

LOSING OUR MINDS:
SKILLS MIGRATION AND THE
SOUTH AFRICAN BRAIN DRAIN

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Published by Idasa, 6 Spin Street, Church Square, Cape Town, 8001, and
Queen's University, Canada.

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ISBN 1-919798-03-x

First published 2000
Design by Bronwen Dachs Müller
Typeset in Goudy

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Bound and printed by Logo Print
Print consultants Mega Digital, Cape Town

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SOUTH AFRICAN BRAIN DRAIN

SERIES EDITOR:
JONATHAN CRUSH

SOUTHERN AFRICAN MIGRATION PROJECT 2000

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INTRODUCTION: IS SOUTH AFRICA LOSING ITS MINDS?

JONATHAN CRUSH, DAVID McDONALD AND VINCENT WILLIAMS

Many countries, South Africa included, are in a panic about skills emigration – the so-called “brain drain.”¹ One business-oriented institute even thinks that South Africa’s skills shortage is so “desperate” that the country should immediately throw open its borders to anyone who wishes to enter.² Yet most South Africans are ambiguous about the wisdom of using immigration policy to offset skills loss.³ Immigration, no matter how selective and tightly controlled, arouses nationalist passions and causes moral panics.

Anti-immigrationists argue that governments are supposed to protect citizens from “outsiders”; not let them in to compete with locals for jobs and resources.⁴ Even the most liberal immigration countries have strong and vigorous anti-immigration lobbies. In fact, if immigration policy were driven purely by the wishes of citizens, there would be very little legal immigration in the modern world. Why then do some governments go against the popular will and their own constituencies in encouraging immigration? Presuming that they are not acting totally irrationally, they appear to believe that immigration and the interests of citizens are not always incompatible.

South Africa is hampered by a very clouded and unsavoury immigration history.⁵ Before 1994, immigration policy was a naked instrument of racial domination. There was also considerable emigration during the apartheid years, but emigration rarely exceeded immigration (Figure 1.1). What has happened to immigration and emigration since 1994? Government data certainly underestimates the extent of emigration. A recent study by the SANSA project at UCT estimates that over 233,000 South Africans emigrated permanently to five countries – the United Kingdom, the USA, Canada, Australia and New Zealand – between 1989 and 1997.⁶

Is it possible that skills emigration is being offset by a proactive immigration policy and recruiting of skilled foreigners to make up for the “brain drain”? On the contrary, immigration has fallen significantly since the early 1990s. In 1993, South Africa let in 9,800 immigrants. By 1997, the number had more than halved, to only 4,100. These figures raise some pointed questions.

The SAMP survey of South African emigration intentions reported in Chapter 1 of this publication suggests that the brain drain is unlikely to slow over the next decade, and that black South Africans are as likely

to leave as white South Africans. This represents a potentially significant drain of human capital. While politicians, the media and business bemoan these patterns of emigration, there is not much they can do about it. The constitution guarantees that no restrictions will be placed on the free movement of South Africans to greener pastures.

As South Africa engages in an active nation-building process, there is a danger of a misleading idea taking hold; i.e. that nation building means that no immigration should be permitted. This, of course, may be one reason for the dramatic decline in immigration since 1994. The thinking of the Minister of Home Affairs on these matters was recently revealed in the Draft White Paper on International Migration. What is striking about the White Paper is its emphasis on control, on keeping people out, on removing those who South Africans don't want. There is little systematic consideration of the potential role of immigration as a tool of economic and social policy.⁷

The White Paper misses the opportunity to initiate a public debate on the possible benefits for South Africa of legal immigration, but also encourages South African citizens to take up an anti-immigrationist stance. The White Paper does, however, recognise the virtues of greater freedom of temporary residence and work in South Africa; and for that the drafters are commended.

The lack of encouragement of public debate is not merely a sin of omission. The Draft White Paper actually advances a misleading argument about why immigration is supposedly undesirable for South Africa. Canada and New Zealand, we are told, encourage immigrants because they have lots of space and not many people. South Africa, in contrast, has too many people and not enough space; South Africa should thus stop all immigration. In fact, neither Canada nor New Zealand sees immigration primarily as a tool to boost population numbers.

These two countries don't recruit South Africans at random — they target the most skilled, trained, experienced and entrepreneurial. Innovative and hard-working immigrants add massive value to the new economy and society. Their net impact is hugely positive for national economic development and the citizenry.

South Africa is shedding skills at a worrying rate to its global competitors. These countries have no compunction about creaming off skilled people from other countries. Why should South Africa be that different? Why should it not also gain massive value from a selective immigration policy that targets the brightest and best of other countries?

There are two legitimate fears that need to be addressed. First, it has been argued that this policy would simply be a recipe for renewed European immigration. However, the facts show that the majority of

immigrants to the western “immigrant recruiting nations” are no longer from Europe. These countries are drawing skills globally, including from Africa, Asia and Latin America. Perhaps South Africans would feel morally queasy about “robbing” other developing countries. The point is that these are people in those countries who are looking to leave anyway. If South Africa is not one of the options, they will just go elsewhere.

Second, there is the argument that immigrants deprive locals of jobs. However, when it comes to skilled immigrants, most of the evidence suggests the opposite. They create enterprises and jobs for locals, they enhance the productivity of existing enterprises and they pass on valuable skills and experience.

We raise these issues not to prescribe an immigration policy but to initiate debate. What we suggest is much greater public and official discussion about the pros and cons of skills immigration and its advantages and disadvantages for South Africa. Nation-building and immigration are not mutually incompatible. In some circumstances, they may actually be mutually reinforcing.

The existence of the Draft White Paper on International Migration provides a good opportunity for these issues to be raised and publicly debated. Uncontrolled immigration is in no-one’s best interests. But a selective immigration policy could be critical in offsetting the brain drain and injecting new ideas, innovations and energies into the country. Without such a debate, insularity and exclusive nationalism will win the day. This will not be in the best interests of South Africans.

In order to put this debate on a sound footing, rigorous research is required into the so-called “skills crisis” in South Africa. To this end, the Southern African Migration Project (SAMP) in 1998-9 embarked on a major research project on skills migration to and within the SADC region. Amongst the products of this activity are a major report on the development of an immigrant selection system for South Africa;⁸ a forthcoming special issue of the journal *Africa Insight* on skills migration in SADC and several survey reports. The two papers in this publication are the first products of the survey component of the project.

As this research was getting under way, the South African public was presented with two very contradictory messages about the brain drain. First, in a much-publicized speech in September 1998, President Nelson Mandela was reported as saying that those who were emigrating from South Africa were cowardly and unpatriotic and that the country was pleased to see the back of them.⁹ At around the same time, the *Sunday Times* published the results of a misleading readership survey which seemed to show that nearly 75% of skilled South Africans would quit the country in the near future.¹⁰ These claims do not stand up to the

research results reported here.¹¹

The objective of the first survey was to gauge the dimensions of the “brain drain” from South Africa and to ascertain whether the drain would escalate into a chronic and damaging skills shortage. The second, complementary, report analyses the results of a survey of South African employers on their attitudes towards the actual and potential loss of skilled personnel. The investigation was designed to assess the hiring practices, attitudes and responses of enterprises towards the skills shortage in key areas of the economy.

Chapter 1 reports the results of the first survey, a representative national sample of skilled South Africans. This is the first survey of its kind and provides invaluable insights into the attitudes and stay-go intentions of skilled South Africans. The authors point out that there is a great deal of hearsay surrounding the reasons why people leave. They suggest that even if it is true that crime, violence and declining public services are responsible, we still need to ask what distinguishes those who go from those who stay.

Predicting exactly how many skilled people will emigrate from South Africa in the future is not a precise science. Even if a person says they want to leave, there is no certainty that they actually will. The authors therefore develop the concept of emigration potential, which is not the same thing as a firm prediction of future emigration patterns and trends.

Emigration potential consists of several different elements. To what extent has a skilled person even considered the idea? To what extent do they actually want to emigrate? To what extent do factors outside their control affect the likelihood of leaving? Exactly when do they plan to leave? What preparatory measures have they taken?

A distinction is necessary between temporary and permanent movement (or emigration). There is no sense decrying a “brain drain” if skilled people intend to return to South Africa. Permanent movement on the other hand is clearly indicative of a brain drain.

The main findings of the study are as follows:

- The economically active population in South Africa is approximately 17,000,000. Using various criteria, the size of South Africa’s skilled sector is defined at 1,600,000 (or 9% of the economically active population). Given the role of apartheid in reserving important positions in the economy for whites, it is no surprise that the random sample was predominantly white (72%). Of the remainder, 18% were African, 8% coloured and 3% Indian.

- The pool of skilled South Africans who might conceivably leave is a large one. Over two-thirds (69%) say they have given the idea of emigration some thought (and 38% say they have given it a “great deal” of thought). There is a perception that the brain drain is a “white

phenomenon” only. This is misleading; 69% of whites and 68% of blacks have given emigration some thought.

- Thinking about leaving, and actually doing so, are not the same thing. Only 20% say that it is very likely that they would leave for a period of more than two years. Slightly higher proportions of skilled whites (22%) than blacks (15%) say that a permanent move is very likely. On the other hand, skilled blacks are more likely to leave South Africa on a temporary basis (15%) than whites (10%).

- Specifying a time frame dramatically cuts the levels of potential emigration. Only 3% said that it was “quite likely” that they would leave within six months, 5% say they will leave in the next two years, and 13% say it is “very likely” that they will leave within five years. The proportions of skilled blacks and whites who express a strong probability of leaving within six months or within two years are statistically the same (though whites are more likely to express a strong probability of leaving within a five year time period).

- The firmest indicator of a person’s emigration potential is whether they have actually begun the process of application for emigration documentation. Some 6% say they have applied for work permits in another country, 5% have applied for permanent residence elsewhere, and 3% had applied for foreign citizenship. Again, there are no statistically significant differences between skilled white and black South Africans.

- A composite statistical index was used to summarize each person’s potential to emigrate. Around 2% of the sample fall into the “very high” category of emigration potential (of leaving South Africa for a period of two years or more, within the next two to five years). Some 10% have a “high” emigration potential and 25% have a “moderate” emigration potential. Only 20% have no emigration potential.

- There is absolutely no difference in the proportion of skilled whites and blacks who fall into the “very high” category (2% of either group). A higher proportion of skilled whites (11%) than skilled blacks (4%) fall into the “high” probability category. But adding the two together, the difference in proportions of skilled whites (13%) than skilled blacks (6%) with a high/very high probability of leaving the country within five years, is not nearly as great as might be expected

- If only those with a “very high” emigration potential left the country in the next five years, this would translate into a potential gross loss of around 32,000 skilled people. If those with a high potential are added, the number could jump to 192,000.

- The United States (24%), Australia (22%), United Kingdom (15%), New Zealand (12%) and Canada (11%) rank as the five most often mentioned emigration destinations.

- Skilled South Africans were asked about their satisfaction with a

wide variety of measures of “quality of life.” There are high levels of dissatisfaction with (a) the cost of living, (b) levels of taxation, (c) safety and security, and (d) the standard of public and commercial services. With the exception of standard of services, dissatisfaction extends across racial boundaries and is not a predominantly white pre-occupation. They are far less dissatisfied with personal economic conditions as well as with schools and available health care. The single exception is black dissatisfaction with current income levels.

- We see far higher levels of relative dissatisfaction among skilled whites when we ask them to compare their lives today versus five years ago. Some 65% of skilled whites say their lives got worse in the previous five years. In stark contrast, 65% of skilled blacks say it got better. But all skilled South Africans tend to feel that life will only get worse. Skilled South Africans are particularly pessimistic about their future cost of living, levels of taxation and safety, and the standard of public services. Again, this pessimism extends across the racial divide.

- The major difference between white and black skilled South Africans is in political attitudes. Skilled whites are highly dissatisfied with government performance, feel that it does not represent them and distrust government. Skilled blacks have far less pessimistic views. Skilled whites are widely opposed to affirmative action (83%) while only 20% of skilled blacks are opposed.

- Those with high emigration potential were asked what, if anything, would lead them to stay in South Africa. Only 12% said that there was “nothing” that could make them stay. One quarter (25%) said improvements in safety and security would make them stay.

- Finally, would government steps to restrict emigration make them more or less likely to leave? Such policies would be counter-productive and hasten the exit of almost half of the high emigration potential group. Specific steps such as requiring a year’s national service from students leaving professional schools, an end to dual passport holding, or increased fees for documents would actually hasten the exit of between one-third to one-quarter of this group.

The second survey reported here shifted the focus from interviewing individual South Africans to interviewing employers. The main findings of this survey of 200 public and private sector enterprises were as follows:

- The survey captured a cross-section of enterprises from a range of different sectors, of different sizes and with different ownership characteristics. It includes a set of enterprises, private and public sector, foreign and local, which are leaders in the market for high skilled personnel in South Africa. The 200 enterprises employ an estimated 101 000 skilled personnel with the largest absolute numbers in banking and

finance, education and health, and industrial. The sectors with the lowest absolute numbers of skilled personnel were entertainment and tourism, and construction.

- The sectors in which the ratio of skilled personnel to total employment is especially high include education and health, banking and finance and computers and IT services. The most high skills intensive sectors are computers and IT services (57% of employees), business services (47%), education and health (41%) and banking and finance (29%). In total, these four sectors accounted for 78 000 skilled employees. In several computer services and IT enterprises the proportion of highly skilled was 90% or more.

- Over 50% of enterprises employ a skilled workforce of citizens or permanent residents alone. Some 46.5% employ some foreign high skilled workers. The highest proportions are in banking and finance, computers and IT services, education and health, and business services. But across the 200 surveyed enterprises, foreign skilled personnel number in total only between 2 000 - 3 000 workers. Overall, non-South Africans represent more than 5% of the total labour force in only 8% of the enterprises.

- In certain multinational enterprises, foreign skilled personnel are not in South Africa on a long-term basis. Rather, they are part of intra-corporate movements involving a rotation of personnel or exchange programmes. The sources of foreign skilled personnel vary, with the most common countries of origin being the United Kingdom, Germany, the USA, Italy, and Australia.

- Companies say that the impact of the emigration of skilled personnel has been much greater in the post-1994 period. The tempo of emigration of skilled personnel appears to have escalated, especially from 1996 onwards. Overall, one-third of enterprises rated as “significant” the outflow and impact of the brain drain, compared to only 2% for the pre-elections period. Some 98% said the impact of emigration was none or negligible before 1994. The corresponding figure for the post-1994 period falls to 67%.

