

Entry into and exit from informal enterprise ownership in South Africa: an analysis of the 2013 Survey of Employers and Self Employed and 2013 Quarterly Labour Force Survey

Neil Lloyd & Murray Leibbrandt

Abstract

This paper provides an analysis of transitions in and out of informal enterprise activity. Using data from the Survey of Employers and Self-Employed (SESE) together with panel elements of the Quarterly Labour Force Survey (QLFS) we observe entering as well as exiting informal enterprises in SESE. Within the broader context of labour market transitions in South Africa we describe the flow of individuals into informal enterprise ownership; describing with them the characteristics of the enterprises they establish relative to incumbent firms. We also profile firms which dissolve during the quarter following SESE and comment on the duration of firm entry. Our results suggest that exit is significantly higher among new firms, despite the higher market and employment value of some newly established informal enterprises. At the same time our results suggest clear differences in the transitions between informal enterprise ownership and employment elsewhere in the economy, on the one hand, and non-employed states, on the other. These two situations seem to involve markedly distinct enterprises which reflect the labour market value of their owners. Entrant firms established by previously employed individuals have a higher market and employment value in comparison with incumbent enterprises and those newly established by individuals previously not-working. Despite this, many such firms survive for a short duration.

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1. Introduction

South Africa's National Development Plan places significant economic weight on Small, Medium, Micro-sized Enterprises (SMMEs) as a major source of future economic growth and employment creation (NPC, 2012). For this reason, it is surprising that the role of the informal economy, the location of a major share of South Africa's SMMEs, does not feature in the NDP's chapter on the economy and employment (Fourie 2015). Moreover, the NDP fails to acknowledge the well-known fact that, in comparison with other middle income developing countries, South Africa has a surprisingly low level of informal sector activity; this despite its high level of unemployment (Kingdon & Knight 2003; Rodrik 2008).

Despite the known economic significance of the informal sector, very little research exists on South Africa's informal enterprises and enterprise owners (Fourie, 2012, 2015; Fourie & Kerr 2015). This paper adds to the literature and policy debate on the informal sector by investigating entry and exit from informal enterprise ownership using data from the Survey of Employers and Self Employers (SESE) together with the rotating panel from the Quarterly Labour Force Survey (QLFS). While the QLFS panel allows us to observe transitions in the labour market (entry and exit from informal enterprise ownership), the SESE data provides more detailed information on the enterprises associated with the enterprise owners as well as the characteristics of owners.

We make use of the panel data to observe entry and exit from informal enterprise ownership; defined as the state of self-employment within the informal sector, i.e. the ownership of a firm/enterprise (with or without employees) which is not registered for VAT or income tax. In particular, we focus on whether there are significant differences between enterprise owners, as well as the enterprises they establish, who make transitions to and from working versus 'not-working' states. After summarising the extent of such transitions, relative to other labour market states we analyse entry and exit from the Q3:2013 informal enterprise sample; the sample surveyed in the SESE.

Our results show that while there are more transitions among informal enterprise owners than the formally employed and not-economically-active, they are the most stable of the more 'vulnerable' states (unemployed and informal sector employed). We find that entry and exit from informal enterprise ownership into 'working' and 'not-working' states involve markedly distinct enterprises which reflect the labour market value of their owners. We show that entrant firms established by previously employed individuals have a higher market and employment value in comparison with incumbent enterprises and those that are newly established by individuals previously not-working. However, despite this, the short duration of all new enterprises means that a large share of these new owners re-enter the labour market into another working or 'not-working' state.

The paper proceeds as follows. We provide an overview of the South African literature which highlights three distinct literatures: the labour market literature on the informal sector and that on barriers to entry in the informal sector, and the informal enterprise literature. Our analysis goes on to present and discuss a series of transition matrices, showing movements between all possible labour-market/employment states but with a particular focus on informal enterprise ownership. We decompose these transitions, which highlights the churning among individuals outside of employment. We then model entry and exit using a discrete choice approach, as well as profiling entrant and incumbent firms in the SESE sample. In the conclusion we pull together our findings.

