

Personal Networks and Migration Decision: The Case of Jamaican Brain Drain

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Abstract. Brain drain is the phenomena where the most educated citizens of a country migrate to countries with better opportunities. This typically affects developing countries more negatively than developed countries. Given the close proximity to the US and the high standard of education of its citizens, Jamaica tends to be particularly hard hit by this brain drain. In this paper I examine intentions to migrate among skilled and educated Jamaicans. Specifically, I explore to what extent the composition of their personal network affects their decision to migrate. The data set consists of 62 university students, roughly half of who intended to migrate. Data were collected on 40 people that they knew, including information about social support provided by their social networks. The socioeconomic data about respondents did not predict intentions to migrate. However, students at Campion College, a prestigious high school linked to upper middle class status, were significantly more likely to express an interest in migration than students from other schools. Frequency of travel abroad was negatively related to intention to migrate for those that had traveled at least once. The proportion of network members that provided informational and career advice was significantly higher for those that intended to migrate. Implications of these findings for immigration policy in Jamaica and receiving countries are discussed.

Keywords: *Brain drain, Jamaica, US*

Introduction

Brain drain is noted when a high proportion of people having or seeking tertiary-level education leave their countries to work or train abroad. Typically, these migrations affect developing countries more negatively than developed countries. However, it is now widely acknowledged that labour-exporting countries benefit from migrants' remittances, improved skills and new technologies brought back by returnees, and increase in the overall average of education (De Hass 2005; Stark, et al 1997; Miyagiwa 1991). Nevertheless, these benefits hold when a small fraction of educated people go abroad. Jamaica is among those countries where

the number of highly educated people going abroad is exceedingly more than those with similar backgrounds who choose to stay (The World Bank 2011; Docquier and Marfouk 2006; Adams 2003; Carrington and Detragiache 1999). Despite the heavy implications of this trend for the island's economic development, little scholarly attention has been focused on Jamaica's brain drain.

A 2003 World Bank report, and subsequent work (see for example The World Bank 2011; Özden and Schiff (Eds) 2006), showed that brain drain is especially high for Jamaica, with approximately 80 percent of those with tertiary-level education emigrating. Among the 24 labour-exporting countries analysed in the 2003 report (which best coincides with the research period for the current study), Jamaica had the highest migration rate of tertiary-educated people to both the United States (US) and Organisation for Economic Cooperation and Development (OECD) countries (Adams 2003). The percentage of the most educated Jamaicans who migrated to the US is 360 percent and 95.8 percent to the OECD (Adams 2003). Responding to these trends, the Jamaican government has required that University of West Indies graduates work on the island as repayment of financial aid. Similarly, Mico Teachers College, a leading teacher preparation school in Kingston, has its alumni work on the island for a designated period of time subsequent to graduation. Still, government-sanctioned recruitment drives have encouraged trained professionals like teachers and nurses, to relieve worker shortages in the U.S. and the United Kingdom (UK).

Brain drain has been traced to many causes but brain drain studies have privileged macro-level push and pull factors (Kline 2004; Mahroum 2002; Cheng and Yang 1998; Portes 1976) and effects on growth of sending and receiving countries (Schiff 2006; Kapur and McHale 2005; Commander, et al 2004; Beine, et al 2001; Mountford 1997). Less emphasis has been placed on how global and economic forces, as well as local conditions, guide and frame individual choice and intention. In this paper, I focus on migrant intention, particularly examining the ways that a person's social environment prior to emigration influences the decision to migrate. I look beyond economic, push-pull factors to identify specific micro-social conditions, or what Portes (1976) calls tertiary forces, and explore the effects of these conditions on views toward migration.

While brain drain migration is a subcategory of international migration in general, its unique qualities warrant separate treatment. The global competition for cheap but competent labour creates specific demands for migrants who are

educated and highly skilled. As noted above, many of these migrants are actively recruited and special immigration policy provisions and incentives are put in place to attract them. Because of their skills and level of education, the most educated and skilled migrants often have more employment options both at home and abroad. Thus the decision to migrate among these migrants is distinct from that of a migrant with limited skills and resources. Historically, migration has been posed as a household decision aimed at maximizing the earning potential of the household. However, the most educated and highly skilled of a developing nation like Jamaica are often members of some of the more prosperous families and have at their disposal a range of resources and options. Thus, there is reason to believe that for highly skilled and educated potential migrants, the decision to migrate may be a personal choice or preference, meeting the individual needs rather than those of the household as a whole.

