55.4%) compared to the overall sample (51%), who spoke a non-English language at home, were predominantly females, were from middle income families and stayed in 4-room Housing Development Board (HDB) flats. The Heartland Stayers felt rooted to Singapore mainly due to the presence of family members (48.1%) and friends (40.3%). Post-hoc tests found that this cluster endorsed communal values, and espoused a conservative attitude to emigration. They also believed that Singapore offered equal opportunities in advancing up the social ladder.

Like the Heartland Stayers, the Cosmopolitan Stayers (26.7% of the sample) expressed little intention to relocate abroad, and reported a strong affinity to the family and to the country. They believed the city-state has a bright economic future and demonstrated the highest level of life satisfaction. Unlike the former however, the Cosmopolitan Stayers expressed a more positive

view on emigration as a social phenomena and considered themselves competent enough to leave if they wished to do so. Compared to the overall sample, disproportionately more Cosmopolitan Stayers spoke English at home. This group was better educated compared to the Heartland Stayer and the Disengaged. Similar to the Heartland Stayers, their sense of rootedness depended on having family members (46.8%) and friends (39.6%) here. Surprisingly from the post-hoc analysis, Cosmopolitan Stayers felt most threatened by the presence of foreign talent in Singapore. Like the Heartland Stayers, the Cosmopolitan Stayers embraced communal values.

The Disengaged (26.5% of the sample) reported the least positive outlook on all individual and social well-being indicators, including the degree of social mobility. The group held a moderate view towards overseas relocation, did not feel disadvantaged or threatened by the presence of foreign talent in Singapore, but felt disconnected from their families and to the country. They felt relatively pessimistic about Singapore's economic future and on their personal well-being. The respondents in this category were disproportionately older, from middle-high income families and stayed in bigger dwelling types (e.g., Executive flats, condominium, landed property). For the Disengaged, there were few factors that made them feel rooted to Singapore; the ones that garnered a respectable level of endorsement included 'Having friends here (37.1%)', 'Financial reward (36.3%)', and 'Variety of entertainment, cultural and leisure activities (36.3%)'. The Disengaged rated significantly higher on openness and self-enhancement values.

Finally, the Explorer (20.2% of the sample) reported the greatest intention to relocate, expressed a favourable view on emigration attitudes, and claimed to have the relevant network and skills needed to migrate. Although the Explorers were just as likely to enjoy strong family bonding like the Heartland and Cosmopolitan Stayers, they were dissatisfied with the state of their well-being, did not particularly connect well to the country, and were not optimistic about Singapore's economic future. Similar to the Cosmopolitan Stayers, they felt that Singaporeans were short-changed by foreign talent. This finding will be further analysed in the narrative research section. In terms of demographic profile, this group was disproportionately younger, spoke English at home, comprised more males than females, and were better educated. The majority of the respondents in this group identified friends (43.0%) and family (39.1%) members as the main reasons for their sense of commitment to Singapore. It should be noted that the Explorer rated home ownership less highly than the three other categories, with just 28.3% indicated it was a critical factor for feeling rooted. Not surprisingly, post-hoc tests suggested that the Explorers endorsed openness values, were more likely to believe in social norms that favoured international relocation, perceived overseas Singaporeans enjoying higher social status, and viewed emigration as a means to achieving greater socio-economic security.

3.5 Qualitative Analysis

The narrative capture approach was incorporated into the methodology to complement and corroborate the quantitative findings. This unstructured, qualitative methodology was introduced to explore if there were other factors that had not been considered in the structured, quantitative section of the survey. Respondents were required to provide written answers in response to the following statement: ‘Suppose you have a blog and intend to write something for foreigners living in other countries, what would you tell them about your life in Singapore in a few lines?’ The responses from 100 participants were randomly selected for each area of analysis.

The narratives were then codified in the following stages:

- *Construct Creation.* The themes or comments within each paragraph were read, interpreted by the research team and tagged under one or more ‘constructs’ that emerged. For instance, mentions of ‘family’ were coded with the ‘Familial Ties’ construct.
- *Construct Tonality.* At the same time, the themes within each paragraph were read and interpreted by the research team for whether they carried positive or negative tones. Paragraph with positive and negative tones would be tagged to the corresponding positive and negative constructs respectively. In the former example of Familial Ties, paragraphs with positive mentions of family were tagged to ‘Familial Ties (+ve)’. Paragraphs with negative mentions of family were linked with the construct ‘Familial Ties (-ve)’. Themes that had no negative or positive

equivalent were stated without the '(+ve)' or '(-ve)' tags. For instance, the construct on stress does not carry the '(-ve)' tag as all mentions in the chosen paragraphs were clearly negative.

- *Paragraph Tonality.* Paragraphs were also read and interpreted in their entirety for whether they carried a positive, negative or balanced/mitigated tone. Balanced/mitigated tones were used to describe paragraphs that are neutral on the outset, and where positive and negative themes cancel each other out, disqualifying them from either category.
- *Thematic Classification.* Themes of the same category were classified together from the start for the sake of parsimony. For instance, transport and healthcare were grouped under infrastructure.
- *Relationship and Framework Formation.* Constructs were then analysed and interpreted for possible relationships and grouped into superordinate categories to form a larger framework.

The data was analysed on three levels: the first at the overall level with 100 narratives picked randomly from the complete sample. Using the 100 narratives that were randomly selected for the overall level, the second level of analysis was performed, comparing between two age categories by sorting the respondents into two groups, those between 19 to 24 years of age, and those between 25 to 30 years of age. The third level of analysis was of a comparison among respondents in the four clusters with 100 narratives from each group.

In addition to the positive/negative tonality, three superordinate constructs emerged from the analysis representing 'Pace and progress of development', 'Socio-cultural factors', and 'Systemic, governmental, environmental and management factors'. Constructs with positive connotations were read and interpreted as sources of satisfaction, of aspects that they were contented with or even displayed a sense of pride for Singapore (See Diagram 2 as an example). The converse was true for negative constructs which revealed a state of dissatisfaction. All the narratives were coded based on a ground-up reading of themes that emerged and the process did not rely on any prior framework or pre-determined themes.

3.5.1 Overall Level of Analysis

Out of a random selection of 100 narratives, 69 ranked positive, 14 scored in the negative region and 17 ranked balanced/mitigated for paragraph tonality (See Diagram 2). The positive links between the items and the constructs heavily outweighed the negative ones. Key areas of satisfaction emerged from the systemic, governmental, environmental and management, and socio-cultural categories. Respondents most enjoyed the safety, security, stability and peace in the political, economic, social and environmental aspects that Singapore had to offer. They were also fond of Singapore's cultural diversity, harmony and cosmopolitanism. The positive aspects of Singapore's 'clean and green' environment and 'good weather' also featured as reasons for satisfaction.

Aspects that could be categorised under the construct 'Pace and Progress' were factors of dissatisfaction for respondents - work was hectic and stressful, there was a perceived lack of job opportunities and alternative pathways, and foreigners were viewed as a source of competition. They were unhappy about the hectic pace of life and the results-driven outlook in Singapore. Factors that were not elaborated on carry the tag '(general)' in this study. To elaborate, responses containing the theme of stress, but did not carry details on the type or source of stress were tagged as 'Stress (general)'.

Broadly, positively-coded responses for paragraph tonality spanned the range of low to high intention to relocate overseas. This project utilised the SenseMaker application to determine the degree of intention to migrate amongst respondents. The application arranges the paragraphs from low to high intention to migrate from the left to the right respectively. Responses tending toward the left of the narrative map, in the middle and to the right of the narrative map would have low, middle and high levels of intention to migrate respectively. Positively-coded responses spanned the entire range of low to high levels of emigration intention. The balanced/mitigated category ranged from low to middle levels of emigration intention, and responses that were negatively-coded clustered generally in the category of middle level of emigration intention. In addition, there did not appear to be marked patterns of association between the degree of emigration intent and factors (constructs) of dissatisfaction and satisfaction. The narrative component thus suggests that the link between life satisfaction and intention to emigrate is neither

strong nor direct; judging from the narrative capture, the influence that life satisfaction holds on emigration intent is likely to be mediated by other factors.

Having explored life satisfaction and its relationship with intention to emigrate, the next natural step involves examining the link between life satisfaction and rootedness to the intention to emigrate. The question is if the sources of satisfaction of Singaporeans are the same pull factors that will keep them in the country. This bears further study. Aspects of satisfaction that came up and which would intuitively feature in the factors of rootedness segment of the quantitative component include food, multiculturalism/racial harmony, the environment (clean and green, the weather), and infrastructure.

The research also revealed that the construct of Family or Asian values was connected to respondents with low intention to emigrate in the two cases where it emerged. The two narratives appeared to be a weak signal. In addition, there were one to two mentions of 'cosmopolitanism', which also featured on all other levels of analysis.

3.5.2 Age as a Filter for the Model

The same 100 narratives that were selected in the overall analysis were classified into two age groups, respondents that fall between 19 to 24 years of age, and those aged between 25 to 30 years (See Diagrams 3 and 4). The differences between the two age categories are slight, but are discussed here for the purposes of comparison. The responses of the age group of 19 to 24

years were more polarised as more narrative items tended to fall within the two extremes of positive and negative tonality as opposed to the balanced and mitigated paragraph tonality. The reverse was true for respondents in the age category of 25 to 30 years which revealed a comparatively greater number of responses in the balanced/mitigated domain.

Both age categories reported a strong connection to the theme on safety, security, and stability, mirroring the results of the overall model. The relative importance of the three overarching categories as areas of satisfaction was the same for both age categories. Pace and progress was the more frequently cited domain of satisfaction across all factors of work, education and general opportunities for respondents aged between 25 to 30 years than those aged 19 to 24 years. Socio-cultural factors, food and multiculturalism were more often raised as sources of satisfaction for respondents aged between 19 to 24 years than those aged between 25 and 30 years. Friendship and other social ties were greater sources of satisfaction for respondents aged between 19 to 24 years, while family ties featured more strongly for respondents aged between 25 and 30 years. The theme of Family and Asian values emerged only for those in the age group of 25 to 30 years.

The pace and progress of life in Singapore emerged as the strongest overarching area of dissatisfaction for both age groups. Within this, work, stress, and pace and outlook were the strongest factors associated with dissatisfaction. The two former items displayed a similar number of links for

the two age categories whilst pace and outlook featured more highly as a correlate of dissatisfaction, with the age group of 19 to 24 years outweighing those from the mid to late twenties. The high cost of living was brought up only by the latter. A few respondents in the younger age category cited environmental and systemic rigidities as an area of dissatisfaction, whilst this did not emerge for those aged between 25 to 30 years.

3.5.3 Narratives Between Different Typologies of Singaporeans

In general, security and stability, and cultural diversity had the strongest links to satisfaction in all categories. The strongest overarching area of satisfaction for Heartland and Cosmopolitan Stayers was in systemic, governmental, environmental and management aspects of life in Singapore. For the Disengaged and Explorers, the strongest overarching area of satisfaction was in socio-cultural factors. Pace and progress was consistently the most frequently mentioned overarching aspect of dissatisfaction across clusters.

For the Heartland Stayers, 64 narratives were of positive paragraph tonality, 12 featured a negative paragraph tonality, and 24 were of a balanced or mitigated response and (See Diagram 5). A disproportionately large number of Heartland Stayers indicated satisfaction with the safety, security, stability and peace that Singapore provided in the political, social, economic and environmental sense. Heartland Stayers also displayed strong links to other aspects of satisfaction in the systemic, governmental, environmental and management superordinate construct, particularly with regard to a 'clean and

green' environment and good governance. Heartland Stayers also frequently cited themes relating to cultural diversity and harmony, food, the cosmopolitan aspect of the country, as well as the 'clean and green' environment. A moderate number of narratives contained expressions of dissatisfaction with the pace and progress construct, and it appeared to be applicable to work, education, pace of life, cost of living and other general stressors. A more detailed analysis between the qualitative and quantitative component will be conducted in the discussion section.

Cosmopolitan Stayers had the most number of narratives that were ranked 'positive' and the least number that were ranked 'negative' in paragraph tonality; 77 responses were ranked positive, 10 were ranked negative and 13 were ranked balanced/mitigated by the same measure (See Diagram 6). As was with the Heartland Stayers, a disproportionately large percentage of Cosmopolitan Stayers conveyed satisfaction in the areas of security, stability, safety, peace and order, in the economic, social and political sense. Cosmopolitan Stayers also conveyed a strong sense of satisfaction in the systemic, governmental, environmental and management superordinate construct, particularly on Singapore's infrastructural development and clean and green status. Cosmopolitan Stayers also cited satisfaction with the socio-cultural aspects of Singapore like cultural diversity and harmony, cosmopolitanism, food, and recreation facilities. However, there were few narratives relating to familial and friendship ties. The links for Cosmopolitan Stayers in the aspect of pace and progress were the strongest amongst all

clusters. Compared to other typologies, more respondents in this cluster indicated their approval of the education system, reported the existence of ample work opportunities, as well as favourable remuneration terms and work environment. There were few links for Cosmopolitan Stayers to negative constructs and in those cases, they tended to be associated with stress, a hectic and competitive pace of life and high cost of living.

