

CENSUS 2011

Provincial profile: Gauteng



**Statistics
South Africa**



The South Africa I know, the home I understand

Provincial profile: Gauteng

Census 2011

Statistics South Africa

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Statistician-General

Report No. 03-01-76 (2011)

Census 2011 Provincial Profile: Gauteng / Statistics South Africa

Published by Statistics South Africa, Private Bag X44, Pretoria 0001

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Stats SA Library Cataloguing-in-Publication (CIP) Data

Census 2011 Provincial Profile: Gauteng / Statistics South Africa. Pretoria: Statistics South Africa 2014

58p. [Report No. 03-01-76 (2011)]

ISBN: 978-0-621-43215-2

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Chapter 1: Introduction

1.1 Overview

Censuses are principal means of collecting basic population and housing statistics required for social and economic development, policy interventions, their implementation and evaluation. South Africa has conducted three censuses (1996, 2001 and 2011). Census 2011 was the third census to be conducted since the post-democratic elections in 1994 and a number of population and household attributes were measured and a variety of indicators generated. This chapter provides profiles results on all census topics: demographics, migration, education, general health and functioning, labour force, mortality, and households.

1.2 How the count was done

Census 2011 was conducted from 9–31 October 2011. This section focuses on the various activities that were carried out prior to the finalisation of the results. They can be summarised as follows: planning, pre-enumeration, enumeration, processing and editing.

1.2.1 Planning

This process involved the development of the overall strategy, the structure for the project, component plans and budget. These processes were started in 2003 and were subsequently reviewed in 2008, after the completion of the Community Survey (CS) in 2007. Methodologies and procedures were then developed and tested in a form of mini tests and a pilot in 2008 and 2009 respectively. The findings from these tests helped to refine the plans and methods for the final test in 2010 called the “Dress Rehearsal”. The latter was expected to be a replica of how the actual count was to be conducted in 2011, and therefore the timing had to be the same month as the main census, i.e. October.

1.2.2 Pre-enumeration

The pre-enumeration phase mainly involved the final preparatory work before the actual count. It started with mass production of census instruments like questionnaires, manuals, field gear etc. The phase also involved acquisition of satellite offices required in the districts, recruitment of the first level of field management staff (District Census Coordinators – 130 DCCs) and Fieldwork Coordinators (6 000 FWCs). These groups of people were then given intense training based on their key performance areas. At the same time the country was being sub-divided into small pockets called enumeration areas (EAs); the underlying principle for this sub-division is that an EA should be within reach of a Fieldworker and all households in that EA can be covered within the allocated number of days. This process yielded 103 576 EAs. The other benefit for this sub-division is the finalisation of the distribution plan of all materials required in the provinces and districts. It also gives a better estimate of the

number of field staff to recruit for the count. The pre-enumeration phase involved over 7 000 staff.

1.2.3 Enumeration

The enumeration phase started with the training of supervisors as listers. Each person had to list all dwellings within an EA and had a minimum of four EAs to cover. These areas were called supervisory units. As they were listing, they were also expected to publicise the activities of the census within their supervisory units. Upon completion of listing, final adjustments of workload and number of enumerators required were finalised. Training of enumerators started in earnest, and it mainly covered how to complete the questionnaire and to read a map. The latter was to aid them to identify the boundaries of their assigned areas. An enumerator was also given a few days before the start of the count to update their orientation book with any developments that might have happened since listing, as well as introduce themselves to the communities they were to work with, through posters bearing their photos and special identification cards. On the night of 9 October 2011 the actual count started with the homeless and special institutions given special attention. The enumeration phase was undertaken by an army of field staff in excess of 160 000, inclusive of management.

1.2.4 Data processing

The processing of over 15 million questionnaires commenced in January 2012, immediately after the completion of the reverse logistics in December 2011. Each box and its contents were assigned a store location in the processing centre via a store management system. Each time a box was required for any process it was called through this system. The processing phase was sub-divided in the following processes: *primary preparation* – where all completed questionnaires were grouped into clusters of 25 and the spine of the questionnaire was cut off; *secondary preparation* – where questionnaires were finally prepared for scanning by removing foreign materials in between pages and ensure that all pages are loose; *scanning* – questionnaires were put through a scanner to create an electronic image; and finally *tilling and completion* – where any unrecognised reading/badly-read image by the scanner had to be verified by a data capturer. This process took eight months. Over 2 000 data processors working three shifts per day were employed for this phase, to ensure that 225 million single pages are accounted for.

1.2.5 Data editing and validation system

The execution of each phase of census operations introduces some form of errors in census data. Despite quality assurance methodologies embedded in all the phases; data collection, data capturing (both manual and automated), coding, and editing, a number of errors creep in and distort the collected information. To promote consistency and improve on data quality, editing is a paramount phase in identifying and minimising errors such as invalid

values, inconsistent entries or unknown/missing values. The editing process for Census 2011 was based on defined rules (specifications).

The editing of Census 2011 data involved a number of sequential processes: selection of members of the editing team, review of Census 2001 and 2007 Community Survey editing specifications, development of editing specifications for the Census 2011 pre-tests (2009 pilot and 2010 Dress Rehearsal), development of firewall editing specifications and finalisation of specifications for the main census.

Editing team

The Census 2011 editing team was drawn from various divisions of the organisation based on skills and experience in data editing. The team was thus composed of subject matter specialists (demographers and programmers), managers as well as data processors.

Role of the team

Among other census activities, the editing team's roles and responsibilities included:

- Establishment of editing plan/schedule
- Formulation and application of clear and concise editing specifications
- Validation of census data using other data sources
- Ensure consistency of editing rules between censuses (2001 and 2011) where applicable
- Provision of imputation flags and rates
- Identification of errors and provide corrections where possible
- Review and refinement of the editing specifications based on edit trail evaluations, cross tabulations, and comparison of census data with other datasets
- Testing the specifications before confirming and applying them

The editing specification process commenced with activities relating to review of existing editing specifications guidelines. Census 2001 specifications as well as Community Survey 2007 survey specifications and the UN handbook on census editing were reviewed to form the basis of the specifications.

Editing strategy for Census 2011

The Census 2011 questionnaire was very complex, characterised by many sections, interlinked questions and skipping instructions. Editing of such complex, interlinked data items required application of a combination of editing techniques. Errors relating to structure were resolved using structural query language (SQL) in Oracle dataset. CSPro software was used to resolve content-related errors. The strategy used for Census 2011 data editing was implementation of automated error detection and correction with minimal changes. Combinations of logical and dynamic imputation were used. Logical imputations were preferred, and in many cases substantial effort was undertaken to deduce a consistent

value based on the rest of the household's information. To profile the extent of changes in the dataset and assess the effects of imputation, a set of imputation flags are included in the edited dataset. Imputation flags values include the following:

- | | |
|---|--|
| 0 | no imputation was performed; raw data were preserved |
| 1 | logical editing was performed, raw data were blank |
| 2 | logical editing was performed, raw data were not blank |
| 3 | hot-deck imputation was performed, raw data were blank |
| 4 | hot-deck imputation was performed, raw data were not blank |

1.2.6 Independent monitoring and evaluation of census field activities

Independent monitoring of the Census 2011 field activities was carried out by a team of 31 professionals and 381 Monitoring and Evaluation Monitors from Monitoring and Evaluation division. These included field training, publicity, listing and enumeration. This was to make sure that the activities were implemented according to the plans and have independent reports on the same. They also conducted Census 2011 and the Post-enumeration Survey (PES) verification studies to identify the out-of-scope cases within Census 2011 (a sample of 7 220 EAs) and the PES sample (600 EAs) as reported in the Census 2011 PES EA Summary Books.

1.2.7 Post-enumeration survey (PES)

A post-enumeration survey (PES) is an independent sample survey that is conducted immediately after the completion of census enumeration in order to evaluate the coverage and content errors of the census. The PES for Census 2011 was undertaken shortly after the completion of census enumeration, from November to December 2011, in approximately 600 enumeration areas (EAs) (which later increased to 608 due to subdivision of large EAs). The main goal of the PES was to collect high quality data that would be compared with census data in order to determine how many people were missed in the census and how many were counted more than once.

A population census is a massive exercise, and while every effort is made to collect information on all individuals in the country, including the implementation of quality assurance measures, it is inevitable that some people will be missed and some will be counted more than once. A PES assists in identifying the following types of errors:

- Coverage error: this includes both erroneous omissions (e.g. a household that was not enumerated) and erroneous inclusions (e.g. a household that moved into the enumeration area (EA) after census but was still enumerated, or a household that was enumerated more than once).
- Content error: this refers to the errors on the reported characteristics of the people or households enumerated during census.

The errors may emanate from the following reasons:

- Failure to account for all inhabited areas in the EA frame;
- EA boundary problems;
- Incomplete listing of structures and failure to identify all dwellings within an EA;
- Failure to enumerate/visit all listed dwellings within an EA;
- Failure to identify all households within a dwelling unit in instances whereby a dwelling unit has more than one household;
- Failure to enumerate households (complete questionnaires) for all households due to refusals, unreturned questionnaires for self-enumeration, inability to contact households, etc.);
- Failure to include all individuals within households;
- Failure to observe the inclusion rule based on a person's presence on census night (i.e. failure to apply the de facto rule accurately); and
- Lost questionnaires or damaged questionnaires that could not be processed.

Usually more people are missed during a census, so the census count of the population is lower than the true population. This difference is called net undercount. Rates of net undercount can vary significantly for different population groups depending on factors such as sex, age and geographic location. Stats SA obtains estimates of the net undercount, including the type and extent of content errors (reported characteristics of persons and households enumerated in the census) using information collected through the PES.

Preparations for the PES

Planning involved the development of documents outlining the goal and objectives of the PES, timelines of the project, identification of resources (financial, human and otherwise) required for implementing the project, and the development of methodology documents. Timelines for the PES were synchronised with those of census to ensure the relevance of the project, and adhered to international best practice for maintaining a closed population between Census 2011 and PES data collection, i.e. it should be carried out within a few months, preferably within six (6) months, after the completion of census fieldwork to ensure that the impact of natural population changes, such as births, deaths and migration, as well as lapses in respondent recall do not complicate the exercise. Activities of the PES included the following:

- Sampling: sample design and selection;
- Development of data collection methodologies: methods and procedures for data collection (publicity, listing and enumeration), including quality control measures applied during data collection;
- Development of matching and reconciliation procedures and systems: guidelines for matching, including rules for determining the match status of households and individuals, as well as a computer-based system for capturing household and person records for matching purposes;

- Questionnaire development: selection of data items which allowed measurement of coverage and content, including layout design and printing of questionnaire;
- Data collection: publicity, listing and enumeration of households in selected enumeration areas (EAs);
- Matching and reconciliation: office matching (comparison) of Census 2011 and PES household and person records, and revisits to households in order to confirm or get more information that might assist in matching unresolved cases; and
- Analysis and reporting: compilation of tables and report on PES results.

Methodology

The PES is an independent survey that replicates the census in sampled enumeration areas (EAs). The major assumption used in the PES is that the census and the PES are independent, the estimate of the percentage missed by the PES but found by the census, and the percentage missed by the census but found by the PES, can be used to construct estimates of the percentage missed by both PES and census. The PES sought to estimate the total number of persons and households in housing units on the night of 9–10 October 2011 (census night). The units of observation were the persons who spent the census night and/or the PES night in these living quarters.

Sampling

The sampling frame for the PES was the complete list of Census 2011 EAs, amounting to 103 576 EAs. The primary sampling units (PSUs) were the census EAs. The principle for selecting the PES sample is that the EA boundaries for sampled EAs should have well-defined boundaries, and these boundaries should correspond with those of census EAs to allow for item-by-item comparison between the census and PES records. The stratification and sampling process followed will allow for the provision of estimates at national, provincial, urban (geography type = urban) and non-urban (geography type = farm and traditional) levels, but estimates will only be reliable at national and provincial levels. The sample of 600 EAs was selected and allocated to the provinces based on expected standard errors which were based on those obtained in PES 2001. Populations in institutions (other than workers' hostels), floating and homeless individuals were excluded from the PES sample.

Questionnaire development

The approach to questionnaire design focused on capturing the main elements for measuring coverage and content errors. Only a few elements from the Census 2011 questionnaire which were not likely to change within a short period (that is between the census and the PES reference nights) were retained. The questionnaire allowed for the classification of each listed person as 'non-mover', 'in-mover', 'out-mover', or 'out-of-scope', with regard to their household presence status on census night (9–10 October 2011). The data items for the PES questionnaire included first name and surname, date of birth, age, sex, population group and presence of person in dwelling unit on census and/or PES night.

Fieldwork methodology

The PES replicated the census in the sampled EAs, which meant that all methodologies and procedures for data collection were based on census methodologies and procedures. PES fieldwork was split into the following three (3) phases; publicity and listing, enumeration, and mop-up operations.

- Publicity and listing were conducted at the same time. Publicity focused on informing and educating respondents and relevant stakeholders about the purpose of the PES to ensure successful coverage of all dwelling units (DUs) in selected EAs. Listing involved the recording of all structures (including all DUs, number of households in DUs and number of persons in households) in the sampled EAs in the EA Summary Books.
- Enumeration involved interviewing respondents and recording responses in the fields provided in the PES questionnaire. Self-enumeration for the PES was discouraged, but was used in instances where the respondent insisted on self-enumeration.
- Mop-up operations were conducted in the form of follow-up visits by senior field staff to households that could not be contacted during the enumeration period.

Matching and reconciliation methodology

The matching exercise involved the comparison of household and person records in Census 2011 data and PES data. A two-way case-by-case matching was conducted using the two sources: PES questionnaires and Census 2011 questionnaires. Reconciliation visits were conducted in order to confirm or get more information that would assist in matching unresolved cases, i.e. households or individuals enumerated in the census that did not correspond with households or individuals enumerated in the PES. Guidelines for matching, including rules for determining the match status of households and individuals, were developed. A computer-assisted manual matching system was developed for the capturing of data for matching purposes.

PES data collection

PES data collection commenced immediately after the completion of census fieldwork. The PES is a much smaller scale operation (and hence easier to control) than the census. These features enable the PES to deliver a more accurate estimate of the percentage of people and dwellings missed by the census. PES data collection (field operations) was independent from census operations and the following measures were taken to maintain the operational independence of the PES:

- independent listing of enumeration areas (EAs) in the PES sample;
- using separate/independent office staff in the PES and census where possible;
- ensuring the PES interviewers were not employed as census field staff in the same area, and vice versa; and
- maintaining the confidentiality of the PES sample so that census field and office staff were not aware which areas are included in the PES.

Temporary personnel (Fieldworkers and Fieldwork Supervisors) were recruited from the EAs/districts in which they would be working and underwent rigorous training on fieldwork procedures to ensure that they deliver work of high quality at the end of the fieldwork phase. Experienced permanent staff from Household Surveys (based in provincial offices) was seconded to the project for the duration of data collection in supervisory positions to ensure high quality data and minimise costs. The PES followed the integrated approach towards fieldwork; whereby one (1) Fieldworker conducted publicity, listing and enumeration in one (1) EA. A total of 768 Fieldworkers and Fieldwork Supervisors were appointed for the collection of data in the 608 EAs (initially 600, but increased to 608 due to split EAs). A ratio of one (1) Fieldwork Supervisor for four (4) Fieldworkers was applied, but due to the spread of the sample in various districts, this ratio could not always be applied.

Matching and reconciliation

The matching process involved the comparison of household and person records in census data and PES data. The main phases in the matching process were:

- Initial matching involved searching through the census records in order to find the corresponding cases from the PES enumeration records, and vice-versa (a two-way match);
- Capturing involved the capturing of PES and census information on a capturing tool which formed part of the computer-assisted manual matching system. Information for non-matched households and persons was also captured;
- Computer-assisted matching which was the automated assigning of an initial match status for the household and persons, and persons' moving status. This process was done concurrently with the capturing process. Classifications from initial matching are as follows:
 1. matched
 2. possible match

In PES not in Census:

3. in PES not in Census – definite non-match
 4. in PES not in Census – insufficient or unclear information
 5. in-mover
 6. born after Census
 7. in Census not in PES
- Reconciliation visits are follow-up visits to households in the PES sampled EAs. The purpose of reconciliation visits was to collect relevant information in order to determine the final match status of unresolved cases identified during initial matching. Cases of 'possible match', 'in PES not in Census – insufficient or unclear information', and 'in Census not in PES' were considered unresolved and were sent to the field for reconciliation; and

- Final matching involved the use of the results obtained from the reconciliation visits and initial matching phases to assign a definite match status to each case. The table below illustrates the outcomes from final matching.

1. matched
<u>In PES not in Census:</u>
2. missed in Census
3. PES erroneous inclusion – cases in PES not in Census that were outside the EA boundaries or otherwise erroneously included in PES
4. PES insufficient information – cases in PES not in Census for which a final match status cannot be assigned due to insufficient information
5. in-mover
6. born after Census
<u>In Census not in PES:</u>
7. correctly enumerated in Census, missed in PES
8. Census erroneous inclusion
9. Census insufficient information – cases in Census not in PES for which a final match status cannot be assigned due to insufficient information

Estimation and tabulation

Coverage measures were calculated only for cases belonging to the PES universe.

The initial estimates – weighted estimates of total from the sample include the following:

- Estimated number of non-movers;
- Estimated number of out-movers;
- Estimated number of matched non-movers;
- Estimated number of matched out-movers;
- Estimated number of in-movers;
- Estimated number of erroneous inclusions in the census; and
- Estimated number of correctly enumerated persons missed in the PES.

Dual system estimation was used to arrive at the *true population* of the country. This means that two independent sources or ‘systems’ are used to arrive at the estimate of the *true population*: the census and the PES. Both estimates contribute to the dual-system estimate, which is more complete than either the census or the PES estimate alone. In the end, this *true population* is compared with the *Census-enumerated population* and the difference is the net *undercount* (or *overcount*). The following table indicates the undercount rates as estimated by the PES.

Net Census coverage error: total and rate by province		
Province	Omission rate for persons	Omission rate for households
Western Cape	18,6	17,8
Eastern Cape	12,9	10,3
Northern Cape	13,4	14,8
Free State	10,1	9,4
KwaZulu-Natal	16,7	16,5
North West	14,9	17,0
Gauteng	14,7	15,2
Mpumalanga	15,5	14,4
Limpopo	10,0	9,6
All provinces	14,6	14,3

The adjustment procedure consisted of creating homogeneous adjustment classes with similar coverage rates and calculating a common undercount rate, adjustment factor and adjustment figure for each class separately. The adjusted figure for the total population was obtained by summing across the adjustment classes. In addition, only the population of households received adjustment classes. The totals for the balance of the population, namely people living in collective quarters and the homeless on the streets, were not adjusted.

1.3 Conclusion

The 2011 Census project had its own challenges and successes, like any other massive project. Be that as it may, the following are worth mentioning: the census fieldworkers who traversed the country to collect information from households and those that we lost in the process. The respondents who opened their doors and locked their dogs to aid the field staff to do their work, the processors who worked 24 hours/7 days a week to ensure that the data can be released within a year of enumeration. The census management team who met daily for two years to steer the project forward, the Stats SA EXCO for the leadership they provided, the Statistics Council and in particular the sub-committee on population and social statistics for their continued guidance and support, and finally the Minister in the Presidency: responsible for planning for the robust interrogation of the plans and guidance on this project. It is through such concerted efforts that, as a country, we can and will continuously improve on our endeavours.