The role of social networks in the migration process may also be distinct for unskilled versus skilled migrants. Some high skill migrants may rely less on network members for help in seeking work or school opportunities abroad. Through the Internet and online job databases these migrants can deal directly with employers or schools abroad. Others can establish roots abroad through the higher education system as students or recent graduates. Additionally, because of their special training or skills, professional migrants have a higher capacity for achieving social acceptance, as well as finding stable employment (Kuo and Tsai 1986). Rather than rely heavily on migrant networks, highly skilled and educated migrants may play a crucial role within the social networks of others at home seeking to migrate.

The international migration literature has focused on the role of social networks in a receiving country that facilitates a migrant's passage. Here I focus on what constitutes a potential migrant's immediate social environment (defined trans-locally), specifically their personal network, prior to a move. While this makes sense for studying skilled and educated migrants, who rely less on migrant networks abroad, it also represents an understudied aspect of the role of social networks in international migration, skilled or unskilled.

Social Networks and Migration

Network theory is significant for linking individual action with overarching economic and social processes (Meyer 2001). Goss and Lindquist (1995) suggest

that the incorporation of networks into theoretical and empirical analyses provides a means of articulating agency and structure and reconciling the functional (i.e. neo-classical economic theory) and the structural perspective (i.e. world systems theory). Massey (1988) considers network formation to be the most important structural mechanism supporting cumulative causation in international migration.

The networks that emerge through the migratory process consist of sets of interpersonal ties that connect migrants, former migrants, and non-migrants in origin and destination areas through ties of kinship, friendship, and shared community origin. Immigration policies, such as those in the US, where immigrant visas are allocated on the basis of a family tie to someone already in the country, reinforces and formalizes the operation of migrant networks and adds to the migrant multiplier effect (Massey, et al, 1994; Richardson 1992). The existence of these ties is hypothesized to increase the likelihood of emigration by lowering the costs, raising the benefits, and mitigating the risks of international movement. Network connections also constitute a valuable form of social capital facilitating access to foreign employment and high wages (Ho 1993; Boyd 1989; Massey 1988; MacDonald and MacDonald 1974; Choldin 1973).

While there is an abundance of work on the importance of networks in the destination area, less is known about what influence a person's local (sending country) network has on the decision to migrate. A study of foreign business management students studying in the UK and the U.S. found that those with strong ties to family in their countries of origin were less likely to express an intention to stay abroad after graduation (Baruch, et al 2007). This finding suggests that just as close family ties pull foreign students to return home, such ties may also be instrumental in people's decisions to stay. I maintain that close friendships, extended family relationships, and mentors can also discourage intentions to migrate. Existing research lacks the systematic measurement of those social networks hypothesized to play a crucial role in the migration process. While it is recognized that personal networks provide information and support that factor into the migration decision-making process (De Jong, et al, 1986), examining the characteristics of individual ties within a person's network may prove insightful. In this paper I apply a method to systematically elicit the names of personal network members (*alters* in the social network analysis jargon) from 62 respondents in Kingston, Jamaica. In addition to asking questions about the respondents themselves, I asked several questions about each network alter, particularly

concerning the type of social support each provided. In this paper I focus the analysis on three main areas relating personal networks to the migration decision-making process:

Hypothesis One. Proportion of alters providing social support.

Whereas much of the literature on social networks and international migration focuses on the role of migrant networks in the recipient country, here I also considered the social support provided by personal networks in the sending country. I hypothesized that people with a higher proportion of network alters who provided various kinds of social support (practical, informational, career, educational) were more likely to migrate. The supportive environment created by a personal network rich in various kinds resources that are available on a regular basis may bolster confidence, lessen any fear of failure, or provide a range of options to someone considering migration.

Hypothesis Two. Proportion of a person's alters living abroad

I hypothesized that people with a high proportion of alters that live abroad are more likely to say they would like to migrate than those who do not. This hypothesis draws upon the assumptions proposed by chain migration theory. Having social contacts abroad lessens the risks involved in migration by providing potential migrants with access to or information about housing, employment, childcare, etc. Individuals with little or no ties to people abroad will find it more difficult to migrate. Bolstered by telephone and computer-mediated communication such contacts abroad indeed constitute a person's social environment.