2. South African literature

In the post-2008 financial crisis period, South Africa's official unemployment rate (strict definition) has remained steady around 25 per cent while real economic growth has stagnated. Banerjee et al. (2008) have argued that this unemployment rate could be an equilibrium rate. A puzzle then, is how such a high unemployment rate can co-exist with such low informal sector activity (Bargain & Kwenda 2011). Recent estimates by Statistics South Africa suggest that informal sector employment makes up approximately 17% of total non-agricultural employment in South Africa (StatsSA 2016). The international KILM dataset records the share of total non-agricultural employment in the informal sector for South Africa as 17.8% (in 2010) compared with 22.4% in Brazil and 35% in Mexico (in 2011).

This question has become the topic of a number of labour market papers, beginning with Kingdon and Knight (2003). Much of this literature concerns itself with evidence for or against the segmented labour market hypothesis (Harris & Todaro 1970) and from it has emerged a number of studies focused on barriers to entry in the informal economy. This

literature is focused on the agency of the individual (employer or employee). A second branch of the informal-sector literature places the emphasis then on the enterprise itself. This literature focuses on informal and/or Small, Medium and Micro-sized Enterprises (SMMEs) with analysis geared towards understanding survival rates and the employment potential of the enterprises (Fourie and Kerr 2015).

Much of the labour market literature is focused on identifying wage-gaps between the formal and informal sector with the argument being that a significant wage-gap supports the segmented labour market hypothesis (Kingdon & Knight 2003; Heintz & Posel 2008; El Badaoui et al. 2008; Bargain & Kwenda 2011; Bargain et al. 2012; Bargain & Kwenda 2014; Leibbrandt et al. 2016). These studies address the issue of informal sector activity through the lens of wage-gaps between wage employment in the formal sector and wage/self-employment in the informal economy. A significant wage-gap would suggest that these labour markets are segmented due to reasons that could include over regulation in the formal economy, inter alia. While, earlier studies largely supported the segmented labour market hypothesis (Kingdon & Knight 2003; Cichello et al. 2005; Heintz & Posel, 2008) newer empirical studies have brought it once again into question (Bargain and Kwenda 2011,2014; El Badoui et al. 2008). A recent study by the authors, which makes use of the SESE enterprise data, suggests that the wage-gap between formal wage-employment and informal self-employment may be much larger than estimated when one considers the impact of mis-reporting and measurement error (Leibbrandt et al. 2016).

A number of location-specific studies investigate barriers to entry in some of the country's larger metropolitan areas, but are limited to cross-sectional studies (Lund & Skinner 1999; Chandra et al. 2002; Cichello et al. 2005; Skinner 2005; Charman & Petersen 2014; Ranchhod 2016). These localized studies use data collected by location-specific informal enterprise surveys in Cape Town, Johannesburg and Durban respectively. Cichello (2005) engages with Kingdon & Knight (2003) and Cichello et al. (2005) which both highlight barriers to entry in the informal sector as possible causes for high unemployment. They find that credit constraints are the primary barrier to entry in the informal sector. More recently, Cichello et al. (2011) has found that crime is the single greatest deterrent of informal sector entry, using a longitudinal database from Cape Town, South Africa.

Fourie and Kerr (2015) argue for a shift towards an enterprise approach in understanding the dynamics of the informal sector. They highlight the work of Liedholm & McPherson (1981) and Berry et al. (2002) as the first studies on South African informal enterprises from this perspective. Linked to the enterprise approach are studies focused on entrepreneurship in

South Africa, which includes work done by the Global Entrepreneurship Monitor (Ligthelm 2008; Wong et al. 2005). Studies on entrepreneurship and business development find that South Africa also has the lowest level of “enterprise dynamism” in the region (GEM, 2012). Finally, there is the literature which focuses on linkages between the informal and formal sectors (Carr and Chen (2002), Devey et al. (2006), Chen (2007), and Altman (2008)); however, these studies are not specifically based on enterprise level data.