- The brain drain to date is of only minor importance compared to the total skills base of surveyed enterprises. In 67% of enterprises the issue of emigration of high skilled personnel was rated as of no or negligible importance.

- The perceived impact of the brain drain varies sectorally. The numbers of enterprises reporting a significant impact was high in education and health (59%), business services (47%), banking and finance (43%), computers and IT services (35%) and industrial high tech (35%).

- The most severe emerging skills shortage clearly relates to

computing and information technology personnel. A global labour market has emerged in the sphere of computing and IT skills. Within this market, South Africa is rapidly losing competitive ground to the aggressive recruitment strategies and lucrative employment packages of enterprises in the USA, Western Europe and Australia.

- The major potential source of recruitment for new high skill personnel is South Africa rather than overseas. The survey disclosed that the majority of enterprises prefer to hire local South African personnel into high skill positions whenever possible.

- A key issue in offsetting the brain drain is the training programmes offered to employees. The operation of training programmes is a major means for expanding an enterprise's asset base of skilled personnel. A positive finding was that the vast majority of the surveyed enterprises – 85% of the total – are involved in training and skills upgrading of their personnel. In many cases the budgets allocated to training and upgrading of personnel are substantial and impressive.

- Finally, enterprises seeking to hire overseas employees report consistently negative experiences with the Department of Home Affairs. Almost without exception, there were complaints about delays, lack of transparency and obstructionism. In the case of many private sector enterprises, new growth and job opportunities for the South African economy have been either postponed or, in many instances, lost forever through what employers perceive to be the Department's inability, unwillingness or failure to expedite the entry into the country of a relatively small number of highly skilled personnel.

Taken together, these two SAMP surveys provide unprecedented insights into South Africa's brain drain and, in so doing, challenge many popular misconceptions. Their publication will, we hope, provide a sound basis for a rational debate on immigration policy and the development of a sound and workable alternative to current policy and irrational anti-immigrant restrictionism.

CHAPTER ONE

THE BRAIN DRAIN: WHAT DO SKILLED SOUTH AFRICANS THINK?

ROBERT MATTES AND WAYNE RICHMOND

In an interdependent, and increasingly global economy, maintaining and enlarging its skilled labour force is vital to South Africa's national interest. Yet South Africa appears to be in a tight squeeze.¹² It is a developing new democracy committed to eradicating the massive social, economic and political disparities of its apartheid past. Part of this project is the empowerment and expansion of the pool of racially disadvantaged workers. But this cannot be achieved overnight.

At the same time, while statistics differ widely, significant numbers of educated professionals and entrepreneurs have been leaving South Africa to find work elsewhere, taking with them skills crucial to the success of the country's development. And it appears that this flight has been exacerbated not only by the turmoil accompanying democratization, but also the societal changes brought on by post-apartheid transformation. Thus, attempts to train new skilled workers may strain to keep pace with the skills lost through emigration, producing a net loss of skilled workers, or what is known in South Africa as the "Brain Drain."

Yet estimates of the size and impact of this brain drain vary widely and analyses of its causes remain speculative. Needless to say, the present and potential size of this skills exodus, as well as its actual and potential economic, social and political impacts are a major concern to policy-makers.¹³

In order to assess the present and potential extent of South Africa's brain drain, as well as more accurately understand its causes, the Southern African Migration Project (SAMP) in mid 1998 undertook a national study of the issue. The study had two primary aims:

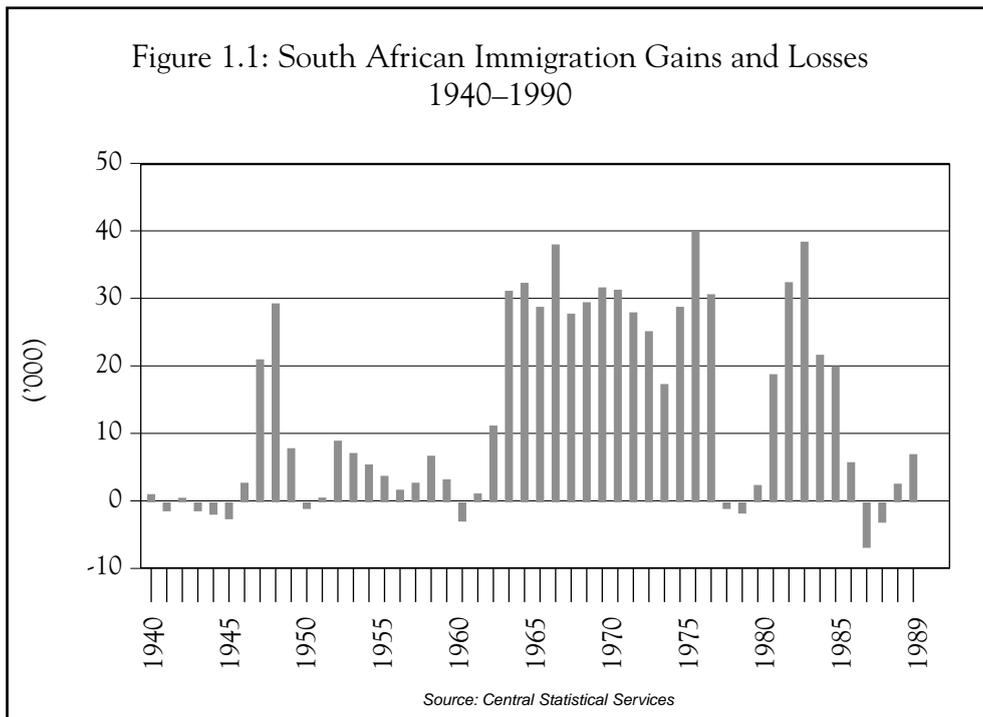
- To provide nationally representative and methodologically rigorous empirical data on the emigration plans of skilled South Africans (whether, and how they plan to do so, when, where they want to go).
- To examine and assess the range of factors that contribute to skilled South Africans' desire to leave the country.

This report presents the findings of the research.

MEASURING SOUTH AFRICA'S BRAIN DRAIN

Historically, South Africa has been an immigrant (as well as migrant) receiving country.¹⁴ Since 1940 the number of legal immigrants has

generally exceeded the number of emigrants, resulting in an overall pattern of net in-migration gain.¹⁵ Unfortunately, the statistics available from 1940 to 1990 fail to differentiate between skilled and non-skilled migrants. Yet it is interesting to note the fluctuations in net migration patterns and their correspondence to political and economic trends during the apartheid era, especially the periods of net loss in 1960-1961 (following Sharpeville), 1977-1979 (Soweto and its aftermath), and 1986-1988 (the States of Emergency) (Figure 1.1).



Data from the period of South Africa's transition toward democracy (1991-1993) and democratization period (1994 to the present) do enable us to begin to isolate economically active persons arriving in and leaving South Africa (defined by Statistics South Africa as employed persons) (Figure 1.2).¹⁶ The official data from this period reveal a rapid decline from a net gain of economically active persons to a net loss. In 1996 South Africa experienced its worst loss for at least eleven years.¹⁷ Yet it is also apparent that these official figures drastically underestimate the extent of skills out-migration.

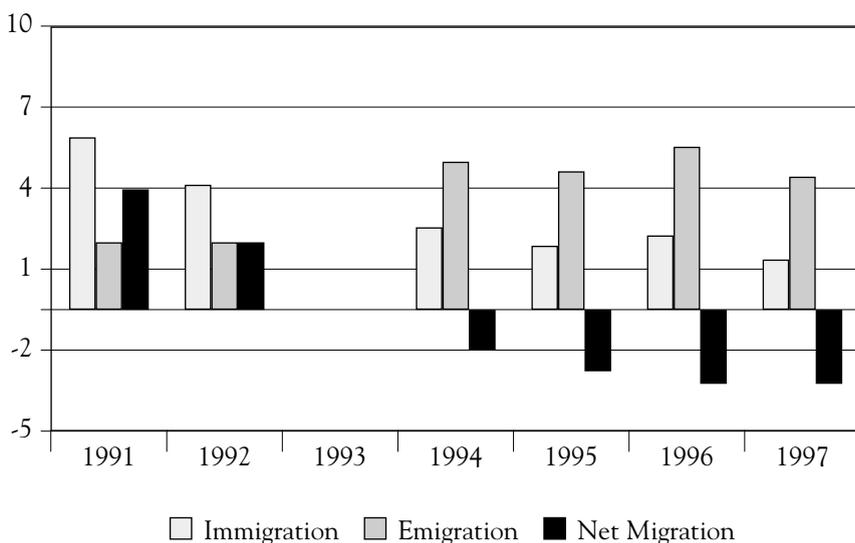
What is the actual extent of the brain drain, both in terms of its present and potential size? As seen above, official statistics are not gathered in a way that enables us to estimate this with any accuracy. Indeed, a recent study by the South African Network of Skills Abroad (SANSA)

project claims that official statistics are far too low, by as much as two-thirds.¹⁸ Furthermore, it is very difficult to draw firm conclusions about the type of people who are leaving since the data may not be collected in this way, or may be collected in different ways at different points in time.¹⁹ Neither is it very easy to determine how long these emigrants are leaving for or whether they intend to return at some point in the future. Migrants often leave with the intention of returning but change their minds once they have left. The few surveys which have been done are highly misleading.²⁰

Common wisdom tends to attribute the loss of skills to the main characteristics of the transition and democratization period: political instability and uncertainty, heightened racial conflict, poor economic performance, a heavy fall in the currency, and increasing crime and violence. Yet most debate and analysis about the causes of this problem are based on hearsay and anecdote.

Some systematic attempts have been made by various analysts, as well as Statistics South Africa, to document the factors that emigrants cite for leaving. Most often cited are the lack of safety and security, poor economic conditions, and poor social services.²¹ Yet it is by no means certain that these are the key factors that actually pushed people out of the country. The questions have only been asked of those who have actually emigrated. But it is quite likely that crime, the economy and

Figure 1.2: Net Immigration and Emigration among the Economically Active, 1990–1997



Source: Central Statistical Services

services would rate very highly as key grievances of all skilled South Africans. If so, then we must ask what distinguishes those who leave from those who stay behind.

RESEARCH METHODOLOGY

In terms of the sample population, the idea of a “Brain Drain” implies a depletion of skilled people who are vital to the functional core of the economy. In business, the functional core is simply a subgroup of key personnel in an organization critical to its normal conduct of business. While actual definitions of skilled persons vary, they all tend to focus on people who have received some sort of specialized training that results in superior technical competence, talent, or abilities that are applied in professional occupations. Without these people, the operation and development of the economy would be severely hindered.

Thus, for a survey of skilled South Africans, the definition of skills requires that we approach a broader range of people than the typical popular image might imply. The functional core of an economy does not only consist of people with post-graduate degrees, in well-paying, high level corporate positions.

Skilled people typically possess some specialized, formal training (e.g. Technikon or University qualification). But the functional core of the economy is also at times sustained by people who, despite having no advanced formal education, have worked their way up the corporate ladder or have started their own successful businesses.

Skilled South Africans also include people at various levels of the corporate ladder. National economic performance will begin to break down not only when businesses lose a certain number of senior managers, but also when they cross a specific threshold of losses of middle-level people who fill vital administrative and support functions. Middle-level people also comprise the potential pool from which to fill senior positions in the future.

A survey of skilled South Africans should also include individual entrepreneurs. The self-employed create jobs, add innovation and contribute to the overall growth of the economy. Finally, such a survey should also include not only people from the business or manufacturing sector but also from science, technology, education and arts and culture. These people also add value to the functional core of the economy by training skilled workers, contributing technological and scientific innovation or sustaining entertainment and tourist industries.

We therefore defined a “skilled” South African for the purposes of this survey, as conforming to the following criteria:

- A South African citizen
- 20 years of age or older

- Matriculated and possesses a Technikon diploma or University degree from a recognized institution (or in their final year of studying for a diploma or degree)
- Currently economically active (employed or looking for employment)

The only exceptions were people who either have not matriculated from High School and/or graduated from a tertiary institutions, but who nonetheless own a business or hold a senior management position in their occupation: i.e. an owner, manager, supervisor, professional worker, commercial farmer, or commissioned officer in the SANDF Permanent Force.

This definition enables us to use the All Media and Products (AMPS) Survey to estimate the actual size of this “skilled” population group in South Africa. The AMPS Survey is conducted annually in 30,000 households nation-wide. Given the historical problems associated with census data in South Africa, it is often used as the basis for demographic research and South Africa’s market research industry regularly uses it to draw representative samples of the population.

Based on 1998 AMPS data, the economically active population in South Africa is approximately 17,000,000. When we apply the criteria of education and senior occupational status to the AMPS data, we estimate the size of South Africa’s skilled sector at 1,600,000 (or 9% of the economically active population).

In June-July 1998, we surveyed a random probability sample, stratified by province, representative of this South African skilled population. We conducted telephone interviews with 725 skilled South Africans.

Household phone numbers were randomly selected from provincial phone directories. Within each household contacted, all people who met the criteria listed above were enumerated, and one was then randomly selected. If no individual in the household met the requirements (or if the selected person could not be interviewed after three call-backs), another household was contacted until we reached our goal of 725. In the end, we made 4,250 phone calls to obtain 725 valid and complete interviews.

Finally, in order to ensure the adequate inclusion of three small, but important types of skills (engineers, accountants, and medical doctors), we built quotas into our sampling strategy to ensure that we interviewed at least 30 of each category. In the final analysis, we interviewed 54 engineers, 65 accountants and 36 medical doctors. The final realized sample was then weighted according to the AMPS data. The final sample was thus representative of the South African skilled population defined by our criteria.²²

The following section describes the responses of skilled South Africans to a series of survey questions designed to assess the present and potential extent of emigration. Then, we analyse the responses to a series of question designed to assess a range of possible causes of emigration. Finally, using multivariate statistical analysis, we assess how well this range of factors accounts for the propensity of skilled South Africans to emigrate, as well as which factors are more or less important in explaining emigration.

SOUTH AFRICA'S SKILLED POPULATION: A PROFILE

What does South Africa's "skilled" population of 1.6 million look like? Given the role of apartheid in reserving important positions in the economy for whites, it is no surprise that the sample was predominantly white (72%). But it is significant that 26% of the skilled sample are not: 18% are African, 8% coloured and 3% Indian (Table 1.1). While we do not have comparable data from earlier points, we suspect we have caught a snapshot of a rapidly growing black skilled sector.²³

In the rest of this report, we see many stark differences in the views of skilled white and skilled black respondents (as well as some surprising areas of similarity or consensus). However, because of the small number of cases on which the results would be based, we do not report results of coloured or Indian respondents as a sub-group – though their views are present in results based on the total sample. Further research with these populations is recommended.