Hypothesis Three. Travel abroad

I hypothesized that those people who have travelled abroad are more likely to say they would like to migrate. Individuals who have already travelled abroad have a number of characteristics that facilitate future migrations. One characteristic is that they may have established some of the needed documentation that would be crucial in future movements abroad. In general, visas and green cards for travel abroad from Jamaica are difficult to acquire. Having

network contacts abroad is one of the most important criteria for achieving permanent resident status. Individuals with this documentation will find it easier to migrate. Further, travel abroad may be closely linked to having contacts abroad able to receive or help a new migrant. Potential migrants who have already travelled abroad may have had family and friends who they visited in their travels. This is especially true for individuals who have made repeated trips abroad.

Data Collection

I collected data over a 75-day period in the summer of 2002. I chose Kingston as the research location for several reasons. Most importantly, as the capital of Jamaica and the island's largest city, Kingston draws students and professionals from many parts of the island. This made it possible to access students and professionals from both urban and rural areas. Additionally, all of the nation's top tertiary level educational institutions are located in Kingston. These include the University of West Indies, University of Technology (U-Tech), Mico Teacher's College, and the Kingston School of Nursing.

Sixty-two respondents were recruited using schools as the sampling frame. The primary method for recruiting respondents was to visit classrooms in the various schools that granted permission to enter. A brief pre-selection survey was distributed to students that included general demographic questions, as well as questions on intentions to migrate. Two hundred and seven surveys were filled out. The final sample consisted of 31 men and 31 women who a) answered all survey questions, b) provided their contact information, and c) kept their interview appointment. I also selected the sample to have an equal number of respondents who indicated that they were considering migration and who indicated no interest in migration. The final data set included 29 respondents who expressed interest in migration and 33 who did not. Of the final 62 respondents, 24 were students in the social sciences, 11 in business, ten in education, ten in medicine, five in the natural sciences, and two in the humanities.

In order to generate the personal network data, each respondent was asked to complete a personal network questionnaire. The questionnaire asked each respondent to list the names of 40 people they knew (alters). I fixed the number of alters at 40 to be sure to get both strong and weak ties. Forty alters has been demonstrated to be a sample size large enough to draw from the periphery of most respondents' personal networks (McCarty 2002). A respondent knew someone if the alter recognized the

respondent by sight or by name, and if they could contact the person, by mail, telephone, e-mail or face-to-face. Respondents were first asked to freely list 30 people they knew. For the remaining ten, I asked two questions: 1) “Do you know anyone who currently lives abroad”; and 2) “Who here in Jamaica do you rely on for support”.

Next to alters’ names, respondents were asked to write how they were related to that person (family, friend, school acquaintance, work acquaintance, neighbour, etc.). For each alter listed, respondents indicated how close they felt to that person using a Likert-scale with one (1) meaning “Not at all close” and five (5) meaning “Extremely Close”. The next section of the instrument asked respondents to list what kinds of support they could rely on each person for. They had six types of support to choose from, and they could include as many as applied to them (see Table 1).

Table 1: Types of Support

For each of the following please indicate whether you have relied or are certain that you can rely on each person for each type of support:

- | | |
|--------------------------------|---|
| 1) Financial Support: | For amounts of at least US\$50 or JA\$1000. |
| 2) Emotional Support: | For issues related to your personal life. |
| 3) Advice About School: | For advice and information related to school. For example what classes to take, what schools to apply to and whether to continue schooling. |
| 4) Advice About Career: | For advice and information related to your career. For example, where jobs may be available, or what career path to take. |
| 5) Practical Support: | For things that may come up in day to day living. For example, provide you with transportation, provide childcare for your children, take care of you if you were ill, or pick up an item for you at the store. |
| 6) Information Support: | For general useful information. For example, legal information, financial information, or information about a job opportunity. |

