HUNGRY CITIES PARTNERSHIP

The State of Household Food Security in Cape Town, South Africa

HUNGRY CITIES REPORT NO. 12

HUNGRY CITIES PARTNERSHIP

The State of Household Food Security in Cape Town, South Africa

Jonathan Crush, Mary Caesar
and Gareth Haysom

Series Editors: Prof Jonathan Crush
and Dr Liam Riley

HUNGRY CITIES REPORT NO. 12

Acknowledgements

The research and publication of this report was funded by the Social Sciences and Humanities Research Council (SSHRC) and the International Development Research Centre (IDRC) under the International Partnerships for Sustainable Societies (IPaSS) Program. The authors wish to thank Citizen Surveys for implementing the AFSUN-HCP survey on which this report is based and the following for their help in the preparation of the report: Washeelah Kapery, Wade Pendleton, Bronwen Dachs, Maria Salamone and Cameron McCordic.

© HUNGRY CITIES PARTNERSHIP 2018

Published by the Hungry Cities Partnership
African Centre for Cities, University of Cape Town, South Africa,
and Wilfrid Laurier University/Balsillie School of International Affairs,
Waterloo, Canada
hungrycities.net

First published 2018

ISBN 978-1-920597-37-5

Cover photograph: Sally Wellbeloved Photography

Production by Bronwen Dachs Muller, Cape Town

All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, without prior permission from the publisher.

Authors

Jonathan Crush is Hungry Cities Partnership Director and the CIGI Chair in Global Migration and Development at the Balsillie School of International Affairs, Waterloo, Canada.

Mary Caesar is a QES Postdoctoral Fellow at the Balsillie School of International Affairs.

Gareth Haysom is Southern Cities Project Co-ordinator for the Hungry Cities Partnership at the African Centre for Cities, University of Cape Town, South Africa.

Previous Publications in the Hungry Cities Report Series

No 1 *The Urban Food System of Nanjing, China*
No 2 *The Urban Food System of Maputo, Mozambique*
No 3 *The Urban Food System of Cape Town, South Africa*
No 4 *The Urban Food System of Kingston, Jamaica*
No 5 *The Urban Food System of Bangalore, India*
No 6 *The Urban Food System of Nairobi, Kenya*
No 7 *The Urban Food System of Mexico City, Mexico*
No 8 *The Urban Food System of Windhoek, Namibia*
No 9 *The State of Household Food Security in Nanjing, China*
No 10 *The State of Household Food Security in Maputo, Mozambique*
No 11 *The State of Household Food Security in Nairobi, Kenya*

Contents

Page

List of Tables

List of Figures

Executive Summary

This is the first city-wide representative household food security survey of Cape Town and contributes significantly to the growing body of evidence about the food system of the city. The main finding is that the food system does not service all Cape Town residents equally. Households experience significant challenges in accessing food, as demonstrated in the high levels of food insecurity across the city. Perhaps just as significant are the high levels of inequality in food security, a finding consistent with the broader literature on poverty and inequality across the city. Major findings on the unequal nature of household food security include the following:

- Cape Town households spend an average of ZAR1,724 per month on food and groceries. However, the proportion of household income spent on food consistently declines from 66% for those in the lowest-income quintile to only 8% for those in the upper-income quintile.
- Of the various basic necessities captured by the Lived Poverty Index, the highest levels of deprivation pertain to food with only 47% of households never experiencing not having enough to eat.
- The mean household Household Food Insecurity Access Score (HFIAS) is 5.9. However, nearly 40% of households have HFIAS scores higher than the mean, and nearly one-third had scores of 10 or more. The Household Food Insecurity Access Prevalence (HFIAP) indicator categorizes 46% of households as food secure, while 36% are severely food insecure. The remaining 18% experience some degree of food insecurity.
- As food insecurity increases, so does the frequency with which shortages are experienced. Among food secure households, 95% never experience food shortages, compared with only 5% of severely food insecure households. In addition, 22% of these households have experienced food shortages "many times" and 17% say this is a continuous experience.
- The mean Household Dietary Diversity Score (HDDS) is 6.75 out of a possible 12. A total of 43% of households have scores of 6 or less (generally considered a proxy for poor nutritional outcomes), one-third have scores of 5 or less and 20% have scores of 4 or less. Because the 12 food groups contain at least two non-nutritive foodstuffs (sugar and tea/coffee) and most poor households purchase these foods, households with an HDDS of 5 may be consuming only three nutritionally-adequate foods.
- The Months of Adequate Household Provisioning (MAHFP) indicator found that only 50% of households had adequate food over the previous year. The main periods of shortage are January to April with a smaller spike in July during the winter.

Given the great range of household food insecurity in Cape Town, it is important to assess what kinds of households are most and least food insecure. By cross-tabulating food insecurity measures with household characteristics, the following emerged as significant correlates of food insecurity:

- Female-centred households (with a female head and no male partner) make up one-third of the total. These households are most likely to be food insecure with the highest average HFIAS (7.8), the lowest HDDS (6.3) and the lowest MAHFP (9.1).
- As household income declines, levels of food insecurity increase. For example, the HFIAS ranges from 12.6 for households in the lowest quintile to less than 1 for those in the upper quintile. As many as 70% of households in the lowest quintile are severely food insecure, a figure that declines steadily in succeeding quintiles to 52%, 40%, 18% and 5%. The HDDS figures also consistently decline from 8 for those in the upper-income quintile to 5.1 for those in the lowest-income quintile. The MAHFP declines similarly from 12 to 7.
- Given the high rates of formal unemployment in Cape Town, a related finding is that households that receive income from formal wage employment are consistently more food secure than those that do not. For example, their respective HFIAS scores are 3.8 and 8.6, with HDDS scores of 7.3 and 6.1.
- There is a close relationship between food security and lived poverty. Households with a low Lived Poverty Index (LPI) score of 1 or less have an HFIAS of 4.1 (compared to 14.9 for those with an LPI of more than 3). The equivalent figures for other indices are 7.1 and 5.2 (HDDS) and 10.4 and 7.5 (MAHFP).
- As expected, there is also a relationship between food security of the household and the occupation of the household head, with households with a head in full-time wage employment significantly more food secure than households in which the head is unemployed or self-employed.
- The two most common threats to household food security in the six months prior to the survey are both linked to jobs and income: loss or reduction of employment of the household head (experienced by 14% of households) and reduced income of a household member (13%).
- In terms of household mobility, the survey identified three types of household: 10% are migrant households with all members born outside the city, 29% are mixed migrant households with some members born inside and some outside the city, and the rest are non-migrant households with all members born in the city. Mixed migrant households are the most at risk with 45% being severely food insecure, compared with 33% of non-migrant and 31% of migrant households. Mixed households also have the lowest dietary diversity. One possible explanation for this is that these households consist

primarily of adult migrants who have less stable employment, yet have children born in the city and thus additional mouths to feed.

- South Africa's extensive social grant system ought to be having a measurable impact on the food security of poorer households in the city. While two-thirds of child grant recipients are in the two lowest income quintiles, 59% of severely food insecure households receive child grants, with another 19% in the moderately food insecure category. While half of all social grant recipients use the funds to buy food, this is clearly insufficient to lift most households out of a state of food insecurity.

An obvious question arising from the findings is why, if food insecurity among poor households is so high, there is no civic action, no food riots, protests and general political challenges around food in Cape Town. Many officials, and even well-meaning commentators, interpret food insecurity as being simply about hunger. However, food insecurity is not the same thing as hunger, for what we see in Cape Town is a normalization of poor diets. Not only does this mean that policy-makers and society at large are impassive about food insecurity, but politicians are let off the hook. The absence of civic unrest over food means that they do not have to pay attention to the grotesque levels of food insecurity and the extreme inequality in levels of food security that characterize this city.

From a food system perspective, the Hungry Cities Food Purchases Matrix (HCFPM) itemizes whether households have purchased 30 different food items in the previous month, how frequently, where they obtained them, and where those outlets are located. The HCFPM findings are presented and analyzed in depth and confirm that supermarkets dominate Cape Town's food system with 94% of households patronizing these outlets. However, two-thirds of supermarket patrons only use them on a monthly basis, primarily to buy staples in bulk. Three-quarters of supermarket patrons agreed that bulk-buying was an important competitive advantage. Most of the 30 items in the HCFPM are obtained by the majority of purchasing households (over 50%) at supermarkets. Only offal, white bread and cooked fish are obtained by greater numbers elsewhere. This means that supermarkets have the largest market share for most fresh, frozen and processed products.

At the same time, 62% of households, mainly in low-income areas, patronize spaza shops (small informal retail outlets in residential neighbourhoods) and 48% buy from street vendors. Small-scale, informal food businesses thus provide an important food access service, as evidenced by the many outlets (including spaza shops, street vendors and small shops) located in residential neighbourhoods, close to transport interchanges, near large supermarkets and close to places of work, school and even celebration. A quarter or more of surveyed households obtain their fresh and sour milk, and brown and white bread, from spaza shops. Spazas are also significant sources of non-nutritious "junk food" in low-income

areas. Street food vendors command a similar share of the market for fruit, vegetables and fish, and almost half of all purchasers obtain their offal from street vendors.

The food system imagined by well-meaning non-governmental organizations and many research and policy bodies is very different to the system that the poor in Cape Town see as most suited to their needs. The complete lack of uptake of urban agriculture is one example of how policy and even donor funding misreads the actual food access and food security strategies of the poor. Another example is the importance of the informal food sector to poor communities in Cape Town. However, food insecurity and massive disparities in food access and consumption remain intractable and stubborn challenges in Cape Town. The long-term development, health, educational and economic implications of chronic food insecurity mean that significant and urgent attention is required from national, provincial and municipal policymakers and other stakeholders.

1. Introduction

This research report presents and analyzes the findings of a household food security survey conducted in the City of Cape Town, South Africa, by the Hungry Cities Partnership (HCP) and the African Food Security Urban Network (AFSUN) in 2013 and 2014. It is a supplement to, and should be read in conjunction with, *AFSUN Urban Food Series No. 11: The State of Urban Food Insecurity in Cape Town* (Battersby 2011) and *HCP Report No. 3: The Urban Food System of Cape Town, South Africa* (Crush et al 2017).

The AFSUN report examines the results of a food security survey conducted in three low-income areas of Cape Town in 2008 and provided empirical support for an analysis of Cape Town's food system commissioned by the City of Cape Town in 2014(*see* http://www.fao.org/urban-food-actions/knowledge-products/resources-detail/en/c/1133315/). The HCP's *The Urban Food System of Cape Town, South Africa* provides essential contextual background for this report on the history, demography and economy of Cape Town. It also gives an overview of Cape Town's food system and its location within post-apartheid South Africa's agri-food system.

This report, and the survey on which it is based, is the first systematic attempt to capture a broad profile of the levels and drivers of food insecurity at the household level across Cape Town. It provides an analysis of the survey findings, and a demographic and economic profile of the surveyed households. The authors analyze the survey data on household food insecurity prevalence and demonstrate the existence of extreme inequality in levels of food security across the city. The report also explores some of the determinants of inequality, including household structure, income, poverty, employment, migrant status, the receipt of social grants and the impact of food price increases.

2. Methodology

This HCP-AFSUN survey was implemented for the projects by Cape Town-based research organization Citizen Surveys. The questionnaire was a modified and updated version of the 2008 AFSUN household food security baseline survey questionnaire. Unlike the AFSUN survey which focused only on low-income neighbourhoods, the sampling method in this survey aimed to capture a city-wide representation of the population of Cape Town. The survey instrument included a range of questions about household experiences of food insecurity, food sources, economic circumstances and livelihood activities. Specifically, it consisted of the following sections: (a) food security assessment tools; (b) food

sources; (c) household roster (household member characteristics); (d) household data (information about the household as a whole); and (e) social grants.

The questionnaire also used internationally recognized food security and poverty measures including the FANTA Household Food Insecurity Access Scale (HFIAS), Household Food Insecurity Access Prevalence (HFIAP) indicator, the Months of Adequate Household Food Provisioning (MAHFP) indicator and the Household Dietary Diversity Score (HDDS) (Bilinsky and Swindale 2007, Coates et al 2007, Swindale and Bilinsky 2006). The utility of these and other tools for urban food security measurement has been extensively discussed (Ballard et al 2013, Coates 2013, Jones et al 2013, Haysom and Tawodzera 2018). To better understand the relationship between poverty and food insecurity, the Afrobarometer's Lived Poverty Index (LPI) was also part of the survey (Mattes 2008, Mattes et al 2016).

The survey was administered to an adult member of the sampled household who was knowledgeable about its income, expenditures, food consumption and purchasing practices. Household membership was defined as people who "eat from the same pot" and sleep in the same dwelling and included members of the household away for work (migrants) or for other reasons. To qualify as a household member, a person had to reside in the dwelling for at least six months of the year on average.

To achieve a city-wide picture, the survey administration involved a multi-stage, stratified, random probability sample of 2,500 households. The sampling frame used was based on the Census 2011 Enumeration Area (EA) sample frame, updated with the latest population estimates. An EA is the smallest geographic area for which population data is available and includes information on the number of dwellings and households in the EA, and the age, gender, race and income of everyone who lives in the EA. Statistics South Africa's Annual Household Income by EA data was used to establish the dominant household income for each area. A stratification variable was then developed to divide the city into high, medium and low income areas. For initial sampling planning, the original sample stratification was 10% high-income areas, 20% medium-income areas and 70% low-income areas. The division into income categories involved using Statistics SA data to categorize income groupings. For the low-income group, the income category was zero to R76,400 per year (which accounted for 61% of households.) The middle-income group ranged from R76,401 to R307,600 per year (or about 25% of households), while the high-income group was set at R307,601 and above per year (14% of households). To allocate the EAs according to the dominant income group for each area, the power allocation rule was applied. This is a disproportionate allocation technique used to determine the number of EAs to be drawn per stratum. This technique was used to ensure that the sample sizes were large enough in each of the strata, thus providing

good precision and a sufficiently large basis for meaningful analysis within each income category.

AFSUN, which co-funded the survey, was interested in comparing the current situation in low-income areas with the areas it had surveyed in 2008 and two of those areas, Philippi and Khayelitsha, were therefore deliberately included in this sample (Battersby 2011). Dunoon was substituted for Ocean View, as the latter had a very different poverty and food security profile in 2008 and it was decided that Dunoon would be more suitable for exploring the current situation across three low-income areas.

Table 1 provides a breakdown of the EAs and households in Cape Town, stratified by low, middle and high household income categories. In each of the drawn EAs, six households were systematically selected, with the exception of the EAs in Dunoon (where 10 households were systematically selected). Starting points were allocated to ensure coverage of the entire EA.

Table 2 provides clarity on the second stage of sampling, detailing the actual sampled areas and sample sizes in the designated research sites. As the table makes clear, of the 2,502 surveyed households, 974 were located in Khayelitsha, Philippi and Dunoon and the remaining 1,528 were drawn from other areas of the city. Virtually all of the households in the three over-sampled areas fell into the low-income category. In the rest of the city, 844 households were in low-income EAs, 486 were in middle-income EAs and 198 were in high-income EAs.

TABLE 1: Number of EAs and Estimated Households by Main Place and Income Category

	Low household income	Middle household income	High household income	Total
Khayelitsha				
EAs	581	11	0	592
Households	116,293	2,482	0	118,776
Philippi				
EAs	93	2	0	95
Households	24,963	310	0	25,274
Dunoon				
EAs	28	0	0	28
Households	9,587	0	0	9,587
Total EAs	3,301	1,626	952	5,879
All other areas				
EAs	2,599	1,613	952	5,164
Households	545,623	235,864	130,415	911,904
Total households	696,468	238,658	130,416	1,065,541

TABLE 2: Sample of EAs and Number of Interviews

	Household income						Total	
	Total EAs low	Sample low	Total EAs middle	Sample middle	Total EAs high	Sample high	EA	Sample
Khayelitsha	63	378	2	12	0	0	65	390
Philippi	63	378	1	6	0	0	64	384
Dunoon	20	200	0	0	0	0	20	200
All other EAs	154	844	81	486	33	198	268	1,528
Total	300	1,800	84	504	33	198	417	2,502

To compensate for the over-sampling in the three low-income areas, weights were assigned to extrapolate the sample to the population of the City of Cape Town. All tables and figures in this report use weighted data.

Mixed Income, High Density Suburb of Sea Point
Source: J. Crush

High Income Suburb of Llandudno
Source: J. Crush

Upper Income Suburb of Hout Bay with Low-Income Informal Settlement of Imizamo Yethu (upper left)
Source: J. Crush

Middle-Income Suburb of Muizenberg
Source: J. Crush

Lower-Income Suburb of Vrygrond
Source: J. Crush

High-Income Suburb of Newlands
Source: J. Crush

Informal Settlement in Philippi East
Source: https://www.groundup.org.za/article/does-marikana-really-have-60000-people/

Low-Income Housing in Khayelitsha
Source: Sally Wellbeloved Photography

3. Cape Town Household Profile

This section of the report provides an overview of the demographic and socio-economic features of the surveyed households and their members.

