

**ECONOMIC JOB FACTORS
AFFECTING NURSE EMIGRATION
FROM SOUTH AFRICA: A CROSS-
COUNTRY COMPARATIVE ANALYSIS
OF WORKING CONDITIONS AMONG
NURSES**

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Submitted in partial fulfillment of the requirements for the degree of
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April 2009
Durban

ABSTRACT

For almost fifteen years, South Africa has been a target for developed countries' active recruitment of nurses and other healthcare professionals to their healthcare systems. South Africa is now a leading source of nurses for the UK, the USA, Canada, Australia, and New Zealand. This study investigates the underlying factors behind nurse emigration from South Africa by examining the differences in the economic job factors between South Africa and the UK, the US, and Australia, the three countries where the highest percentage of South African nurses are emigrating to. The economic factors investigated include wages, salary advancement for experience and length of service, hours worked, and employment-based benefits such as pension benefits, medical aid/health insurance benefits, and paid leave. Although not a focus of the empirical work, other job factors, such as poor working conditions in South African hospitals, as well as broader societal factors influencing nurse emigration, are discussed. The study was motivated by the fact that although the underlying factors that are causing South African nurses to leave for greener pastures have been identified, there exists limited empirical literature on the shortcomings of working conditions. As emigration of nurses are driven by forces present in both sending and receiving countries, a cross-country comparison of these factors leads to a greater understanding of nurse emigration from South Africa. In turn, a greater understanding can lead to effective policies improving the working conditions for South African nurses and thus improving retention. By using comparative secondary data from 2006, the findings reveal that the main difference in economic job factors lie in wages, both average wages and the possibility for salary advancement over the lifetime, and working hours. The differences in access to employment-based benefits were less significant, as benefits in South Africa tend to be high among nurses as in the comparison countries.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Dr. Daniela Casale, for all the guidance, assistance, and encouragement she has provided throughout this whole research process.

I would also like to thank my husband for his support and encouragement, as well as for all his help in regards to the statistical material and for sharing the burden of research with me.

LIST OF ACRONYMS

BLS	US Bureau of Labor Statistics
CPS	Current Population Survey
DoH	Department of Health
GDP	Gross Domestic Product
ICN	International Council of Nurses
ILO	International Labour Organization
LABOURSTA	International Labour Organization labour statistics
LFS	Labour Force Survey
MDG	Millennium Development Goals
NCS	National Compensation Survey
NHS	National Health Service
NSW	New South Wales
UNDP	United Nations Development Program
OECD	Organisation for Economic Co-operation and Development
OSD	Occupation Specific Dispensation
OWW	October Inquiry and the Occupational Wages around the World
PPP	Purchasing Power Parity
RN	Registered Nurse
SANC	South African Nursing Council
Stats SA	Statistics South Africa
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

“If there is a single major threat to our overall health effort, it is the continuing outward migration of key health professionals, particularly nurses.” (Tshabalala-Msimang 2002, Health Minister in South Africa: cited in Clemens and Pettersson 2008).

For almost fifteen years, South Africa has been a target for developed countries’ active recruitment of nurses and other healthcare professionals to their healthcare systems. South Africa is now a leading source of healthcare workers for the UK, the US, Canada, Australia, and New Zealand (Rogerson and Crush 2008). According to data published in the *Strategic Framework for the Human Resources for Health Plan*, a plan addressing the shortage of nurses in South Africa published by the Department of Health, 6,844 South African nurses were working in various *Organisation for Economic Co-operation and Development* (OECD) countries by 2001 (Department of Health 2005). The three main countries where South African nurses emigrate to are the UK, Australia, and the US, in which respectively 60 per cent, 20 per cent, and 18 per cent emigrates to (Rogerson and Crush 2008). The emigration of nurses, which has been escalating in recent years, is causing great concern, as South Africa, like a majority of countries in the world, is experiencing a huge shortage of nurses and other key healthcare workers. The nurse shortage is due to an imbalance in the supply and demand of nurses, as both high-income countries and low-income countries are failing to train and recruit enough nurses for the increasing demand (Buchan and Calman 2004). The increased demand for nurses and other healthcare workers is due to multiple factors, among others, the rapid development within medical science and technological advances where more and more complex diseases and conditions can be treated. In developing countries like South Africa, there is in addition an increased demand due to the high prevalence of HIV and AIDS and HIV/AIDS related diseases (UNDP 2005). In the developed world, the shortage is related to the aging population and the increased incidence of chronic diseases (Health Resources and Services Administration 2002).

The migration and recruitment of nurses has in the past few years been high on the international health policy agenda, as the developed countries’ demand for healthcare workers

to meet their shortage has over the last few decades led to increased emigration of these skilled workers from developing countries (Buchan and Calman 2004). Although emigration of nurses is not a new phenomenon, it has expanded rapidly with globalization and free trade agreements (Rogerson and Crush 2008). The loss of nurses through migration usually results in a reduction of the capacity of healthcare systems in developing countries to deliver efficient healthcare to their citizens. In many of these countries the healthcare system and its infrastructure are already fragile and under pressure. International migration has, as a result, generated much controversy because of its potential for cause a nursing “brain drain” from countries that need their skilled workers dearly (Buchan and Calman 2004). Recruiting nurses from overseas may be a quick fix solution for many countries to meet their nursing shortage. However, international recruitment of nurses remains controversial as there are major ethical dilemmas with this practice as countries that desperately need their nurses are losing this essential component of their healthcare workforce (Buchan and Calman 2004).

In South Africa, the continuing emigration of nurses is contributing towards the serious depletion of the healthcare workforce. Policy responses and interventions to address the emigration of these much needed workers have been slow, and have been characterized mostly by interventions seeking to control the emigration through international policies and recruitment guidelines. Although some important steps have been taken towards addressing the emigration of nurses from South Africa, South Africa’s data base and knowledge about emigration flows, as with many sending countries, is inadequate (Rogerson and Crush 2008). Without adequate data and knowledge about nurse emigration, effective policy interventions cannot be formulated and implemented (Buchan and Sochalski 2004).

Although some of the underlying factors that are causing South African nurses to leave for greener pastures have been identified, there exists limited empirical literature covering the shortcomings in working conditions for this group of workers in South Africa (see Rogerson and Crush 2008; Oosthuizen and Ehlers 2007; Kelly 2005; Xaba and Phillips 2001). In addition, there have been no studies conducted based on national statistics from South Africa (most studies are of a small-scale, case study nature), nor has there been any cross-country comparative work done on South Africa and the countries to which South African nurses are emigrating. As the emigration of nurses is driven by forces present in both sending and

receiving countries, a cross-country comparison of the phenomenon will lead to a greater understanding of nurse emigration from South Africa. The main objective of this dissertation is therefore to investigate the differences in working conditions between South Africa and three countries where the highest percentage of South African nurses are emigrating to, namely the UK, the US, and Australia, using national level data. It is hoped that this study can contribute towards recommendations on the type of interventions that would improve the working conditions for nurses in South Africa. Better conditions for South African nurses may in turn lead to a higher retention of nurses.

The underlying factors behind nurse emigration can be categorized into two main groups: job factors and broader societal factors. Job factors would include wages, working hours, professional advancement, workload and working conditions, management, access to resources, and safety in the working environment, while broader societal factors would include personal safety within society, standard of living, as well as various other factors pertaining to quality of life. This dissertation focuses on a subset of the job factors listed above, namely the more ‘economic’ factors such as wages, the opportunity for salary advancement for experience and length of service, hours worked, and employment-based benefits such as pension benefits, medical aid/health insurance and paid leave. Although the ‘economic’ job factors have been the focus of my empirical work, I also review the literature covering the other underlying factors behind nurse emigration from South Africa to provide a broader picture. Based on the findings from my empirical work using data from 2006, it will be shown that of these economic job factors, the largest differences across countries lie in nurses wages and the hours that they work. The differences in the access to employment-based benefits are less prominent.

In South Africa, the UK, the US, and Australia, there are two principal groups of nurses. In South Africa, these two groups of nurses are referred to as professional nurses and associate nurses. The main distinction between these two groups is that the former has a higher level of education and training than the latter, effectively meaning that professional nurses have a higher level of work responsibility than associate nurses. Associate nurses are usually supervised by a professional nurse and perform more elementary nursing tasks. In the comparison countries, the two groups of nurses are referred to by different labels. A

professional nurse is referred to as a registered (or general) nurse in the UK, the US and Australia. An associate nurse in the UK is referred to as an enrolled or auxiliary nurse, in the US as a licensed practical nurse (LPN) or a licensed vocational nurse (LVN), and in Australia as an enrolled nurse. The level and length of training of the two groups of nurses varies in the different countries. Professional nurses usually have 3-4 years of training and associate nurses have 1-2 years of training depending on the country.

Professional nurses are most likely to emigrate as they are more attractive for the recruiting countries given their higher professional level of training. However, as the data on the emigration of nurses is inadequate and the extent of the phenomenon uncharted, the fact that associate nurses do to some extent emigrate cannot be overlooked. Although professional nurses will be the focus of this study, I include both groups of nurses in the analysis and disaggregate the data accordingly to explore the different job characteristics of these two groups. When reviewing the international literature, the different labels for nurses will be utilized. Thereafter, for the remainder of the study, the South African terms professional and associate nurse will be used for simplicity.

This dissertation is structured as follows. Chapter Two, *Literature Review and Theoretical Framework*, reviews the relevant literature and provides the theoretical framework informing the study. The chapter commences by describing the extent of the shortage of nurses and the reasons behind this shortage, both in a global perspective and in the countries investigated in this study. It continues with a discussion of nurse emigration, including the scope of the phenomenon, its implications and some of the ethical considerations. The second part of the chapter presents the theoretical framework, which draws on pull and push theories of migration. This is followed by a discussion of the main findings from previous studies, conducted mostly for South Africa, on the underlying factors behind nurse emigration.

In chapter Three, *Research Methodology and Data*, the research objectives and questions are outlined in more detail, the methods of analysis are explained, and the sources of data that were utilized are described. This study makes use of secondary data analysis. Data pertaining to South Africa has been drawn mainly from the September Labour Force Survey of 2006 (LFS 14) collected by Statistics South Africa. For the comparison countries, data for 2006

have been drawn from national statistics, governmental information, information from interest groups, reports, and journal articles. The chapter also discusses some of the problems that were encountered and the limitations with the data and methods.

Chapter Four, *Research Findings and Discussion*, presents and discusses the empirical findings of the study. The differences in wages, opportunities for salary advancement, hours worked and employment-based benefits are compared across the group of countries in the analysis. Nurses' wages are also compared to wages for four other professional occupations to serve as some indication of the relative remuneration to nursing within each country. The four occupations include teachers, engineers, accountants, and physicians. The discussion also draws on the findings from the reviewed literature.

The final chapter, *Recommendations and Concluding Remarks*, provides a summary of the main findings of this study. It also includes a discussion of the policy implications of the results, with some suggestions on how policy might be adjusted to curb the outflow of nurses from South Africa.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 The extent of the shortage of nurses

The global health system is facing a major challenge. *The World Health Report 2006*, published by the World Health Organization (WHO) estimates that there is a shortage of 4, 3 million healthcare workers worldwide, including physicians, nurses, midwives and other key personnel.

Although most countries are experiencing a shortage of nurses, one of the most critical components of the health workforce, developing countries' shortage is the most critical. This can easily be illustrated through the huge variation in the nurse: population ratios around the world. The report *The Global Shortage of Registered Nurses: An Overview of Issues and Action* published by the International Council of Nurses (ICN) in 2004 states that the average nurse: population ratio is almost eight times greater in high-income countries than in low-income countries (Buchan and Calman 2004). The shortage is most critical in countries in Sub-Saharan Africa where it is estimated to be approximately one million healthcare workers (WHO 2006). A report published by the Joint Learning Initiative (2004) has calculated that if this region is going to meet the Millennium Development Goals (MDG), eight goals developed by the United Nations that include reducing extreme poverty, reducing child mortality rates, fighting disease epidemics such as HIV/AIDS, and developing a global partnership for development, it is approximately 600,000 nurses short. The shortage of nurses in both developed and developing countries is expected to worsen (Buchan and Calman 2004). Within both high-income and low-income countries, there also exist great variations in nurse: population ratios as there is a tendency of nurses and other healthcare professional to prefer working in large urban areas rather than in rural and remote areas. This tendency is due to the fact that urban areas usually have better job prospects and greater career opportunities (Buchan and Calman 2004).

In South Africa, there is an estimated shortage of 52,500 nurses according to a study conducted by the University of Johannesburg (Shezi 2005). There is also a trend that the nurse: population ratio is decreasing in the country. According to the South African Health

Review 2003/04, the number of professional nurses serving the public-sector-dependent population decreased from 120 nurses per 100,000 in 2000 to 107 nurses per 100,000 in 2003. The *Strategic Framework for the Human Resources for Health Plan* also reveals that the number of nurses trained in the recent years does not even keep up with the population growth (Department of Health 2005).

In the United Kingdom (UK), there is a predicted shortfall of 53,000 nurses over the next 5 to 10 years (Batata 2005). In the US, the shortage of nurses is also critical. In 2000 it was estimated that there was a shortfall of 11,000 Registered Nurses (RN) in the country. It has been estimated that this shortfall will grow to 275,000 in 2010 and that by 2020 there will be a shortage of 800,000 full-time RNs (Brush et al. 2004). Although the country's situation is critical, the nurse: population ratio in 2000 was 782 professional nurses per 100,000, a substantially higher number than in South Africa (United States General Accounting Office 2001). In Australia in 2004, a shortage of 40,000 nurses was predicted by 2010 (Australian Health Ministers Conference 2004).

As stated in the introduction, the shortage of nurses is due to an imbalance in the supply and demand of nurses, as both high-income countries and low-income countries are failing to train and recruit enough nurses for the increasing demand. For many countries, especially low-income countries, emigration of nurses is largely contributing towards the shortage (Buchan and Calman 2004). Apart from a rapid development within medical science and technological advances where more and more complex diseases and conditions can be treated, the factors identified behind the increased demand for nurses differ somewhat between high-income and low-income countries. In low-income countries like South African, the high prevalence of HIV and AIDS and HIV/AIDS-related diseases leads to increased demand (UNDP 2005). In high-income countries, the factors leading to an increased demand includes an aging population and the increased incidence of chronic diseases (Health Resources and Services Administration 2002). In addition, an aging nursing workforce in developed countries contributes towards the shortage. In the US it is predicted that in 2010, 40 per cent of the nursing workforce will be over 50 years old. Over the next 10 to 15 years developed countries will experience a large exodus of nurses as large parts of the workforce will retire. This crisis is deepened by the fact that many of these countries are in addition experiencing a shortfall in

new nurses training and entering the profession (International Centre for Human Resources in Nursing 2007).

As nurses make up the largest professional group within the healthcare service and are essential in the provision of healthcare, the shortage of this group of workers has a huge impact on the healthcare system (Buchan and Calman 2004). According to Chiha and Link (2003), there is growing evidence of the link between the shortage of nurses and poor health outcomes. Common examples of nursing shortages are closure or decreased access to clinics or hospital wards. Lower quality of care and lower productivity are also common (Zurn et al. 2005). An insufficient number of nurses in addition lead to poor service delivery where patients have to wait longer for treatment and surgery. A range of negative outcomes have been linked to the nursing shortage and the subsequent understaffing. These include increased mortality rates, increased cross infection rates, adverse events after surgery, increased accident rates and patient injuries, and increased incidence of violence against staff. The negative health outcomes in turn lead to longer hospital stays, putting additional pressure on staff and the healthcare system (Buchan and Calman 2004). Service delivery is also affected by the increased stress the nurses are experiencing due to a shortage of co-workers (Sheilds 2004).

2.2 The emigration of nurses

2.2.1 The extent of nurse emigration

According to data from the United Nations Department of Economic and Social Affairs (2006), between five and ten million people in the world leave their country of origin yearly to take up residence in a different country. Approximately three per cent of the world's population, or 191 million people, were international migrants in 2005. Out of these, more than 86 million people are believed to be labor migrants (International Labor Office 2004). Although people have always moved across international borders, migration flows have changed and become more complex with globalization. Global communications networks have made moving to other countries easier, global transportations systems have made travelling between countries faster and cheaper, and people can more easily adapt to new societies with the growth of global social networks. As the gap between the richer and poorer countries has increased with globalization, there is strong pressure for people to move away

from areas of underdevelopment (Haour-Knipe and Davis 2008). While international migration has been dominated by males, there has been a rapid increase in women migrating over the last years. Women, who now account for about half of labor migrants, typically take up occupations associated with traditional gender roles. A large number of female skilled labor migrants are nurses (Jolly and Reeves 2005), a female-dominated profession.

The emigration of nurses largely occurs from developing countries to developed countries. However, emigration of nurses also takes place between high-income countries and between low-income countries (Buchan and Calman 2004). For example, countries such as Denmark, Sweden, and Norway generally recruit from other Nordic countries while the Caribbean countries and the Southern African countries recruit from each other (Kline 2003). Key factors determining which countries are targeted for recruitment are, for example, shared language, common educational curriculum, and post-colonial ties (Buchan and Calman 2004).

The emigration of nurses from South Africa has increased dramatically over the last years. South African nurses are in high demand from the main recruiters of nurses which include the UK, the US, Australia, and New Zealand due to the factors mentioned above, i.e. a common language, similar educational curriculum, and post-colonial/historical ties. The former commonwealth countries Australia and the UK have already recruited large number of nurses from South Africa, while the US has only recently begun active recruitment from the country (Bruch et al. 2004). Although it is impossible to provide an accurate number of nurses that has emigrated from South Africa, due to lack of accurate data, a way of estimating the scope of the phenomenon is by looking at the requests for verification of nursing credentials as this indicates the intent to emigrate. In 1995 there were 511 requests compared to 2,500 in 2000 (Vujicic et al. 2004). Findings from a study on factors that may influence South African nurses to emigrate revealed that as many as 81 per cent of the respondents had considered temporary emigration 'to some extent' or 'a great deal'. Nearly 35 per cent of the respondents had consulted recruitment agencies for information on emigration, whereas approximately 8 per cent had requested verification of their qualifications and had applied for work permits in other countries. As the respondents comprised 15 per cent of all nurses who completed their basic training in 2002, the study gives a good indication of the extent of nurse emigration from South Africa (Ooisthuizen and Ehlers 2007).