The Disengaged cluster had the most number of narratives that were ranked 'negative' and the least number of positive responses in terms of paragraph tonality; 47 responses ranked positive, 40 ranked negative and 13 scored balanced/mitigated on the same measure (See Diagram 7). By means of a cross-cluster comparison, the Disengaged cluster displayed a disproportionately large number of links for negative associations with work; it ranked low on the positive recognition of security, safety and stability enjoyed in the country, and the cultural diversity and cosmopolitan nature of the country. Nonetheless, within the Disengaged cluster alone, security, safety and stability enjoyed in the country was the most frequently cited factor of satisfaction for the Disengaged. Respondents in this cluster articulated a relatively stronger degree of satisfaction in the socio-cultural dimension on friendship ties; this observation was consistent with the comparative differences on the factors that promote rootedness. Finally, some respondents signalled a need for reprieve from the demands of work and life in terms of looking forward to holidays or the weekends so that they could get some rest. Interestingly, the Disengaged displayed somewhat strong

satisfaction in work and education, coming second only to the Cosmopolitan Stayers.

In the Explorer category, 57 narratives were scored positively, 24 were negative and 19 were balanced/mitigated for paragraph tonality (See Diagram 8). Although satisfaction was most frequently mentioned in relation to socio-political security, safety, order and stability, the strength of this relationship was weaker compared to the Heartland and Cosmopolitan Stayers, but not to the Disengaged. Like the Disengaged, the Explorers showed comparatively low number of links for factors (across the other two clusters) such as stability, safety, security and peace and multiculturalism. In line with the quantitative results on relative deprivation and threats, a larger number of Explorer (8) expressed their dissatisfaction with the influx and volume of foreign talent. There were a moderate to low number of links for dissatisfaction concerning pace and progress. Some Explorers also indicated dissatisfaction with the limited resources in Singapore, such as our limited land size.

4. DISCUSSION

This survey employed a combination of quantitative and qualitative instruments. The latter was based on the method of narrative capture, and is a way to corroborate results derived from the quantitative analyses, identify weak signals, uncover blind spots, and a means to challenge conventional thinking or mental paradigms. Using the stories narrated by the respondents,

thematic constructs and sentiments underlying their experience working and living in Singapore were identified.

The findings showed that young Singaporeans had a positive opinion towards working and living abroad, but at the same time, were proud of being Singaporean and of the country. More than a quarter of the sample said that they would consider emigrating in the next five years. One in five participants had thought about permanently leaving the city-state 'Very Frequently' or 'All the Time'.

The relationship between socio-psychological measurements and their current or future emigration intentions were captured in the two linear hierarchical regression models. Both present ('Intention to emigrate' indicator) and future intention (degree of agreement with statement 'I will actively examine the possibility of emigrating to another country in the next five years') were positively correlated with indicators of perceived social norm, status, socio-economic security and competence to leave. Respondents who considered emigration as a normative collective behaviour, believed that they had the right skills or qualifications, and viewed overseas permanent residency as a measure of individual success and status were more likely to think of leaving. The availability of opportunities and the added sense of socio-economic security offered to residents in other countries reinforced this intention. For some, the perceived lack of upward mobility in Singapore exacerbated this

sentiment. Respondents who embraced more openness values showed a greater likelihood to contemplate leaving.

As a linear predictor, the impact of foreign talent appeared mixed. The threats to job security and national cohesiveness were associated with lower levels of 'Intention to emigrate'. Relative deprivation stemming from the presence of foreign talent was not statistically significant for both dependent variables. However, in the bivariate correlations (See Table 1.18), threats predicted both dependent measures albeit in a direction that was opposite to our intuition. Increased threat was associated with lower contemporary intention to emigrate but with higher future intention to relocate; increased deprivation on the other hand, was associated with greater likelihood to consider emigration in the next five years. Speculatively, the inverse relation between threat and current intention to migrate may reflect an underlying level of resilience and resistance; those who felt threatened chose to stay put and compete with the foreign talent, whilst those who were not threatened by the presence of foreign talent intend to explore opportunities outside the country. More empirical research on this topic is warranted.

On the other side of the coin, the level of social and individual well-being mitigated the present desire to relocate. Respondents who displayed greater national pride, strong family ties, a high degree of life satisfaction, and those who were optimistic of Singapore's economic future registered a lower score on intention to leave.

It should be noted that the intention to relocate and the psychological engagement with the city-state were not mutually exclusive. On the whole, the majority of respondents reported strong family ties and were proud to be Singaporeans and of the country's achievements. But this did not stop them from thinking about working and living abroad. In general, this finding reflects some success on the efforts to encourage Singaporeans to venture beyond the shore of our nation but yet remain rooted to the city-state.

The results derived from the quantitative analyses were mainly consistent with the conclusions from the narrative capture. Broadly speaking, the narrative analysis painted a more positive picture than the quantitative analysis; a greater percentage of respondents were satisfied. This finding was obtained by comparing the measure of paragraph tonality for the narrative capture (See Diagram 2) with the subjective well-being indicator for the quantitative analysis (See Table 1.11). Having said this, the more positive finding of the qualitative analysis could have resulted from some degree of political correctness from respondents when asked to tell a foreigner about one's own country.

Whilst the quantitative component offered analysis into the factors of rootedness, the narrative capture provided insight into how satisfied Singaporeans were on some of these counts. This combined method affords a different lens from the usual approach taken in migration research. The critical factors of rootedness of the quantitative findings (e.g., family and

friends, equal opportunities, career advancement, home ownership and public health, safety and security) generally echoed the ones underlined by two over-arching constructs in the narrative capture, i.e., socio-cultural, and systemic, governmental, environmental and management factors.

However, a more detailed comparison revealed that the top indicators of rootedness (>30%) did not quite match key areas of satisfaction (the 4-5 constructs with the most number of links). Although friendship and family ties, home ownership and financial rewards ranked the highest across the board as factors of rootedness, they did not feature prominently in the narrative capture. This could be due to the fact that the quantitative and qualitative findings focus on different dimensions. A further reason includes the question of privacy, in that one tends not to speak of personal matters to a broad, foreign audience. To illustrate, majority of the respondents demonstrated strong family ties in the quantitative component compared with the considerably lower rate of mention for the narrative capture. The indices of political and social stability, and competent government did not individually rank as high on the frequency distribution as in the narrative capture, for which the stability construct received the greatest number of mentions as a source of satisfaction. This discrepancy might be due to the nature of the narrative finding which features stability as an aggregated construct, whilst the rootedness indicator separates out the different kinds of stability. Political and social stability will be aggregated for the cluster analysis to provide a limited comparison, but it is not meaningful to adopt this approach for the overall

narrative map. Further, the aggregated stability construct was not broken down by type as there were many non-specific mentions of stability.

A cross-comparison of the quantitative and qualitative data further suggests that Singaporeans are facing the same negative factors that could persuade them to emigrate. Work place expectations, education needs, and family planning were cited by many as the drivers for emigration in the quantitative component. For the narrative capture, respondents brought up work and education-related stress, stress in general, hectic pace of life, high cost of living the lack of work-life balance as factors of dissatisfaction.

The narrative capture also hinted at the importance of the local food culture, and the need to maintain the country's unique form of multiculturalism. A few had mentioned Singapore's cosmopolitan character in the narrative capture on the overall, developmental and cluster analyses. This may be a reflection of the nation's rising global city status.

In addition, the narrative capture threw up a weak signal which could be useful for further study. The construct of Asian and family values was connected to respondents with low intention to emigrate in the two cases where it was raised, and would be interesting to further examine.

4.1 Temporal Changes

In comparison with the previous run of the survey in 2006, the results of the 2010 study reveal a lower intention to relocate, a more conservative attitude to outward migration, lower levels of national pride, weaker family ties, less optimism on the economic future, but also a diminished sense of relative deprivation due to foreign talent working and living in Singapore. The reduction in measurement scores was balanced by improvement in subjective well-being and increased in self-reported competence to emigrate.

The temporal changes may be attributed to the volatile global economic conditions and the high standard of public governance in Singapore, exemplified in the way policymakers managed the recent 2008 financial crisis. From the narrative data, it appeared that Singaporeans appreciated the political leadership and its capability. It was however inevitable that some form of confidence was eroded in light of the magnitude and impact from the global crisis.

The improved sentiment towards foreign talent could be the result of the policy shift in recent years to accord greater attention and privileges to citizens vis-à-vis PRs and other categories of foreigners. There was however a desire for the policy on foreigners to be recalibrated further. In summary, while the overall attitudes toward emigration had moderated compared to the data four years ago, the challenge from 'brain-drain' as indicated in the

projected CNCC figures remains a concern to the policymakers in light of our limited talent pool and the rapidly ageing population.

4.2 The Taxonomy of Singaporean Stayers and Leavers

Unlike linear regression models, cluster analysis offers a heuristically simple framework to study multivariate relations and as a means to reduce data to a more manageable amount of information. This approach indirectly supported higher order interaction effects without involving the cumbersome process or assumptions required in linear regressions or analysis of variance. This is particularly helpful where there is little prior knowledge on the research topic. With a specified number of clusters, the data determines the pattern of associations based on the measured distance between variables.

From the analysis, four typologies of Singaporeans emerged. The taxonomy of Singaporeans showed that there was no one-size-fits-all solution to nurturing loyalty and pride in the country. The thrust of rootedness differed between the four clusters of people and the absence of a common denominator (i.e., <50% for all factors of rootedness) suggested that a stratified approach to addressing emigration would be necessary.

Home ownership was not as influential on the sense of rootedness as policymakers have assumed, especially in the Explorer cluster. Quality of relations with friends and family members were the lynchpins to feeling rooted for most and it is thus crucial that public communication and national

education programmes emphasise the role of family and friendship as much as obligations or duties to the nation or the concept of 'stakeholdership' in the country.

Results from the narrative capture reinforced the conclusions from the quantitative survey. A comparison of the quantitative rating of subjective well-being for each cluster, and its corresponding proportion of positive narratives revealed the same satisfaction rankings. The Cosmopolitan Stayers were ranked the highest on both the quantitative level of well-being and the proportion of narratives with positive paragraph tonality, followed by the Heartland Stayers, and then the Explorers and Disengaged.

In the same manner of matching key factors of satisfaction with life in Singapore to rootedness, it was found that political, social and sometimes economic stability were the greatest factors of satisfaction for respondents in the qualitative component. This finding was echoed in the quantitative data with the combination of political and social stability (See Table 4.4, No. 22 and 23) as key factors of rootedness. The merged scores of political and social stability were used to provide a limited comparison for the aggregated narrative construct of stability.

The qualitative analysis also illuminated an ironical situation as it concerned the perceived levels of dissatisfaction amongst the clusters in the qualitative component and the push factors of emigration found in the quantitative

research. The Heartland Stayers and the Disengaged displayed the highest degrees of negative experience relating to work and education in the narrative capture, but yet most of them did not cite emigration as a solution to problems related to work and education needs in the quantitative research. Only 24.3% of the Disengaged and 22.7% of Heartland Stayers strongly agreed or agreed with the statement 'Emigration is a solution to problems related to work needs'. And just 26.8% of the Disengaged and 21.2% of Heartland Stayers strongly agreed or agreed with the statement 'Emigration is a solution to problems related to education needs' for the quantitative data.

Conversely, although Cosmopolitan Stayers and Explorers saw emigration as a solution to work and education needs in the quantitative survey, they displayed comparatively fewer negative experiences to work and education in the narrative analysis. 45.9% of Cosmopolitan Stayers and 47.2% of Explorers strongly agreed or agreed with the approach of emigration to solve problems relating to work needs for the quantitative component. 42% of Cosmopolitan Stayers and 45.7% of Explorers strongly agreed or agreed with migrating to deal with problems concerning educational needs for the quantitative section.

4.3 The Paradox of Wealth

It was interesting to observe that majority of the respondents in the Disengaged or Explorer categories were of well-to-do family backgrounds. The Disengaged demonstrated little affinity to their families, the society, and

to the country. And while they did not elicit a strong interest to relocate, they were clearly not connected. It was not clear what precipitated this experience but this cluster of respondents seemed more motivated by personal pursuits, including financial reward and the range of entertainment, cultural and leisure activities. From the narrative analysis, work expectations, pressure from school, the desire for a reprieve, and the mundane routine in life collectively influence satisfaction. In order to reach out to the Disengaged, a sensible work-life balance, a family-friendly environment, and the option of pursuing a less well-trodden career track are crucial.