To the authors’ knowledge this is the first informal sector paper that focuses on transitions in and out of informal sector enterprise ownership in South Africa. The paper locates itself at the intersection of the informal sector labour market literature and the informal enterprise literature. However, for reasons related to the data we model entry and exit of enterprise ownership, but not enterprise ‘birth’ and ‘death’. The analysis is therefore primarily based on the agency of the individual owner.

3. Data and Definitions

3.1 Data sources

Our analysis is based on data from the QLFS from the second, third and fourth quarters of 2013 together with the 2013 SESE. The SESE is administered every four years in conjunction with a QLFS (e.g. the 2013:Q3 QLFS) with the purpose of measuring the size of the informal sector in South Africa (for more information on SESE’s rationale, objectives and key variables see Fourie and Kerr (2015)). Survey participants are sampled directly from the QLFS sample: any individual who reports owning a business (or source of self-employment as identified in the QLFS) is automatically selected into a second survey. Of this sample, only owners of enterprises which are self-identified as not registered for VAT are asked to complete the SESE survey. The secondary survey normally takes place between one and two weeks after the individual was originally surveyed in the QLFS (StatsSA, 2014).

The SESE was designed as a representative sample of informal enterprise owners while collecting vital information on the enterprises themselves. It is neither a representative sample of informal enterprises, as it is derived from a household sampling frame, nor a representative labour force survey of the informal sector, as it does not collect information on employees of informal enterprises (outside of the number of employees employed by enterprise owners).¹ However, because it is a secondary survey of the QLFS, all enterprise owners

¹ The SESE is the second stage of a 1-2-3 survey/sampling method, with the QLFS as the first stage (for more details see Fourie and Kerr (2015). As of yet there is no stage 3 survey.

observed in the SESE survey can be matched one-to-one with their corresponding observations in the QLFS. This opens up a number of avenues for investigation. For example, one can compare reported self-employment earnings in the QLFS with a number of profit/earnings measures collected by the SESE.²

The QLFS contains a 25 per cent rotating panel, which means that a share of the enterprise owners in the 2013 SESE and Q3 QLFS are also observed in the 2013 Q2 and Q4 QLFSs. Using the linking files provided by StatsSA we are able to construct three balanced panels: Q2-Q3 (n=25737), Q3-Q4 (n=25943), and Q2-Q3-Q4 (n=15490).³ Our samples is limited to all adults aged 20-55. While the official working-age definition in South Africa is 15-64, we exclude those under 20 and over 55 from the sample to avoid transitions related to school enrolment and retirement (this is in accordance with Cichello et al. 2014; Essers 2014).

The 2013 SESE has n=1996 participants (owners) representing 2031 non-VAT-registered firms (35 participants own two businesses⁴). All individuals in the 2013 SESE are also in the 2013:Q3 QLFS and can be matched using the unique household and individual identifiers provided by StatsSA. However, the QLFS only records information on a participant's 'main job' and for some of the SESE participants their primary source of employment is not recorded as 'self-employed' in the QLFS. Although, this is small number and only concerns 19 of the 1996 enterprise owners in SESE. This is a problem as we wish to identify entry and exit from informal enterprise ownership. While we are able to observe if an individual has more than one source of employment in the QLFS we have no way of matching these additional sources between surveys. The limitations this has for our analysis are discussed below.

3.2 Defining informal enterprise ownership entry and exit

This analysis hinges on an accurate identification of entry and exit from informal enterprise ownership using the aforementioned QLFS and SESE datasets. From the perspective of the enterprise owner, entry into informal enterprise ownership resembles a labour market transition, while from the enterprise perspective it may resemble the 'birth' of a new firm (and similarly for ownership exit and firm 'death'). Most of the time, both types of steps/decisions

² Leibbrandt et al. (2016) find the difference between the two earnings distributions to be very large, suggesting that the informal sector wage gap may be larger than that estimated by a number of studies based solely on the QLFS wage/earnings data.