In the countries of comparison in this study, recruitment of foreign nurses has for several decades been an important strategy to ease their nursing shortages. In the UK, which is among the largest recruiters of foreign nurses, 8,5 per cent of the nursing workforce is from abroad. The phenomenon has increased rapidly since the early 1990s. Since then, the annual admission of overseas nurses has increased fivefold. From 2002 to 2005, more than 30,000 new nurses from abroad registered in the UK (Larsen et al. 2005). In 2002 alone, over 50 per cent of the 16,000 new nurses that registered in the UK were from abroad (Vujcic et al. 2004).

In the US, importing nurses to fill vacant nursing posts has been a feature for the past 50 years. The Philippines was for a long time the main sending country; however this has changed as a larger group of countries have started sending nurses. The proportion of foreign nurses has especially grown since 2001. In 2003, 14 per cent of new nurses registering in the US were from abroad (Brush et al. 2004). The rate of foreign-trained entrants to the nurse workforce has since 1998 exceeded the rate of new US educated nurses (Aiken et al. 2004). As mentioned above, the US has only recently begun active recruitment of nurses from South Africa (Brush et al. 2004).

In Australia, up to 30 per cent of the nursing workforce in 2004 was born overseas. A large number of nurses are recruited from the UK, although they also recruit from a wide range of other countries. According to unpublished data from the *Department of Immigration and Multicultural and Indigenous Affairs*, the number of foreign trained nurses recruited to Australia nearly tripled between 2000 and 2004 (Jeon and Chenoweth 2007).

A new trend within migration of nurses is the increased role of active recruitment from developing countries by employers and agencies in developed countries to meet their shortage of nurses. The recruitment business in South Africa is dominated by UK-based recruitment agencies where a majority advertises placements only in the UK. However, agencies providing placements in other parts of the world is increasing. There also exist some local recruitment agencies that operate from within the country, although these are often branch operations of UK-based operations (Rogerson and Crush 2008). Although some countries,

such as the Philippines, supports the emigration of nurses due to the remittances they send to the home countries, many countries in Asia, the Caribbean, and Africa are unwilling exporters of nurses as it is not supported by national health policy (Haour-Knipe and Davis 2008).

Most nurses emigrate with short-term work permits (Aiken et al. 2004). As there is very little data on return migration of nurses, it is difficult to estimate how many nurses return to their country of origin and how many stay behind. What is clear from studies on return migration of nurses is that many nurses are interested in returning, both temporarily and permanently, although actual statistics of how many return are lacking (Haour-Knipe and Davis 2008). In the absence of such data some general observations pertaining to migration of skilled professionals have been made in an article by Haour-Knipe and Davis (2008). It has been observed that approximately 50 per cent of skilled migrants return to their country of origin after about five years, that the return rate of nurses is higher than the return rate of physicians, that return migration is less likely to occur if the migrant stays for more than five years, that it is more likely that migrants return to their country of origin if positive changes in the country of origin occurs, that return migration is more likely to happen if close family members have been left home in the home country, and that return migration is more likely to take place if a return program is in place. As stated by the authors, one could assume that these observations on the likelihood of return migration also apply to nurses. Although many nurses might be interested in returning, according to Aiken et al. (2004), few nurses from developing countries are believed to ever return to their country of origin, especially nurses coming from sub-Saharan Africa (Batata 2005; Aiken et al. 2004).

While not a focus of this study, it is important to note that migration of nurses is not only an international phenomenon. Migration of nurses is also occurring from rural areas to urban areas and from the public sector to the private sector. The factors underlying internal migration can to a certain extent be explained through the same mechanisms as international migration. In addition, many nurses leave the profession altogether and choose career opportunities where conditions are better (ICN 2004).

The emigration of skilled professionals from South Africa and other parts of the developing world is not a phenomenon unique to nurses. Rather it can be applied more generally to other

professions as well, both as part of globalization and of the wider international recruitment operation that targets skilled professionals from countries like South Africa (Rogerson and Crush 2008). Although, as with nurses, it is difficult to measure the extent of emigration of skilled professionals from South Africa, data from receiving countries indicate that a large number of skilled professionals leave South Africa for greener pastures. Data also reveal that emigration from the country is increasing dramatically. Major occupational groups emigrating include, among others, physicians and other medical personnel, teachers, engineers, architects, and technicians. As South Africa hardly has any immigration of skilled professionals to balance the scale, the country is therefore experiencing a critical and growing skills shortage. The UK is the major receiving country for all skilled migration from South Africa (Bhorat et al. 2002).

2.2.2 Implications of nurse emigration

Nurse emigration, especially from developing countries, usually results in loss of capacity of healthcare systems in these countries to deliver efficient healthcare to their citizens. The healthcare systems and infrastructure in many developing countries are already fragile and under pressure. As a result, international migration has generated much controversy because of its potential to cause a nursing “brain drain” from countries that desperately need their skilled workers (Buchan and Calman 2004). The “brain drain” from Africa is indeed worrying as it was estimated that 70,000 African-born professional nurses were working overseas in a developed country in the year 2000. This represents about one tenth of African-born professional nurses (Clemens and Pettersson 2008).

A majority of the nurses that are emigrating are young and are those most recently educated in updated medical skills and technologies. Recently educated nurses are generally the most energetic and passionate about their profession. In addition, with the emigration of this age group, future potential leaders and managers within the healthcare system are lost (International Council of Nursing 2004). Although the brain drain is indeed worrying, it is important to note that temporary migration of skilled workers can be beneficial to sending countries as workers gain additional skills and experience abroad which they bring home when returning. In addition, many labour migrants send remittances home (Batata 2005).

Another concern is that if the nurses that emigrate are not replaced with new nurses, as is the case in many countries where shortages are critical, additional pressure is placed on the remaining nurses. This pressure might lead to frustration, demotivation, and increased work stress (Xaba and Phillips 2001). Many low-income countries, especially in sub-Saharan Africa, are experiencing an increase in the prevalence of infectious diseases such as malaria, tuberculosis, and HIV/AIDS. Emigration of nurses places additional pressure on the nurses remaining to provide care for an increasing number of patients (Kline 2003).

In addition to the loss of much needed skills, the emigration of nurses places considerable economic pressure on exporting countries. The *United Nations Conference for Trade and Development* held in 1998 estimated that every professional between the ages of 25 and 35 years that emigrated from South Africa represented an annual loss of \$184,000 for the country (Brush et al. 2004). According to the South African Department of Health which finances nursing education for the public sector, training a nurse costs 10 times the gross domestic product (GDP) per capita (Buchan et al. 2005). Thus, while it is the sending country that has to bear the cost of the migrant's professional education and training, it is the receiving country that obtains the financial benefit of this investment (Brush et al. 2004). For the receiving countries, the cost of receiving a fully trained nurse from abroad is substantially lower than training one within the country (Kline 2003).

2.2.3 Ethical considerations and policy implications

Recruiting foreign nurses, especially from developing countries, is highly controversial as there are major ethical dilemmas with this practice. Recruiting nurses from overseas may be a quick fix solution for many countries to meet their nursing shortage. However, as pointed out by Buchan and Calman (2004), recruiting from countries that are experiencing a critical shortage of nurses themselves is clearly unethical. At the same time, nurses, as all individuals, have human and labor rights which allow them to emigrate. The International Council of Nurses (ICN), while acknowledging the right of nurses to emigrate, condemns the practice of recruitment from countries where authorities have failed to address deficiencies known to cause nurse emigration (Singh et al. 2003). The delicate balance that exists between the human and labor rights of the individual nurse and the health of a country's population remains a challenge in this regard.

Another ethical consideration lies in the recruitment business, as some countries have acted very aggressively and unethically in their recruitment of nurses (Buchan and Calman 2004). Often private agencies and governments have initiated massive campaigns for foreign nurses at times when local measures are being implemented to retain nurses, harming and delaying long-time human resource planning. Use of unethical methods in recruitment by agencies and exploitation of foreign nurses in the destination country are also common features (Kingma 2001). According to Kline (2003), there are many examples of nurses receiving less pay and less credit for their experience than domestic nurses, being given lower positions than domestic nurses with similar qualifications, and experiencing other kinds of discrimination and maltreatment in their workplace.

The shortage of nurses experienced globally and the subsequent active recruitment of foreign nurses by many countries reveal that there are underlying problems that need to be solved in order to recruit and retain sufficient numbers of nurses for the workforce. The growing dependence on foreign-trained nurses in developed countries is largely due to underinvestment in nursing and failed policies. As recruitment of nurses from developing countries cannot solve developed countries shortage permanently as well as being clearly unethical, the problems, as pointed out by Buchan and Sochalsi (2004) can only be solved by making local-level and country-level improvements in the management of the nursing workforce, the status of nursing, and the planning of health services. Countries such as the UK and the US have far from done everything they can to recruit domestic nurses in order to meet their countries' needs. In the US in 2003 for instance, 11,000 qualified nursing students were turned away from US nursing schools due to capacity limitations. Moreover, as receiving nursing education is costly in the US many people wishing to study nursing are not able to due to financial barriers. Also, the work environment, especially in hospitals, is deficient in many ways as nurses spend inordinate amounts of time performing non-nursing tasks. This is due to poor work designs and underinvestment in nurse-saving technologies (Aiken et al. 2004).

Although the best strategy with regard to the nurse shortage in developed countries is clearly to address recruitment and retention of nurses at the local or country level, it is a long-term

strategy which requires strong political and financial commitment by authorities. This strong commitment seems to be lacking. It is therefore crucial to formulate bilateral and international strategies and guidelines ensuring a more ethical recruitment of foreign-nurses. A number of these have already been proposed or created, although with varying degrees of success. The South African government has for instance proposed that international recruitment of healthcare workers should only take place within formal bilateral agreements. Another example is in the UK where the Department of Health has established guidelines preventing international recruitment to the National Health Service (NHS), although these guidelines have had minimal success. An agreement between the UK and Spain where Spanish nurses could only work in the NHS for a limited period, was also established. Another approach has been taken in English-speaking Caribbean countries, where migration is managed through compensation from receiving countries (Kline 2003).

According to Buchan and Sochalski (2004), there are three principal policy options for national governments and international agencies for an ethical recruitment of foreign nurses. The first option is to support improvements in working conditions within their own country in order to better the conditions pushing nurses out of their country or out of the profession. The second option is to create and facilitate bilateral and multilateral agreements managing the flows of nurses between countries. Instituting arrangements where receiving countries compensates the sending country is the third option. A variety of compensations could be used such as financial compensation, remittances pledged from nurses, educational support towards training of nurses in the sending country, or the return flow of better trained staff.

2.3 Theories of migration

2.3.1 General theory

There exists a large body of theoretical literature seeking to explain the phenomenon of migration. Most research examining international nurse migration uses the push/pull theory of migration. This theory builds on the work by Ernest Ravenstein who developed the “Laws of Migration” in 1889 (Boyle et al. 1998). The theory explains that migration is the result of the interplay of various forces at both ends of the migratory axis. These include political, economic, legal, social, historical, cultural, and educational forces, classified as “push” and “pull” factors. In order for migration to occur, both forces must be present. Whereas “push”

forces are generally found in the sending country, the “pull” forces are found in the recipient country. In addition to both sets of forces, facilitating forces must be present to make migration possible. This includes the absence of legal constraints (Mejia, Pizurki, and Royston 1979).

The various push and pull factors were summarized by the American demographer Donald Bogue in 1969. Push factors include: 1) decline in national resources or the prices they command, decreased demand for a particular product or service, or exhaustion of natural resources, 2) loss of employment due to incompetence, changing needs of employers, or mechanisation or automation of production, 3) poor marriage or employment opportunities, 4) discriminatory treatment on the grounds of politics, ethnicity, or religion, 4) retreat due to human or natural catastrophe, and 5) cultural alienation from a community. Pull factors include: 1) improved employment opportunities, 2) superior income-earning opportunities, 3) opportunities for education or specialized training, 3) preferable environment or general living conditions, 4) novel, rich, or varied cultural, intellectual, or recreational environment, and 5) movement as a result of dependency on someone else who has moved (Boyle et al. 1998).

The dominant theories in contemporary migration theory are more or less variations of Ravenstein’s conclusions. Common among them is an assumption that migration is an almost inevitable and rational response to some situation or particular set of circumstances, both from the judgement of an outside observer or the subjective perspective of the migrant him/herself. These theories are therefore often referred to as *determinist* approaches in the migration literature. Whereas some of these models have been explained through demographic and social change such as modernisation (see Zelinsky 1971 and Woods 1993: cited in Boyle et al. 1998), other important contributions and theories have come from neoclassical economics and insights. These theories largely assume that migration is a response to market needs, leading to labour reallocation. Workers, operating as rational economic agents will automatically respond to wage differentials and will as a consequence be moving from areas with low wages to areas with high wages. This assumption is extended with the human capital theory which in addition to monetary benefits places emphasis on the individual’s psychic benefits of migration. Migration is thus affected by social and environmental factors as well as economic factors, and can be regarded as a holistic investment for an individual based on both long-term

and short-term benefits. Two other dominant determinist approaches are the behavioural model and the structural model of migration. Whereas the behavioural model concentrates on the actions and priorities of individuals and stresses the importance of noting these mechanisms, the structural model argues that the phenomenon must be examined from a structural perspective in a given society. Seeing migration as a product of society, it should be regarded as a social phenomenon. Migration thus takes its character from historically specific societies. A common structural model is the Marxian approach which sees migration as a result of the capitalist mode of production. An alternative structural approach to migration is that of patriarchy, the subordination of women to men through the social structures that lead to exploitation of women (Boyle et al. 1998).

In addition to these determinist approaches to migration, humanist approaches to migration exist. These approaches clearly dissociate themselves from the determinist approaches by stressing the importance of seeing the migrant as an active decision-maker that may not by any means be driven by a rational perspective. Rather, they argue that the migrant must first and foremost be regarded as an individual, where the decision of whether or not to migrate lies irrevocably with the migrant. Examining migration from this perspective requires in-depth study of the migrants' characteristics, such as their beliefs, aspirations, and obligations. Rather than seeking generalization across a population, these approaches focus on describing and relating individual experiences (Boyle et al. 1998).

Apart from the contrasting approaches of determinists and humanist accounts of migration, more integrated approaches to migration have emerged arguing that migration cannot be viewed either as an inevitable response to particular circumstances or as a completely individual action. The more integrated approaches stress that migration is a complex phenomenon, hence a more pluralist and holistic understanding is needed (Boyle et al. 1998).

2.3.2 Nurse emigration

As evident from the wide range of migration theories above, examining and explaining the underlying factors behind international nurse migration can be done from various approaches. Although the migration of nurses can be understood and explained both as an individual action and as a response to some rational situation or particular set of circumstances, the large

number of nurses emigrating from low-income countries to high-income countries indicates quite distinctly that there are collective patterns in the emigration of this group. Although the large number of nurses emigrating contributes to the understanding that emigration can be seen as a rational response to some situation, some nurses that are emigrating might not have motivations that fit into the deterministic approach, but are instead affected by personal characteristics and experiences. A more integrated approach can also be used to explain and understand the motivation behind nurse emigration that views the phenomenon as an individual action combined with a rational response to particular circumstances. However, as this study involves a quantitative analysis of secondary data from large data sets, the study is prevented from using both humanist and integrated approaches, as these require extensive use of qualitative methods in order to explain and understand the phenomenon from an individual point of view. Although taking a determinist approach to nurse emigration in the empirical work, it is recognized here that nurse emigration, as shall be seen in the section below, is driven by multiple factors that do not fit solely into a specific approach of the determinist theories. Rather, a broader categorization based on the push/pull theory of migration is used.

2.3.3 Factors affecting nurse migration

Although nurses are critically needed in the healthcare system in their home countries, the unsatisfactory working conditions in many countries in the world make nurses emigrate to countries where they can obtain better conditions for themselves and their families. According to Awases et al. (2003) most nurses would not leave their home countries if their conditions were satisfactory.

An extensive body of international literature examines the underlying factors behind the emigration of nurses. Whereas some of the studies conducted present a wide range of factors without ranking them in order of importance, others emphasize some factors above others. In the *World Health Organization* report *International Nurse Mobility: Trends and Policy Implications*, Buchan et al. (2003) list the main push and pull factors in international nurse migration. The push factors they identify are low (absolute or relative) pay, poor working conditions, lack of resources to work effectively, limited career opportunities, limited educational opportunities, impact of HIV/AIDS, unstable/dangerous work environment, and economic instability. The pull factors include higher pay (and opportunities for remittances),

better working conditions, better resourced health systems, career opportunities, provision of post-basic education, political stability, travel opportunities, and aid work. As evident above, these forces, to a certain extent, present a mirror image. The International Council of Nurses (ICN 2004), explain the underlying factors behind emigration in a similar way as the WHO. Other studies (see for example Vujicic et al. 2004; Awases et al. 2003; Buchan 2001), also add factors such as unsatisfactory living conditions, poor management and lack of support from management in the work place, gender discrimination, stress caused by heavy workloads, and societal crime.

‘Stick’ and ‘stay’ factors

In addition to the classic push and pull factors behind nurse emigration, the *Network on Equity in Health in Southern Africa* (2003) adds ‘stick’ and ‘stay’ factors. ‘Stick’ factors are factors found in the home country that prevent nurses from emigrating. These include family ties, migration costs, psychological links with home, language and other social and cultural factors. ‘Stick’ factors may also be work-related, such as being valued in the workplace or the society at large, rewards and incentives, and compassion. ‘Stay’ factors pertain to factors influencing the migrant to remain in the *recipient* country. These include a higher standard of living in the recipient country, unwillingness to disrupt family life and schooling again, and lack of return employment opportunities in the home country.

