Published in final edited form as:

Soc Dyn. 2006 January 1; 32(1): 195–216.

In-migration and Living Conditions of Young Adolescents in Greater Johannesburg, South Africa

Dr Linda M. Richter

The Child, Youth and Family Development, Human Sciences Research Council, and in the School of Psychology, University of KwaZulu-Natal, Durban

Dr Shane A. Norris

The MRC Mineral Metabolism Research Unit and the Birth to Twenty Research Programme, Department of Paediatrics, University of the Witwatersrand, Johannesburg

Tanya M. Swart, MA and Carren Ginsburg, MSc¹

The Birth to Twenty Research Programme, Department of Paediatrics and Child Health, University of the Witwatersrand, Johannesburg

Abstract

While migration in South Africa has been studied on a broad canvas, there have been few accounts of children's migration and the effects on living conditions and wellbeing. This article compares the access to services, housing and household amenities, and family characteristics of children born in the Greater Johannesburg metropolis with those of in-migrant children. The article also examines other indicators of child wellbeing related to parental care and schooling. In-migrant children, particularly children who have lived previously in rural areas and/or have recently migrated into the city, are significantly disadvantaged in comparison to long-term resident children in terms of parental education and occupation, housing type and ownership, access to electricity, refuse removal, water and sanitation. In-migrant children also live in households that are less likely to have amenities such as a refrigerator, television, washing machine, telephone and motor vehicle. In terms of child indicators, in-migrant children enjoy less frequent parental contact and are twice as likely to start school later than resident children. Whilst urbanisation to South Africa's metropolitan centres is generally associated with several widely recognised benefits, for children, these benefits may be tempered by the disadvantages of in-migrant families known to be associated with child wellbeing.

Introduction

South Africa has reached comparatively high levels of urbanisation and the African urban and metropolitan population is projected to more than double between 1990 and 2010. Furthermore, the substantial rural-urban migration observed in the past is likely to continue (Dor, 1994). Whilst rapid urbanisation into South Africa's metropolitan centres is generally associated with several widely recognised benefits, it also leads to increased pressure on social, educational, health, housing and transport facilities. As a result, concerns have been expressed about the capacity of cities to accommodate and service their residents (SACN, 2004). For this reason, the circumstances in which urban households live are important determinants of whether individuals become established in an urban environment or remain

Linda Richter's email address is: lrichter@hsr.ac.za.

¹Studies of children's migration in Birth to Twenty are funded by the Wellcome Trust (UK), the Human Sciences Research Council (South Africa) and a Mellon Foundation grant to the University of the Witwatersrand (South Africa). The work of Belinda Bedell in coordinating the school study and Giada del Fabbro in helping to review literature on child migration, is gratefully acknowledged.

at the margins, itinerant by virtue of their ongoing struggle for survival and search for a better life. Investigation into migration patterns and their consequences for households within urban areas remains a critical imperative. However, a lack of adequate data has hampered the analysis of migration trends in South Africa. Furthermore, there have been few accounts of the effects of migration on the living conditions of children (Kok, O'Donovan, Boare and Van Zyl, 2003). In this article, access to family characteristics, basic services, housing and household amenities of young adolescents, born and resident in the Greater Johannesburg metropolis are compared with in-migrant children. Comparisons between the children are also made in terms of selected indicators of their caregiving environment and schooling.

Background

Existing studies demonstrate that contemporary migration and mobility patterns in South Africa reflect the country's social, political and economic history. The control of movement and settlement patterns was a prominent feature of *Apartheid* segregationist policies, but is also traceable to colonial systems of governance (Gilbert and Crankshaw, 1999). More recently, the advent of a new social, political and economic era ushered in by the release of Nelson Mandela from prison in 1990 has also begun to shape population movement in the country (Kok, 1994). In order to shed light on current migration trends, this article provides a brief overview of the major historical factors that have influenced the nature of population movement and urbanisation in the country.

Under *Apartheid*, several measures were legislated and implemented to control and restrict the movement of predominantly Black South Africans (Kok et al., 2003). As a result, Black South Africans were not permitted to reside in urban areas without being employed and endorsed to be there. Adherence to these laws was enforced by means of permits and passes (Jones, 1993; Hindson, 1987). As a result, many Black South Africans were prevented from permanently residing in urban centres and compelled to stay in the rural 'homelands' (Kok et al., 2003). This gave rise to a system of migrant labour, where (mostly male) workers sought employment in cities, returning periodically to their rural homes. Together with, temporary work contracts and visits by wives and other relatives, this created a continuing pattern of circular migration between urban and rural areas (Posel, 2003; Gelderblom and Kok, 1994). Whilst, individuals were separated from their families, the remittances they returned to rural dependents were critical to family livelihoods.

The effects of *Apartheid* social and labour policies are evident in South Africa's distorted urbanisation patterns (Pick and Makhlof Obermeyer, 1996), and the presence of large numbers of residents in under-serviced, peripheral city areas (SACN, 2004). It is also starkly manifest in a number of family and household adaptations, such as single-person households in urban areas (Amoateng and Richter, 2003). Despite the dismantling of restrictions on movement, high rates of oscillating migration and residential mobility have also persisted into the post-*Apartheid* period (Posel, 2003; Posel and Casale, 2003; Posel and Casale, 2004; SACN, 2004), with many members of both urban and rural households spending large amounts of time residing elsewhere (Hosegood and Timaeus, 2001).