3.1 Household Member Demographics

In terms of the surveyed household members as a whole, there were more females (54%) than males (46%). This differs slightly from the 2011 Census figures for Cape Town of 51% female and 49% male (SSA 2011). In both cases, however, the proportion of females is greater which is not the typical African urban pattern. Figure 1 provides an age breakdown of the household population and compares it with 2011 Census data. There are broad similarities in most age brackets with only a 0-2% spread. The surveyed households had slightly larger numbers of youth under 20 (35% versus 33%), slightly fewer working-age adults between 20 and 60 (56% versus 58%) and very similar numbers of individuals over the age of 60 (around 8%).

Around a quarter of the surveyed population were household heads. Only 10% of household heads were younger than 30, with the greatest concentration (nearly

30%) between the ages of 40 and 49 years (Figure 2). Just over 20% of household heads were older than the age at which individuals qualify for a state pension (60 years old). The relationship status of the household heads varied by sex (Figure 3). More than 70% of male household heads were married as opposed to only 30% of female heads. Female household heads were dominant in the following categories: unmarried (35% versus 14% of males), divorced (8% versus 2%) and separated (3% versus 1%). Over one-third (38%) of the household population were sons or daughters of the head, followed by spouses or partners (at 15%). Grandchildren made up 9%, followed (in order of importance) by brothers and/or sisters (5%), other blood relatives and in-laws. Non-relatives constitute less than 5% of the total household population.

FIGURE 1: Age of Household Members

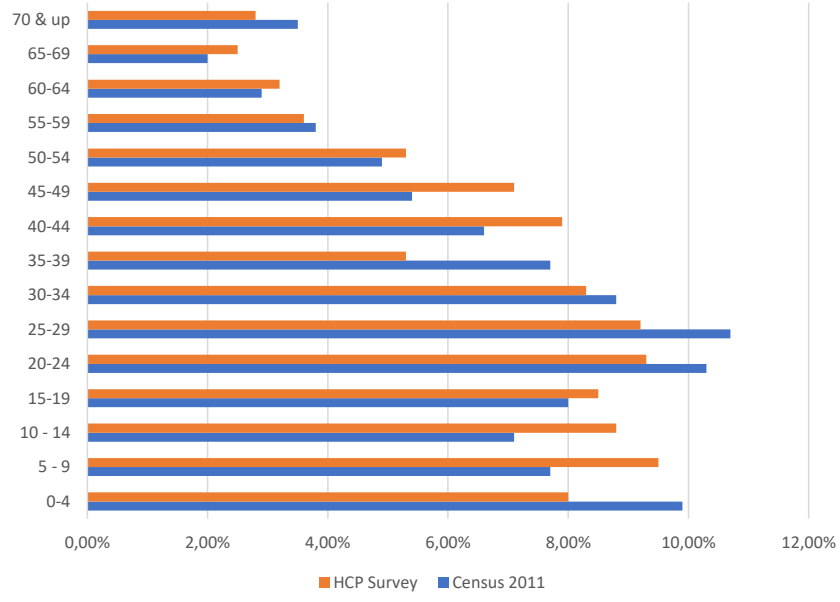


FIGURE 2: Age of Household Heads

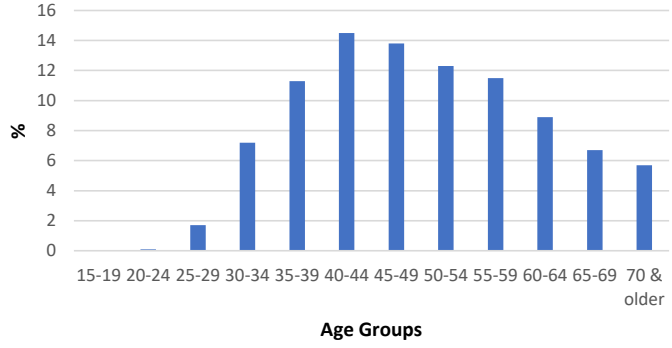
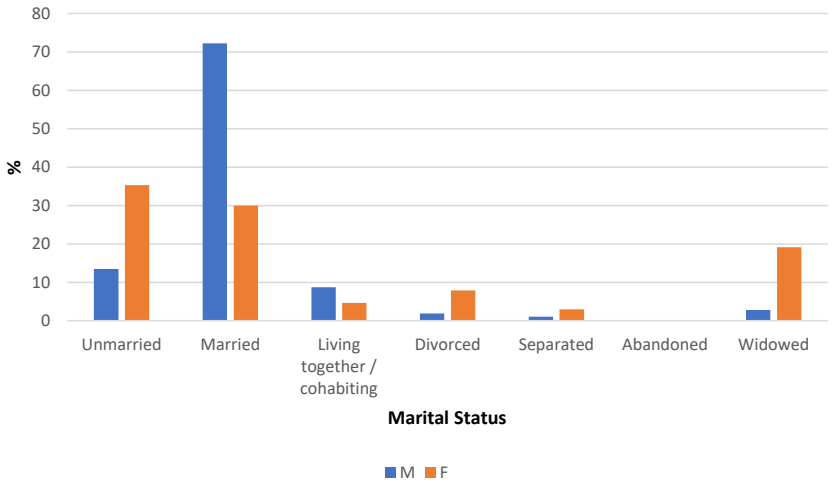


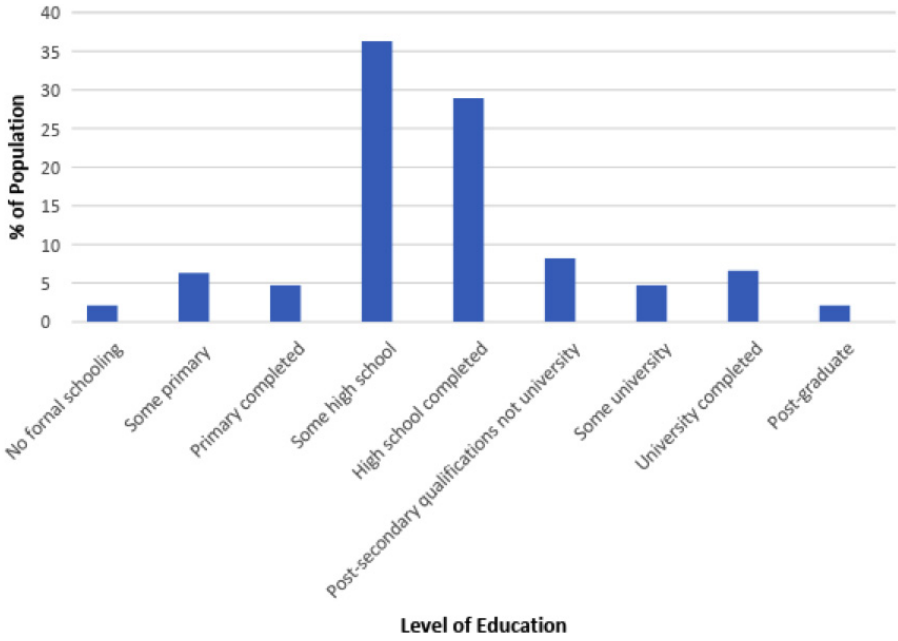
FIGURE 3: Marital Status and Sex of Household Heads



3.2 Level of Education of Household Members

Since the end of apartheid, most children have been able to access free primary education in state-funded schools. Cape Town also has some of the country's best-known private schools as well as three major institutions of higher education – the University of Cape Town, the University of the Western Cape and the Cape Peninsula University of Technology. A fourth university, Stellenbosch University, is in a nearby town. Despite the large number of public and private schools and universities, the city's adult population has relatively low levels of education, suggesting that the legacy of South Africa's racist educational system persists (Figure 4) (van der Berg 2007). Nearly 50% of the adults (18 years and over) in the surveyed households had not completed high school. A further 29% had done so but gone no further. The remaining 22% had tertiary education or other post-school qualifications.

FIGURE 4: Education Levels of Household Members 18 and Over



3.3 Employment Status of Household Members

The adult population (aged 18 years and over) in the surveyed households had high rates of unemployment with only 35% working full-time and another 10% working part-time and/or in casual employment. A further 5% were self-employed. The unemployment rate was 21% (for those looking for work) and 24% (if those not looking for work, or so-called "discouraged work seekers", are included) (Table 3). The City of Cape Town reports that between 2008 and 2015, unemployment in Cape Town increased from 19% to 22% (CoCT 2016: 48).

A breakdown of employment patterns by sex reveals significant differences. A total of 40% of males were employed full-time compared to only 30% of females. When full-time and part-time work are combined, the figures are 52% of males and only 39% of females. Unemployment is higher among women than men and the latter also have higher rates of self-employment (7% versus 5%). The survey also provides insights into the employment patterns of youth. For example, while 44% of young people are employed or self-employed, rates of unemployment are much higher than for the general adult population (at 35% versus 24%).

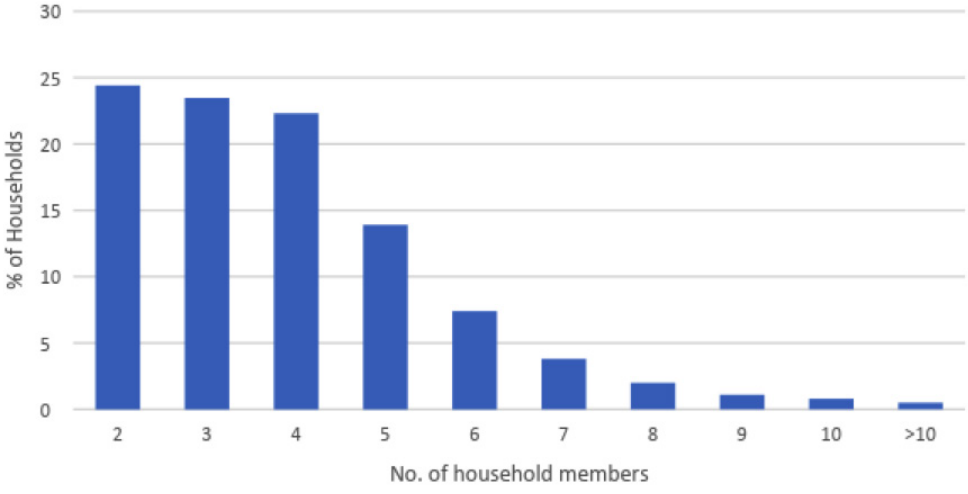
TABLE 3: Work Status of Adult Household Members

	% of total	% of males	% of females	% of youth (18-35)
Working full-time	34.5	40.0	30.0	32.4
Working part-time/casual	9.7	10.8	8.9	11.5
Self-employed	6.0	7.2	5.1	2.8
Total employed	50.2	58.0	44.0	46.7
Looking for work	20.8	19.6	21.8	31.4
Not looking for work	3.1	2.2	3.7	3.7
Total unemployed	24.9	21.8	25.5	35.1
Unpaid housework	4.6	0.0	8.3	2.2
Pensioner	11.1	9.5	12.3	0.0
Medically unfit/disabled	3.3	3.5	3.2	1.4
Student/pupil	6.9	7.2	6.6	14.6
Total other	25.9	20.2	30.4	18.2

3.4 Household Size and Structure

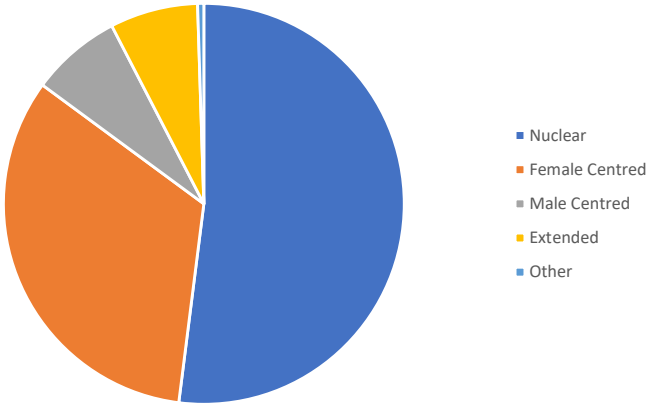
The average household in the sample had 3.9 members. This is somewhat higher than the average Cape Town household size of 3.3 in the 2011 Census (SSA 2011). However, the census defined single persons living alone as a household, which this survey did not. The largest household in the sample had 17 members, but 70% had fewer than five members and nearly a quarter had only two members (Figure 5).

FIGURE 5: Number of Household Members



The dominant household structure was nuclear (52%), followed by female-centred (33%) (Figure 6). Nuclear households include a head of household and a partner/spouse and may include their children. Female-centred households have a female head without a spouse or partner and can include relatives including children. Male-centred households are defined in similar fashion but with a male as head. Only 7% of households in the sample were male-centred. A fourth type of structure is the extended household, which has a head with a partner or spouse, with or without children, and includes other relatives and non-relatives. This was the least common household type in the sample.

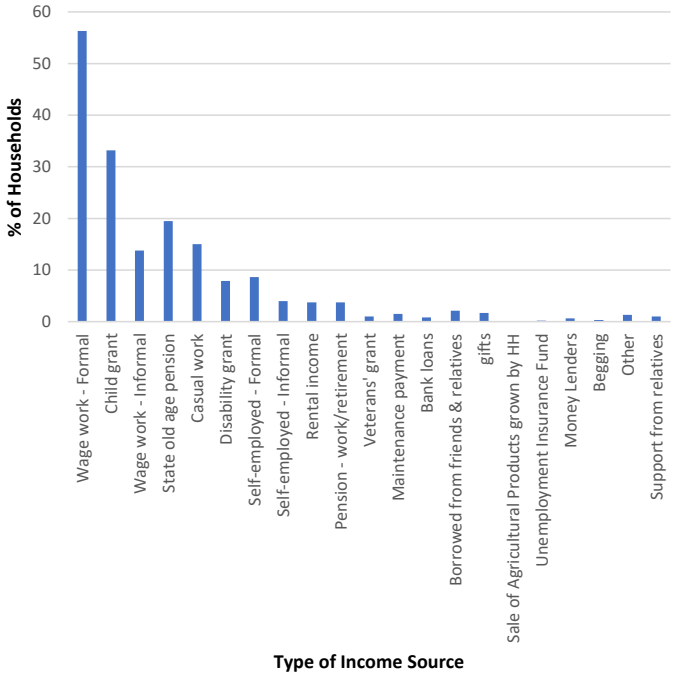
FIGURE 6: Types of Household



3.5 Household Income

High rates of individual unemployment translate into significant income inequality with a sizable number of households without any access to wage income. The most important income source for the surveyed households is formal sector employment, but only 56% of households obtain income in this manner (Figure 7). This means that 44% of the households do not have a full-time formal wage earner and source of income. Around 15% obtain income from casual work, which is not consistent, reliable or high-paying. Some households (13%) obtain income from self-employment (predominantly in the informal sector) and 14% earn income from employment in the informal sector, again generally in low-paid work. What also stands out is the large number of households that receive government grants. One-third of all households receive child support grants, 20% receive pensions and 8% receive disability grants. Only a handful of households (0.1%) make any income from urban agriculture.

FIGURE 7: Sources of Household Income



Note: Multiple-response question

An analysis of household income by quintiles reveals massive income inequality with one in five households earning less than ZAR2,200 per month and 40% earning less than ZAR3,900 per month. On the other hand, 20% of households earn more than ZAR19,271 per month. The pattern of inequality also has a clear gender dimension. As noted above, women are disadvantaged when it comes to access to formal sector employment. Partially as a result, female-centred households (which do not have a male income-earner) are disproportionately represented in low-income categories. As Table 4 shows, 34% of female-centred households are in the lowest-income quintile (earning less than ZAR2,200 per month), compared to only 18% of male-centred households and 12% of nuclear households. Again, 56% of female-centred households earn less than ZAR3,900 per month compared to 36% of male-centred households and 30% of nuclear households. At the other end of the income spectrum, only 24% of female-centred households fall into the upper two income quintiles, compared with 41% of male-centred households and 50% of nuclear households.