Chapter 2: Geography of South Africa

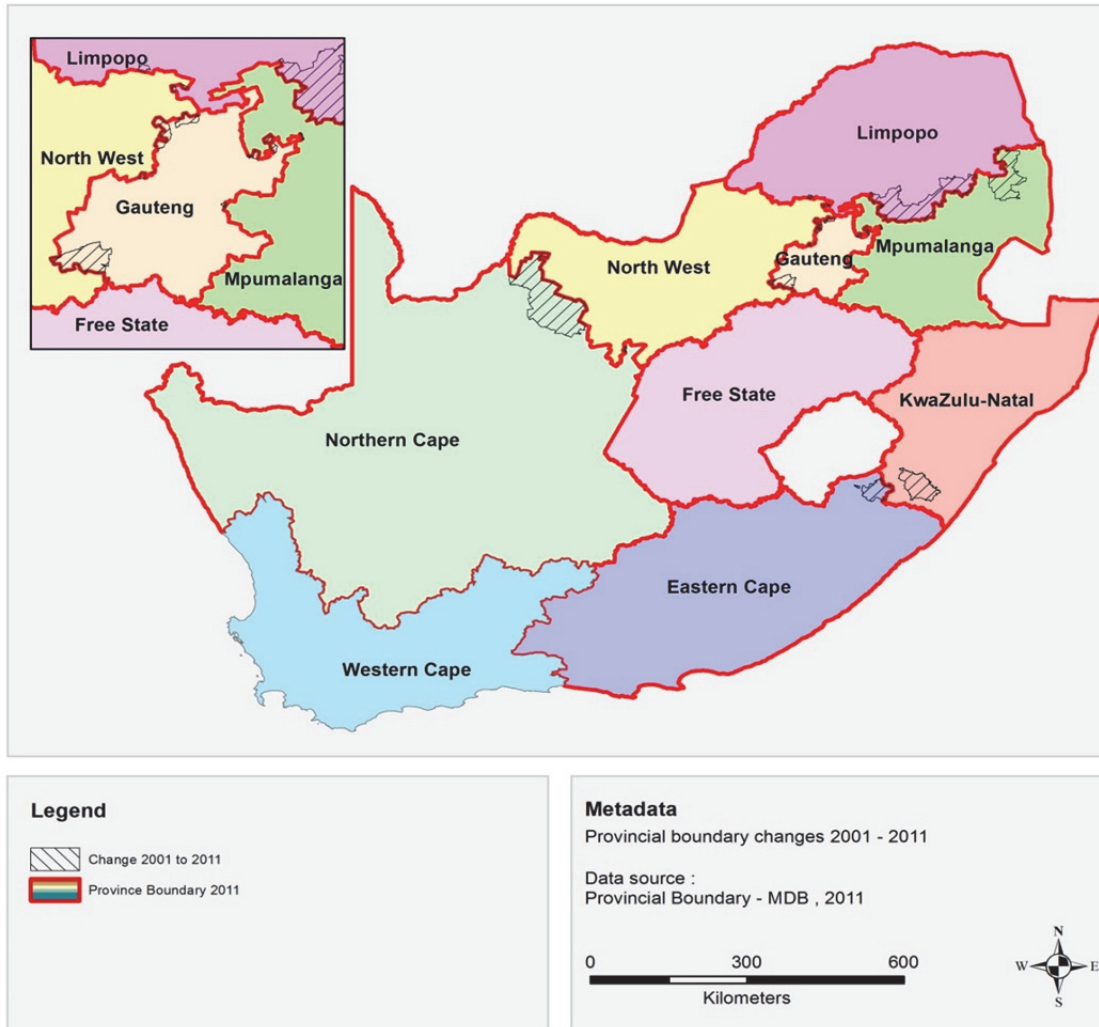
2.1 Provincial boundary changes, 2001–2011

A number of changes occurred in terms of provincial and municipal boundaries during the period between Censuses 2001 and 2011. Of the nine provinces, only two provinces (Western Cape and Free State) were not affected by changes. The provincial boundary changes were mostly as a result of eight cross-boundary municipalities which were absorbed in full into respective provinces.

Table 2.1: Geographical land area changes since 2001

Province name	Provincial code	Land area in square kilometres 2011	Land area in square kilometres 2001
Western Cape	1	129 462	129 449
Eastern Cape	2	168 966	169 954
Northern Cape	3	372 889	362 599
Free State	4	129 825	129 824
KwaZulu-Natal	5	94 361	92 305
North West	6	104 882	116 231
Gauteng	7	18 178	16 936
Mpumalanga	8	76 495	79 487
Limpopo	9	125 754	122 816
Total		1 220 813	1 219 602

Note: The shift of the national boundary over the Indian Ocean in the north-east corner of KwaZulu-Natal to cater for the Isimangaliso Wetland Park led to the increase in South Africa's land area.

Map 2.1: Provincial boundary changes since 2001

Provincial boundary changes mostly affected North West (land size decreased to 11 348,9 square kilometres). Most of this was absorbed by Northern Cape. The second largest decrease in land size was for Mpumalanga which decreased by 2 991,9 square kilometres, with Limpopo being the main recipient of this land area.

It should be noted that the increased extent of KwaZulu-Natal is not mainly based on the exchange of Umzimkulu (formerly in the Eastern Cape) and Matatiele (formerly in KwaZulu-Natal), but due to the shift of the national boundary over the Indian Ocean in the north-east corner of the province to cater for the Isimangaliso Wetland Park. In terms of which areas moved to which province, a detailed outline is provided below.

Northern Cape and North West:

- GaSegonyana and Phokwane municipalities were cross-boundary municipalities between Northern Cape and North West in 2001 and were allocated to Northern Cape in full based on the current provincial boundaries.
- Kagisano municipality (2001) was split into Kagisano/Molopo municipality and Joe Morolong municipality, with the former portion now in North West and the latter now part of the Northern Cape.

- Moshaweng municipality (now part of Joe Morolong municipality) was incorporated in full into Northern Cape based on the current provincial boundaries.

North West and Gauteng:

- Merafong City municipality (2001) was a cross-boundary local municipality between North West and Gauteng and was allocated to Gauteng based on the current provincial boundaries.
- West Rand (DMA) municipality (2001) was not aligned to the then provincial boundary and was absorbed into Mogale City municipality in full based on the current provincial boundaries.
- City of Tshwane Metropolitan municipality was a cross-boundary municipality between Gauteng and North West. The portions adjacent to Moretele and Madibeng municipalities were allocated to Gauteng in full based on the current provincial boundaries.

North West and Limpopo:

- Limpopo lost a portion of the Bela-Bela municipality to North West's Moretele municipality. In turn, North West lost a portion of the Moretele municipality to Limpopo's Bela-Bela municipality based on the current provincial boundaries.

Gauteng and Mpumalanga:

- A portion of Delmas municipality (2001), now called Victor Kanye, was allocated to the City of Tshwane in Gauteng based on the current provincial boundaries.
- Kungwini municipality, now incorporated into the City of Tshwane, was a cross-boundary municipality and is now fully allocated to Gauteng, based on the current provincial boundaries.

Mpumalanga and Limpopo:

- Greater Groblersdal (now Elias Motsoaledi), Greater Marble Hall (now Ephraim Mogale), and Greater Thubatse were cross-boundary municipalities between Mpumalanga and Limpopo, and have now been allocated in full to Limpopo. Ephraim Mogale municipality was absorbed into the Schuinsdraai Nature Reserve.
- Bushbuck Ridge municipality was a cross-boundary municipality between Limpopo and Mpumalanga and has now been allocated in full to Mpumalanga. (Bushbuck Ridge also absorbed a portion of the Kruger Park cross-boundary District Management Area.)

KwaZulu-Natal and Eastern Cape:

- Umzimkulu, formerly in Eastern Cape, and Matatiele, formerly in KwaZulu-Natal were in effect exchanged, with Umzimkulu now being in KwaZulu-Natal and Matatiele now being in Eastern Cape based on the current provincial boundaries.

2.2 Local municipal boundary changes, 2001–2011

In 2001, the Geographical Frame consisted of 262 local municipalities. This total has been reduced to 234 local municipalities in the 2011 geographical frame. The difference of 28 municipalities is explained as follows:

In total, 25 District Management Areas (DMAs) were absorbed into the existing provinces.

- The City of Tshwane absorbed a further two municipalities (Nokeng Tsa Taemane and Kungwini).
- A new municipality (Kagisano Molopo – NW379) was established by merging NW391 (Kagisano) and NW395 (Molopo).

For municipalities, 107 municipalities decreased in geographical area while 155 municipalities had an increase in geographical area.

Map 2.2: Municipal boundary changes since 2001

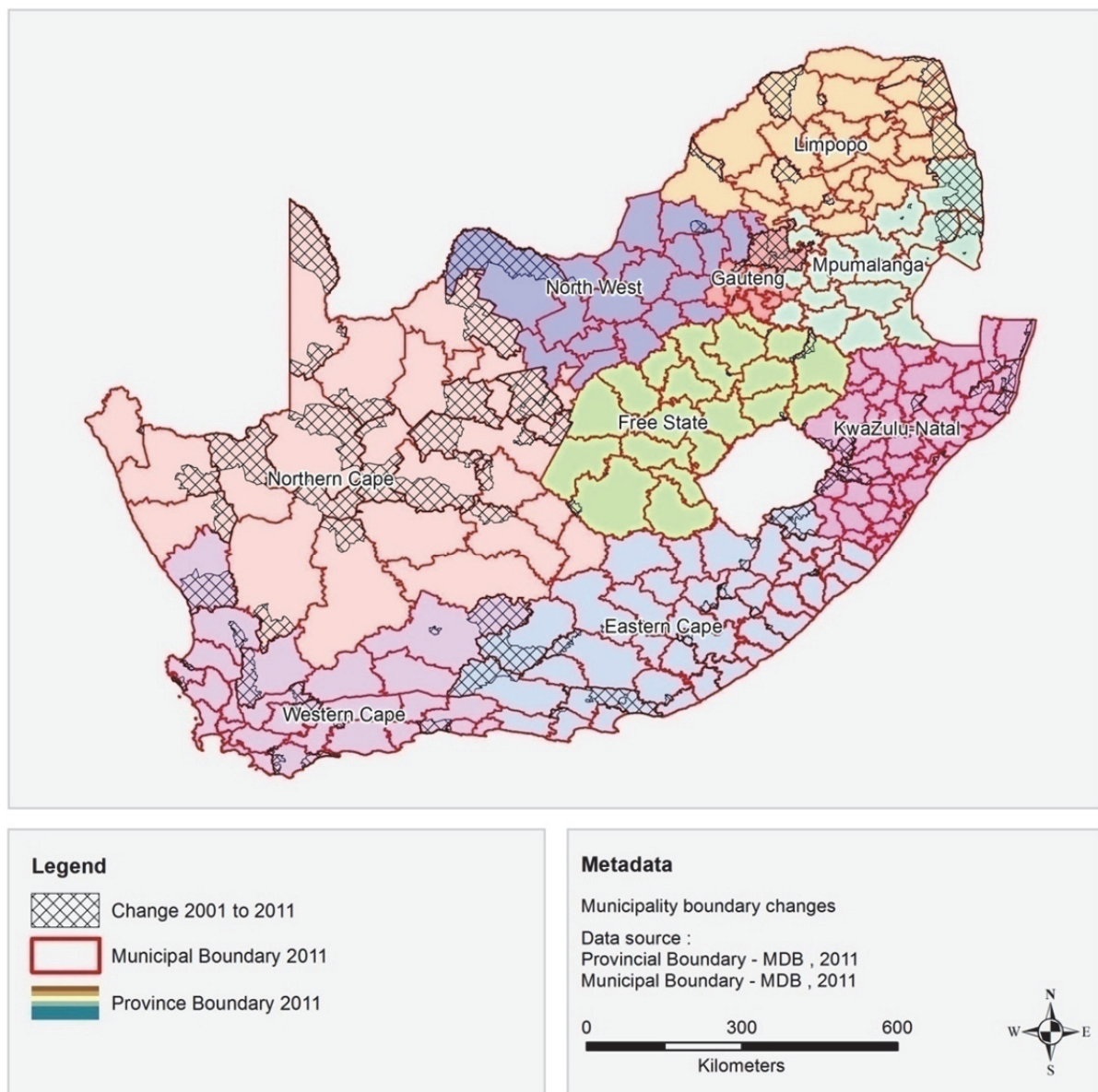
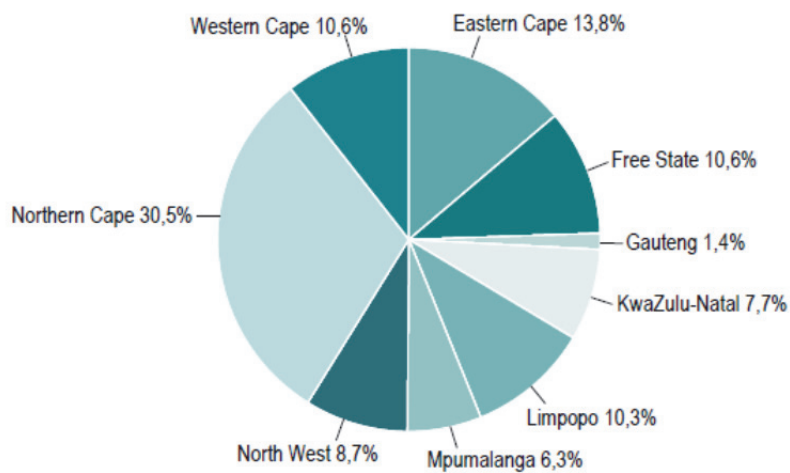


Figure 2.1: Percentage distribution of land area by province, 2011

Source: Stats SA, Geography Division

Comparing Census 2011 with previous censuses

Comparison of Census 2011 with previous censuses (1996 and 2001) required alignment of data for the two censuses to 2011 municipal boundaries. This is because the country's provincial demarcations underwent changes through a number of changes at provincial and municipal boundaries.

Chapter 3: Results pertaining to persons

3.1 Introduction

South Africa has had three successful censuses since the first democratic elections in 1994. The first census was conducted in 1996, followed by the second one in 2001 and the third in 2011. In this chapter, data from previous censuses (1996 and 2001) is compared with the data from Census 2011. This section mainly focuses on the demographic characteristics of the population of Gauteng; another part of this section covers migration and labour force.

3.2 Population size and distribution

Table 3.1: Population and percentage share by province, Censuses 1996, 2001 and 2011

Province	1996		2001			2011		
	Population	% share	Population	% share	% change (1996–2001)	Population	% share	% change (2001–2011)
Western Cape	3 956 875	9,7	4 524 335	10,1	14,3	5 822 734	11,2	28,7
Eastern Cape	6 147 244	15,1	6 278 651	14,0	2,1	6 562 053	12,7	4,5
Northern Cape	1 011 864	2,5	991 919	2,2	-2,0	1 145 861	2,2	15,5
Free State	2 633 504	6,5	2 706 775	6,0	2,8	2 745 590	5,3	1,4
KwaZulu-Natal	8 572 302	21,1	9 584 129	21,4	11,8	10 267 300	19,8	7,1
North West	2 727 223	6,7	2 984 098	6,7	9,4	3 509 953	6,8	17,6
Gauteng	7 834 125	19,3	9 388 854	20,9	19,8	12 272 263	23,7	30,7
Mpumalanga	3 123 869	7,7	3 365 554	7,5	7,7	4 039 939	7,8	20,0
Limpopo	4 576 566	11,3	4 995 462	11,1	9,2	5 404 868	10,4	8,2
South Africa	40 583 573	100,0	44 819 778	100,0	10,4	51 770 561	100,0	15,5

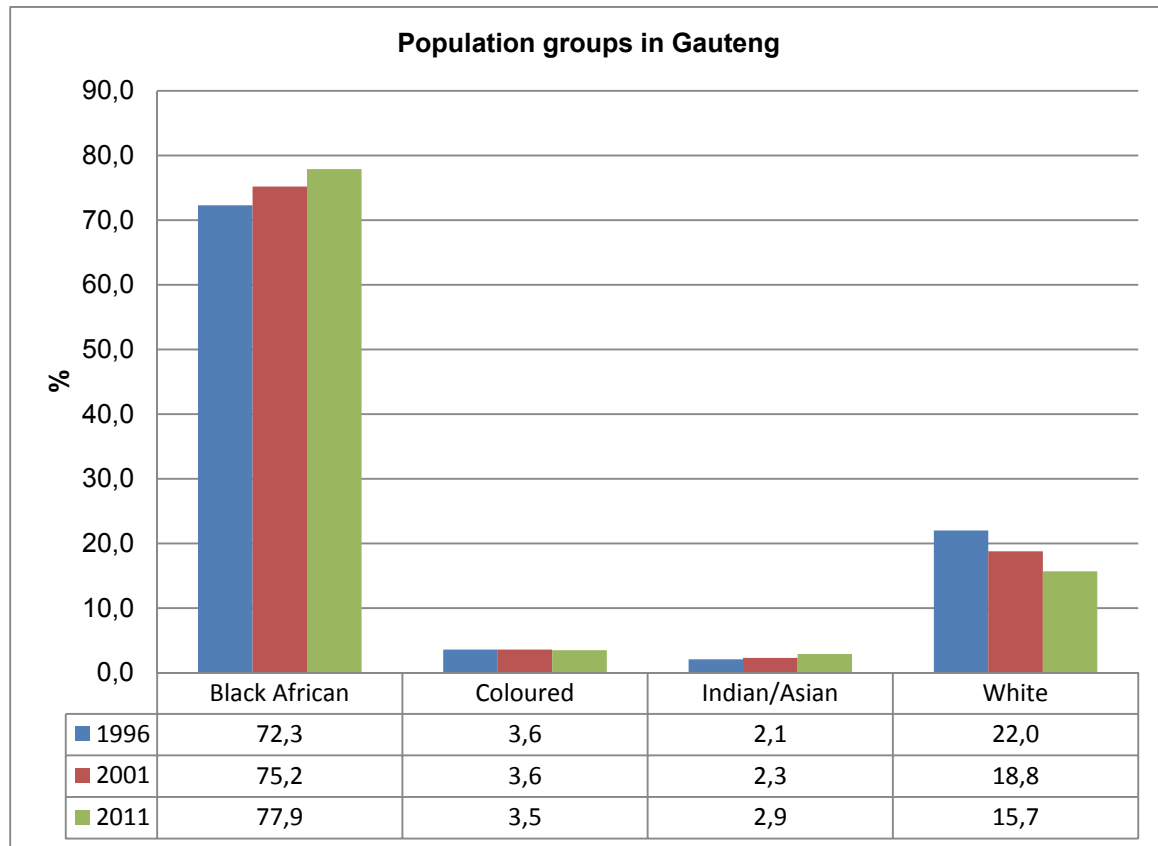
Table 3.1 shows that in both 1996 and 2011, the province with the highest population was KwaZulu-Natal, followed by Gauteng. In 2011, however, Gauteng had the biggest population (12 272 263) compared to other provinces, followed by KwaZulu-Natal with a population of 10 267 300. Its share has increased from 19,3% in 1996 to 23,7% in 2011. The province also recorded the highest percentage change between 2001 and 2011 (30,7%) followed by Western Cape and Mpumalanga (28,7% and 20% respectively).

Table 3.2: Population size by province and population group, 2011

Provinces	Population group			
	Black African	Coloured	Indian/Asian	White
Western Cape	1 912 547	2 840 404	60 761	915 053
Eastern Cape	5 660 230	541 850	27 929	310 450
Northern Cape	576 986	461 899	7 827	81 246
Free State	2 405 533	83 844	10 398	239 026
KwaZulu-Natal	8 912 921	141 376	756 991	428 842
North West	3 152 063	71 409	20 652	255 385
Gauteng	9 493 684	423 594	356 574	1 913 884
Mpumalanga	3 662 219	36 611	27 917	303 595
Limpopo	5 224 754	14 415	17 881	139 359
South Africa	41 000 937	4 615 402	1 286 930	4 586 840

Table 3.2 indicates that the black African group represented the largest proportion of the population in most provinces in South Africa. It was only in the Western Cape where the coloured population is the largest group. This group constituted 77,9% of the population in the province, followed by whites (15,7%) as shown in Figure 3.1.

Figure 3.1: Percentage distribution of the population groups in Gauteng, Censuses 1996, 2001 and 2011



* Excludes 'Other'.

Figure 3.1 shows that the black African population group in Gauteng has the highest proportion in all censuses. However, the white population group decreased from 22% in 1996 to 18,8% in 2001, and to 15,7% in 2011.

Table 3.3: Population size and percentage share by district municipalities, Censuses 1996, 2001 and 2011

District municipalities	1996		2001			2011		
	Population	%	Population	%	1996–2001 % change	Population	%	2001–2011 % change
Sedibeng	716 844	9,2	794 088	8,5	10,8	916 484	7,5	15,4
West Rand	659 475	8,4	744 627	7,9	12,9	820 995	6,7	10,3
Ekurhuleni	2 026 978	25,9	2 481 762	26,4	22,4	3 178 470	25,9	28,1
City of Johannesburg	2 638 471	33,7	3 226 055	34,4	22,3	4 434 827	36,1	37,5
City of Tshwane	1 792 357	22,9	2 142 322	22,8	19,5	2 921 488	23,8	36,4
Gauteng	7 834 125	100,0	9 388 854	100,0	19,8	12 272 263	100,0	30,7

Table 3.3 provides the size and percentage share of the total in two periods (1996–2001 and 2001–2011) by district municipality. Most of the population reside in three district municipalities (Ekurhuleni, City of Johannesburg and City of Tshwane). This profile has persisted since 1996. In most district municipalities percentage change increased, except in the West Rand where the percentage decreased from 12,9% between 1996–2001 to 10,3% in 2001–2011.

Table 3.4: Population size by district municipalities and population group, 2011

District municipalities	Population group							
	Black African	Coloured	Indian/Asian	White	Black African	Coloured	Indian/Asian	White
	Total				%			
Sedibeng	555 513	6 855	5 662	144 111	82,1	1,2	1,0	15,7
West Rand	503 461	15 561	5 639	130 026	79,6	2,5	1,2	16,8
Ekurhuleni	1 478 274	56 019	28 390	450 845	79,2	2,7	2,2	15,9
City of Johannesburg	1 853 211	171 126	96 821	492 484	77,1	5,6	4,9	12,4
City of Tshwane	1 229 822	30 673	24 917	493 548	75,9	2,0	1,9	20,2
Gauteng	5 620 280	280 235	161 429	1 711 014	77,9	3,5	2,9	15,7

* Excludes 'Other'.