³ As the QLFS does not assign each participant a unique time-invariant identifying number, one can only construct balanced panels using consecutive quarters. Nevertheless, this is not a major concern for the topic at hand, as we are more interested in consecutive period transitions in and out of the SESE sample.

⁴ The firm characteristics used are those which match the firm described in the QLFS best.

occur simultaneously. It is important that we clearly define each of these transitions and how they may relate to one another.

We define entry into informal enterprise ownership as the observation of an individual whose primary source of employment (as recorded by the QLFS) in period t is informal enterprise owner while their primary source of employment in a previous period $t-1$ is not; exit is defined correspondingly. An informal enterprise owner is someone who is self-employed as owner-operator of an informal enterprise, where the recorded enterprise is not registered for VAT and its owner and employees (if any) not registered for income tax.⁵ This definition aligns itself with the South African and International Labour Organisation's definition of the informal sector as: (a) "[e]mployees working in establishments that employ less than five employees and do not deduct income tax from their salary or wage"; and (b) "[e]mployers, own account workers and persons helping unpaid in their household business who are not registered for either income tax or value-added tax" (Quarterly Labour Force Survey 2008).⁶

We situate informal enterprise ownership in the following spectrum of states of employment or labour market participation: (1) formal-sector wage employed; (2) public sector employed (including civil servants); (3) formal enterprise owner; (4) employed by a private household⁷; (5) informal-sector wage employed⁸; (6) informal enterprise owner; (7) unemployed (searching); (8) unemployed (not searching⁹); (9) not-economically-active. For Section V onwards we group states (1)-(5) together as 'working' and states (7)-(9) as 'not-working'.

This definition is designed to work around the limitation of the QLFS's 'main job' restriction. The restriction prevents us from knowing whether or not the individual owned the enterprise while working for someone else for a wage in a previous quarter, for example. Moreover, if in a period after we observe them exit informal enterprise ownership we cannot tell

⁵ We made a few small changes to the downloadable data's original informal-sector variable which included switching some wage employed individuals working in small businesses from formal to informal on the basis that if they did not know whether they were registered for income tax they were more than likely not.

⁶ Under this definition approximately 7 per cent of the SESE sample is defined as formal enterprise owner due to the fact that the owner pays income tax. Research has shown that formal and informal enterprise owners differ on a number of characteristics, not excluding occupation (Leibbrandt, Lloyd and Piraino 2016).

⁷ In South Africa a large portion of the labour force is employed by private households in some form of domestic service. This is a relatively well documented and now regulated industry (Hertz 2005; Dinkelman & Ranchhod 2012).

⁸ Not to be confused with *informal employment*, which relates more to the legal and contractual nature of employer-employee relationship and the receipt of employee benefits.

⁹ This group is often referred to as the 'discouraged unemployed'. Subjective well-being evidence would suggest that in the South African context this group is not to be associated with voluntary unemployment (Lloyd & Leibbrandt 2013; Kingdon & Knight 2003).

if that same business is still being run on the side. However, this is only an issue when there is another source of employment, but when someone transitions to a state of unemployment, we know that the period of informal enterprise ownership has ended.

Among unregistered or incorporated enterprises it difficult to distinguish between the firm and the individual. In particular, consider the case of own account workers. If an self-employed individual with no employees transitions out of informal enterprise ownership it necessitates an exit of the 'firm' from that particular market. However, the activities of the enterprise may continue under someone else's ownership. Thus, it is difficult to tie entry and exit from informal enterprise ownership to enterprise 'birth' and 'death'. For example, a previously wage-employed individual may take over a relative's small retail business (OECD 2002; Johnson 2008). Firm 'birth' and 'death' necessitates a net change in the number of firms in a particular market. Unfortunately, the extent to which firm entry (exit) does not involve firm birth (death) is difficult to measure with the data at hand.