In addition to affecting the population movement in general, *Apartheid* policies also had profound and enduring impacts on the movement patterns of children. Children participate in migration, both independently, as well as with their parents and caregivers as households relocate (Barbarin and Richter, 2001; Bekker, 2002). One of the central mechanisms through which children migrate is child fosterage (the movement of children between family members). Initially an adaptation to labour migration, child fosterage emerged as an important strategy for maintaining livelihoods, resources and kinship networks. Children

were moved between rural and urban homes, and between households in urban areas to maximise their care and education, and to provide companionship and assistance to family members (Maharaj, Kaufman and Richter, 2000). The movement of children was amplified during the 1980s when politically motivated violence in urban areas made it difficult for them to continue their education in towns and cities. Fosterage to rural kin was employed as a strategy for maximising educational retention and achievement during this period of major urban unrest.

More recent research shows the continued salience of child fosterage in contemporary South African society. For instance, results from a secondary analysis of data from the 1993 South African Living Standards Survey indicated that approximately 17% of Black African children, 16 to 19 years of age, were fostered (Maharaj, Kaufman and Richter, 2000). Anderson et al. (2002), who tracked caregiver changes over time through the repeat October Household Surveys, found a rapid increase in the fosterage of children aged 9 to 14 which was associated with parental illness, postulated to be AIDS-related. While fosterage remains an adaptive response to social problems and a means to maintain kinship networks, the movement of children and its consequences require further research, as children's care networks may become very stretched under increased social pressure (Henderson, 1998; Spiegel, Watson and Wilkinson, 1996).

With increasing urbanisation in the country, there is a clear need to examine the current migration patterns of children both to and within urban areas and its effects on their living conditions and wellbeing. Whilst children living in urban areas have generally been viewed as more advantaged than rural children (UNICEF, 2002), there is increasing recognition that the concept of urban advantage may be misleading because it masks significant access and status differences among children within urban areas in developing countries (see Brouckhoff, 1995). Over the last two decades in particular, the situation of urban children has received greater global attention as increased numbers of children grow up in these environments, and may live in conditions that place their health, development and human rights at risk (UNICEF, 2002). Few studies in both the national and international literature, however, have investigated child migration directly or have examined the impact of migration on the health and wellbeing of children within the context of rapid urbanisation.

The province of Gauteng is a useful site for investigating current migration trends involving children and effects of migration on children's living conditions in an urban environment. It is the country's smallest province geographically, but is its second most populous (Oosthuizen and Naidoo, 2004), with approximately 8.8 million residents (Statistics South Africa, 2003). Gauteng includes three cities that have the fastest growing populations in South Africa, namely Ekurhuleni (4.12% growth per annum), Johannesburg (4.10%) and Tshwane (3.37%) (SACN, 2004). These metropolitan municipalities form the urban core of the province and are home to just over 80% of Gauteng residents (GPG, 2005; Oosthuizen and Naidoo, 2004). Together with the municipalities of Emfuleni and Mogale City, they form a largely continuous urban expanse (SACN, 2004). Rapid urbanisation in Gauteng is expected to continue over the next decade, with the province increasingly assuming the status of a city state (GPG, 2004a) that is predicted to become the 12th largest city in the world by 2015 (SACN, 2004).

Between the population census years of 1996 and 2001, Gauteng experienced an increase in population size of approximately 20% (GPG, 2005; Oosthuizen and Naidoo, 2004). This rapid population growth is largely attributed to migration into the province (GPG, 2004a; SACN, 2004). The province experiences a greater proportion of in-migrants from other provinces than any other of the country's eight provinces (Oosthuizen and Naidoo, 2004) and migration from rural areas within South Africa is most common (Statistics South Africa,

2003; GPG, 2004b). The perception that the province offers more employment opportunities and higher living standards in comparison to other provinces is likely to result in the continuation of these trends (Oosthuizen and Naidoo, 2004). In addition to significant internal in-migration in Gauteng, there has also been a significant increase in the number of migrants coming from neighbouring countries and Europe (Statistics South Africa, 2003; GPG, 2004b). Considerable rates of residential mobility amongst individuals and families within the province have also been noted (Richter, Norris and De Wet, 2004; Rule, 2000).

Gauteng is regarded as the economic powerhouse of the country (GPG, 2004). Together with the country's *Apartheid* history, the mining roots of economic growth in the province have contributed to its reliance on labour from migrants and immigrants (Oosthuizen and Naidoo, 2004). Whilst migration has contributed to the economic growth of the province, and continues to do so today, it also poses significant challenges to provincial and local government authorities because of increased demand on state-sponsored basic services and programmes (Oosthuizen and Naidoo, 2004).

In response to the importance of understanding child migration patterns within the context of urbanisation in post-*Apartheid* South Africa, this article presents the results of a study conducted in 2002 of in-migration to the Greater Johannesburg Metropolis among 5,367 children, aged 12 years, who attended primary schools in the city at the time. The article explores whether migration to the urban centre is associated with differences in the living conditions of children. It examines the family and housing characteristics, access to basic services and the ownership of goods in the households of children who are migrants to the Greater Johannesburg area and those who are long-term residents, in order to determine the potential impact of migration on child well-being, assessed through indicators of family wellbeing and educational progress.