Table 3.4 indicates that the black African population group has the highest proportion of over 75,0% in all district municipalities. The highest proportion of whites resides in the City of Tshwane, while the highest proportion of coloureds and Indians/Asians reside in the City of Johannesburg.

Figure 3.2: Distribution of the Gauteng population by age group, 2011

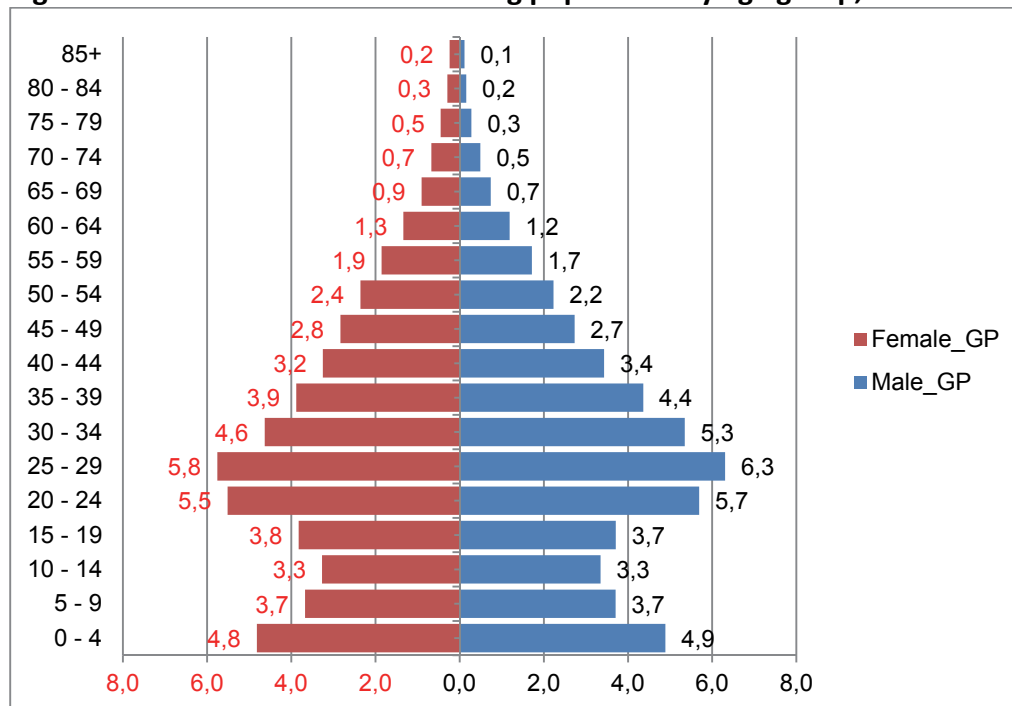


Figure 3.2 shows higher percentages of people in the age groups 20–34 than those aged 0–19. The age group 25–29 is higher in percentage compared to other age groups. The age group 15–64 is approximately 73,0% of the Gauteng population. This indicates that Gauteng is the province for the working age group.

Table 3.5: Percentages and dependency ratios

	0-14	15-64	65+	0-14	15-64	65+	Child (0-14) dependency ratio	Adult (65+) dependency ratio	Total dependency ratio
District municipalities	Total			%			Dependency ratio		
Sedibeng	232 410	637 221	46 851	25,4	69,5	5,1	36,5	7,4	43,8
West Rand	198 135	589 971	32 886	24,1	71,9	4,0	33,6	5,6	39,2
Ekurhuleni	772 464	2 279 451	126 552	24,3	71,7	4,0	33,9	5,6	39,4
City of Johannesburg	1 028 811	3 222 606	183 408	23,2	72,7	4,1	31,9	5,7	37,6
City of Tshwane	677 109	2 101 473	142 905	23,2	71,9	4,9	32,2	6,8	39,0
Gauteng	2 908 932	8 830 725	532 608	23,7	72,0	4,3	32,9	6,0	39,0

Table 3.5 indicates that Sedibeng has the highest child, adult and total dependency ratios compared to all other district municipalities. This is also reflected by the lowest proportion of persons aged 15–64 years.

Figure 3.3: Dependency ratio by district municipalities, Censuses 1996, 2001 and 2011

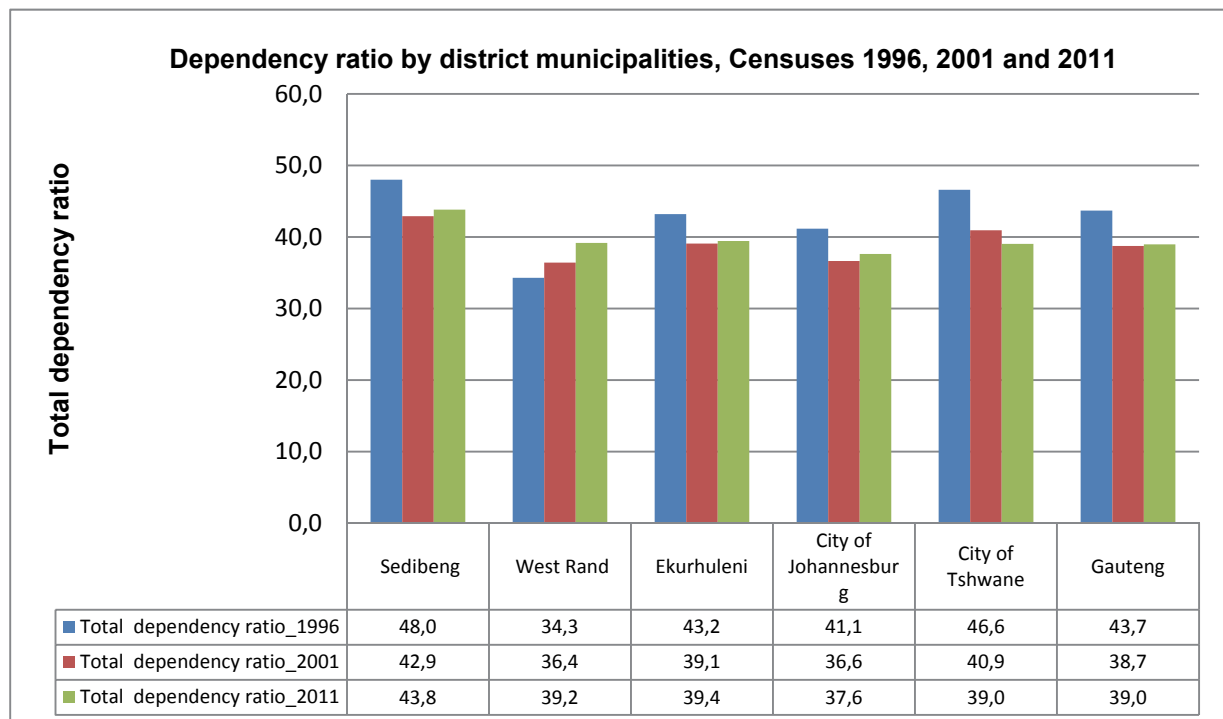


Figure 3.3 shows the total dependency ratio for Censuses 1996, 2001 and 2011 by district municipalities. In the West Rand, the total dependency ratio increased from 34,3% in 1996 to 36,4% and to 39,2% in 2011. While all other district municipalities recorded a decrease, the highest decrease was recorded in the City of Tshwane.

3.3 Languages

Table 3.6: Population distribution of each official language most often spoken at home within each district municipalities

District municipalities	Afrikaans	English	IsiNdebele	IsiXhosa	IsiZulu	Sepedi	Sesotho	Setswana	Sign language	Siswati	Tshivenda	Xitsonga	Other
Sedibeng	15,2	5,5	0,7	7,1	16,0	1,6	46,7	2,3	1,0	0,4	0,5	1,3	1,7
West Rand	16,9	6,7	1,1	14,9	9,0	3,1	10,8	27,3	0,5	0,9	1,4	5,2	2,1
Ekurhuleni	11,9	12,0	2,4	8,0	28,8	11,4	10,0	2,9	0,4	1,4	1,5	6,6	2,6
City of Johannesburg	7,3	20,1	2,9	6,8	23,4	7,3	9,6	7,7	0,4	0,8	3,2	6,6	3,9
City of Tshwane	18,8	8,6	5,7	2,2	8,5	19,9	5,3	15,0	0,3	1,6	2,3	8,6	3,1
Gauteng	12,4	13,3	3,2	6,6	19,8	10,6	11,6	9,1	0,4	1,1	2,3	6,6	3,1

Table 3.6 shows that nearly half (46,7%) of the population from Sedibeng gave Sesotho as their first language, followed by 16,0% that reported isiZulu. Both the City of Johannesburg and Ekurhuleni had a significant proportion of the population that gave isiZulu as their first language (23,4% and 28,8% respectively). West Rand had the highest proportion who reported Setswana (27,3%), followed by Afrikaans (16,9%).

3.4 Migration

Figure 3.4: Percentage distribution of migrants in Gauteng, 2011

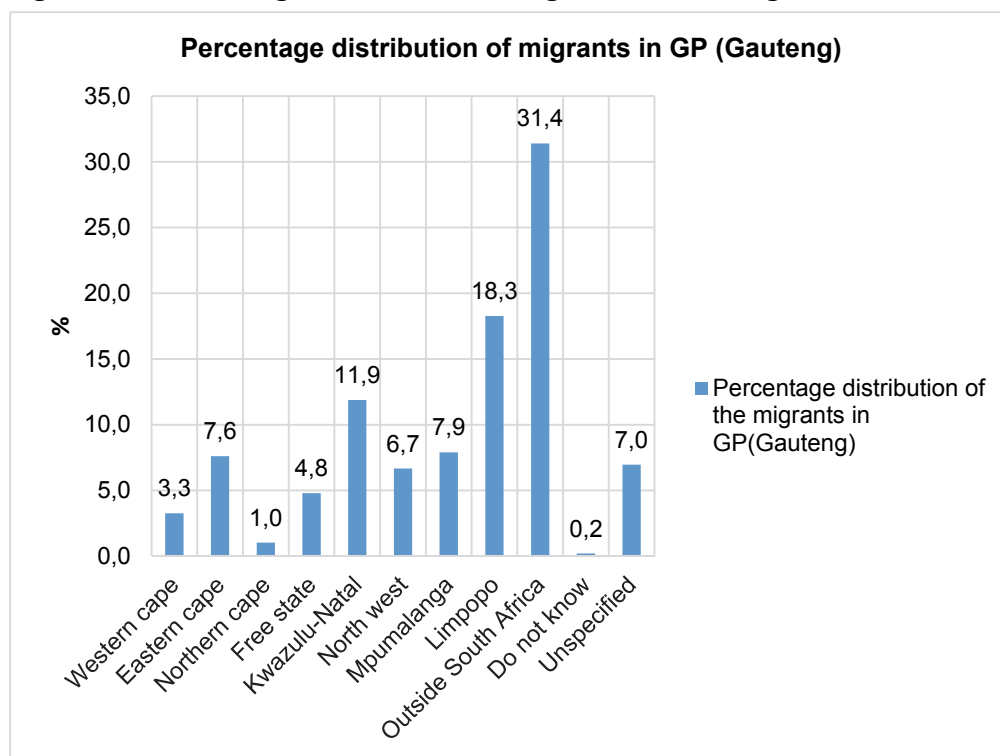


Figure 3.4 shows that the largest percentage of migrants into Gauteng was from outside South Africa (31,4%), followed by Limpopo (18,3%) and KwaZulu-Natal (11,9%).

Figure 3.5: Net loss or gain of people in each province through inter-provincial migration, South Africa, 2001 and 2011

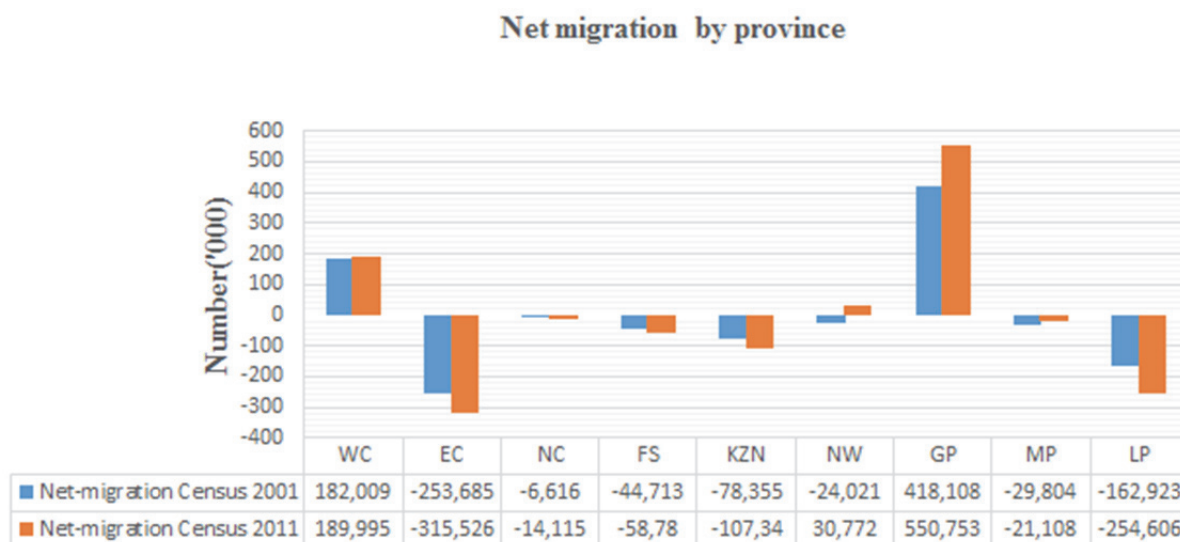


Figure 3.5 shows that Gauteng gained the highest number of people from other provinces, followed by the Western Cape, and both provinces are the only ones that gained people from other provinces during that period. North West also gained people in 2011 compared to 2001. Eastern Cape lost the most people, followed by Limpopo.

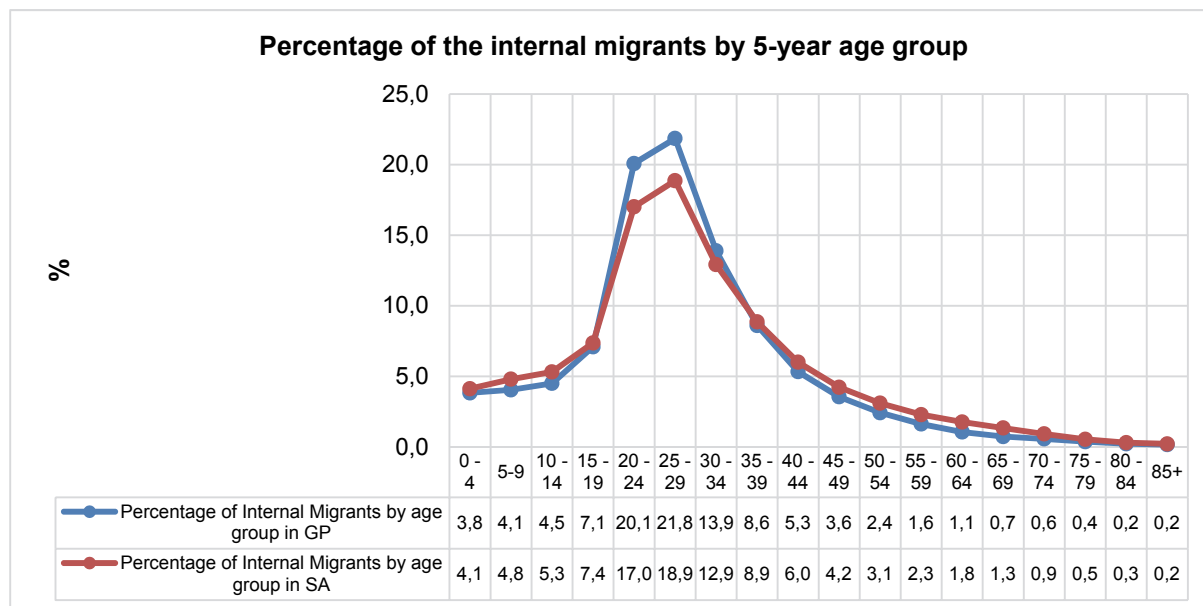
Figure 3.6: Percentage distribution of internal migrants by 5-year age group

Figure 3.6 shows the percentage of internal migrants in South Africa and Gauteng by 5-year age group. Close to 22% of the age group 25–29 years are internal migrants and less than 3% of the age group 65+ years are internal migrants in Gauteng; 56,2% and 63,2% of the youth (15–34 years) are internal migrants in South Africa and Gauteng, respectively.

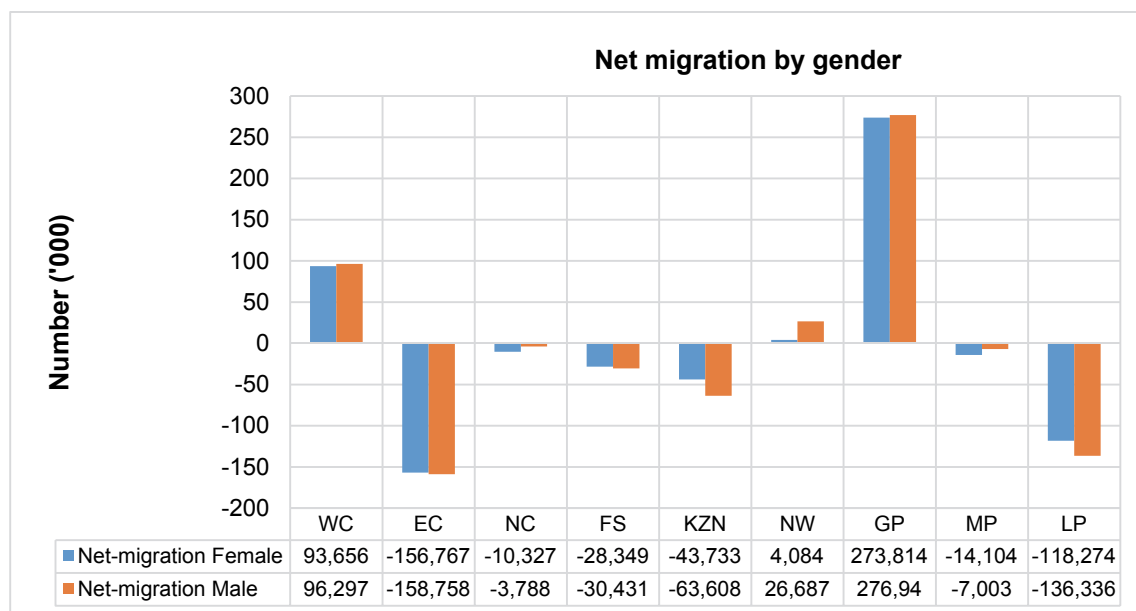
Figure 3.7: Net loss or gain by gender in each province through inter-provincial migration, Census 2011

Figure 3.7 shows that Gauteng had the highest number of male and female migrants, followed by Western Cape. However, in North West it appears that the province gained more male than female migrants. Mpumalanga lost more females than males.

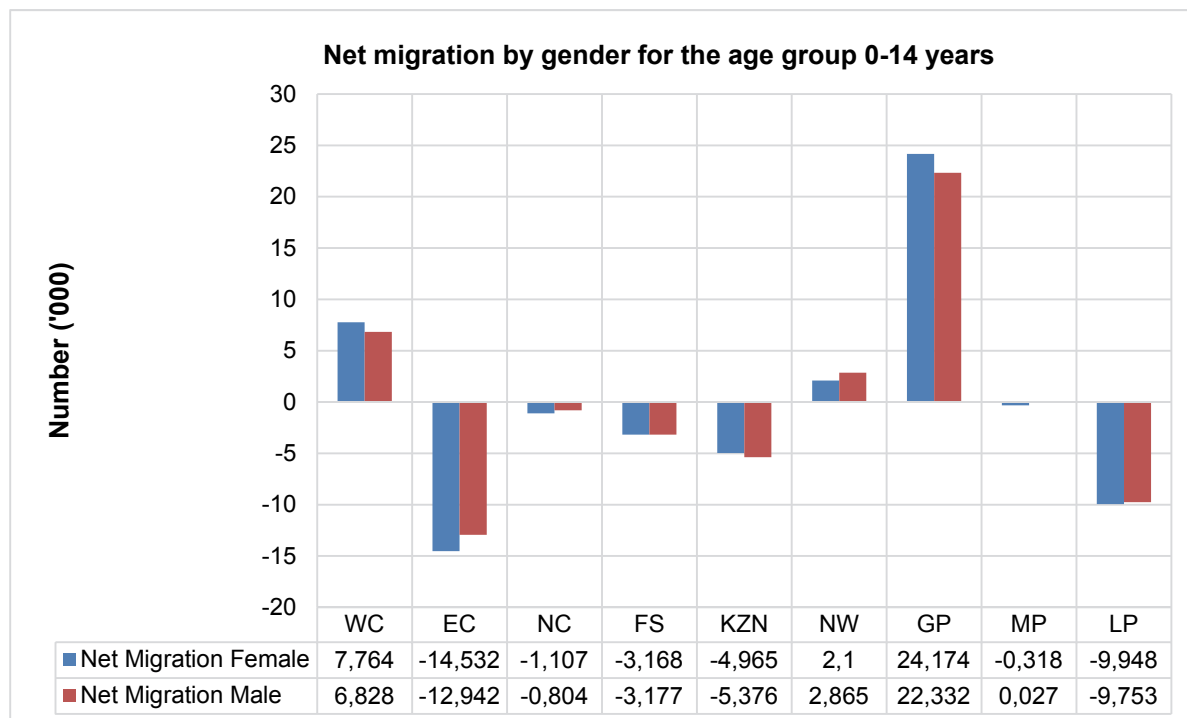
Figure 3.8: Net migration by gender for the age group 0–14

Figure 3.8 shows the net migration by gender for the age group 0–14 years. Gauteng has the highest net migration for both males and females, followed by Western Cape. However, Eastern Cape and Limpopo show a decrease in net migration.