Results

Descriptive statistics based on results of the demographic questionnaires are outlined in Table Two. While the results from the convenience sample are not meant to be representative of the study population, attempts were made to find participants that fit several characteristics that were relevant for the study. For example, I recruited

students from Campion College, a prestigious and highly selective high school, because early interviews indicated that people perceived high school students who are admitted into schools abroad upon graduation as being an important part of the brain drain phenomenon in Jamaica. Campion College in many ways geared its students for study abroad and offered the Scholastic Aptitude Test (SAT's) and American College Testing (ACT's) to its students. In fact, analysis of 172 pre-selection surveys (207 pre-selection surveys were returned but 35 had missing information about migration plans) showed that Campion College students (n=72) were two times more likely to express an interest in migration than students from other institutions combined (Pearson Chi-square test of significance = 17.78, $p < .0001$, and a relative risk of 2.05).

Table 2: Respondent-Level Data from Demographic Questionnaire

Variable	Mean	N	Percent	Range
Age	24.08	62		16 – 52 yrs
G.P.A.	3.26	62		2.25 – 3.8
Socio-economic Status		46	Lower – 6.5% Lower Middle – 23.9% Middle – 47.83% Upper Middle – 21.74%	
Number of Times Travelled Abroad (For those who travelled abroad)	2.92	62	1-2 times - 47% 3-4 times – 3% 4-5 times – 31% 5+ times – 19%	
Work Status		62	Part-time – 77% Full-time – 23%	
Student Status		62	Full-time – 78% Part-time – 17% Not a student – 5%	
School Attended		62	U. of West Indies – 49% Campion College – 14% Mico Teacher's College – 12% U. of Technology – 12% Kingston School of Nursing – 9% Other – 5%	
Occupational and Study Areas		62	Social Sciences – 38% Business – 18% Education – 16% Medical – 16% Natural Sciences – 8% Humanities – 4%	

The US was most often mentioned in the interviews as the location where many of the network members who lived abroad were located. It was also the most common desired destination among the respondents (46%), with the UK second (21%) and Canada third (18%). The most important reasons attracting respondents to the US were job and educational opportunities. Those who were attracted to the UK often cited their dislike of the US as an important reason why they were interested in the UK. Other countries in the Caribbean were important for those who were reluctant to leave the climate and culture of the Caribbean but sought better economic conditions abroad (10%).

To get a sense of the effort that those who expressed interest in migration were actually putting into the migration process, each respondent was asked to list all the steps that they had already taken. The most common step was contacting relatives, reported by 19 of the 29 respondents who intended to migrate. This illustrates the important role that contacts abroad play in the migration decision process for the respondents in this study. As indicated in the interviews, respondents recognized the difficulties inherent in migration, particularly the financial and visa-getting aspects. Financial obstacles – having the financial resources to purchase plane tickets or enough money saved to pay for living expenses upon arrival – were cited most often as formidable obstacles to migration. Even so, whether they were considering migration or not, respondents expressed confidence that family abroad would help them in the process. Applying for a green card or visa was the least common step taken by those who expressed interest in migration. The three respondents who entered this option had already acquired green cards through their families abroad. One respondent was a US citizen, a status she had acquired through her mother. The fact that such a crucial part of the migration process was visited less often is a reflection both of the difficulty of acquiring entrance into the preferred destination countries, and perhaps the lack of urgency of migration for many of the respondents. And given that most of the respondents in the sample were students, it may be that completing studies was a more immediate goal.

The interviews suggest that migration is a possibility in many people's minds, but not necessarily inevitable – nor ultimately desirable. Along these lines, even those who expressed strong interest in migration did not necessarily think of a move abroad as permanent. Consistent with findings from studies of return migrants (Conway, et. al. 2005; Thomas-Hope 1986; Gmelch 1980; Cerase 1974) -

particularly Caribbean migrants – in their interviews, respondents shared that migration would help meet specific objectives after which return would be ideal. Such objectives included gaining experience, self-improvement, graduating with a degree, or “making some money”. Besides the desire to apply skills learned abroad to work in Jamaica, respondents notably talked about the need to be with family and friends as a major motivation for return, with no discernable difference between men and women. As one 22-year-old female hospitality management student put it:

I couldn't stay for good. I love JA. I love home. I love all my friends, my family. I can't go away for too long and not want to come home. It would have to be just for a while, just to get settled and make enough money. I get homesick very easily and I miss my friends, cause they're constantly around me, and my family. Right now it's just my mom and me and I want to be by her.