Another possible surprise lies within the white sub-sample. Common wisdom holds that Afrikaners virtually monopolized the political sphere during apartheid, but that white English speakers retained extensive control over business and industry. Yet almost half of the sample is composed of white Afrikaners (Table 1.1).²⁴

The skilled population of South Africa also appears to have more women and younger people than expected. The black sub-sample is younger than the white sub-sample, and is predominately female (where the white sub-sample is predominately male) (Tables 1.2 and 1.3). The

Population Group	%
White (Afrikaans)	45
White (English)	27
Black	18
Coloured	5
Indian	3
<i>Percentages may not add up to 100 in this and subsequent tables due to rounding (N=725)</i>	

skilled population is concentrated primarily in Gauteng province, and also in Western Cape and Kwazulu-Natal (Table 1.4).

Over 20% of the sample are in households with a joint monthly income of less than R6 000 per month. However, there are substantial racial

Table 1.2: Gender Breakdown of Skilled South Africans			
Gender	Total %	% of Whites	% of Blacks
Male	61	66	36
Female	39	34	64
<i>N=725</i>			

Table 1.3: Age Breakdown of Skilled South Africans			
Age	Total %	% of Whites	% of Blacks
18 to 24	6	5	8
25 to 34	29	28	36
35 to 49	45	45	43
Over 50	17	19	9
Won't Say	2	2	4
<i>N=725</i>			

Table 1.4: Province of Residence of Skilled South Africans			
Province	Total %	% of Whites	% of Blacks
Gauteng	37	39	36
Western Cape	20	18	19
Kwazulu-Natal	13	12	17
Eastern Cape	7	7	7
Free State	6	6	6
North West	4	5	4
Northern Province	4	4	4
Mpumalanga	6	6	5
Northern Cape	3	4	3
<i>N=725</i>			

differences. Almost three-quarters of skilled black respondents (71%) have a joint, pre-tax, household income of R8 000 or less — the comparable white figure is 19% (Table 1.5).

Only 6% of the sample had less than a High School Certificate or Matric pass (4% of white and 14% of black respondents). These people are in the sample because they hold a managerial position in their occupation. A further 21% had only a Matric pass or its equivalent. These people were included either because they were in the final year of a Technikon diploma or University Bachelors degree programme, or they held a senior management position in their occupation. As for the rest, three-fourths of the sample has a high school certificate plus either a Technikon diploma or University Bachelor's degree (Table 1.6).

Just under one-third (31%) of the sample are self-employed, full-time

Gross Monthly Household Income	Total %	% of Whites	% of Blacks
Less than R2 000	3	1	10
R2 001 to R6 000	19	9	52
R6 001 to R8 000	9	9	9
R8 001 to R10 000	11	12	8
R10 001 to 14 000	14	16	7
R14 001 to R20 000	15	19	1
R20 001 to R26 000	8	10	1
R26 001 to R32 000	3	4	0
R32 001 to R38 000	1	1	0
More than R38 000	4	4	0
Refused to answer	13	12	4

N=725

	Total %	% of Whites	% of Blacks
Less than High School Certificate (HSC)	6	4	14
HSC only, or equivalent	21	19	26
HSC plus diploma or Bachelor's degree	58	60	56
Honours degree	9	10	6
Master's degree	5	6	3
Doctorate	1	2	1

N=725

	Total %	% of Whites	% of Blacks
Employed - Full time	57	58	58
Entrepreneur in Formal Sector - Full time	27	31	8
Entrepreneur in Informal Sector - Full time	4	3	7
Entrepreneur in Formal Sector - Part time	3	3	0
Employed - Part time	3	2	8
Final Year Student	3	2	8
Unemployed - looking for work	3	1	11
Entrepreneur in Informal Sector - Part time	1	0	1

N=725

entrepreneurs, either in the informal or formal sectors. Almost 60% (57%) work full-time for someone else. Another 7% work part-time either for themselves or someone else. A small percentage are

unemployed but looking for work or do not yet have a diploma or degree but are in the final year of tertiary studies (Table 1.7).

Finally, skilled South Africans are spread widely across a broad range of economic sectors (Table 1.8). There are distinctive patterns of sectoral participation by race.

PREDICTING EMIGRATION: AN IMPRECISE SCIENCE

Predicting exactly how many skilled people will emigrate from South Africa in the future is difficult. Even if a person says they want to leave, there is no certainty that they actually will. In referring to who or how many skilled people intend to emigrate, we therefore refer to an individual's potential for emigration which is not the same thing as a firm prediction of future emigration patterns and trends.

Emigration potential is a complex issue and consists of several different elements:

- First, to what extent has a skilled person even considered the idea?
- Second, to what extent do they actually want to emigrate?
- Third, even if they want to leave South Africa, to what extent do factors outside the person's direct control (such as financial costs) affect the likelihood of leaving?
- Fourth, exactly when do they plan to leave? There is a vast difference between those who have gone as far as setting some time deadline for their move and those that have not. The longer one takes to make the move, the more likely that other factors might come into play to change the decision altogether.
- Lastly, a distinction must be drawn between temporary and permanent movement (or emigration). It makes little sense to speak of a brain drain if skilled people intend to return to South Africa after a short period of time. This is especially the case where people may be leaving to study in other countries. In many ways, this can actually constitute an investment for the future of South Africa's economic well-being rather than a loss of skills. Permanent movement on the other hand is clearly indicative of a brain drain.

Only when all of these questions are considered can we give a more accurate estimate of the skilled emigration potential from South Africa in the near future. The failure to adequately recognize these complexities can result in some extremely misleading conclusions and misinformation.

First of all, the survey asked about the degree of thought given to leaving South Africa. It is safe to assume that those who have not thought about the matter, at least at present, have no potential to move. Thus, this question helps define the outermost limit of the pool of South Africans who might conceivably leave. The pool is a large

Table 1.8: Employment Sectors of Skilled South Africans				
	No. in Sample*	% of Total	% of Whites	% of Blacks
Education/Research	142	19	11	45
Secondary education	50	7	3	21
Primary education	47	6	3	17
Tertiary education	36	5	4	5
Research	9	1	1	2
Heavy Industry	111	15	14	7
Manufacturing	40	6	6	2
Textile	13	2	1	2
Construction	32	4	4	2
Mining	8	1	1	1
Automotive	10	1	1	0
Steel and Iron	8	1	1	0
Service Industry	110	14	12	12
Retail	54	7	6	8
Real estate	10	1	1	0
Energy	15	2	2	2
Food	13	2	2	0
Transport	14	2	1	2
Private Security	4	<0.5	0	0
Professional Practice	89	12	22	13
Medical	42	6	10	11
Engineering	31	4	10	2
Law firm	16	2	2	0
Finance/Banking	101	13	20	6
Accounting	39	5	12	3
Finance	32	4	4	3
Banking	20	3	3	0
Insurance	10	1	1	0
Government/Military	44	5	5	6
Government	34	4	4	5
Military	10	1	1	1
Agriculture	38	5	6	1

*N=725 *Unweighted data. All percentages based on weighted data.*

one. Over two-thirds (69%) say they have given the idea of emigration some thought (and 38% say they have given it a “great deal” of thought) (Table 1.9).

The popular perception of the brain drain is that it is a “white phenomenon” only. But when the responses of skilled whites and blacks are compared, there is a surprising level of similarity in attitudes, with 69% of whites and 68% of blacks having given it at least some thought. Some 33% of whites and 23% of blacks have given it a great deal of thought, suggesting that the emigration potential is higher amongst whites but far from insignificant amongst blacks.

These results were fairly similar to those obtained by a Sunday Times readership questionnaire. In that survey, 74% said they “would consider emigrating.” Yet those who bought the Sunday Times on 13 September 1998 were assailed with provocative banner front-page headlines proclaiming “74% with Skills Want to Quit South Africa.” These headlines fueled a heated and unedifying debate involving President Mandela, opposition parties and the news media. They were also highly misleading. This is because thinking about leaving is far from synonymous with actually doing so. Regardless of whether people have thought about leaving, to what extent do they actually wish to move? And, if they do say they want to leave, have they thought seriously enough about it to actually place some time frame on their exit?

The sample was therefore asked whether they would want to leave South Africa on either a temporary or permanent basis (Table 1.10). Following criteria laid out by the United Nations, we define a period of more than two years as a permanent move (emigration). That said, some skilled people might still wish to return to South Africa after living and working in another country for, say, a period of five years. Thus, what would be considered by international standards as permanent movement, and thus emigration, might not be totally equivalent to a permanent Brain Drain from South Africa — although it is certainly true that the longer one resides in a new country the lower the probability of returning home.

It is clear that far fewer skilled people actually want to leave the

Thought given to moving to another country to live and work:	Total %	% of Whites	% of Blacks
A great deal	31	33	23
Some	38	36	45
None at all	31	31	30
Don't know	1	0	2
<i>N=725</i>			

Table 1.10: Desire to Leave South Africa			
Extent of desire to move temporarily to another country to live and work (less than two years)			
	Total %	% of Whites	% of Blacks
Great	18	18	17
Some	27	24	40
Total	45	42	57
Extent of desire to move permanently to another country to live and work (longer than two years)			
Great	28	34	16
Some	28	28	38
Total	56	62	54
<i>N=725</i>			

country than was implied by the Sunday Times headlines. While 69% had given some thought to leaving, only 28% expressed a strong desire to leave for a period of two years or more. While skilled black respondents are less likely to say they want to leave for a period of more than two years, it is still important to note that 16% do. When it comes to the desire to leave for a period of two years or less, black South Africans are actually more likely to want to do so.

How likely is it that the wish will become reality? Thinking about leaving, and wanting to do it, are one thing. Actually doing it is quite another. Emigration is a fairly complicated and difficult process where people must look at a much broader range of physical and psychological factors than sheer desire; factors such as costs, leaving family behind, and the prospects that such a move will result in success. On the other hand, it is plausible that the desire to emigrate is neither a sufficient nor a necessary condition for emigration. For a range of reasons, such as perceptions of declining security or economic fortunes, people might feel they have no choice and conclude that despite not wanting to leave it is the most sensible decision for themselves and immediate family members.

To recap: 69% have given some thought to leaving, and 28% express a strong desire to leave. Some 20% of skilled respondents say that it is very likely that they would actually leave for a period of more than two years (Table 1.11). Slightly higher proportions of skilled whites (22%) than blacks (15%) say that a permanent move is very likely. On the other hand, skilled blacks are more likely to leave South Africa on a temporary basis (15%) than whites (10%).

Because emigration is a formal, and often lengthy, process (e.g. getting official documentation, preparing applications, organizing employment opportunities, as well as the sheer logistics of the move), people

who have mentally set a specific date, or at least time frame, for leaving are far more likely to act upon their desires than those who leave it as an open-ended possibility.

Table 1.12 illustrates the extent to which the sample has made a mental commitment to emigrate within a specified time frame. It is evident that specifying a time frame cuts the levels of potential emigration quite dramatically. Only 3% said that it was “quite likely” that they would leave within six months, 5% say they will leave in the next two years, and 13% say it is “very likely” that they will leave within five years. The proportions of skilled blacks and whites who express a strong probability of leaving within six months or within two years are statistically the same (though whites are more likely to express a strong probability of leaving within a five year time period).

Possibly the firmest indicator of a person’s emigration potential is whether they have actually begun the process of application for basic emigration documentation (a formal requirement for any move to take place). As of mid-1999, the proportions of skilled South Africans who have begun this process is far lower than any of the other indicators reviewed above (Table 1.13). Some 6% say they have applied for work permits in another country, 5% have applied for permanent residence elsewhere, and 3% had applied for foreign citizenship. Again, there are no statistically significant differences between skilled white and black South Africans. Taken together with the racial breakdowns in Table 1.12, this strongly suggests that, at the level of the very firmest indicators of emigration, the same proportion of skilled blacks are presently intending to leave the country as skilled whites. This is an aspect of the Brain Drain that has enjoyed no public or government awareness and profile.

How do these various components of the emigration decision fit

Table 1.11: Likelihood of Leaving South Africa			
Likelihood of ever moving temporarily to another country to live and work (less than two years):			
	Total %	% of Whites	% of Blacks
Very Likely	11	10	15
Likely	21	16	39
Total	32	26	54
Likelihood of ever moving permanently to another country to live and work (longer than two years):			
Very Likely	20	22	14
Likely	29	29	27
Total	49	51	41
<i>N=725</i>			

Table 1.12: Commitment to Emigrate			
Likelihood of leaving South Africa:	Total %	% of Whites	% of Blacks
In the next 6 months			
Very likely	3	3	2
Likely	4	2	10
Total	7	5	12
In the next 2 years			
Very likely	5	5	3
Likely	20	20	22
Total	25	25	25
In the next 5 years			
Very likely	13	15	8
Likely	29	27	33
Total	42	42	41
<i>N=725</i>			

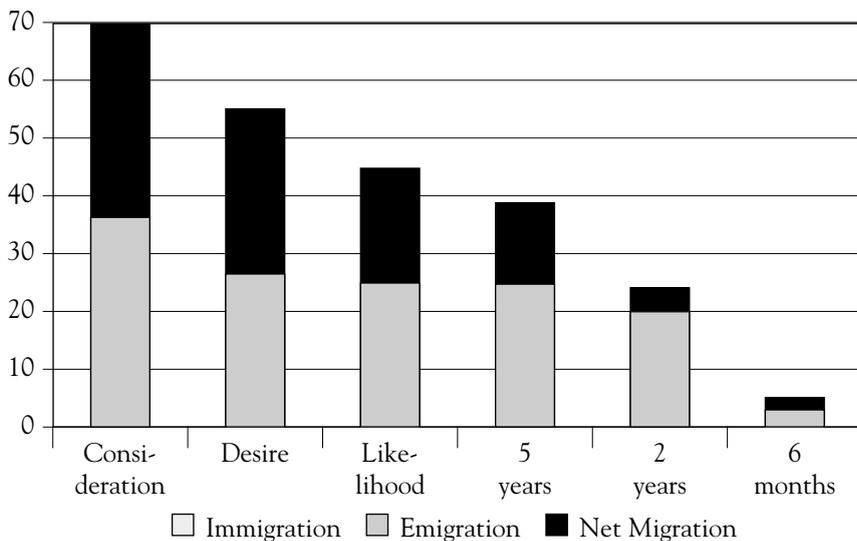
Table 1.13: Applications for Emigration Documentation			
Applied for:	Total %	% of Whites	% of Blacks
Work permit in another country	6	6	5
Permanent residency in another country	5	5	4
Foreign citizenship	3	3	3
<i>N=725</i>			

together? Figure 3 reveals the consistent decline in indicators of likely emigration as we move from consideration, to desire, to likelihood, and to specified, increasingly shorter time periods. Thus, as greater amounts of mental and physical commitments are required from the respondent, emigration potential declines sharply.