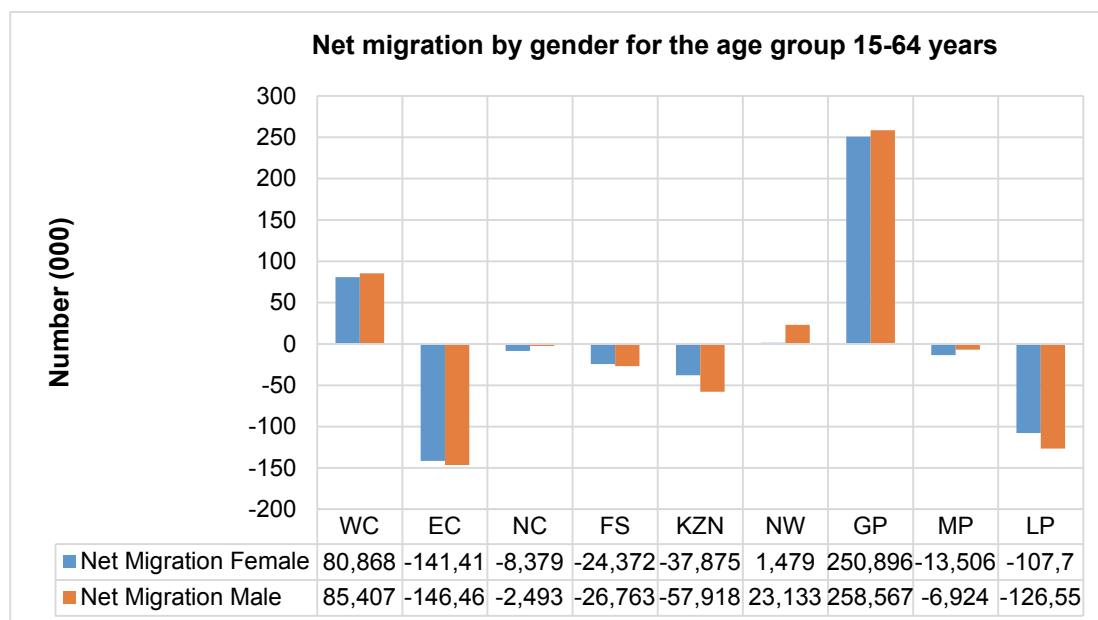
Figure 3.9: Net migration by gender for the age group 15–64

Figure 3.9 shows the net migration by gender for age group 15–64. Gauteng has the highest net migration for both males and females, followed by Western Cape. However, Eastern Cape and Limpopo show a decrease in net migration.

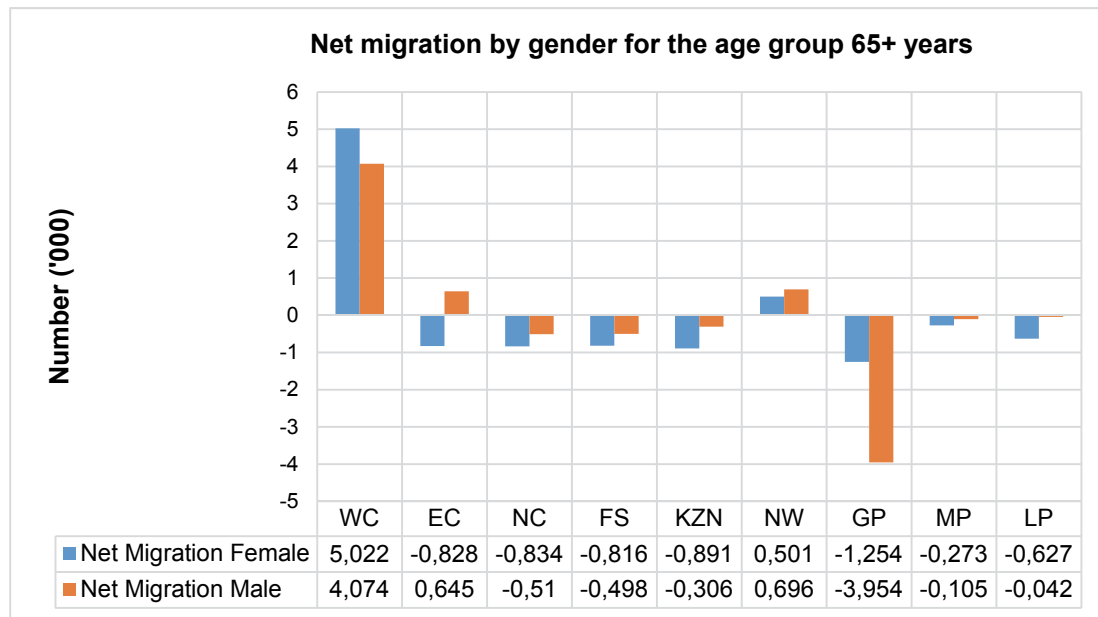
Figure 3.10: Net migration by gender for the age group 65+

Figure 3.10 shows the net migration by gender for the age group 65+. Western Cape has the highest net migration of the adult population 65+, followed by North West. However, Gauteng has the lowest net migration of the adult population compared to other provinces.

3.5 General health and functioning

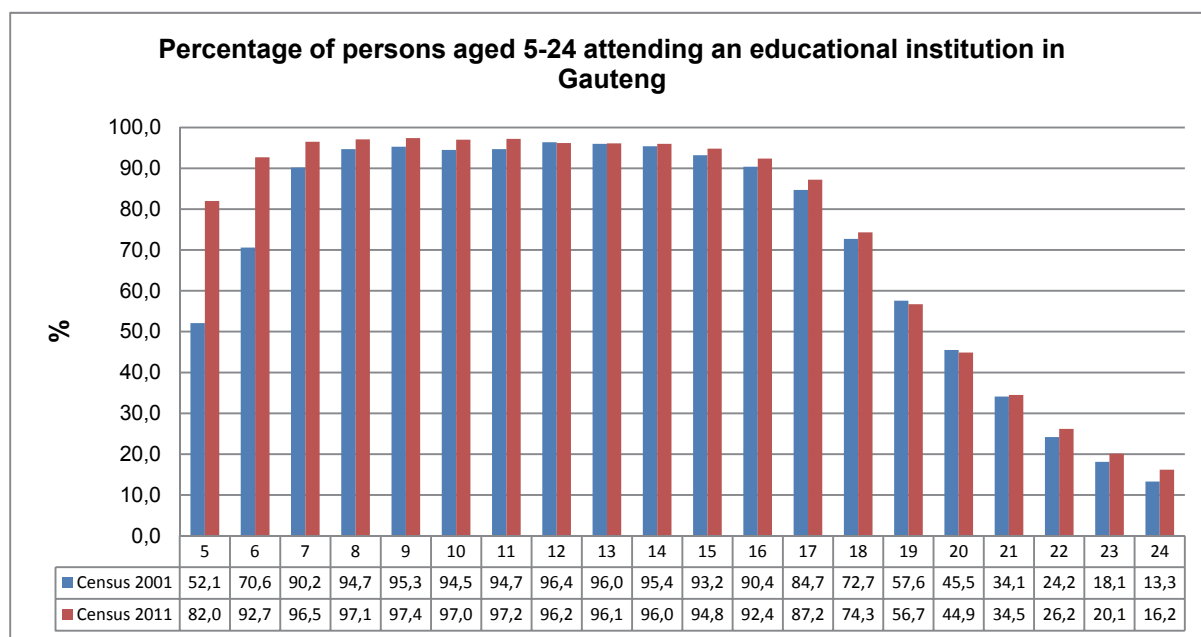
Table 3.7: Distribution of population aged 5 years and older by disability status, sex, numbers and percentages

Province and district	Disability status	Male	Female	Total	Male	Female	Total
		Number	Number	Number	%	%	%
Sedibeng	Not disabled	314 295	318 673	632 968	93,3	91,5	92,4
	Disabled	22 497	29 738	52 235	6,7	8,5	7,6
	Total	336 792	348 411	685 203	100,0	100,0	100,0
West Rand	Not disabled	294 066	270 552	564 618	94,0	92,3	93,2
	Disabled	18 813	22 621	41 434	6,0	7,7	6,8
	Total	312 879	293 173	606 052	100,0	100,0	100,0
Ekurhuleni	Not disabled	1 153 303	1 092 133	2 245 436	95,3	93,7	94,5
	Disabled	56 745	73 533	130 278	4,7	6,3	5,5
	Total	1 210 048	1 165 666	2 375 714	100,0	100,0	100,0
City of Johannesburg	Not disabled	1 578 111	1 568 234	3 146 345	96,2	94,7	95,4
	Disabled	63 166	87 387	150 553	3,8	5,3	4,6
	Total	1 641 277	1 655 621	3 296 898	100,0	100,0	100,0
City of Tshwane	Not disabled	1 009 499	1 028 553	2 038 052	95,4	94,3	94,8
	Disabled	48 761	62 070	110 831	4,6	5,7	5,2
	Total	1 058 260	1 090 623	2 148 883	100,0	100,0	100,0
Gauteng	Not disabled	4 349 274	4 278 145	8 627 419	95,4	94,0	94,7
	Disabled	209 982	275 349	485 331	4,6	6,0	5,3
	Total	4 559 256	4 553 494	9 112 750	100,0	100,0	100,0

Table 3.7 above shows that 5,3% of the population in the province were disabled. The females recorded the highest proportion (6%) compared with males (4,6%). This gender disparity was recorded in all district municipalities. The City of Johannesburg is the only district with lower proportions as compared to others, with 4,6% of its population living with disability. The sex disparity shows that 3,8% of males in the City of Johannesburg are disabled as compared to females (5,3%). The highest proportion of persons with disability were recorded in Sedibeng and West Rand (7,6% and 6,8% respectively).

3.6 Education

Figure 3.11: Percentage of persons aged 5–24 who were attending an educational institution in Gauteng, Censuses 2001 and 2011



The results in Figure 3.11 show that there was a general increase in the proportion of persons attending an educational institution between 2001 and 2011, particularly for those aged 5–11 years. The highest increase was recorded for those aged 5–6 years. The proportions fall below 50% after age 19. This indicates high dropout rates across these ages.

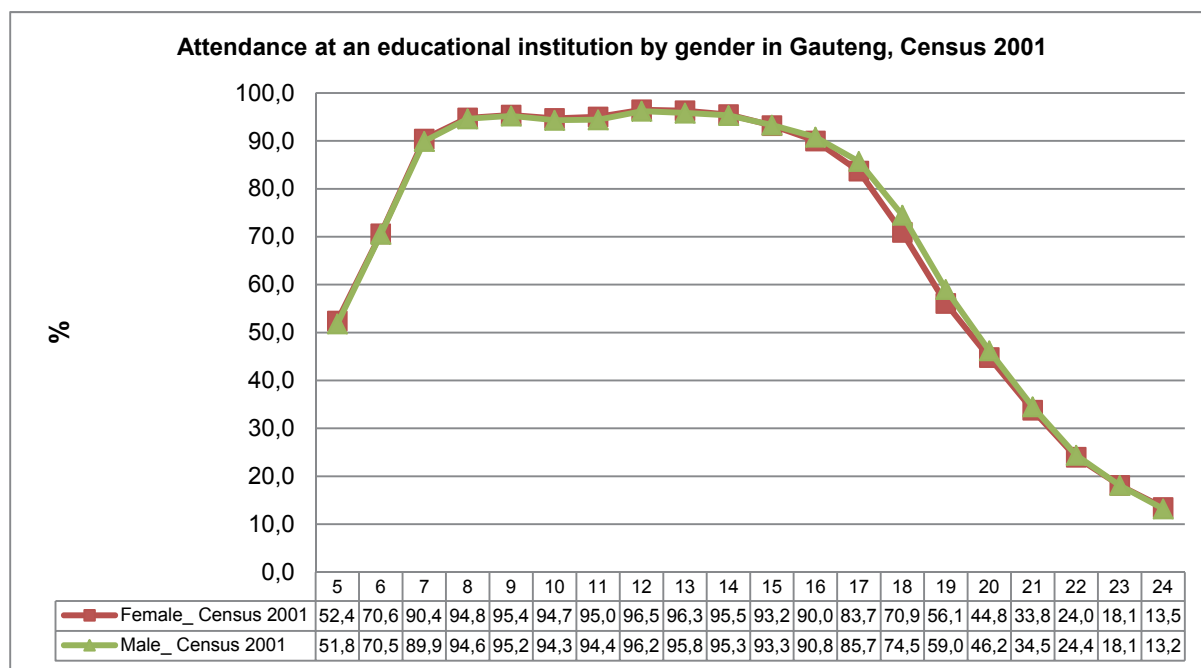
Figure 3.12: Attendance at an educational institution by gender in Gauteng, Census 2001

Figure 3.12 shows that the proportion of females and males aged 5–24 years attending an educational institution were the same across all ages in 2001. This indicates that there were no significant gender disparities. The same trend is also depicted by the findings from Census 2011 as shown in Figure 3.13 below.

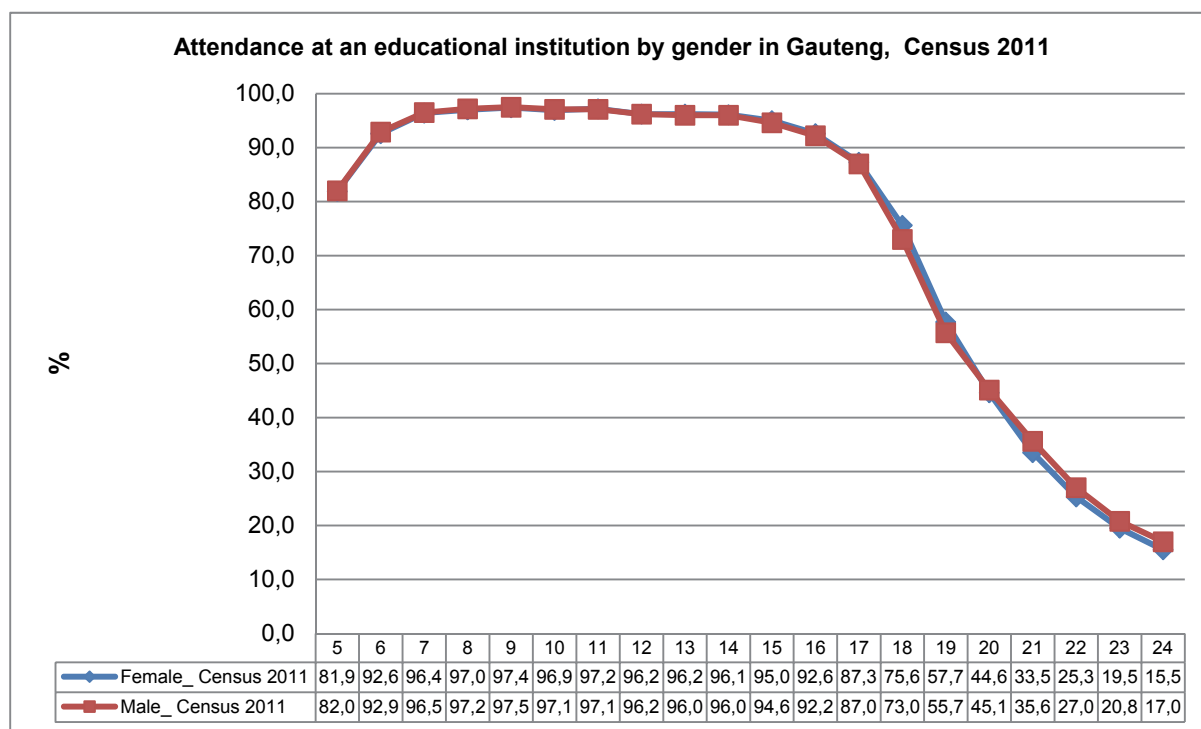
Figure 3.13: Attendance at an educational institution by gender in Gauteng, Census 2011

Figure 3.14: Percentage of persons aged 5–24 years currently attending an educational institution by type of institution, Censuses 2001 and 2011

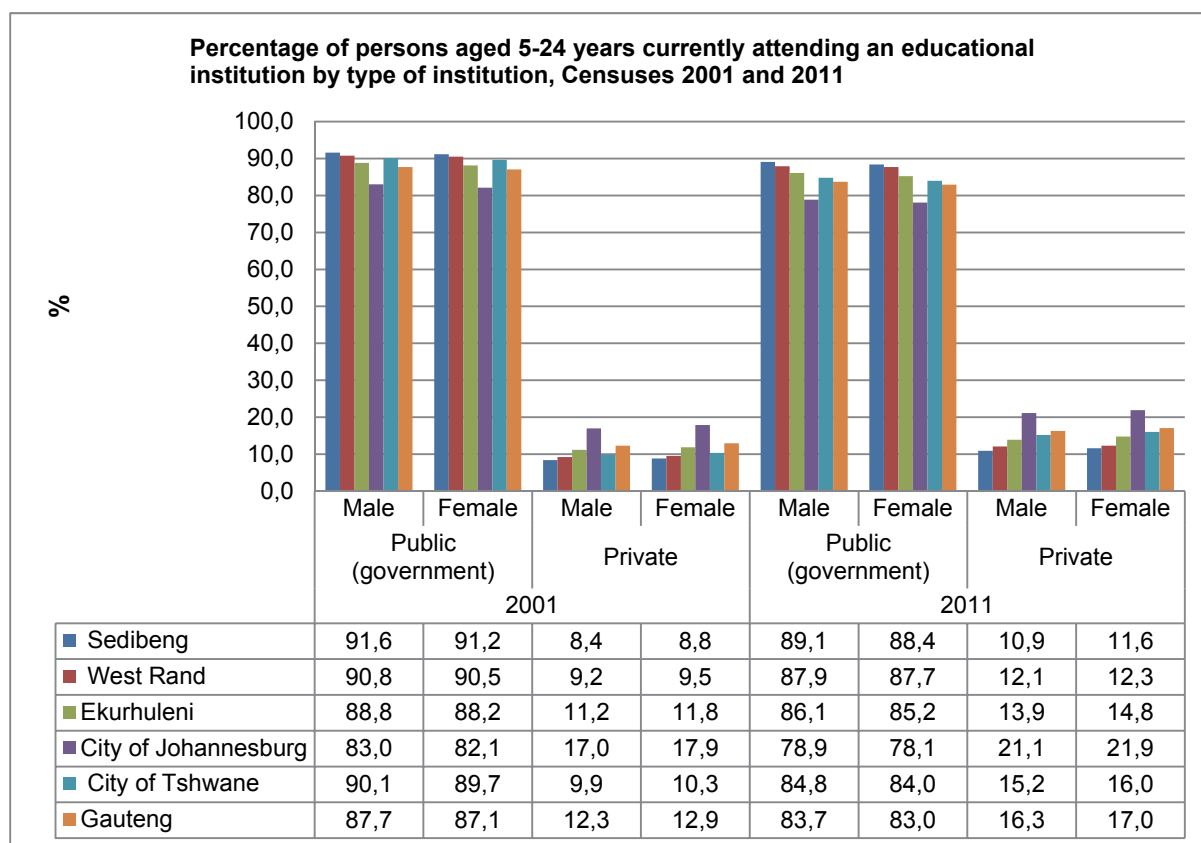


Figure 3.14 indicates that the majority of the population aged 5–24 years in Gauteng attend public education institutions. However, the proportion who attend private education institutions has increased for males, from 12,3% in 2001 to 16,3%, and similarly for females from 12,9% in 2001 to 17% in 2011. The City of Johannesburg has continued to record the highest proportion attending these institutions for both sexes.