Respondent level data and desire to migrate

Table Three outlines the results of Pearson's correlations conducted for selected respondent level variables. In terms of predicting desire to migrate the two items that were significantly correlated were Effort and Times Travelled Abroad. Effort was measured by summing the different steps taken by respondents who expressed interested in migration. The lowest value possible was zero and the highest six. Respondents with higher values had taken more steps towards migration. As would be expected, individuals who had strong intentions to migrate had taken more steps toward migration ($r = .61$, $p = <.0001$). Importantly, there was a strong negative correlation between number of times respondents travelled abroad and desire to migrate ($r = -.38$, $p = .024$). The coefficient reflects the relationship between travel abroad and desire to migrate for those respondents who had travelled abroad at least once. However, when respondents who have never travelled abroad are added to the analysis the relation is no longer significant. A thirty-year-old woman training to be a registered nurse illuminates why travel abroad may be discouraging for migration:

I've been to Canada, I've been to a couple of Caribbean islands, I've been to various places in the States, so I think it's people who have never really been there, that are just fascinated by the whole idea...I don't see it that way. I would travel two or three times a year...sometimes I run up and do some shopping,

'cause I hardly shop in Jamaica...there are certain things that I will go specifically to get. I just see [the US] as a vacation spot. Some people see it as a land of opportunity and all that but I think we have opportunity here...Some of them really don't know, because they think that it's a bed of roses when they are going to be going to this place...I don't think they know what they are getting into.

Her response shows two themes prominent in the responses of interviewees who did not wish to migrate. The first has to do with loyalty to Jamaica and the belief that because struggles can be found abroad or at home, it would be best to give back to their country and make it work in Jamaica. After commitments and attachments to family and friends, loyalty to Jamaica was the second most common reason given by respondents for wanting to stay in Jamaica. A related theme, captured by the nursing student above, had to do with the perception that those who wished to migrate didn't actually have first hand experience with life outside of Jamaica and therefore had idealized views of what life abroad would be like. This theme will be discussed further below.

Table 3: Migration and Respondent Level Variables

Variable	Intent to Migrate		
	Pearson's r	N	P-value
Effort	0.61	62	<. 0001
SES	-0.02	46	0.904
Times Travelled Abroad			
Travelled at least once	-0.38	36	0.024
Including "Never travelled"	-.137	62	.287
Age	-0.07	62	0.597
GPA	-0.03	44	0.077
Work Status	0.04	62	0.744

The measure used in this study for socio-economic status had no predictive power. This may be due to several reasons. The instrument used to gather socio-economic status (SES) data was not ideal. To avoid offending potential respondents, SES information, (low, lower middle, middle, upper middle) was gathered during the interviews instead of an open-ended income amount question. Because of this there is no way to tell whether one respondent's perception of "middle" is comparable to that of another respondent's. Additionally, there may not be enough variability in this particular sample to provide statistical power. Most people classified themselves in the

lower middle and middle, with few people in the extreme categories, especially in the low category. To some extent this is expected since the vast majority of respondents were students who were at least able to afford a college education.

Personal network composition and desire to migrate

Network composition refers to the attributes of members of a personal network and their relationship to the respondent (*ego*). Such measures include average strength of ties to alters, average age of alters or percent of kin in the network. The tests of Hypotheses One (H1) and Two (H2) called for analysis of compositional variables. For example, H1 proposed that people with a higher proportion of network alters who provided various kinds of social support (practical, informational, career, educational) were more likely to migrate. The compositional measure of average closeness to alters was also included to gauge if a desire to migrate was associated with either high or low levels of closeness to network members, a possible indicator of the strength of social support available in a network. T-tests were conducted to determine if there were any significant network compositional differences between those who expressed interest in migration and those who did not.