As stated in the introduction, the underlying factors behind nurse emigration can be categorized into two main groupings; job factors and broader societal factors. Although the more ‘economic’ job factors have been the focus of my empirical work, below I present all the factors behind nurse emigration from South Africa to provide a broader picture. The presentation mainly draws on studies pertaining to nurse emigration from South Africa.

2.3.3.1 Job factors

Wages/salaries

Although low wages alone cannot explain emigration of nurses, it is, according to Vujicic et al. (2004), Awases et al. (2003) and Buchan (2001), the single most important factor behind nurse emigration. As claimed by Kingma (2001), the underlying reason for emigration for a majority of nurses is the search for a higher standard of living, improved socio-economic opportunities for themselves and their families, and better quality of life.

In a study conducted by Oosthuizen and Ehlers (2007) on factors that may influence South African nurses' decision to emigrate, a random sample (15 per cent) of nurses on the registers of the South African Nursing Council (SANC) who completed their basic nursing education in 2002 were surveyed. A majority of the respondents (95 per cent) indicated that they considered emigrating due to financial reasons, as they considered it impossible to maintain the desired standard of living on the salaries they received in South Africa. They also stated that it was very difficult to save any of their earnings, and that they had to work overtime to meet their financial obligations. The nurses were tempted to emigrate to countries with better remuneration packages and a higher standard of living.

In another South African study by Xaba and Phillips (2001) on understanding nurse emigration, nurses responded that among the reasons for leaving the country was the unsatisfactory remuneration in South Africa. They highlighted that allowances for overtime and night duty were not adequately provided for in the country. The sample for this study was nurses planning to emigrate and employers in hundred South African healthcare institutions, as well as nurses who had already emigrated. The desire for obtaining a higher salary was also the most cited reason behind nurse emigration in a case study conducted by Kelly (2005) of four hospitals in KwaZulu Natal.

In a study conducted by Larsen et al. (2005) on overseas nurses' motives for working in the UK, the researchers found that some nurses had solely financial motives for emigrating to the UK. Whereas some were motivated by the possibility to make a living in the receiving country, others were motivated by the fact that they could earn money to either save or send home to their relatives in their country of origin due to the high purchasing power their wages had in their home countries. Those motivated by saving stated that they saved to have a better financial situation when they returned to their home country, others saved towards retirement.

Professional development

According to Kingma (2001), nurses are often motivated to emigrate because of the limited professional and educational opportunities in their workplace and home country. The pull factor is thus professional development and the possibility of working in a more challenging

environment where the nurses can make better use of their skills and knowledge. Nurses with higher tertiary education, specialization, and advanced practice are more likely to emigrate as the wish for professional development is higher for these nurses than for those with less education and practice.

In the study mentioned above conducted by Larsen et al. (2005), they also found that the overseas nurses were motivated by professional development, “they had come to *do nursing*”. As the participants had an expectation of high professional standard in the UK, they were motivated by an exposure to a high level of nursing practice. The possibilities of further education and study were also a motivation. In Oosthuizen and Ehlers’ (2007) study, over 70 per cent of the respondents stated that they were motivated to emigrate because of the ability to gain professional experience. The nurses considered leaving as they perceived that working in South Africa did not give them adequate career advancement opportunities. Many of the nurses also reported a lack of recognition of their work, and that their expertise was not valued in their workplace. In Xaba and Phillips’ (2001) study, nurses felt that there was little space for them to grow professionally in South Africa. The respondents were dissatisfied with the lack of opportunities for promotion and upward mobility in their workplace, as well as the difficulties of obtaining study leave in South Africa. This finding helps explain why it is the most skilled nurses who are emigrating.

Workload and working conditions

According to the study conducted by Oosthuizen and Ehlers (2007), factors related to working conditions and workload are important factors that might influence South African nurses to emigrate. A majority of the respondents reported that the stress caused by understaffing and the risks placed on both nurses and patients influenced their decision to leave for greener pastures. Of the respondents, 75 per cent were dissatisfied with their working conditions and therefore considered emigrating. Xaba and Phillips (2001) got similar responses in their study. In particular, the nurses complained of the high patient: nurse ratios which were increasing even further as more and more nurses they had previously worked with had emigrated, and as hospitals had difficulty replacing these nurses. For the remaining nurses, the result of colleagues’ departure was severe pressure, burn-out, stress, exhaustion, and failure to function

effectively in their families. In the same study, nurses also complained about the long working shifts in South Africa.

The high prevalence of HIV/AIDS in South Africa and throughout the region is also a factor behind nurse emigration, as HIV/AIDS increases the demand for health services. The increased demand leads in turn to a reduced availability and performance by the nurse workforce (Buchan and Calman 2004). A study conducted in rural South Africa found that there is a significant increase in absenteeism in the nurses working in such areas due to burnout from the excessive workloads (Unger et al. 2002, cited in Buchan and Calman 2004). The excessive workload was mainly related to the increased prevalence of HIV/AIDS. A large-scale survey of the impact of HIV/AIDS in South Africa reported that nurses could not find the time to take a holistic approach to their patients, as they could barely find time to attend to their patients' physical needs (Shisana et al. 2003, cited in Buchan and Calman 2004).

Management

According to Zurn et al. (2005), organizational and managerial support plays a key role in nursing performance and the motivation to do the job well. Oosthuizen and Ehlers (2007) found in their study that lack of support from managers, supervisors, and senior staff influenced the nurses' decision to emigrate as a more supportive environment could contribute to alleviating and reducing the stress associated with heavy workloads and bad working conditions. That the hospital management seemed indifferent to the problems associated with heavy workloads and unsatisfying working conditions decreased the nurses' level of job satisfaction.

Access to resources

Access to resources plays a key role in nursing performance (Zurn et al. 2005). In Oosthuizen and Ehlers' (2007) study, a majority were also dissatisfied with the unsatisfactory conditions in the hospitals. Many of the nurses stated that there was a lack of resources in the hospitals which prevented them for doing a good job for their patients. This was also a finding in the study conducted by Xaba and Phillips (2001), as nurses responded that they considered emigrating to work in highly resourced hospitals with sophisticated equipment. The nurses

stated that by working in a better resourced healthcare facility, they would gain more professional experience.

Safety in the working environment

In light of the occupational hazards present in the workplace, nursing has been categorized as one of the most dangerous professions. Nurses are exposed to biological, chemical, physical, social, and sensory hazards. In many areas, protection from these hazards is not adequately provided for due to lack of resources (Kingma 2001). The problem of violence against nurses in their working environment is growing. Findings suggest that this problem is associated with the shortage of nurses (Zurn et al. 2005).

According to the findings by Oosthuizen and Ehlers (2007), almost half of the respondents were worried about their safety in the workplace in South Africa. This has mainly to do with a fear of contracting HIV/AIDS while working. The nurses in Xaba and Phillips' (2001) study were also scared of getting infected while working with HIV/AIDS patients. In addition, the nurses felt that their safety was compromised when giving care to criminals, as there was little done to protect them from harm while working with these patients. Kingma (2001) points out that unsatisfactory infection policies in regards to infectious diseases such as HIV/AIDS and tuberculosis is common in many healthcare settings in developing countries, which contributes to emigration. In other words, many nurses emigrate as they seek personal safety in their workplace.

2.3.3.2 Broader societal factors

Societal factors refer to factors that policy-makers within the healthcare factors have no control over. Crime and violence in a country is also affecting the emigration of nurses, as nurses, like every other citizen may become victims of violence and crime. South Africa is a country experiencing high levels of violence, as can be shown through murder and rape statistics. Between April 2005 and March 2006, a total of 18,545 people were murdered in South Africa (Raubenheimer et al. 2006, cited in Oosthuizen and Ehlers 2007). During the same time period there were 54,926 reported cases of rape (Raubenheimer 2006, cited in Oosthuizen and Ehlers 2007). In Oosthuizen and Ehlers' study, nearly half of the respondents stated that the high levels of crime and violence in South Africa affected their decision to

emigrate. Although the need for safety is influencing emigration for South African nurses, the study showed that it was not the most important reason.

Studies conducted in 2000 (Van Rooyen 2000; Mattes and Richmond 2000: cited in Oosthuizen 2007) on what influences South Africans to emigrate more generally pointed to factors pertaining to quality of life in South Africa. Among these was dissatisfaction of the standard of public and commercial services in the country, perceptions of decline in morality within society, dissatisfaction with the cost of living, dissatisfaction with authorities, the high personal income tax rate, unemployment, dissatisfaction with the currency, as well as affirmative action issues.

From the study conducted by Larsen et al. (2005), some of the nurses reported that a motive for emigration was a life change. By that they explained that they would like family members to have the advantage of living in the UK, especially children and grandchildren. Receiving schooling and becoming familiarized with the British culture were mentioned as examples. Another factor behind nurse emigration is the desire to travel, 'see the world', a sense of adventure and to get to know a new culture (Haour-Knipe and Davis 2008).

CHAPTER THREE: RESEARCH METHODOLOGY AND DATA

3.1 Introduction

This chapter describes the research objectives and questions in more detail, the sources of data that were used and the methods that were utilized to analyse the data. It also describes and discusses the scope of the data collected, as well as problems encountered and limitations with the data and the methods. The main aim of this study is to compare the economic job factors affecting nurse emigration from South Africa to the UK, the US and Australia. A cross-country comparison has been used in this study in order to highlight differences and similarities in these factors between South Africa and the comparison countries. Investigating the economic job factors in South Africa as well as in the three countries that large numbers of South African nurses emigrates to, allows for a greater understanding of the phenomenon than by solely focusing on economic job factors in South Africa. This is because the migration of nurses, as discussed above, is driven by ‘push’ and ‘pull’ forces. In regards to this study, ‘push’ forces are found within South Africa, whereas ‘pull’ factors are found in the receiving countries; the UK, the US, and Australia. The other professional factors as well as the societal factors behind nurse emigration, though included in the literature review to provide a broader picture, is not a focus of this study.

3.2 Research objectives and questions

As was evident from the literature review, no studies have been conducted on the more economic job factors affecting nurse emigration from South Africa based on national statistics. Rather, the studies conducted on the phenomenon have tended to be small in scale or provincial, often using qualitative methods. In addition, there is no cross-country comparative work between South Africa and the countries where most South African nurses emigrates to.

In this study I make use of nationally representative household survey data derived from the Labour Force Survey of September 2006 (LFS 14). The survey questionnaire includes a wide variety of questions on individual, household and labour market characteristics. In particular, there is information in the survey to identify specific occupations, such as professional and associate nursing, as well as detailed information on the remuneration, benefits and conditions

of the job. The questions that the data are based on can be found in Appendix 1. Based on the available data, I ask the following sets of research questions in this study:

WAGES/SALARY

- How much do nurses in South Africa earn compared to nurses in the UK, the US, and Australia?
- What opportunities are there for salary advancement over the career life cycle in South Africa, the UK, the US, and Australia?
- As a benchmark for nurses' relative wages, how much do nurses earn compared to four selected professions - teachers, engineers and architects, accountants, and physicians - in the various countries?

HOURS WORKED

- How many hours do the nurses generally work per week in the different countries?

BENEFITS RECEIVED FROM EMPLOYER

- Do nurses receive pension benefits from their employer in the various countries?
- Do nurses receive medical aid or health insurance from their employer?
- Does the employer provide any paid leave?

I would expect that the main differences in job characteristics between South Africa and the other countries would derive from wages and hours worked. There are likely to be fewer differences in the access to employment-based benefits between South Africa and the comparison countries, as benefits in South Africa tend to be high among nurses. This is because most nursing jobs are found in the formal, public sector of the economy and are highly unionised (based on own calculations from the LFS 14).

3.3 Scope of analysis

With international migration of nurses, it is professional nurses that are most likely to migrate as they are more attractive for the recruiting countries given their higher professional level. However, as the data of emigration of nurses is inadequate and the extent of the phenomenon uncharted, the possibility that associate nurses may also emigrate cannot be disregarded. It is also likely, although not supported by any available evidence, that associate nurses could

become more attractive to recruiting countries as the nursing shortage becomes more critical and more nurses are needed in for example aged care, a sector where the majority of the staff is associate nurses. Although professional nurses have been the focus of this study, both groups are included in the analysis, although the data are disaggregated to explore the different job characteristics of these two groups.

In this study, I have not distinguished between economic job factors in the public and private sectors. This is due to a number of reasons. Firstly, nurses that emigrate from South Africa are likely to work both in the public and private sectors abroad. Secondly, the majority of nurses in South Africa work in public hospitals, therefore there are a limited number of observations of private sector professional nurses in the South African LFS sample, probably too few to be able to provide reliable findings. And lastly, the data I have collected from the comparison countries do not distinguish between these two sectors.

3.4 Sources of Data

As stated in the introduction, this study makes use of secondary sources of data to answer the research questions. This was done in order to undertake a cross-country analysis where an extensive body of data was needed in order to present findings highlighting differences in the more economic job factors between South Africa and the comparison countries. National-level secondary data was used to be able to provide a broader picture of the phenomenon of nurse migration and to ensure generalisability.

The secondary data used for this research have been drawn together from various reliable sources. Where data from national surveys matched the research objectives and were available, I have used these. In the other cases I have made use of governmental information, information from interest groups, reports, and journal articles. I have chosen to use the relevant data where sources and methods were the most reliable, as well as data that allow comparisons to be made across the countries.

3.4.1 South African data

Data on the job characteristics of South African nurses was derived from the Labour Force Survey (LFS), a nationally representative, twice-yearly household survey conducted by Statistics South Africa (Stats SA), designed to measure key aspects of the labour market in

South Africa. The LFS data is available from 2000-2007. Although data is available for 2007, I have used the LFS data from September 2006 (LFS 14). This is mainly because the available data I could find from the comparison countries, as well as data on Purchasing Power Parity (PPP), were from 2006. The concept of PPP will be explained later in this chapter.

Covering approximately 67,000 adults of working age (15-65 years) living in approximately 30,000 households, the LFS provides insight into a variety of issues related to the labour market including the occupational structure of the economy and the level and pattern of unemployment. The questionnaire conforms to the requirements set by international bodies such as the International Labour Organization (ILO). It was completed using face-to-face interviews with each household visited. The questionnaire has six sections with a total of 102 questions. In addition to household, demographic and biographical information, there are a number of modules in the questionnaire focussing on specific areas of labour market activity (such as unemployment/employment status, type of employment, public works programmes, etc).

This study makes use mainly of the data collected on the main work activity of individuals over the seven days prior to the survey (which is how employment is defined in the survey). The information collected on the main work activity includes, among others, wages, working hours, and benefits received from the employer (Stats SA 2006). Of the sample of 66,867 working age adults in the September 2006 survey, 26,345 are employed. Out of these, 368 report their occupation as nurses. Fifty-three of the nurses are professional nurses, 315 are associate nurses¹. Statistics SA has made available population weights based on the 2001 Census, which I have used to weight the number of nurses in the sample to arrive at estimates of the total number of nurses in South Africa. The weighted estimates suggest that there are a total of 179,485 nurses working in the country, 26,023 professional nurses (14,5 per cent) and 153,462 associate nurses (85,5 per cent). These estimations tally well with official data on

¹ I have also checked the sample sizes of nurses in the LFS from 2005 and 2007 to see if the 2006 data provide a fair reflection. In the LFS 2005:2 (LFS 12), 368 report their occupation as nurses. Out of these, 36 are professional nurses and 332 are associate nurses. The weighted estimates suggest that there were a total of 159,722 nurses in South Africa in 2005, 13,907 (9 per cent) professional nurses and 145,815 associate nurses (91 per cent). In the LFS 2007:2 (LFS 16), there are 346 nurses, 73 professional and 273 associate. The weighted estimates suggest that there were a total of 156,222 nurses in South Africa in 2007, 30,241 (9 per cent) professional nurses and 125,982 (81 per cent) associate nurses.

total number of nurses. In 2005 there were 191,269 nurses registered with the South African Nursing Council (SANC) of which only 82,3 per cent were active in employment. In 2006, 196,914 were registered at SANC (Wildschut and Mqolozana 2008). The data on wages for the other occupations that nurses' wages are compared to has also been drawn from the LFS 14.

To probe the question about *opportunities*² for salary advancement over the career life cycle, information from the *Department of Public service and Administration* and from the *Department of Health* were used as sources as this information was not available in the LFS.

3.4.2 Comparison country data

Data on the job characteristics of nurses in the main countries where South African nurses are emigrating to have been derived from other secondary sources as described above. If not otherwise stated, all the data collected are from 2006. With the comparison countries, survey-based statistics were mainly available for data on average wages and average hours worked. Information on employment-based benefits has therefore largely been drawn from other sources (such as various official documents).

Data on wages and hours of work in the UK and Australia were derived from the *International Labour Organization labour statistics' (LABOURSTA) October Inquiry and the Occupational Wages around the World (OWW)* database. The OWW, the most far-ranging survey of wages by occupation around the world, contains data from 1983 until today for 161 occupations in more than 150 countries. The survey is undertaken on a yearly basis and their data is derived from various national surveys in the different countries. The data is adjusted for comparability, as the various national surveys use different definitions and units. However, limits exist like missing values for various occupations, and wages tend to reflect only basic wages rather than full wages employees receive (such as amendments for unfavourable working hours). The OWW database follows the *International Standard Classification of Occupations* when coding occupations (Dräger et al. 2006). The two

² Although information on earnings and the age of nurses is available in the LFS, there is no information on total years of experience (and for women especially total years of experience are unlikely to be equal to age minus years of schooling as women withdraw from the labour force to look after children). It is therefore necessary to turn to government documents to identify the *potential* for salary advancement as laid out by the Department of Health, as we cannot analyse actual wages over the career life cycle.

occupations in the database that pertain to this study are professional nurses and auxiliary nurses. According to the description following the database, these two occupations are equivalent to the South African categories of professional nurses and associate nurses respectively. The OWW database does not include data pertaining to nurses in South Africa.