TABLE 4: Level of Income by Household Type

No.	Monthly income quintiles	Female-centred household	Male-centred household	Nuclear household	Extended household
1	<= ZAR2,200	33.5	17.5	12.1	18.7
2	ZAR2,201-3,900	23.8	18.5	18.0	16.0
3	ZAR3,901-7,500	18.6	23.2	20.2	20.7
4	ZAR7,501-19,270	17.1	26.5	20.6	22.8
5	+ZAR19,271	7.0	14.4	29.1	21.8

3.6 Household Expenditures

Households allocate budgets to key costs in a highly strategic manner. Certain costs are essentially fixed or non-discretionary, including rent, utilities, transport, education, and so on. Households are faced with two main challenges: where household spend can be cut and which items need prioritization. Food is one of the few discretionary areas as other key costs are either fixed or deemed essential to the day-to-day needs of the household. Also, given the low wages earned by the poorer members of society, each essential cost occupies a large share of the overall household budget. Demonstrating the burden of poverty, public utilities and fuel consume a significant percentage of the budgets of poorer households. Transport is a non-discretionary cost for the poor, but costs related to having a car are easily absorbed into the monthly household budgets of the wealthy.

A breakdown of household expenditure in the month prior to the survey shows that almost all households purchased food and groceries (spending an overall average of ZAR1,724) (Table 5). Other major expenses incurred by at least 40% of households included municipal services (electricity and water), public and private transport, and cellphone contracts and airtime. Approximately the same amount on average (ZAR300-400) was spent on each of these. Other municipal services incurred by households included property taxes (by 22% at an average ZAR595) and sanitation (16% at an average of ZAR186). Additional non-discretionary expenses included rent (24% at a very high ZAR2,859), education (21% at ZAR1,601) and health (18% at ZAR1,177). Spending on discretionary items such as entertainment, clothing, furniture and insurance was all relatively low across the city.

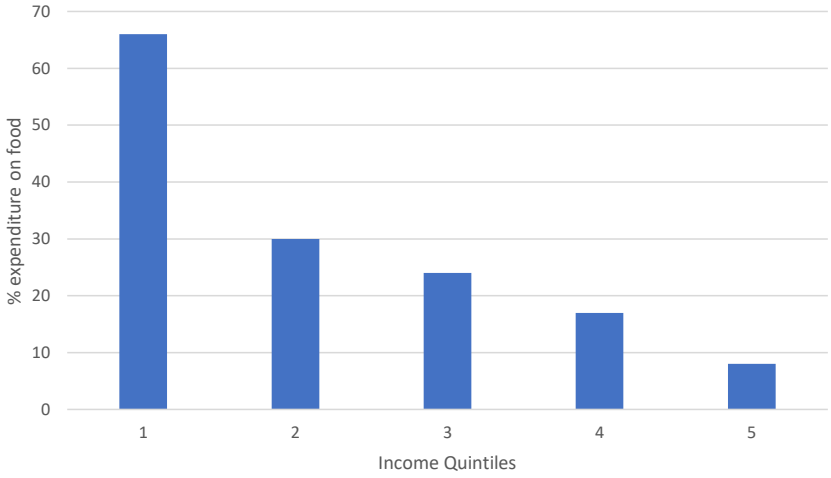
Several additional facets of general spending patterns also stand out. First, mortgage payments are extremely high at an average of ZAR5,162, which is the single largest expenditure category on average. They are only affordable by higher-income households, as are motor vehicle costs, which include hire-purchase payments. Second, about 20% of all households (mainly in poorer areas) engage in cooperative informal insurance schemes such as *stokvels* and burial societies. Third, general rates of savings are relatively low, with only 18% of households having managed to save money in the previous month. Fourth, only

8% of households send remittances to relatives outside the city (at an average of ZAR891). Finally, expenditure on food is directly related to household income. As income increases, so the proportion spent on food declines. In the lowest income quintile, two-thirds of expenditures are on food (Figure 12). In the second lowest income quintile it is 30%. This figure drops to only 17% and 8% in the fourth and fifth income quintile respectively.

TABLE 5: Mean Monthly Household Expenditures

	% of households incurring expense	ZAR (mean)
Food and groceries	98.5	1,724
Municipal services: electricity	86.6	393
Cellphone contracts/airtime	58.3	324
Municipal services: water	45.7	311
Public transport	45.4	396
Private transport	32.5	1,339
Clothing	31.4	773
Rent	24.0	2,859
Insurance	23.1	796
Municipal services: property taxes	22.0	595
Education	21.1	1,601
Contributions to stokvels/burial societies/cooperatives	20.8	231
Entertainment	18.2	656
Savings	18.2	2,230
Health	18.0	1,177
Telephone (landline)	16.8	395
Municipal services: sanitation/refuse removal	16.4	186
Funeral costs	14.2	292
Furniture	10.6	554
Bond (mortgage) repayments	10.2	5,162
Motor vehicle	9.5	3,188
Money sent to other relatives	8.0	891
Donations to charity	5.7	1053
Lotto	4.4	148
Loans to others	3.9	2,778
Repayment of household loans/credit	3.0	1,298
Goods purchased for resale	0.5	621

FIGURE 8: Food as Proportion of Total Household Expenditure



3.7 Household Lived Poverty

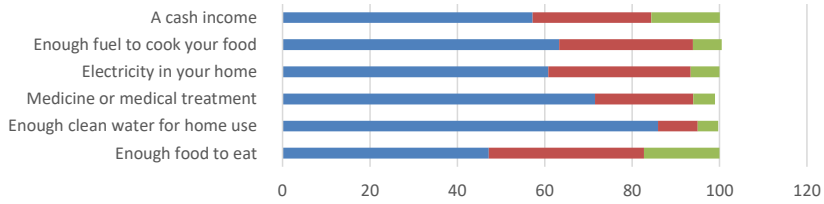
A method for the self-assessment of poverty employed by the Hungry Cities Partnership is the Afrobarometer Lived Poverty Index (LPI), which is used to measure multi-dimensional poverty, where factors other than only income are considered. The questions in the LPI provide information on how frequently households went without certain basic necessities over the course of the previous year. Those assessed include food, clean water, medicine, fuel to cook food, and an income. An LPI score is calculated for each household ranging from 0.00 (indicating complete satisfaction of basic needs) to 4.00 (indicating that no basic needs were met during the previous year.) The LPI for Cape Town revealed high overall levels of lived poverty, as well as considerable inequality across the city. While 39% of households experienced no lived poverty at all, the remainder experienced some form of deprivation. The average LPI for the city as a whole was 0.65, with 38% of households having a higher than average score (Table 6). Any score over 1.00 indicates that a household had gone without most of the basic necessities at some point. A quarter of the households had an LPI between 1.00 and 1.80. This indicates that a significant proportion of households were struggling to access the necessities crucial for their sustenance. More alarmingly, a number of households fell within the category where almost no basic needs were met during the previous year, demonstrating deep and entrenched poverty.

TABLE 6: Household Lived Poverty

LPI score	% of households	Cumulative %
0.00	38.6	38.6
0.20	8.3	46.9
0.40	8.6	55.5
0.60	6.9	62.4
0.80	5.8	68.2
1.00	6.0	74.2
1.20	5.0	79.2
1.40	5.2	84.4
1.60	4.5	88.9
1.80	3.5	92.4
2.00	2.1	94.5
2.20	1.6	96.1
2.40	0.9	97.0
2.60	0.7	97.7
2.80	0.7	98.4
3.00	0.7	99.1
3.20	0.5	99.6
3.40	0.2	99.8
3.60	0.1	99.9
3.80	0.1	100.0
Total	100.0	

The LPI scores offer a general sense of the extent of deprivation and inequality, but households also have variable access to different basic necessities. From a policy perspective, understanding the nature of access to different necessities would enable targeted responses to key poverty challenges. Few households experience clean water deprivation with 86% never going without this resource in the previous year. However, the survey was conducted prior to the municipal water restrictions during more recent severe drought years. By contrast, only 57% of households said they never went without a cash income (indicating that 43% experienced some level of deprivation and 16% did so often/always) (Figure 9). The highest levels of deprivation pertain to food, indicating how central food is to the state of poverty in many Cape Town households. Only 47% of households said they never experienced not having enough to eat. Of the remaining 53%, as many as 17% said they often or always did not have enough food to eat.

FIGURE 9: Frequency of Access to Basic Necessities



	Enough food to eat	Enough clean water for home use	Medicine or medical treatment	Electricity in your home	Enough fuel to cook your food	A cash income
Never without	47.2	85.9	71.5	60.8	63.3	57.2
Once or twice/several times without	35.5	9.1	22.5	32.6	30.6	27.2
Many times/always without	17.3	4.7	5	6.6	6.6	15.7

The close relationship between household income and the LPI is clearly shown in Table 7, which cross-tabulates household income quintiles with LPI scores. As income increases, so does the proportion of households with an LPI of 1.00 or less (from 53% of households in the lowest quintile to almost 100% of households in the upper quintile). Similarly, the proportion of households in the more deprived LPI categories systematically declines with an increase in household income.

TABLE 7: Lived Poverty Index and Household Income

Income quintiles	Lived Poverty Index			
	0.00–1.00	1.01–2.00	2.01–3.00	3.01–4.00
1	52.7	36.3	9.7	2.3
2	76.5	19.0	2.9	1.6
3	88.1	10.6	1.8	0.5
4	94.7	3.5	1.3	0.5
5	99.7	0.2	0.0	0.1

3.8 Migration Status of Households

In apartheid South Africa, influx controls and pass laws artificially constrained the growth of Cape Town. The lifting of these restrictions during and after the collapse of apartheid led to rapid in-migration and city growth (Mhangara et al 2016). After 1994, Cape Town also became a popular destination for migrants and refugees from other African countries (Crush et al 2017a). In contemporary South Africa, national and local government officials and politicians have responded by engaging in populist politics, excusing their own poor delivery of essential services and employment opportunities by blaming migrants from other parts of Africa for accessing resources and taking jobs. This rhetoric has had dire consequences. First, it is patently xenophobic. Second, it diverts attention away from poor service delivery on the part of the state. And third, it has led

to a country-wide upsurge in violent attacks on migrants, most notably in 2008 and again in 2015 (Crush 2008, Crush et al 2013, 2017b). Similar politics play out at the city and provincial scales and, while the anti-foreign rhetoric remains, populist criticism is increasingly directed at internal migrants, i.e. those arriving in Cape Town from other provinces of South Africa.

National and local anti-migrant "swamping" narratives suggest that in-migration dilutes employment opportunities and limits service delivery, both of which are essential to food access and utilization in cities. An analysis of migration data from the 2001 and 2010 censuses demonstrates that in-migration to the Western Cape totalled 312,000 over the decade plus an additional 100,000 from outside the country (Jacobs and du Plessis 2016). Just over half of the internal migrants were from the Eastern Cape province. The study does not discuss how many of these migrants moved to Cape Town as opposed to other centres in the province, but it does assert that migration to the city is dominated by young, less educated, unemployed individuals who live in informal dwellings. Whether or not this volume of in-migration and the displacement of rural poverty to Cape Town constitutes the "flood" claimed by politicians is irrelevant since there are no restrictions on freedom of movement or residence in post-apartheid South Africa. However, this is likely to have implications for the food security profile of the city as a whole, as studies have shown that migrants are particularly vulnerable to food insecurity (Tawodzera and Crush 2017). In fact, only 22% of the members of the surveyed households were born outside Cape Town, meaning that over three-quarters were born in the city (Table 8). Only 13% were from a rural area in South Africa, the source of the supposed "flood" of migrants to the city. Further, just 3% were migrants from outside the country.

TABLE 8: Migration Status of Household Heads and Members

Place of birth	Household members (%)	Household heads (%)
Cape Town	78.4	64.1
Rural area in South Africa	12.7	21.5
Another urban area in South Africa	6.1	10.1
Outside South Africa	2.8	4.4
Total	100.0	100.0

An interesting nuance emerges if data on place of birth of household heads is compared with that for all household members. The proportion of household heads born in Cape Town is lower than the proportion of all household members born in the city (64% versus 78%). On the other hand the proportion of household heads is higher for all migrant categories: i.e. rural area in South Africa (at 22% versus 13%), another urban area in South Africa (10% versus 6%) and from outside South Africa (4% versus 3%) (Table 8). What this difference reflects is a pattern of migration where adults migrate to the city and their children are born in Cape Town. This is further captured if we compare the

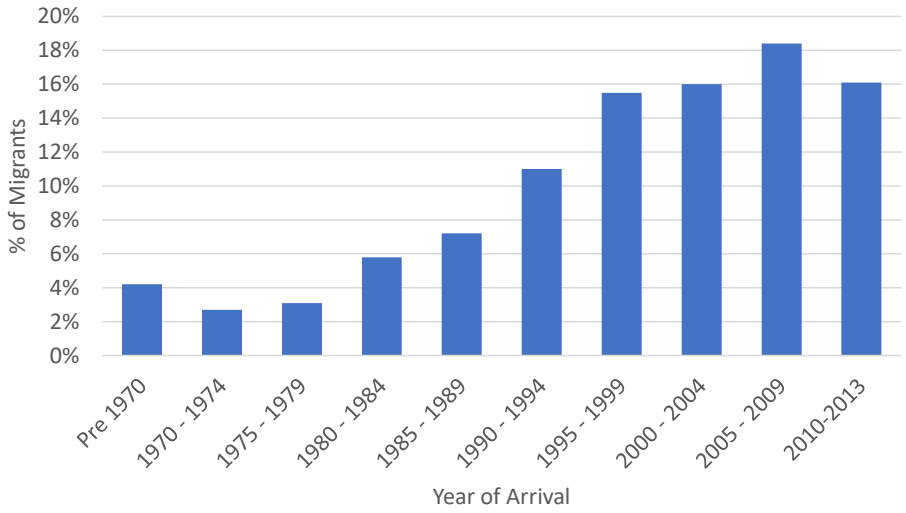
number of migrant households (where every member was born outside the city), non-migrant households (where everyone was born in Cape Town) and mixed households (that contain migrants and non-migrants) (Table 9). While the proportion of migrant households is only 10%, the proportion of mixed households is as high as 29%. At the same time, a clear majority of households (61%) contain no members born outside the city; calling into question the "swamping" narrative of politicians in the Western Cape province.

TABLE 9: Types of Migrant Household

	% of households
Non-migrant households	60.8
Mixed households	29.3
Migrant households	9.9
Total	100.0

At the same time, it is clear that the migrant population of the city has been increasing in recent years. Figure 10 shows when those born outside Cape Town arrived in the city. There was a significant increase after the collapse of influx controls and the apartheid system, with a particular rise after the first democratic elections in 1994. The proportion of migrants arriving in each five-year period since 1995 has increased but not at the same rate.

FIGURE 10: Year of Arrival in Cape Town of Migrant Household Members



4. Household Food Security

The FAO defines food security as a situation where "all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." This definition highlights four key food security dimensions: the need for sufficient food to be available, an ability to access that food, that the foods that are accessed contribute to the nutritional status of the household (utilization), and the need for access to that food "at all times" (stability). These dimensions align directly to the four measures used in the HCP survey to assess the food security status of households.

HCP uses four measures of food security, which have been developed, tested and refined by the Food and Nutrition Technical Assistance (FANTA) project over many years:

- Household Food Insecurity Access Scale (HFIAS): The HFIAS score is a continuous measure of the degree of food insecurity (access) in the household (Coates et al 2007). An HFIAS score is calculated for each household based on answers to nine frequency-of-occurrence questions designed to capture different components of the household experience of food insecurity in the previous four weeks. The minimum score is 0 and the maximum is 27. The higher the score, the more food insecurity the household experienced. The lower the score, the less food insecurity the household experienced.
- Household Food Insecurity Access Prevalence (HFIAP) indicator: The HFIAP indicator is based on the HFIAS and uses a scoring algorithm to categorize households into four levels of household food insecurity: food secure, mildly food insecure, moderately food insecure, and severely food insecure (Coates et al 2007). Households are categorized as increasingly food insecure as they respond affirmatively to more severe conditions and/or experience those conditions more frequently.
- Household Dietary Diversity Score (HDDS): Dietary diversity refers to how many food groups are consumed within the household in the previous 24 hours (Swindale and Bilinsky 2005). The scale runs from 0 to 12 and a score is calculated for each household. An increase in the average number of different food groups consumed provides a quantifiable measure of improved household dietary diversity.
- Months of Adequate Household Food Provisioning (MAHFP) indicator: The MAHFP indicator captures changes in the household's ability to ensure that food is available above a minimum level the year round (Bilinsky and Swindale 2010). Households are asked to identify in which months (during the past 12 months) they did not have access to sufficient food to meet their household needs.

4.1 Levels of Household Food Insecurity

The mean household HFIAS score for the surveyed households in Cape Town was 5.93 with a standard deviation of 7.28. As Figure 11 shows, there was considerable variation in HFIAS scores across the city. Just over half of the surveyed households had very low scores of 3 or less. However, as many as 38% of households had HFIAS scores higher than the mean and 28% had scores of 10 or more. Translated into HFIAP categories, 45% of households were food secure and 36% were severely food insecure (Figure 12).