Figure 3.15: Highest level of education attained by persons aged 20 years and older by gender, Censuses 2001 and 2011

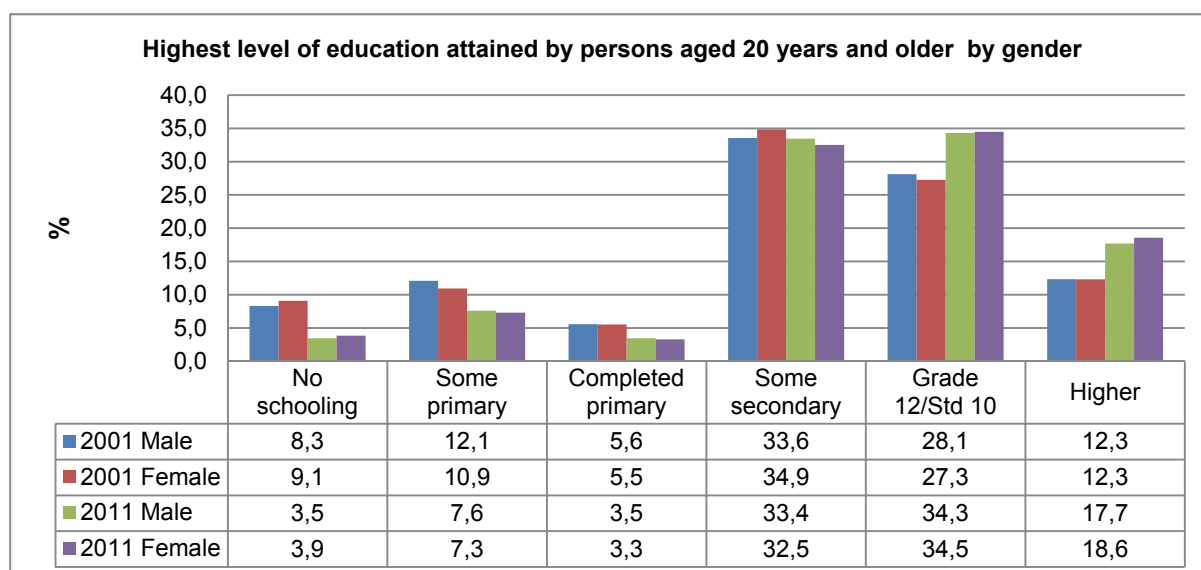


Figure 3.15 shows that the proportion of persons aged 20 years who have no schooling halved, for males from 8,3% in 2001 to 3,5% in 2011 and for females from 9,1% in 2001 to 3,9% in 2011. The proportion of persons who have some primary level education and those who have completed primary level has decreased for both sexes. There was a significant increase in the proportion of persons who completed higher education.

Figure 3.16: Highest level of education attained by persons aged 20 years and older by population group, Censuses 2001 and 2011

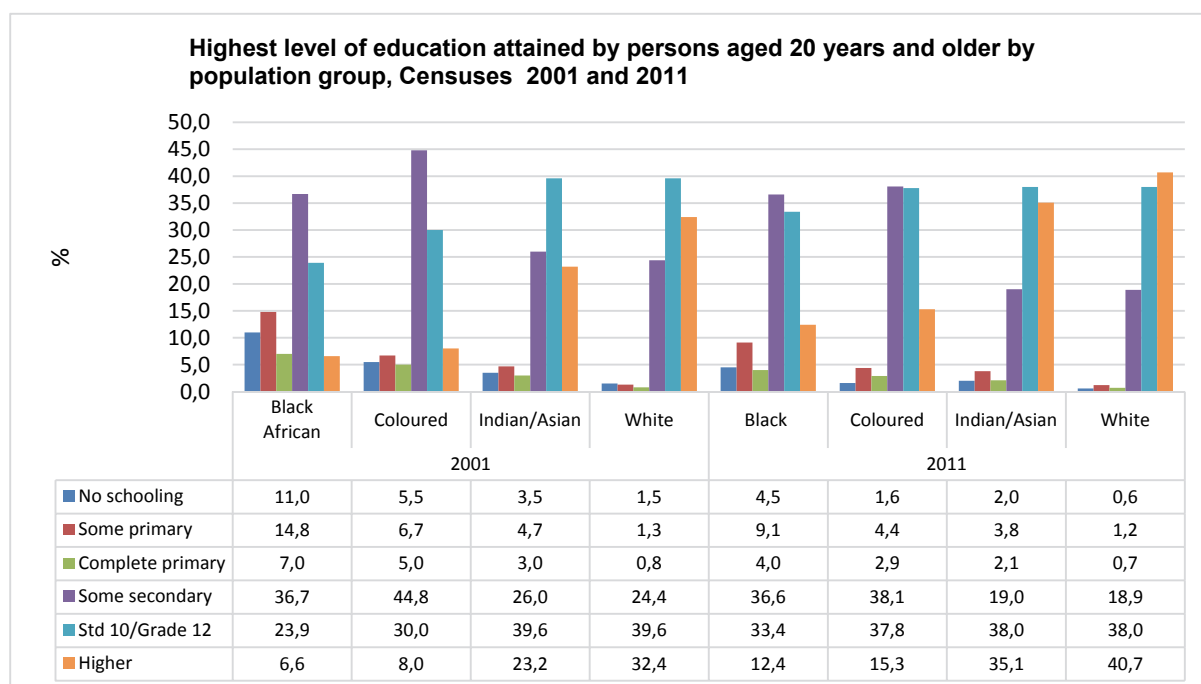


Figure 3.16 shows that there was a general decrease in proportion of persons aged 20 years and older who have no schooling, some primary, complete primary and some secondary level education; there was an increase in the proportion who have completed higher education across all population groups since 2001. However, significant disparities still prevail. Black Africans have continued to record the highest proportion with no schooling and the lowest proportion with higher level of education compared with those recorded by other population groups.

3.7 Employment

Employment status of persons aged 15–64 years provides insights into how a country makes effective use of this group. This has a direct link to the overall living standard of the population and a country's economic development. Hence this section focuses on the level of unemployment rates.

Figure 3.17: Unemployment rate by population group, Census 2011

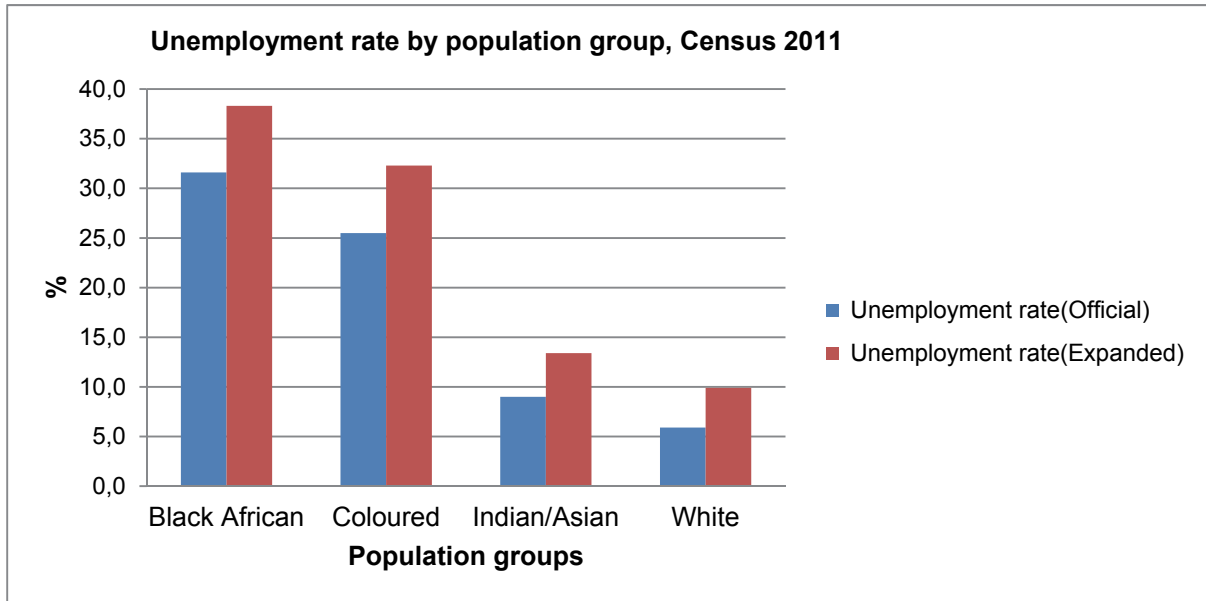


Figure 3.17 shows that the unemployment rate among the black African population group is highest, while among the white population group it is the lowest.

Figure 3.18: Unemployment rate (official) by sex and age group

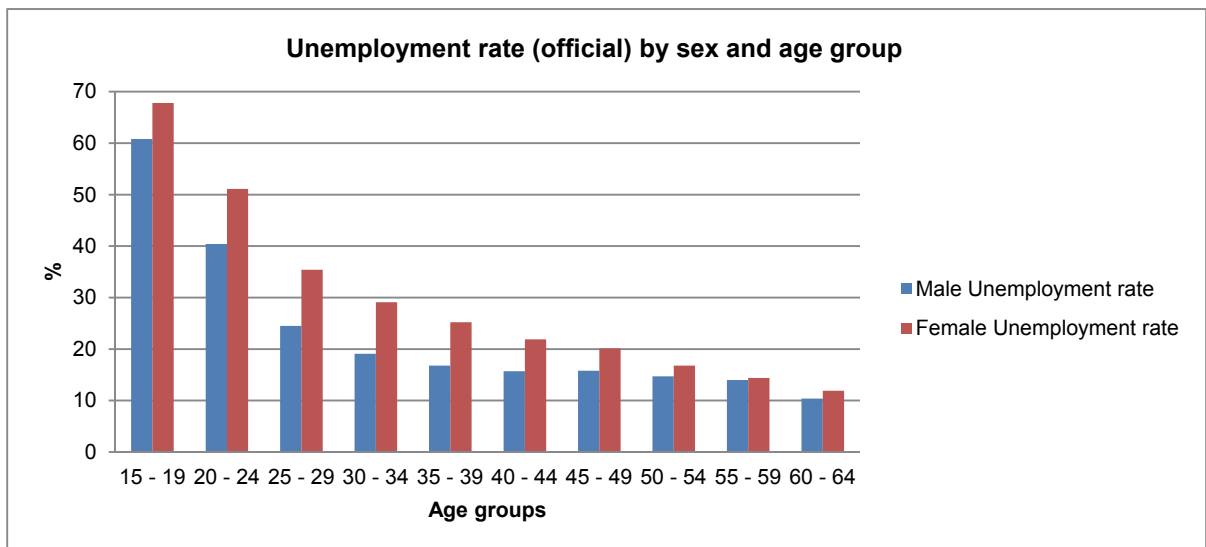


Figure 3.19: Unemployment rate (expanded) by sex and age group, Gauteng, Census 2011



Based on the official and expanded definition of employment, Figures 3.18 and 3.19 indicate that in all age groups, the unemployment rates among women are higher than those among men. The highest rates are recorded by those aged less than 25 years. The rates generally decline with increasing age as shown in Figures 3.20 and 3.21 below.

Figure 3.20: Unemployment rate (official and expanded) by sex and age group in Gauteng, Census 2011

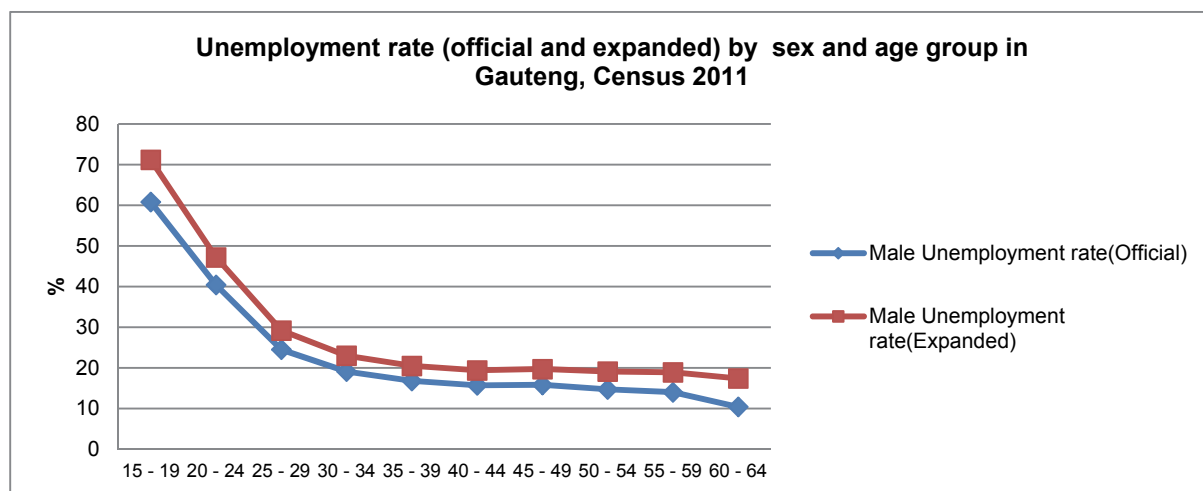
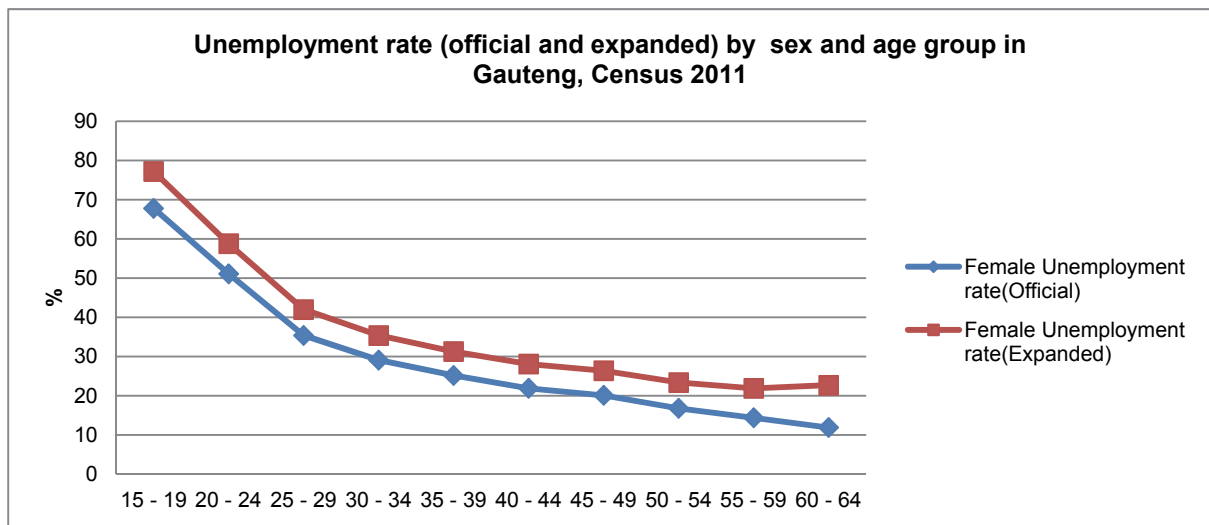


Figure 3.21: Unemployment rate (official and expanded) by sex and age group in Gauteng, Census 2011



Chapter 4: Results pertaining to households

4.1 Introduction

This chapter concentrates on the characteristics of the dwelling units in which households live and their access to certain services and facilities. This provides an important indication of the well-being of members of the household.

4.2 Households

Table 4.1: Distribution of households by district/local municipalities, Censuses 1996, 2001 and 2011

District and local municipalities	Number of households			%		
	1996	2001	2011	1996	2001	2011
Sedibeng	182 570	224 966	279 768	8,8	8,1	7,2
Emfuleni	149 360	186 926	220 135	81,8	83,1	78,7
Midvaal	17 508	19 573	29 965	9,6	8,7	10,7
Lesedi	15 701	18 467	29 668	8,6	8,2	10,6
West Rand	152 256	207 793	267 397	7,4	7,4	6,8
Mogale City	62 191	85 194	117 373	40,8	41,0	43,9
Randfontein	27 381	36 165	43 299	18,0	17,4	16,2
Westonaria	23 173	30 098	40 101	15,2	14,5	15,0
Merafong City	39 512	56 336	66 624	26,0	27,1	24,9
Ekurhuleni	542 719	745 576	1 015 465	26,2	26,7	26,0
City of Johannesburg	732 845	1 006 910	1 434 856	35,4	36,1	36,7
City of Tshwane	459 122	60 6025	911 536	22,2	21,7	23,3
Gauteng	2 069 512	2 791 270	3 909 022			

Table 4.1 shows the number and percentage distribution of the households for both district and local municipalities. There is a notable increase in the number of households in all the municipalities. However, the percentage shares of Sedibeng and West Rand district municipalities have decreased while those of the Cities of Johannesburg and Tshwane have slightly increased since 2001.

Table 4.2: Headship by district/local municipalities

District and local municipality	Gender of household head	
	Male	Female
Sedibeng	65,3	34,7
Emfuleni	63,7	36,3
Midvaal	73,7	26,3
Lesedi	68,7	31,3
West Rand	68,9	31,1
Mogale City	68,8	31,2
Randfontein	66,4	33,6
Westonaria	69,4	30,6
Merafong City	70,6	29,4
Ekurhuleni	68,7	31,3
City of Johannesburg	63,8	36,2
City of Tshwane	64,2	35,8
Gauteng	65,7	34,3

Table 4.2 indicates that more than 63% of the households are headed by males in all the municipalities. The highest proportion was recorded in Midvaal municipality (73,7%) in Sedibeng, followed by Merafong municipality in West Rand.

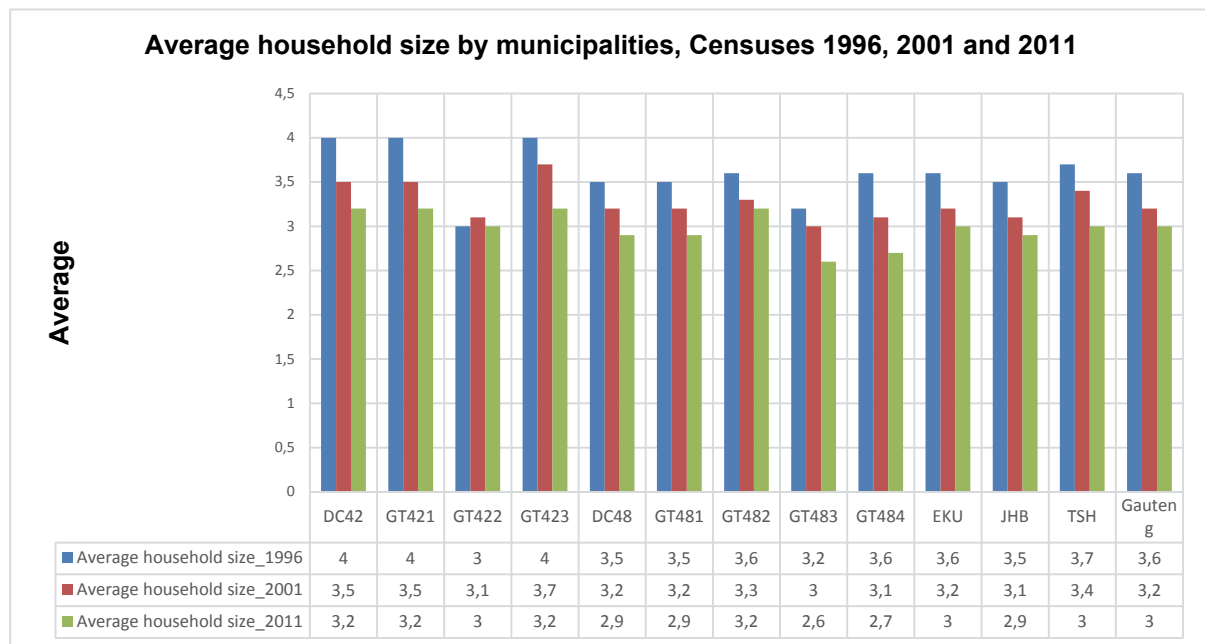
Figure 4.1: Average households size by municipalities, Censuses 1996, 2001 and 2011

Figure 4.1 shows the average household's size in Gauteng municipalities for censuses 1996, 2001 and 2011. In Sedibeng (D42), West Rand (DC48), Ekurhuleni (EQU), City of Johannesburg (JHB) and City of Tshwane (TSH), the average household size has decreased.