OWW data derived for the UK are drawn from four different national sources, all conducted by the *Employment Department* in the UK. The first, *The Short-Term (Monthly and Quarterly) Employment Statistics*, covers employment and hours of work in all occupations. The sampling frame consists of the income tax records of employers, and approximately 30,000 units (33 per cent of employment) are in the sample each quarter. The second survey, *The New Earnings Survey (NES)*, undertaken annually, covers employment earnings and hours of work. The sample is selected from income tax records and personnel/pay records of large employers in the public and private sectors and is based on a one per cent random sample of employees. The third survey, *The Wages and Salaries Survey*, is undertaken monthly and covers personnel/pay records of large employers in the public and private sectors. The survey is a probability sample survey which covers over 8,000 companies and organizations. The last survey is the *Labour Cost Survey* which is undertaken every four years and supplies details on the level and trends of employers' total labour costs. The survey is based on a stratified cut-off random sample by industry and size of establishment (LABOURSTA).

OWW data from Australia are drawn from three national surveys all conducted by the Australian Bureau of Statistics (ABS). *The Survey of Employee Earnings and Hours (SEEH)*, covers employment, earnings and hours of work, and is conducted annually, whereas *The Survey of Average Weekly Earnings (AWE)* is conducted quarterly and covers employment and earnings. Both surveys comprise all activities of a business within a particular state or territory with a framework population of approximately 600,000 units. *The Major Labour Costs Survey (MLC)* and *Wage Costs Survey (WCS)* are two merged surveys designed to cover employment, earnings, labour costs, and hours of work. Undertaken every two to five years, it has a framework population of approximately 600,000 units and comprises all activities of a business (LABOURSTA).

As the data available in the OWW on wages and hours for nurses in the US were inadequate compared to the data from the UK and Australia, the data on wages and hours worked from the US were collected directly from the National Compensation Survey (NCS), a survey conducted by the US Bureau of Labor Statistics (BLS) quarterly. The NCS provides measures of occupational wages, employment cost trends and benefit incidence, and detailed benefit provisions. The survey provides data for the nation, for the different states and broad regions, and for local levels. The sample is selected using a three-stage design. Whereas the first stage involves the selection of areas, the second stage draws the sample of establishments by dividing the sample by industry and ownership. Each sample establishment is selected using probability sampling. The third stage of sampling is a probability sample of occupations within a sampled establishment (US Bureau of Labor Statistics 2006).

Data on benefits received from employer are retrieved from various sources. For the employment-based benefits in the UK, I have mainly used sources from the National Health Service (NHS), the UK's public health provider in which the majority of UK nurses are working (75 per cent). For the US I have used statistics predominantly from the US Bureau of Labour Statistics where available. For Australia, I have mainly used governmental information.

3.5 Limitations of the data and methods

3.5.1 Difficulties with comparing data across countries

Although a cross-country comparison allows for a greater understanding of nurse emigration from South Africa, there are several problems associated with conducting cross-country studies. According to Walliman (2006), the problems stem from the difficulties in ensuring comparability in the data collected. Problems of comparability can be created by different languages and cultural contexts, as well as different survey instruments and definitions.

The main difficulties I have encountered during this research process are in relation to comparing wages, occupational categories, and other job conditions across very different healthcare systems. In relation to occupational categories, I mentioned in the introduction that the different types of nurses are defined and categorized across countries differently. Level and length of training as well as responsibility and work tasks differ in the countries

investigated. As a result, it is not possible to be sure that a professional nurse in one country performs exactly the same tasks as a professional nurse in another country. When examining wages for teachers, engineers, accountants, and physicians in order to compare these to nurses' wages, I encountered a similar problem (details of the occupational codes and descriptions that were used in each country are provided in the results chapter).

When comparing wages across countries I encountered two main challenges. The first is in relation to comparability when using different types of sources. The various surveys used in this study use different methods to collect data on wages. Whereas all sources on wages used in this study provided 'gross' wages, it is possible that not all the countries in the study include all forms of financial remuneration paid to nurses, such as increments for unfavorable working hours (for example, evening/night shift work). As a result, some components of remuneration might be hidden behind the basic wage data. I have tried to use the data that are most comparable across countries given the methodologies used, but as with any cross-country comparison of wages especially, concerns with comparability remain.

The second challenge with regards to comparing wages across countries is related to the adjustment required to reflect the cost of living in different countries. Although all wages used in this study have been adjusted for cost of living through Purchasing Power Parity (explained below), comparison of wages is still highly problematic as nurses in the various countries pay different governmental taxes and other deductions. As a result, net income can differ substantially from gross income if taxes and deductions are large.

Finally, it was challenging to research the job characteristics of nurses in countries with very different healthcare systems. Finding and analyzing data for the US healthcare system was particularly difficult given the complexity of different healthcare providers and employers. More detail on the healthcare systems of the various countries will be provided in the following chapter which presents the results of this study, as this will provide the contextual and institutional information which will be useful in understanding the findings of the analysis.

3.5.2 Sample size

The greater the number of observations in statistics, the more reliable is the result (Walliman 2006). A limitation of this study is that the South African data from the LFS 14 do not contain a very large number of observations of professional nurses which is the main focus in this study. With 53 observations of professional nurses, the reliability of the findings may be of some concern, even though the LFS data are nationally representative. However, given that primary data collection would likely have resulted in fewer observations of professional nurses, it was felt that the study would still be worthwhile.

The number of associate nurses, although less important in regards to the aim of this study, is substantially higher with 315 observations.

As a check of the reliability of the data as well as showing that my results are robust, I have also estimated average wages and average working hours from the LFS 2005:2 (LFS 12) and the LFS 2007:2 (LFS 16) to see if the findings are consistent. The results show that although there are some differences across the three years (as would be expected), these are not large enough to doubt the reliability of the wages and hours worked data in 2006. I will present these results in detail in Chapter Four under the results section.

3.5.3 Characteristics of nurses in the sample

The next chapter includes a description of the profile of South African nurses, i.e. a description of the personal/demographic characteristics of the nurses in the sample. A limitation with the data pertaining to the nurses in the LFS sample is that information on the nurses *who have already emigrated* are not captured by the data, as the data obviously contains only the nurses who are still living in South Africa. The characteristics of those who have emigrated might be different from those who have remained in South Africa. Although this might bias the findings on the demographic/personal profile of nurses to some extent, average wages and hours worked should not be significantly affected by this as they are institutionally determined.

3.6 Method of analysis

The empirical work in this study is based on a quantitative analysis of secondary data. In analysing the South African data from the LFS 14, I use the raw data published by Statistics South Africa to calculate average wages, average number of hours worked per week etc. I also use other descriptive statistics such as frequencies, tabulations, and cross tabulations to describe the other job characteristics of nurses.

For the comparison countries, I have used statistics that have already been published, either from the national bureau of statistics in the respective country or from the *International Labour Organization* labour statistics', LABOURSTA.³

3.6.1 Conversions and adjustments of the data

In the LFS 14 questionnaire, the respondents had to give the total salary paid including overtime, allowances and bonus, before any tax or deductions, stating whether this amount is per week, per month, or annually. If they refused or stated that did not know the salary, they had the option of giving their earnings in income categories stated in the questionnaire either per week, monthly, or annually. Whereas 58,7 per cent of the nurses in the sample stated their actual salary, 41 per cent gave their earnings based on the income categories (0,3 per cent of the observations were missing). Although it is not a truly accurate way of finding the average wages for the nurses, I used the midpoint in the various income categories to reflect the individual nurse's salary as is commonly done in studies that use the wage data from the LFSs (Casale and Posel 2006).

As I wanted a monthly figure of wages, I multiplied those wages stated per week by 4.34 (52 weeks/12 months) and divided those wages stated annually by 12. The wages for nurses in the UK, the US, and Australia were all given per week in their national currencies. These have also been multiplied by 4.34 to get a monthly wage. When comparing nurses salaries to other occupations, the same procedure has been followed.

³ The statistical package that has been used to analyse the data is the computer programme STATA. The graphs and figures are modeled in Excel.

When comparing wage differentials between South Africa and those countries nurses are migrating to, the wages have been adjusted for purchasing power parity (PPP), as exchange rates do not take into account the costs of living between countries. PPP is an economic technique used when determining the relative values of two currencies. Equalizing the purchasing power between different countries, it is a useful tool when comparing differences in living standards between countries as it takes into account the relative cost of living and the inflation rates of different countries. It therefore provides a better picture than comparing wages using market exchange rates (International Council of Nurses 2006).

To find countries' purchasing power, a PPP rate is calculated based on the price of a given basket of consumer goods. This basket contains the most commonly consumed food and household items in a given country. When transforming the different countries' salaries into PPP, the amount is divided by the countries' specific PPP rate. PPP is most commonly calculated in 'international dollars', a hypothetical currency that has the same purchasing power as the US dollar at the given point. When adjusting nurses wages in the different countries for PPP, nurses earning the same PPP should therefore have the same standard of living (World Bank).

Although adjusting for PPP provides a better picture than comparing wages based on market exchange rates, PPP adjustment is controversial due to the difficulties in finding comparable baskets of consumer goods across countries. Despite this limitation, PPP remains the best indicator when comparing across countries (International Council of Nurses 2006).

When adjusting the salaries for PPP the study has used 2006 PPP rates from United Nations Statistical Division. The various PPP rates for the different countries are as follows; South Africa 4,634, UK 0,657, and Australia 1,463, where the rate for the US is equal to one (United Nations Statistical Division 2006).

CHAPTER FOUR: RESEARCH RESULTS AND FINDINGS

This chapter presents and discusses the research results. After a brief overview of the healthcare systems in South Africa and the comparison countries, a profile of the nurses in the LFS sample follows to provide more information on the characteristics of nurses in South Africa, as the focus of the study is on what leads to emigration of South African nurses. The findings of differences in wages, salary advancement for experience and length of service, hours worked, and employment-based benefits such as pension benefits, medical aid/health insurance benefits, and paid leave are then presented and discussed. The last part of the chapter summarizes the findings and integrates the other underlying factors behind nurse emigration reviewed in the literature review into the discussion.

4.1 Brief overview of the healthcare systems in South Africa and the comparison countries

South Africa's healthcare system is highly fragmented with large disparities with regard to health spending and access to resources between the different provinces, between urban and rural areas, and between the public and private health sectors. The large public sector, in which basic primary healthcare is provided for free by the state, provides healthcare for the majority of the country's population, whereas approximately 14 per cent of the population are covered by a fast-growing private sector through private health insurance. The increase in private healthcare can be seen as response to the lower quality of care found in the public health sector, as well as a lower level of service. Medical schemes are mainly funded with contributions from employers and employees (Rispel and Setswe 2007).

In the UK, the major component of the healthcare system is provided by the National Health Service (NHS). The NHS is paid for with general taxation and healthcare is provided for free at the point of need for all residents in the UK. The private sector is considerably smaller than the NHS and does not have the same accountability. There is also a growing tendency of private units within the NHS. Private healthcare, used by less than eight per cent of the population, is paid for either through a private health insurance or upfront when using their services. Some employers in the UK offer private health insurance to their employees. However, this practice is not widespread (National Health Service).

The healthcare system in the US is mainly provided by the private sector in which a health insurance is needed when receiving medical aid. Although federal, state, county, and city governments also provide some healthcare to the general public, there is no nationwide public healthcare system. Data published from the US Census Bureau (2008) show that a majority of the population had a health insurance, either private or governmental. In 2006, 15,3 per cent of the population was uninsured and 59,3 per cent of the population had an employment-based health insurance. The remaining part of the population purchases their own insurance directly.

In Australia, public healthcare is provided free of charge at the point of care through a system called 'Medicare'. It is largely financed from general taxation. Whereas it is the federal government that has a leadership in policy making, it is the states and territories that are primarily responsible for both healthcare delivery and management. In addition, there is a large private sector actively supported by the government, as individuals acquiring private insurance get a 30 per cent subsidy from the state (Department of Health and Aged Care 2000). Despite universal access to the public health sector, almost half of the Australian population holds a private health insurance (Colombo and Tapay 2003).

4.2 Profile of the nurses in the LFS sample

Since the focus of this study is on what leads to the emigration of South African nurses, additional information on the nurses in the LFS sample is provided to give the characteristics of these nurses. This information is easily available in the LFS. As mentioned under the list of limitations in Chapter 3, it is important to note that the characteristics of the nurses that have emigrated are not captured in the LFS sample. Table 1 summarizes these characteristics.

Table 1: Summary of characteristics of the nurses in the LFS sample

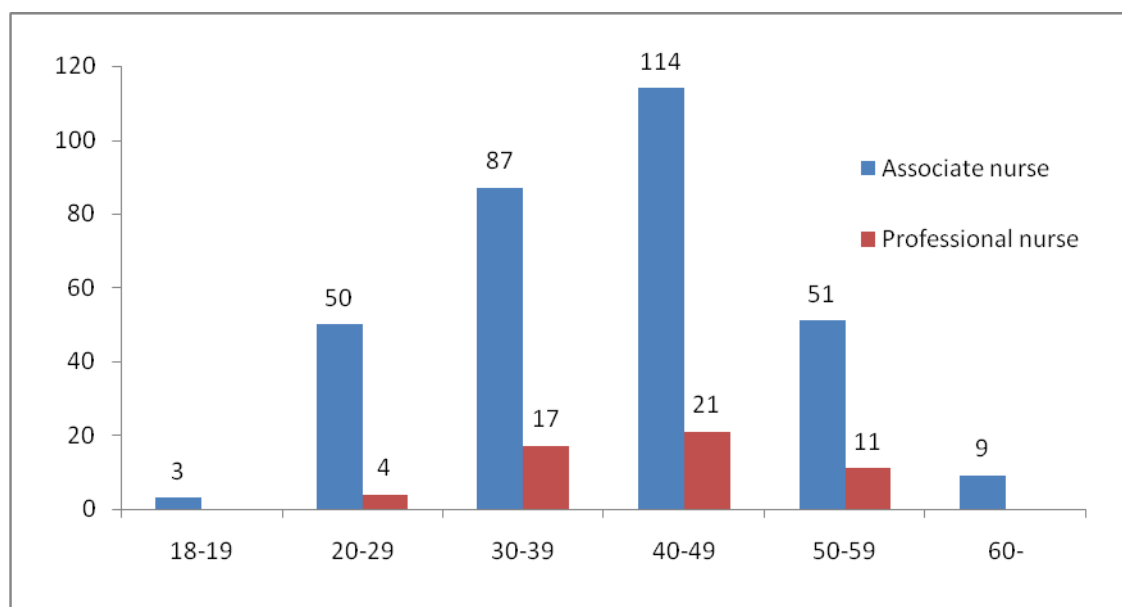
	Professional nurse	Associate nurse
Gender	Female: 86% Male: 14%	Female: 90% Male: 10%
Mean age	42,4 years	40,7 years
Race	African: 57% Coloured: 15% Indian: 4% White: 25%	African: 65% Coloured: 20% Indian: 3% White: 12%
Married	60,5 %	49 %
Percentage of nurses living with at least one child aged 14 years and younger	53 %	62 %
Mean number of children aged 14 years and younger among women who live with at least one child	0,74 per nurse	1,2 per nurse
Highest education completed	=< Grade 12: 19% Secondary certificate or diploma: 49% Tertiary: 32%	=< Grade 12: 52% Secondary certificate or diploma: 45% Tertiary: 3%
Mean tenure in current job	11,5 years	11 years
Percentage of nurses who worked for their current employer for the last five years or more	62 %	65 %
Sector employed in	Government: 73,6% Private: 26,5%	Government: 79% Private: 21%
Status of job	Permanent 96% Fixed period contract 2% Casual 2%	Permanent: 90,5% Fixed period contract: 3,9% Temporary: 2,9% Casual 2,5%
Written contract with employer	Yes: 88% No: 12%	Yes: 92% No: 8%
Members of a trade union	Yes: 75% No: 25%	Yes: 75% No: 25%

Source: Own calculations from the LFS 14.

As seen in Figure 1 below, most nurses in the LFS sample are in their 30s or 40s. From Table 1 it can be seen that a majority of the sample is female. With reference to race, 57 per cent of

the professional nurses are African, 15 per cent are Coloured, 4 per cent are Indian, and 25 per cent are white. For associate nurses, a higher percentage is African and Coloured, 65 per cent and 20 per cent respectively, whereas 3 per cent are Indian and 12 per cent are White. Approximately half of all the nurses in the sample are married and live with at least one child aged 14 years or younger in their household. The mean number of children living in the household among those that live with at least one child is 0,74 per professional nurse and 1,2 per associate nurse⁴.