FIGURE 11: Household HFIAS Scores

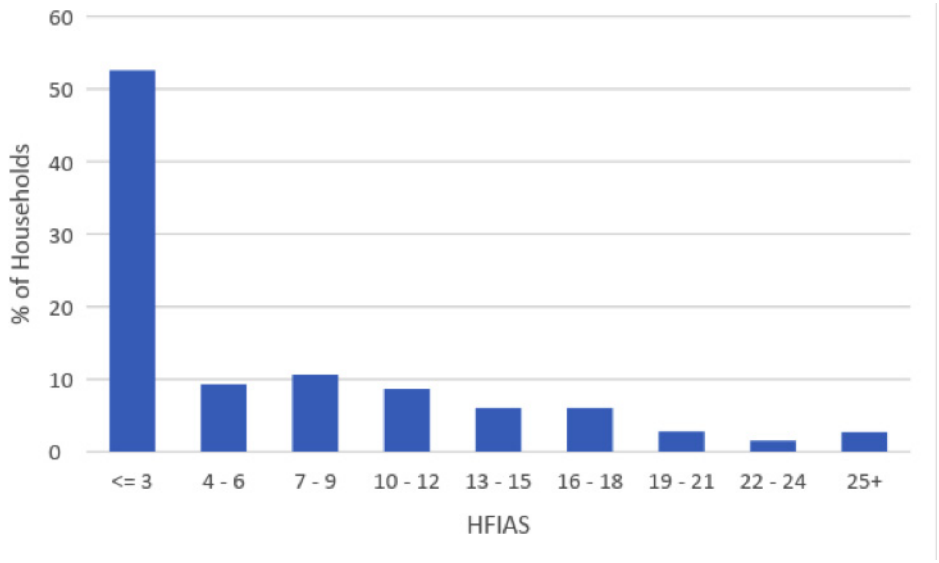
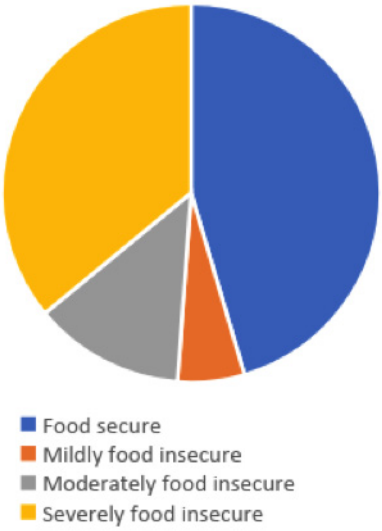


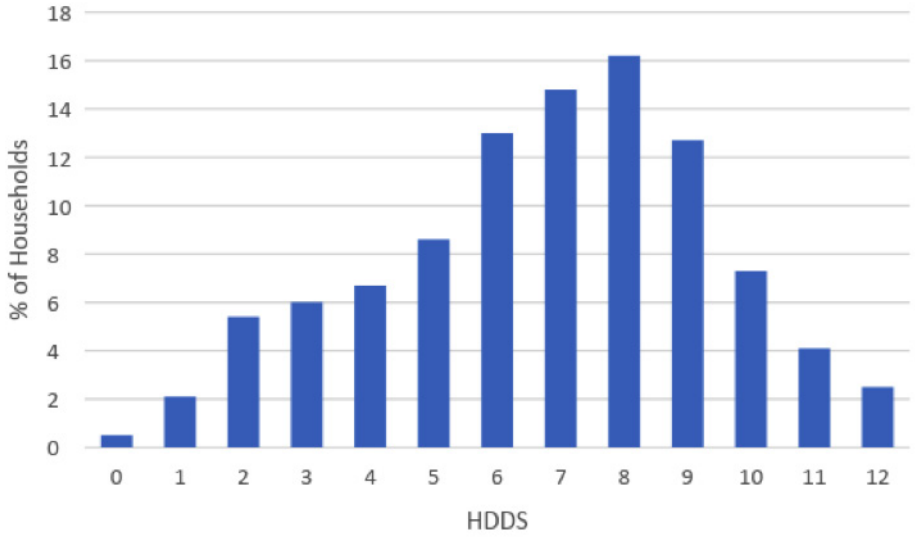
FIGURE 12: Household Food Insecurity Prevalence



4.2 Household Dietary Diversity

As with levels of food insecurity, there is considerable variation in the quality of diets across the city (Figure 13). The mean HDDS in the surveyed households was 6.75 out of a possible 12 with a standard deviation of 2.63. Scores of six or less are considered a proxy for poor nutritional outcomes in a household. Fully 43% of households fall into this category and nearly one-third of households have scores of 5 or less. Around 20% of households have extremely poor nutrition (with HDDS scores of 4 or less.)

FIGURE 13: Household Dietary Diversity Scores

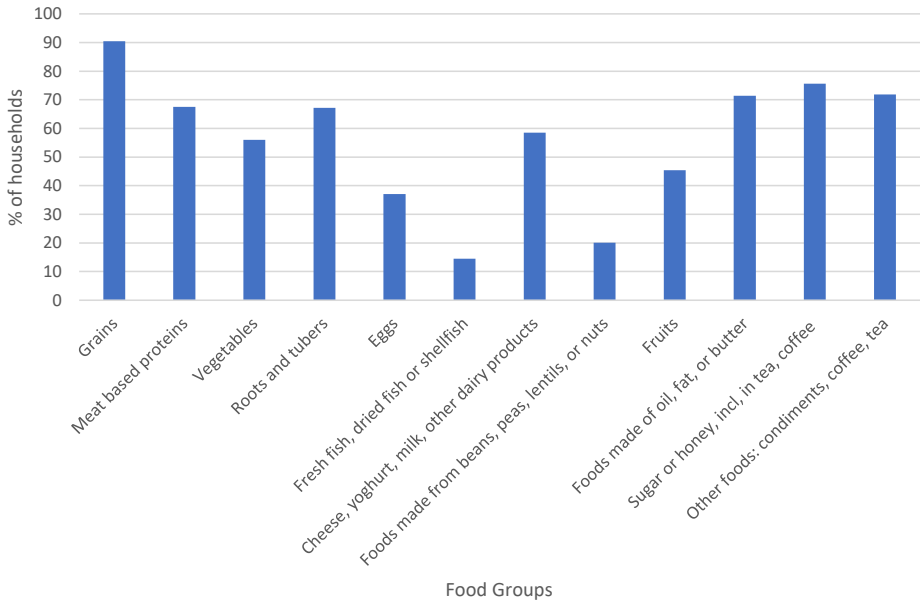


Overall, the Cape Town diet is high in calories and carbohydrates, as evidenced by the main food items consumed by households (Figure 14). Approximately 90% of households consumed foods within the grains category of which maize, pasta, bread, noodles and rice are key food items. The other food items in the top five food groups consumed were sugar or honey (most often sugar in tea and coffee), coffee and tea, and foods made from oil, fat or butter. This could misrepresent the actual nutritional quality of the diet even in households with a score of 5 or more. Many households supplement items cut from their diets with non-nutritive food categories like tea and coffee, and often increase sugar consumption to provide energy. As a result, a household with a HDDS score of 5 may, in fact, only be consuming three nutritionally adequate food types.

Sixty-seven percent of households consumed foods within the animal protein category. Only 56% of households ate vegetables and 45% ate fruit. Given the relationship between food access and nutrition, the low levels of consumption of legume crops raises interesting questions about the food system and its intersection with other systems. While legume-type foods are relatively affordable,

they take a significant amount of energy and time to cook. It is likely that these items are being removed from the diets of poor households, not because of food price constraints but because of their costs to the household in terms of energy and time. Given that Cape Town is a coastal city, it might be expected that fish and other seafood would be affordable. However, these foods are generally the preserve of high-income groups.

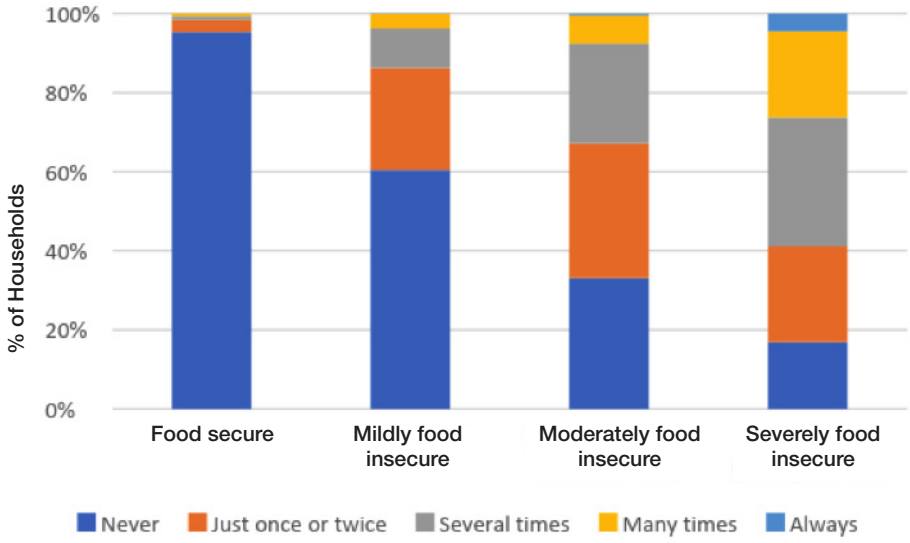
FIGURE 14: Household Consumption of Foods from Different Food Groups



4.3 Stability of Food Access

Figure 15 shows the four HFIAP food security categories and how often each group experienced food shortages. As expected, the majority of food secure households never experience a shortage of food. As food insecurity increases, so the proportion of households never experiencing food shortages declines, from 61% of those in the mildly food insecure category, to 33% of the moderately food insecure to only 17% of the severely food insecure. Similarly, the proportion of households always or often experiencing food shortages increases as food security declines.

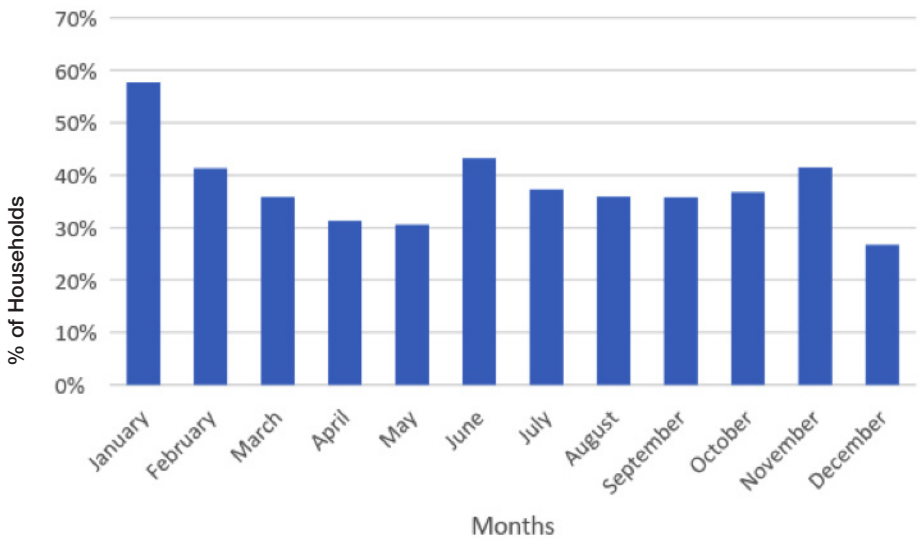
FIGURE 15: Consistency of Food Access by Food Security Status



A longer-term measure of the stability of food access is the Months of Adequate Household Food Provisioning (MAHFP) tool. Approximately 50% of households did not have adequate food for the entire 12-month period. The main periods of overall shortage were January to April, with a smaller spike in July in Cape Town's winter (Figure 16). When it was originally developed, the MAHFP assisted in highlighting the hungry season for agrarian and rural communities, often in the months prior to harvest. The urban context provides a very different set of results, indicating high levels of limited food access in the early months of the year.

In the first few months of the year, several intersecting factors have an effect, including heavy expenses in December and January. January is by far the most challenging month for most people in Cape Town's poor communities. The hangover from end-of-year expenditures on festivities is one factor, coupled with significantly reduced December incomes due to business closures and lay-offs. Several household costs converge in January. Most businesses only open mid-month and the start of the school year comes with significant additional costs, including uniforms, stationery, and school fees. The winter food-insecure spell is likely to be the result of households trying to cover the added costs of heating, and limited employment opportunities in the construction industry and other outdoor work including in informal retail (Battersby 2011). During winter, climatic conditions limit the absorption of temporary jobs, further reducing employment opportunities.

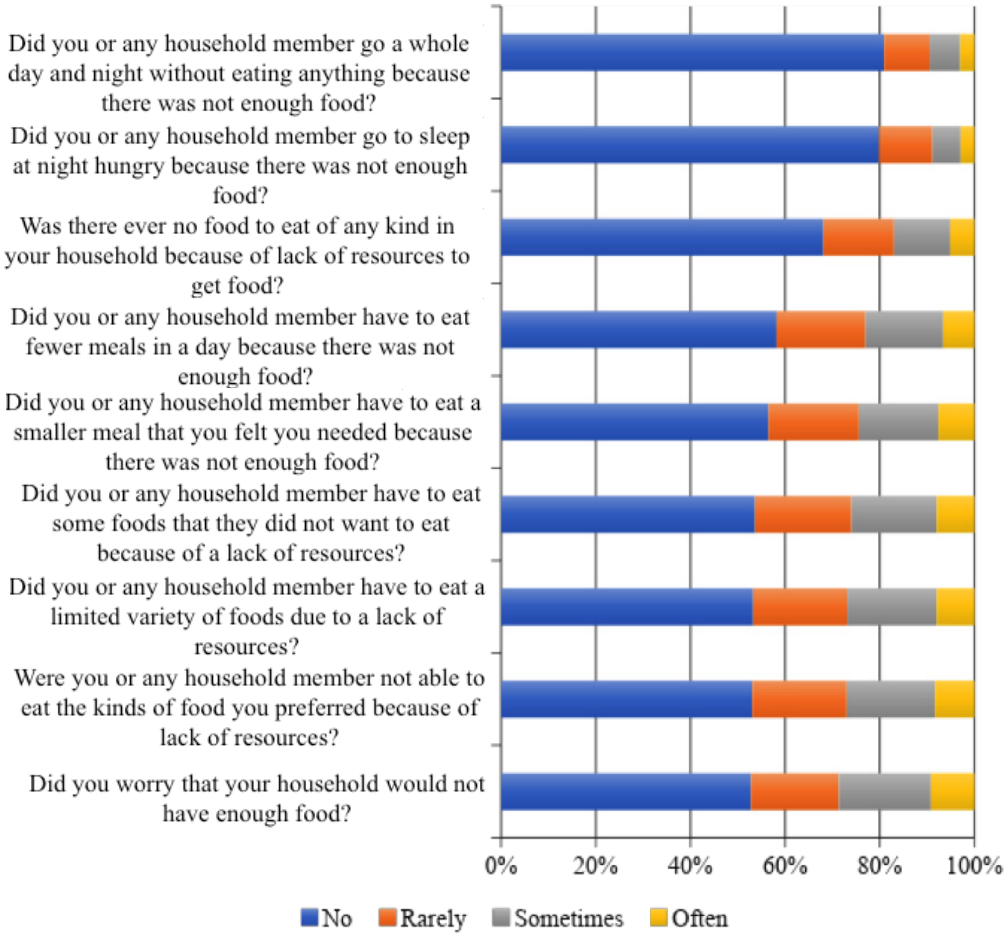
FIGURE 16: Months with Inadequate Household Food Provisioning



4.4 Frequency of Experience of Food Insecurity

The nine HFIAS frequency-of-occurrence questions provide further insights into the nature of food insecurity in Cape Town (Figure 17). Just under half of the respondents said that they worried that the household would not have enough food, and 28% did so sometimes or often. However, only 9% said that they had gone a whole day or night without eating anything or that household members had gone to sleep at night hungry. More reported eating smaller and fewer meals as a response to a lack of food access. The most important element of food insecurity concerns the quality of the diet, with considerably more respondents reporting that households were forced to eat foods they did not want to, could not eat preferred foods and had to eat a limited variety of foods.

FIGURE 17: Frequency of Experience of Types of Food Insecurity



5. Variations in Levels of Household Food Security

5.1 Food Security and Household Type

Comparing the food security status of different household types, it is clear that female-centred households are the most likely to be food insecure (Table 10). These households had the lowest mean score for household dietary diversity (HDDS of 6.3), the highest in terms of problems with accessing food (HFIAS of 7.8) and the least number of months during which they had adequate food (MAHFP of 9.1). When female-centred households are compared to nuclear and extended households, it is apparent that part of the reason for their greater food insecurity is that they are headed by a single person rather than a couple

who can share responsibilities and contribute to household income. When compared with male-centred households (which score better on all the food security indicators), also by definition headed by a single person, the effects of gender-based income disparity are evident.