Methodology

This article uses data from a Children's School Survey conducted in 2002 as part of the Birth to Twenty (BT20) longitudinal research study. BT20 began with the enrolment of all 3,273 singleton children born between 23 April and 8 June 1990 in Johannesburg-Soweto who continued to reside in the area for the first 6 months of their life (that is, excluding children born to women who came into the area only to deliver their babies, before returning to their home elsewhere). Data collection for the first decade of the study was completed in 2000, and the study was extended for a further 10 years (Richter, Norris and De Wet, 2004). The aim of the BT20 programme is to gather systematic information on the health and development of urban children and adolescents to extend knowledge of children's development and inform policy development in the country (Richter, Cameron, Norris, Del Fabbro and MacKeown, 2004).²

Whilst the BT20 study has primarily focussed on collecting longitudinal data from children and their families, the programme incorporates a number of related studies (Richter, Norris and De Wet, 2004). The 2002 Children's School Survey was a cross-sectional study, conducted partly to locate BT20 children with whom contact had been lost during the previous 12 years, and to compare the characteristics of the BT20 cohort with same-aged in-migrating children in Gauteng. This article reports on child in-migration to the Greater Johannesburg and Soweto area and compares the living conditions and selected indicators of wellbeing of migrant children and children of long-term residents.

²A more detailed account of the programme's specific objectives and methods can be found in: Anderson and Richter (1994); Fonn, De Beer, Kgamphe, McIntyre, Cameron, Padayachee et al. (1990); Richter, Yach, Cameron, Griesel and De Wet (1995); Yach, Padayachee, Cameron, Wagstaff and Richter (1990); and Yach, Padayachee, Cameron, Wagstaff and Richter (1991).

Sampling and Procedures

Ethical approval was granted by the Committee for Research on Human Subjects at the University of the Witwatersrand (the institutional base of BT20). Permission to conduct the survey was obtained from the Gauteng Department of Education

The sampling strategy involved compiling a database of all primary schools in Gauteng using lists provided by the Gauteng Department of Education (GDE) – the provincial government's educational authority. A total of 773 primary schools were identified in the Greater-Johannesburg-Soweto area. Of these, 63 could not be contacted because they no longer exist or the information provided by the GDE was incorrect, and 88, mostly private as well as special, schools refused to participate in the survey. Consequently, 622 (81%) primary schools were surveyed.

Data collection commenced in February 2002 and was completed in January 2003. Schools that agreed to participate in the survey were asked to compile a list of all learners born in the date range of the Birth to Twenty cohort (i.e. between April 23rd and June 8th 1990). The list was checked by the study field staff to ensure that all learners in the relevant birth date range were on the list. Once the lists were finalised, questionnaires were distributed in the languages identified by the school as most appropriate for caregivers. Class teachers handed out the questionnaire with information and consent sheets to identified children to take home. Caregivers were given a few days to return questionnaires to the school in sealed envelopes; outstanding questionnaires were followed up through prompts to children, telephonically and through home visits.

Of the 5,888 questionnaires distributed to the schools, a 92% response rate of completed questionnaires was obtained (5,444 questionnaires). Twin children (n=77) were excluded from the analysis, as twins are not part of the BT20 cohort, resulting in a final sample size of 5,367³. The basic demographic characteristics of the sample are shown in Table 1.

Survey Instrument

Items in the questionnaire were those used in previous data collection waves of the BT20 study. The questionnaire tapped the children's demographic, family and caregiver characteristics, educational history, residential background, physical infrastructure of the home, basic services, ownership of household goods, conditions of child care and school history. The questionnaire was translated from English into seSotho, isiZulu and Afrikaans, the predominant languages spoken within the survey area, piloted in these languages, and the necessary adaptations made.

Results

Place of Birth and Current Residential Area

More than half (55%) of the children surveyed were born in the metropole, 31% were born in other parts of Gauteng, 13% were born in another province, and 1% were born in another country (n=5,286). Although we are unable to assess the degree of out-migration, the fact that only half of the current primary school population in the city were born in the area demonstrates the high level of in-migration of children. At the time of the survey, 47% of the children attended school in the city lived in the area, 9% lived in peripheral areas, and 44% lived in other parts of Gauteng (n=5,120). Detailed results for place of birth and current, residential area are presented in Table 2.

³Numbers are indicated for each analysis because of variation in the sample due to incomplete data.

Table 3 shows the proportion of children born in each area by the category of their current residence. This table demonstrates the proportion of children still living in the area they were born in and, by contrast, the proportion of children who have moved to different areas. The results indicate that most children born in a particular area stay resident in that area. That is, 71% of children born in the core of the city, 62% of children born in the outlying city areas, and 88% of children born in other parts of Gauteng, currently resided in the same area, respectively. These results also show that mobility is highest amongst children living in peripheral areas and those in the core. In addition, it seems that the largest proportion of children born in other South African provinces live outside the Greater Johannesburg area, whilst the largest proportion of children born in another country live in the core of the city. That is, South African children appear to be migrating to the peripheral parts of city, whereas foreigners are coming into the city's nucleus.

Length of Time in the Metropolis

The average length of time which the children had lived in the metropolis, if not since birth, was 5.6 years (SD=3.3, range 1-12; n=900). About one third of the children had lived in the city for three years or less (34%), another third for 4-7 years (34%) and the remainder for more than eight years (32%). Of the children who had not lived in the metropolis since birth, 57% had previously lived in a rural area in South Africa, 35% in another urban area, and 8% in another country (n=955). The majority of in-migrating children to the Soweto-Johannesburg area are from rural areas, having moved into the city in the previous six years. Most in-migrating children started school in the city, suggesting that education is a driver of the movement into urban areas of young children.

Living Conditions and Migrant Status

Living conditions refer to housing, access to basic services and ownership of household goods. Results are shown in Tables 4, 5 and 6.