In order to test if the responses can be combined into a single valid index that reliably summarizes each person’s potential to emigrate, we used a statistical procedure known as Factor Analysis. Factor Analysis examines the similarity or dissimilarity in patterns of responses to a range of question items to determine whether respondents were reacting to them in common ways. If they are, we can infer that the various questions capture different elements of a common underlying dimension, and can thus aggregate these responses to these questions into a single index.

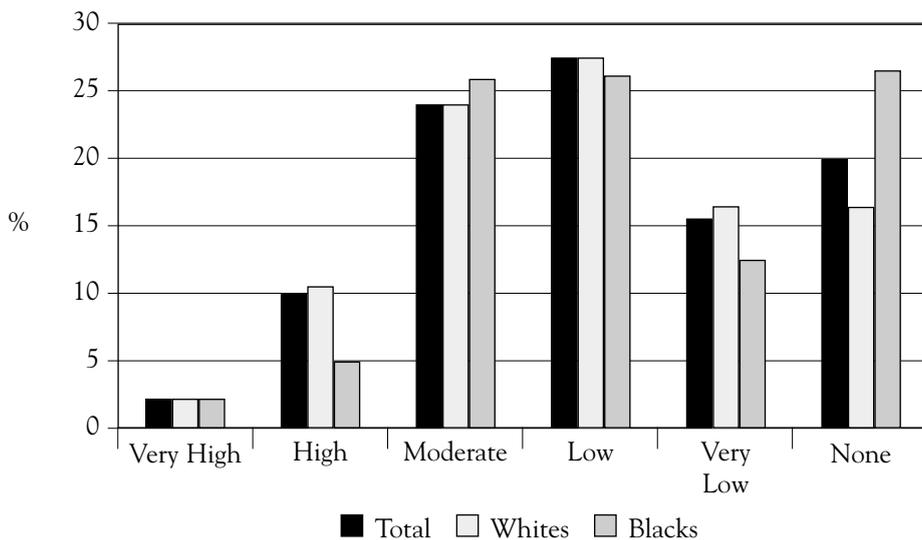
The analysis does not include data on applications for work permits etc. This is a consequence of the decision to leave rather than indicators of the probability of reaching that decision. Factor Analysis confirmed that responses to four questions (desire to move for two years or

Figure 1.3: Emigration Potential of South Africans



Source: Central Statistical Services

Figure 1.4: Emigration Potential of Skilled South Africans in next 5 years



Source: Central Statistical Services

more, the likelihood of moving for two years or more, likelihood of moving within two years, and likelihood of moving within five years) formed a valid and reliable index that measures a skilled person's emigration potential. Questions about whether people had considered moving, and whether they would move in the next six months, did not fit into this index because the pattern of responses to these questions were significantly different to the consistent pattern of responses that people gave to the other four items.

We then calculated index scores for each respondent by looking at their average score across the four key questions. Since each of the items has a four point score, the range of the average index scores also runs from 1 to 4. Those who score "4" (i.e. said "very willing" or "very likely" to all four items) were classified as having a "very high" probability of leaving. Those who scored between 3.75 and 3.25 (or who gave some combination of very intense and intense replies) were classified as having a "high" probability and so on.

Once an index score is calculated for each skilled respondent, the following conclusions emerge:

- 2% of the sample fall into the "very high" category of emigration potential (of leaving South Africa for a period of two years or more, within the next two to five years).
- 10% have a "high" emigration potential
- 25% have a "moderate" emigration potential
- 28% have a "low" emigration potential
- 16% have a "very low" emigration potential
- 20% have "no" emigration potential at all

Thus, if only those skilled South Africans with a "very high" emigration potential left the country in the next five years, this would translate into a potential gross loss of around 32,000 skilled people in the next five years (2% of a skilled population estimated at 1.6 million). Taking into account the margin of error in surveys of this sample size, that number could be as low as 6,000 or as high as 58,000. If all of those with a high or very high potential left, the number would jump to a massive 192,000. With margin of error, this could range from 155,000 to as high as 229,000 in the next five years.

To place these estimates in perspective, the recent SANSA report estimates that 43,000 "professionals" (which they admit excludes a number of other skilled categories, such as managers) have emigrated to the US, UK, Canada, Australia and New Zealand in the past nine years (based on immigration statistics in those countries). Overall, they claim that 233,000 have emigrated during that period, though they suggest that very high proportions of these would be skilled.²⁵

These are estimates of gross skilled emigration or "gross loss." Any

complete estimate of the brain drain, or “net loss” of skilled workers also needs to take into account the potential counter-balancing impact of skilled foreigners that enter South Africa. But SANSA estimates that “professional” immigration to South Africa in the past nine years amounts to no more than 10,000.²⁶

The Emigration Potential index suggests that the popular assumption that skilled emigration is a “white” phenomenon is a grave misconception. There is absolutely no difference in the proportion of skilled whites and blacks who fall into the “very high” category (2% of either group). It is true that a higher proportion of skilled whites (11%) than skilled blacks (4%) fall into the “high” probability category. But adding the two together, the difference in proportions of skilled whites (13%) than skilled blacks (6%) with a high/very high probability of leaving the country within five years, is not nearly as great as might be expected.

THE NATURE OF SKILLED EMIGRATION FROM SOUTH AFRICA

If skilled respondents with a “high” or “very high” emigration potential do leave, where will they go? And will they completely sever all links with South Africa? This section reports the responses of those with a “very high” or “high” emigration potential.

Table 1.14 displays the top five most likely countries of destination. Overall, the United States, Australia, United Kingdom, New Zealand and Canada rank as the five most often mentioned destinations. These preferences confirm the spatial patterns of previous skilled emigrant destinations reported by SANSA.²⁷

While the popular image of the “Brain Drain” involves people cutting all ties with South Africa, this is not necessarily accurate. People may, for a range of reasons, intend to return at some stage in the future. Even where such a return is not expressly foreseen, uncertainty about what the future holds might also limit the extent to which ties are cut. Table 1.15 reveals that the vast majority of those likely to leave in the next five years say they would want to stay away for more than five years. At the same time, only one-in-ten say they would never return

Most likely country:	%
United States of America	24
Australia	22
United Kingdom	15
New Zealand	12
Canada	11
<i>N=87</i>	

Table 1.15: Duration of Emigration	
Length of stay at most likely destination:	%
Less than 6 months	1
6 months to 1 year	2
1 to 2 years	8
2 to 5 years	14
More than 5 years	71
Don't know	4
Frequency of return:	%
Weekly	0
Monthly	4
Once every few months	7
Yearly	57
Once every few years	20
Never	12
Don't Know	2
<i>N=87</i>	

home. Almost 70% say they would return at least once a year or more.

Emigration involves decisions about property, savings, investments, and ultimately, citizenship. The willingness to relinquish these things is a far better indicator of the nature of return intentions. A willingness to cut all these ties indicates a strong certainty of no return. Between 80% and 90% of likely skilled emigrants are willing to cut all economic ties with the country (e.g. sell their house, take out savings and investments). A significant proportion (57%) is willing to give up South African citizenship (Table 1.16). Hence the permanence of the potential move is strong.

Yet not all likely emigrants are completely sold on putting down deep roots in their likely country of destination. Some 36% say they do not want permanent residence, 40% do not want citizenship, and only half give indications of a life-time stay by saying they want to retire, or be buried there.

THE DECISION TO EMIGRATE

While we now have a clearer picture of the potential extent of South Africa's brain drain, the other important question is what differentiates skilled people who express a high potential to emigrate from those who do not? The survey identified a range of key factors that are generally seen to play pivotal roles in encouraging skilled people to emigrate.

Table 1.16: Links with South Africa	
	Total %
Willingness to sell house in South Africa:	
Very willing	35
Willing	46
Willingness to take all savings out of South Africa:	
Very willing	49
Willing	40
Willingness to take all investments out of South Africa:	
Very willing	42
Willing	42
Willingness to give up South African citizenship:	
Very willing	23
Willing	34
<i>N=87</i>	

DECLINING QUALITY OF LIFE

Dissatisfaction with overall “quality of life” is often cited as an important factor that “pushes” skilled South Africans out of the country. Indeed, the common wisdom is that the South African Brain Drain is heavily driven by white perceptions of a deteriorating quality of life since the demise of apartheid.

Skilled South Africans were therefore asked about their level of satisfaction with a wide variety of measures of “quality of life.” Factor Analysis demonstrated that people did not simply respond to all these items in the same way, but rather, had different patterns of reactions to different clusters of questions. The following discussion is organized according to the findings of the Factor Analysis. There are high levels of dissatisfaction with (a) the cost of living, (b) levels of taxation, (c) safety and security, and (d) the standard of public and commercial services in South Africa. In each of these cases (with the exception of standard of services), dissatisfaction extends across racial boundaries and is not a predominantly white pre-occupation (Table 1.17).

Interestingly, evaluations of their children’s futures is statistically more closely related to how they rate specific public and commercial services, rather than to issues of safety, cost of living, schools or health care. We interpret the questions on public and commercial services as tapping what many refer to as the issue of “declining standards.” Thus, skilled people seem to think about the future of their children in much the same way as they view the question of “standards.”

In contrast, skilled South Africans are far less dissatisfied with per-

Table 1.17: Satisfaction with Quality of Life in South Africa			
	Total %	% of Whites	% of Blacks
Dissatisfied or Very dissatisfied with:			
Cost of Living	71	72	64
Present level of taxation	74	75	74
Relative share of taxes paid in comparison to others	59	59	59
Personal safety	66	65	61
Family's safety	68	69	54
Upkeep of public amenities (e.g. parks, beaches, toilets)	70	79	37
Customer service	56	65	27
Future of children in South Africa	55	61	29
Availability of affordable/quality products	28	29	31
Job	23	18	39
Security of job	26	20	44
Level of income	37	30	60
Prospects for professional advancement	30	32	35
Ability to find the house wanted	21	17	37
Ability to find a good school for children	27	27	27
Ability to find medical services for family	21	19	23
<i>N=725</i>			

sonal economic conditions as well as with schools and available health care. The single exception is black dissatisfaction with current income levels, which is understandable given the relatively low income levels enjoyed by skilled black respondents.

More important than people's absolute assessment of conditions is the relative judgment they make when comparing their own conditions to those of others. For the most part, skilled South Africans do not exhibit high levels of dissatisfaction with their relative situation. They seem to understand that they, as skilled persons, are better off than the bulk of their fellow citizens, or others in their race or language group. Yet, they also do not see themselves as doing worse than other people of the same economic status, or others in their same profession (Table 1.18).

While skilled South Africans are more likely to think that their "in-group" (i.e. own race group, language group, profession, economic class) is doing worse than other groups in the country, these levels are still very low. Remarkably, only a minority of skilled blacks think that blacks as a group, or those who share their home language, are doing worse

Table 1.18: Relative Dissatisfaction with Quality of Life			
	Total % Yes	% of Whites	% of Blacks
Overall personal economic conditions are worse or much worse than:			
Other South Africans	6	5	8
Other people in your race group	9	9	11
Other people who share your language	7	6	8
Other people in your profession	8	8	8
Other people in your economic class	9	9	11
Overall conditions of in-group are worse or much worse than the following:			
People of your race	22	22	19
People who share your language	20	21	17
People in your profession	14	14	11
People in your economic class	15	15	12
<i>N=725</i>			

than other groups in the country. Nationally representative samples of ordinary black South Africans also find surprisingly low perceptions of relative deprivation.²⁸

We see far higher levels of relative dissatisfaction among skilled whites when we ask them to compare their lives today versus five years ago. Some 65% of skilled whites say their lives have got worse in the previous five years. In stark contrast, 65% of skilled blacks say life has got better.

Regardless of where things are now, skilled South Africans do tend to feel that conditions will only get worse (Table 1.19). They are particularly pessimistic about their future cost of living, levels of taxation and safety, and the standard of public services. Again, this pessimism extends across the racial divide. Pessimism about personal economic futures and the availability of quality medical services and good schools is less severe, though still significant. Along with their views on the standard of services and the future of their children, skilled blacks are, in fact, relatively optimistic about the future of their personal economic conditions and their future ability to find quality education and health care for their family.

THE POLITICAL SITUATION

Internationally, a great deal of contemporary migration is related to aspects of the political arena; the most well known politically-motivated migration is the flight from oppression and persecution, or political turmoil and instability. However, the impact of political factors on skilled people may take different forms. Due to their higher mobility, skilled people may have a lower threshold of sensitivity and thus react not only

Table 1.19: Perceptions of Future Conditions in South Africa			
	Total %	% of Whites	% of Blacks
Do you expect the following to get worse or much worse in the next 5 years?			
Cost of living	78	85	51
Your present level of taxation	79	83	69
Your relative share of taxes in comparison to others	70	77	56
Your personal safety	75	81	54
Your family's safety	76	82	53
Upkeep of public amenities (e.g. parks, beaches, toilets)	70	83	23
Customer service	59	71	20
Future of your children	60	71	22
Availability of affordable products	50	58	26
Job	40	42	33
Job Security	38	39	35
Your level of income	40	44	39
Prospects for professional advancement	38	41	39
Ability to find a desirable house to live in	35	38	30
Ability to find a good school for children	52	61	21
Ability to find medical services for family	43	60	20
<i>N=725</i>			

to oppressive government, but also to unsatisfactory or disagreeable government and policies. A declining faith in the political system or a distrust of the government of the day may similarly precipitate emigration to countries with more attractive political environments.

The survey probed several different political issues. Factor Analysis indicated that the responses to these questions could be clustered into a smaller set of separate issues expressed in Tables 1.20. Skilled whites are highly dissatisfied with government performance, feel that it does not represent them and distrust government. Skilled blacks have far less pessimistic views across these indicators.