While no significant differences in average closeness were found between those who expressed a desire to migrate (average closeness = 3.3) and those who did not (3.1), statistically significant differences were found in four social support areas (see Table Four). Respondents who expressed interest in migration had a higher percentage of their network provide practical, informational, school and career support. While both alters in Jamaica and abroad provided such support, the interviews provide further nuance. Respondents indicated that while their contacts abroad could give practical help – such as provide a place to eat and/or stay and transportation – they would be less likely to give financial support. These alters abroad were usually members of their extended families and were generally less close to the respondents. The average percent of *ego*'s contacts abroad who were close (a rating of four or five out of five in the closeness scale) was 36 percent, indicating that respondents' most close contacts were those who lived in Jamaica. These immediate Jamaica-based contacts were most instrumental in providing school and career support. They included classmates and professors, who had the most firsthand sense of the demands and prospects of fields that each respondent had embarked on. Professors were especially valued for their knowledge and experience. In talking with respondents I also found that parents were encouraging of migration as a

way to meet specific career and educational goals. Even some who were not interested in migration shared that their parents believed the best opportunities for personal and career advancement were to be found abroad. For example, one female nursing student who planned to migrate after graduation said of her mother: “When I was in high school she wanted me to go because she thought that college over there would have been better. I wasn’t enthused about it and I still think that the Jamaican education system is better”.

Table 4: T-Tests - Social Network Composition

Compositional Characteristic	Interested in Migration N=33 (Percent)	Not Interested in Migration N=29 (Percent)	Prob>t
Emotional Support	60	61	.8884
Financial Support	34	28	.2905
Practical Support	60	48	.0308
Informational Support	68	47	.0025
School Advice and Support	56	39	.0087
Career Advice and Support	56	35	.0014
Network Members Abroad (N=43)	27	22	.2694

Hypothesis Two posited that people with a high proportion of alters that live abroad are more likely to say they would like to migrate than those who do not. This hypothesis was not validated by the data. The average number of alters who lived abroad was 9.7, with a maximum of 32, a minimum of zero, and a mode of ten. Of those who had zero to five alters abroad – hypothesized to be less likely to express an interest in migration – six intended to migrate and seven did not. As shown in Table Four, the average percent of respondents’ network members who lived abroad was 27 percent versus 22 percent for those with no intention to migrate. This difference was not statistically significant. Statistical validation was limited by the reduced sample size that was used in this particular analysis. Nineteen respondents out of the sample of 62 did not provide specific information on who among their network members lived abroad, therefore they were excluded from the analysis.

Having a large pool of people who live abroad might not be as important to the migration decision as having a key member of the network who lives abroad. The interviews revealed that such key members range from parents who have gone ahead to establish roots in another country, to siblings, a partner, and close friends. Interview

narratives further suggest that several respondents in this study were open to migration because one important person in their network – who hadn't yet moved – was considering migration. For example, when asked what factors motivate him to migrate, a twenty-one-year old Accounting student said:

...My girlfriend wants to go, well she wants to go to America and get her masters, and I'm not really into the America thing, so if she decides to go to America then more than likely I will choose Canada, if I were to get into a school in Canada and UK, then I would choose Canada on that part...the only reason I would go to the US is for my girlfriend.

For those who planned to stay in Jamaica, key relationships also served to temper any thoughts about migration. A twenty-four-year old Education student responded in the following way when asked if migration is an immediate option for him: "I wouldn't say that...my grandmother is really old, she is 93, she's been looking out for me, so I don't want to leave her alone". Such notions of duty and responsibility to loved ones were mentioned both as reasons to migrate and reasons to stay by those who were interested in migration and those who were not. For example, in talking about her responsibility to her young daughter, one woman affirmed that while she did not want to migrate, if security in Jamaica did not improve she would have to leave for her daughter's sake.

Discussion and Implications

This study was limited by a small sample size. Furthermore, with a focus on migration *intentions*, this study can say little about whether or not respondents will actually migrate. Still, steps taken towards migration (effort) and intent to migrate were highly correlated. This suggests that for many of the respondents in this study, a positive intention to migrate was accompanied by practical steps towards a move. While this study is limited by a lack of valid measures of socio-economic status, socio-economic status and education seem to play an important role in the migration decision. This is suggested by the differences found between Champion College students and other students in the pre-selection questionnaires administered to potential participants. Champion College students were significantly more likely to express an interest in migration than their post-high school counterparts. Champion College is known to serve mostly upper middle class families and attendance there is popularly thought to be a

reliable indicator of students' privileged socio-economic standing (Brown 2007). As with other students planning to migrate, Campion College students were particularly interested in pursuing educational opportunities abroad. However, upon return upper middle class emigrants are able to draw on their families' high status to mobilize social connections advantageous for finding the best jobs in Jamaica. Given the Jamaican economy's limited capacity to support returned professionals, such connections make return migration a viable career strategy. The question remains whether the Jamaican economy is best served by returned migrants or by the remittances sent by those who settle abroad permanently. Exacerbated by the global financial crisis, the country's growing unemployment rate – approximately 12 percent in 2010 (PIOJ 2010) – complicates the use of recruitment programmes to entice Jamaicans to return home. Still, targeted recruitment aimed at building an entrepreneurial workforce on the island may be a feasible development option.