Figure 1: Age distribution of nurses in the LFS sample



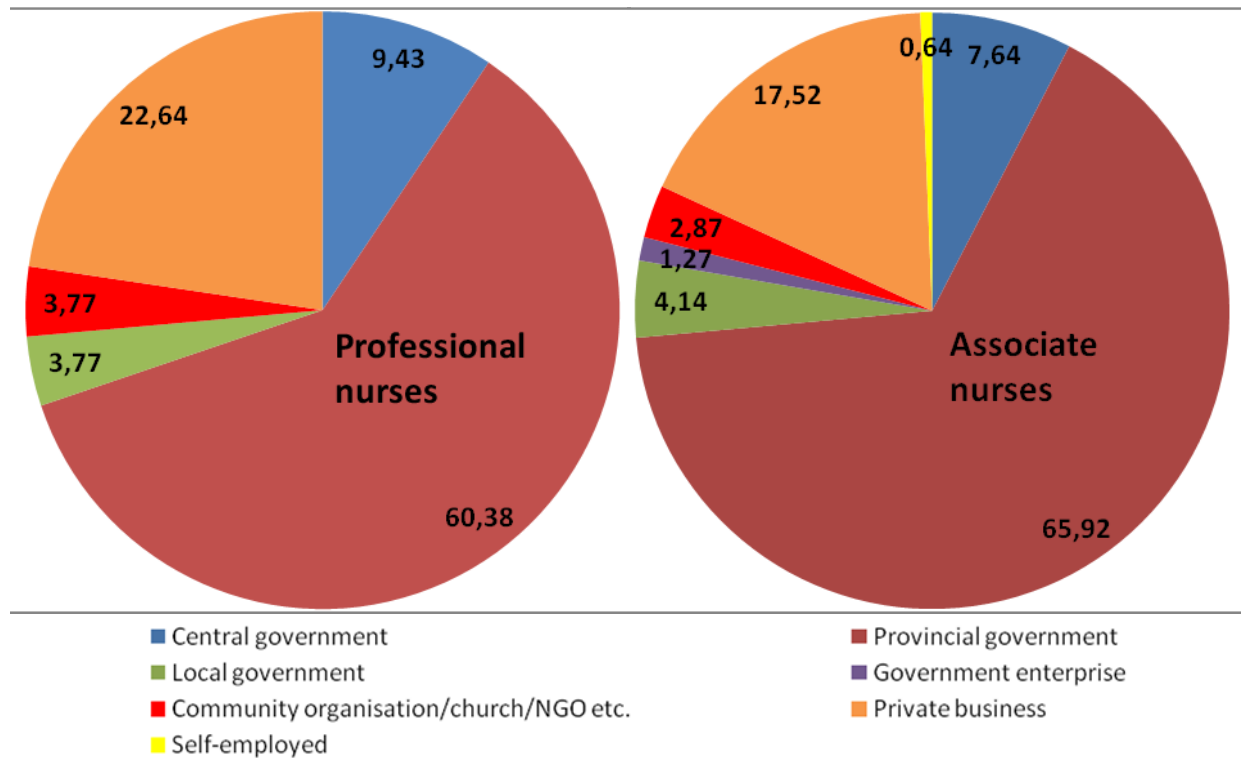
Source: Own calculations from LFS 14 (2006:2).

Table 1 further reveals that 94 per cent of the professional nurses have a permanent job contract with their employer. The remaining has either a fixed period contract or is working casually. For the associate nurses, 90 per cent have a permanent job. In regards to job contract, 91 per cent of the 367 nurses have a written contract with their employer. When distinguishing between the two groups of nurses, 88 per cent of the professional nurses and 92 per cent of the associate nurses have a written contract. A majority of the nurses, both professional and associate, has worked for their current employer for the last five years or more. For the percentage of nurse employment in the various sectors, see Figure 2. Most

⁴ It is not possible to link women in the LFS survey to their biological children. We are only able to calculate the total number of children living in the household from the age and household roster information.

nurses are employed within provincial government. About 75 per cent of both professional and associate nurses are members of a trade union.

Figure 2: Percentage of nurses in the LFS 14 working in the various sectors



Source: Own calculations from LFS 14 (2006:2).

4.3 Wages/salary

4.3.1 Average earnings

Professional nurses in the LFS 14 sample earned on average 6,932 South African Rand (ZAR) per month. The associate nurses' average monthly pay was 5,439 ZAR. When adjusting the average wages for the nurses in the sample to PPP, professional nurses earned 1,496 international dollars while associate nurses earned 1,174 international dollars. These figures are approximately in accordance with the official salary for this occupation. Prior to July 2007, starting salaries for professional nurses in South Africa was 6,617 ZAR per month. For associate nurses monthly starting salaries were 4,518 ZAR (South African Government Information 2008).

As a further test of the reliability of the earnings figures, Table 2 below shows the average monthly wages for nurses in three LFS samples from 2005-2007. Nominal wages in the three years are quite similar with small expected increases as one would expect due to inflation. The one exception here is for professional nurses in 2005, however the figure is not statistically significant from that in 2006 (as shown by the confidence interval), and is likely due to the smaller number of observations of professional nurses in 2005 compared to 2006 and 2007⁵.

Table 2: Average monthly wages, LFS sample 2005 - 2007

		PROFESSIONAL NURSE		ASSOCIATE NURSE	
		Mean	95 % confidence interval	Mean	95 % confidence interval
2005	Nominal	8,404	6,632 – 10,175	5,496	5,002 – 5,990
2006	Nominal	6,932	5,959 – 7,905	5,439	5,107 – 5,890
2007	Nominal	7,172	6,025 – 8,318	6,007	5,583 – 6,430

Source: Own calculations from LFS 2005:2, LFS 2006:2, and LFS 2007:2.

For professional nurses in the UK, average monthly wages were 2,004 British Pounds (GBP). Associate nurses earned on average GBP 1,175 per month. The average monthly salary for professional nurses working in the UK after adjusting to PPP was 3,050 international dollars. For associate nurses, the monthly wage was 1,788 international dollars.

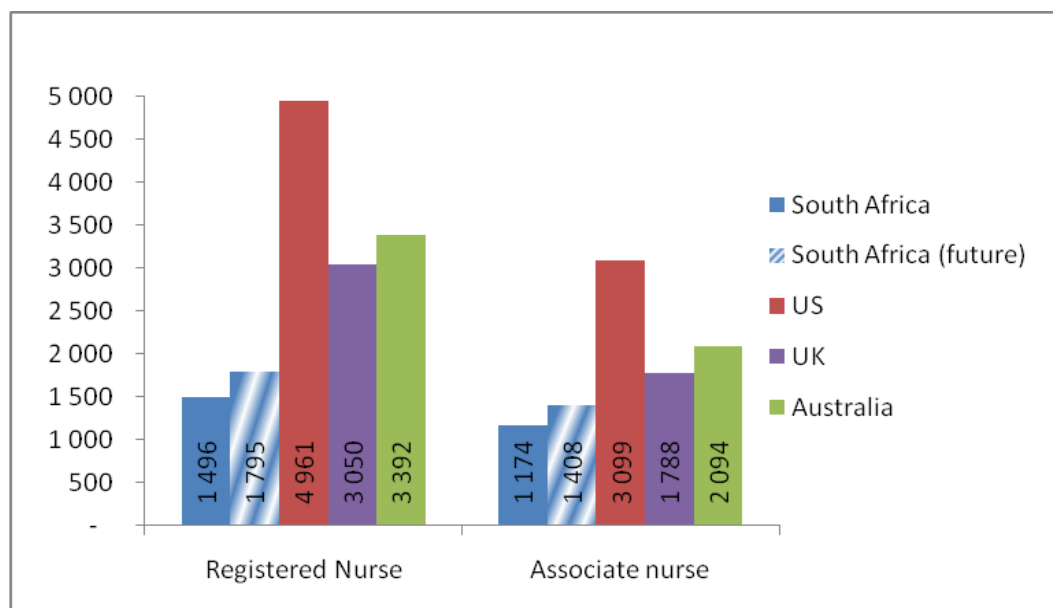
In Australia, professional nurses' average monthly wages were 4,963 Australian dollars (AUD). Associate nurses earned on average AUD 3,064 per month. This comes to 3,392 international dollars for professional nurses and 2,094 international dollars for associate nurses.

In the US, the average wage for professional nurses was 4,961 US dollars (USD) per month, while associate nurses earned on average USD 3,099. US dollars and international dollars are equivalent. A comparison of wages across the four countries adjusted for PPP can be found in Figure 3. Figure 4 show the potential average increase in wages for South African nurses if they were to emigrate to the UK, the US, and Australia respectively.

⁵ There were 36 numbers of observations of professional nurses in 2005 compared to 53 and 73 in 2006 and 2007 respectively.

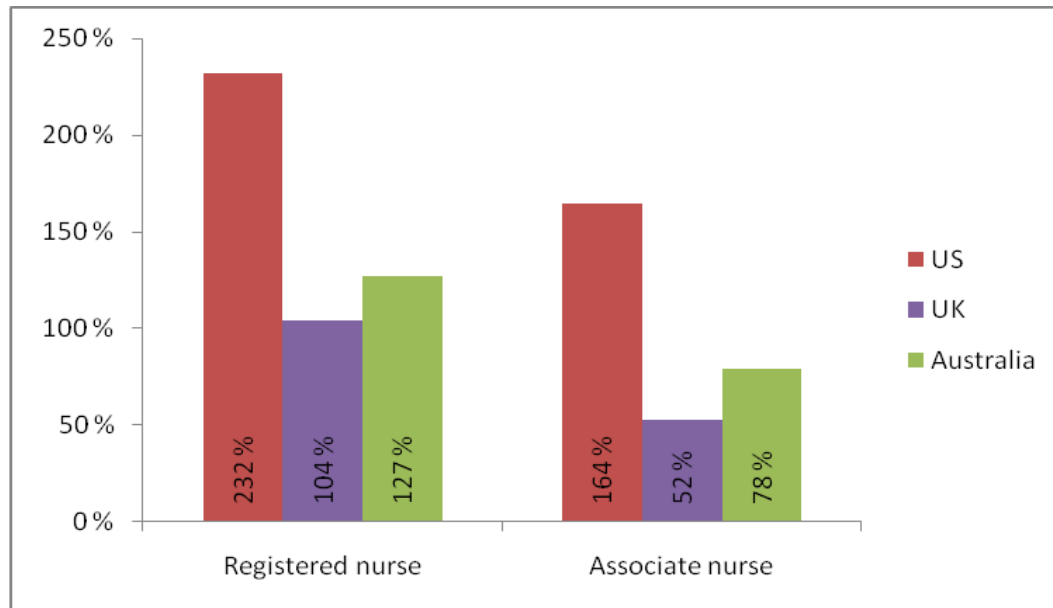
Although this study examines the differences in average wages for nurses in the year 2006, it is important to note that the South African Department of Health (DoH) finalized the agreement, *Occupation Specific Dispensation (OSD) for nurses* in September 2007 to be implemented retrospectively from 1 of July 2007. The OSD was implemented to address the poor remuneration for all nurses in the healthcare service in order to attract and retain skilled nurses, as well as to add to the recruitment of nurses from outside the public health sector. In addition to providing better remuneration for speciality nurses as well as introducing a scarce skills allowance and a career progression system for all categories of nurses, the OSD raised all nurses wages by approximately 20 per cent (Wildschut and Mqolozana 2008). Although the average monthly wages for nurses drawn from the LFS sample might differ from the baseline used to calculate the effective wage increase after implementation of the OSD, a hypothetical 20 per cent wage increase on the 2006 average monthly wages gives some indication of how the policy change would affect the cross-country comparison. The average wage including the increase amounts to 1,796 international dollars for professional nurses and 1,409 international dollars for associate nurses. These have been included in Figure 3 to see how this increase affects differences in wages between South Africa and the comparison countries.

Figure 3: Wages in South Africa and the comparison countries in international dollars.



Source: Own calculations from LFS 14 (2006:2), LABOURSTA, and US Bureau of Labour Statistics.

Figure 4: Increase in wages (percentage) if emigrating from South Africa, PPP adjusted.



Sources: Own calculations from LFS 14 (2006:2), LABOURSTA, and US Bureau of Labour Statistics.

As can be seen in Figure 3, there is an enormous gap in wages between professional nurses in South Africa and the comparison countries. For associate nurses the gap is smaller, however substantial. Among the comparison countries, the US has the highest wages for nurses as professional nurses earn 4,961 international dollars per month. The next highest monthly wage for professional nurses can be found in Australia, followed by the UK. The same order is observed for the associate nurses.

Measuring the gap in wages between South Africa and the comparison countries in percentages illustrates the differences even more clearly. This is done in Figure 4. As seen in this figure, professional nurses from South Africa can expect a 232 per cent higher wage if emigrating to the US. The increase if emigrating to the UK or Australia is not as large, however, emigrating to the UK and Australia still increases South African nurses' wages by 104 and 127 per cent respectively. For the South African associate nurses, the increase in wages would not be as great as for professional nurses. However, associate nurses in the US earn 164 per cent more than their counterparts in South Africa. In the UK associate nurses earn 52 per cent more than what they do in South Africa, in Australia 78 per more.

The enormous gap in wages between South Africa and the comparison countries, especially for professional nurses, is consistent with the findings from the reviewed literature that low wages are an important ‘push’ factor behind nurse emigration from South Africa. In some studies, low wages was identified as the single most important factor affecting nurse migration (Kelly 2005; Larsen et al. 2005). Thus the comparison countries’ high wages serves as an important ‘pull’ factor in recruiting from overseas. As the differences in wages between South Africa and the comparison countries are so great, South Africa cannot hope to match the wages offered in the comparison countries. Even though nurses’ wages have been increased by 20 per cent after the implementation of the OSD, the gap is still huge (see Figure 4). As a result, improved wages in South Africa alone will unlikely reduce the incidence of emigration of nurses. Other financial and non-financial factors will probably play vital roles as well.

4.3.2 Relative earnings

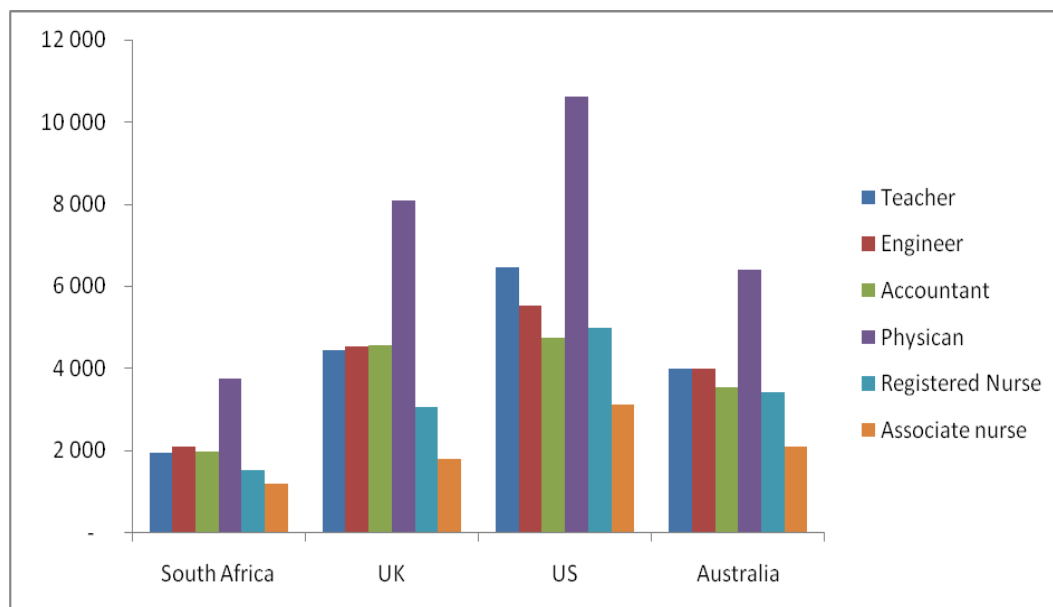
As an indicator of relative wages, nurses’ wages are compared to the wages of teachers, engineers, accountants, and physicians within each country. This provides some idea of the ‘value’ placed on nursing compared to some of the other professional occupations within each country.

As mentioned in the methodology chapter, it was difficult to obtain comparable wages for these occupational categories across the countries as occupations in the data were coded and described differently. For teachers, I included all categories listed in the statistical material pertaining to primary, secondary, and post-secondary education. For engineering and architectural professionals, the different statistical materials included different occupational descriptions pertaining to engineering and architectural services. Whereas the data from the UK and Australia only included the occupational codename ‘clerk of works’ under the industry listing ‘engineering and architectural services’, the US data used included a broad category, ‘architecture and engineering occupations’, where all the various subcategories pertaining to these occupations were listed. The South African data used included numerous subcategories pertaining to engineering and architectural professions in which all were used to find average wages. The subcategories included various types of architects (e.g. building, interior, and landscape) and engineers (e.g. civil, electrical, telecommunications, electrical,

electrical, mining, computing, and agricultural). In regards to accountants, the data from the UK and Australia only included accountants working within banking, whereas the South African and US data included a broader categorization of this occupation. For physician's wages, the South African and US data included all groups of physicians and surgeons within the same occupational code, whereas the data from UK and Australia only contained general physicians.

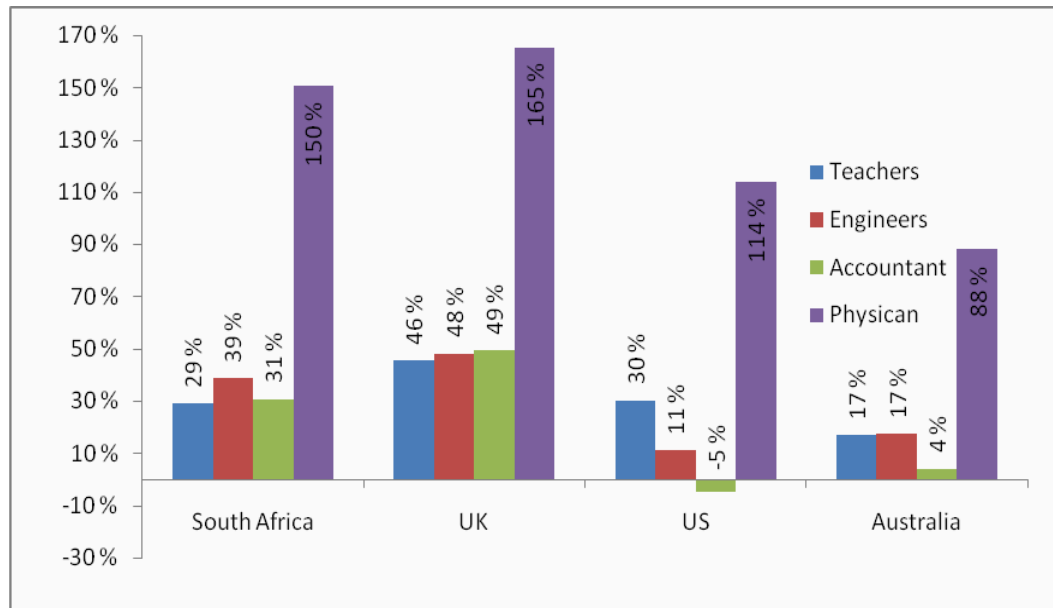
As a result, the different occupational codes across countries tend to limit to some extent the cross-country comparability of the results. Nonetheless, the general findings are interesting. These are presented in Figure 5, which shows average wages adjusted for PPP across the occupations and the countries. Figure 6 presents the differences in wages between professional nurses and the other occupations within each country stated in percentages. The findings clearly show that nursing is a low-status profession in all the countries investigated. Apart from the earnings of accountants in the US, professional nurses in all countries have the lowest wages among all the occupations investigated.