4.4 Foreign Talent: A Case of Social Dominance?

The negative sentiments on foreign talent espoused by the Explorer and the Cosmopolitan Stayer deserve more exploration. Both groups were wary of the impact of foreigners to Singapore although they were comparatively more educated and enjoyed above-average socio-economic status. This correlation contradicts popular assumptions within the migration discourse. For the two clusters, the inverse relation hinted at a hegemonic desire to maintain their pole positions in the Singapore society. The impact of foreign talent on the different segments of the population is not understood but a critical debate on this empirical topic is beyond the scope of this paper.

In summary, the results from both quantitative and qualitative analyses indicate that emigration attitude is multi-faceted and non-monolithic. The social construction of emigration needs to be examined in a holistic and

comprehensive manner, taking into account the prevalent attitudes toward emigration, individual and social well-being, personal values, impact of foreigners, and the purpose of relocating. The list of variables examined is not exhaustive but it does offer a valuable framework for the conduct of a trend study over time. The findings also suggest that the young Singaporeans are not homogenous in their outlook and the policymakers need to employ different strategies to engage the different segments of the population.

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References

- Abrams, D., Hinkle, S., & Tomlins, M. (1999). Leaving Hong Kong? The roles of attitude, subjective norm, perceived control, social identity, and relative deprivation. *International Journal of Intercultural Relations*, 23(2), 319-338.
- Chang, R. (2010, September 4). Moving up the retirement age. *The Straits Times*.
- Diener, E., Emmons, R.A., Larsen, R.J., & and Griffen, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Economic Strategies Committee (January 2010). *Report of the Economic Strategies Committee (ESC)*. Retrieved from: <http://app.mof.gov.sg/esc.aspx>
- Gaines, S.O., Marelich, W.D., Bledsoe, K.L., Steers, W.N., Henderson, M.C., Granrose, C.S., et al. (1997). Links between race/ethnicity and cultural values as mediated by racial/ethnic identity and moderated by gender. *Journal of Personality and Social Psychology*, 72(6), 1460-1476.
- Goh, C. L. (2009, June 28). Wanted: Strong wings, deep roots. *The Straits Times*.
- Hussain, Z. (2009, October 24). Balancing needs of both camps. *The Straits Times*.
- Kok, M. (2010, March 17). Singaporeans answering the call of NZ. *The Straits Times*.
- Leong, C.H. (2007). Study on Singapore Tertiary Students' Attitudes Toward Emigration. Policy Report.
- Li, XY. (2008, August 19). More help with bringing up baby. *The Straits Times*.
- Ministry of Community Development, Youth and Sports (2010). Social Indicators on the Elderly, 2009. Retrieved from: <http://app1.mcys.gov.sg/ResearchRoom/ResearchStatistics/StatisticalIndicatorsontheElderly2009.aspx>
- Ministry of Home Affairs. (2008, August 25). *Written Answer to Parliamentary Question on the number of Certificates of No Conviction that had been applied for and issued, for each of the past ten years, 25 August 2008*. Retrieved from http://www.mha.gov.sg/news_details.aspx?nid=MTI2NQ%3D%3D-6sISf4HdrBE%3D
- National Population Secretariat, Singapore Department of Statistics. Ministry of Community Development, Youth and Sports, Ministry of Home Affairs, Immigration and Checkpoints Authority (2010, June). *Population in Brief 2010*. Retrieved from <http://www.nps.gov.sg/files/news/Population%20in%20Brief%202010.pdf>
- Ng, J. (2009, February 14). MM Lee says Singapore facing brain drain problem. *Channel News Asia*. Retrieved from: <http://www.channelnewsasia.com/stories/singaporelocalnews/view/328684/1.html>

Singapore Department of Statistics. Key Population Indicators. *Census of Population 2010: Advanced Census Release*. Retrieved from <http://www.singstat.gov.sg/pubn/popn/c2010acr.pdf>

Smith, T.W. & Jarkko, L. (1998). National Pride: A cross-sectional analysis. GSS Cross-national Report No. 19. Chicago: NORC.

Schwartz, S.H. (2006). Value orientations: Measurements, antecedents and consequences across nations. IN R. Jowell, C. Roberts, R. Fitzgerald, & G. Eva (Ed.), *Measuring Attitudes Cross Nationally – Lessons from the European Social Survey*. London: Sage.

Tan, E.S. & Koh, G. (2010). *Citizens and the Nation, National Orientations of Singaporeans Survey (NOS4)*. Institute of Policy Studies (Singapore). Retrieved from http://www.spp.nus.edu.sg/ips/nos_4_2010.aspx

The Straits Times. (2007, August 23), Plagiarism: Hundreds may lose Aussie visas.

The Straits Times. (2007, April 9). Australia to plug migration loophole for foreign students.

The Straits Times. (2006, December 16). Helping to keep older workers employable.

SECTION 1: Overall Descriptive Statistics

Table 1.1: Overall Demographic Breakdown of Sample (N = 2013)

Variable	Frequency	%
<u>Age</u>		
19 – 21 years old	567	28.2
22 – 24 years old	458	22.8
25 – 27 years old	474	23.5
28 – 30 years old	514	25.5
<u>Language Spoken at Home</u>		
English	926	46.0
Mandarin	833	41.4
Malay	189	9.4
Tamil	47	2.3
Others	18	.9
<u>Place of Birth</u>		
Singapore	1965	97.6
Malaysia	22	1.1
Others	26	1.2
<u>Gender</u>		
Male	988	49.1
Female	1025	50.9
<u>Race</u>		
Chinese	1514	75.2
Malay	287	14.3
Indian	183	9.1
Others	29	1.4
<u>Educational Qualification</u>		
No qualification/Lower Primary	3	.1
Primary	10	.5
Lower Secondary	27	1.3
Secondary	289	14.4
Upper Secondary	472	23.4
Polytechnic Diploma	541	26.9
Other Diploma/ Professional Qualification	244	12.1
Degree	408	20.3
Post-graduate Qualification	19	.9
<u>Religion</u>		
Taoism	227	11.3
Buddhism	566	28.1
Islam	300	14.9
Hinduism	129	6.4

Christianity	374	18.6
Catholicism	82	4.1
Others	5	.2
No Religion	330	16.4

Total Gross Monthly Household Income

Below \$500	8	.4
\$500 to \$999	18	.9
\$1,000 to \$1,999	87	4.3
\$2,000 to \$2,999	204	10.1
\$3,000 to \$3,999	267	13.3
\$4,000 to \$4,999	301	15.0
\$5,000 to \$5,999	309	15.4
\$6,000 to \$6,999	263	13.1
\$7,000 to \$7,999	162	8.0
\$8,000 to \$8,999	134	6.7
\$9,000 to \$9,999	66	3.3
\$10,000 and above	151	7.5
Refused	43	2.1

Accommodation Type

HDB 1 – 3 Room	353	17.5
HDB 4 Room	780	38.7
HDB 5 Room	397	19.7
Executive/Maisonette	263	13.1
Condominium/HUDC/Terrace/ Semi-detached/Bungalow	220	10.9

Table 1.2: Overall Descriptive Statistics

Concept	N of Items	Cronbach's alpha	Mean	SD	Range
Intention to Emigrate*	5	.77	2.49	.58	1.00 - 5.00
Emigration Attitude*	15	.79	2.93	.52	1.00 – 5.00
- Social Norm	3	.53	2.82	.72	1.00 - 5.00
- Social Status	2	.60	2.92	.99	1.00 - 5.00
- Socio-Economic Security	10	.74	2.96	.57	1.00 - 4.80
Ability to Emigrate*	4	.66	2.84	.70	1.00 - 5.00
Social Mobility	2	.64	3.30	.84	1.00 - 5.00
Threat from Foreign Talent	2	.64	3.19	.87	1.00 - 5.00
Relative Deprivation*	5	.63	3.22	.64	1.00 - 5.00
National Pride*	5	.46	3.19	.55	1.00 - 5.00
Subjective Well-Being*	5	.74	3.08	.69	1.00 - 5.00
SG Economic Future*	3	.66	3.31	.74	1.00 - 5.00
Family Ties*	3	.81	3.76	.88	1.00 - 5.00
Personal Values					
Openness	-	-	.10	2.02	-9.14 – 10.29
Self-Enhancement	-	-	-.45	1.81	-7.29 – 6.19
Self-Transcendence	-	-	.61	1.86	-6.52 – 7.14
Conservation	-	-	-.26	2.06	-11.71 – 6.43

* Variables used for cluster analysis.

Table 1.3: Frequency Distribution: Intention to Work and Live Abroad

No.	Item	Never		Once in Awhile		Frequently		Very Frequently		All the time	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	How often do you think about pursuing an overseas education?	315	15.6	786	39.0	590	29.3	267	13.3	55	2.7
2	How often do you think about searching for better job prospects abroad?	305	15.2	790	39.2	543	27.0	303	15.1	72	3.6
3	How often do you think about setting up a business in another country?	585	29.1	641	31.8	437	21.7	280	13.9	70	3.5
4	How often do you think about working and living in another country for an extended period of time?	298	14.8	704	35.0	551	27.4	355	17.6	105	5.2
5	How often do you think about immigrating to another country to live there permanently?	446	22.2	718	35.7	423	21.0	294	14.6	132	6.6

Table 1.4: Frequency Distribution: Actively Examine the Possibility of Emigrating to Another Country Within the Next Five Years

No.	Item	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	I will actively examine the possibility of emigrating to another country within the next 5 years.	201	10.0	581	28.9	700	34.8	446	22.2	85	4.2

Table 1.5: Frequency Distribution: Ability to Emigrate

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
<u>Ability to Emigrate</u>							
1	I can easily emigrate to other countries if I want to do so	659	32.7	806	40.0	548	27.2
2	My family's social network can help me emigrate easily	841	41.7	697	34.6	475	23.6
3	My family's business network can help me emigrate easily	895	44.4	659	32.7	459	22.8
4	The educational qualifications that I earned in Singapore enabled me to emigrate easily	667	33.2	688	34.2	658	32.7

Table 1.6: Frequency Distribution: Emigration Attitudes

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
<u>Social Norms</u>							
1	Many of my Singaporean friends want to emigrate	698	34.7	721	35.8	594	29.5
2	My friends and family members think I should emigrate	1006	49.9	659	32.7	348	17.3
3	Getting PR status in another country is becoming a popular trend among the young in Singapore	627	31.1	721	35.8	665	33
<u>Social Status</u>							
4	People who have successfully emigrated overseas enjoy a higher social status compared to those who remain in Singapore	703	34.9	730	36.3	580	28.8
5	The ability to emigrate is an indication of a person's success and competence	684	34	661	32.8	668	33.2
<u>Social-Economic Security</u>							
6	Emigrating overseas can provide a "backup plan" in case Singapore fails	678	33.7	675	33.5	660	32.8
7	Increase in emigration is inevitable as Singapore gets more stressful and competitive	590	29.4	550	27.3	873	43.3
8	Being a PR overseas opens up more opportunities for me	581	28.9	692	34.4	740	36.8
9	Singapore's future has become too unpredictable and emigration is the best option	740	36.8	719	35.7	554	27.5
10	Compared to Singapore, many overseas countries can offer a better environment to raise a family	702	34.9	718	35.7	593	29.4

11 Singaporeans want to emigrate because there are too many foreign talent here	628	31.2	639	31.7	746	37.0
12 Emigration is a solution to problems related to work needs	688	34.2	635	31.5	690	34.3
13 Emigration is a solution to problems related to educational needs	696	34.5	649	32.2	668	33.2
14 Emigration is a solution to problems related to security needs	956	47.5	608	30.2	449	22.3
15 Emigration is a solution to problems related to social needs (e.g. raising a family)	723	35.9	713	35.4	577	28.7

Table 1.7: Frequency Distribution: Social Mobility

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
<u>Social Mobility</u>							
1	I prefer to improve my socio economic well being in Singapore (e.g. by studying and working hard) rather than to emigrate for a better life	403	20	639	31.7	971	48.2
2	I can achieve the things that I want even without leaving Singapore	401	19.9	693	34.4	919	45.6
<u>Others</u>							
1	I will not renounce Singapore citizenship although I would want to become a PR in another country *	565	28.0	631	31.3	817	40.6

* Not included in analysis

Table 1.8: Frequency Distribution: Threats from Foreign Talent

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
Threats from Foreign Talent							
1	Our job security is compromised due to the influx of foreign talent	482	23.9	629	31.2	902	44.8
2	Having too many foreign talent in Singapore dilute the cohesiveness of our society	549	27.3	679	33.7	785	38.9