While skilled whites feel that government is largely uninterested in their opinions, and give government a very low approval rating (Table 1.20), most feel that the actions of government have been detrimental to them personally and to whites more generally. Skilled blacks in marked contrast, give government a high approval rating and look with favour on its actions. Interestingly, perceptions of the fairness of government are quite similar. There is not much comfort for government here; over 50% of skilled South Africans of both race groups find government unfair in its

Table 1.20: Perception of Government by Skilled South Africans			
	Total %	% of Whites	% of Blacks
Approval Rating:			
Do you approve of the way the national government has performed its job over the last year? (% approve/strongly approve)	29	17	67
How much of the time can you trust government to do what is right (% all of the time)	18	7	62
How interested do you think the government is in hearing what people like you think? (% very interested/quite interested)	27	15	74
Responsiveness of Government:			
Interest of government in the opinions of (% yes):			
People of my race group	23	22	82
People in my economic class	43	23	77
People who share my language	37	16	80
Impact of Government:			
Impact of the actions of the government over the last year (% positive or very positive):			
Personally	41	29	75
On people of same race	27	14	73
On people who share same language	29	18	71
On people in same economic class	36	26	76
On South Africa	32	10	76
Discrimination by Government			
Extent to which the following are treated unfairly by government (% always or to a large extent):			
People of my race group	42	42	47
People who share my language	43	43	49
People in my economic class	36	34	46
Me personally	33	31	46
<i>N=725</i>			

treatment of themselves and their race, class and language group.

AFFIRMATIVE ACTION

A final political issue widely cited in public debate as a factor “pushing” skilled whites out of the country is the government’s affirmative action policy. The results confirm that skilled whites are widely opposed to this policy (83%) while only 20% of skilled blacks express similar views

	% of Whites	% of Blacks
Strongly oppose	42	6
Oppose	41	14
Total	83	20
<i>N=725</i>		

(Table 1.21). Given that they are the primary beneficiaries of the policy, the high level of support amongst black is unsurprising. What is striking, though, is the pervasiveness and strength of white opposition to affirmative action. The general arguments for affirmative action (right of past wrongs) clearly have little resonance for whites.

GREEN GRASS ON THE OTHER SIDE?

After establishing which country would be their most likely destination if they left South Africa, respondents were asked to compare the two. Substantial numbers of skilled South Africans clearly see greener pastures abroad (Table 1.22). In general, they are consistently more likely to think that conditions abroad are better. Especially attractive, when compared to

	Total %	% of Whites	% of Blacks
Better or much better overseas:			
Personal safety	80	86	55
Family safety	80	86	53
Upkeep of public amenities	72	81	32
Medical services	59	66	27
Availability of quality affordable products	62	69	34
Customer service	67	76	36
Level of taxation	61	64	46
Taxation	52	57	28
Cost of living	54	55	38
Job	43	48	42
Prospects for professional advancement	49	49	46
Job security	52	53	46
Level of income	60	61	52
Ability to find desirable house	28	25	30
Ability to find a good school for children	53	56	38
Future of children	65	73	32
<i>N=725</i>			

South Africa, are the safety and security situation, standard of services, levels of taxation, schools, health care and children's future prospects.

Skilled blacks are much less likely to see conditions abroad as better than in South Africa, yet they are just as likely as whites to feel that people who have left South Africa have led improved lives. Skilled blacks are also just as likely as skilled whites to feel that they personally would improve their lives better by moving to other parts of the world.

NETWORKS AND LOGISTICS

There are a whole other set of factors dealing with "networks" and "logistics" that can also affect a decision to go or stay. The degree to which people think conditions are better in another country, for example, may depend upon their knowledge of other countries, or their personal contact with people in those countries. For example, the perceived physical and emotional ease of emigration may vary depending upon whether someone has close contacts in the country of destination who can help them manage their entry into their new world. This is probably even more important among skilled populations. Because of the growth in international communications, skilled people are more likely to have access to greater information about other places in the world.

There are also a host of logistical factors to consider. Regardless of how green the grass appears on the other side, a person will not emigrate if they cannot afford to get over the fence. Because of their greater material stake in their home countries, skilled people are more likely to weigh the costs of uprooting and moving.

Skilled South Africans in fact have relatively low levels of direct, regular contact with people or firms in foreign destinations. Very few people regularly travel outside the country (Table 1.23). Few (15%) whites and only 2% of blacks have worked for foreign companies or clients overseas. While around one-quarter (27%) say they are in regular contact (at least once every few months) with professional associations abroad, only 15%

	Total %	% of Whites	% of Blacks
Travel once a year or more to:			
Southern Africa	16	18	9
Elsewhere in Africa	3	3	5
Europe	7	9	3
North America	3	4	2
Australia/New Zealand	2	1	1
Asia	1	1	1
<i>N=725</i>			

have regular contact with fellow professionals abroad, and an even smaller proportion (7%) with foreign employment agencies.

However, significant proportions of skilled South Africans, especially whites, have been touched by emigration in very direct ways. One-fifth of skilled whites (20%) say a member of their immediate family has left to live and work abroad, and one-third (36%) say a member of the extended family has left. As many as 59% know a close friend who has left. In the professional environment, 40% say they have lost a co-worker, and 57% say someone they know in their profession has left (Table 1.24).

Prior exposure to emigration increases the probability of leaving (by reducing the unknown), but also means that there is the beginning of a personal network somewhere overseas. Between one-fifth to one-third of skilled South Africans say they “often” receive information about living conditions in other countries from a range of different sources (family, friends, newspapers, professional associations and professional journals). Between one-fifth and one-quarter say they “often” get information about job opportunities in other countries through these sources.

In order to assess the degree to which emigration is logistically feasible for skilled South Africans, we asked how easy it would be for them to leave South Africa to go and work and live in another country, and whether they felt that moving and finding a new home would be affordable. Significant proportions of skilled South Africans see few logistical obstacles to emigration. Over one third (37%) say it would be “easy” or “very easy” for them to leave, and 42% think they would be able to afford the costs of moving and finding a new home.

CONCLUSION: STEMMING THE TIDE?

This study shows that 2% of skilled South Africans have a “very high” emigration potential, and another 10% have a “high” potential to leave in the next five years. A much higher proportion still have thought about emigrating. What do the findings of this survey imply for possible strategies to keep skilled South Africans in the country?

Table 1.24: Knowledge of Other Emigrants

	Total %	% of Whites	% of Blacks
Knows at least one emigrant amongst:			
Members of immediate family	19	20	11
Members of extended family	36	40	14
Close friends	59	69	17
Co-workers	40	45	14
People in profession known personally	57	66	19
<i>N=725</i>			

Whether the grass is actually greener abroad is an open yet answerable question. However, such research might be a useful way for government and civil society to create a better, more realistic understanding among skilled South Africans of what things are really like in other countries, especially the United States, Canada, Australia, New Zealand and the United Kingdom. It is important to remember that skilled South Africans have very little experience with foreign employers and very little first hand experience of these countries (at least in the form of regular travel).

One other way of testing whether there is something that government can do, or at least avoid doing, in order to keep as many potential leavers in the country as possible is to examine the responses of those 10% of skilled workers with a “high” emigration potential on two specific questions.

First of all, they were asked what, if anything, would lead them to stay in South Africa. Only 12% of those with a “high” emigration potential said that there was “nothing” that could make them stay. One quarter (25%) said improvements in safety and security would make them stay (Table 1.25).

Finally, we asked the entire sample whether potential government steps to restrict emigration would make them more or less likely to leave. From the responses of those with a “high” emigration potential, we see that government policies to make emigration more difficult would be counter-productive and hasten the exit of almost half of this group. Other specific steps such as requiring a year’s national service from students leaving professional schools, an end to dual passport holding, or increased fees for documents would also hasten the exit of between one-third to one-quarter of this group.

	Total %
Most important factor causing person to stay:	
Improvement in safety and security	25
Family roots	15
Nothing	12
Future of children in country	7
Climate/weather/nature	5
Better government	3
Patriotism	3
Good schools	3
Job security	3
<i>N</i> =59	

CHAPTER TWO

DEALING IN SCARCE SKILLS: EMPLOYER RESPONSES TO THE BRAIN DRAIN

C.M. AND J.M. ROGERSON

INTRODUCTION

Little concrete information exists on the actual shortages experienced by different types of employers in the South African economy or how these different types of employers are addressing the question of specific skills shortages. Yet the answers to these questions have potentially important policy implications for the design of new immigration policies in South Africa. The policy importance of high level skills recruitment is underlined in the context of globalizing labour markets and of growing international competition for select groups of high skilled workers, such as medical personnel, chartered accountants or computing specialists. In virtually all the leading South African Sunday newspapers there are regular advertisements by an increasing number of international companies, personnel consultancies or recruitment agencies seeking to attract South African human resources to Europe, the USA, Canada, Australia and New Zealand. The arrival and growth in South Africa of a new industry of immigration consultants and lawyers are further testament to the dangers posed for the country of globalizing labour markets.

The objective in this chapter is to present the findings of a detailed investigation into responses to the brain drain by employers of skilled personnel in South Africa. The survey sample of 200 enterprises was designed to be as representative as possible of employers across the spectrum of the public and private sectors. Findings from this survey are supplemented by material drawn from the business and technical press. The research was undertaken during March-September 1998. Overall, the investigation was (a) designed to identify the scale and types of skills shortages which presently exist in South Africa and (b) to assess the hiring practices, attitudes and responses of enterprises dealing with skills shortages in key areas of the economy.

The findings are analysed in four sections. First, the research methodology is detailed. Second, a profile of the skills pool of major South African employers is developed to highlight areas of skills shortage, both immediate and anticipated. Then the focus shifts to how South African employers are dealing with skill shortages. Key issues of

concern include their attempts to deal locally with these shortages, to source skilled personnel from outside South Africa and the recruitment problems encountered with the Department of Home Affairs. In the concluding section of the report, the policy implications of the research findings are identified.

RESEARCH METHODOLOGY

In seeking to construct a profile of the skills pool and of skills shortages in the South African labour market, a questionnaire was designed and administered to a representative sample of South African employers of skilled personnel. The interview was targeted at senior administrative personnel, normally the human resource manager or personnel manager, of major employers of skilled personnel. The interview schedule included a mixture of closed and open ended questions. Key themes included an analysis of an enterprise's skilled workforce, current skills shortages, recruitment and training practices for coping with a loss of skilled personnel, and attitudes towards migration policies in South Africa.

The definition of "skilled personnel" is contested in the international literature with various definitions based on educational levels and occupational status. A typology of skilled international migrants has been constructed by Gould in which a useful distinction is drawn between circulatory movements (for example, managers within multinational companies) and permanent migration (resulting in brain drain).²⁹ Although the term "skilled personnel" is a slippery concept, it generally includes the following occupational categories: high-level and general managers; scientists, engineers and those with professional technical skills; professionals in education, health and welfare; professionals in administration; and, professionals in literature, arts and sport.³⁰ In more recent analyses, the occupational category of computer and IT specialists is included as a separate category. Finally, in the developing world context, the category of high-skilled personnel also includes other occupational groups, including certain blue-collar technical workers.³¹ These guidelines from international research provide the basic definition of "skilled personnel" used in this investigation. Nevertheless, in this survey employers were not asked to follow a single definition of "skilled" employees.

The sample of 200 enterprises was designed to represent the key employers in the South African economy for whom the question of skilled labour supply is important. The starting point was the various sets of listings of major South African companies compiled annually in the Financial Mail Top Companies Survey. This source provides a ranking of leading enterprises on the basis of their asset base or market capitalisation on the Johannesburg Stock Exchange (JSE). As these listings

primarily focus on listed companies on the JSE, it was necessary to supplement this initial source with additional company data and listings of enterprises.

Other sources used were the University of South Africa Bureau of Market Research Industrial Register for manufacturing enterprises and a range of special sectoral surveys conducted by Engineering News. By drawing from these alternative sources we included groups of major foreign multinationals operating in South Africa and smaller (often niche) enterprises not always captured in listings such as the Financial Mail Top Companies Survey. Finally, the sample included a group of public sector or parastatal employers operating in various sectors of the economy, in particular education, health, and finance.

The final sample consisted of a range of different sectors, sizes of enterprises (as defined both by their asset base and numbers of employees) and ownership structures (public sector vs private sector, foreign companies vs. local enterprises).³²

The activities undertaken by the enterprises span the key non-agricultural sectors of the economy. Table 2.1 shows the sectoral identification of the 200 enterprises. The largest category, 56% of the total, was manufacturing or industrial enterprise.

Table 2.2 indicates the different types of manufacturing enterprises included in the sample. The major group of industrial enterprises fall into the classification of high technology manufacturers. The specific types of manufacturing activity captured by the term “high technology” include producers of electrical and industrial machinery; other machinery; radio, television and communications equipment; pharmaceuticals; scientific instruments; and office, computing and accounting machinery.³³

The strong representation of industrial enterprises in the sample was the result of a decision to target high-technology enterprises as a category

Sector	Number of Companies
Mining	6
Computers & I.T.	14
Hi-tech industry	69
Other industry	47
Construction	7
Tourism and entertainment	13
Banking and finance	8
Business services	19
Education and health	17
TOTAL	200

	Number of Companies
High-tech industrial sector	
Pharmaceuticals	13
Other hi-tech industry	56
Other industrial	
Food (7) and beverages (1)	8
Textiles and clothing (2); footwear (1)	3
Furniture	5
Paper, printing and publishing	6
Chemicals and rubber, and plastics	9
Pottery & glass	2
Metals, engineering and transport	14
TOTAL	116

with special needs for highly skilled personnel. The term “high technology” can be applied to both high-technology manufacturing and to computer, service and IT support enterprises. In total, 69 of the 116 industrial enterprises would be classified as high-technology, alongside a group of 14 computer and service enterprises. This means that a total of 83 (41.5 %) high technology enterprises were included in the sample.

Outside the high technology sector, the survey sought to capture the skills situation and shortages of a cross-section of enterprises in several other areas of the South African economy, including mining, construction, tourism and entertainment, banking and finance, business services, computers and information technology and, education and health.