Most apparent in Table 4 is the expected finding that migrant children were significantly less likely to live in a house (55%) than long-standing resident children (74%), and more likely to live in a shack, garage, flat or cottage (29% as compared to 15%). In addition, long-standing residents were more likely to own their homes, and their homes were more likely to have both a separate kitchen and a separate bathroom. Recoding the type of housing into a binary variable (formal and non-formal housing) yielded statistically significant results, with long-term resident children more likely, and migrant children less likely, to live in formal housing ($\chi^2(1) = 76.9$, $p < 0.001$, $n=4,616$). A recoding of home ownership (owned and not owned) also revealed significant differences, with long-term resident children living in a home that is owned by either a primary caregiver or family member ($\chi^2(1) = 29.6$, $p < 0.001$, $n=4,495$). There was no significant difference between the two groups in terms of household density – 2.2 for residents and 2.3 for in-migrants.

Access to several types of basic services advantaged resident children, who were more likely to live in homes with electricity (95% vs 90% amongst migrant children), refuse removal (94% vs 90%), sole access to a toilet (91% vs 84%), access to a private water supply (90% vs 81%), and indoor hot and cold running water (51% vs 49%) (see Table 5).

Except for a radio, resident children were more likely than migrant children to live in homes that had a number of amenities (see Table 6): a refrigerator (87% vs 74% for migrant children), television (86% vs 78%), microwave (40% vs 32%), telephone (55% vs 48%), washing machine (42% vs 31%), and a motor vehicle (36% vs 31%).

Differences in Living Conditions by Origins

This section describes comparative findings with respect to living conditions among migrant children who previously lived in *rural* areas, and children who previously lived in *urban* areas. In terms of the number of rooms used for sleeping, the average for children from rural areas was 2 (SD=1, n=553), compared to 2.3 for children who had previously been in urban areas (SD=1.1, n=572). There was a small, but non-significant difference in household density between formerly rural (2.4) and formerly urban (2.3) migrants. Children from urban areas were also more likely than children who had lived in rural areas, to reside in a home with a separate bathroom ($\chi^2_{(1)} = 10.7$, $p < 0.01$, $n=1,126$) and kitchen ($\chi^2_{(1)} = 15.6$, $p < 0.001$, $n=1,123$), electricity in the home ($\chi^2_{(1)} = 28.9$, $p < 0.001$, $n=1,122$), and a sole-use toilet ($\chi^2_{(1)} = 18.5$, $p < 0.001$, $n=1,112$) and water supply ($\chi^2_{(1)} = 12.0$, $p < 0.01$, $n=1,113$). Furthermore, children who had been in urban South African areas were more likely to live in a household that had a fridge: $\chi^2_{(1)} = 31.8$, $p < 0.001$, $n=1,117$; television: $\chi^2_{(1)} = 8.0$, $p < 0.01$, $n=1,122$; microwave: $\chi^2_{(1)} = 30.6$, $p < 0.001$, $n=1,111$; telephone: $\chi^2_{(1)} = 5.7$, $p < 0.05$, $n=1,109$; washing machine: $\chi^2_{(1)} = 54.8$, $p < 0.01$, $n=1,108$; and motor vehicle: $\chi^2_{(1)} = 27.4$, $p < 0.001$, $n=1,109$.

These results indicate that, amongst in-migrant children, those who previously lived in urban areas live in significantly better conditions than children who came from rural areas. Thus children from rural areas reside in poorer living conditions than their formerly urban counterparts when they move into the city. To some extent, in-migrants bring disadvantages with them when they move into the city, as indexed by significant differences in the education of respondents ($\chi^2_{(1)} = 111.2$, $p < 0.001$, $n=4,831$). Twice the number of in-migrant respondents had received no education or only primary education, and only half as many had completed tertiary education, as compared to long-term residents ($n=250$ and 456). However, once in the urban metropolis, disadvantages are exacerbated by levels of unemployment.

Parental Occupation

In-migrant parents are less likely to be employed than long-term residents and, if employed, more likely to work in unskilled than skilled categories of employment (see Table 7). In the case of mothers, the differences are statistically significant ($\chi^2_{(1)} = 41.7$, $p < 0.001$, $n=4,027$). Using Kendall tau-b for ordinal data, the chi-squared test for paternal occupation was not statistically significant, although the same trend is apparent. Similarly, while people formerly from rural areas were worse off with respect to employment than those from urban areas, the differences were not statistically significant.

Selected Indicators of Child Wellbeing

Two categories of indicators were selected for analysis. The first category is concerned with caregiving status, specifically, whether the child is an orphan and whether the child is living, or in regular contact with either his/her mother or father. The second relates to schooling, specifically, the age at which the child started school, and whether the child has ever failed or been kept back a grade. The results, for resident and migrant children, are shown in Table 8.

A higher proportion of resident children (4.4%), as compared to migrant children (3.6%), had lost either a mother or a father, but the difference was not statistically different. Notwithstanding parental death, resident children had significantly higher levels of parental involvement than migrant children, with more resident children living with or in daily contact with either their mother or father.

Close to half of both groups had failed or been held back at least one grade in their first six years of school. However, in-migrant children were significantly more likely to start school later than resident children ($\chi^2_{(2)} = 67.110$, $p < 0.001$, $n = 4,917$).

Discussion

Several of the findings in the present study offer insight into the movement of children into urban areas, the standard of their living conditions, and indicators of wellbeing associated with residential status. Most important is the finding that close to half of all 12-year-olds in school in the metropolis in 2003 were born outside of the area and have migrated into the city during the preceding decade. In-migration seems to have been evenly paced across the 12 years examined, although it was not possible in this article to assess out-migration over the same time period. As a group, children show a higher level of in-migration than pertains to the population as a whole, mainly because more than one child is generally associated with the migration of an adult.