Table 1.9: Frequency Distribution: Relative Deprivation

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
Relative Deprivation							
1	Foreign talent is using Singapore as a stepping stone to other developed countries.	428	21.3	668	33.2	917	45.5
2	Many foreign talent on Singapore government scholarship will break their study bond upon graduation	546	27.1	795	39.5	672	33.4
3	Foreign talent enjoys many benefits that a Singaporean is not entitled to have (e.g. housing assistance, scholarships and subsidies)	592	29.5	733	36.4	688	34.2
4	Singaporeans shoulder more social responsibilities compared to foreign talent	422	20.9	621	30.8	970	48.1
5	Many foreign talent are here just for the benefits	376	18.7	636	31.6	1001	49.7

Table 1.10: Frequency Distribution on National Pride

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
1	I would prefer to be a citizen of Singapore than any other country in the world	249	12.4	613	30.5	1151	57.2
2	There are some things about Singapore that make me feel ashamed of Singapore	627	31.1	693	34.4	693	34.5
3	The world would be a better place if people from other countries were more like the citizens of Singapore	508	25.2	726	36.1	779	38.7
4	Generally speaking, Singapore is a better country than most other countries	319	15.8	644	32.0	1050	52.2
5	People should support their country even if the country is in the wrong	800	39.7	697	34.6	516	25.7

**Table 1.11: Comparative Scores: National Pride
(by % agree/agree strongly and mean score)**

No.	Item	NOS IV [^]	Singapore [*]	United States ^{**}	United Kingdom ^{**}	Japan ^{**}
1	I would prefer to be a citizen of Singapore than any other country in the world.	87.0 (-) [#]	57.2 (3.6)	89.9 (4.6)	70.5 (4.1)	88.3 (4.6)
2	There are some things about Singapore that make me feel ashamed of Singapore.	47.0 (-)	31.1 (3.1)	18.4 (2.5)	10.3 (2.3)	16.5 (2.5)
3	The world would be a better place if people from other countries were more like the citizens of Singapore.	67.0 (-)	38.7 (3.2)	38.7 (3.4)	29.0 (3.2)	28.0 (3.3)
4	Generally speaking, Singapore is a better country than most other countries.	93.0 (-)	52.2 (3.4)	79.9 (4.2)	53.1 (3.6)	83.0 (4.3)
5	People should support their country even if the country is in the wrong.	39.0 (-)	25.7 (2.8)	31.1 (3.0)	23.2 (2.7)	33.3 (2.7)
	Overall Mean Score	17.2	16.1	17.7	15.9	17.4

[^]Results from National Orientations Survey (NOS) IV (2010).

^{*}Results from current data set.

^{**}Results obtained from <http://www2.norc.org/new/part1.pdf>

[#]Mean scores are shown in parentheses.

Table 1.12: Frequency Distribution: Subjective Well-Being

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
1	In most ways, my life is close to my idea of perfection	556	27.7	801	39.8	656	32.6
2	The conditions of my life are excellent	512	25.5	735	36.5	766	38.0
3	I am satisfied with my life	470	23.3	676	33.6	867	43.1
4	So far, I have gotten the important things I want in life	600	29.8	694	34.5	719	35.7
5	If I could live my life over, I would change almost nothing	667	33.1	659	32.7	687	34.2

Table 1.13: Frequency Distribution: Singapore's Economic Future

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
1	Singapore will continue to be economically prosperous over the next 10 years	330	16.4	667	33.1	1016	50.5
2	There will be sufficient jobs and opportunities for every Singaporean in the next 10 years	482	24.0	672	33.4	859	42.7
3	Singapore can continue to attract good foreign investment into the country for the next 10 years	344	17.1	706	35.1	963	47.9

Table 1.14: Frequency Distribution: Family Ties

No.	Item	Strongly Disagree or Disagree		Neutral		Strongly Agree or Agree	
		Freq	%	Freq	%	Freq	%
1.	My family is always there for me in the times of need	280	13.9	388	19.3	1345	66.8
2	I know that my family has my best interests in mind	242	12.0	381	18.9	1390	69.0
3	In my opinion, the family is the most important social institution of all	231	11.5	370	18.4	1412	70.1

Table 1.15: Frequency Distribution: Factors Affecting Sense of Rootedness to Singapore

No.	Item	%
<u>Quality of Life</u>		
1	Home ownership	33.4
2	Public health and safety (e.g. law & order, free from drugs & pollution)	27.5
3	Medical care	23.6
4	Educational opportunities	20.8
5	Opportunities to improve standard of living	18.8
6	Variety of entertainment, cultural and leisure activities	20.8
<u>Finance and Career</u>		
7	Financial reward (e.g. salary, cost of living & taxation)	31.9
8	Economic opportunities and dynamism	13.5
9	Connectedness to the region and world	11.1
10	Career development (e.g. able to establish a career track record here)	22.0
<u>Social Bonding and Well-being</u>		
11	Having friends here	39.8
12	Having family members here	39.0
13	Having familiar landmarks and authentic buildings	10.0
14	Able to plan and raise a family here	20.5
15	Able to lead an enjoyable life	20.4
16	Able to lead a spiritual life	12.3
17	A fair, compassionate and caring society	11.9
18	Openness to diversity (e.g. welcoming of people with different lifestyles)	18.4
<u>Socio-Political Considerations</u>		
19	Equal opportunity for everyone	27.5
20	Meritocracy in public administration	7.7
21	Transparency and accountability	8.1
22	Political stability (e.g. no political unrest, stable and predictable)	20.5
23	Social stability	18.9
24	Competent government (e.g. efficient government services and	11.1
25	Political engagement (e.g. freedom of expression, ability to influence	5.1
26	Personal autonomy	3.5

Table 1.16: Frequency Distribution: Preferred Emigration Destination

No.	Country	Freq	%
1	Australia	437	21.7
2	United States of America	273	13.6
3	United Kingdom	196	9.7
4	Canada	122	6.1
5	Japan	119	5.9
6	China	93	4.6
7	Taiwan	65	3.2
8	Malaysia	55	2.7
9	South Korea	52	2.6
10	Switzerland	52	2.6
11	France	37	1.8
12	Thailand	29	1.4
13	Germany	27	1.3
14	Hong Kong	27	1.3
15	India	22	1.1
	<u>Others</u>		
16	Europe	126	6.3
17	Asia	57	1.8
18	Middle East	34	1.4
19	Africa	29	.8
20	Latin America	37	1.2
21	North America	6	.3

**Table 1.17: Frequency Distribution:
Number of Foreign Talent in Singapore**

No.	Item	Slightly less Or less		Maintain current level		Slightly more or more	
		<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>	<u>Freq</u>	<u>%</u>
1	What do you think of the overall number of foreign talent in Singapore? Do you think we should have ...	1058	52.6	688	34.2	267	13.3

Table 1.18: Correlations between Socio-Psychological Variables (N = 2,013)

No	Construct	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Intention to Emigrate	-													
2	Emigrate in next 5 yrs	.28**	-												
3	Emigration Attitude	.28**	.42**	-											
4	Social Norm	.24**	.31**	.67**	-										
5	Social Status	.16**	.22**	.51*	.28**	-									
6	Social-economic Security	.25**	.38**	.94**	.45**	.34**	-								
7	Ability to Emigrate	.22*	.30**	.38**	.32**	.17**	.35**	-							
8	Social Mobility	-	-	-	-	-.01	-	.02	-						
9	Threat	-	.13**	.30	.18**	.17**	.29**	.11**	.18**	-					
10	Relative Deprivation	-.01	.19**	.38**	.22**	.20**	.36**	.22**	.14**	.38**	-				
11	National Pride	-	-	-	-.06*	-.00	-	-	.36**	.17**	.06**	-			
12	Subjective Well-Being	-	.01	.03	.01	.05*	.02	.14**	.27**	.10**	.10**	.34**	-		
13	Singapore's Economic Future	-	-.04	.03	.03	.01	.01	.03	.30**	.16**	.15**	.34**	.37**	-	
14	Family Ties	-	.03	.14**	.09**	.07**	.12**	.08**	.30**	.26**	.39**	.23**	.22**	.36**	-

* $<.05$, ** $<.01$, *** $<.001$

Note: For comparative reasons, Social Norm, Social Status, and Socio-Economic Security were aggregated as Emigration Attitude for subsequent cluster analyses. Consistent with the method deployed in the 2006 study, the variables selected for cluster analysis in the current survey were: Intention to Emigrate, Emigration Attitude, Ability to Emigrate, Relative Deprivation, National Pride, Subjective Well-Being, Singapore's Economic Future, and Family Ties.

Table 1.19: Linear Multiple Hierarchical Regression Models with Dependent Variables: (1) Intention to Emigrate, and (2) Actively Examine Possibility of Emigration in Next 5 Years

Step	Predictors (Std. Beta Coeff. at Step 3)	DV 1: Intention to Emigrate (5-items)	DV 2: I will actively examine the possibility of migrating to another country within the next 5 years.	
1	Age	-0.05*	0.03	
	Gender (Dummy)	-0.03	0.00	
	Housing Type	0.02	0.01	
	Spoke English at Home (Dummy)	-0.01	0.04	
	Highest Education Attainment	-0.01	0.02	
	HouseholdH Income	0.05	-0.02	
	Employed (Dummy)	0.01	0.03	
	Chinese (Dummy)	0.03	-0.00	
	Malay (Dummy)	-0.04	0.02	
	2	Social Norm	0.13***	0.12***
		Social Status	0.07**	0.06**
Socio-Economic Security		0.14***	0.21***	
Social Mobility		-0.11***	-0.09***	
Ability to Emigrate		0.14***	0.15***	
Threat from Foreign Talent		-0.08***	0.02	
Relative Deprivation from Foreign Talent		-0.03	0.05	
National Pride		-0.08**	-0.03	
Family Ties		-0.09***	-0.02	
Singapore's Economic Future		-0.04	-0.02	
Subjective Well-Being		-0.06**	0.03	
3	Openness – Conservation ^	0.06**	0.04*	
	Self-enhancement – Self-transcendence ^	0.05*	0.01	
	Step 1 Step 2 Step 3 ^ Pairwise orthogonal assumption requires one value score to be deducted from the other in a regression model. * p<.05, ** p<.01, *** p<.001	R2 = 0.02 R2 = 0.20 R2 = 0.21 F(22, 1947) = 22.77, p<.001	R2 = 0.03 R2 = 0.21 R2 = 0.21 F(22, 1947)=23.27, p < .001	

**SECTION 2: Temporal Comparison of Descriptive Statistics:
2006 and 2010**

Table 2.1: Comparison: Intention to Work and Live Abroad

No.	Item	Year	Never %	Once in Awhile %	Frequently %	Very Frequently %	All the time %
1	How often do you think about pursuing an overseas education?	2006	6.7	25.2	23.8	26.9	17.4
		2010	11.4	36.7	33.5	14.2	4.3
2	How often do you think about searching for better job prospects abroad?	2006	11.7	35.6	23.4	21.8	7.6
		2010	12.8	40.2	26.6	16.2	4.3
3	How often do you think about setting up a business in another country?	2006	34.6	30.4	17.6	11.7	5.8
		2010	30.2	26.8	24.7	14.4	3.9
4	How often do you think about working and living in another country for an extended period of time?	2006	8.1	40.3	21.9	22.0	7.6
		2010	12.6	33.7	28.0	19.7	6.1
5	How often do you think about emigrating to another country to live there permanently?	2006	25.3	42.3	17.3	10.4	4.7
		2010	22.7	29.8	23.5	15.6	8.3

Table 2.2: Comparison: Emigration Attitudes

No.	Item	Year	Strongly Disagree or Disagree %	Neutral %	Strongly Agree or Agree %
<u>Social Norms</u>					
1	Many of my Singaporean friends want to emigrate	2006	27.8	39.1	33.2
		2010	32.3	41.4	26.3
2	My friends and family members think I should emigrate	2006	58.4	28.4	13.2
		2010	47.7	34.1	18.3
3	Getting PR status in another country is becoming a popular trend among the young in Singapore	2006	19.8	37.4	42.7
		2010	30.2	39.4	30.4
<u>Social Status and Stigma</u>					
4	People who have successfully emigrated overseas enjoy a higher social status compared to those who remain in Singapore	2006	28.8	45.2	26.0
		2010	32.0	41.0	27.0
5	The ability to emigrate is an indication of a person's success and competence	2006	33.8	32.6	33.6
		2010	34.9	36.3	28.8

<u>Social-Economic Security</u>					
6	Emigrating overseas can provide a “backup plan” in case Singapore fails	2006	28.9	31.2	39.9
		2010	30.2	36.3	33.5
7	Increase in emigration is inevitable as Singapore gets more stressful and competitive	2006	11.0	25.7	63.3
		2010	27.0	31.4	41.5
8	Being a PR overseas opens up more opportunities for me	2006	16.8	41.7	41.4
		2010	24.2	37.5	38.3
9	Singapore's future has become too unpredictable and emigration is the best option	2006	47.1	41.3	11.6
		2010	35.9	36.9	27.2
10	Compared to Singapore, many overseas countries can offer a better environment to raise a family	2006	26.1	37.6	36.4
		2010	36.9	36.1	27.0
11	Singaporeans want to emigrate because there are too many foreign talent here	2006	26.3	32.3	41.3
		2010	27.6	38.9	33.5
12	Emigration is a solution to problems related to work needs	2006	8.0	17.8	74.1
		2010	32.3	33.1	34.7
13	Emigration is a solution to problems related to educational needs	2006	16.5	22.4	61.0
		2010	30.8	32.5	36.7

14	Emigration is a solution to problems related to security needs	2006	52.4	32.4	15.2
		2010	49.9	27.8	22.3
15	Emigration is a solution to problems related to social needs (e.g. raising a family)	2006	20.3	36.5	43.2
		2010	34.9	38.5	26.6
<u>Ability to Emigrate</u>					
16	I can easily emigrate to other countries if I want to do so	2006	37.1	41.4	21.5
		2010	34.5	38.1	27.4
17	My family's social network can help me emigrate easily	2006	50.7	32.0	17.3
		2010	40.9	35.3	23.8
18	My family's business network can help me emigrate easily	2006	57.9	32.6	9.5
		2010	38.5	36.7	24.8
19	The educational qualifications that I earned in Singapore enabled me to emigrate easily ³	2006	18.0	45.0	37.0
		2010	25.8	40.8	33.5

³ 2006 question: 'After graduation, the education qualifications that I learned will enable me to emigrate easily'.