Table 2.3 reveals that the sample included enterprises with a range of

Sector	Number of Companies	% of Sector Sample
Mining	5	83
Computers & I.T.	2	14
Hi-tech industry	19	28
Other industry	32	68
Construction	5	71
Tourism and entertainment	2	15
Banking and finance	8	100
Business services	5	26
Education and health	10	59
TOTAL	88	100

sizes. Special concern was centred upon the needs and issues of large employers (defined as a minimum of 300 employees). Among the group of 88 large enterprises were a number of giant organizations such as Standard Bank, First National Bank, Old Mutual, Sappi, Sasol, AECL, and the Premier Group. The major large enterprises were leading industrial companies such as Nestle, 3M, Volkswagen, Hoechst, Bayer, Billiton and Dorbyl.

In total 88 (44 percent of the sample) firms are classed as large enterprises. Manufacturing enterprises, which comprised 58% of the overall sample also formed 58% of the group of large labour employers. In certain sectors, such as banking and finance, education and health, and mining, a high proportion of the interviewed enterprises could be classed as large. By contrast, in sectors such as business services, computing and information technology, tourism and entertainment, the majority of enterprises are medium-sized (between 51-299 employees) enterprises.

The survey sample also included a range of medium and specialist small-sized enterprises. Many of these medium- and small-sized enterprises were clustered outside the industrial sector in activities such as IT support and business services (accounting, law, advertising, broking).

In terms of ownership structure, the sample included 16 public sector and 184 private sector enterprises. Public sector enterprises included a number of major universities, a provincial department of health, the Development Bank of Southern Africa and newer government organizations such as Ntsika Enterprise Promotion Agency.

The division between foreign and local ownership is shown in Table 2.4. The sample captured foreign companies operating across several sectors of the South African economy. In total, foreign enterprises represented 27.5% of the sample.

The majority of interviews were conducted through a telephone

Sector	Foreign	Local
Mining	1	5
Computers & IT	4	10
Hi-tech industry	29	40
Other industry	12	35
Construction	0	7
Tourism and entertainment	1	12
Banking and finance	0	8
Business services	8	11
Education and health	0	17
Total	55	145

survey lasting up to 40 minutes. The average length of interview was between 15-20 minutes. The interview was undertaken with senior personnel available and knowledgeable about the personnel and human resources of their enterprises. To obtain a satisfactory interview response, multiple contacts with enterprises were often required. In some instances ten or more telephone calls were made to secure an interview. Where enterprises requested a faxed interview schedule this was done, although the response rate was extremely poor (2 replies out of nearly 30 faxed questionnaires).

The majority of enterprises responded in a cooperative and positive fashion. But certain problems were experienced in the interview process and these should be noted.

With several private large conglomerate or multi-divisional enterprises, it was difficult to find an individual with the appropriate knowledge to speak on behalf of the enterprise as a whole. High profile examples of this problem included Anglo-American and South African Breweries. Often, therefore, the interview focussed on particular divisions within the enterprise that were focal points for the employment of high skilled personnel.

Commonly, human resource or personnel managers were genuinely unable to provide detailed statistical information about different categories of skills within enterprises. Once again, large enterprises were a particular problem. Instead of quantitative information, qualitative responses were elicited in several elements of the interview schedule. A small but not insignificant problem in interviews with larger enterprises was the fact that certain human resource or personnel managers did not have the experience to answer all questions.

Special problems arose in securing information from public sector employers, especially in the health sector. We had hoped to interview several provincial departments of health and education concerning the well-publicised and documented departure of their personnel. Regrettably, this was not possible as requests for interviews were constantly referred back to national departments in Pretoria, from which no meaningful response could be obtained.

Finally, there was no cooperation whatsoever from a small segment of the targeted individuals or enterprise. Despite assurances of confidentiality, refusal to participate was encountered from senior personnel in Coca Cola, Eskom and Simba. Most remarkable of all for a survey of this nature, was the complete lack of cooperation from South Africa's Council for Scientific and Industrial Research (CSIR), a parastatal body with major responsibility for issues relating to high-level personnel planning in South Africa. Although the non-cooperation encountered was regrettable, it in no way reduces the validity of the results of this investigation.

The final sample of 200 enterprises is a representative cross-section of the spectrum of employers of skilled personnel in South Africa. In particular, the survey captures a cross-section of enterprises from a range of different sectors, of different sizes and with different ownership characteristics. It includes a set of enterprises, private and public sector, foreign and local, which are leaders in the market for high skilled personnel in South Africa. Besides those individual enterprises already named, the sample included the following: De Beers, Samancor, Microsoft, Q Data, Acer, Unisys, Log-Tek, TML Media, General Electric, Samsung, Sulzer, Panasonic, Bridgestone, Roche, Revlon, Reebok, Otis, Dorbyl, LTA, Stocks and Stocks, Rand Merchant Bank, Investec, Arthur Andersen, SBC Warburg, Deutsche Morgan Grenfell, Kessell Feinstein, Young and Rubicon, Hunt Lascaris, KPMG, SATOUR, the Morningside Clinic, Rand Clinic, and the Universities of Witwatersrand, Cape Town, South Africa, and Pretoria.

HIGH SKILLS: LOCAL OR FOREIGN?

In this section, the patterns and profile of the high skills base is unpacked. This is followed by an examination of the impact of emerging skills shortages.

In total, the 200 enterprises employ an estimated 101,000 skilled personnel with the largest absolute numbers in banking and finance, education and health, and industrial. The sectors with the lowest absolute numbers of skilled personnel were entertainment and tourism, and construction. In some respects, however, these figures are misleading for they fail to take into consideration the total number of employees in particular sectors of the economy.

A better indicator of the relative importance of skilled personnel in different sectors of the South African economy is a comparison of the numbers of skilled workers in relation to the total workforce of individual enterprises. Table 2.5 shows the proportion of skilled workers in relation to total employment in the sample enterprises. Of the 193 enterprises for which information was available, 39% of enterprises have 50% or more of their employees classed as skilled personnel and 20% of enterprises have a share of 75% or more of their workforce so classed. At the opposite end of the spectrum, 38% of enterprises have only 25% of their workforce classed as skilled personnel and 17% have less than 10% of the total.

It is evident that there are important sectoral variations in the employment and relative significance of skilled personnel in relation to the total workforce. Across the nine sectors captured in the survey it is possible to identify four sectors in which the ratio of skilled personnel to total employment is especially high. These four sectors are, in rank

Table 2.5: Skilled Workers as a Proportion of the Total Labour Force				
Sector	No. of Companies in Each Category			
	<25%	25-50%	51-75%	>75%
Mining	3	1	1	0
Computers & IT	1	3	2	8
Hi-Tech industry	29	18	10	8
Other industry	27	13	5	2
Construction	6	0	0	1
Tourism and entertainment	6	4	1	1
Banking and finance	1	1	3	2
Business services	1	2	7	9
Education and health	0	1	9	7
TOTAL	74	43	38	38
% of Total Sample	38%	22%	20%	20%

order, education and health (in which skilled personnel represents at least 50% of the total workforce for 94% of enterprises), business services (74%), banking and finance (71%) and computers and IT services (71%). For these four sectors the proportion of enterprises with over 75% skilled personnel is a significant indicator of major pockets of skilled workers in the South African economy.

The most high skills intensive sectors were found, in rank order, to be computers and IT services (57%), business services (47%), education and health (41%) and banking and finance (29%). In total, these four sectors accounted for 78 000 skilled employees, the major numerical segment of the survey. In several computer services and IT enterprises the proportion of the labour force that was classified as high skilled was as large as 90% or more. Such examples of high skilled personnel were also recorded in the business services and education and health sectors.

Five sectors recorded shares of skilled workers below the sample average (Table 2.5): mining, other industrial, entertainment and tourism, industrial high tech and construction. In total, these five sectors accounted for approximately 23 000 skilled personnel in the surveyed enterprises. There were still many enterprises, particularly in the industrial high tech sector, in which the proportion of skilled personnel was 75% or more (see Table 2.5).

The number of companies employing non-South African and South African high skilled personnel is shown in Table 2.6. The most striking finding is that over half employ a skilled workforce of citizens or permanent residents alone. Some 46.5% employ foreign high skilled workers. Some sectoral variations are again in evidence. The highest proportions

are in banking and finance, computers and IT services, education and health, and business services. One surprise was the high proportion of construction enterprises that engage high skilled non-South African personnel. Sectors of the economy with a low foreign skill component include mining, other industrial, industrial high-tech, and, least affected of all, entertainment and tourism.

Across the 200 surveyed enterprises, however, foreign skilled personnel number in total only between 2,000 - 3,000 workers (Table 2.7). The largest individual pockets are in education and health, and banking and finance. These small numbers, however, should not devalue the significance of this foreign skilled workforce component. In many instances, it represents the highest echelons of corporate management (managing directors) or critical elements for the workings of enterprises across several sectors, not least in education and health.

In absolute numbers, therefore, the foreign high skill component is only a minor element in the skills profile of major South African enterprises. Indeed, only 11% of sample enterprises employ more than 10 non-South African high skilled personnel. Quite clearly the sectors of the economy that are most heavily affected by the engagement of foreign skilled personnel are education and health and banking and finance.

In certain multinational enterprises, foreign skilled personnel are not in South Africa on a long-term basis. Rather, they are part of intra-corporate movements involving a rotation of personnel or exchange programmes. The sources of foreign skilled personnel vary, with the most

Table 2.6: Composition of Skilled Employees by Citizenship

Sector	No. of Companies With Skilled Workforce 100% South African	No. of Companies with Skilled Workforce Partly Foreign
Mining	3	3
Computers & I.T.	5	9
High-tech industrial	46	22
Other industrial	27	20
Construction	2	5
Banking and finance	1	7
Business services	7	12
Entertainment and Tourism	9	4
Education and Health	6	10
TOTAL	106	92
Percent of Sample	54%	46%
<i>NOTE: The category "South African" includes permanent residents of South Africa. The "Foreign" category refers to those on work permit.</i>		

Sector	0% of Skilled Workforce	1-10% of Skilled Workforce	11-50% of Skilled Workforce	51-100% of Skilled Workforce
Mining	4	1	1	0
Computers & I.T.	5	8	0	0
High-tech	45	21	1	0
Other industrial	26	16	5	0
Construction	2	4	1	0
Banking and finance	1	4	1	2
Business services	7	10	2	0
Entertainment and tourism	9	4	0	0
Education and health	7	2	4	2
TOTAL	106	70	15	4
Percent of Total Sample	54%	36%	8%	3%

common countries of origin being the United Kingdom, Germany, the USA, Italy, and Australia. Significant numbers were also from Portugal, the Czech Republic, Bulgaria and Russia. Overall, the numbers of skilled personnel recruited from other African countries was relatively small with the largest sources being Zimbabwe and Ghana. Indeed, because of its proximity and close ties with South African business, Zimbabwe was the most common African source for skilled personnel recruitment.

In sum, this study reveals the relatively small numbers of non-South African skilled personnel in relation to total employment in the country. Overall, non-South Africans represent more than 5% of the total labour force in only 8% of our sample enterprises.

THE EFFECT OF THE BRAIN DRAIN

This section investigates the effects of the emigration of skilled personnel on the operations of enterprises in South Africa. Interviewees were asked to assess the flow and impact of emigration during two different periods: the period before the democratic transition and the four years (1994-1998) since.

First, the companies say that the impact of the emigration of skilled personnel has been much greater in the post-elections period (Table 2.8). Moreover, the tempo of emigration of skilled personnel appears to have escalated, especially from 1996 onwards. Overall, one-third of enterprises rated as "significant" the outflow and impact of the emigration of skilled personnel in the post-apartheid period compared to a corresponding rating of 2% in the pre-elections period.

Sector	PRE-1994			POST-1994		
	None	Negligible	Significant	None	Negligible	Significant
Mining	3	1	0	1	3	2
Computers & I.T.	6	4	1	4	5	5
High-tech industrial	55	11	0	33	12	24
Other industrial	40	6	0	18	18	11
Construction	5	1	0	5	1	1
Banking and finance	3	3	1	1	3	3
Business services	13	3	0	5	5	9
Entertainment and tourism	10	2	0	11	1	1
Education and health	7	7	1	3	4	10
Total	142	38	3	81	52	66
Percent of Total Sample	78%	21%	2%	41%	26%	33%

For policy makers this finding is alarming for it underscores an accelerating trend in the exodus of skilled personnel from South Africa.³⁴ More importantly, this out-migration is beginning to exert an important impact on the workings of major South African enterprises. Indeed, the finding signals a real danger for policy makers. Unless measures are introduced to retain existing skilled personnel or to facilitate a counter-flow of skilled personnel into the country, the ramifications of the brain drain on the functioning of the South African economy may become more widespread. Moreover, at the time of survey, the demand for skilled personnel has been dampened by a period of low economic growth. The chairperson of a sectoral manufacturers association noted: "Skills are in such short supply that I don't know what (South African) business will do if there is an economic upturn."

A second key result is more positive for policy makers. Against the very clear evidence of growing emigration from South Africa is the finding that this is of only minor importance compared to the total skills base of surveyed enterprises. In 41% of enterprises the issue of emigration of high skilled personnel was rated as of no importance whatsoever and in a further 26% of cases of only "negligible" significance. What these results suggest is that whilst the brain drain continues, there are few signs at present of a crippling of enterprises due to an inability to source necessary replacement skills. Once again, however, the situation during the post-elections period has become progressively worse. Some 98% of responding enterprises rated the impact of emigration as none or negligible before 1994. The corresponding figure for the post-1994 period falls to 67%.

A third key finding is the sectoral variation in the impact of the

emigration of high-skilled personnel. In the pre-1994 elections period, emigration flows were deemed significant for only a handful of the survey sample of enterprises (2% of the total). At the time of the survey, the numbers of enterprises reporting a significant impact had risen appreciably especially within five sectors: education and health (59%), business services (47%), banking and finance (43%), computers and IT services (35%) and industrial high tech (35%). Sectors least affected by emigration were entertainment and tourism, and construction — both are areas of the economy in which the ratio of skilled personnel to total employment is relatively low.

Fourth, South African enterprises confront a different situation to multinational companies operating in South Africa. For South African-owned enterprises, the effects of an emigration of high level skills appear to be more problematic. Foreign companies can source skills from the enterprise's global network of employees, through short-term appointments, staff exchanges or recruitment within the existing international network. The financial resources and power of these global enterprises reduces the potential impact of the emigration of high level skills.