Secondly, the findings suggest that South African in-migrant children tend to move into the periphery of the Greater Johannesburg metropolis, whilst immigrant children are more likely to move into the inner city. In a similar vein, Gilbert and Crankshaw (1999) reported an increase in the numbers of migrants settling in the Johannesburg city centre post-1990, although migrants have continued to settle most commonly in Johannesburg's outlying areas upon initial entry into the region.

Thirdly, children born within broad area bands in the city tend to remain fairly stable within that area over a decade. Nonetheless, the findings for place of birth and current residential area suggest a higher proportion of movement within the outlying city areas in comparison to the city core. The outlying city areas appear to form an intermediate step into the city centre, hosting children less permanently. This means that residence on the periphery may be a stage in the migration process, but further research into the social and economic situation of in-migrant children and their families is needed as several factors may account for these trends. For instance, the differential movement patterns of South African and foreign in-migrant children may be related to family employment and economic opportunities, differing perceptions of the city centre, household formation patterns and/or differences in social networks.

Differences are evident in the living conditions of in-migrant children, especially between formerly rural and urban children, as well as between in-migrant children and children who have lived in Greater Johannesburg since birth. Access to adequate housing, electricity, sanitation and water are indicative of both wellbeing and quality of life (Central Statistics, 1997), and the presence of basic goods in a household also provides useful information about differences in living standards (Bhorat et al, 2004; Oosthuizen and Naidoo, 2004). Parental employment levels show significant disadvantages among in-migrant families.

The findings demonstrate that the quality of life of children currently resident in the Greater Johannesburg Metropolitan area differs significantly according to their migration status across most of the indicators used to assess living conditions in the survey. Whilst these indicators are not representative of the totality of measures that may be used for assessing living standards, they nevertheless provide insight into the ways in which migration may be associated with differences in the lived realities of children. Overall, urban living for most of the migrant children in the study was associated with significantly lower levels of parental employment, access to basic services, household goods and physical infrastructure.

In terms of housing, migrant children to the metropolis were generally more likely to live in informal housing, and specifically, were more likely to live in a shack, room/garage, shared

house or hostel as opposed to a house. This finding is consistent with the results of the Migration and Housing Survey conducted in Soweto in 1997, in which it was found that migrants first entering the city of Johannesburg would most frequently take up residence in shared or rented accommodation (Gilbert and Crankshaw, 1999). Migrant children were also less likely to live in a home owned by a caregiver or family member. Since home ownership represents greater residential stability, this suggests the possibility of future moves among in-migrant children. Home ownership is an important buffer against poverty (May, 1998), and for this reason, migrant children may be more vulnerable to poverty. Migrant children were also more likely to live in overcrowded conditions, and were less likely to have access to electricity, municipal refuse removal services, indoor running water and sole use of water and a toilet, as well as a number of household amenities that enable communication and planned household activities (such as refrigerator).

Some of these findings confirm the findings of Oosthuizen and Naidoo (2004) reported in their study of internal migration to the Gauteng province using 2001 census and 2002 Labour Force Survey data. Although they do not specifically focus on children, they also found that non-Gauteng born migrants to the province had lower levels of piped water and the lowest levels of access to electricity (Oosthuizen and Naidoo, 2004).

Overall, children who had reportedly lived in the Greater Johannesburg Metropolitan area since birth appear to be more advantaged than those who had not. This was confirmed by two indicators of child wellbeing related to caregiving environment and schooling. Migrant children were less likely to live with or be in daily contact with at least one of their parents, and more likely to have started school late. That is, migrant children fared worse than children who had resided in the metropolis since birth in terms of both their basic living conditions, and some aspects of their social environment and education.

Whilst migration to urban areas is often prompted by the search for improved living conditions as reflected in a region's social and economic infrastructure (Bekker, 2002) and, as such, holds out the hope of a better life, it may not translate into the same benefits that long-term resident families enjoy. In-migrant children consequently appear to be more vulnerable to poverty, as well as health, social and educational risks, and may experience more difficulty in navigating the hazards of urban life. Migration also brings significant changes to the social networks of families. Migrant families may be compromised not only in terms of access to basic household services and goods, but may be further strained by challenges in finding work and changes in the availability of social support. This may exacerbate the vulnerability of migrant families in urban areas. The results of the study therefore suggest that the wellbeing of migrant families and children is of particular concern in policy formulation related to the provision of infrastructure and social services.

However some notable differences were evident within the group of migrant children with regard to their origins. The majority of migrant children had previously lived in a rural area and this group had the most pronounced disadvantages in living conditions. Overall, the findings demonstrate a gradient of access to housing, services and facilities that accrue with the length of time households have to establish themselves in urban areas. To accomplish this, households make strategic choices to acquire improved conditions, including, for example, by moving from one back-yard shack to another, to a self-standing garage, and perhaps eventually to a house. In the same way, children may spend varying amounts of time with kin in different parts of the city in order to access the best available education and to afford them optimum care. These movements occur within the metropolis, with children moving both with their primary families and independently of them. It is this internal urban migration, characterised by residential changes, the various homes in which children spend

their time, and children's movements between home and school, that remain largely uncharted.