TABLE 10: Household Structure and Food Security Status

Type of household	HDDS	HFIAS	MAHFP
Female-centred	6.3	7.8	9.1
Male-centred	6.7	5.6	10.0
Nuclear	6.9	4.9	10.1
Extended	7.7	5.3	10.4

5.2 Food Security and Income

Because most Cape Town residents buy their food, income of whatever sort (whether wage income or social grants) is the key enabler of food access. Income also determines the nature of the food purchased and the overall quality of diet. In Cape Town, there is a clear and direct relationship between income levels and food security scores. Table 11 shows that as income declines, the primary measure of food insecurity (the HFIAS) increases (worsens), from less than one in the case of households in the upper income quintile to over 12 for households in the lowest quintile. Similarly, using the HFIAP classification, 70% of households in the lowest income quintile are severely food insecure and another 17% are moderately food insecure. Only 8% reported being food secure. At the other end of the income spectrum, 92% of households in the upper income quintile were food secure.

TABLE 11: Income Levels and Food Insecurity

		Income quintiles				
		1	2	3	4	5
HFIAS		12.6	8.3	6.3	2.6	0.6
HFIAP	Food secure	8.1%	21.7%	32.7%	66.2%	91.9%
	Mildly food insecure	5.1%	6.7%	8.9%	6.9%	1.7%
	Moderately food insecure	16.9%	19.5%	18.9%	9.2%	1.7%
	Severely food insecure	69.8%	52.0%	39.5%	17.7%	4.7%
HDDS	Mean scores	5.1	6.2	6.7	7.5	8.0
MAHFP	Mean scores	7.1	8.8	9.7	11.0	11.9

There is also a clear difference in levels of food security between households that receive income from formal wage employment and those that do not. Households with a wage income have a much lower HFIAS score (3.8 versus 8.6), greater dietary diversity (7.1 versus 6.3) and more months of adequate food provisioning (10.6 versus 8.7) (Table 12).

TABLE 12: Food Security and Formal Wage Income

	HDDS	HFIAS	MAHFP
Household receives income from formal wage work	7.1	3.8	10.6
Household does not receive income from formal wage work	6.3	8.6	8.7

5.3 Food Security and Lived Poverty

As anticipated, there is also a clear relationship between food security and lived poverty. Households with a mean LPI in the 0.00 to 1.00 range have the lowest levels of lived poverty. They also have the lowest HFIAS (4.1), the best HDDS (7.1) and the highest MAHFP (10.4) (Table 13). Households with higher levels of lived poverty experience higher HFIAS scores and lower HDDS and MAHFP scores. At the extreme, households with an LPI of 3.01 to 4.00 have an HFIAS of 14.9, an HDDS of 5.2 and an MAHFP of 7.5.

TABLE 13: Food Security and Lived Poverty Index

Lived Poverty Index	HDDS	HFIAS	MAHFP
0.00–1.00	7.1	4.1	10.4
1.01–2.00	5.1	14.2	6.8
2.01–3.00	5.1	13.5	7.5
3.01–4.00	5.2	14.9	7.5

5.4 Food Security and Employment

Given the positive relationship between food security and household income, it is likely that there is also a relationship between food security and the occupation of the household head (Table 14). Clearly, if the household head is working full-time or self-employed, food security scores are likely to be much better than if the household head is unemployed. If the head is self-employed or working full-time, the mean household HFIAS is less than 3.5. If the head is unemployed and not looking for work, it is 9.5; and it is as high as 12.3 if the head is seeking work. Levels of food insecurity are also very high (9.5) if the household head is working on a part-time or casual basis. Indeed, there is only a minor difference in food security levels between these households and households where the head is unemployed and not looking for work. Similar variations can also be seen in the HDDS and MAHFP scores. The general point is that households with a head in full-time wage employment or self-employment have the highest levels of both dietary diversity and months of adequate household provisioning. Households with a head who is unemployed and looking for work also score worst on these two indicators.

Interestingly, households with a pensioner as head score better on the food security measures than households with an unemployed head, but worse than

those where the head is working full-time. These households are generally smaller, with fewer mouths to feed, and have the benefit of state and private pensions. On the other hand, if the household head is medically unfit or disabled, these households have the second highest HFIAS scores and the second worst MAHFP scores.

TABLE 14: Food Security and Employment Status of Household Head

	HFIAS	HDDS	MAHFP
Self-employed	3.1	7.3	11.0
Working full-time	3.4	7.3	11.0
Pensioner	6.0	7.3	9.3
Working part-time/casual	9.5	5.7	8.7
Unemployed and not looking for work	9.5	5.7	8.4
Medically unfit/disabled	9.9	6.0	7.8
Unemployed and looking for work	12.3	5.3	7.5

5.5 Food Security and Migration

As noted in section 3.8 above, 10% of households in Cape Town are migrants (with all household members born outside the city) and nearly a third (29%) are mixed households (with a combination of migrants and city-born members). The question here is whether there is a general negative relationship between migration and household food security in Cape Town, as suggested in a recent study of Zimbabwean migrants in Johannesburg and Cape Town (Tawodzera and Crush 2017). Of the three types of household, it is migrant households that actually have the lowest levels of food insecurity as measured by the HFIAS (at 5.2) (Table 15). However, this mean score is very similar to that of non-migrant households (at 5.3). Migrant households also have slightly better MAHFP scores (10.2 versus 9.9) than non-migrant households. However, their dietary diversity scores are lower (6.6 versus 6.9).

The most consistent finding is that mixed households (with a combination of migrants and non-migrants) are the most food insecure on all three measures. This observation is further confirmed by the HFIAP indicator, which found that 45% of mixed households are severely food insecure, compared with 33% of non-migrant and 31% of migrant households. Similarly, only 31% of mixed households are completely food secure, compared with 52% of non-migrant households and 47% of migrant households. The reasons why mixed households are on average more food insecure than migrant and non-migrant households are not immediately apparent and require further investigation. One possibility is that migrant households consist primarily of adults who have migrated to the city for work and do not contain child dependants. Many mixed households would have more mouths to feed as, by definition, they include dependants born in the city after the adults moved there.

TABLE 15: Food Security and Migration Status of Households

		Household migration status		
		Non-migrant household	Mixed household	Migrant household
HFIAS		5.3	7.4	5.2
HDDS		6.9	6.4	6.6
MAHPF		9.9	9.4	10.2
HFIAP	Food secure (%)	52.3	31.0	46.7
	Mildly food insecure (%)	5.2	6.6	6.2
	Moderately food insecure (%)	10.1	17.6	16.0
	Severely food insecure (%)	32.5	44.8	31.1

The literature on migration and food security also posits that the food security and health outcomes of migrants change over time, sometimes in a positive direction as migrants become more settled and integrated, and sometimes in a negative direction particularly in terms of diets and nutritional status (Crush and Caesar 2017). Because the survey is cross-sectional in nature, it is not possible to answer this question in a definitive manner for Cape Town's migrants. However, it is of interest to compare the current food security status of migrants who came to the city at different times. Table 16 suggests, perhaps counter-intuitively, that the longer a migrant household head has been in the city, the more food insecure their household is. For example, the households of migrants who came to Cape Town in the 1980s and early 1990s have higher HFIAS scores than those who came in the past decade. The latter also have better MAHFP and HDDS scores.

The differences over time are even more apparent with the HFIAP indicator. Migrant household heads who came to Cape Town before 2005 live in households where, on average, around 25% of households are food secure and 45% are severely food insecure. Contrariwise, heads of households who came to Cape Town after 2005 show massively improved food security levels and reduced levels of severe food insecurity. This finding requires further analysis, but is not inconsistent with the supposition above that the longer a migrant is in the city, the more dependants they are likely to have. All other things being equal, the vastly improved scores of recent migrants may reflect the fact that these are primarily households of adults.

TABLE 16: Household Food Security Status by Year of Migration of Household Head

		Year of migration to Cape Town						
		1980–1984	1985–1989	1990–1994	1995–1999	2000–2004	2005–2009	2010–2013
HDDS		5.9	6.1	6.7	6.3	6.3	6.7	7.0
HFIAS		7.8	7.4	8.5	6.9	7.3	5.7	3.8
MAHFP		9.5	9.7	9.1	9.6	9.5	10.3	10.5
HFIAP	Food secure (%)	25.5	34.6	24.6	27.6	24.1	44.6	67.9
	Mildly food insecure (%)	6.0	3.7	5.8	7.9	9.9	4.5	3.9
	Moderately food insecure (%)	22.9	17.0	17.5	19.2	18.2	18.8	8.8
	Severely food insecure (%)	45.6	44.8	52.1	45.4	47.8	32.1	19.4

5.6 Food Security and Social Grants

Social grants are a core policy tool for addressing South Africa's deep economic inequalities. Social protection is a right contained within the Bill of Rights (Section 27 (1c)) (Section 27 also contains the Right to Food and the Right to Health). A number of social protection or social security processes are evident. South Africans who fall below a certain income threshold are eligible to access subsidized housing. Children in poor households are able to access free basic education. More generally, social protection interventions remain an essential part of a wider package of food and nutrition support programmes. These programmes are offered by various government ministries at different levels; from the Department of Agriculture assisting smallholders and urban producers, to school feeding programmes run through the Department of Basic Education, to pre- and post-natal support managed by the Department of Health. In addition to these services, the national Ministry of Social Development's social grant system provides assistance to the poor.

Social grants in South Africa cover vulnerable children (Child Support Grant, Foster Care Grant), the elderly (Grants for Older Persons), the physically and developmentally disabled (Disability Grant), war veterans (War Veteran's Grant), and those requiring specialized care (Care Dependency Grant, Grant-in-Aid), as well as temporary relief (Social Relief of Distress). Other than the Foster Care Grant and the Grant-in-Aid, social grants are means tested, a process requiring the assessment of the value of assets and income. Eligibility for a grant is contingent on income falling below a certain threshold.

The extent of the social grant system is evident when considering South Africa's total population of 55.9 million (Table 17). The number of social grant recipients has increased over the past 20 years from an estimated 4 million in 1994

to 16.9 million by September 2015. The child support grant, with 11.9 million recipients, has the highest number of recipients. The next two grants with high numbers of recipients are the old-age pension (3.1 million) and the disability grant (1.1 million).

TABLE 17: Typology of Social Grants, 2015

Type of grant	No. of recipients	Monthly payments	Qualifications	Recipient of grant
Grant for Older Persons (pensions)	3.1 million	Older than 60: ZAR1,500 Older than 75: ZAR1,520	Annual earning less than ZAR64,680 or combined income of R129,360	Individual
Disability Grant	1.1 million	ZAR1,500	People unable to work; 18-59 years of age, submit a medical assessment or report no older than three months and no other social grant	Individual
War Veteran's Grant	277	ZAR1,520	People who are disabled or older than 60 and served in the Second World War or Korean War	Individual
Foster Care Grant	533,000	ZAR890		Foster parent
Care Depend-ency Grant	129,000	ZAR1,500	To the main caregiver of child with a permanent, severe disability; medical assessment report; annual income less than ZAR169,200 (single) or ZAR338,400 (combined income if married)	Caregiver
Child Support Grant	11.9 million	ZAR350, to main car-egiver of child 18 years or younger	Annual income ZAR39,600 (single) or ZAR79,200 (combined if married)	Parent/s
Grant-in-Aid	126,600	ZAR320 for those receiv-ing another grant	Taking care of someone who requires full-time care because of physical or intellectual disability	House-hold

Source: Ferreira (2016)

These social grants play a significant role in household incomes in the poorer areas of Cape Town. In total, 33% of all surveyed households receive child support grants, 20% receive state pensions, and 8% receive disability grants. Social grants tend to be used to sustain the household and pay for daily expenses. The question of whether social grants mitigate food insecurity at the national level has been addressed by Taylor (2015) who argues that social protection measures "increase access to nutrition, healthcare, housing and education." In Cape Town, lower-income households tend to be the major beneficiaries of both child support grants and disability grants. Of those households in receipt of child support grants, for example, a third are in the lowest income quintile and two-thirds are in the bottom two income quintiles (Table 18). In contrast, the beneficiaries of grants for older people tend to be concentrated in higher-income households, with 58% in the upper two quintiles and only 11% in the lowest two quintiles.

However, this does not necessarily mean that social grants are sufficient to address deep-rooted food insecurity. For example, 59% of the recipients of child grants are severely food insecure and another 19% are moderately food insecure on the HFIAP scale (Table 19). The equivalent figures for disability grants are 56% and 13%. With grants for older people, however, a different pattern emerges with 40% severely food insecure and 36% food secure.

TABLE 18: Social Grant Recipients by Income Quintiles

	Income Quintiles				
	1	2	3	4	5
Child support grant (% of recipient households)	34	32	25	9	1
Disability grant (% of recipient households)	24	39	26	8	7
State pension/old age grant (% of recipient households)	4	7	32	28	30

TABLE 19: Social Grant Recipients by Household Food Insecurity

	Food secure	Mildly food insecure	Moderately food insecure	Severely food insecure
Child support grant (% of recipient households)	15	6	19	59
Disability grant (% of recipient households)	23	8	13	56
State pension/old age grant (% of recipient households)	36	9	15	40

Nearly half of households receiving social grants use them to purchase food, 36% to buy clothes, and 26% to pay for educational expenses. Other uses include purchase of household items, paying medical expenses and paying debts. Rates of saving are very low (at less than 3%). Social grants are also intimately connected with food in other ways. When the survey was conducted, supermarkets were among the most common dispensing points for grants. Now, groceries at most supermarkets can still be paid for with a social grant card and the grant can be withdrawn in cash at the till too.

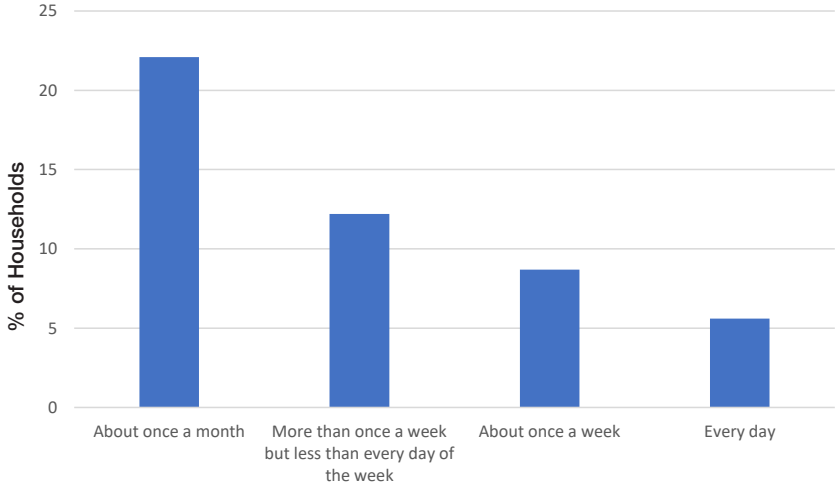
Given the importance of social grants as a source of basic household income, the disbursement system wisely operates through the use of smart cards. This enables high levels of security and reduces leakage in the grant payment administration process, but it does mean that recipients are driven to make purchases through a particular part of the food system (supermarkets) when using the grants to purchase food. This system is integrated with the formal banking system. As most informal traders do not operate electronic point-of-sale systems, the grant payment process effectively excludes the informal food system, which this report demonstrates to be essential to the poor, specifically those who qualify for grants.

5.7 Impact of Food Price Increases

Because almost all Cape Town residents access food through the market, income from any source is the key enabler of food access. Income also determines the nature of the food purchased and the overall quality of diet. The Pietermaritzburg Agency for Community Social Action (PACSA) tracks food prices and publicizes the cost of a nutritional food basket in the form of the PACSA Food Price Barometer (PACSA 2014). While this work is conducted in another South African city, it does provide insights into the relationship between household income and the household's ability to access nutritious food. The PACSA Food Basket cost ZAR1,509 per month at the time of the survey (which increased to ZAR1,640 per month in the space of a year). The average spend on food alone by the surveyed households in Cape Town was ZAR1,724. However, as many as one-third of female-centred households (as well as 18% of male-centred households and 12% of nuclear households) were earning less than ZAR2,200 per month, which suggests that very few of these households can afford the nutritious PACSA Food Basket. Rising food prices make this even more unobtainable.

The importance of cash income for urban food security means that any increase in the price of food inevitably threatens the household's food security status. The survey asked if, during the previous six months, the household had gone without food because it was unaffordable. Around half of the Cape Town households said they had had difficulty accessing food because of the price (Figure 18). Twenty-two percent reported going without about once per month, while 27% had more severe experiences – going without food at least once a week as a direct result of food prices.