The open-ended responses of interviewees to questions concerning the emigration of skilled personnel disclosed a number of important themes. First, the reasons for departure from South Africa confirm media concerns about crime and violence, the downturn in the economy, and perceptions of falling standards in the public education and health sectors.³⁵ Another core reason given for the drain of skilled personnel is the highly attractive salary packages offered by enterprises in North America, Europe and Australia. In the specific case of the health sector, Saudi Arabia was an important destination for skilled nurses because of the lucrative employment packages available.³⁶

Second, a notable proportion of departing skilled personnel are individuals returning to their countries of birth after living and working in South Africa (as permanent residents) for lengthy periods. Not surprisingly, the most common destinations for this type of emigrant are the United Kingdom and Germany. This includes many personnel towards the end of their working careers.

Third, in the case of younger skilled personnel, the reasons for departure include seeking a broader international work experience. This particular group of skilled employees therefore may not necessarily represent a permanent loss to the South African economy. Nevertheless, some younger skilled emigration is undoubtedly permanent because of the attractive work packages offered by overseas enterprises.

Finally, Gauteng-based enterprises experience the worst problems. A common theme in the corporate interviews was of Gauteng personnel

seeking internal transfers to the Western Cape because of its attractive residential environment and perceived lower levels of crime and violence. On a long-term basis, this trend might threaten and undermine Gauteng's position and long-term economic development as South Africa's "smart province."

The most severe emerging skills shortage clearly relates to computing and information technology personnel. A global labour market has emerged in the sphere of computing and IT skills. Within this market, South Africa is rapidly losing competitive ground to the aggressive recruitment strategies and lucrative employment packages of enterprises in the USA, Western Europe and Australasia.³⁷ As one specialist IT service enterprise stated: "South African IT personnel are highly marketable all over the world. As a company this is difficult to counter. We offer staff share options which mature after three years of service but for most this is not enough of a sweetener to make them stay."

The emerging shortage of specialist computing and IT service personnel is a pervasive problem in the South African economy. Several other cracks are emerging in the existing skills base of South Africa. One was exposed in an interview with a major multinational pharmaceutical and chemicals concern. Based on an internal audit and needs analysis, the recruitment of specialist local skills, such as pharmacists, veterinarians, chemical engineers or environmental specialists, is still not a major problem. But major difficulty arises at the higher management and supervisory scale where composite skills and experience are necessary.

Another crack was evident in several interviews with industrial and high technology enterprises. Whilst technical skills, such as engineering skills, were possible to source, signally absent was a more sophisticated marriage or combination of technical and financial or sales/marketing experience required for high level managerial appointments. Indeed, the issue of the shortage of high level personnel in South Africa with both technical and financial or marketing skills was a consistent theme.

Certain specialist niches of skills are also showing signs of drying up in the South African labour pool. Many are of a highly technical and very specialized nature. They include logistics industrial engineers, armature winders, control engineers, polishers for high quality furniture manufacturers, instrumentation engineers, civil engineers with project management experience, telecommunications personnel with a combination of technical and sales expertise, and many others.

A factor that underpins some of the emerging shortages is the run-down or lack of take-up of certain apprenticeship programmes. As one interviewee argued: "No one is coming through the ranks...young people do not want to go through apprenticeships and consequently we will be suffering shortages in the near future." Another factor relates to

South Africa's isolation from the international economy which has resulted in a shortage of experience and qualified personnel in several areas of international marketing.

Further insights into the impact of recent emigration of skilled personnel from South Africa are provided by the following selection of quotations:

"We are losing marketing skills rapidly to overseas companies. The company has lost 20% of its workforce since the end of 1997 to Dubai, Australia and the USA. These skills have been built up locally as people have been trained and had a few overseas trips to further their training. Then they were poached or they up and go overseas. It is almost a waste of all the time and money spent on their training. One of the people who went to Australia was an IT specialist and marketing manager so a big loss to the company. A South African survey in which we took part revealed that IT remuneration within South Africa was OK but internationally we were not competitive." (International IT company)

"There is a lot of uncertainty among the younger staff members. Some of them left before the elections and they are still going. We try and counter this by using our international mother company contacts to send South African employees overseas. They pay back time overseas with time worked at the South African office. By doing this, more employees consider staying with the company in South Africa because there is something in it for them. However, as many as 50% do not come back." (South African office of blue-chip international financial services company)

"One non-executive director left for Australia after he was car-jacked and a gun put to his five-year old child's head. In the last two years (1997 and 1998) a lot of people have spoken about leaving. It is the general topic of conversation. Crime is the number one problem. Everyone says that they don't want to go but will leave if something (crime-related) happens to them or their family." (Large industrial company)

"The MD was going to leave (overseas) and take the company with him but he was shot dead one month before leaving. The company is expecting to lose quite a few

skilled personnel in the near future. They are preparing to go overseas because of the crime and violence in the country and because they see little future for white males in South Africa.” (High technology industrial enterprise)

DEALING IN SCARCE RESOURCES

South African enterprises clearly regard high skilled personnel as a resource that is beginning to deplete and even exhibit signs of scarcity. Moreover, competition for such scarce resources is growing more intense both as a result of internationalized labour markets for several sectors (most importantly computer and IT service personnel) and as a result of democratic South Africa’s late re-insertion into the international economy.

APPROACHES TO RECRUITMENT

The major potential source of recruitment for new high skill personnel is South Africa rather than overseas. The survey disclosed that the majority of enterprises prefer to hire local South African personnel into high skill positions whenever possible. The advantages of local personnel are several and obvious.

First, foreigners often require a period of settling-in before becoming adapted to the local business environment. Second, the hiring of South African personnel is considerably cheaper, particularly in terms of relocation costs, home leave, housing and school fee allowances. Indeed, many companies stress that the recruitment of foreign personnel is a last resort as the costs of hiring from Europe or USA are so onerous because the recruited employee is often paid a package comparable to that in their country of origin. Even the costs of recruitment of skilled personnel from other parts of Africa are extremely high. Overall, the survey disclosed no differentiation in the recruitment of skilled personnel from Europe, North America or Africa. The key issue in recruitment was the quality of the individual person rather than the country of origin.

Table 2.9 shows the different kinds of recruiting methods deployed by the 200 surveyed enterprises. The majority of enterprises use more than one method, usually for different types of skilled personnel. The most common technique is the engagement of specialist personnel agencies to track and hire new skilled personnel; nearly 60% of enterprises use the services of such agencies. In certain sectors, however, the use of such specialist agencies is avoided as it is felt that they do not understand the highly specialized needs for skilled technical personnel, for example, in parts of the food sector.

Beyond the use of specialist personnel recruitment agencies, other

Method	Percent of Companies
In-house	31
Head hunters	14
Newspapers	30
Agencies	24
Specialist agency	58
Word of mouth	25
Other	5

N = 200. Note: The total exceeds 100% as many enterprises used several different methods of recruitment

methods include in-house advertising, newspaper personnel advertisements, word-of-mouth advertising, and use of general personnel agencies. In word-of-mouth recruitment, bonuses sometimes are offered to existing staff if they are successful in sourcing new high skill personnel. Whilst the employment of headhunters is one of the least utilised recruitment methods, it is the preferred method for recruiting senior personnel (such as corporate managers) or specialized research and development (R&D) personnel. Headhunting is also a strategy for poaching personnel with necessary experience for top level managerial appointments. Finally, the category of “other recruitment methods” includes linkages to Universities or technikons through bursaries or graduate recruitment programmes, the use of internet advertising, and recruitment through industry training boards.

THE QUESTION OF TRAINING

A key issue in offsetting the brain drain is the training programmes offered to employees. The operation of training programmes is a major means for expanding an enterprise’s asset base of skilled personnel. As one industrial listed enterprise argued: “We know a lot of skills have left South Africa but it is important to train existing employees up. There is still a lot of untapped skills available.”

A positive finding was that the vast majority of the surveyed enterprises — 85% of the total — are involved in some form of training and skills upgrading of their personnel. In many cases the budgets allocated to training and upgrading of personnel are substantial and impressive. For example, one leading listed South African-owned industrial enterprise has an annual training budget in excess of R4 million. As a consequence, this particular specialist enterprise “had no gaps in expertise as they bring people up through the company ranks.” In this company the training programme necessitated the import of overseas personnel on

Sector	Number of Companies in Each Category				
	In-house	Bring In Trainers	Send Overseas	Use Local Institution	No Training Offered
Mining	1	1	1	1	3
Computers & IT	11	2	4	4	0
High-tech industrial	46	14	27	23	10
Other industrial	36	7	12	23	2
Construction	6	0	3	1	1
Banking and finance	3	3	6	1	0
Business services	10	1	8	7	3
Entertainment and tourism	5	5	4	1	2
Education and health	6	3	4	6	9
Total	124	36	69	67	30

NOTE: Responses add up to more than 200 companies as many enterprises used more than one training method.

2-3 year contracts: “They share their skills and knowledge and by the end of the contract the South African personnel are able to competently take on the job.”

The most common approach to skills training is through in-house or enterprise training programmes (Table 2.10). Of the sample enterprises, 62% are engaged actively in the business of in-house training for skilled personnel. A second, less common, approach is to bring in skilled personnel from overseas to operate training programmes. This training strategy is particularly prevalent amongst overseas-based multinational enterprises in South Africa. A third, and more common, training approach is to send South African personnel overseas for a period to upgrade their skills. Nearly 35% of sample enterprises applied this approach, including many multinationals who choose to send South African personnel to their parent plant or head offices on technology exchange programmes. Another aspect of overseas training is the sponsoring of South African personnel to attend international short courses or conferences. Finally, the outsourcing of training to other South African institutions is a strategy for one-third of enterprises. Among these specialist local training institutions are South African university business schools and local technikons.

The training of South African personnel is a double-edged sword for many enterprises. On the one hand, training programmes improve the personnel skills and asset resources of enterprises. On the other hand, the heightened skills of employees opens the danger of corporate poaching, including from overseas enterprises, as well as increasing the general awareness and marketability of South African skilled employees

to alternative job opportunities.

The quality of South African IT personnel, health professionals and engineers is recognized by international overseas recruitment agencies. In perhaps the most extreme case recorded in the survey, a Boston-based computer training company came to South Africa to train personnel employed in a high technology defence-related business. The Boston representative was so impressed by the calibre of the South African IT personnel that “within three months they had poached the entire department.”

THE QUALITY OF NEW RECRUITS

In the context of accelerating opportunities for skilled personnel internationally and factors locally such as crime and violence, South African enterprises are necessarily having to treat their skilled labour resources very carefully. Moreover, as mentioned above, training is of critical significance in maintaining the quality of an individual enterprise's labour force.

In the vast majority of cases (86%) the quality of new personnel is rated as either the same or better than that of the outgoing personnel. That so many enterprises are satisfied with the newly hired high skilled personnel is perhaps an indicator that the dramatic popular press scenarios of impending economic collapse due to brain drain haemorrhage are massively exaggerated. In some cases, the departure of skilled personnel is seen as offering opportunities for new blood:

“Sanctions have gone and there are a lot more opportunities. New recruits have brought benefits to the company. Prior to 1994 a lot of people in industry sat in the same job for years. Now, however, there are new people with new ideas and this shift is good for the company.” (Industrial high technology company)

The high degree of satisfaction with new local recruits is an indication that most training and educational institutions in South Africa continue to produce the quality of skills that are required for the economy to be globally competitive. That said, a number of areas of concern were noted by interviewees. In particular, several industrial companies drew attention to the fact that whilst university graduates remain of high quality, educational and training standards had fallen at the technicians. One multinational food and drinks company noted that “technical standards have dropped and we will now only consider university graduates.”

Although there is general satisfaction with the quality of new local personnel, many enterprises drew attention to the increased difficulty

and time spent in recruiting. Another common concern relates to the high remuneration packages required and demanded by high skill personnel in South Africa. In a situation of growing shortages for high skill labour, the costs attached to recruiting such labour have risen markedly. A large South African owned industrial enterprise bemoaned the fact that “new recruits come with a premium. If you want quality, you have to pay more.”

Another important issue is the loss of experience in personnel that emigrate. A large South African-owned industrial enterprise summed up the situation: “Expertise is lost, the base skill is the same but insight into the industry is lacking.” A high technology manufacturing enterprise concurred: “The generic skills in South Africa are still OK. However, when top people emigrate, it is a big loss as it takes 3-4 years for the new recruit to rise to that level.”

Finally, a local listed manufacturing enterprise pointed out that: “We find that we don’t get all the skills we require when we recruit. We have to live with it and hope that the new recruits pick up the necessary skills on the job.”

RECRUITMENT OF SKILLED PERSONNEL FROM OVERSEAS

The recruiting of skilled personnel from outside South Africa is a final option (and often a last resort) for addressing shortages of skilled personnel in the South African labour pool. Table 2.11 presents findings concerning the dealings of the enterprises with the South African Department of Home Affairs. The first point is that 58% of the interviewees had no direct experience of dealing with the Department of Home Affairs. But 42% were in a position to comment on a history and experience of interaction with the Department. Many enterprises deal with the Department at a distance, filtered through the use of an agency, lawyers or consultants. At least 12 enterprises actually employ

Table 2.11: Relationships with the Department of Home Affairs	
Have You Ever Dealt with Home Affairs in Recruiting Skilled Personnel from Outside the Country? (%)	
Yes	42
No	58
How Would Rate Your Experience in Dealing with Home Affairs (%)	
Very positive	1
Adequate	38
Negative	31
Very negative	29
<i>N = 200, 68</i>	

consultants, lawyers or agents as intermediaries.

The broad findings are not complimentary to the Department as a whole. The majority of respondents (60%) rated as “negative” or “very negative” their experience of dealing with the Department when recruiting high skilled personnel. Another 38% of interviewees rate their dealings with the Department of Home Affairs as only “adequate.” Only one interviewee in a sample of 200 responded very enthusiastically and rated them as “very positive.” Multinational companies appear to experience fewer difficulties than South African enterprises in securing work permits for skilled staff from overseas. The procedures for intra-company transfers across international borders are somewhat more relaxed than for the direct recruitment of new personnel from overseas.

Positive or adequate responses were associated with the development of contacts and long-term relationships with very senior staff at the Department of Home Affairs or linkages with high ranking officials in other departments. Indeed, the level of understanding and assistance offered by senior personnel at Home Affairs was a factor appreciated by many enterprises. It appears that enterprises experience a learning curve in their dealings with the Department, beginning with highly negative experiences and shifting later to more positive assessments as they develop relationships with senior staff.