References

- Amoateng, A.; Richter, LM. The state of families in South Africa. In: Daniel, J.; Habib, A.; Southall, R., editors. *The State of the Nation: South Africa 2003-4*. Pretoria: Human Sciences Research Council; 2003. p. 242-267.
- Anderson, B.; Phillips, H.; van Zyl, J.; Rmani, J. Estimates of the percentage of children orphaned based on October Household Survey Data, 1995-1998. Paper presented at the Workshop on Longitudinal Social Science Analysis; Cape Town. 2002.
- Anderson A, Richter LM. Birth to Ten – Error detection and correction of a longitudinal address database. *South African Journal of Epidemiology and Infection*. 1994; 9:16–19.
- Barbarin, OA.; Richter, LM. *Mandela's children: Growing up in post-apartheid South Africa*. New York/London: Routledge; 2001.
- Beall J, Crankshaw O, Parnell S. Report prepared for the ESCOR Commissioned Research on Urban Development: Urban Governance, Partnership and Poverty, February. *Urban governance and poverty in Johannesburg* (Vol. 1). 1999
- Bekker SB. Provincial Government of the Western Cape: Migration Study in the Western Cape 2001, Main Report. 2002last accessed 6 March 2006.http://www.capegateway.gov.za/eng/publications/reports_research/M/11369
- Bhorat, H.; Poswell, L.; Naidoo, P. *Dimensions of poverty in post-apartheid South Africa (1996-2001)*. Cape Town: Development Policy Research Unit; 2004.
- Brockershof M. Child survival in big cities: The disadvantages of migrants. *Social Science and Medicine*. 1995; 40(10):1371–1383. [PubMed: 7638646]
- Central Statistics. *Living in Gauteng: Selected findings from the 1995 October Survey*. Pretoria: Central Statistics; 1997.
- Department of Health. *The 1998 South African Demographic and Health Survey: Full report*. Pretoria: Department of Health; 2002.
- Dor G. New settlements, growing communities. *Critical Health*. 1994; 46:6–13.
- Fonn S, De Beer M, Kgamphe S, McIntyre J, Cameron N, Padayachee N, et al. Birth to Ten – pilot studies to test the feasibility of a birth cohort study investigating the effects of urbanization in South Africa. *South African Medical Journal*. 1990; 79:449–454. [PubMed: 2020885]
- Gauteng Provincial Government. *A decade of change - Profile of Gauteng*. Johannesburg: Gauteng Provincial Government; 2004a. Ch. 4
- Gauteng Provincial Government. *Planning for 2014: Making the future work today*. Johannesburg: Gauteng Provincial Government; 2004b.
- Gauteng Provincial Government. *Shilowa: United Cities and Local Governments of Africa Congress*. Johannesburg: Gauteng Provincial Government; 2005.
- Gelderblom, D.; Kok, P. *Urbanisation: South Africa's challenge*. Vol. 1. Pretoria: HSRC; 1994. Dynamics.
- Gilbert A, Crankshaw O. Comparing South African and Latin American Experience: Migration and Housing Mobility in Soweto. *Urban Studies*. 1999; 36(13):2375–2400.
- Henderson, P. Tracing fragility in families: Children's reflections on mobility. In: Richter, L., editor. *In view of school: Preparation for and adjustment to school under rapidly changing social conditions*. Johannesburg: Goethe Institute; 1998.
- Hindson, D. *Pass Controls and the Urban African Proletariat in South Africa*. Johannesburg: Ravan Press; 1987.
- Hosegood, V.; Timaeus, IA. Household composition and dynamics in KwaZulu Natal, South Africa: Mirroring social reality in longitudinal data collection. Paper presented at the African Census Analysis Project Virtual Conference on African Households: An exploration of Census Data; 21-24 November 2001;