<u>Social Mobility</u>					
20	I prefer to improve my socio economic well being in Singapore (e.g. by studying and working hard) rather than to emigrate for a better life	2006	11.3	39.2	49.3
		2010	19.2	36.7	44.0
21	I can achieve the things that I want even without leaving Singapore	2006	19.7	31.5	48.7
		2010	18.0	36.7	45.2
<u>Others</u>					
22	I will not renounce Singapore citizenship although I would want to become a PR in another country	2006	15.9	33.2	51.0
		2010	24.1	34.7	41.2

Table 2.3: Comparison: Perceptions on Foreign Talent

No.	Item	Year	Strongly Disagree or Disagree %	Neutral %	Strongly Agree or Agree %
<u>Relative Deprivation</u>					
1	Foreign talent is using Singapore as a stepping stone to other developed countries.	2006	7.8	31.5	60.8
		2010	18.5	37.3	44.2
2	Many foreign talent on Singapore government scholarship will break their study bond upon graduation	2006	14.5	49.1	36.5
		2010	26.2	43.6	30.2
3	Foreign talent enjoys many benefits that a Singaporean is not entitled to have (e.g. housing assistance, scholarships and subsidies)	2006	19.2	36.9	43.9
		2010	28.4	38.3	33.3
4	Singaporeans shoulder more social responsibilities compared to foreign talent	2006	7.3	26.8	65.9
		2010	18.0	34.1	47.9
5	Many foreign talent are here just for the benefits	2006	13.7	30.5	55.8
		2010	14.6	34.5	50.9

Table 2.4: Comparison: National Pride

No.	Item	Year	Strongly Disagree or Disagree %	Neutral %	Strongly Agree or Agree %
1	I would prefer to be a citizen of Singapore than any other country in the world	2006	9.0	31.5	59.5
		2010	13.6	31.2	55.2
2	Generally speaking, Singapore is a better country than most other countries	2006	4.6	15.9	79.5
		2010	18.4	33.3	48.3

Table 2.5: Comparison: Subjective Well-Being

No.	Item	Year	Strongly Disagree or Disagree %	Neutral %	Strongly Agree or Agree %
1	In most ways, my life is close to my idea of perfection	2006	38.4	38.5	23.1
		2010	27.8	44.8	27.3
2	The conditions of my life are excellent	2006	27.2	38.8	34.1
		2010	26.4	38.5	35.1
3	I am satisfied with my life	2006	23.2	31.9	44.9
		2010	20.7	35.5	43.8
4	So far, I have gotten the important things I want in life	2006	35.4	32.5	32.2
		2010	29.4	37.3	33.3
5	If I could live my life over, I would change almost nothing	2006	45.3	29.6	25.1
		2010	31.7	36.9	31.5

Table 2.6: Comparison: Singapore's Economic Future

No.	Item	Year	Strongly Disagree or Disagree %	Neutral %	Strongly Agree or Agree %
1	Singapore will continue to be economically prosperous over the next 10 years	2006	7.0	32.2	60.8
		2010	15.8	35.1	49.1
2	There will be sufficient jobs and opportunities for every Singaporean in the next 10 years ⁴	2006	28.5	34.3	37.2
		2010	28.4	31.8	39.8
3	Singapore can continue to attract good foreign investment into the country for the next 10 years	2006	7.4	33.0	59.6
		2010	16.7	40.4	43.0

⁴ 2006 question: 'Singapore can create sufficient jobs and opportunities for every Singaporean.'

Table 2.7: Comparison: Family Ties

No.	Item	Year	Strongly Disagree or Disagree	Neutral	Strongly Agree or Agree
			%	%	%
1	My family is always there for me in the times of need	2006	2.8	12.3	84.9
		2010	13.4	20.9	65.7
2	I know that my family has my best interests in mind	2006	2.6	11.7	85.7
		2010	11.7	19.9	68.3
3	In my opinion, the family is the most important social institution of all	2006	3.8	12.5	83.7
		2010	10.2	22.5	67.4

Table 2.8: Temporal Comparison of Constructs Statistics

Concept	Year	Mean	SD	Range
Personal Values				
Openness	2006	.25	2.38	-13.00 – 11.14
	2010	.18	2.17	-9.14 – 10.29
Self-Enhancement	2006	-.93	2.08	-10.10 – 7.81.
	2010	-.71	1.81	-7.29 – 5.33
Self-Transcendence	2006	1.43	1.87	-6.71 – 7.14
	2010	.65	1.82	-5.48 – 7.14
Conservation	2006	-.75	2.53	-12.86 – 10.00
	2010	-.12	1.96	-8.14 – 6.00

SECTION 3: Comparison of Data by Age Groups

**Table 3.1: Descriptive Statistics by Age Groups
(Group 1: 19 – 24 years old, Group 2: 25 – 30 years old)**

Concept	Age 19 – 24 (N = 1025)		Age 25 – 30 (N = 998)		P - value	Range
	Mean	(S.D.)	Mean	(S.D.)		
Intention to Emigrate*	2.52	(.81)	2.45	(.76)	0.037	1.00 – 5.00
Emigration Attitude*	2.92	(.50)	2.94	(.54)	N.S.	1.00 – 5.00
- Social Norm	2.81	(.70)	2.83	(.74)	N.S.	1.00 – 5.00
- Social Status	2.92	(.93)	2.91	(1.05)	N.S.	1.00 – 5.00
- Socio-Economic Security	2.95	(.56)	2.97	(.59)	N.S.	1.00 – 4.80
Ability to Emigrate*	2.86	(.70)	2.83	(.70)	N.S.	1.00 – 5.00
Social Mobility	3.34	(.83)	3.27	(.84)	N.S.	1.00 – 5.00
Threat from Foreign Talent	3.20	(.84)	3.19	(.89)	N.S.	1.00 – 5.00
Relative Deprivation*	3.21	(.60)	3.22	(.68)	N.S.	1.00 – 5.00
National Pride*	3.19	(.56)	3.20	(.54)	N.S.	1.00 – 5.00
Subjective Well-Being*	3.09	(.66)	3.07	(.73)	N.S.	1.00 – 5.00
Singapore's Economic Future*	3.30	(.73)	3.30	(.75)	N.S.	1.00 – 5.00
Family Ties*	3.82	(.86)	3.70	(.90)	0.002	1.00 – 5.00
Personal Values						
Openness	.19	(2.04)	.01	(1.98)	N.S.	-9.14 – 10.29
Self-Enhancement	-.55	(1.80)	-.35	(1.81)	0.012	-7.29 – 6.19
Self-Transcendence	.68	(1.80)	.54	(1.92)	N.S.	-6.52 – 7.14
Conservation	-.31	(2.11)	-.20	(2.00)	N.S.	-11.71 – 6.43

* Variables used for cluster analysis.

**Table 3.2: Frequency Distribution:
Factors Affecting Sense of Rootedness to Singapore**

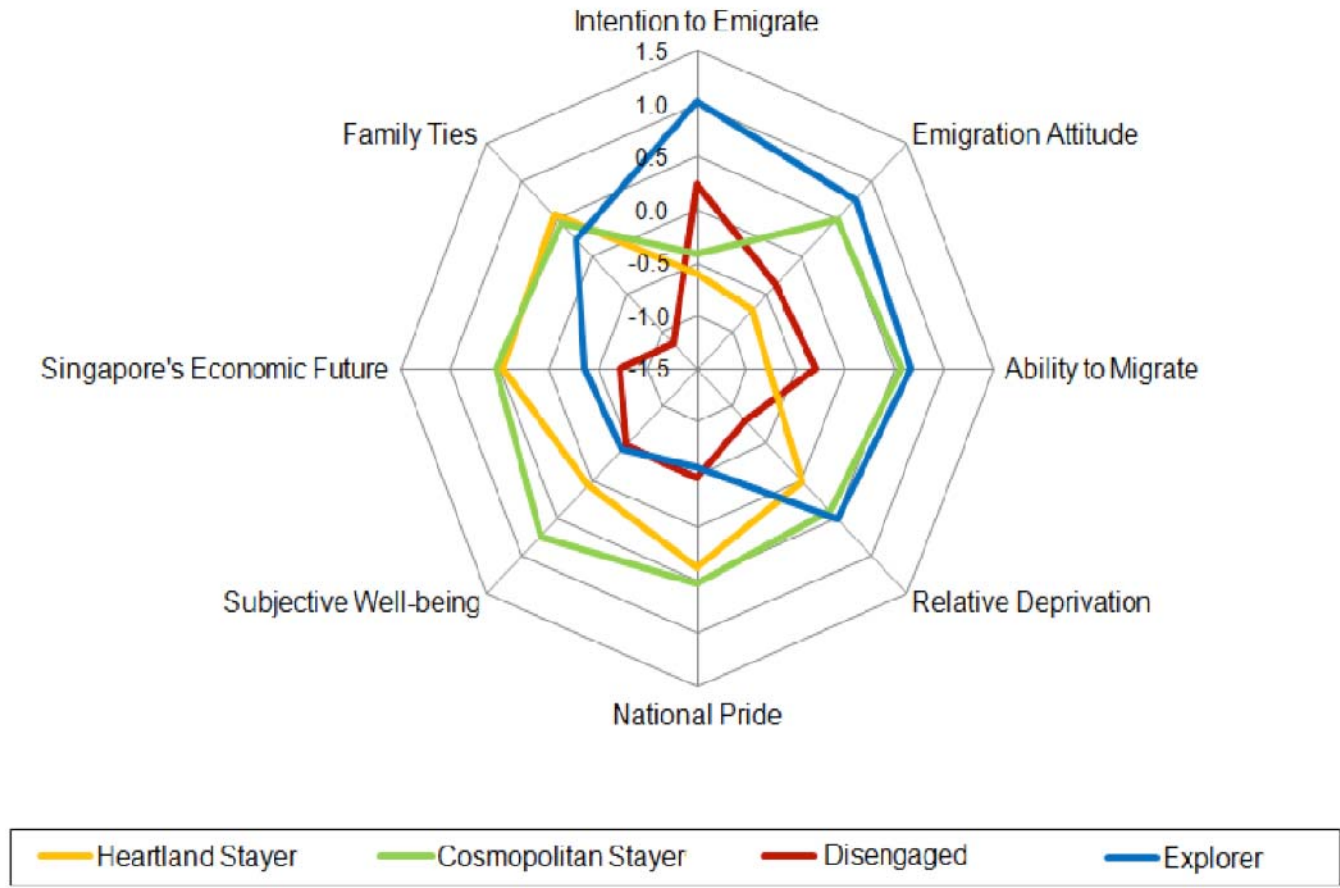
No.	Item	Age 19 – 24 (N = 1025)	Age 25 – 30 (N = 998)
<u>Quality of Life</u>			
1	Home ownership	29.6	37.3
2	Public health and safety (e.g. law & order, free from drugs & pollution)	27.3	27.6
3	Medical care	24.8	22.5
4	Educational opportunities	22.5	19.0
5	Opportunities to improve standard of living	17.8	19.9
6	Variety of entertainment, cultural and leisure activities	18.9	22.8
<u>Finance and Career</u>			
7	Financial reward (e.g. salary, cost of living & taxation)	32.8	31.0
8	Economic opportunities and dynamism	11.8	15.3
9	Connectedness to the region and world	10.5	11.7
10	Career development (e.g. able to establish a career track record here)	21.2	22.9
<u>Social Bonding and Well-being</u>			
11	Having friends here	42.1	37.3
12	Having family members here	41.5	36.5
13	Having familiar landmarks and authentic buildings	8.7	11.3
14	Able to plan and raise a family here	21.4	19.5
15	Able to lead an enjoyable life	20.7	20.0
16	Able to lead a spiritual life	12.1	12.4
17	A fair, compassionate and caring society	11.3	12.6
18	Openness to diversity (e.g. welcoming of people with different lifestyles and political views)	16.7	20.2
<u>Socio-Political Considerations</u>			
19	Equal opportunity for everyone	28.0	27.0
20	Meritocracy in public administration	8.5	7.0
21	Transparency and accountability	7.9	8.4
22	Political stability (e.g. no political unrest, stable and predictable government)	23.1	17.8
23	Social stability (e.g. cordial relations between people of different races, religion and classes)	18.4	19.4
24	Competent government (e.g. efficient government services and administration)	11.5	10.7
25	Political engagement (e.g. freedom of expression, ability to influence public policy)	5.3	4.9
26	Personal autonomy (e.g. independent of government control or no need to conform to many social norms)	3.5	3.5