Figure 4.2: Percentage distribution of households by type of main dwelling, Censuses 1996, 2001 and 2011

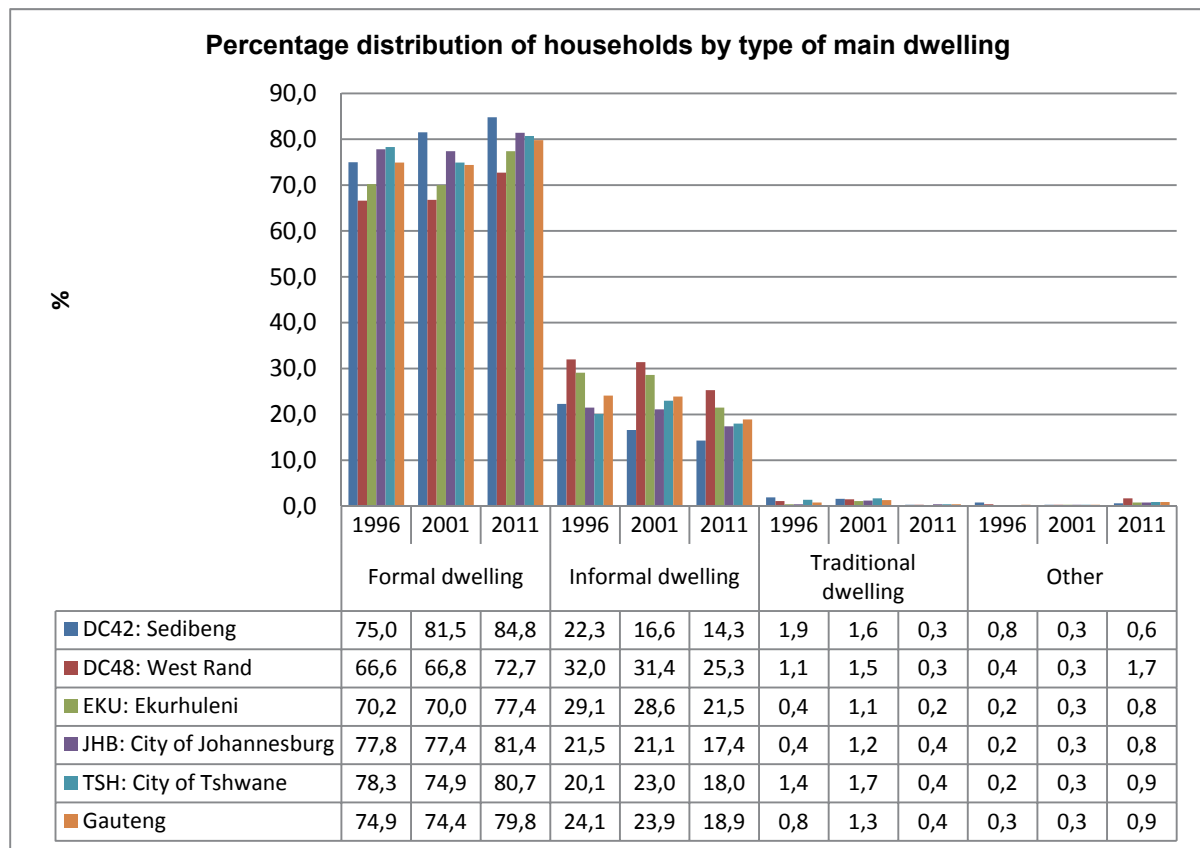


Figure 4.2 shows that there has been an increase in the proportion of households living in formal dwellings and a decrease in the proportion of households living in informal dwellings in all district municipalities.

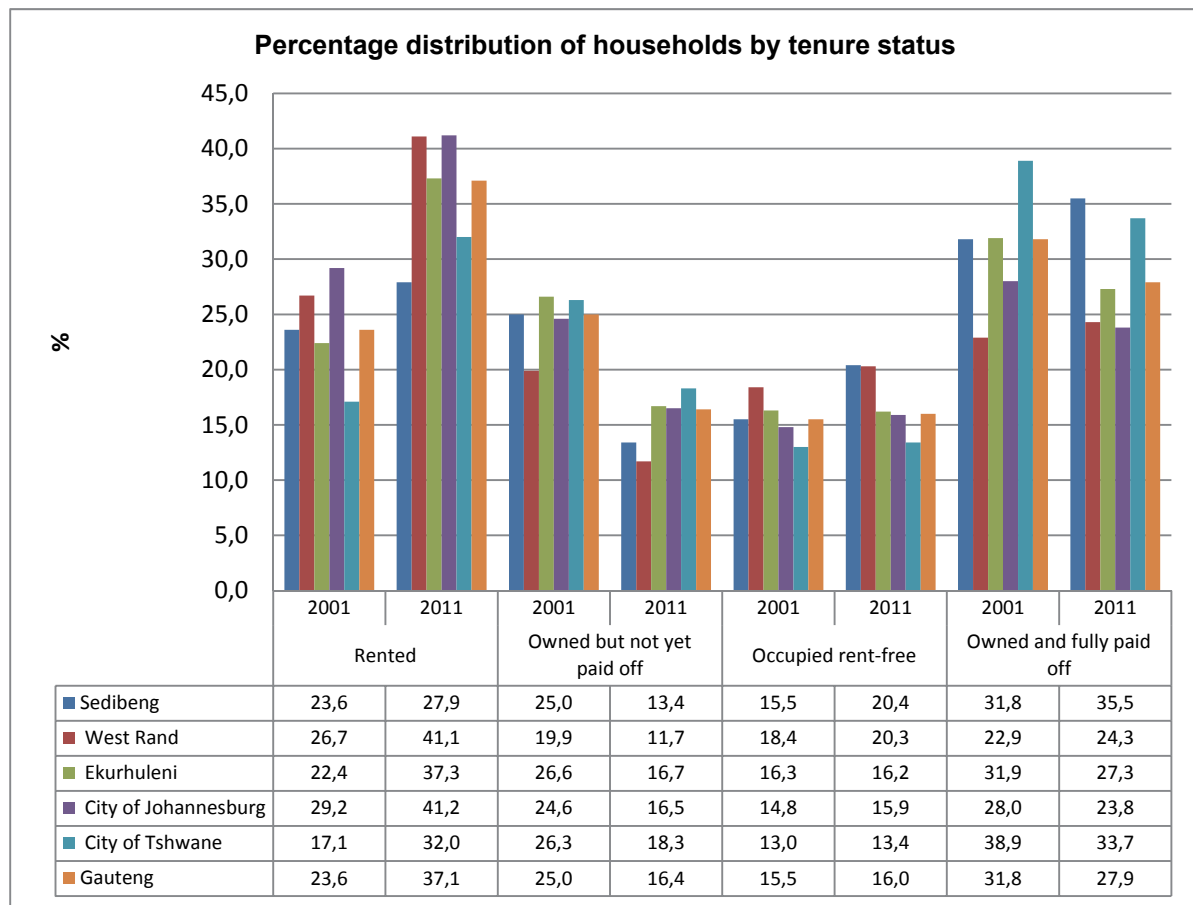
Figure 4.3: Percentage distribution of households by tenure status, Censuses 2001 and 2011

Figure 4.3 shows that the proportion of households with rented housing tenure status is increasing in all district municipalities. The proportion is decreasing for those households who owned but not yet paid off their houses in all district municipalities.

Figure 4.4: Percentage distribution of households by mode of refuse removal by district municipalities, Censuses 1996, 2001 and 2011

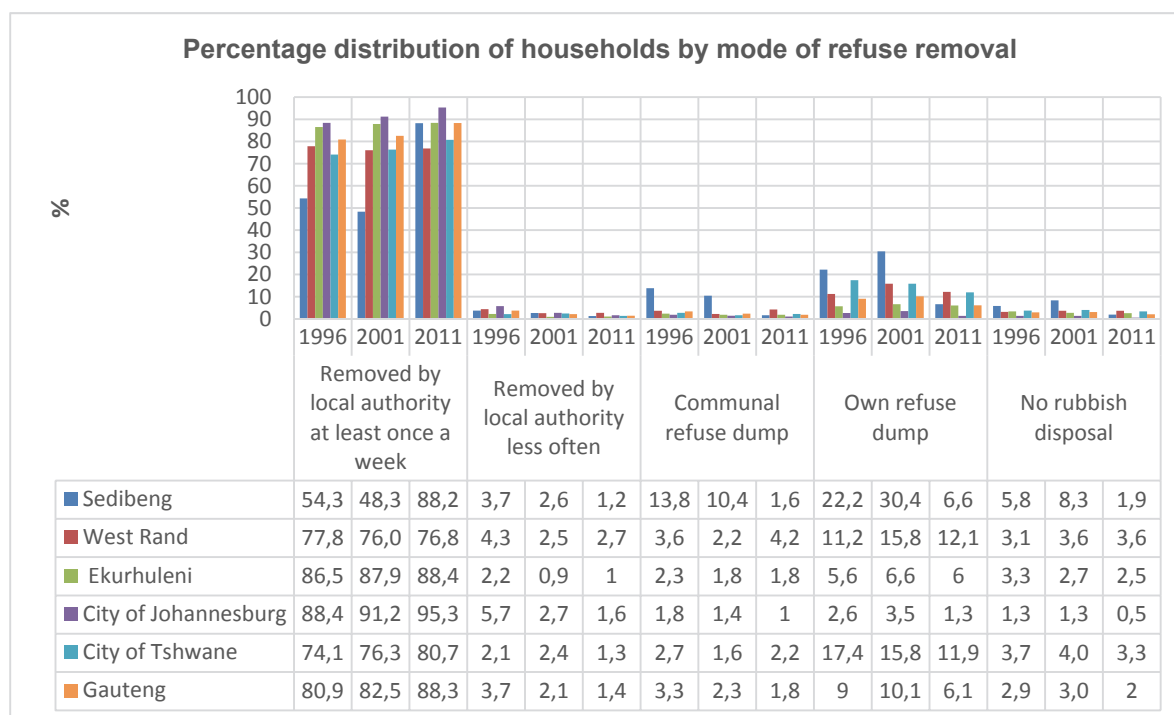


Figure 4.4 shows that the proportion of households whose refuse is removed by the local authority weekly has increased consistently in all district municipalities.

Figure 4.5: Percentage distribution of households by type of toilet facility, Censuses 1996, 2001 and 2011

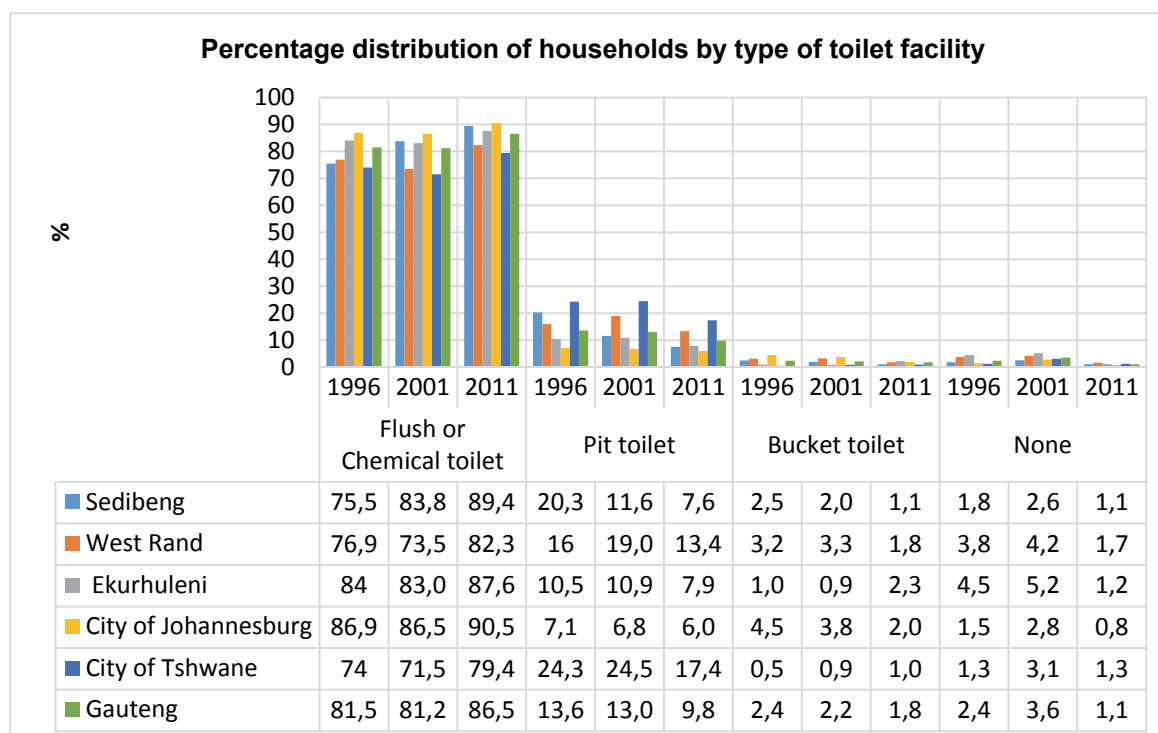


Figure 4.5 indicates that the proportion of households that have access to flush or chemical toilets in Gauteng increased to 86,5% in Census 2011, from 81,2% in Census 2001 and 81,5% in Census 1996.

Figure 4.6: Percentage distribution of households by type of energy used for cooking by district municipalities, Censuses 1996, 2001 and 2011

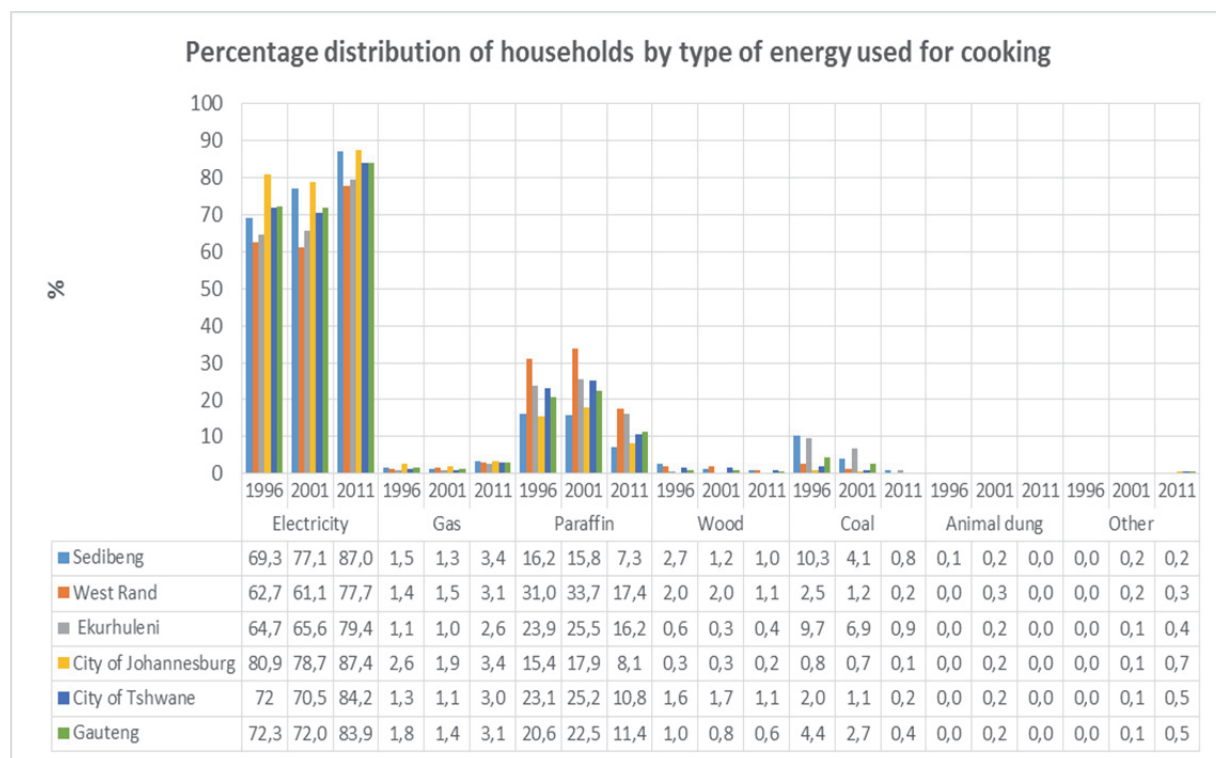


Figure 4.6 shows that the proportion of households using electricity for cooking increased from 72,3% in 1996 to 83,9% in 2011. This upward trend is depicted by all district municipalities. The proportion of households using wood and coal as sources of energy for cooking decreased from 1,0%, 0,8%, 0,6% and 4,4%, 2,7% and 0,4% in Censuses 1996, 2001 and 2011 respectively.

Figure 4.7: Percentage distribution of households by type of energy used for lighting, Censuses 1996, 2001 and 2011

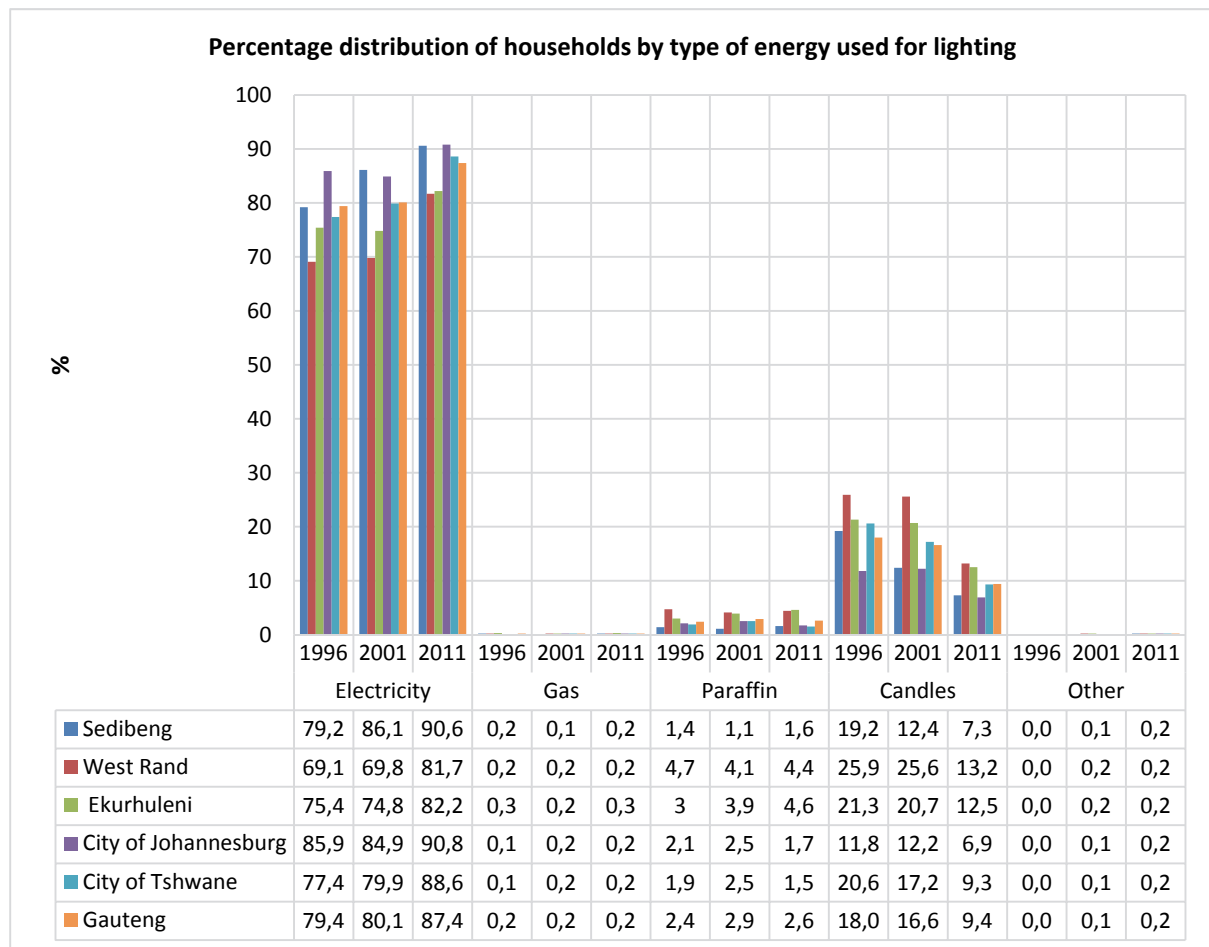


Figure 4.7 shows that the proportion of households using electricity for lighting has increased since 1996. The proportion of households using candles for lighting is decreasing in all district municipalities.