- Jones, S. *Assaulting Childhood: Children's Experiences of Migrancy and Hostel Life in South Africa*. Johannesburg: Witwatersrand University Press; 1993.
- Kok, P.; O'Donovan, M.; Boure, O.; van Zyl, J. *Post-Apartheid patterns of internal migration in South Africa*. Cape Town: HSRC Publishers; 2003.
- Kok, P. *Migration theory and modelling: A South African application*; Paper presented at the HSRC Conference; Birchwood, Benoni. 27-28 July 2004;
- Maharaj, P.; Kaufman, P.; Richter, L. Durban: University of Natal; 2000. *Children's schooling in South Africa: Transitions and tensions in households and communities*. CSDS Working paper 30
- May, J. *Poverty and inequality in South Africa*. Durban: Praxis Publishing; 1998. Report prepared for the Office of the Executive Deputy President and Inter-Ministerial Committee for Poverty and Inequality
- Oosthuizen, M.; Naidoo, P. *Internal Migration to the Gauteng Province*. DPRU Working Paper 04/88. Cape Town: Development Policy Research Unit; 2004.
- Pick WM, Makhlouf Obermeyer C. Urbanization, household composition and the reproductive health of women in a South African city. *Social Science and Medicine*. 1996; 43(10):1431–1441. [PubMed: 8923615]
- Posel, D. Have migration patterns in post-Apartheid South Africa changed?. Paper prepared for the Conference on African Migration in Comparative Perspective; Johannesburg, South Africa. 4-7 June 2003;
- Posel D, Casale D. What has been happening to internal labour migration in South Africa, 1993-1999? *South African Journal of Economics*. 2003; 71(3):455–479. also published as *DPRU Working Paper*, No. 03/74.
- Posel D, Casale D. *Internal labour migration and household poverty in post-apartheid South Africa*. SAGA Working Paper. 2004 Strategies and Analysis for Growth and Access.
- Richter, LM.; Cameron, N.; Norris, SA.; Del Fabbro, G.; Mackeown, J. *Birth to Twenty Research Programme Dissemination Report*. Johannesburg: University of the Witwatersrand; 2004.
- Richter, LM.; Norris, SA. Very young adolescents - A longitudinal perspective from South Africa: The Birth to Twenty Study. Paper presented to the Department of Child and Adolescent Health and Development, World Health Organization; Geneva. 29th April to 2nd May 2003;
- Richter LM, Norris SA, De Wet T. Transition from Birth to Ten to Birth to Twenty: The South African cohort reaches 13 years of age. *Paediatric and Perinatal Epidemiology*. 2004; 18:290–301. [PubMed: 15255883]
- Richter LM, Yach D, Cameron N, Griesel R, De Wet T. Enrolment into Birth to Ten (BTT): Population and sample characteristics. *Paediatric and Perinatal Epidemiology*. 1995; 9:109–120. [PubMed: 7724410]
- Rule, S. Geographical preferences and movements. In: Rule, S., editor. *Democracy South Africa: Public opinion on national priority issues*. Pretoria: HSRC Publishers; 2000. p. 66-69.
- South African Cities Network. *State of the Cities Report*. Johannesburg: SACN; 2004.
- Speigel AD, Watson V, Wilkinson P. Domestic diversity and among some African in greater Cape Town. *Social Dynamics*. 1996; 22:7–30.
- Statistics South Africa. *Census 2001: Census in brief*. Pretoria: Statistics South Africa; 2003.
- United Nations Children's Fund. *Poverty and exclusion among urban children*. Florence: UNICEF Innocenti Research Centre; 2002.
- Yach D, Padayachee N, Cameron N, Wagstaff L, Richter L. Birth to Ten – A study of children of the 1990s living in the Johannesburg-Soweto area. *South African Medical Journal*. 1990; 77:325–326. [PubMed: 2321102]
- Yach D, Padayachee N, Cameron N, Wagstaff L, Richter LM. Birth to Ten – A study of children of the 1990s. Rationale and methods of a birth cohort study. *Pediatric and Perinatal Epidemiology*. 1991; 5:211–233. [PubMed: 2052483]

TABLE 1

Demographic Characteristics of the Sample

Demographic characteristics		Migrant Total (%)	Resident Total (%)
Child gender		n=1,017	n=4,046
	Male	478 (47.0)	1,926 (47.6)
	Female	539 (53.0)	2,120 (52.4)
$\chi_{(1)}^2 = 0.118$, NS, n = 5,063			
Population group		n=1017	n=4046
	Black	852 (83.8)	3,160 (78.1)
	White	104 (10.2)	460 (11.4)
	Coloured	31 (3.0)	310 (7.7)
	Indian	30 (2.9)	116 (2.9)
$\chi_{(1)}^2 = 29.960$, p < 0.001, n = 5,063			

TABLE 2

Results for Place of Birth, Residential Area and Prospective School Area

	Place of birth		Residence		
	n	%	n	%	
Area Category	City Core	2,909	55.0	2,414	47.1
	Outlying Areas	180	3.4	461	9.0
	Other Gauteng	1,460	27.6	2,231	43.6
	Other Province	663	12.5	14	0.3
	Other Country	74	1.4	0	0.0
	Total	5,286	100	5,120	100

Place of Birth by Current Residential Area

TABLE 3

		Place of birth									
		City Core		Peripheral Areas		Other Parts of Gauteng		Other Provinces		Other Countries	
		n	%	n	%	n	%	n	%	n	%
Residential Area											
	City Core	1,996	71.0	43	24.3	102	7.4	217	34.9	35	50.7
	Outlying Areas	170	6.0	110	62.1	64	4.7	95	15.3	15	21.7
	Other Gauteng	645	22.9	24	13.6	1202	87.6	302	48.6	19	27.5
	Other Province	2	0.1	0	0.0	4	0.3	7	1.1	0	0.0
	Total	2,813	100	177	100	1372	100	621	100	69	100

TABLE 4**Housing Characteristics of Migrant and Long-Standing Resident Children**

Housing characteristics		Migrant Total (%)	Resident Total (%)
Type of home		n=998	n=3,618
	house	546 (54.7)	2,670 (73.8)
	shack	180 (18.0)	361 (10.0)
	room/garage	80 (8.0)	169 (4.7)
	shared house	72 (7.2)	205 (5.7)
	flat/cottage	110 (11.0)	197 (5.4)
	hostel	10 (1.1)	16 (0.4)
$\chi_{(5)}^2 = 144.531, p < 0.001, n = 4,616$			
Dwelling ownership		n=967	n=3,528
	caregiver	434 (44.9)	1,659 (47.0)
	family	212 (21.9)	1,005 (28.5)
	employer	59 (6.1)	74 (2.1)
	rented	262 (27.1)	790 (22.4)
$\chi_{(3)}^2 = 61.112, p < 0.001, n = 4,495$			
Have a separate kitchen		n=981	n=3,588
	no	263 (26.8)	638 (17.8)
	yes	718 (73.2)	2,950 (82.2)
$\chi_{(1)}^2 = 39.661, p < 0.001, n = 4,569$			
Have a separate bathroom		n=983	n=3,581
	no	472 (48.0)	1,563 (43.6)
	yes	511 (52.0)	2,018 (56.4)
$\chi_{(1)}^2 = 5.926, p < 0.05, n = 4,563$			