Significantly, the data negate the hypothesis that more frequent travel abroad encourages an interest in migration, but with a caveat. The number of times respondents travelled abroad for those who had travelled at least once proved to have a negative effect on the respondent's desire to migrate. However the statistical significance is lost when those who had never travelled are added to the analysis. Perhaps those who have never been abroad do not know enough about conditions abroad to be persuaded for or against migration. Another interpretation is that those who travel frequently are drawing benefits from their travels that create less of an incentive to migrate. Having access to products and services abroad, or the opportunity to maintain ties to relatives and friends abroad, without having to make the heavy investment of moving, may dampen the desire to migrate. Kossoudji (1992) points out that migrants with access to networks abroad tend to make shorter and more frequent trips feeling confident of their ability to come and go with ease. For those for whom migration is not an option, such as because of strong commitments to Jamaica-based relationships, frequent travel abroad makes it possible for individuals to still reap some benefits of having transnational connections. Furthermore, the interview data support the notion that travel abroad led to more realistic views about the pro's and con's of life outside Jamaica. Several respondents who had no interest in migration cited their reason for this to be that they had experienced what other countries had to offer and they did not feel that it was better than what could be found at home. In a sense, the mystique and idealism with which many potential migrants viewed countries like the US did not exist for those respondents. A further explanation is that those with sufficient financial resources to travel abroad for leisure

have a favorable economic standing in Jamaica, which diminishes the allure of migration as a means of securing economic stability. Nevertheless, I take seriously respondents' assertion that exposure to the world beyond Jamaica dampens a "grass is greener on the other side" attitude. A possible policy response to the finding that more travel abroad relates to diminished desire to migrate would be to reduce visa restrictions for travel to the US, UK, and Canada – the three chief destinations of Jamaican migrants. On the part of the Jamaican government, conditional travel grant programmes for short trips to visit family, enroll in short career-enhancing courses, or to intern, volunteer or work in targeted programmes may serve to stem brain drain.

The results of the compositional network data were also revealing. The significant differences between those who were interested in migration and those who were not in terms of practical, informational, school and career support raises some interesting questions not only about the functions of personal networks but also about their formation. The interviews do not suggest that the respondents purposefully constructed their networks with future migration in mind. In fact, a majority of respondents who were interested in migration did not actually state that their migration plans were definite. The question dealing with the steps taken towards migration indicate most respondents who were interested in migration took few to no steps towards the migration goal.

How do attributes of an individual's social network translate to that individual's intentions? The literature on social support, particularly the health and psychology literature, provides insight into the role that perception of social support plays on physical and mental health outcomes, for example, in dealing with major life changes or depression. Research on the perceived availability of social support have found an association between perceived social support and such network factors as network size, frequency of social contact, closeness to network members, and a greater number of multiplex relationships (Russell et al, 1997). When it comes to migration, however, the literature is sparse, particularly in addressing the role of social support prior to a move.

The results of this research suggest that perceiving one's network to be rich in certain types of support may influence an individual to look at migration more favorably. This contrasts with the notion that highly skilled migrants leave for abroad because they do not have enough supportive networks at home

(Meyer 2001). It is important to note that I focus on quantity rather than the quality of the support provided or potentially available. I found no differences between types of support in terms of the types of relationships that provided them. Consistently, family and friends provided the majority of the support for all types of support, but the number of people available to provide that support was the crucial factor.

How networks function to provide resources and support to individuals has also been an area for debate in the social capital literature. It has been suggested that social capital has its roots in social networks and social relations (Lin 1999). The resources embedded in a network and the relations within the network have been two areas of focus. According to Lin's (1982) social resources theory, embedded resources include the wealth, power, and status of those who an individual has direct or indirect ties to. In the case of the present research, information could also be classified as an embedded resource. The amount or variety of such resources provides a way to identify and measure social capital. The results of the network composition analyses provide one way to operationalize social capital within the context of migration.