The troubling picture that emerges is that it is “who you know at Home Affairs” that is an important determinant of the kind of problems experienced in staff recruitment from overseas. Several commented that “If you know someone (at Home Affairs) it is easier” or that the “right people are very helpful.” Strikingly, the most positive assessments of the Department of Home Affairs came from two parastatal agencies. In one interview, Home Affairs was described as “brilliant” and in the other the enterprise only has to “speak to Trevor Manuel (the Minister of Finance) and the person they need is appointed very quickly.”

The overall picture that crystallizes is that the Department of Home Affairs is a major obstacle to South African enterprises urgently seeking to recruit high level skilled personnel. Across the different sectors captured by the survey, similar descriptions were applied and the same themes repeated. A host of interviewees spoke in stark terms of their experience with Home Affairs as “shocking”, “horrendous”, “nightmarish” (the most common description), “crazy”, “dreadful”, “pathetic”, “time-consuming” or “awful.”

Several structural problems appear to exist which block or frustrate the entry of skilled personnel from overseas.

- Excessive time is required to deal with the bureaucratic processes. Interviewees spoke of waiting for 2-3 months for something to happen in the Department, a delay that is costly for businesses. Many indicated

that they were wholeheartedly in support of the principle of seeking to employ South African personnel as a first preference. However, once those options were exhausted the bureaucratic procedures that they confront are far too lengthy and urgently need to be streamlined.

- Overall, the view is widespread that Home Affairs processes for securing high skilled personnel are highly obstructive, time consuming and far too procedural. Other common complaints are that service is shocking, queues outrageous and the waiting time for applications (sometimes up to 5 months) unduly long.

- The increasing cost to companies of using lawyers or consultants and the efficiency losses due to delays in recruitment of personnel from overseas. An associated set of issues is the costs imposed upon the affected individuals. The financial cost of applying to come and work in South Africa may be R8000, an amount that is seen as too costly to risk, especially when individuals may go through the bureaucratic procedures and then be denied the necessary work permit. In addition, fees of R5000 were quoted as baseline charge to hire lawyers “who know somebody at Home Affairs”, a cost which amounts to thinly veiled bribery.

- Lack of transparency in the decision-making process within Home Affairs. Interviewees stressed that everyone who goes through the bureaucratic process may be treated in a different way. An interviewee from a leading high technology manufacturer stated that “there is no control and no set procedures so you are at their mercy.” Enterprises complain that no reasons are given for the rejection of particular applications whilst others admit that direct bribes have been paid in Pretoria to secure the entry into South Africa of desperately needed industrial personnel. Overall, a very common opinion is that the Department is “xenophobic” and that in recent years it has made the entry (as well as renewal of permits) of highly qualified personnel into South Africa more difficult .

- The lack of transparency in the internal operations, functioning and staffing at the Department of Home Affairs. Several companies spoke of telephone contacts as almost impossible with the Pretoria office. Moreover, the unprofessional conduct of Home Affairs personnel was commonly mentioned. If Home Affairs personnel could be reached they were “unobliging and a pain.” The experience of dealing with staff was described in an interview with a major industrial enterprise as like “talking to rocks.” Another human resource manager for a major multinational enterprise said that within Home Affairs procedural methods need to be radically re-assessed: “If they don’t like the tone of my voice they could refuse the work permit.”

- The Department of Home Affairs dismally fails to understand the needs of business for high qualified personnel. Several companies spoke

of Home Affairs paying “lip service” to the needs of large business enterprise, of failing to talk or consult with business as to its needs for highly qualified personnel, and lacking any appreciation of the value of high skilled personnel in creating additional employment opportunities or of the value of the embedded training and human resource skills that could potentially flow into South Africa. In one case, a high quality furniture producer requested a work permit for a highly skilled Russian furniture carver. The request was declined; subsequently the carver secured a Green Card for entry into the USA.

The conclusion from our interviews is that the workings of the Department of Home Affairs have a negative impact upon affected enterprises and the economy as a whole. In the case of many private sector enterprises, new growth and job opportunities for the South African economy have been either postponed or, in many instances, lost forever through what employers perceive to be the Department’s inability, unwillingness or failure to expedite the entry into the country of a relatively small number of highly skilled personnel.

CONCLUSIONS

The national objectives of making South Africa a world class player and globally competitive within certain key economic sectors and markets cannot be realistically achieved without a substantial pool of high skilled personnel. The issue of high skilled personnel will therefore be of increased significance to South Africa in the next decade.

Our survey demonstrates that the present skills position within the South African economy is not yet at crisis or breaking point. Nevertheless, the emigration of skills through brain drain movements to North America, Europe or Australasia is occurring at an accelerating rate. Behind this rising tempo of migration are unacceptable levels of crime and violence, economic stagnation, and perceptions of declining standards in the quality of public sector services, most notably education and health.

Despite the growing outflow of skills and highly publicised shortages of public sector health personnel, the skills base is being maintained in most areas of the economy. The survey, however, points to certain cracks in this skills base and the potential dangers if certain policy issues remain unaddressed. Of particular concern is the loss of personnel with high level experience which can only be made up over many years.

The research shows the nature of the skills shortage that will threaten enterprises in South Africa over the coming years. An important strategic challenge confronting enterprises is in “retaining and securing of skilled staff” to enable future growth. At the national level, and in the Department of Home Affairs, a greater degree of appreciation of the

significance of retaining high skilled personnel is needed. Our findings suggest that the present attitudes and workings of the Department of Home Affairs are extremely obstructive and that the Department's current policies concerning high skill personnel function as a negative drag on the present and future performance of the economy.

Our recommendations to deal with the issue of high skilled personnel in South Africa relate to retention of the existing base of skilled personnel, and the attraction from overseas of additional personnel with valuable skills that are in local short supply:

- Enterprises themselves must address the question of human resource upgrading through training and also be sensitive to the growing competition for staff particularly within certain internationalizing labour markets for skilled personnel. For national policy makers, the best policies to retain the skills base are those which grow the economy, address crime and maintain or improve existing standards in public education and health.

- Dealing with overseas personnel requires certain changes in the internal workings of the Department of Home Affairs, a streamlining of application and entry procedures for high skilled personnel and greater transparency in the application process. One step forward, suggested by many interviewees, would be the introduction of a points system for immigrants or work permit applicants similar to that in use by many other countries. But this system has been explicitly repudiated in the recent Draft White Paper on International Migration, despite its qualified endorsement in the earlier Draft Green Paper on International Migration.

- Given the critical importance of highly qualified personnel and their relatively small numbers, it might be appropriate to set up a special unit within the Department of Home Affairs to deal with high skilled personnel. There is a clear need to bridge the existing gap between private and public perceptions of the need for skilled personnel in South Africa. A small special unit might be able to liaise more effectively with the major South African users of high skilled personnel (private sector business, education and health, high technology) in order to deal with procedures and approval applications for work and entry into the country of such personnel.

- The negative perception of the Department of Home Affairs is all-pervasive in the corporate sector. This perception of incompetence, favouritism, obstructionism and lack of transparency should be addressed. Criteria should be clear and consistent and facilitate economic growth. Policy reform in the area of high skills import is urgently needed. The bureaucratic and attitudinal problems experienced by companies can only be addressed by devoting adequate resources to training

and upgrading skills within the department itself.

- The new corporate work permit system proposed in the Draft White Paper could ease the problems experienced by many enterprises when importing high skills personnel. Most enterprises would probably qualify for such permits. The bizarre proposal to “penalize” companies financially who import foreign skills is likely to be counter-productive. As this study shows, enterprises already prefer South African employees, import only where necessary and bear considerable extra cost in doing so. The proposal to force employers to pay a “training levy” on foreigners to encourage them to hire locally seems like a cash-grab with little economic logic.

NOTES

- 1 Bill Gould, "Skilled International Labour Migration: An Introduction" *Geoforum* 19(4) (1988): 381-85.
- 2 Centre for Development and Enterprise, "Response to the White Paper on International Migration in Respect of Skilled Migration" (Johannesburg, 2000).
- 3 Robert Mattes, Donald Taylor, David McDonald, Abigail Poore and Wayne Richmond, "South African Attitudes to Immigrants and Immigration" In David McDonald, ed., *On Borders: Perspectives on International Migration in Southern Africa* (Cape Town and New York: SAMP and St Martin's Press, 2000).
- 4 Wayne Cornelius et al (eds.), *Controlling Immigration: A Global Perspective* (Stanford: Stanford University Press, 1994); Douglas Massey et al (eds.), *World in Motion: Understanding International Migration at the End of the Millennium* (Oxford: Clarendon Press, 1998); Jeanette Money, *Fences and Neighbours: The Political Geography of Immigration Control* (Ithaca: Cornell University Press, 1999). The South African public is currently highly antagonistic to immigration; see Robert Mattes et al, "South African Attitudes to Immigrants and Immigration."
- 5 Sally Peberdy and Jonathan Crush, "Rooted in Racism: The Origins of the Aliens Control Act" In Jonathan Crush (ed.) *Beyond Control: Immigration and Human Rights in a Democratic South Africa* (Cape Town: Idasa Publishing, 1998); and Sally Peberdy, "Selecting Immigrants: Nationalism and National Identity in South Africa's Immigration Policies, 1910 to 1998" (PhD thesis, Queen's University, 1999).
- 6 Dave Kaplan, Jean-Baptiste Meyer and Mercy Brown, "Brain Drain: New Data, New Options," *Trade and Industry Monitor* September 1999.
- 7 See the numerous analyses critical of the Draft White Paper posted at www.queensu.ca/samp
- 8 Vincent Williams, "Towards a Selection System for Skilled Immigration to South Africa" SAMP Migration Policy Brief, 2000.
- 9 "Good Riddance, Mandela Tells Them Where to Go" *Business Day* 25 September 1998.
- 10 Andrew Gill, "74% with Skills Want to Quit South Africa" *Sunday Times* 13 September 1998.
- 11 Robert Mattes, Wayne Richmond and David McDonald, "Before You Wave Them Goodbye" *Daily News* 1 October 1998.
- 12 Jonathan Crush and Vincent Williams, "Slamming the Door on Immigration?" mimeo, 2000.
- 13 Stephen Castles and Mark Miller, *The Age of Migration* (London: McMillan, 1993).
- 14 Sally Peberdy, "Selecting Immigrants."

- 15 This chapter is not primarily concerned with immigration (the migration of foreigners into South Africa). However, together with emigration data, these statistics are necessary in calculating the net gain or loss (the total number of immigrants minus the total number of emigrants) of skilled individuals on an annual basis. Quite simply, a brain drain is recognized when there is a net loss of individuals who are highly skilled. Conversely, where there is a net gain of highly skilled individuals a brain gain is believed to exist.
- 16 Data is not available for 1993.
- 17 While 1986 saw a far greater net loss, it is not clear what proportion qualified as skilled.
- 18 Dave Kaplan et al, "Brain Drain." While Statistics South Africa data show 82,000 South Africans in total emigrating to the five major destination countries (U.S., U.K, Australia, New Zealand, Canada) in the past nine years, they estimate that the immigration records of those countries show 233,000 incoming South Africans. These are total emigrants, not all skilled.
- 19 Even while the SANSA study criticizes the Statistics South Africa data, the authors speak about skilled emigration by at times counting "professionals" (whose definition is unclear), to counting emigrants by occupation, and to counting them as those with a tertiary education.
- 20 Andrew Gill, "74% with Skills Want to Quit South Africa"
- 21 See B. Haldenwang, *Migration Processes, Systems and Policies* (Stellenbosch: University of Stellenbosch Press, 1996); Statistics SA, *Tourism and Migration: 1994- 1996* (Statistical Release, Pretoria, 1998); and CSS Report No. 1000-03510-1425-8560, October 1998.
- 22 Any result obtained from a randomly obtained sample is subject to a known degree of sampling error. Sampling theory calculates the margin of error at a 95% probability level. This means that any result based on a sample of this size (725) will reflect the actual population parameter within a range of plus or minus 3.7 percentage points (for estimates between 45% to 55%) to plus or minus 1.6 points (for more extreme estimates such as 10% or 90%). However one out of every twenty samples may produce results that vary from the population parameter by even larger margins. Results based on smaller subsamples (e.g. blacks or whites) will obviously be subject to greater sampling errors depending on the size of the subsample.
- 23 Owen Crankshaw, *Race, Class and the Changing Division of Labour Under Apartheid* (London: Routledge, 1997).
- 24 Dan O'Meara, *Forty Lost Years: The Apartheid State and the Politics of the National Party, 1948-1994* (Athens: Ohio University Press, 1996).
- 25 Dave Kaplan et al, "Brain Drain."
- 26 Ibid.

- 27 Ibid.
- 28 Robert Mattes and H. Thiel, "Public Opinion and Consolidation In South Africa" *Journal of Democracy* 9(1) (1998).
- 29 Bill Gould, "Skilled International Labour Migration."
- 30 Alan Findlay, "From Settlers to Skilled Transients" *Geoforum* 19(4) (1988): 401-10.
- 31 E. Thomas-Hope, "Caribbean Skilled International Migration and the Transnational Household" *Geoforum* 19(4) (1988): 423-32.
- 32 The sample also included different geographies of enterprises. Although the majority of respondents and interviews were conducted with Gauteng-based enterprises, the spatial range of our interviews captured enterprises and respondents from all major South African metropolitan areas as well as a number of secondary centres.
- 33 These are recognised manufacturing activities in terms of the classification of the International Standard Industrial Classification system.
- 34 Dave Kaplan et al, "Brain Drain."
- 35 "Concern Grows as Professionals Head Overseas" *Sunday Times* 5 February 1995; "Violent Crime Drove a Homesick Couple Away" *Sunday Independent* 19 November 1995; "Crime and Brain Drain are Big Dangers, says Rupert" *Sunday Independent* 29 September, 1996; and "Brain Drain Puts Squeeze on Specialists" *The Star* 16 March 1999.
- 36 "Fed-up Nurses Joining Brain Drain in Drovers" *Saturday Star* 16 January 1999.
- 37 "SA Losing IT Skills in Big-Money Exodus" *Financial Mail* 19 September 1997; "Skilled IT Staff Exodus Looming" *Business Day* 27 January 1999 and "Crime Fears Add Momentum to Skills Flight" *Financial Mail* 29 January 1999.

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PUBLISHED BY:

SOUTHERN AFRICAN MIGRATION PROJECT
6 Spin Street
Church Square
Cape Town 8001



PARTNERS:

Idasa (South Africa)
Queen's University (Canada)
Sechaba Consultants (Lesotho)
ARPAC (Mozambique)
University of Zimbabwe

This project is funded by the
Canadian government through the
Canadian International Development Agency (CIDA).