Figure 4.8: Percentage distribution of households by type of energy used for heating, Censuses 1996, 2001 and 2011

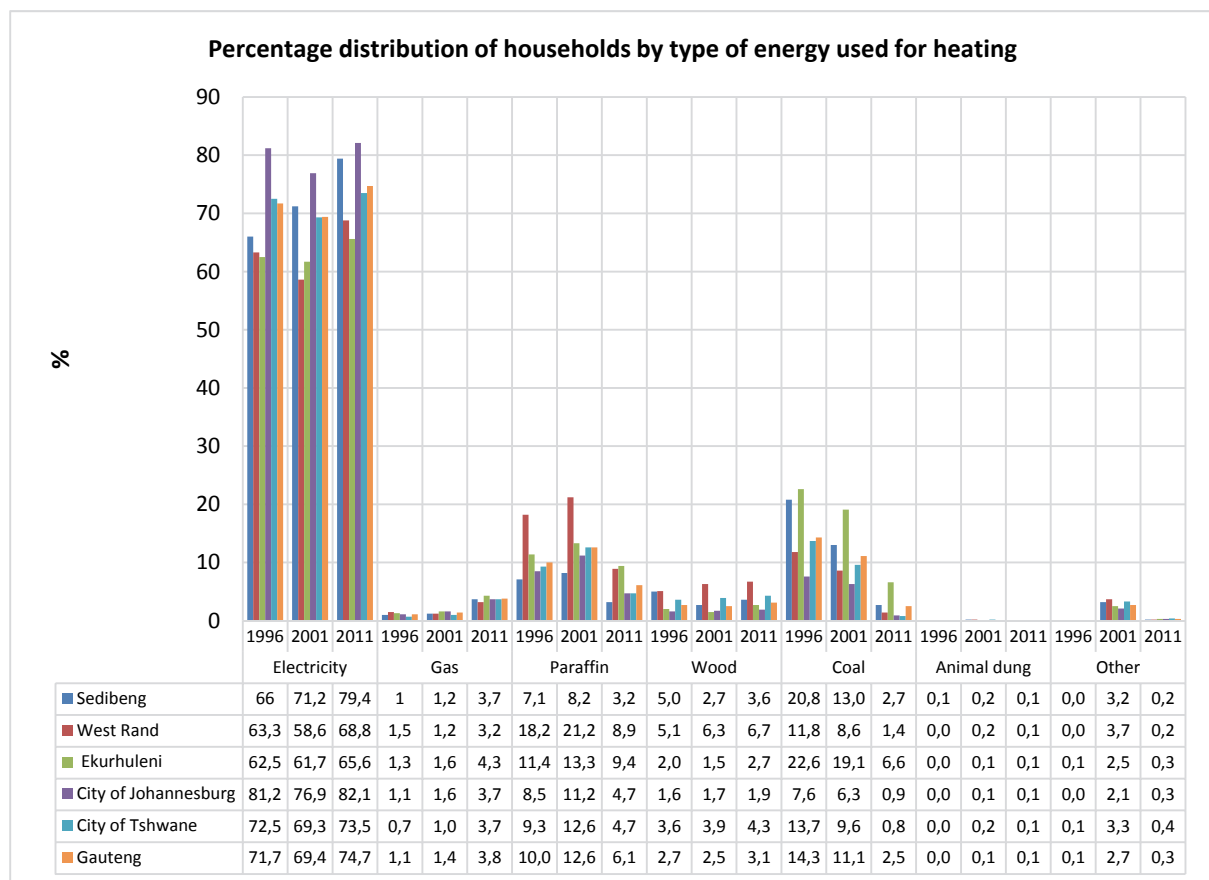


Figure 4.8 shows that the proportion of households using electricity for heating has increased since 1996. The proportion of households using coal for heating has decreased in all district municipalities.

Figure 4.9: Percentage of households that have access to piped (tap) water, Censuses 2001 and 2011

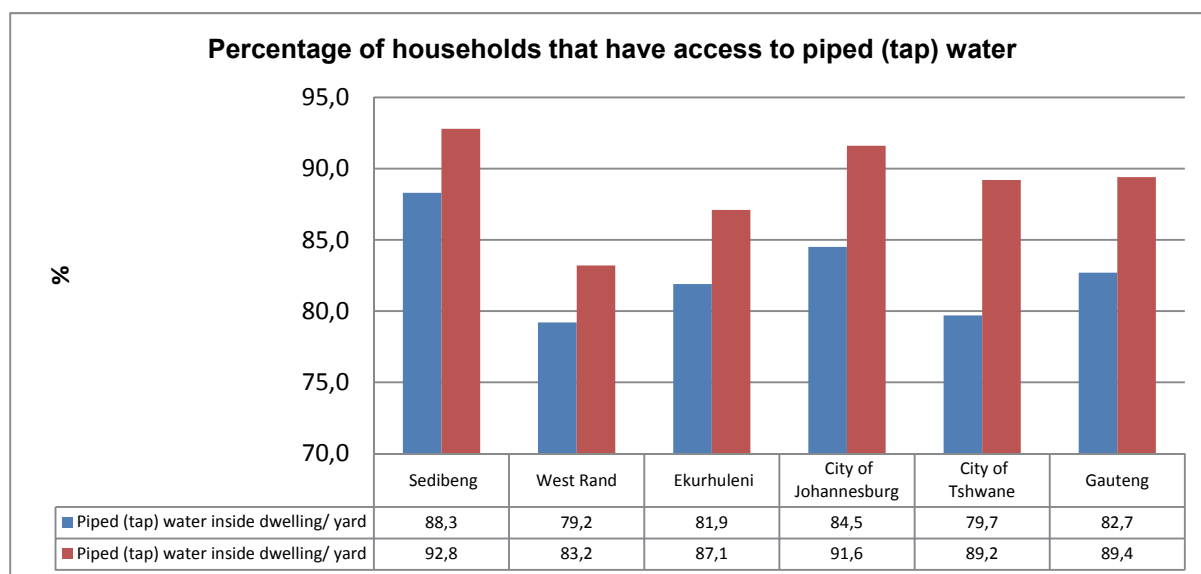


Figure 4.9 indicates an increase in the proportion of households which had access to piped water, and this has significantly increased since 2001.

Figure 4.10: Percentage of households with household goods in working order, Censuses 2001 and 2011

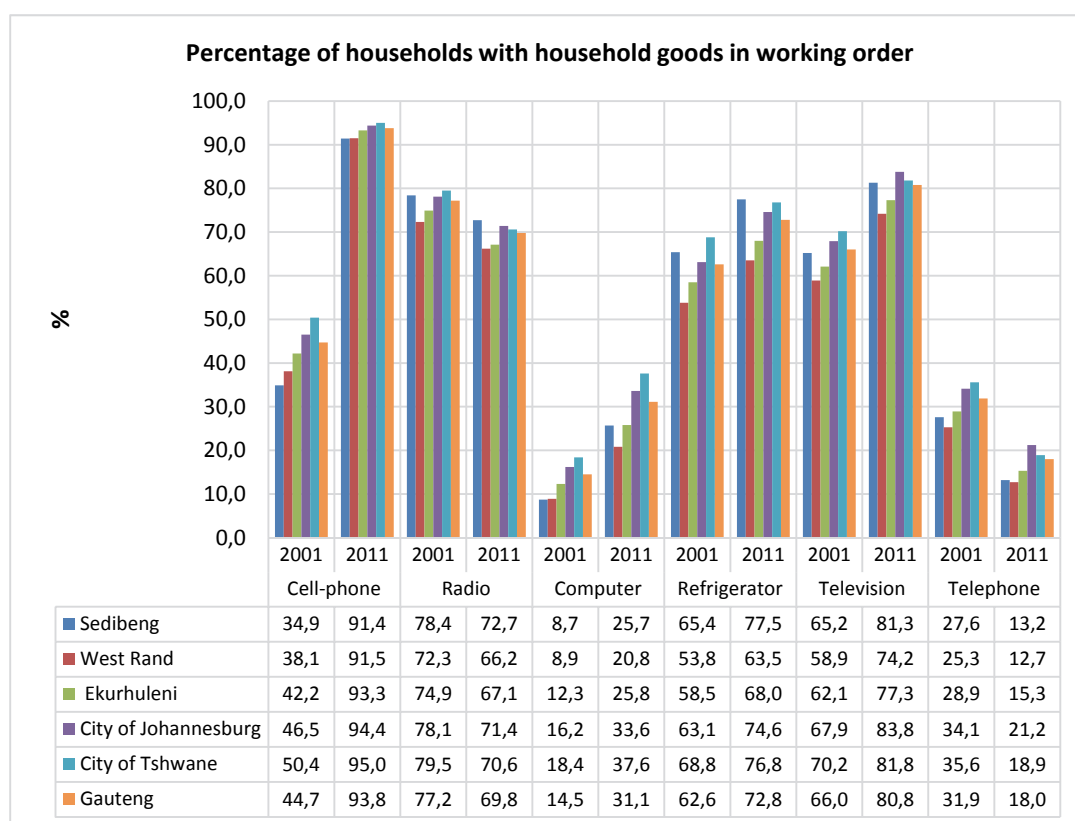


Figure 4.10 shows the proportion of households owning cellphones increased to above 90,0% in Census 2011 in all district municipalities, while the proportion of the households using radio and landline telephones is decreasing.

Chapter 5: Discussion and conclusion

5.1 Background

Gauteng is the smallest province in the country, occupying an area 16 936 square kilometres, which is approximately 1,4% of the land area of South Africa. It accommodates almost 23,7% of the total South African population, making it the leading province in terms of population size. It is inhabited by people of different cultural backgrounds from all the provinces of South Africa, and also from other countries.

5.2 The population of Gauteng

Census 2011 results indicate that Gauteng's three metropolitan areas (City of Johannesburg, City of Tshwane and Ekurhuleni) contained the bulk of Gauteng residents, with the City of Johannesburg being occupied by approximately 36,1% of the Gauteng population on the census night (9/10 October 2011). West Rand district municipality recorded the smallest percentage of the population at 6,7%.

Approximately 78,0% of the population was black African, followed by the white population at 16,0%, coloured population at 4,0% and Indian/Asian at 3,0%. This profile is similar to that recorded in Census 2001. The most frequently spoken home language in 2011 was isiZulu (19,8%), followed by Afrikaans (12,4%) and Sesotho (11,6%). The least spoken official first language was Sign language (0,4%), followed by Siswati (1,1%), and Tshivenda (2,3%). Other non-official languages were also spoken.

5.3 Migration

According to Census 2011, the largest number of internal migrants into Gauteng from other provinces was from Limpopo, followed by KwaZulu-Natal, Mpumalanga and Eastern Cape.

5.4 Education

Census 2011 results show that substantial progress has been made as far as access to education opportunities is concerned. The proportion of persons aged 5–24 years who are attending school has increased since 2001. The proportion of persons aged 20 years and older who have completed higher education has also increased.

5.5 The labour market

Census 2011 indicates that the unemployment rate among the black African population group is highest, while among the white population group it is the lowest. The unemployment rates patterns between males and females are similar, but the unemployment rates among women are higher than those among men.

5.6 Households and household services

The total households in Gauteng have increased from 2,069 million in 1996 to 2,791 million in 2001, and to 3,909 million in 2011.

The proportion of households living in formal dwellings increased from 74,9% in 1996 to 79,8% in 2011. There was a significant decrease in the proportion of households living in informal dwellings, from 24,1% in 1996 to 23,9% in 2001, and to 18,9% in 2011. Regarding household services and access to facilities, the findings indicate that the households that own and have fully paid off their dwellings in 2011 had decreased from 31,8% in 2001 to 27,9% in 2011. The proportion of households whose refuse was removed by the local authority at least weekly increased from 80,9% in 1996 to 88,3% in 2011. Regarding toilet facilities, there is an increase in the proportion of households with access to flush or chemical toilets from 81,5% in 1996 to 86,5% in 2011. The profile indicates that there has been an increase in the proportion of households which use piped water, from 82,7% in 2001 to 89,4% in 2011. Electricity usage has increased since 1996 to 87,4% for lighting, 74,7% for heating and 83,9% for cooking.

Regarding household goods and facilities, the findings indicate that there has been an increase in the proportion of households owning a television, computer, refrigerator and cellphones in working order between 2001 and 2011.

The above findings indicate that significant progress has been made with regard to provision of basic services in spite of the high increase in population size over the 1996–2011 period. These are positive outcomes in terms of household access to services and facilities, and are likely to be among the factors that contributed to the improvement in the living conditions of households or poverty in Gauteng.

Annexure

Table 1: Percentage distribution of total population by five-year age groups and sex, Gauteng, Census 2011

Age groups	Male	Female
0–4	4,9	4,8
5–9	3,7	3,7
10–14	3,3	3,3
15–19	3,7	3,8
20–24	5,7	5,5
25–29	6,3	5,8
30–34	5,3	4,6
35–39	4,4	3,9
40–44	3,4	3,2
45–49	2,7	2,8
50–54	2,2	2,4
55–59	1,7	1,9
60–64	1,2	1,3
65–69	0,7	0,9
70–74	0,5	0,7
75–79	0,3	0,5
80–84	0,2	0,3
85+	0,1	0,2

Figure 1: Distribution of total population by five-year age groups and sex, South Africa, Census 2011

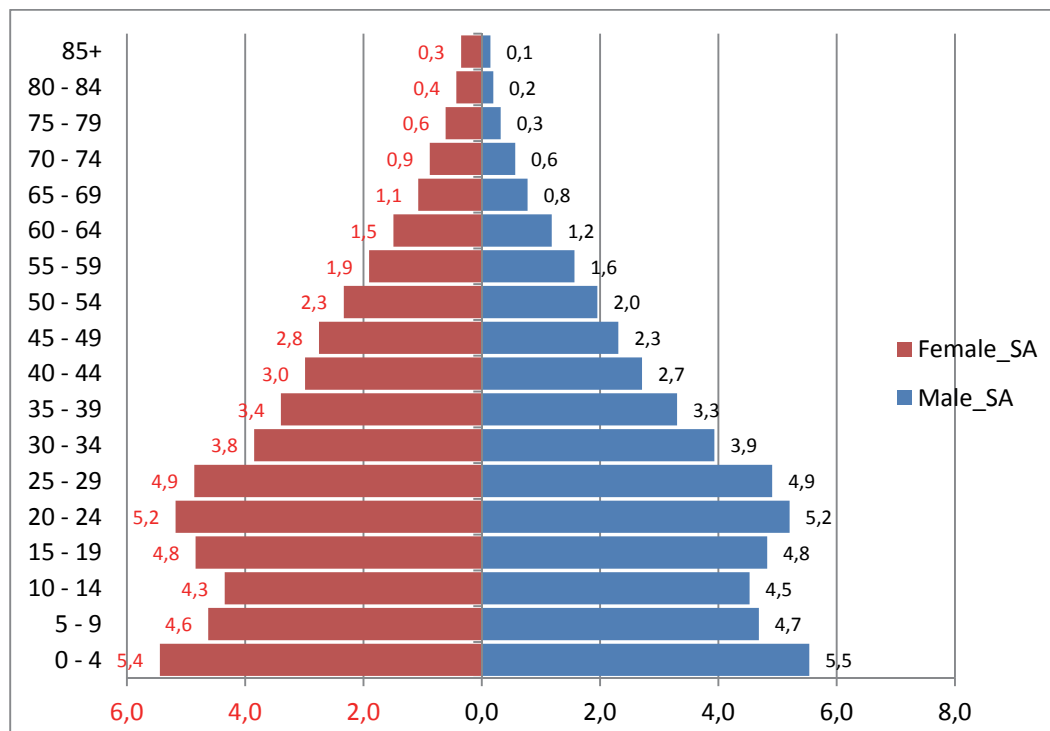


Figure 2: Distribution of total population by five-year age groups and sex, Johannesburg, Census 2011

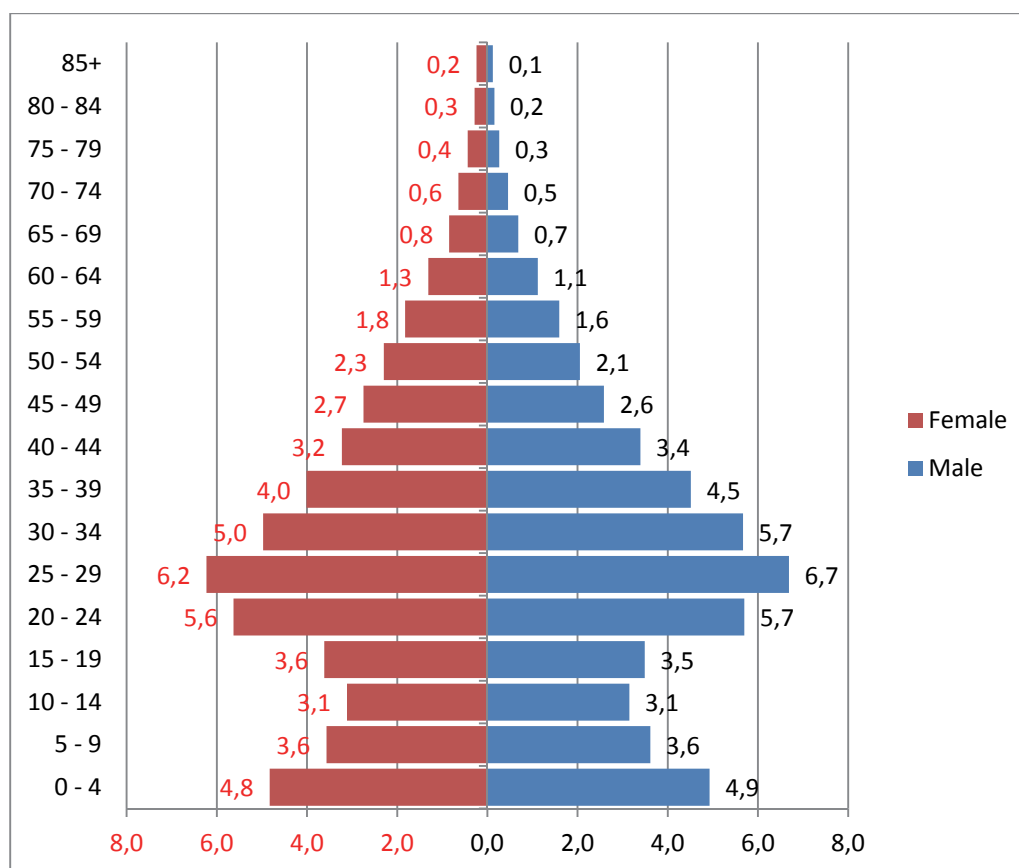


Figure 3: Distribution of total population by five-year age groups and sex, Ekurhuleni, Census 2011

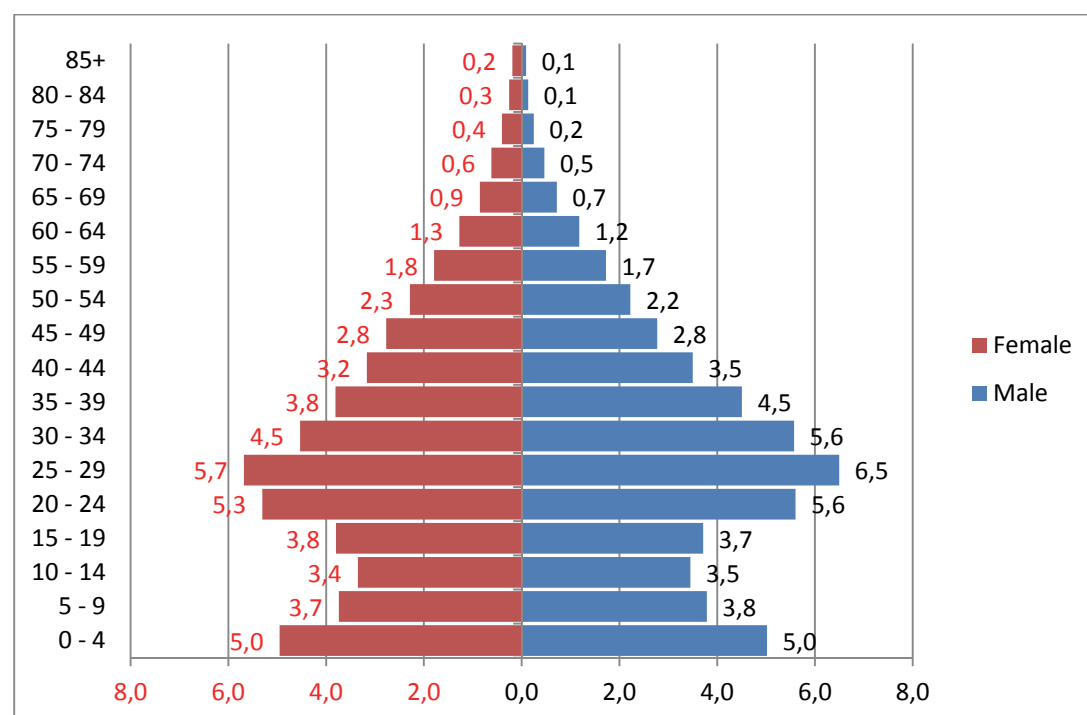


Figure 4: Distribution of total population by five-year age groups and sex, City of Tshwane, Census 2011