SECTION 4: Comparison of Data – Cluster Analysis

**Table 4.1: Final Cluster Centers (Standardized Means)
for Each Clustering Variable (N = 2013)**

Variable	Heartland Stayer (n = 534)	Cosmopolitan Stayer (n = 538)	Disengaged (n = 534)	Explorer (n = 407)
<u>Socio-psychological measures</u>				
Intention to Emigrate	-.61	-.41	.24	1.02
Relative Deprivation	.01	.40	-.81	.51
National Pride	.37	.53	-.47	-.56
Ability to Emigrate	-.77	.57	-.30	.66
Emigration Attitude	-.70	.50	-.38	.76
Subjective Well-being	.06	.74	-.48	-.43
Singapore's Economic Future	.46	.53	-.72	-.37
Family Ties	.55	.44	-1.16	.23

Diagram 1: Socio-psychological Profiles of Clusters



Heartland Stayer: 26.5% Cosmopolitan Stayer: 26.7% Disengaged: 26.5% Explorer: 20.2%

Table 4.2: Demographic Breakdown of Sample by Clusters

Variable	Heartland Stayer (N = 534)	Cosmopolitan Stayer (N = 538)	Disengaged (N = 534)	Explorer (N = 407)
	(%)	(%)	(%)	(%)
<u>Age Group</u>				
19 to 21 years	30.1	30.3	21.5	31.4
22 to 24 years	25.3	17.7	23.0	25.8
25 to 27 years	24.0	22.9	24.3	22.9
28 to 30 years	20.6	29.2	31.1	19.9
<u>Language Spoken at Home</u>				
English	35.6	53.7	39.1	58.5
All Others	64.4	46.3	60.9	41.5
<u>Place of Birth</u>				
Singapore	97.8	96.8	98.7	97.1
All Others	2.2	3.2	1.3	2.9
<u>Gender</u>				
Male	44.4	47.8	51.7	53.6
Female	55.6	52.2	48.3	46.4

IPS Working Papers No. 19 (March 2011):
A Study on Emigration Attitudes of Young Singaporeans by Leong and Soon

Highest Educational Qualification

No qualification/Lower Primary	.2	0	.4	0
Primary	.2	0	1.3	.5
Lower Secondary	1.5	.6	2.1	1.2
Secondary	16.9	13.2	18.7	6.9
Upper Secondary	25.8	24.0	23.2	19.9
Polytechnic Diploma	26.2	27.7	22.7	32.2
Other Diploma/Professional Qualification	11.2	12.6	12.2	12.5
Degree	17.4	21.0	18.5	25.3
Post-graduate qualification	.6	.9	.9	1.5

Religion

Taoism	13.5	8.0	14.2	8.8
Buddhism	33.1	24.5	27.7	26.8
Islam	12.7	15.4	16.5	15.0
Hinduism	4.5	7.1	9.4	4.2
Christianity	17.6	22.1	16.3	18.2
Catholicism	3.6	4.8	3.6	4.4
Others	0	.6	0	.5
No Religion	15.0	17.5	12.4	22.1

Income Group

Below \$500	.4	.6	.2	.5
\$500 to \$999	1.3	.4	.9	1.0
\$1,000 to \$1,999	4.1	5.2	3.2	4.9
\$2,000 to \$2,999	13.7	10.4	6.6	9.8
\$3,000 to \$3,999	14.2	13.4	12.7	12.5
\$4,000 to \$4,999	16.5	13.4	14.8	15.2
\$5,000 to \$5,999	18.4	15.2	14.0	13.3
\$6,000 to \$6,999	10.3	13.4	16.1	12.3
\$7,000 to \$7,999	6.0	7.6	9.9	8.8

\$8,000 to \$8,999	5.2	6.5	8.1	6.9
\$9,000 to \$9,999	1.9	2.6	4.9	3.9
\$10,000 and above	5.6	8.2	7.7	8.8
Refused	2.4	3.2	.9	2.0
House Type				
HDB 1 – 3 Room	17.2	16.0	18.9	18.2
HDB 4 Room	49.1	38.3	31.8	34.9
HDB 5 Room	19.3	24.0	13.9	22.4
Executive/Maisonette	8.4	10.6	19.9	13.5
Condominium/HUDC/Terrace/Semi-Detached/Bungalow	6.0	11.2	15.5	11.1

Table 4.3: Descriptive Statistics – Clusters

Concept	Heartland Stayer** (N = 534)		Cosmopolitan Stayer** (N = 538)		Disengaged** (N = 534)		Explorer ** (N = 407)		Range
	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)	
Intention to Emigrate*	2.01	(.62)	2.17	(.63)	2.67	(.54)	3.29	(.72)	1.00 – 5.00
Emigrate in Next 5 Years	2.33	(1.07)	3.01	(.89)	2.71	(1.07)	3.34	(1.01)	1.00 – 5.00
Emigration Attitude*	2.56	(.42)	3.19	(.41)	2.73	(.40)	3.33	(.46)	1.00 – 4.87
- Social Norm	2.45	(.63)	3.05	(.63)	2.63	(.65)	3.26	(.68)	1.00 – 5.00
- Social Status	2.62	(.84)	3.14	(.86)	2.74	(1.13)	3.24	(.98)	1.00 – 5.00
- Socio-Economic Security	2.57	(.49)	3.23	(.47)	2.77	(.44)	3.35	(.49)	1.00 – 4.80
Ability to Emigrate*	2.30	(.53)	3.24	(.53)	2.63	(.59)	3.31	(.60)	1.00 – 5.00
Social Mobility	3.64	(.68)	3.62	(.68)	2.84	(.83)	3.05	(.85)	1.00 – 5.00
Threat from Foreign Talent	3.16	(.84)	3.54	(.75)	2.75	(.79)	3.36	(.90)	1.00 – 5.00
Relative Deprivation*	3.22	(.55)	3.47	(.55)	2.70	(.56)	3.54	(.51)	1.00 – 5.00
National Pride*	3.40	(.48)	3.49	(.45)	2.93	(.50)	2.88	(.50)	1.00 – 5.00
Subjective Well-Being*	3.12	(.68)	3.60	(.50)	2.75	(.59)	2.79	(.63)	1.00 – 5.00
SG Economic Future*	3.65	(.59)	3.70	(.56)	2.77	(.70)	3.03	(.61)	1.00 – 5.00
Family Ties*	4.25	(.53)	4.15	(.59)	2.74	(.71)	3.96	(.66)	1.00 – 5.00
Personal Values									
- Openness	-.05	(1.87)	.02	(1.94)	.15	(2.05)	.35	(2.22)	-9.14 – 10.29
- Self-Enhancement	-.69	(1.71)	-.61	(1.77)	-.16	(1.85)	-.31	(1.88)	-7.29 – 6.19
- Self-Transcendence	.90	(1.62)	.73	(1.67)	.20	(2.07)	.60	(2.01)	-6.52 – 7.14
- Conservation	-.16	(1.89)	-.13	(1.90)	-.19	(2.13)	-.64	(2.31)	-11.71 – 6.43

*Variables for cluster analysis. ** Inter-group comparisons showed significant differences between the four clusters for the entire range of socio-psychological measures, Hotelling's T = 3.84, F(51, 5975)=149.83, p<.001

Table 4.4: Frequency Distribution: Factors Affecting Sense of Rootedness to Singapore – Clusters

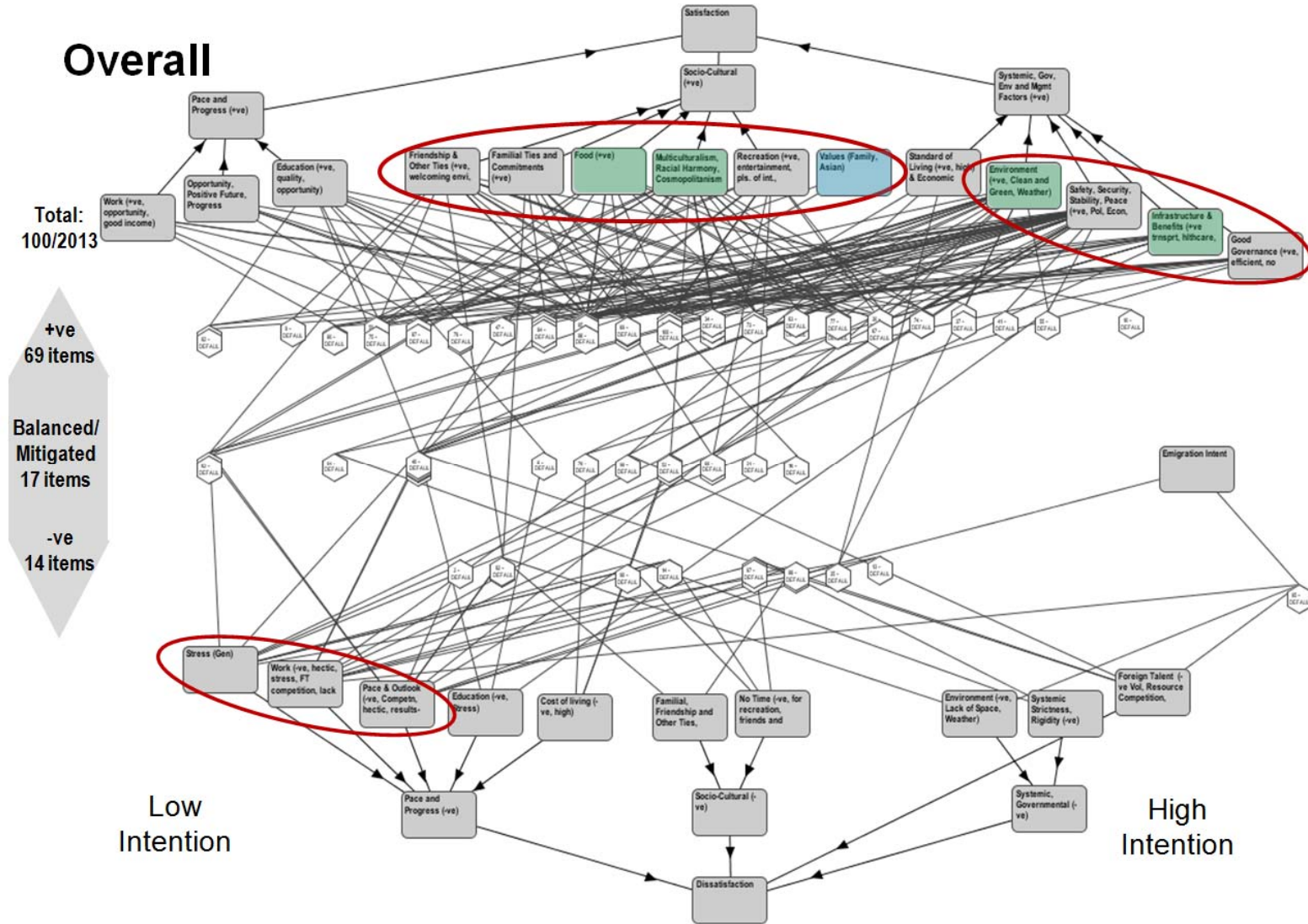
No.	Item	Heartland Stayer (N = 534)	Cosmopolitan Stayer (N = 538)	Disengaged (N = 534)	Explorer (N = 407)
<u>Quality of Life</u>					
1	Home ownership	34.8	35.5	33.7	28.3
2	Public health and safety	28.7	24.5	27.3	30.0
3	Medical care	25.5	26.8	20.4	21.4
4	Educational opportunities	23.4	24.5	16.1	18.7
5	Opportunities to improve standard of living	17.6	16.0	22.5	19.4
6	Variety of entertainment, cultural and leisure activities	14.0	15.2	35.8	17.4
<u>Finance and Career</u>					
7	Financial reward	32.0	28.6	36.3	30.2
8	Economic opportunities and dynamism	12.0	13.6	16.1	12.0
9	Connectedness to the region and world	9.2	12.3	9.7	14.0
10	Career development	15.9	23.6	27.9	20.1
<u>Social Bonding and Well-being</u>					
11	Having friends here	40.3	39.6	37.1	43.0
12	Having family members here	48.1	46.8	22.1	39.1
13	Having familiar landmarks and authentic buildings	8.4	8.0	13.3	10.3
14	Able to plan and raise a family here	26.2	19.5	15.2	21.1
15	Able to lead an enjoyable life	18.2	17.5	25.8	19.9
16	Able to lead a spiritual life	13.5	8.6	15.9	10.8
17	A fair, compassionate and caring society	13.3	9.9	13.3	11.1
18	Openness to diversity	16.9	14.7	23.6	18.7