Figure 5: Nurses' average wages compared to average wages for teachers, engineers, accountants, and physicians (PPP adjusted).



Sources: Own calculations LFS 14 (2006:2), LABOURSTA, and US Bureau of Labour Statistics.

Figure 6: Difference in wages from professional nurses (in per cent).



Sources: Own calculations LFS 14 (2006:2), LABOURSTA, and US Bureau of Labour Statistics.

Teachers in South Africa earn on average 1,928 international dollars per month, engineers 2,073 international dollars, accountants 1,954 international dollars, and physicians 3,746 international dollars. As can be seen from Figure 6, professional nurses in the country thus earn 29 per cent less than teachers, 39 per cent less than engineers, 31 per cent less than accountants, and 150 per cent less than physicians. While these percentage differences in South Africa are lower than the percentage differences in the UK, they are substantially higher than in the US and Australia.

The greatest wage difference between professional nurses and the other occupations is found in the UK. With a monthly salary of 4,855 international dollars, teachers earn 46 per cent more than professional nurses. Engineers, having an average monthly wage of 4,939 international dollars, earn 48 per cent more than professional nurses. Accountants with an average monthly salary of 4,557 international dollars earn 49 per cent more than professional nurses. Physicians in the country have an average monthly salary of 8,902 international dollars, thus earning 165 per cent more than professional nurses in the UK.

In the US, teachers are financially rewarded 30 per cent more than professional nurses. Engineers earn 11 per cent more than this group of nurses, whereas accountants are rewarded

5 per cent less than professional nurses⁶. Physicians in the US earn 114 per cent more than professional nurses. In Australia both teachers and engineers earn on average 17 per cent above professional nurses per month. Accountants have a 4 per cent higher monthly wage than professional nurses and physicians 88 per cent higher.

As teachers, engineers and architects, and accountants are approximately equally educated in relation to years of training as professional nurses (they all have 3-4 years of training), their higher wages (with the exception of accountants in the US) clearly show the low status of the nursing profession. The wage difference between professional nurses and physicians is expected, as physicians have a longer education than nurses. The low value society places on nursing can also be connected to the fact that nursing is a profession dominated by women. A wage increase for nurses towards the occupations with similar years of training would both increase the financial situation for nurses as well as place more value on the work that nurses perform. A better financial situation for nurses as well as a higher value placed on the profession might lead to a higher retention of nurses as well as make it easier to recruit new nurses to the profession.

Although nurses from South Africa that emigrate to the UK, the US, or Australia will continue to earn less than the other occupations investigated (apart from accountants in the US), they will however exceed the earnings of the three occupations with a similar length of training within their own country. In addition, in the US and Australia, the relative difference between nurses' earnings and the other professional categories analyzed here will be smaller than in South Africa.

4.3.3 Salary advancement

In many countries across the world, nurses' wages increase with experience and length of service, as nurses who bring more experience and skills to the job market should be able to earn more than those with less to offer to employers. In South Africa, the opportunity for salary advancement over the career life cycle for nurses ceased in 2001, which meant that newly graduated nurses earned the same amount as senior nurses within the same workplace (Kelly 2005). However, the *Occupation Specific Dispensation (OSD) for nurses* implemented

⁶ This finding that accountants earn less than professional nurses was unexpected, but the data were checked for potential errors and none were found.

from 1 of July 2007 discussed above, introduced a career progression system for all categories of nurses which provides for career pathing, pay progression, grade progression, recognition of seniority, increased competencies, and performance on a two-yearly basis on condition that the employee has upheld an agreeable level of performance (Wildschut and Mqolozana 2008).

In the OSD, general professional nurses and associate nurses are paid according to three levels. Level 1 only requires qualifications that allow registration with the South African Nursing Council (SANC) as a professional nurse or associate nurse. Level 2 in addition requires 10 years of experience as a professional nurse, whereas level 3 requires 20 years of experience. Within each level there are salary notches. Progression to the next notch happens every two years, as long as the employee maintains a satisfactory level of performance. Progressing to the next salary level occurs if the nurse meets all the requirements for the relevant higher grade (Department of Public Service and Administration 2007). In Figure 7, the salary advancement for general professional nurses as of 1st of July 2007 is illustrated. The two-yearly cycle commenced on 1 April 2007 and will run until 31 March 2009.⁷

Figure 7: Salary advancement for professional nurses, OSD



Source: Data derived from the Department of public service and administration (2007).

⁷ The OSD applies to other civil servants such as teachers and police. Between 2008/2009, the OSD will also be extended to all other health professionals in the public health sector (Wildschut and Mqolozana 2008).

In the UK, nurses in the National Health Service (NHS) are remunerated in accordance with pay bands where the wages increase with experience and length of service. Employees in the NHS are paid according to 9 pay bands, where general professional nurses are paid on band five and associate nurses are paid on band four (Royal College of Nursing 2007/08). Within each pay band, there are several pay points. Normally nurses and other employees progress up one pay point each year, as long as the employee develops within his/her post as expected. When reaching the top point of the pay band, the employee will remain on that salary level (Department of Health 2003). There are, however, two pay points on each pay band called gateways. To receive pay progression on these gateways, the employees' knowledge and skills will be assessed to ensure continuing professional development (Royal College of Nursing 2007/08). In the pay rates effective from April 2006, the basic starting salary (without amendments for unfavourable working hours) for general professional nurses was 19,166 pounds per year. There were eight pay points nurses could progress to, where the top point had a basic salary of 24,803 pounds per year (Royal College of Nursing 2007/08). This amount to a 29, 4 increase in wages from the starting salary to the maximum salary.

Although the pay bands only apply to nurses working within the NHS, in which about 75 per cent of all nurses registered in the country are working (Batata 2005), wages for nurses in the private sector in the UK remain similar as the NHS pay arrangements exert a powerful influence over the terms and conditions for nurses working outside the NHS (Royal College of Nursing 2007/08).

In the US, experience and length of service also commands higher pay. Given the structure of the US healthcare system, there is no national salary scale available like in the UK and, as will be seen, in Australia. Instead, pay scales are determined by healthcare firms or businesses. As there are no national statistics available on salary advancement for nurses in the US, finding representative information in regards to salary advancement proved difficult. However, findings in a nationwide salary survey published by Nursing2006 (2006), an evidence-based nursing journal, provide a good indication of salary advancement for nurses in the US. A convenience non-probability sample was used in the survey which had 1,100 respondents from across the nation. In the report, salaries by years of nursing were stated in the following four categories: 5 years or less, 6-10 years, 11-15 years, and over 15 years. Between the four

categories there was a growth of 13 per cent, 10 per cent, and 8 per cent respectively. The growth in wages between those with 5 years experience or less and those with over 15 years of experience was 34 per cent.

Australia has a similar remuneration system for nurses as the UK, where nurses progress up one point on the pay scale each year until reaching the top point. However, pay scales and subsequent pay levels in Australia vary between states and territories. Although there are pay differences between the different states, the greatest difference is found between urban areas and rural and remote areas as working in rural and remote areas earns a higher remuneration. According to the Australian Nursing Federation (2007), two thirds of nurses in Australia work in capital cities or metropolitan areas. After close investigation of the various pay scales in the different states and territories, it is found that in urban and metropolitan areas around the country, pay scales for nurses do not differ substantially.

As the state New South Wales (NSW) has the highest percentage of overseas qualified nurses (according to NSW Health 2002, 30 per cent of the nursing workforce in the state is born outside Australia), I will use the NSW's pay scale for nurses to illustrate salary advancement. A newly registered professional nurse had in 2006 a basic hourly rate of 17,53 AUS\$. Each year until the 8th year nurses had a salary increase. The top point of the scale was 22,05 AUS\$ per hour. This represents a 26 per cent increase over the eight years (Australian Government 2007).

Compensating nurses for experience and length of service are of great importance for the retention of nurses. Whereas salary advancement for South African nurses was not available in South Africa in 2006, it was available in the other countries. Whereas general nurses working in the NHS in the UK received a 29,4 per cent increase in their salary over the first eight years of practice, nurses in the Australian state New South Wales received a 26 per cent increase over the first eight years. The survey from the US showed that there was a 35 per cent increase in wages after 15 years of practice.

As wages for nurses in South Africa are substantially lower than in the comparison countries, the lack of wage growth in the past might have also influenced nurses to emigrate. Although

not empirically tested, salary advancement for nurses in South Africa could lead to a higher motivation for nurses to remain in South Africa. In addition to motivation, salary advancement gives nurses recognition for the increased expertise and experience. Salary advancement can thus contribute to encouraging nurses to increase and acquire more skills. More skills are positive both for nurses' work satisfaction and for the workplace as they will improve nurses' ability to care for patients. The new pay structure which allows for wage growth in South Africa, the OSD is therefore a very positive initiative with regard to retaining nurses in South Africa. Based on an estimation of the impact of the ODS pay progression system, professional nurses would have their wages increased by 23 per cent after 10 years of experience and by 51 per cent after 20 years. After 30 years of service, nurses in South Africa would have increased their wages by 70 per cent since they started nursing. As seen above, salary advancement in the UK and Australia is concentrated in the early years of nurses' careers. Additional years after the eight years of salary advancement in these countries are not rewarded. Nurses with for instance 20-25 years of experience therefore earn the same amount as nurses with eight years of experience. It is a known problem in nursing that many nurses choose to either move out of the hospital setting to work in other healthcare settings or to leave the profession altogether. This can be connected to the kind of wage compression evident in the UK and Australia, as nurses might be discouraged from long-term tenure in the job. In this regard, the OSD is a very positive initiative in retaining nurses on a long-term basis as it allows for growth in wages over most of the nurses' career. As the OSD for nurses has only recently been implemented both in regards to a higher entry-level salary and salary advancement, the effect it might have on retention of nurses remains to be seen.

4.4 Average hours worked

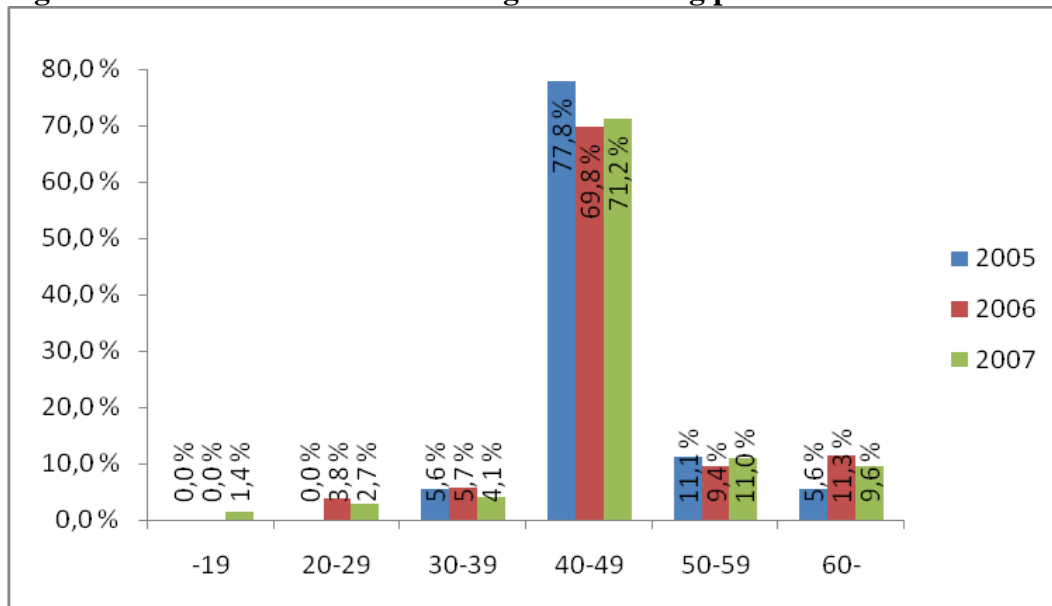
Long working hours were one of the factors nurses stated as a factor behind emigration from South Africa (Xaba and Phillips 2001). Figures 8, 9 and 10 provide information on average hours worked and the distribution of hours worked. Professional nurses in the LFS 14 sample work on average nearly 43.8 hours per week, with hours worked generally ranging between 20 and 60 hours per week. Associate nurses worked close to 46 hours per week on average. As can be seen in Figure 9, average hours worked and the distribution of hours worked remained fairly stable in the three LFSs from 2005 to 2007, an indication that the results in 2006 are reliable.

Figure 8: Average hours worked for South African nurses 2005-2007



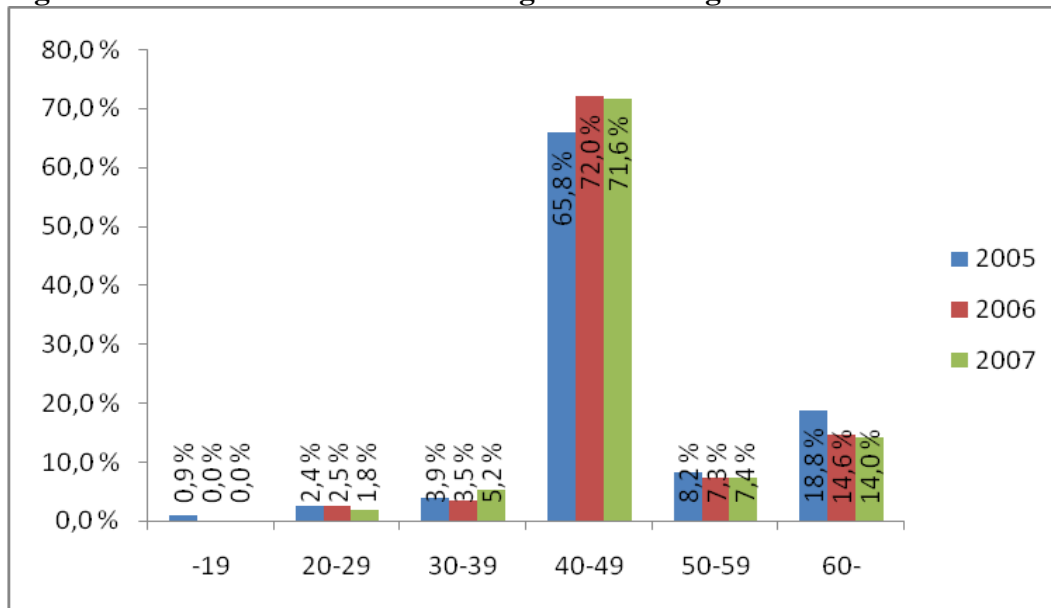
Source: Own calculations from LFS 2005:2, LFS 2006:2, and LFS 2007:2.

Figure 9: The distribution of working hours among professional nurses



Source: Own calculations from LFS 2005:2, LFS 2006:2, and LFS 2007:2.

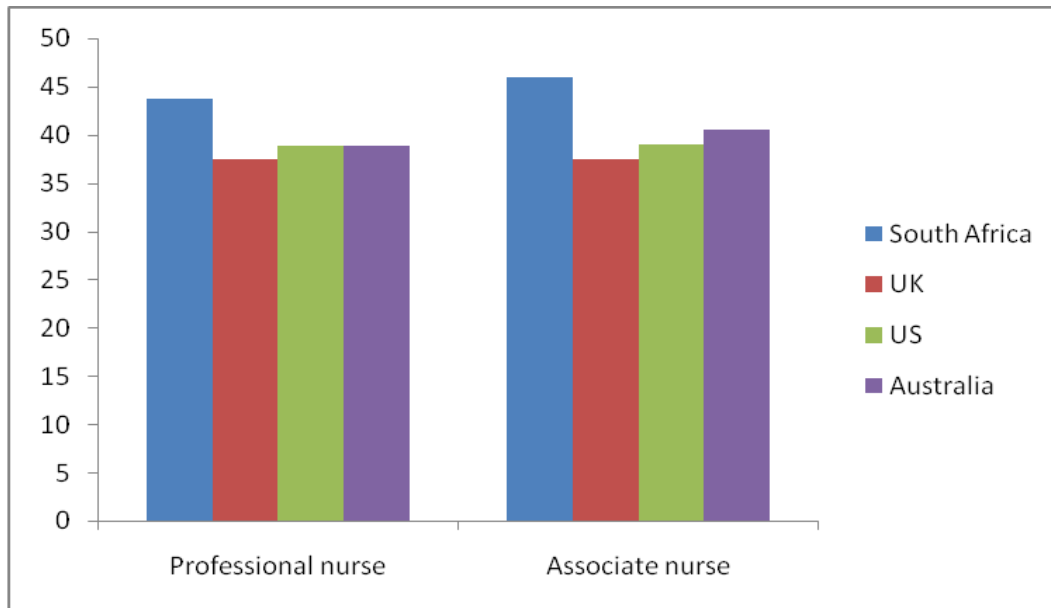
Figure 10: The distribution of working hours among associate nurses



Source: Own calculations from LFS 2005:2, LFS 2006:2, and LFS 2007:2.

The average hours of work for professional nurses in the UK were 37.5 hours per week in 2006. For associate nurses the average hours of work were also 37.5 hours per week. In the US, professional nurses worked on average 38.9 hours per week while associate nurses worked on average 39 hours per week. Professional nurses in Australia worked on average 38.8 hours per week while associate nurses worked 40.5 hours per week. The difference in average hours worked is illustrated in Figure 11.

Figure 11: Average hours worked in South Africa and the comparison countries.



Source: Own calculations from the LFS 14 (2006:2)

As can be seen from the cross-country comparison in Figure 11, nurses in South Africa have the longest average hours of work per week. Average hours for professional nurses in the comparison countries do not exceed 38.9 hours per week, leaving South African nurses with at least 4,8 hours of work per week more than in the comparison countries. Professional nurses in the UK works 6, 2 hours less per week than nurses in South Africa, effectively meaning close to a shift less per week if working in the UK. Associate nurses, except in the UK where both professional and associate nurses work the same average hours per week, work more hours per week than professional nurses. This large difference in nurses' working hours between South Africa and the other countries is likely to contribute towards emigration from the country.