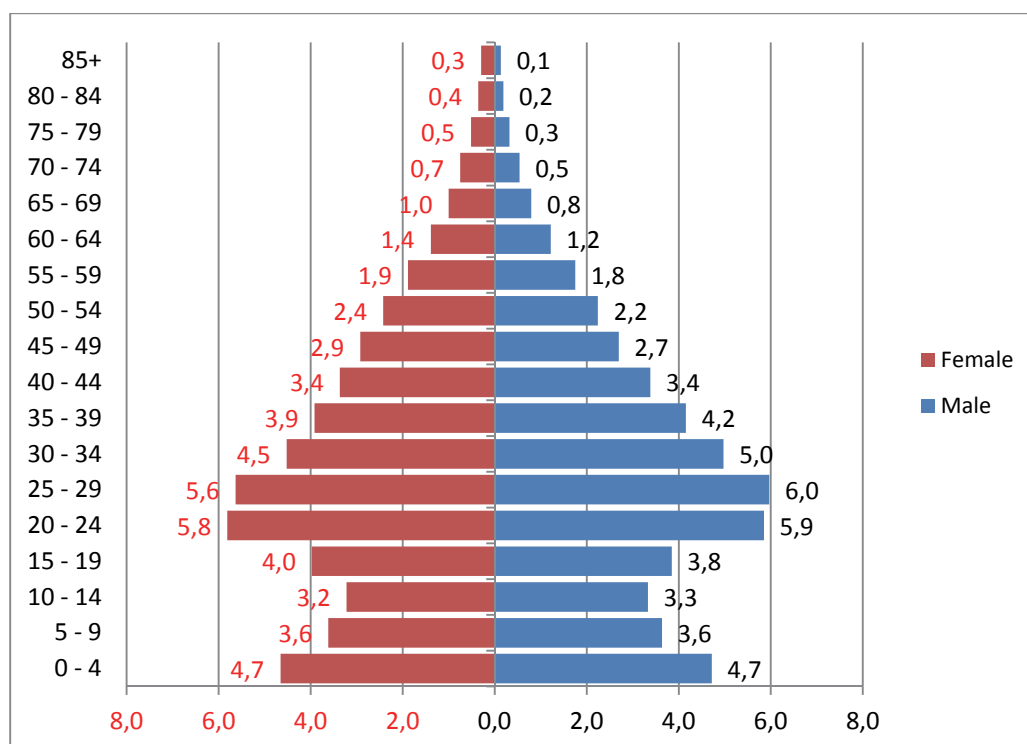


Figure 5: Distribution of total population by five-year age groups and sex, Sedibeng, Census 2011

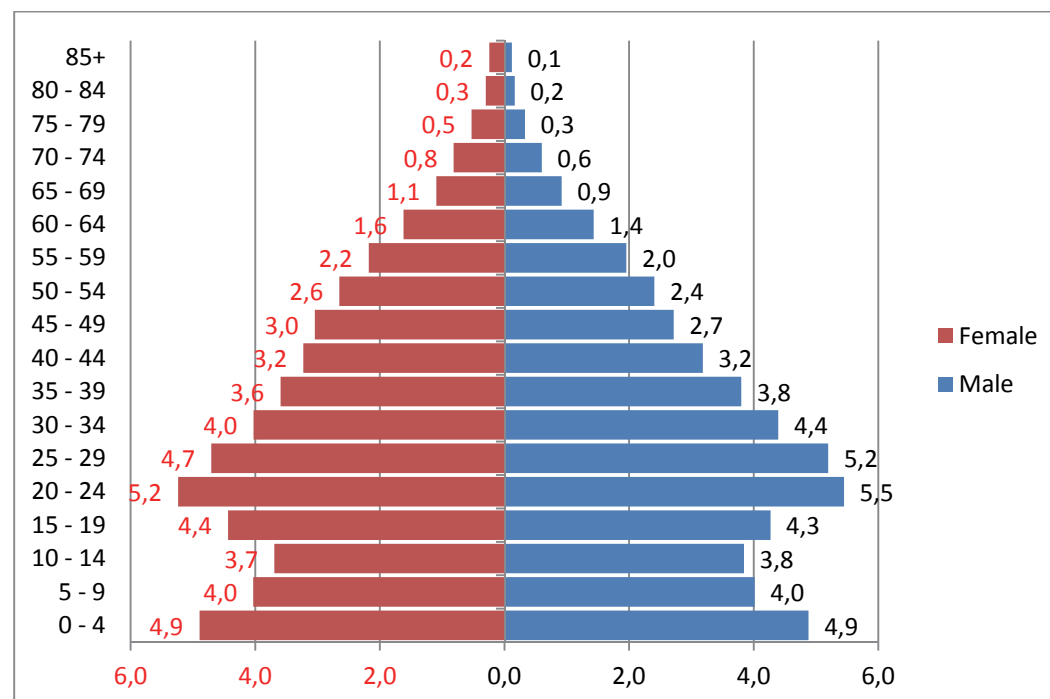


Figure 6: Distribution of total population by five-year age groups and sex, West Rand, Census 2011

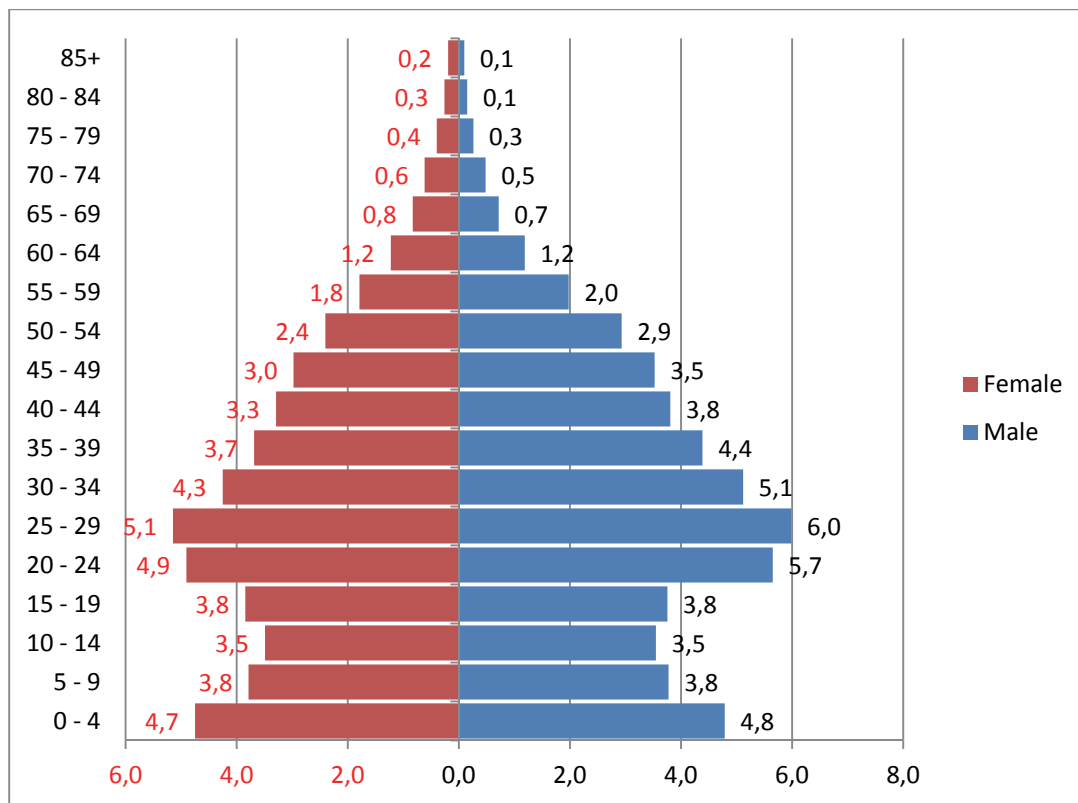


Table 2: Population distribution by official language most often spoken at home within each district municipality, Census 2011

District and local municipalities	Languages											
	Afrikaans	English	IsiNdebele	IsiXhosa	IsiZulu	Sepedi	Sesotho	Setswana	Sign language	Siswati	Tshivenda	Xitsonga
Sedibeng	136 989	49 371	6 639	64 608	144 231	14 439	422 199	20 784	8 901	3 861	4 356	12 060
Emfuleni	89 448	31 530	3 321	55 935	93 858	11 382	375 030	18 144	7 671	3 027	3 435	9 498
Midvaal	28 755	13 011	894	4 965	10 989	1 746	26 001	1 539	588	384	501	1 587
Lesedi	18 789	4 830	2 421	3 708	39 384	1 311	21 168	1 101	642	450	423	981
West Rand	135 687	53 322	8 541	119 508	72 447	24 624	86 547	218 994	4 071	7 332	11 577	41 847
Mogale City	60 915	34 455	5 673	30 963	39 876	13 956	19 776	112 389	1 725	1 848	8 346	15 660
Randfontein	42 543	7 707	1 191	11 817	9 177	5 967	9 462	50 130	504	636	1 131	4 890
Westonaria	8 091	3 864	630	29 955	11 466	1 914	20 955	16 143	735	2 085	1 110	11 619
Merafong City	24 135	7 296	1 047	46 773	11 928	2 784	36 354	40 329	1 107	2 766	987	9 678
Ekurhuleni	375 612	377 934	75 150	252 756	908 001	359 247	315 807	90 306	12 465	44 967	48 225	208 866
City of Johannesburg	318 063	878 229	126 585	298 524	1 022 745	317 277	420 117	335 712	18 792	35 928	141 435	287 625
City of Tshwane	536 589	244 608	163 578	61 446	242 610	567 312	150 420	428 799	8 517	44 463	66 528	246 114
Gauteng	1 502 940	1 603 464	380 493	796 839	2 390 034	1 282 896	1 395 090	1 094 598	52 743	136 551	272 121	796 512

Table 3: Persons aged 5–24 years currently attending an educational institution by type of institution, Census 2011

District and local municipalities	Public		Private	
	Male	Female	Male	Female
Sedibeng	91 780	90 272	11 232	11 855
Emfuleni	74 350	73 711	9 205	9 936
Midvaal	7 625	7 171	1 235	1 178
Lesedi	9 806	9 390	792	741
West Rand	69 225	68 716	9 493	9 639
Mogale City	30 147	29 853	4 819	4 878
Randfontein	14 099	13 891	1 378	1 466
Westonaria	8 717	8 854	1 043	1 075
Merafong City	16 261	16 117	2 252	2 220
Ekurhuleni	264 487	258 258	42 650	44 687
City of Johannesburg	312 962	311 192	83 869	87 238
City of Tshwane	253 477	252 634	45 453	48 143
Gauteng	991 931	981 072	192 697	201 562

Table 4: Highest level of education attained by persons aged 20 years and older, Census 2011

District and local municipalities	No schooling		Some primary		Completed primary		Some secondary		Grade 12/Std 10		Higher	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	12 146	14 426	27 992	31 537	10 328	10 886	108 143	109 052	94 236	95 882	38 914	38 393
Emfuleni	8 299	10 321	21 187	24 889	7 690	8 453	84 824	87 633	74 711	76 946	30 027	30 492
Midvaal	1 718	1 628	3 047	2 736	1 313	1 100	11 684	10 315	10 486	10 212	5 204	4 596
Lesedi	2 129	2 476	3 758	3 911	1 324	1 333	11 634	11 104	9 039	8 725	3 683	3 305
West Rand	15 313	12 898	34 258	26 993	14 657	11 928	105 723	96 534	83 371	80 135	29 431	29 376
Mogale City	5 993	5 381	11 959	10 566	5 099	4 674	43 365	41 117	39 362	39 521	16 996	17 266
Randfontein	2 058	1 899	4 898	4 690	2 113	1 889	18 695	18 833	15 678	15 968	5 717	5 839
Westonaria	2 702	1 963	7 277	4 263	3 024	2 101	17 028	13 243	10 958	8 850	2 103	1 905
Merafong City	4 559	3 655	10 123	7 474	4 420	3 264	26 635	23 341	17 373	15 796	4 614	4 367
Ekurhuleni	37 047	40 012	84 214	76 350	37 306	33 805	391 492	362 820	391 451	367 224	157 882	154 579
City of Johannesburg	43 747	44 451	102 953	97 123	53 088	49 931	499 318	489 356	528 151	526 194	285 433	299 544
City of Tshwane	35 531	45 740	65 461	66 109	27 793	27 808	282 388	270 124	326 409	339 396	222 802	235 968
Gauteng	143 783	157 527	314 879	298 112	143 171	134 358	1 387 064	1 327 887	1 423 618	1 408 830	734 461	757 861

Table 5: Percentage distribution of population aged 5 years and older by degree of difficulty (seeing)

District and local municipalities	Seeing							
	No difficulty		Some difficulty		A lot of difficulty		Cannot do at all	
	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	88,2	84,0	10,0	13,4	1,6	2,5	0,1	0,1
Emfuleni	88,0	83,5	10,2	13,8	1,7	2,6	0,1	0,1
Midvaal	89,1	86,5	9,4	11,4	1,4	2,0	0,1	0,1
Lesedi	89,1	84,9	9,4	12,7	1,4	2,2	0,1	0,1
West Rand	89,1	85,1	9,6	12,9	1,2	2,0	0,1	0,1
Mogale City	89,8	86,0	9,0	12,2	1,1	1,7	0,1	0,1
Randfontein	88,9	84,6	9,8	13,5	1,2	1,8	0,1	0,1
Westonaria	89,4	85,4	9,2	12,0	1,3	2,5	0,1	0,1
Merafong City	87,8	83,4	10,6	14,1	1,4	2,4	0,1	0,2
Ekurhuleni	91,2	87,4	7,6	10,9	1,0	1,6	0,1	0,1
City of Johannesburg	92,5	88,9	6,7	9,8	0,7	1,2	0,1	0,1
City of Tshwane	91,7	88,8	7,4	9,9	0,8	1,2	0,1	0,1
Gauteng	91,4	87,9	7,5	10,5	0,9	1,5	0,1	0,1

Table 6: Percentage distribution of population aged 5 years and older by degree of difficulty (hearing)

District and local municipalities	Hearing							
	No difficulty		Some difficulty		A lot of difficulty		Cannot do at all	
	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	96,4	96,1	3,0	3,2	0,5	0,6	0,1	0,1
Emfuleni	96,6	96,2	2,8	3,2	0,5	0,6	0,1	0,1
Midvaal	95,5	95,7	3,7	3,5	0,7	0,7	0,1	0,1
Lesedi	96,3	95,9	3,1	3,4	0,5	0,6	0,1	0,1
West Rand	96,2	96,2	3,2	3,2	0,5	0,5	0,1	0,1
Mogale City	96,8	96,6	2,7	2,9	0,4	0,4	0,1	0,1
Randfontein	96,3	96,3	3,1	3,1	0,5	0,5	0,1	0,1
Westonaria	96,1	96,2	3,3	3,1	0,5	0,6	0,1	0,1
Merafong City	95,0	95,5	4,2	3,8	0,6	0,6	0,1	0,1
Ekurhuleni	97,4	97,1	2,2	2,4	0,3	0,4	0,1	0,1
City of Johannesburg	97,9	97,5	1,8	2,1	0,2	0,3	0,1	0,1
City of Tshwane	97,4	97,2	2,2	2,4	0,3	0,4	0,1	0,1
Gauteng	97,4	97,1	2,2	2,4	0,3	0,4	0,1	0,1

Table 7: Percentage distribution of population aged 5 years and older by degree of difficulty (communication)

District and local municipalities	Communication							
	No difficulty		Some difficulty		A lot of difficulty		Cannot do at all	
	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	98,7	98,8	0,9	0,9	0,2	0,2	0,1	0,1
Emfuleni	98,8	98,9	0,9	0,8	0,2	0,2	0,1	0,1
Midvaal	98,4	98,6	1,3	1,1	0,1	0,2	0,1	0,1
Lesedi	98,6	98,8	1,0	0,9	0,3	0,2	0,1	0,1
West Rand	98,7	98,7	1,0	1,0	0,2	0,2	0,1	0,1
Mogale City	98,8	98,8	0,9	0,9	0,2	0,2	0,1	0,1
Randfontein	98,7	98,8	0,9	0,9	0,2	0,2	0,2	0,1
Westonaria	98,4	98,5	1,3	1,2	0,2	0,2	0,2	0,1
Merafong City	98,7	98,5	1,0	1,1	0,2	0,2	0,1	0,1
Ekurhuleni	98,9	98,9	0,8	0,8	0,2	0,2	0,1	0,1
City of Johannesburg	99,0	99,0	0,7	0,8	0,2	0,2	0,1	0,1
City of Tshwane	98,8	98,9	0,9	0,9	0,2	0,2	0,1	0,1
Gauteng	98,9	98,9	0,8	0,8	0,2	0,2	0,1	0,1

Table 8: Percentage distribution of population aged 5 years and older by degree of difficulty (walking or climbing stairs)

District and local municipalities	Walking or climbing stairs							
	No difficulty		Some difficulty		A lot of difficulty		Cannot do at all	
	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	97,2	96,2	2,0	2,8	0,6	0,9	0,2	0,2
Emfuleni	97,3	96,3	1,9	2,7	0,6	0,8	0,2	0,2
Midvaal	96,5	95,5	2,5	3,2	0,7	1,0	0,2	0,3
Lesedi	97,1	96,0	2,1	2,9	0,6	0,9	0,2	0,3
West Rand	97,4	96,4	1,9	2,8	0,5	0,7	0,2	0,2
Mogale City	97,3	96,3	2,0	2,8	0,5	0,7	0,2	0,2
Randfontein	97,3	96,3	1,9	2,7	0,6	0,8	0,2	0,2
Westonaria	97,8	96,8	1,6	2,5	0,5	0,6	0,2	0,1
Merafong City	97,3	96,3	2,0	2,9	0,5	0,7	0,2	0,2
Ekurhuleni	97,9	96,9	1,6	2,4	0,4	0,6	0,2	0,2
City of Johannesburg	98,0	97,1	1,5	2,2	0,3	0,6	0,1	0,2
City of Tshwane	97,7	96,7	1,8	2,5	0,4	0,6	0,2	0,2
Gauteng	97,8	96,8	1,6	2,4	0,4	0,6	0,2	0,2

Table 9: Percentage distribution of population aged 5 years and older by degree of difficulty (remembering or concentration)

District and local municipalities	Remembering or concentration							
	No difficulty		Some difficulty		A lot of difficulty		Cannot do at all	
	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	96,7	95,6	2,5	3,4	0,6	0,8	0,2	0,2
Emfuleni	96,7	95,5	2,5	3,4	0,6	0,9	0,2	0,2
Midvaal	96,6	96,0	2,8	3,0	0,5	0,8	0,1	0,2
Lesedi	96,8	96,0	2,5	3,1	0,5	0,7	0,2	0,2
West Rand	97,2	96,1	2,2	3,1	0,5	0,7	0,1	0,1
Mogale City	97,3	96,5	2,1	2,8	0,4	0,6	0,1	0,2
Randfontein	97,1	96,0	2,3	3,2	0,4	0,7	0,2	0,1
Westonaria	97,5	96,0	2,0	3,0	0,5	0,8	0,1	0,1
Merafong City	96,8	95,3	2,5	3,7	0,5	0,9	0,1	0,1
Ekurhuleni	97,7	96,9	1,8	2,4	0,4	0,5	0,1	0,1
City of Johannesburg	98,0	97,3	1,6	2,1	0,3	0,4	0,1	0,1
City of Tshwane	97,8	97,3	1,7	2,1	0,4	0,4	0,1	0,1
Gauteng	97,7	97,0	1,8	2,4	0,4	0,5	0,1	0,1

Table 10: Percentage distribution of population aged 5 years and older by degree of difficulty (self-care)

District and local municipalities	Self-care							
	No difficulty		Some difficulty		A lot of difficulty		Cannot do at all	
	Male	Female	Male	Female	Male	Female	Male	Female
Sedibeng	97,6	97,6	1,4	1,4	0,5	0,5	0,5	0,5
Emfuleni	97,5	97,5	1,4	1,5	0,5	0,5	0,6	0,5
Midvaal	98,2	97,9	1,3	1,5	0,2	0,4	0,3	0,3
Lesedi	98,0	97,8	1,2	1,3	0,3	0,4	0,5	0,5
West Rand	97,9	97,6	1,3	1,5	0,4	0,4	0,5	0,5
Mogale City	97,9	97,7	1,3	1,5	0,4	0,4	0,4	0,5
Randfontein	97,5	97,3	1,5	1,7	0,5	0,5	0,5	0,5
Westonaria	98,1	97,5	1,1	1,5	0,4	0,5	0,3	0,4
Merafong City	97,9	97,6	1,3	1,5	0,3	0,4	0,5	0,5
Ekurhuleni	98,2	98,0	1,1	1,3	0,3	0,3	0,4	0,4
City of Johannesburg	98,4	98,3	1,0	1,1	0,2	0,3	0,3	0,3
City of Tshwane	98,1	98,0	1,1	1,2	0,3	0,3	0,5	0,4
Gauteng	98,2	98,0	1,1	1,2	0,3	0,3	0,4	0,4