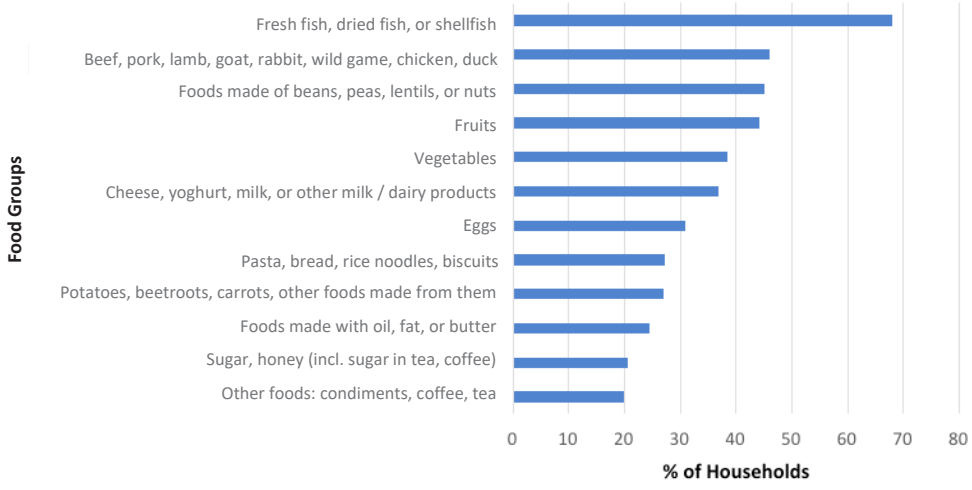
FIGURE 18: Frequency of Going Without Food Due to Food Prices



Fish (fresh, dried and shellfish) was the main food item that households did not purchase because of the price (68% of households) (Figure 19). One adverse effect of this deprivation is the lack of an important source of nutrients, including Vitamin D and fatty acids such as omega-3, which are important for heart health and brain development. Beans, peas, lentils and nuts fall into a second group of unaffordable foods. These items are relatively cheap and have not increased in price as steeply as other items. A major reason why these foods are reported as unaffordable is not the price of the item per se, but the costs of energy needed to prepare them for consumption. A related factor is that time is also a considerable cost. In Cape Town, a poor resident can take up to five hours to get to and from work. If entrenched gendered roles are considered, where women are expected to prepare food, the time required to prepare these foods means that they are often removed from the diet. Affordability is thus a more complex calculation than price alone. Since the survey, several other factors have affected the affordability of food. In 2018, the Minister of Finance announced an increase in the rate of value-added tax (VAT) from 14% to 15%. While the 1% increase may be considered marginal, it has a significant impact on how the poor balance their household budgets. When increases in other costs such as fuel and water are added, the impact on the household food budget is significant.

The purchase of fruits and meat products was also adversely affected by price increases, with over 40% of households reporting that these were unaffordable. The categories of food that were the least affected by food prices were also those that form the staple diet of most households: food made from cereals; tubers; food made from oil, fat or butter; sugar or honey (including in coffee and tea); and tea and coffee.

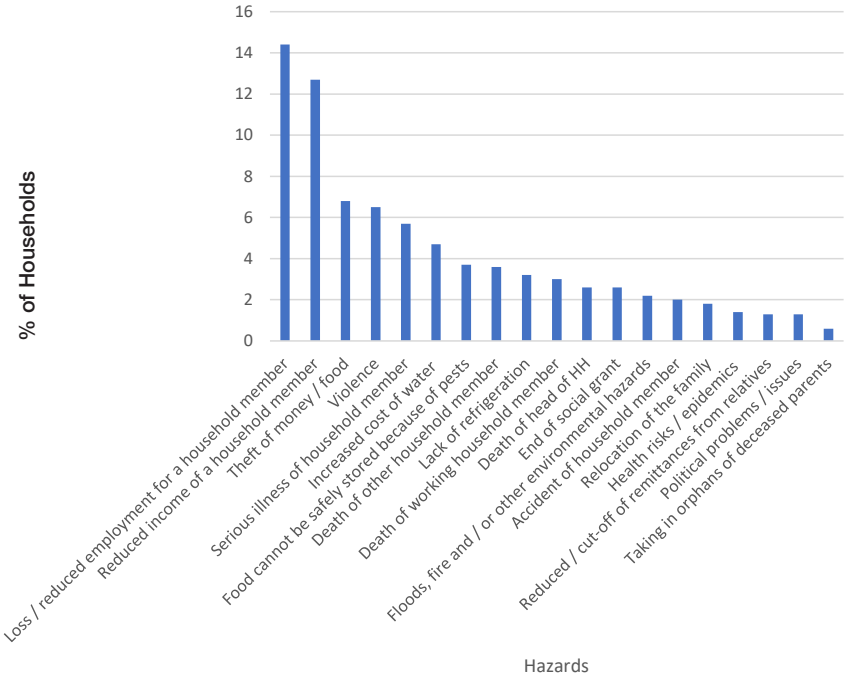
FIGURE 19: Foods Deemed Unaffordable Due to Increased Food Prices



5.8 Food-Related Hazards

The two most common threats to household food security in the six months prior to the survey are both linked to jobs and income: loss or reduction of employment of the household head (experienced by 14% of households) and reduced income of a household member (13%) (Figure 20). What the figure also shows is the precarious existence of many residents of Cape Town, especially the 7% of households whose food security was affected by crime and violence. Other factors that reduce household food access relate to health issues, safety, infrastructure deficits, and precarious living conditions. Few of these issues are food specific, but they have a profound impact on the food security of many poorer households.

FIGURE 20: Food Hazards Experienced in the Previous Six Months



Note: Multiple-response question

Woolworths Supermarket in Upper-Income Area
Source: https://www.thenewspaper.co.za/woolworths-launches-biggest-food-market/

Shoprite in Delft, Cape Town
Source: https://www.fin24.com/Companies/Retail/shoprite-opens-14-new-stores-in-one-week-20170928

USave Supermarket and Informal Vendors in Lower-Income Area
Source: https://twitter.com/hashtag/koebergroad

Shoprite Distribution Centre in Cape Town
Source: http://myofficemagazine.co.za/inside-shoprites-giant-new-distribution-centre/

Spaza Shop in Informal Settlement
Source: M. Salamone

Spaza Shop in Cape Town Owned by Somali Refugees
Source: M. Salamone

Street Vendors in Khayelitsha, Cape Town
Source: Sally Wellbeloved Photography

6. Food Sourcing

6.1 Major Food Outlets

As discussed, virtually all households in Cape Town obtain their food by purchasing it, and make strategic decisions about when and where to do so. Among the range of formal food sources available in the city, supermarkets are clearly dominant and are regularly patronized by 94% of all households surveyed (Figure 21). Small shops (which include corner stores, grocers, butcheries and bakeries) are patronized by 62% of households, followed by fast-food outlets (46%) and restaurants (28%). Among the various informal food sector sources, spaza shops (small-scale shops predominantly located in low-income areas and often run from modified shipping containers) are patronized by 62% of households, followed by street vendors at 48%. Unlike many African cities, Cape Town does not have large formal or informal food markets. The 13% of households that purchase food at markets probably do so at the Cape Town Fresh Produce Market (a large wholesale market in the city) or at the various lifestyle/craft/flea markets that are a feature of the urban landscape.

FIGURE 21: Formal and Informal Food Sources

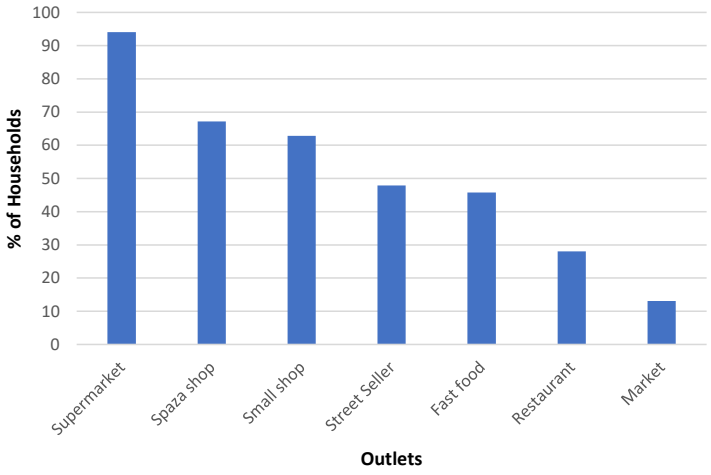


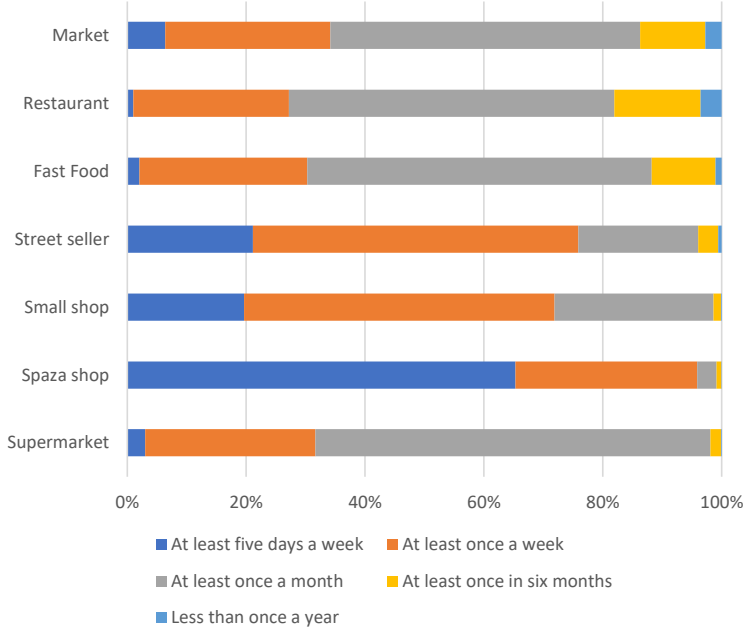
Figure 22 provides a picture of the frequency of patronage of each of these food sources. The most striking finding is that spaza shops are patronized on an almost daily basis by over 60% of patrons. The equivalent figure for supermarket patrons is only 5%. Two-thirds of supermarket patrons shop there on a monthly basis, while less than 1% of spaza patrons do a monthly shop. Roughly equal proportions (29% of supermarket patrons and 31% of spaza patrons) purchase food from supermarkets and spaza shops on a weekly basis. The patronage patterns of informal street sellers are also markedly different, with 55% of patrons purchasing food on a weekly basis and roughly equal numbers buying on a daily and monthly basis. This pattern is very similar to that observed for small formal shops. Patronage of fast-food and restaurant outlets is predominantly a monthly activity. These differences raise interesting questions about what types of food are bought from which outlets.

Additional insights into patterns of food retail patronage are observed when frequency-of-use patterns are disaggregated by income (Figure 23). For ease of interpretation, this section of the report uses income terciles to highlight differences in purchasing patterns between low, middle and high income households. Patterns of patronage of supermarkets differ markedly by income: as income decreases so monthly patronage increases. Nearly 70% of low-income households used supermarkets only once a month. By contrast, monthly patronage dropped to 55% of middle-income households and 44% of high-income households. Fifty-six percent of high-income households shop for food at supermarkets at least once a week, compared with 44% of middle-income households and only 22% of low-income households. Patterns of patronage of small stores seem to be largely independent of income. Middle and high-income households have low rates of patronage of informal food sources. Among low-income households, 56% patronize spazas on an almost daily basis and 82% at least once a week. This relates to their accessibility within walking distance in many low-income areas,

to the practice of bulk-breaking into small quantities by vendors, to the lack of refrigeration in many households, and to the nature of household money inflow. Cash inflow can be small and irregular, particularly for households without a regular wage-earner. Patterns of patronage of street vendors are somewhat different, with lower levels of daily use. This is primarily because street vendors are not normally accessible to all households, due to their clustering in non-residential sites such as main roads and transportation hubs (Battersby et al 2016).

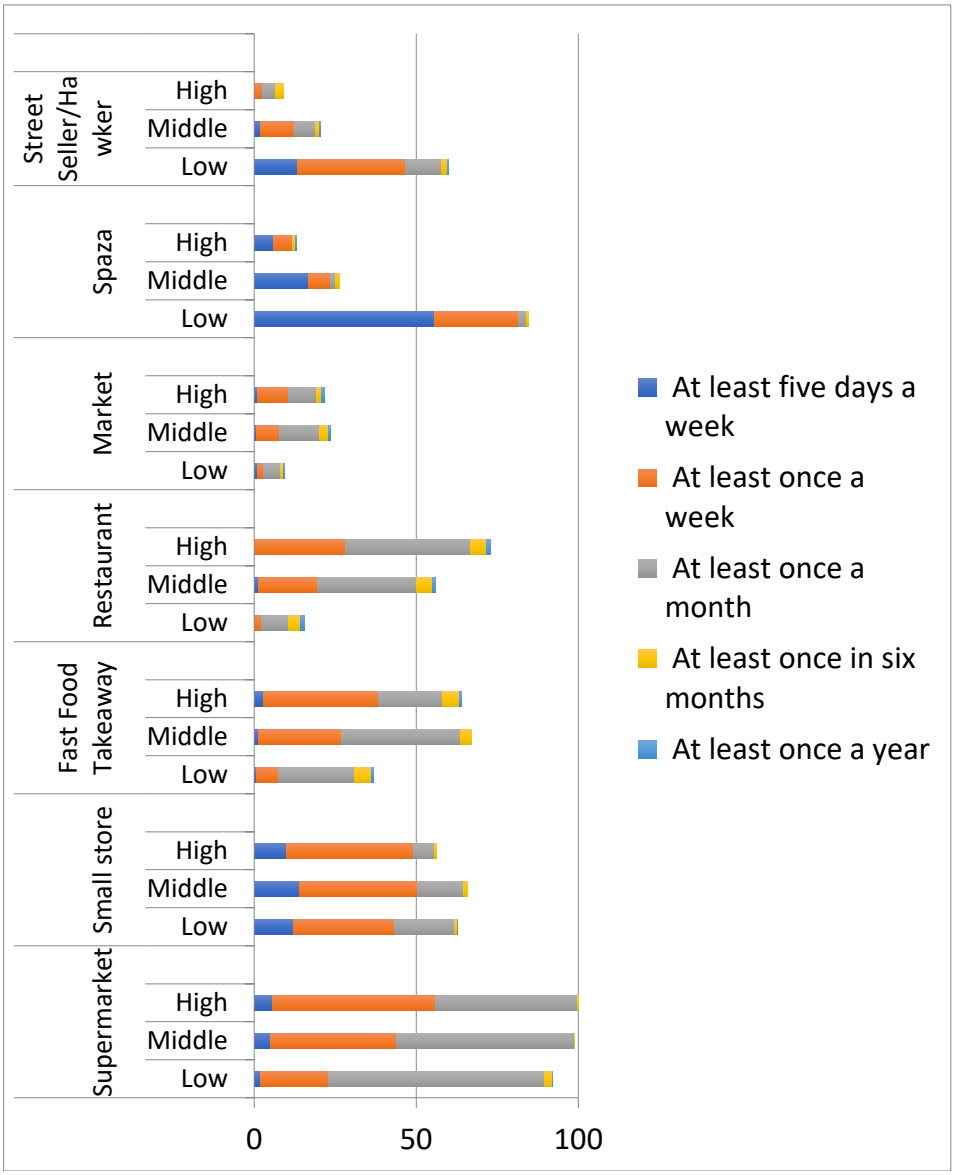
Battersby (2011) suggested that low-income households undertake bulk purchases of non-perishables and of easily stored food at supermarkets on a monthly basis. However, fresh foods, other perishables, and small groceries are bought on a daily basis. These earlier findings are confirmed by this survey. The use of spaza shops, street food vendors and other local food outlets is directly linked to the circumstances of the poor. Households without a formal house structure and with limited access to basic services such as electricity have their food choices and food outlet choices determined by far more than just cost. Key considerations for those living in informality include storage, perishability, theft, and even the risk of spoilage or destruction of purchased foods by pests. These symptoms of poverty restrict household choices and limit benefits that others enjoy. A household with refrigeration, for example, is able to capitalize on discounts associated with bulk buying. Poor households without access to the affordable energy necessary for cooking have to decide whether purchased food can be prepared at the household or whether they need to buy cooked food from street vendors. Purchased cooked food can be consumed either on the street or at the household.

FIGURE 22: Frequency of Patronage of Different Food Sources



While supermarkets are a primary food-purchase choice, other food retail options thus play an essential role in the purchasing strategies of poorer households. Multiple factors drive these purchasing patterns, for example, limited income may prevent bulk buying. Returning home with large shopping bags can place households in poor neighbourhoods at risk of theft or frequent requests to borrow food. Every low-income household is thus making a series of strategic decisions about what food is purchased and where, and factors beyond item prices are informing these decisions.