Socio-Political Considerations

19	Equal opportunity for everyone	28.5	31.0	26.4	23.1
20	Meritocracy in public administration	7.1	6.3	7.1	11.3
21	Transparency and accountability	8.1	9.9	6.6	8.1
22	Political stability	24.3	20.8	14.6	22.9
23	Social stability	16.5	22.1	15.9	21.9
24	Competent government	10.3	15.4	6.6	12.5
25	Political engagement	2.1	4.8	6.9	6.9
26	Personal autonomy	2.8	2.0	2.8	7.4

SECTION 5: Narrative Maps

Diagram 2: Overall Model



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Diagram 3: Developmental Model (19-24 years)

Developmental: 19-24

Total:
53/100

+ve
38 items

Balanced/
Mitigated
5 items

-ve
10 items

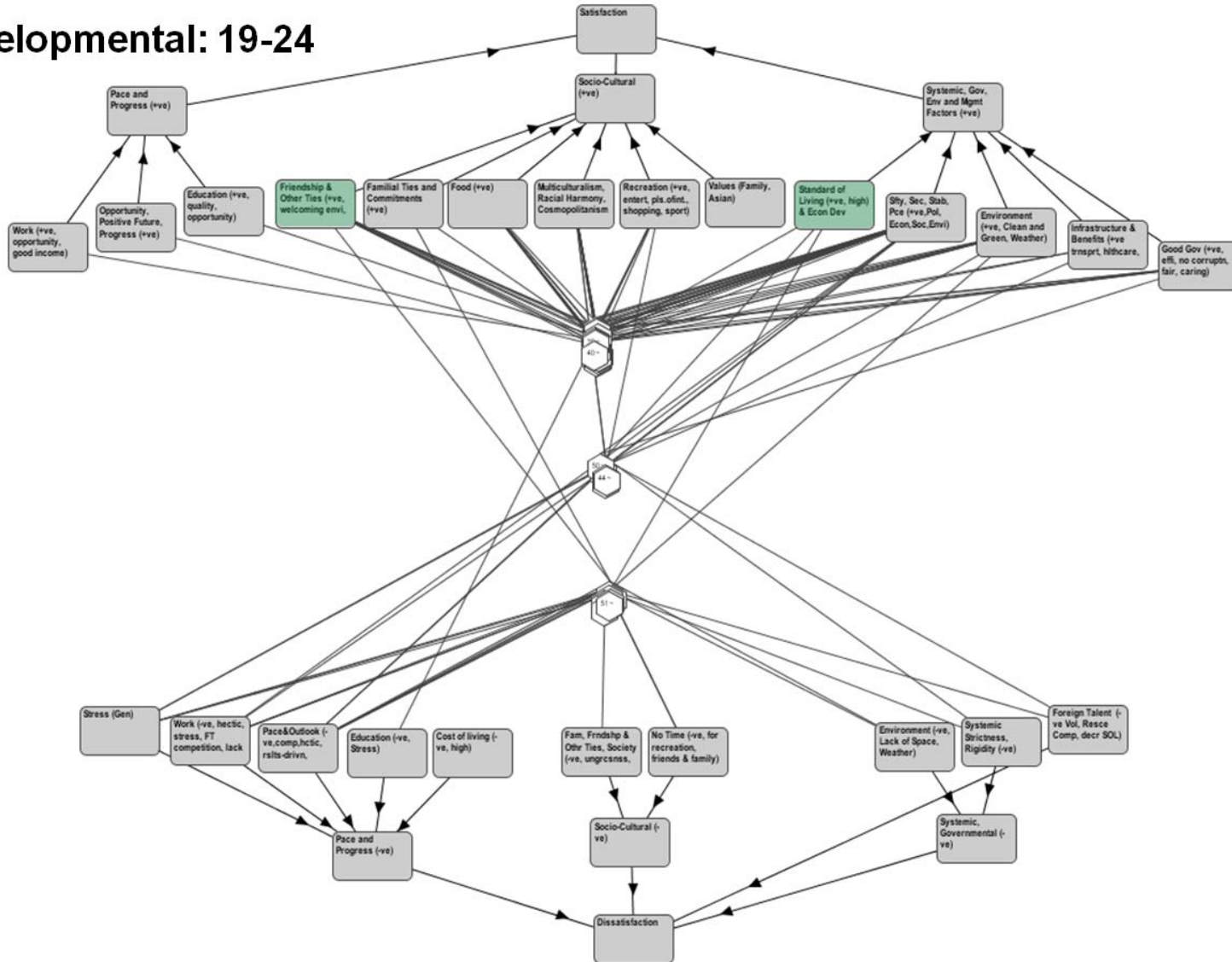
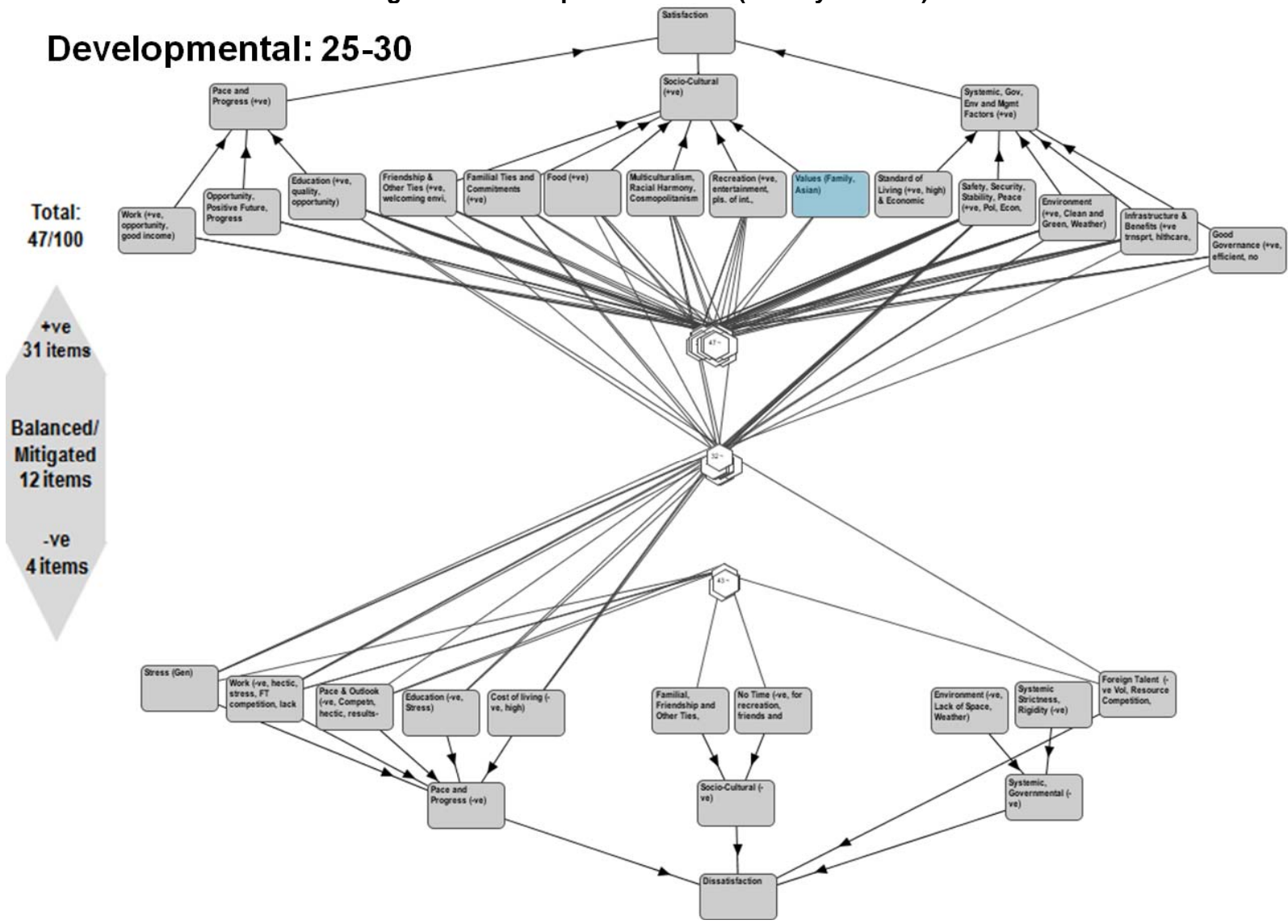


Diagram 4: Developmental Model (25-30 years old)

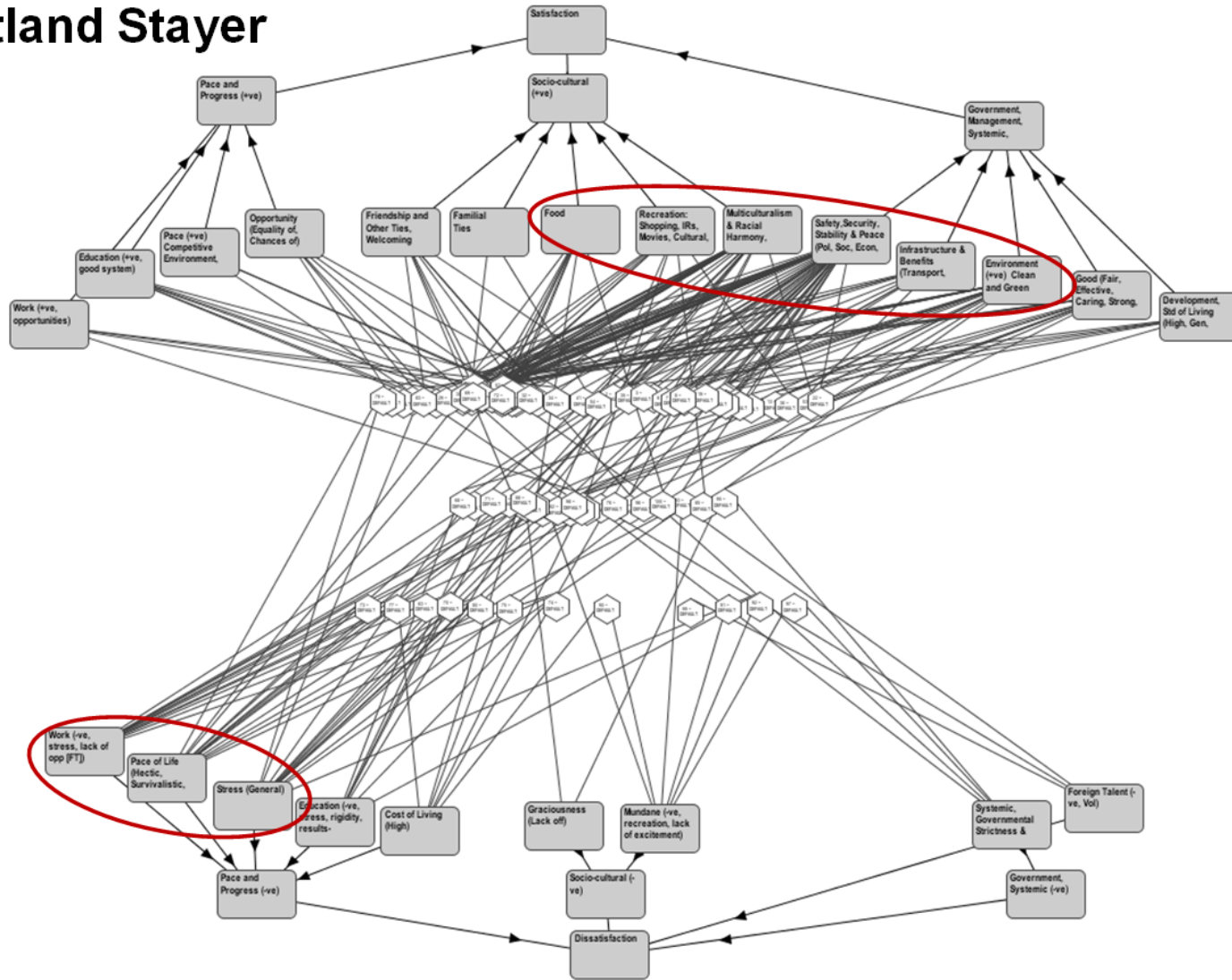
Developmental: 25-30



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Diagram 5: Cluster Model (Heartland Stayer)