TABLE 5

Basic Household Services of Migrant and Long-Standing Resident Children

Types of basic household services		Migrant n (% total)	Resident n (% total)
		n=996	n=3,611
Refuse removal	no	99 (9.9)	232 (6.4)
	yes	897 (90.1)	3,379 (93.6)
$\chi_{(1)}^2 = 14.464, p < 0.001, n=4,607$			
		n=984	n=3,861
Have electricity	no	140 (10.1)	204 (5.3)
	yes	844 (89.8)	3,657 (94.7)
$\chi_{(1)}^2 = 95.102, p < 0.001, n=4,845$			
		n=979	n=3,560
Type of toilet	flush inside	591 (60.4)	2,148 (60.3)
	flush outside	278 (28.4)	1,220 (34.3)
	bucket system	23 (2.3)	52 (1.5)
	other	87 (8.9)	140 (3.9)
$\chi_{(3)}^2 = 49.377, p < 0.001, n=4,539$			
		n=979	n=3,558
Use of toilet	sole use	820 (83.8)	3231 (90.8)
	shared use	159 (16.2)	327 (9.2)
$\chi_{(1)}^2 = 39.981, p < 0.001, n=4,539$			
		n=977	n=3,563
Type of water	indoor running hot & cold	479 (49.0)	1,803 (50.6)
	indoor running cold only	180 (18.4)	728 (20.4)
	outdoor running	284 (29.1)	990 (27.8)
	other	34 (3.5)	42 (1.3)
$\chi_{(3)}^2 = 26.632, p < 0.000, n=4,540$			
		N=977	N=3,563
Use of water	sole use	792 (81.1)	3,206 (90.0)
	shared use	185 (18.9)	357 (10.0)
$\chi_{(1)}^2 = 57.976, p < 0.001, n=4,540$			

TABLE 6

Presence of Household Goods for Migrant and Long-Standing Resident Children

Type of household goods		Migrant n (% total)	Resident n (% total)
Have a radio		n=994	n=3,861
	no	150 (15.1)	551 (14.3)
		844 (84.9)	3,310 (85.7)
	yes		
$\chi_{(1)}^2 = 0.430, p > 0.05, n=4,855$			
Have a fridge		n=984	n=3,853
	no	253 (25.7)	506 (13.1)
		731 (74.3)	3,347 (86.9)
	yes		
$\chi_{(1)}^2 = 93.747, p < 0.001, n=4,837$			
Have a television		n=986	n=3,854
	no	218 (12.1)	534 (13.9)
		768 (77.9)	3,320 (86.1)
	yes		
$\chi_{(1)}^2 = 40.758, p < 0.001, n=4,840$			
Have a microwave		n=982	n=3,831
	no	665 (67.7)	2,303 (60.1)
	yes	317 (32.3)	1,528 (39.9)
$\chi_{(1)}^2 = 19.119, p < 0.001, n=4,813$			
Have a telephone		n=981	n=3,835
	no	511 (52.1)	1,726 (45.0)
	yes	470 (47.9)	2,109 (55.0)
$\chi_{(1)}^2 = 15.757, p < 0.001, n=4,816$			
Have a washing machine		n=981	n=3,834
	no	673 (68.6)	2,230 (58.2)
	yes	308 (31.4)	1,604 (41.8)
$\chi_{(1)}^2 = 35.560, p < 0.001, n=4,815$			
Have a motor vehicle		n=981	n=3,833
	no	676 (68.9)	2,441 (63.7)
	yes	305 (31.1)	1,392 (36.3)
$\chi_{(1)}^2 = 9.344, p < 0.01, n=4,814$			

TABLE 7

Parental Employment, Migrant and Long-Standing Residents

Maternal and Paternal Employment	Migrant n (% total)	Resident n (% total)
Maternal employment	1,509	2,518
Unemployed	678 (45%)	1,036
Unskilled work	418 (28%)	(41%)
Skilled work (including professional)	413 (27%)	553 (22%)
$\chi^2_{(2)} = 111.2$ $p < 0.001$, $n = 4,831$		929 (37%)
Paternal employment	1,228	1,856
Unemployed	336 (27%)	563 (30%)
Unskilled work	271 (22%)	322 (17%)
Skilled work (including professional)	621 (51%)	971 (52%)
$\chi^2_{(2)} = 11.2$, $p < 0.001$, $n = 3,084$		

TABLE 8

Indicators of Caregiving and Schooling Among Resident and Migrant Children

Indicators of child wellbeing		Migrant resident Total (%)	Long-term resident Total (%)
		n=1,003	n=3,914
Age Commenced School	< Age 6	15 (1.5)	128 (3.3)
	Age 6	832 (83.0)	3,489 (89.1)
	> Age 6	156 (15.6)	297 (7.6)
$\chi_{(2)}^2 = 67.110, p < 0.001, n = 4,917$			
		n=1,002	n=3,931
Ever Failed a Grade	No	564 (56.3)	2,254 (57.3)
	Yes	438 (43.7)	1,677 (42.7)
$\chi_{(1)}^2 = 0.361, NS, n = 4,933$			
		n=1,017	n=4,046
Orphan Status	No	949 (93.3)	3,707 (91.6)
	Yes	68 (6.7)	339 (8.4)
$\chi_{(1)}^2 = 3.149, NS, n = 5,063$			
		n=986	n=3,962
Frequent Parental Involvement	No	154 (15.6)	518 (13.1)
	Yes	832 (84.4)	3,444 (86.9)
$\chi_{(1)}^2 = 4.355, p < 0.05, n = 4,948$			