FIGURE 23: Frequency of Patronage of Different Food Sources by Income Terciles



6.2 Consumer Attitudes to Supermarkets

There is a growing literature on supermarket domination of Cape Town's food system (Battersby 2017, Battersby and Peyton 2014). Three basic points are made: first, that there has been a dramatic increase in the number and geographical diffusion of supermarkets across the city landscape in the past three decades. Second, supermarket density is highest in higher-income areas of the city and lowest in more populous low-income neighbourhoods. Third, many of the major supermarket chains have budget subsidiaries that are targeting the mass market of low-income areas with a limited product range.

This survey sought to provide insights into supermarket patronage from the perspective of customers. Those households (the vast majority) who patronize supermarkets identified several benefits of doing so (Table 20). They are cheaper, provide better quality food, and offer a greater variety of food items. Also, consistent with the purchasing patterns identified above, three-quarters agreed that they are able to buy food in bulk at supermarkets. Finally, at the time of the survey, around 60% of households said that they shopped at supermarkets because that is where they collected their monthly social grants.

TABLE 20: Reasons for Shopping at Supermarkets

	%		
	Agree	Disagree	Neither
Supermarkets have a greater variety of foods	91	2	7
Food is better quality at supermarkets	86	5	9
We can buy in bulk at supermarkets	74	14	12
Food is cheaper at supermarkets	73	16	11
Supermarkets are where we get social grants so we shop there	59	23	18

Despite these advantages, supermarkets are not ideal for all households. As mentioned, distance, storage, and transport of bulk items make supermarket shopping difficult for certain consumers, particularly the poor. Supermarkets are mainly used by lower-income households for the purchase of bulk items that do not perish and can be easily stored. For those living in areas not serviced by nearby supermarkets, transport costs can cancel out the bulk-related price savings, although this does not appear to be a key constraint in Cape Town. The small number of households that do not use supermarkets identified reasons for this (Table 21). The most important barrier to using supermarkets, mentioned by 72%, related to the absence of provision of credit, i.e. the ability to buy food and pay later. Two-thirds said they did not make use of supermarkets because they were too expensive and 60% that supermarkets only catered to the wealthy. The distance to the supermarket and the types of food sold were less important, at 33% and 22% respectively.

TABLE 21: Reasons for Not Using Supermarkets

	%		
	Agree	Disagree	Neither
Supermarkets do not provide credit	72	14	14
Supermarkets are too expensive	67	13	20
Supermarkets are for the wealthy	61	22	17
Supermarkets are too far away	33	60	7

6.3 Food Purchasing Patterns

The Hungry Cities Food Purchases Matrix (HCFPM) (Crush and McCordic 2016) provides detailed information about the purchasing patterns of 30 individual food items. Table 22 itemizes the proportion of households that purchased each food item in the previous month and the first-mentioned (and presumably the most important) point of purchase. From a nutritional point of view, the proportion of households that purchased fresh produce is relatively high, especially for vegetables (82%), eggs (75%), milk (73%), meat (64%), fruit (62%) and chicken (47%). However, inverting these figures reveals that nearly 20% of households bought no fresh vegetables and nearly 40% bought no fruit in the month prior to the survey.

Another striking feature of the HCFPM data is that rice is – or has become – the cereal of choice for most households. Rice was purchased by 90% of households compared with two-thirds for mealie (maize) meal. Almost all the rice consumed in South Africa is imported, primarily from Asia, which suggests that import-dependence for a basic component of the urban diet is increasing. South Africa is also a major importer of wheat and over half of all households purchased brown (65%) and white (52%) bread in the previous month. Several studies have suggested that South Africa's high rates of obesity and non-communicable diseases are related to increased consumption of processed foods. This is reflected in the high rates of purchase of sugar, sweets (including chocolate) and snacks (such as potato crisps and other 'junk' food). Almost one-third of households had also purchased french fries (or chips in South African parlance).

The HCFPM provides additional insights into the food purchasing behaviour of Cape Town households as follows:

- The overall dominance of supermarkets in the Cape Town food system is confirmed by the sourcing of particular food items. Out of 30 food items in the matrix, supermarkets are the most important source for 27 (see shaded cells). Only three products – offal, white bread and cooked fish – are purchased elsewhere by greater numbers of households;
- Supermarkets command more than half of the patronage for these 27 items (cooked foods being the exception).

- Supermarket domination is particularly marked in relation to cereal staples such as rice, pasta and mealie (maize) meal, and all processed foods. Over 80% of households purchase these foodstuffs at supermarkets.
- Small shops sell all of the items on the list and have a small market share (around 20% of households) of some, including fresh milk, brown and white bread, snacks and sweets. Butchers have a one-third share of the market for fresh meat and a smaller share of the market for other red and white meat products.
- Fast-food takeaways have a significant share of the cooked food market but are still outcompeted by supermarkets.
- Formal and informal markets do not feature to any degree in the sourcing strategies of most households.
- In terms of the informal sector, at least some households purchase all of the items on the list from spaza shops. However, spazas only have a significant share of the market for brown bread (48% of households), white bread (38%), sour milk/*amasi* (24%) and snacks and sweets (21-22%).
- The range of products offered by street vendors is narrow but they do have a significant market share of sales of offal (45%), vegetables (28%), fruit (25%) and fish (22%).

The second HCFPM addresses accessibility in that it examines the spatial location of the major source for each food item. Given the dominance of supermarkets and their uneven distribution across the city, this is an important exercise. Table 23 shows that most food items are bought at outlets within the neighbourhood of the household. In each case, over 40% of households purchase the item locally and in a few, such as bread and milk, it is over 70%. The majority of households purchase their fresh produce in the neighbourhood, although a significant minority do purchase produce, especially white and red meat products and eggs, in other shopping areas of the city. These are generally wealthier households with members who can use their own transport to get to supermarkets and hypermarkets. Offal is the only exception, with over 80% of consumers acquiring it locally. Most are from low-income households with more limited mobility and, as noted above, nearly half of the households purchase offal from informal street vendors who are likely to be operating in their neighbourhoods. Mealie meal – the cereal on which low-income households rely – is purchased predominantly within the neighbourhood by nearly three-quarters of consumers. Rice and pasta are predominantly neighbourhood purchases too, but are also bought in supermarkets in other areas by wealthier and more mobile households. With the exception of sour milk/*amasi*, processed foods have a significant non-neighbourhood pattern. Junk food is present throughout the city and is bought in all areas, as is cooked food, which is bought predominantly at fast-food outlets and restaurants. In sum, while the matrix demonstrates that most food

purchasing takes place in the neighbourhood or at supermarkets in other areas, the general picture is that both healthy and unhealthy foodstuffs blanket the city.

TABLE 22: Primary Source for Purchase of Food Items

	% purchasing item	Supermarket	Small shop	Butcher /baker	Takeaway	Restaurant	Formal market	Informal market	Spaza shop	Street vendor
Fresh produce										
Vegetables	82	53	8	<1	<1		4	2	5	28
Eggs	75	82	11	1	<1		<1	<1	6	<1
Milk	73	53	22	<1	<1		<1	<1	24	
Meat	64	57	4	35	<1		<1	<1	<1	1
Fruit	62	57	8	<1	<1		4	3	4	25
Chicken	47	76	2	13	<1	<1	<1	2	<1	5
Offal	29	24	2	19	<1		1	8	<1	45
Fish	28	65	2	3	4	2	2	1	<1	22
Cereal staples										
Rice	90	89	6	0	0		<1	<1	4	<1
Mealie meal	68	81	9	0	<1		<1	<1	9	<1
Brown bread	65	33	23	<1	<1		<1	<1	43	<1
Pasta	58	94	4	0	<1		<1	<1	1	<1
White bread	52	32	29	<1	0		<1	<1	38	<1
Frozen food										
Chicken	60	79	7	11	<1		<1	<1	3	1
Meat	32	75	6	16	<1		<1	<1	2	<1
Fish	12	88	2	6	1	<1	<1	<1		2
Processed foods										
Sugar	91	88	6	<1	<1		<1	<1	5	<1
Cooking oil	88	90	5	<1	<1		<1	<1	4	
Tea/coffee	84	88	6			<1	<1	<1	6	
Sour milk	43	61	14	<1	<1		1	1	24	<1
Snacks	42	59	19		<1		<1	<1	21	<1
Sweets	37	58	18		<1	<1	<1	<1	22	1
Canned vegetables	25	95	3	0	0		<1	<1	1	<1
Canned fruit	17	96	2	<1	<1		0	<1	<1	<1
Canned meat	15	93	4	<1			<1	<1	1	<1
Cooked food										
French fries/ chips	28	47	8	<1	33	2	1	<1	9	1
Pies/samosa/ vetkoek	25	40	11	3	29	2	<1	2	8	6
Cooked meat	22	51	2	5	18	17	<1	1	<1	5
Cooked chicken	21	46	2	3	36	11	<1	<1	<1	2
Cooked fish	16	40	2	<1	45	10	<1	0	1	2

TABLE 23: Primary Spatial Location for Purchase of Food Items

	Within neighbour-hood	On way to and from work	Cape Town CBD	Other shopping areas	Other, incl. outside Cape Town
Fresh produce					
Vegetables	70	8	7	13	1
Eggs	61	8	10	22	2
Milk	73	9	5	11	1
Meat	52	9	11	27	2
Fruit	66	11	10	16	1
Chicken	56	9	12	20	2
Offal	83	5	2	9	1
Fish	55	14	9	21	1
Cereal staples					
Rice	59	7	8	24	2
Mealie meal	71	5	7	16	<1
Brown bread	83	9	3	5	
Pasta	52	8	10	18	2
White bread	82	7	5	6	<1
Frozen food					
Chicken	57	6	11	26	1
Meat	52	8	13	26	1
Fish	45	16	10	28	2
Processed food					
Sugar	59	7	9	23	2
Cooking oil	59	6	9	24	2
Tea/coffee	60	7	8	23	2
Sour milk	77	8	4	10	1
Snacks	51	9	7	30	2
Sweets	70	11	6	12	1
Canned vegetables	48	10	9	31	2
Canned fruit	48	12	10	29	2
Canned meat	47	16	12	23	3
Cooked food					
French fries/chips	56	17	9	18	2
Pies/samosa/vetkoek	67	19	3	11	1
Cooked meat	52	12	11	22	2
Cooked chicken	45	21	11	21	1
Cooked fish	47	22	6	24	1

A different HCFPM shows how frequently households purchased each item over the course of the previous month (Table 24 and Figure 24). There are clearly several types of purchasing frequency, depending on the food item involved. First, there is a set of food items that tend to be purchased on a monthly basis, often in bulk. This includes cereal staples such as rice, mealie meal and pasta, which are

purchased monthly between two-thirds and three-quarters of purchasing households and once or twice a month by over 90% of households. Frozen foods as well as certain processed foods such as sugar, cooking oil, tea/coffee and canned goods also tend to be purchased only once or twice a month. Certain fresh products are not purchased particularly often. For example, fresh meat, chicken, offal and fish are purchased once or twice a month by over 80% of purchasing households and once a month by around 50% of households. This buying pattern relates less to bulk buying than affordability. Even offal, which is the cheapest form of red meat and therefore disproportionately consumed by the urban poor, is only purchased once or twice a month by 90% of purchasing households.

The second type of sourcing involves more frequent and regular purchase, which applies particularly to perishables such as milk (64% at least once a week or more frequently), fruit (58%) and vegetables (50%). The only product that is bought on an almost daily basis by a majority of households is bread, both brown (52% daily) and white (60% daily). A third pattern of purchasing frequency relates to the purchase of highly processed, sugar-dense foods such as snacks, sweets and chocolate. These are purchased relatively frequently (at least once a week) by around half of all purchasing households. Longitudinal data is not available but it can be reliably hypothesized that the frequency of purchase of these and other non-nutritious foodstuffs is growing. Finally, although it involves less than one-quarter of all households, cooked food purchasing tends to be on an irregular basis. The consumption of chips and pies/samosas/*vetkoek* is more frequent than the consumption of cooked meat, chicken and fish.

As noted earlier, one of the major features of Cape Town's food system is extreme inequality in poverty, incomes and food security. The HCFPM can be used to reveal inequality by disaggregating purchasing patterns of individual food items by variables such as income. Table 25, for example, disaggregates the proportion of purchasers that fall into each income quintile by food item. Several distinctive patterns can be identified:

- In the case of most fresh food items, the proportion of purchasers generally increases with household income. So, for example, 33% of households that purchase chicken fall into the bottom two quintiles, while 50% fall into the top two quintiles. The equivalent figures for meat are 34% and 47%, for fruit 33% and 49%, and for fish 30% and 58%. A similar pattern can be seen with pasta (31% versus 49%), frozen fish (27% versus 58%), most "junk food" and canned goods, and all cooked food.
- Exceptions include offal (with 59% in the lowest two quintiles and 18% in the upper two quintiles), mealie meal (55% versus 22%), frozen chicken (46% versus 32%) and sour milk/*amasi* (56% versus 26%).
- A third category of foodstuffs is not strongly income-dependent with roughly equal numbers of purchasers in each income quintile. This includes vegetables, rice and processed foods such as sugar, cooking oil and tea/coffee.

TABLE 24: Frequency of Purchase of Food Items

	% purchasing item	At least five days a week	At least once a week	At least twice a month	At least once a month
Fresh produce					
Vegetables	82	4	46	28	23
Eggs	75	3	20	20	57
Milk	73	22	42	18	18
Meat	64	2	17	31	50
Fruit	62	8	50	24	18
Chicken	47	2	21	32	44
Offal	29	0	10	28	62
Fish	28	4	14	32	50
Cereal staples					
Rice	90	2	7	18	73
Mealie meal	68	3	7	18	72
Brown bread	65	52	38	5	5
Pasta	58	2	7	22	69
White bread	52	60	35	3	2
Frozen food					
Chicken	60	2	12	30	56
Meat	41	2	12	31	55
Fish	12	0	8	25	67
Processed food					
Sugar	91	4	6	19	71
Cooking oil	88	3	5	16	76
Tea/coffee	84	5	8	18	69
Sour milk	43	2	28	33	37
Snacks	42	14	36	21	29
Sweets/candies	37	16	35	22	27
Canned vegetables	25	0	8	20	72
Canned fruit	17	0	6	24	70
Canned meat	15	0	13	20	67
Cooked food					
French fries/chips	28	7	25	32	36
Pies/samosa/*vetkoek*	25	4	40	28	28
Cooked meat	22	5	23	32	40
Cooked chicken	21	5	24	29	44
Cooked fish	16	0	19	38	43