An important point to be made with regard to working hours is that longer working hours per week makes the differences in wages across countries even larger. As nurses in South Africa work much longer hours than nurses in the comparison countries, the difference in average hourly wages would be even larger between countries than the difference between average monthly wages which were provided in the section above.

As well as working longer hours per week in South Africa, findings described in the literature revealed that there is a substantially higher shortage of nurses in South Africa than in the comparison countries. Shortage of nurses and subsequent higher nurse: population ratios lead to higher workloads for staff with consequences such as burn-out, stress, pressure, and exhaustion. Together longer hours and higher workloads than the comparison countries might contribute to the decision to emigrate for South African nurses. With the critical shortage in South Africa, recruitment of new nurses is the only way to reduce nurses' working hours.

4.5 Benefits received from the employer

Employment-based benefits can be used to recruit and retain workers, as benefits are known to improve satisfaction among employees as well as improve recruitment and retention of staff (Spetz and Adams 2006). Other than the three employee compensations discussed in this section, i.e. pension benefits, medical aid/health insurance benefit and paid leave, various others also exist depending on the workplace. These might include child care support, tuition reimbursement, housing, compensation for living in high-cost areas etc. Information on these benefits is not readily available in national-level data however.

When it comes to nursing, higher numbers of this professional group compared to other occupations work part-time, or work casually by working on request without any set working hours. This has partly to do with the fact that the profession is dominated by women and many choose to (or have to) reduce their working hours to have or take care of children. Working part-time and in casual work often implies that benefits are either reduced or non-existent, depending on various factors such as country or employer. It is important to have this in mind when examining access to employment-based benefits for this professional group.

4.5.1 Pension benefits

For both professional and associate nurses in the LFS 14, the percentage receiving contributions to any pension/retirement fund from their employer was high. Among the professional nurses, 92 per cent received pension benefits. Of the associate nurses, 89 per cent received pension benefits.

When nurses start working in the public health service in the UK, the NHS, they automatically become a member of the *NHS Pension Scheme*. With the scheme, nurses pay between 3.5 per cent and 5 per cent of net pay, depending on earnings. To meet the total cost, the employer contributes as well as paying the administrative costs. Membership is voluntary so nurses can decide not to join or to leave at any time. For nurses working outside the NHS, similar arrangements exist (National Health Service Pension Scheme).

As stated in the beginning of this chapter, healthcare is mainly in private hands in the US, thus there is no automatic membership in a pension scheme as in the UK. Rather, it is up to the individual healthcare facility or healthcare firm to offer employment-based benefits to their employees. Retrieving data about the national extent of pension benefits for nurses in the US from 2006 proved difficult, as the US Bureau of Labor Statistics only commenced publishing this data as recently as 2008. The 2008 statistics with regard to access of employment-based benefits for professional nurses revealed that 80 per cent of professional nurses were offered a retirement plan from their employer in that year. There is also data available from the 2003 Current Population Survey (CPS), a survey also conducted by the Bureau of Labor Statistics, which stated that 78 per cent of professional nurses were offered a retirement plan from their employer in that year. Findings from a study conducted by Spetz and Adams (2006) analyzing unpublished CPS data from 1995 to 2003 found that professional nurses working in a hospital are more likely to be offered a retirement plan than professional nurses working in other healthcare settings. The study found that nearly all professional nurses working in hospitals had access to pension benefits. Analysis of the data also revealed that there had not been a significant change in access to pension benefits over the period 1995 to 2003. Unless there has been an unlikely dramatic change in access to employment-based pension benefits between 2003 and 2008, the 2008 data and the study conducted by Spetz and Adams indicate that access to this benefit in 2006 were between 78 to 80 per cent.

In Australia, all employers are required to contribute a minimum of 9 per cent of their eligible employees' earnings towards superannuation (the Australian term for pension). The superannuation is calculated based on ordinary time earnings. All employees, age 18 years or over but under 70, earning at least AUD 450 per month should be paid superannuation by

their employer. Employees have the option of either having their employer contributions paid into a complying superfund or a retirement savings account (Australian Taxation Office).

As evident from the findings on employment-based pension benefits, access to this benefit generally seems to be good for nurses in all the countries investigated, although slightly lower in the US. That such a high percentage of nurses in South Africa receive contributions towards a pension from their employer suggests that this would not be a large factor in nurse migration. However, there are two qualifications here. Firstly, whereas access is high in South Africa, all nurses in the UK (at least in the NHS) and Australia received pension benefits from their employer. Therefore, when emigrating to these countries, nurses are guaranteed contributions towards their pension which in turn might influence emigration. Secondly, although there seems to be good access to pension benefits, it was not in the scope of this study to investigate the content of the pension package. It might therefore be the case that pension packages differ largely among the countries examined. Higher wages generally lead to a higher pension. Thus, as wages are substantially higher in the comparison countries, it is likely that their pensions are higher as well. If pension packages are significantly better in the comparison countries than in South Africa, receiving a better package might influence emigration from South Africa. For nurses emigrating from South Africa who plan to return to the country, the value of a foreign pension when cashed in and brought back to South Africa will provide a better standard of living in South Africa. Of course, this depends on whether the pension received is transferable or not.

4.5.2 Medical aid/health insurance benefits

Out of the 367 nurses in the South African sample, 64 per cent received contributions towards membership of a medical aid fund or health insurance from the employer. Whereas 16 per cent received contributions towards medical aid/health insurance for him/herself only, 47 per cent in addition received contributions towards family and dependants as well. When distinguishing between the two groups of nurses, there is little difference between them. Among the professional nurses, 66 per cent receive contribution toward medical aid and among associate nurses the figure is 63 per cent. It is important to note that 7,5 percent of the professional nurses and 9,5 per cent of the associate nurses in the sample are covered through

another's medical aid. Medical aid could thus have been offered to these nurses but they rejected the contribution as they were covered by another's medical aid.

In the UK, healthcare is as stated above mainly provided by the National Health Service. With the exception of optical and dental services and some prescriptions, the NHS is free at the point of need for all residents of the UK and is paid for from general taxation. In other words, healthcare is provided for all nurses working in the UK provided they are residents of the country (National Health Service 2009). Although private health insurance for use in the private health service is available, contributions from employers towards these are not common.

In the US, health insurance is needed in order to obtain medical care, as there is very limited access to free healthcare provided for citizens. As with access to an employment-based pension, retrieving national data from 2006 about access to health insurance contributed to by the employer proved difficult, as this data was also only published from 2008. The national statistics from 2008 revealed that 76 per cent of professional nurses received medical aid benefits from their employer (US Bureau of Labor Statistics). However, as seen with the data from the LFS, the statistics do not reveal the number of nurses that have *rejected* contributions towards a health insurance as they might be covered by another's (for e.g. a spouse's) health insurance.

Australia has a similar system as the UK in which medical services in the public health sector are free at the point of need for all residents and are paid for from general taxation. This system, called Medicare, is available for all permanent residents (Medicare Australia). Private health insurance is also common in Australia and a contribution towards insurance might be provided by employers (Department of Health and Aged Care 2000). Although there seem to be no national statistics on the extent of employer contributions towards private health insurance for nurses, it might be more likely that nurses working in the private sector receive contributions towards insurance than nurses working in the public health sector. However, this is not supported by evidence.

The findings show that it is problematic to compare access to employment-based health insurance across the different countries, as the differences are, to a large extent, due to different healthcare systems in the countries examined. As good quality healthcare is provided for free in the UK and Australia, employers do not have to contribute towards their employees' healthcare. However, in the US, where healthcare is mainly private, and South Africa, where public healthcare is generally poor, access to employment-contributed health insurance might be of great importance for nurses, as private health insurance is often costly. As 34 per cent of professional nurses in South Africa do not receive contributions towards medical aid, emigrating to a country where this benefit is more accessible might be a factor influencing emigration. However, it is important to note that foreign nurses on short-term contracts in the UK and Australia might not be covered by the public health service and might therefore need to provide their own health insurance until obtaining a permanent work contract. Another important point is that the scope of coverage of the health insurance contributed by the employers in South Africa and the US is not known in this study. What medical treatments the various health insurances cover and the scope of the coverage might differ substantially.

4.5.3 Paid leave

Paid leave for nurses is extensive in South Africa. Out of the 53 professional nurses in the sample, 48 of the observations (92 per cent) received paid leave from their employer. Among the associate nurses, 91 per cent received paid leave. However, the LFS data does not reveal how many days of paid leave the nurses received. According to the *Basic Conditions of Employment legislation* issued by the Department of Labour, workers are required to get a minimum of 21 consecutive days of annual leave each year in South Africa.

In the UK, all nurses working within the NHS receive at least 27 days of annual paid leave, excluding public holidays. Annual leave rises with length of service. After 5 years experience, annual leave rises to 29 days per year and after 10 years to 33 days. For nurses outside the NHS, similar arrangements exist (Royal College of Nursing).

Unlike in the UK and, as shall be seen, in Australia, there are no governmental standards for paid leave in the US, only common practices (Ray and Scmitt 2007). As with access to employment-based pension and health insurance, national data on the percentage of nurses

receiving paid leave in the US were published for the first time in 2008 by the US Bureau of Labour Statistics and are only available for professional nurses. However, according to the US Bureau of Labour Statistics, the access to paid holidays and paid vacations has remained stable for the past two decades. According to the 2008 data, 81 per cent received paid holiday, 77 percent received paid vacation, and 56 per cent received paid personal leave. Whereas paid holiday usually mean public holidays, days of special religious, cultural, social, or patriotic significance, paid vacation is defined as annual leave taken in blocks of days or weeks. In the US, the amount of paid vacation received each year commonly varies by length of service. Paid personal leave can be used for any purpose and covers purposes that may not be covered by other types of leaves plans (US Bureau of Labour Statistics 2008). As with the South African data, the US data does not reveal how many days of paid leave nurses receives. However, according to Ray and Scmitt (2007), government survey data show that the average worker in the private sector in the US receives about nine days of paid vacation and about six days of paid holiday per year.

According to the Australian government's *Australian Fair Pay and Conditions Standard*, all workers, except for casual workers, in Australia receive a minimum of four weeks of paid annual leave (five weeks for some continuous shift employees) per year. In addition, all workers receive ten days paid personal/carer's leave per year and two days paid compassionate leave for each relevant occasion (except for casual workers) (Government of Australia 2009).

The findings show that paid leave is common for nurses in both South Africa as well as the other countries. The number of days of paid leave for nurses in the various countries cannot be stated with certainty, as the findings from South Africa, the UK, and Australia are only stated as a minimum days of paid leave employers are required to grant their employees by legislation. It is therefore possible that nurses in the different countries receive additional paid leave from their employers. The findings from the US are even more uncertain as there are no governmental standards for paid leave in the US and the findings from the country only provide a rough estimate of the number of days of paid leave provided on average in the private sector. Despite these limitations, it is clear from the findings that nurses in Australia receive the most days of paid leave, followed by the UK and South Africa. As emigration to

the UK and Australia effectively means at least one week of additional paid leave, it might be a factor influencing South African nurses to look for work in these countries.

4.6 Summary of main findings

From all the findings above, it is evident that the largest difference in the economic working conditions between South Africa and the comparison countries is in relation to average monthly wages. Average earnings of approximately 100-200 per cent higher than in South Africa for professional nurses (even after adjusting for living expenses) represents an enormous gap in wages. For associate nurses earnings are approximately 50-120 per cent higher in the comparison countries than in South Africa. The large gap between South Africa and the UK, the US, and Australia clearly indicates that obtaining a higher salary and a subsequent higher standard of living would be an important factor behind nurse emigration. This finding is in accordance with both the international and South African literature reviewed, where wages are stated as being among the most important factors behind the phenomenon of nurse emigration.

The availability of salary advancement for experience and length of service in the year investigated also differs substantially between South Africa and the comparison countries. Nurses in South Africa prior to 2007 had no opportunity of salary advancement. This compares to wages for nurses working in the NHS in the UK increasing by approximately 29 per cent after eight years of service. In Australia this figure is 26 per cent (in New South Wales). However, the OSD for South African nurses implemented in 2007 has opened up the opportunity for salary advancement and which allows for wage increases over a substantially higher numbers of years than in the comparison countries. The effect this might have on nurse emigration from South Africa remains to be seen.

The next largest difference in the economic working conditions between South Africa and the comparison countries pertains to hours worked per week, as nurses in South Africa work more hours per week on average than in the comparison countries. As South African nurses work more hours, this leads to even lower effective average hourly wage in South African than in the other countries, in other words, the cross-county gap in hourly wages is even larger than the gap in monthly wages. As discussed above, the largest gap in working hours can be

found between South Africa and the UK. To be able to work fewer hours per week might therefore also influence the emigration of South African nurses.

When it comes to benefits received from the employer, the difference between South Africa and the comparison countries is less significant. A majority of nurses in all countries in the analysis receive contributions towards benefits from their employer. Based on this finding, employment-based benefits might not influence nurses to emigrate to the same extent as wages and working hours. However, that nurses might be influenced by this factor cannot be completely rejected. As discussed under the three benefits, it is difficult to make complete comparisons across countries because the content and structure of the benefits may be better in some countries than others. This is especially the case with the findings from South Africa and the US. As a result, an in-depth comparison of the benefits received in South Africa and in the comparison countries is not possible.

Although the main objectives in this study were to explore and identify the differences in the more economic job factors that could affect nurse migration, there are other job factors as well as broader societal factors that also play a major part in the emigration of nurses from South Africa, as discussed in Chapter Two. However, performing a cross-comparison analysis of the differences in these factors would prove to be difficult, if not impossible, as these factors are difficult to measure and compare across highly different settings. Nonetheless, integrating these factors identified in the literature review in a discussion of emigration of South African nurses is crucial. Other professional factors that have been highlighted as driving nurse migration were lack of professional development, high workloads and stressful working conditions exacerbated by the HIV/AIDS crisis, poor management in hospitals, under-resourced hospitals, and an unsafe working environment. The societal factors identified were crime and violence, dissatisfaction with the standard of living as well as various other factors pertaining to the quality of life in South Africa. In addition, the desire to travel, 'see the world', and get to know a new culture, were identified.

Based on the literature reviewed it is clear that there are also large differences in the other job factors between developing countries, such as South Africa, and developed countries, such as the UK, the US, and Australia. High-income countries generally have higher possibilities of

professional development, lower workloads, better resourced healthcare facilities with more access to good equipment, and a safer working environment. When it comes to management, there is no available evidence that nurses in the comparison countries work in a more supportive environment. Differences also exist in the societal factors between high-income and low-income countries, as people living in high-income countries usually have a higher standard of living than people living in low-income countries.

Although some studies reviewed attempt to range the various factors behind nurse emigration in order of importance, these above-mentioned factors are at work simultaneously with the more economic job factors investigated in this study. Whereas some nurses might emigrate solely in order to increase their wages and standard of living or to gain professional development, others might emigrate for a number of reasons. As a consequence, an holistic approach is needed in order to gain a comprehensive understanding of the phenomenon and to implement effective measures to retain nurses.

CHAPTER FIVE: RECOMMENDATIONS AND CONCLUDING REMARKS

The main objective in this study has been to investigate the factors leading to the emigration of South African nurses. This has been done by investigating the differences in the more economic job characteristics between South Africa and three countries where the highest percentage of South African nurses are emigrating to, the UK, the US, and Australia. By using comparative secondary data for 2006, the findings revealed that the main difference in economic job factors lies in wages, both average wages and in the possibility for salary advancement. Although the new ODS policies implemented in 2007 reduce these differences somewhat by increasing wages as well as allowing for salary advancement, the large gap in wages still remains. How the impact of these policies will affect nurse emigration and retention of South African nurses remains to be seen. The study has also shown that there are large differences in working hours, with South African nurses working 4,8 hours more per week on average than nurses in the comparison countries. The difference in access to employment-based benefits is less significant, as benefits in South Africa tend to be high among nurses as well as in the comparison countries. However, as the content and structure of the benefits included were hard to compare, there might be large differences in the benefits received in the various countries.

Although the more economic job factors were the focus of my empirical work, the other underlying factors behind nurse emigration were discussed to provide a broader picture. The other job factors and broader societal factors play a major part in the emigration of nurses from South Africa. Integrating these into the discussion is therefore crucial in order to take the holistic approach needed to gain a comprehensive understanding of nurse emigration and to implement effective measures to retain nurses.

The emigration of nurses from South Africa poses many challenges to the healthcare system and to policy-makers. As the emigration of nurses is both an organizational and economic challenge, as well as having major negative impacts on the nation's healthcare services, it is crucial that it is addressed and that measures are implemented in order to maintain and

improve healthcare in the country. A few recommendations and concluding remarks based on the findings in this study and from the literature reviewed therefore follow.

Based on the findings which show the enormous gap in wages between South Africa and the comparison countries, a wage increase is crucial in order to improve the retention of nurses in the country. However, as pointed out before, South Africa cannot hope to match the wages in the comparison countries. As shown in this study, the OSD implemented in 2007 reduces this gap and consequently improves the financial situation for nurses in the country. The benefits of this policy change will take time to come to fruition however, and a large cross-county gap in wages is likely to remain. Nonetheless, the OSD plan to increase nurses' wages substantially and to introduce an extensive pay progression scale for all nurses are both crucial measures in retaining nurses in the healthcare system. As it is too soon to study the impact of these new policies, their effect remains to be seen.

Apart from an increase in nurses wages, improvements in the other factors that drive emigration from South Africa are needed in order to retain the country's sorely needed professionals. Improving these factors is also key in attracting nurses that have already emigrated back to the South African healthcare system. The improvements needed would include: fewer working hours to prevent burnout, better possibilities for professional development, improved management and organization in the workplace to improve or create a more supportive environment for nurses, a safer working environment including effective infection policies to prevent patient to nurse transmission of infectious diseases as well as measures to reduce work-related violence, better resourced healthcare facilities to allow nurses to perform their job in an acceptable manner, as well as reduced workloads. As with the OSD and the improvement in wages, addressing these other factors requires large budgets as well as a strong commitment from, and capacity in, government. This is also required in order to address the broader societal factors pertaining to the general socio-economic and political climate in South Africa.