Heartland Stayer



Total:
100/2013

+ve
64 items

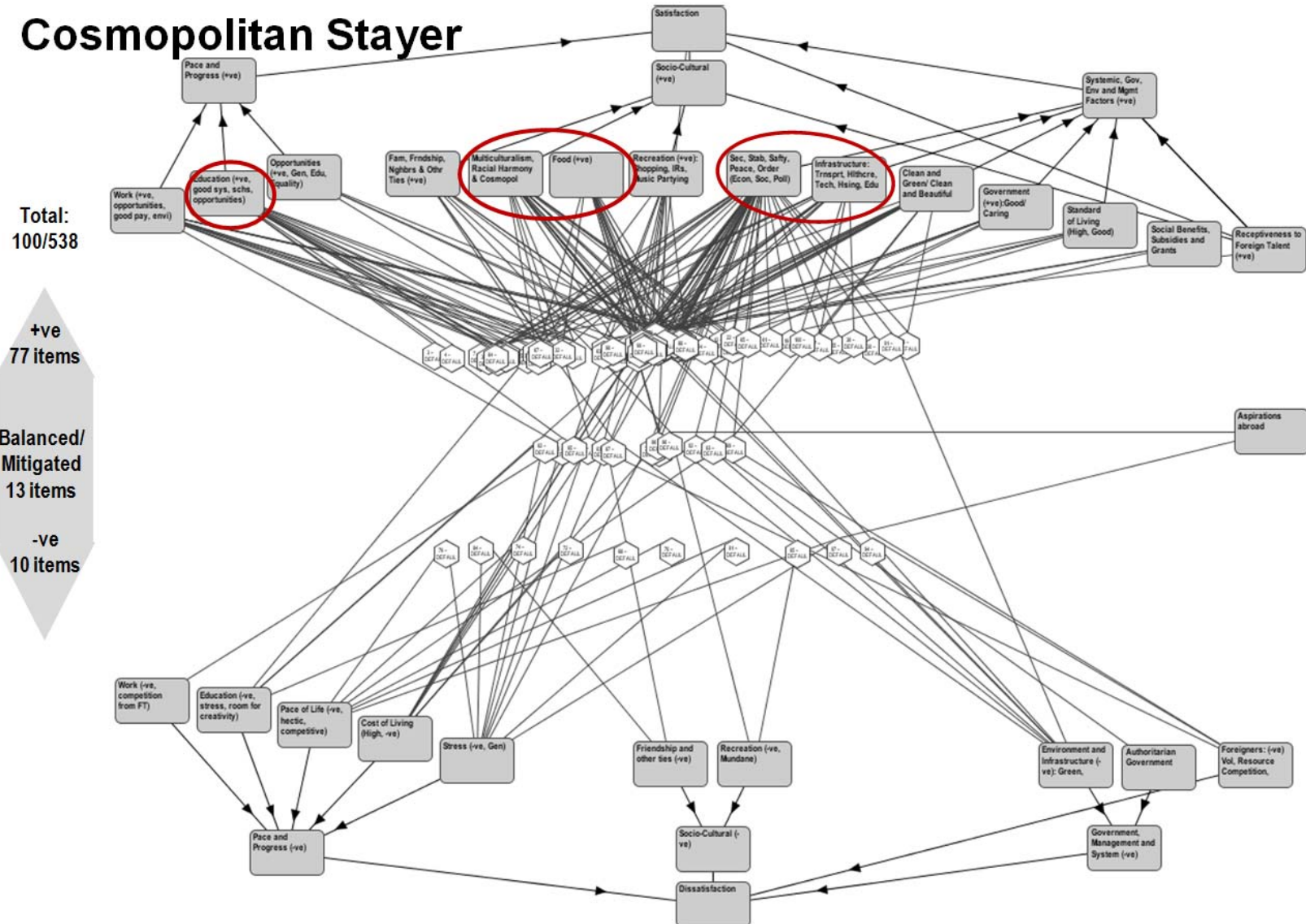
Balanced/
Mitigated
24 items

-ve
12 items

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Diagram 6: Cluster Model (Cosmopolitan Stayer)

Cosmopolitan Stayer



Total:
100/538

+ve
77 items

Balanced/
Mitigated
13 items

-ve
10 items

Diagram 7: Cluster Model (Disengaged)

Disengaged

Total:
100/534

+ve
47 items

Balanced/
Mitigated
13 items

-ve
40 items

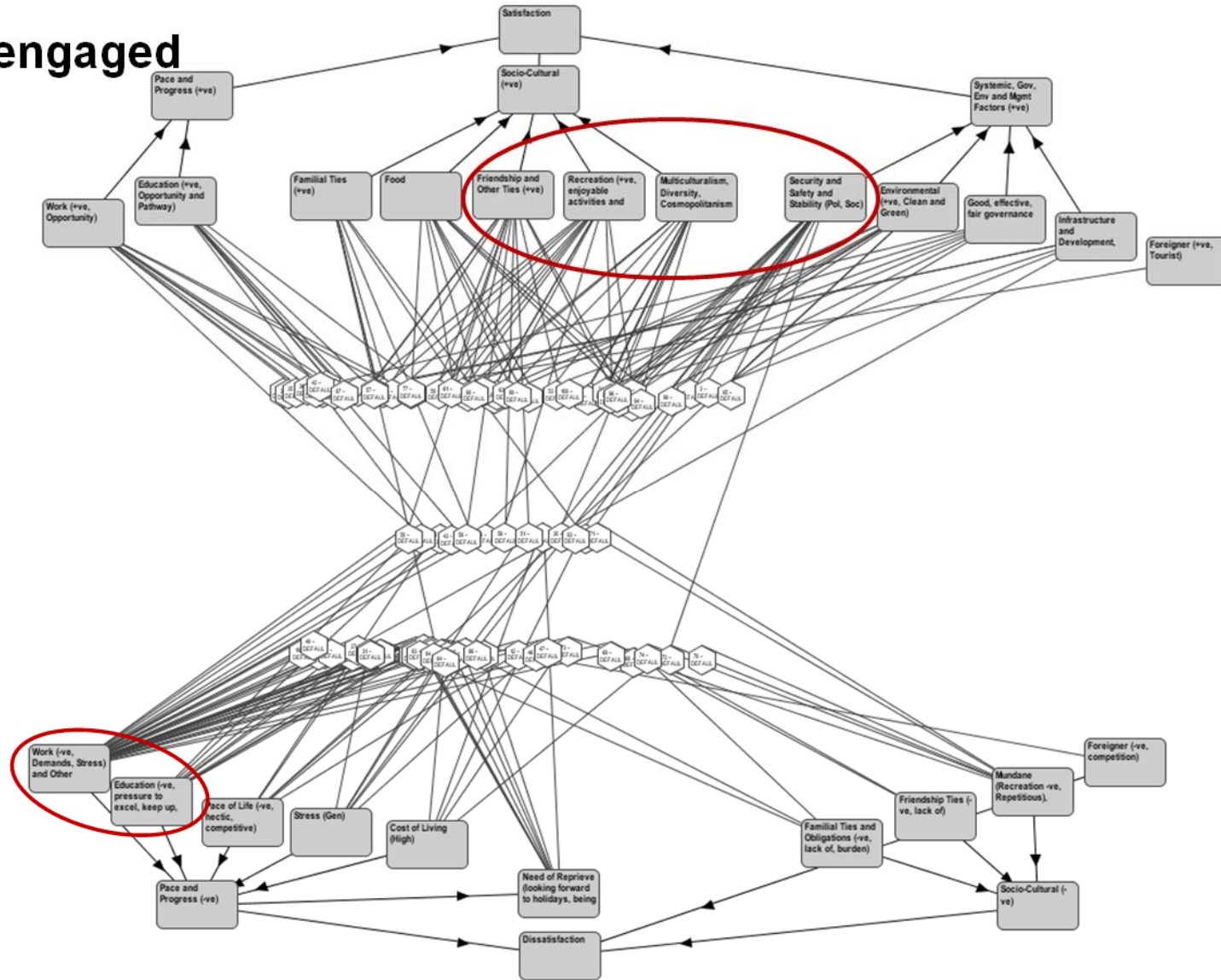


Diagram 8: Cluster Model (Explorer)

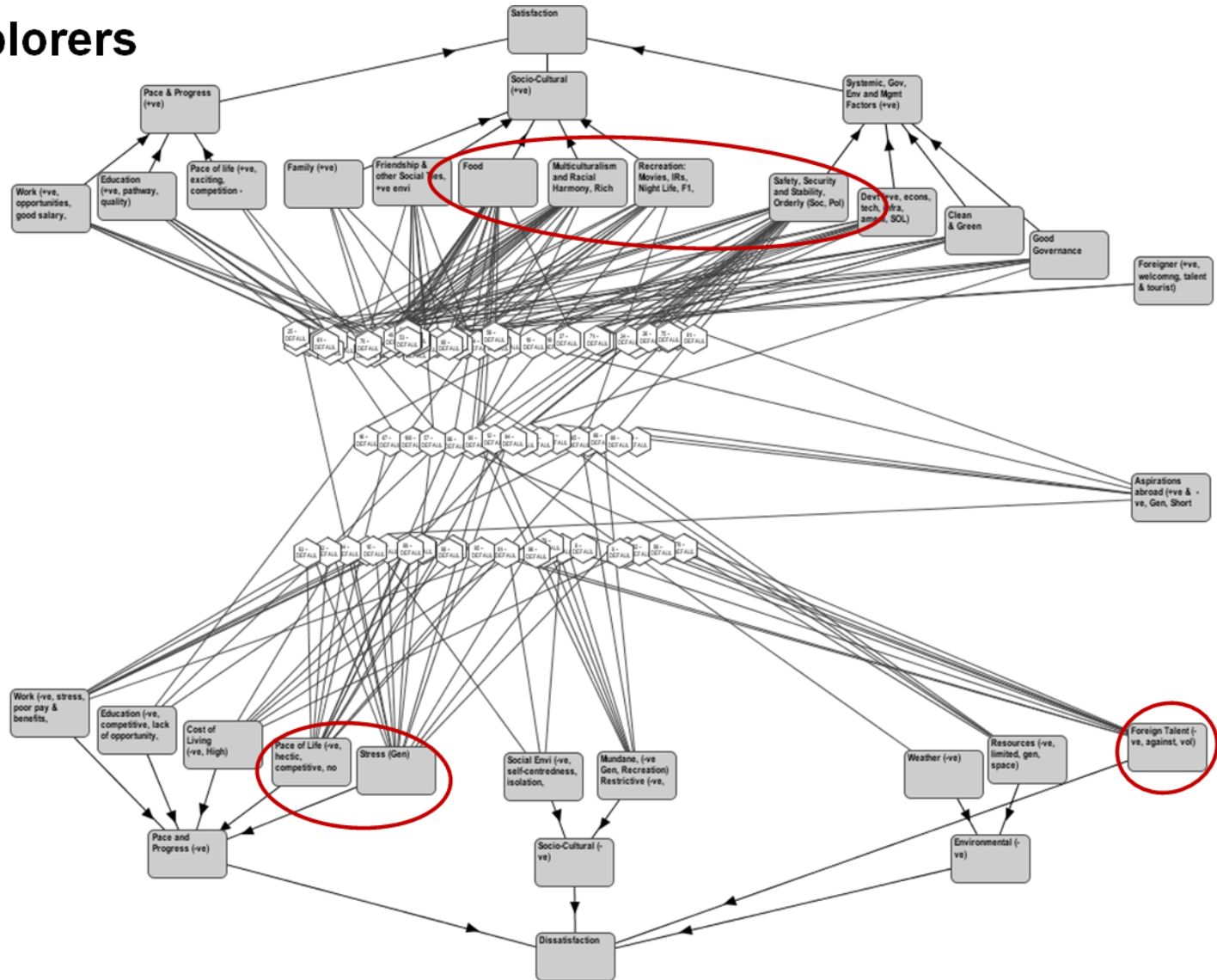
Explorers

Total:
100/407

+ve
57 items

Balanced/
Mitigated
19 items

-ve
24 items



End

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