The data at hand enables us to observe transitions in and out of informal enterprise ownership using the above definition of entry and exit. The sample of adults aged 20-55 is divided into the noted 9 labour market states from which to observe transitions between quarters of the QLFS panels. These various states enable us to observe the previous employment states of new enterprise owners, as well as the future state of those who leave. Moreover, using the additional information provided by the SESE we are able to consider more detailed enterprise characteristics associated with enterprise ownership entry and exit either side of Q3:2013. While one cannot draw a direct link between enterprise ownership entry/exit and firm birth/death, the characteristics of the exiting enterprises maybe shed light on factors associated with birth and death of informal enterprises.

4. Transitions between labour market states in the 2013 Q2-Q3 and Q3-Q4 panels

There is no single path to informal enterprise ownership. The decision to establish a firm and/or become an enterprise owner in the informal sector could arise from being unemployed with low prospects of future employment. Similarly, a unique and profitable (in expectation) opportunity may present itself to someone already employed. It is also true that those who enter informal enterprise ownership do not do so with the same intentions. For some, their enterprise may be a necessary means of survival upon losing a job or while they wait to find employment elsewhere, while for others the intention may be entrepreneurial. Grimm et al. (2012: 1353) draw such a distinction between survivalist and growth-oriented enterprises.

Later, in Section 5 we focus our attention on the informal enterprise owner sample. However, that sample is small and has limited transitions. For this reason, in this section we provide a broader context to these transitions, i.e. the network of transitions between not-working and working states, amongst which is enterprise ownership (both informal and formal). In particular, we show that mobility (quarter-to-quarter transitions) among informal enterprise owners is relatively high relative to formal sector employed and not-economically-active, but stable relative to the more vulnerable states of informal wage employment and unemployment. The majority of transitions from or into informal enterprise ownership occur in relation to a not-working state. This sheds light on the fragility of the sector relative to formal states of employment in the economy. At the same time though, there appears to be significant differences in mobility observed among informal enterprise owners over time, suggesting that there may be business cycle factors or seasonal factors which affect the decision to enter or exit informal enterprise ownership.

4.1 Transitions between sectors of the labour market

The following transition matrices for the Q2-Q3 (Table 1) and Q3-Q4 (Table 2) samples provide an overview of transitions between sectors of the labour market for the entire sample. As an example, row 6 column 7 of Table 1 states that of the Q2 informal enterprise owners 8 per cent were unemployed (searching) in Q3 of 2013, while 2.2 per cent of the Q3 unemployed were primarily informal enterprise owners in Q2.

We use the term ‘mobile’ (and ‘mobility’) to describe individuals who transition between states (as observed by the off-diagonal sample in a transition matrix). Similarly, ‘immobile’ refers to individuals who remain in the same state (as observed by the diagonal sample in a transition matrix). It is important to note that while the term ‘mobile’ can have specific economic meaning in the economics literature, and is often associated with the economic improvement, its use here is void of any such association and is merely used to describe transitions (or lack therefore) between labour market states. For example, high immobility among the employed may be a sign of good job security, while immobility among unemployed may reflect a lack of employment opportunities.

Tables 1 and 2 show that immobility (i.e. no status change) between quarters is relatively higher among those employed in formal wage positions, the public sector, private households, and formal self-employment. While 81 per cent of the formal self-employed remained owners of formal sector enterprises between Q2 and Q3, only 69 per cent of Q2 informal

enterprise owners maintained their status in Q3¹⁰. Equally, the informal enterprise ownership is the most stable out of the more vulnerable labour market states: those in the informal sector and those unemployed. Not including the not-economically-active, informal enterprise owners have a level of mobility closest to that of the formal-sector wage and self-employed.