As the underlying factors behind nurse emigration are strongly connected to the shortage of nurses in the country, policies addressing how the nursing workforce can be increased is also crucial. The shortage of nurses is due to multiple factors, where the emigration of nurses is

only one of the elements. Apart from retaining existing nurses in the South African healthcare setting, much more attention needs to be paid to the recruitment of new nurses. Measures such as larger financing of training together with attempts to make the profession more attractive could draw new students to the profession. In regards to the latter, it is clear from the findings comparing wages of nurses to other occupations that the status of nursing and the value for nurses' work needs to be improved. Nowadays, young people have more possibilities in choosing fields of study and occupations than previously. Although many choose nursing as a vocation it is likely that more would choose nursing if the status and subsequent working conditions were better. A sufficient number of nurses within the country would not only improve the efficiency of the healthcare system and the healthcare services provided to the South African population, it would also reduce the workload for nurses as there will be more hands to provide care for patients. With more nurses, it is also possible that working hours for nurses could be reduced as nurses would have to work less overtime if there were sufficient staffing levels.

Apart from the policies to improve the retention and recruitment of nurses in South Africa mentioned above, there is also a need to evaluate and implement other more immediate policies to improve nurse retention. This is because the institutional improvements mentioned above will take both time and will require strong capacity in, as well as financial and political commitment by, the government. In the literature review, bilateral and multilateral agreements and strategies between countries as well as ethical guidelines for ethical recruitment of nurses were discussed. Although the best solution to the nursing shortage in developing countries like South Africa would be that developed countries ceased their active recruitment and addressed their own nursing shortages at a local or country level, this is also a long-term process requiring resources and commitment from developed country governments. Bilateral and international strategies and guidelines are therefore crucial in ensuring a more ethical recruitment of nurses from developing countries like South Africa. Although a number of these, as reviewed, have already been proposed or created, many have failed due to lack of commitment and consistency. Apart from improving working conditions in the sending country which might lead to a greater retention and recruitment of nurses, two other principal policy options discussed by Buchan and Sochalski (2004) are available. The first is to facilitate *managed* migration between countries in which the flow of nurses is regulated by

authorities. The second option is to compensate the sending country through a variety of means as it is this country that has invested in training of the nurses and thus loses this investment. Compensation could be either financial or non-financial, such as educational support towards the training of nurses in the sending country or the return flow of better-trained staff. Unlike policies implemented to improve retention and recruitment of nurses in South Africa, these bilateral or multilateral agreements could be quicker to implement and could have immediate impacts on nurse migration.

Although this study has provided some insight into the factors driving emigration from South Africa, it has become clear that more research on the phenomenon is needed. As pointed out by Xaba and Phillips (2001), it is necessary that South Africa develops accurate measures for assessing the extent of nurse emigration from South Africa, as well as the factors behind the phenomenon. More specifically they recommend that Statistics South Africa should be commissioned to improve their statistical base in regard to nurse emigration. Not only is it important to identify and address the factors influencing the decision to emigrate, the ‘push’ and ‘pull’ factors, research exploring what measures can help retain nurses in the country is just as crucial. In this regard, an important area of future research is investigating the effect on average wages and the increase in wages over time that the new OSD policies might have on the retention of nurses and the recruitment of new entrants into the profession. As this study examined nurses wages just before these new policies were implemented, it can provide a useful benchmark against which future studies can compare any changes or improvements in wages.

As research on nurse emigration in South Africa has tended to be either small in scale or provincial, nation-wide nurse surveys would substantially improve the evidence on this phenomenon. More comprehensive studies comparing the factors behind nurse emigration across countries are also needed in order to gain a greater understanding of the forces at work. In addition, research on how the shortage of nurses can be reduced, particularly through the recruitment of new nurses, is needed.

BIBLIOGRAPHY

Aiken, L.H., Buchan, J., Sochalski, J., Nichols, B., and M. Powell 2004. Trends in International Nurse Migration. *Health Affairs*, 23(3): 69-77.

Australian Health Ministers Conference 2004. *National Health Workforce Strategic Framework*. Canberra April 2004, Australia.

Australian Taxation Office. *Individuals Superannuation Essentials*. Australian Government. http://www.ato.gov.au/individuals/pathway.asp?pc=001/002/064&mfp=001&mnu=6749#001_002_064. [10 MARCH 2009].

Australian Government. Australian Fair Pay and Conditions Standard. <http://www.workplaceauthority.gov.au/graphics.asp?showdoc=/PayAndConditions/fairpaystandard.asp>. [10 MARCH 2009].

Australian Government 2007. *Pay Scale Summary, New South Wales*. <http://www.workplaceauthority.gov.au/docs/Payconditions/2006ePSS/AN120385.pdf> [10 MARCH 2009].

Australian Nursing Federation 2007. Nurses' Paycheck: A Comprehensive Analysis of Nurses' Wages. September - November 2007, 6(4). http://www.anf.org.au/paycheck/Sep_Nov_2007.pdf. [10 MARCH 2009].

Awases, M., Gbary, A. and R. Chatora 2003. *Migration of Health Professionals in Six Countries: A Synthesis Report*. World Health Regional Office for Africa.

Batata, A. S. 2005. International Nurse Recruitment and NHS vacancies: A Cross-sectional Analysis. *Global Health*, 1(7).

Bhorat, H., Meyer, J. and C. Mlatshemi 2002. *Skilled Labour Migration from Developing Countries: Study on South and Southern Africa*. International Migration Programme, International Labour Office. Geneva: Switzerland.

Boyle, P, Halfacree, K., and V. Robinson 1998. *Exploring Contemporary Migration*. Essex: Addison Wesley Longman Limited. UK.

Buchan, J. 2001. Nurse Migration and International Recruitment. *Nurse Inquiry*, 8(4): 203-204.

Buchan, J. and L. Calman 2004. *The Global Shortage of Registered Nurses: An Overview of Issues and Actions*. International Council of Nurses. Geneva: Switzerland.

Buchan, J., Kingma, M. and F.M Lorenzo 2005. *International Migration of Nurses: Trends and Policy Implications*. International Council of Nurses. Geneva: Switzerland.

Buchan, J. and J. Sochalski 2004. The Migration of Nurses: Trends and Policies. *Bulletin of the World Health Organization*, 82(8): 587-594.

Bureau of Labor Statistics 2006. *National Compensation Survey*.
<http://www.bls.gov/ncs/home.htm>. [10 MARCH 2009].

Bureau of Labor Statistics 2008. *Employee Benefits in the United States, March 2008*.
<http://www.bls.gov/news.release/pdf/ebs2.pdf> [10 MARCH 2009].

Brush, L. B, Sochalski, J, and A. B. Berger 2004. Imported Care: Recruiting Foreign Nurses To U.S. Health Care Facilities. *Health Affairs*, 23(3), 78-87.

Casale, D. and D. Posel 2005. *Who replies in brackets and what are the implications for earnings estimates. An analysis of earnings data from South Africa*. Economic Research Southern Africa, Working Paper No. 7

Chiha, Y. And C. Link 2003. The Shortage of Registered Nurses and Some New Estimates of the Effects of Wages on Registered Nurses Labour Supply. *Health Policy*, 64:349-375.

Clemens, M. and G. Pettersson 2008. New Data on African Health Professionals Abroad. *Human Resources For Health*, 6(1): 1-11.

Colombo, F. and N. Tapay 2003. *Private Health Insurance in Australia: A Case Study*. OECD HEALTH WORKING PAPERS. OECD. Paris: France.

Department of Health and Aged Care 2000. *The Australian Health Care System: An Outline*. Financing and Analysis Branch, Commonwealth Department of Health and Aged Care. Canberra: Australia.

Department of Health, South African Government 2005. *The Strategic Framework for the Human Resources for Health Plan*. Department of Health: South Africa.

Department of Health, UK 2009. *The New NHS/HPSS Pay System: An Overview*.
http://www.dhsspsni.gov.uk/new_pay_system.pdf

Department of Labour. *Basic Guide to Annual Leave*.
<http://www.labour.gov.za/legislation/acts/basic-guides/basic-guide-to-annual-leave/>. [10 MARCH 2009].

Department of Public Service and Administration 2007. *Occupational Specific Dispensation*.
http://www.dpsa.gov.za/r_documents.asp#osd [10 MARCH 2009].

Gray, P. S., Williamson, J.B, Karp, D.A., and J. R Dalphin 2007. *The Research Imagination: An Introduction to Qualitative and Quantitative Methods*. Cambridge University Press. New York: United States.

Haour-Knipe, M. and A. Davis 2008. *Return Migration of Nurses*. International Centre on Nurse Migration. Geneva: Switzerland.

Health Resources and Services Administration 2002. Projected Supply, Demand, and Shortage of Registered Nurses: 2000-2020. U.S Department of Health and Human Services: 1-22.

International Centre for Human Resources in Nursing 2007. *An Aging Nursing Workforce*. International Council of Nurses. Geneva: Switzerland.

International Labour Office 2004. *Towards a fair deal for migrant workers in the global economy*. International Labour Office. Geneva: Switzerland.

Jeon, Y. and L. Chenoweth 2007. Working with a Culturally and Linguistically Diverse (CALD) Group of Nurses. Royal College of Nursing. Canberra: Australia.

Joint Learning Initiative 2004. Human resources for health – Overcoming the crisis. <http://www.globalhealthtrust.org/Report.html>. [10 MARCH 2009].

Jolly, S and H. Reeves 2005. *Gender and Migration: Overview Report*. Institute of Development Studies. Brighton: UK.

Kelly, D. 2005. *Determination of Factors Influencing Nurse Retention in the Public Health System: A Case Study of Four State Hospitals in KwaZulu Natal*. Masters Dissertation, Department of Economics, University of KwaZulu-Natal, Durban.

Kingma, M. 2001. Nursing Migration: Global Treasure Hunt or Disaster-in-the-Making. *Nursing Inquiry*, 8(4): 205-212.

Kline, D. S. 2003. Push and Pull Factors in International Nurse Migration. *Journal of Nursing Scholarship*. 35(2), 107-111.

LABOURSTA. International Labour Organization. <http://laborsta.ilo.org/> [10 MARCH 2009]

Larsen, J. A., Allan, H. T., Bryan, K., and P. Smith 2005. Overseas Nurses' Motives for Working in the UK: Global Perspective versus Local Prejudice. Paper presented at the annual meeting of the American Sociological Association, San Francisco: United States. http://www.allacademic.com/meta/p109303_index.html. [10 MARCH 2009].

Mejia, A., Pizurki, H., and E. Royston 1979. *Physician and Nurse Migration: Analysis and Policy Implications*. Geneva, Switzerland: World Health Organization.

National Health Service 2009. *About the NHS*. <http://www.nhs.uk/aboutnhs/pages/about.aspx>. [10 MARCH 2009].

National Health Service Pension Scheme. *NHS Pension Scheme – An Overview*. <http://www.nhsbsa.nhs.uk/Pensions/885.aspx> [10 MARCH 2009].

Network on Equity in Health in Southern Africa 2003. Health Personell in Southern Africa: Confronting Misdistribution and Brain Drain. EQUINET discussion paper number 4.

Oosthuizen, M. and V. J. Ehlers 2007. Factors that may influence South African nurses' decision to emigrate. *Health SA Gesondheid*, June 2007. University of Johannesburg.

Ravenstein, E. G. 1885. The Laws of Migration. *Journal of the Statistical Society of London*, 48(8): 167-235.

Rispel, L. and G. Setswe 2007. Stewardship: Protecting the Public's Health. In *South African Health Review 2007*. Health Systems Trust. Durban: South Africa.

Rogerson, C. M and J. Crush 2008. South Africa and the Global Recruitment of Health Professionals. *Africa Insight* 37(4): 1-15.

Royal College of Nursing. *Pay 2006*.

http://www.rcn.org.uk/support/pay_and_conditions/pay2006. [10 MARCH 2009].

Royal College of Nursing b. *Working hours, overtime, annual leave*.

http://www.rcn.org.uk/support/pay_and_conditions/working_hours_overtime_annual_leave. [10 MARCH 2009].

Sheilds, M. 2004. Addressing the Nurse Shortage: What Can Policy Makers Learn From the Econometric Evidence in Nurse Labour Supply? *The Economic Journal*, 114(499): 464-498.

Shezi, A. 2005. Nurses Bitter at Exclusion from Manuel's Drive to Better the Lot of Civil Servants. *Business Day*. Durban: 3.

Singh, J. A., Nkala, B., Amuah, E., Mehta, N., and A. Ahmad. 2003. The Ethics of Nurse Poaching from the Developing World. *Nursing Ethics*, 10(3): 666-670.

South African Government Information 2008. *All nurses to benefit from an agreement with unions*.

<http://www.info.gov.za/speeches/2008/08011609151002.htm>. [10 MARCH 2009]

South African Health Review 2003/04. Health Systems Trust. Durban: South Africa.

Spetz, J. and S. Adams 2006. How Can Employment-Based Benefits Help The Nurse-Shortage? *Health Affairs*, 25(1): 212-218.

Statistics South Africa 2006. Statistical Release: Labour Force Survey September 2006. Pretoria: Statistics South Africa.

UNDP 2005. Human Development Report 2005. New York: United Nations Development Program.

http://hdr.undp.org/en/media/hdr05_complete.pdf. [10 MARCH 2009]

United Nations Department of Economic and Social Affairs 2006. *Trends in Total Migrant Stock: the 2005 Revision*. United Nations.

http://www.un.org/esa/population/publications/migration/UN_Migrant_Stock_Documentation_2005.pdf. [10 MARCH 2009].

United Nations Statistical Division. Millennium Development Goals Indicators. Purchasing power parities (PPP) conversion factor, local currency unit to international dollar. <http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=699>. [10 MARCH 2009].

US Census Bureau 2008. *Income, Poverty, and Health Insurance Coverage in the United States: 2007*. U.S. Department of Commerce Economics and Statistics Administration. <http://www.census.gov/prod/2008pubs/p60-235.pdf>. [10 MARCH 2009].

United States General Accounting Office 2001. *Emerging Nurse Shortage Due to Multiple Factors*. United States General Accounting Office 2001. Washington DC: United States.

Vujicic M., Zum, P., Diallo, K, Adams, O. and M. R. Dal Poz 2004. The Role of Wages in The Migration of Healthcare Professionals from Development Countries. *Human Resources for Health*, 2(3).

Walliman, N. S.R 2006. *Social Research Methods*. Sage Publications Inc. London: UK.

Wildschut, A. and T. Mqolozana 2008. Shortage of Nurses in South Africa: Relative or Absolute? Department of Labour. Pretoria: South Africa.

World Bank. *Data and Statistics*.

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20399244~menuPK:1504474~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>. [10 MARCH 2009].

World Health Organization 2006. *The World Health Report 2006: Working Together for Health*. Geneva, Switzerland: The World Health Organization. http://www.afro.who.int/drh/reports/whr_2006_en.pdf. [10 MARCH 2009].

Zurn, P., Dolea, C., and B. Stilwell 2005. *Nurse Retention and Recruitment: Developing a Motivated Workforce*. International Council of Nurses. Geneva: Switzerland.

Xaba, J. and G. Phillips 2001. Understanding Nurse Emigration: Final Report. Trade Union Research Project.

APPENDIX 1: QUESTIONS USED FROM THE LFS 2006:2 QUESTIONNAIRE

4.11 Does’s employer contribute to any pension/retirement fund?

- 1= YES
2= NO
3=DON’T KNOW

4.12 Does get any paid leave?

- 1= YES
2= NO
3= DON’T KNOW

4.15.a. What is’s total salary/pay at his/her main job?

Including overtime, allowances, bonus, before any tax or deductions.

Give amount in whole figures, without any text or decimals.

If “REFUSE” or “DON’T KNOW” → Go to question Q 4.15.c.

4.15.b. Only if amount given in 4.15.a

Is this

- 1= Per week
2= Per month
3= Annually

4.15 c. Only if “REFUSE” or “DON’T KNOW” in 4.15.a

*Show the categories. Make sure the respondent points at the **correct income column** (weekly, monthly, annually) on **prompt card 3** and mark the applicable code.*

	Weekly	Monthly	Annually
01	NONE	NONE	NONE
02	R1 – R46	R1 – R200	R1 – R2 400
03	R47 – R115	R201 – R500	R2 401 – R6 000
04	R116 – R231	R501 – R1 000	R6 001 – R12 000
05	R232 – R346	R1 001 – R1 500	R12 001- R18 000
06	R347 – R577	R1 501 – R2 500	R18 001 –R30 000
07	R578 – R808	R2 501 – R3 500	R30 001 – R42 000
08	R809 – R1 039	R3 501 – R4 500	R42 001 – R54 000
09	R1 040 - R1 386	R4 501 – R6 000	R54 001 – R72 000
10	R1 387 – R1 848	R6 001 – R8 000	R72 001 – R96 000
11	R1 849 – R2 540	R8 001 – R11 000	R96 001 – R132 000
12	R2 541 – R3695	R11 001 – R16 000	R132 001 – R192 000
13	R3 696 – R6928	R16 001 – R30 000	R192 001 – R360 000
14	R6 929 OR MORE	R30 000 OR MORE	R360 001 OR MORE
15	DON’T KNOW	DON’T KNOW	DON’T KNOW
16	REFUSE	REFUSE	REFUSE

4.19 Does the organization/business/enterprise where works provide contributions towards membership of a medical aid fund or health insurance for him/her?

1 = YES, for him/herself only

2= YES, for him/herself and his/her dependants

3= YES, but he/she is not using it

4= No medical aid benefits provided

5= DON'T KNOW

4.25 How many hours per week, including overtime, does usually work?

a. In his/her main job/activity

b. In all other work activities

c. In total