FIGURE 24: Frequency of Purchase by Proportion of Households

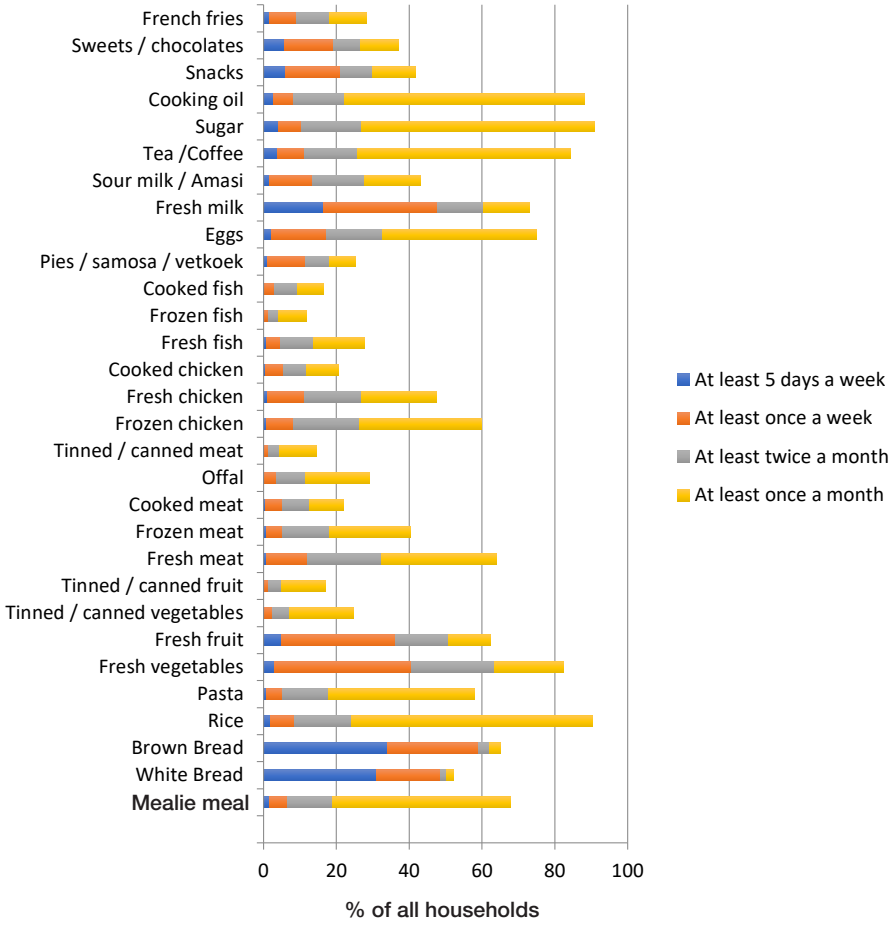


TABLE 25: Proportion of Purchasers of Food Items in Each Income Quintile

	Income quintiles				
	1	2	3	4	5
Fresh produce					
Vegetables	19	20	19	20	22
Eggs	19	20	19	20	22
Milk	17	19	20	22	23
Meat	16	18	19	23	24
Fruit	15	18	19	22	27
Chicken	17	16	17	25	25
Offal	29	30	24	14	4
Fish	14	16	13	25	33
Cereal staples					
Rice	21	21	20	20	19
Mealie meal	28	27	23	15	7
Brown bread	23	21	18	19	19
Pasta	15	16	20	23	26
White bread	17	19	21	22	21
Frozen foods					
Chicken	21	23	24	19	13
Meat	20	22	22	20	17
Fish	15	12	16	25	33
Processed foods					
Sugar	21	21	20	19	20
Cooking oil	21	21	20	20	18
Tea/coffee	21	21	19	19	20
Sour milk	29	27	23	14	8
Snacks	17	17	20	23	24
Sweets	16	15	19	23	27
Canned vegetables	15	17	19	19	30
Canned fruit	14	11	16	21	38
Canned meat	19	12	17	18	34
Cooked food					
French fries/chips	16	15	17	24	28
Pies/samosa/vetkoek	19	14	20	23	24
Cooked meat	16	15	20	24	26
Cooked chicken	12	11	17	26	35
Cooked fish	16	17	16	19	32

6.4 Limited Social Sources of Food

Other non-market food sources are utilized by a small minority of mainly low-income households. For example, 14% had borrowed food in the previous six months, 7% had shared meals with neighbours or other households in the community, 3% had begged for food and 2% had acquired food from a community food kitchen. Very few households had received food remittances from other areas of the city (4%), rural areas (3%) or other urban areas (2%). Only 2% had received food at work, while 5% had meals provided to their children at school or a daycare facility.

6.5 Unimportance of Urban Agriculture

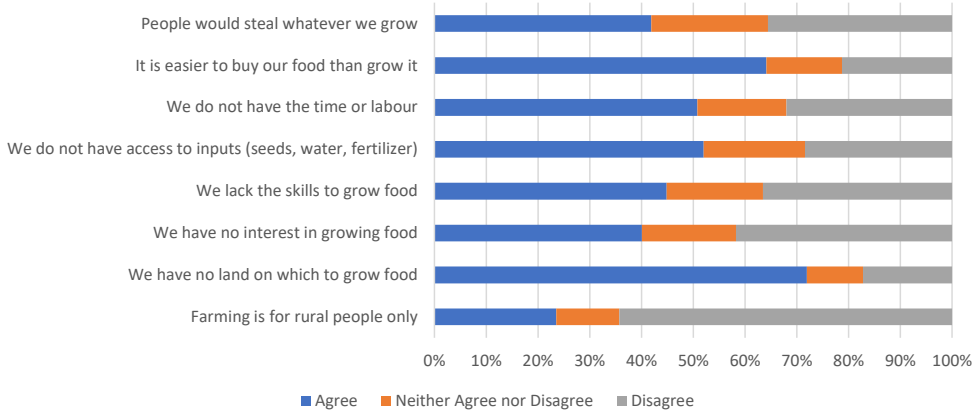
The final food source discussed here is urban agriculture, which is of limited importance across the city at the household level. For example, a mere 4% of all respondents said that they grew any food. This is consistent with the findings of the 2013 General Household Survey that found only 2.8% of households in the City of Cape Town were involved in urban agricultural activities (SSA 2013). Less than one percent of surveyed households (0.3%) reported keeping any livestock. This figure is low compared to other African cities outside South Africa, but understandable in that health and veterinary by-laws and regulations prohibit the keeping of livestock in urban areas.

The extremely low rates of participation in urban agriculture are indicative of the minor role that urban agriculture plays in feeding this city and its inhabitants (Battersby 2011, Crush et al 2011, Frayne et al 2014). Those households that did practise farming did so for their own use and not commercial purposes. Over 90% of all crops grown are vegetables and herbs. The idea that urban agriculture is a strategy that could either generate a livelihood or counter nutritional-intake deficiencies seems misplaced. Seeing it as the food security solution represents a significant misunderstanding of the nature of food insecurity and how urban agriculture is practised and viewed by the poor in Cape Town.

Various reasons were given by households as to why they do not participate in urban agricultural activities (Figure 25). Access to land was identified as a barrier by 72% of households. Given the slow transformation in land holding following the end of apartheid, land is a hotly contested political issue. Further, the severe housing crisis in Cape Town means that there is a constant tension between land for housing and land for other uses (Turok and Borel-Saladin 2016). In addition, more than 20% of Cape Town residents live in informal homes where land is at a premium. The convenience of buying as opposed to growing food was identified by over 60% of respondents as a reason discouraging urban agriculture. Around half said they did not have the time, labour or inputs for urban agriculture, and 40% said they had no interest in or lacked the skills to grow food. A similar

proportion said that theft of any potential product was a disincentive. In terms of attitudes towards urban agriculture, though, only one-quarter thought that farming was for rural people only. This might suggest that more people would grow food if the massive constraints on doing so were addressed.

FIGURE 25: Attitudes to Urban Agriculture



7. Conclusion

As the first city-wide representative food security survey, this research contributes significantly to the growing body of evidence about household food security in Cape Town. The primary conclusion is that the food system does not service all Cape Town residents equally. Households experience significant challenges in accessing food, as demonstrated in the high reported levels of food insecurity. From a food system perspective, despite the significant expansion of supermarkets across Cape Town, most poor households rely on multiple food access options (Battersby 2017). Small-scale, informal food businesses provide an essential food access service, as evidenced by the many outlets (including spaza shops, street vendors and small shops) located in residential neighbourhoods, close to transport interchanges, near larger supermarkets and close to places of work, school and even celebration (including faith-based events). Not only are informal outlets located in areas that best serve the needs of their customers, they are also adapting their business strategies including offering credit, bulk breaking, and pre-preparing foods (Battersby et al, 2016).

An obvious question arising from the analysis is why, if food insecurity among poor households is so high, is there no civic action, no food riots, protests and general political challenges around food in Cape Town? Part of the answer emerges in the periods of inadequate household provisioning found through the MAHFP indicator. If almost half of the households are severely or moderately food insecure on the HFIAP, why is the MAHFP average score only 38%? This

discrepancy reveals a pervasive normalization of food insecurity in low-income communities. Many officials, and even well-meaning commentators, interpret food insecurity as being simply about hunger. However, food insecurity is not the same thing as hunger, for what we see in Cape Town is a normalization of poor diets as evidenced in the findings on months of inadequate food provisioning. Not only does this mean that society is passive about food insecurity, its passivity has two major consequences. First, agency is denied and the poor find no issue with the system of food apartheid in which they exist. Second, it lets politicians off the hook since the absence of civic unrest over food means that they do not have to pay attention to the appalling levels of food insecurity and the extreme inequality in levels of food security that characterize this city. The long-term developmental challenges and implications of both this food insecurity and inequality are severe.

The food system imagined by well-meaning non-governmental organizations and many research and policy bodies is very different to the system that the poor in Cape Town see as most suited to their needs. The lack of uptake in urban agriculture is one example of how policy and even donor funding misreads the actual food access and food security strategies of the poor. Another example is the importance of the informal food sector to poor communities in Cape Town. Literature on food deserts in the Global North, with its obsession with the presence or absence of supermarkets, is not completely transferable to the Cape Town context (Battersby and Crush 2015). Low-income households do shop at supermarkets, even though their density is low in poorer areas of the city, but they shop strategically for the bulk purchase of staple foods. The option that most suits the everyday realities of the poor is the informal food trade, with traders occupying the so-called deserts, enabling food access.

While this survey was not longitudinal in nature, some comparisons with the findings of the 2008 AFSUN survey are in order (Battersby 2011). Despite a gradual general recovery from the 2007/2008 economic and food price crises, poor households remain in a similar, and in some cases worse, situation. Food insecurity remains an intractable and stubborn challenge in Cape Town, despite significant developments in the food system. The long-term development and health – and even educational and economic – implications of the stasis in the food security situation mean that significant attention is required from policymakers and other stakeholders. The finding of the 2008 survey that food insecurity "is generally viewed as closely related to poverty" was repeated here. But what is even more striking is how this enquiry into the food system has laid bare the deep inequalities in food security across different income groups in Cape Town. For the poor, poverty is deep and entrenched and food access is one of many daily struggles.

References

1. Ballard, T., Kepple, A. and Cafiero, C. (2013). *The Food Insecurity Experience Scale: Development of a Global Standard for Monitoring Hunger Worldwide* (Rome: FAO).

2. Battersby, J. (2011). *The State of Urban Food Insecurity in Cape Town*. AFSUN Urban Food Security Series No. 11, Cape Town.

3. Battersby, J. (2017). "Food System Transformation in the Absence of Food System Planning: The Case of Supermarket and Shopping Mall Retail Expansion in Cape Town, South Africa" *Built Environment* 43: 417-430.

4. Battersby, J. and Crush, J. (2014). "Africa's Urban Food Deserts" *Urban Forum* 25: 143-151.

5. Battersby, J. and Peyton, S. (2014). "The Geography of Supermarkets in Cape Town: Supermarket Expansion and Food Access" *Urban Forum* 25: 153-164.

6. Battersby, J., Marshak, M. and Mngqibisa, N. (2016). *Mapping the Invisible: The Informal Food Economy of Cape Town, South Africa*. AFSUN Urban Food Security Series No. 24, Cape Town.

7. Bilinsky, P. and Swindale, A. (2007). *Months of Adequate Household Food Provisioning (MAHFP) for Measurement of Household Food Access: Indicator Guide*. Washington, DC: Food and Nutrition Technical Assistance Project.

8. CoCT (2016). "Economic Performance Indicators for Cape Town. Quarter 4 (October-December) 2016". At: https://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/EPIC%20Quarter%204%202016_Food%20and%20Beverage.pdf

9. Coates, J. (2013). "Build it Back Better: Deconstructing Food Security for Improved Measurement and Action" *Global Food Security* 2: 188-194.

10. Coates, J., Swindale, A. and Bilinsky, P. (2007). *Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide (Version 3)*. Washington, DC: Food and Nutrition Technical Assistance Project.

11. Crush, J. (2008). *The Perfect Storm: The Realities of Xenophobia in Contemporary South Africa.* SAMP Migration Policy Series No. 50, Cape Town.

12. Crush, J. and Caesar, M. (2017). "Cultivating the Migration and Food Security Nexus" *International Migration* 55: 10-17.

13. Crush, J., Haysom, G. and Caesar, M. (2017). *The Urban Food System of*

Cape Town, South Africa. Waterloo, Canada, and Cape Town, South Africa: Hungry Cities Partnership and the African Centre for Cities.

14. Crush, J., Hovorka, A. and Tevera, D. (2011). "Food Security in Southern African Cities: The Place of Urban Agriculture" *Progress in Development Studies* 11: 285-305.

15. Crush, J., Ramachandran, S. and Pendleton, W. (2013). *Soft Targets: Xenophobia, Public Violence and Changing Attitudes to Migrants in South Africa after May 2008.* SAMP Migration Policy Series No. 64, Cape Town.

16. Crush, J., Dodson, Williams, V. and Tevera, D. (2017a). *Harnessing Migration for Inclusive Growth and Development in Southern Africa*. Cape Town: SAMP.

17. Crush, J., Tawodzera, G., Chikanda, A. and Tevera, D. (2017b). "The Owners of Xenophobia: Zimbabwean Informal Enterprise and Xenophobic Violence in South Africa" *African Human Mobility Review* 3: 879-909.

18. Ferreira, L. (2016). "Factsheet: Social Grants in South Africa – Separating Myth from Reality." Africa Check. At: www.africacheck.org/factsheets/separating-myth-from-reality-a-guide-to-social-grants-in-south-africa/.

19. Frayne, B., McCordic, C. and Shilomboleni, H. (2014) "Growing Out of Poverty: Does Urban Agriculture Contribute to Household Food Security in Southern African Cities?" *Urban Forum* 25: 177-189.

20. Haysom, G. and Tawodzera, G. (2018). "'Measurement Drives Diagnosis and Response': Gaps in Transferring Food Security Assessment to the Urban Scale" *Food Policy* 74: 117-125.

21. Jacobs, W. and Du Plessis, D. (2016). "A Spatial Perspective of the Patterns and Characteristics of Main- and Substream Migration to the Western Cape, South Africa" *Urban Forum* 27: 167-185.

22. Jones, A., Ngure, F., Pelto, G. and Young, S. (2013). "What Are We Assessing When We Measure Food Security? A Compendium and Review of Current Metrics" *Advanced Nutrition* 4: 481-505.

23. Mattes, R. (2008). "The Material and Political Basis of Lived Poverty in Africa: Insights from the Afrobarometer" Working Paper No. 98, IDASA, Cape Town.

24. Mattes, R., Dulani, B. and Gyimah-Boadi, E. (2016). "Africa's Growth Dividend? Lived Poverty Drops Across Much of the Continent" Afrobarometer Policy Paper No. 29, Cape Town.

25. Mhangara, P., Mudau, N., Mboup, G. and Mwaniki, D. (2016). "Transforming the City of Cape Town from an Apartheid City to an Inclusive

Smart City. The Long March to a Sustainable Inclusive and Prosperous City" In T. Vinod Kumar (ed.), *Smart Economy in Smart Cities.* Singapore: Springer, pp. 951-983.

26. PACSA (2014). "Monthly Food Price Barometer" Pietermaritzburg Agency for Community Social Action. At: https://www.pacsa.org.za/images/docs/2014%20PACSA%20food%20price%20barometer.pdf

27. SSA (Statistics South Africa) (2011). "Fact Sheet: Cape Town Metropolitan Areas" At: http://www.statssa.gov.za/?page_id=1021&id=city-of-cape-town-municipality.

28. SSA (2013). General Household Survey. At: https://www.statssa.gov.za/publications/P0318/P03182013.pdf.

29. SSA (2016). General Household Survey. At: http://www.statssa.gov.za/publications/P0318/P03182016.pdf.

30. Swindale, A and Bilinsky, P. (2006). *Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide (Version 2)* (Washington, DC: Food and Nutrition Technical Assistance Project).

31. Tawodzera, G. and Crush, J. (2017). "South-South Migration and Urban Food Security: Zimbabwean Migrants in South African Cities" *International Migration* 55: 88-102.

32. Taylor, V. (2015). "Achieving Food Security Through Social Policies: Comprehensive Social Protection for Development" In S. Fakuda-Parr and V. Taylor (eds.), *Food Security in South Africa*. Cape Town: UCT Press, pp. 145-166.

33. Turok, I. and Borel-Saladin, J. (2016). "Backyard Shacks, Informality and the Urban Housing Crisis in South Africa: Stopgap or Prototype Solution?" *Housing Studies* 31: 384-409.

34. van der Berg, S. (2007). "Apartheid's Enduring Legacy: Inequalities in Education" *Journal of African Economics* 16: 849-880.

This is the first city-wide representative household food security survey of Cape Town and contributes significantly to the growing body of evidence about the food system of the city. This enquiry into the food system has laid bare the deep inequalities in food security across different income groups in Cape Town. For the poor, poverty is deep and entrenched and food access is one of many daily struggles. From a food system perspective, despite the significant expansion of supermarkets across Cape Town, most poor households rely on multiple food access options. Small-scale, informal food businesses, such as spaza shops and street vendors, provide an essential food access service. The food system imagined by well-meaning non-governmental organizations and many research and policy bodies is very different to the system that the poor in Cape Town see as most suited to their needs. The complete lack of uptake of urban agriculture is one example of how policy and even donor funding misreads the actual food access strategies of the poor. This report finds that food insecurity and massive disparities in food access and consumption remain intractable challenges in Cape Town. The long-term development, health, educational and economic implications of chronic food insecurity mean that significant and urgent attention is required from national, provincial and municipal policymakers and other stakeholders.