For this population, mostly students in their early to mid-twenties, the decision to migrate is associated with career and educational advancement. This would be expected, and is indeed a necessary characteristic for this study since it is focused on examining some of the factors that may lead to higher rates of brain drain migration from Jamaica. It is reasonable that for individuals with career and educational goals, having a large percentage of their network able to provide career and school advice and information would be important both to their professional advancement as well as to their decision to migrate. Especially since the migration option is inextricably linked to the desire to improve or maintain their professional qualifications and economic situation. In interviews, respondents most often cited educational advancement as a motivation for migration. Respondents who pointed to educational advancement as a main driver of their migration plans tended to specifically name degree programmes they hoped to pursue. For those less specific about their plans, a broader theme of "seeking opportunities" emerged. The search for opportunities encompassed educational and career goals tied to the overarching concern for achieving economic security. It is interesting to note that several respondents who cited educational advancement as their reason for wanting to migrate also saw

migration as a temporary condition. This resonates with Brown's (2007) findings in her study of educated and highly qualified Jamaican return migrants. She notes that, "For those Jamaicans with a pre-migration middle class status, [the intent to return] is informed by an objective to achieve professional training sufficient to sustain or better this status when they return to Jamaica" (Brown 2007: 98).

Informational support and practical support were also important for those interested in migration. One possible explanation for the significance of informational support for migration is that individuals who have access to considerable informational support are in an enhanced position to know about and better understand the process of migration (i.e. how to apply for entrance into another country, or about the financial costs of migration). This kind of knowledge can serve to simplify the process and as a result contribute to a perception of migration as an attainable goal.

Finally, practical support is an active resource. Individuals who have a large proportion of their network provide practical support can rely on their network members for assistance in both routine and emergency day-to-day situations. They are afforded a certain level of security that someone with less support of this kind may not have. I suggest that the security, or at least the perception of security, that is created by having many network members provide practical support, is crucial to the migration decision-making process because it allows the individual to feel less intimidated by any possible obstacles to migration that may discourage a person from wanting to migrate.

Conclusion

International migration studies that have focused on the role that migration networks play in the migration process most often detail the importance of contacts abroad. Migration networks, then, are those sets of relationships that facilitate migration because of their unique experience abroad, because they are actually situated abroad, or because they have had already migrated and returned home. In this study, I focused on another, often overlooked, aspect of the migrant network, what constitutes the potential migrant's social environment prior to a move. These personal networks include both those who are abroad and those who live in the potential migrant's immediate social context. Focusing on educated and skilled individuals, this study

placed special emphasis on potential migrants' immediate social environment in Jamaica.

While network factors are related to migrants' decisions to go abroad, it is clear that Jamaica's economic woes and high rates of violence provide a critical backdrop for understanding this study's findings. Indeed, *all* of the respondents in this study, regardless of their intention to migrate, mentioned Jamaica's high crime rates and difficult job market as important factors for the brain drain phenomenon. Some who indicated in their questionnaires that they were not considering migration revealed in their interviews that if Jamaica's gun control problems and related violence were not curbed they would seriously think of migrating. Indeed, concern for the safety of close network members in Jamaica – particularly family – motivated some to consider migration. This is just one way in which respondents' key Jamaica-based relationships influenced the decision to migrate.

With this in mind, the primary goal of the research was to determine what personal network factors distinguished skilled and educated Jamaicans who do want to migrate from those who do not. The results of this research suggest that there are some personal network attributes that encourage migration. Particularly, having a large percentage of one's network provide informational, practical, and career and school support proved to be significant for the intention to migrate. This study further revealed that frequent travel abroad was associated with less interest in migration. Further research is needed to understand the relationship between travel abroad and individuals' networks. Interviews revealed that contacts abroad facilitated temporary travel, but this study did not determine whether aspects of individuals' Jamaica-based social networks played a role in temporary travel abroad. It appears, however, that the decision to migrate among the study's participants, the weighing of advantages, disadvantages, opportunities and risks are often understood vis-à-vis valued relationships.

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