Mobility (status change) between periods is highest among the informal wage employed and discouraged workers (non-searching unemployed): 33.1 per cent and 45.2 per cent respectively (31.3 per cent and 46.4 per cent in Table 2). Approximately 56 per cent of informal-sector wage employees retained that status one quarter later, while 22.8 per cent of the informal sector wage employed entered wage employment in the formal sector. Of those that exit formal-sector wage employment (approximately 13 per cent), the largest share (3.4 per cent) went into wage employment in the informal sector; a similar share joined the searching unemployed. Of the Q3 informal-sector wage employed, 22.1 per cent entered from formal-sector wage employment (almost matching the reverse flow of 22.8 per cent).

This analysis covers short periods. Nonetheless it suggests that there is more movement between wage employing jobs (from the formal to informal sector, and vice versa), than from wage employment to self-employment in either the formal or informal sector. This is not surprising given the difference between the decision to search for employment and that to start a business, without even considering the barriers to entry to starting a business. For this reason, the lack of transitions between wage employment and self-employment may be indicative of a distinct set of observable and unobservable individual specific characteristics (such as risk-aversion or education) which determine this decision, in addition to market-related entry barriers, such as capital constraints.

The Q3-Q4 balanced panel transitions in large part shows a very similar pattern to transitions in Table 2. However, Table 2 allows us to identify the exit pattern of the Q3 informal enterprise owner sample: the sample selected for the secondary SESE survey. Of this sample, 77.8 per cent remained informally self-employed in Q4, 14 per cent were no longer employed in Q4 while 8.2 per cent were employed elsewhere. Almost 60 per cent of these transitions from informal enterprise ownership in Q3 were into a state of not-working.

¹⁰ This figure seems a bit low for formal enterprise owners. Considering the types of enterprises represented by this category (i.e. self-employed professionals) one would expect a higher level of immobility. One factor which may lend itself to explaining this is our decision to define non-VAT registered enterprise owners who pay income tax as formal enterprise owners. The 'main job' reporting may also increase the noise in this variable.

Table 1: Employment sector transitions between Q2 and Q3, 2013. (Row proportion reported above column proportion.)

		2013:Q3 STATUS								Total	
		Formal wage	Public sector	Formal ent. owner	Private HH	Informal wage	Informal ent. owner	Unemployed	Discouraged		NEA
2013:Q2 STATUS	Formal wage	87.7	1.7	0.3	0.3	3.4	0.4	3.3	1.1	1.8	100.0
		86.0	5.3	4.5	2.1	22.1	2.3	5.4	4.0	2.2	27.9
	Public sector	7.4	87.6	0.2	0.2	1.0	0.4	1.7	0.7	0.9	100.0
		2.3	88.3	0.9	0.4	2.0	0.9	0.9	0.8	0.4	9.0
	Formal ent. owner	7.1	0.2	80.8	0.1	1.2	7.1	1.3	0.6	1.6	100.0
		0.5	0.1	82.6	0.0	0.6	3.2	0.2	0.2	0.2	2.1
	Private HH	3.7	0.3	0.0	86.1	1.7	0.6	3.3	1.8	2.5	100.0
		0.5	0.1	0.0	82.1	1.6	0.6	0.8	0.9	0.4	4.0
	Informal wage	22.8	2.5	0.3	1.8	56.6	2.3	7.1	3.7	2.9	100.0
		3.2	1.1	0.6	1.7	52.6	2.1	1.6	1.9	0.5	4.0
	Informal ent. owner	3.5	0.7	3.5	1.2	3.5	69.3	8.0	3.3	7.0	100.0
		0.6	0.4	8.4	1.3	3.8	72.9	2.2	2.0	1.5	4.8
	Unemployed	6.5	1.4	0.2	1.7	2.2	1.8	66.9	7.6	11.8	100.0
		4.1	2.7	1.7	7.1	9.3	7.2	70.2	17.8	9.4	18.1
	Discouraged	4.4	1.1	0.1	1.0	2.0	2.6	16.0	54.8	18.0	100.0
		1.2	0.9	0.4	1.8	3.5	4.3	7.1	53.7	6.1	7.6
NEA	2.0	0.4	0.1	0.7	0.9	1.3	9.0	6.5	79.2	100.0	
	1.6	1.1	1.0	3.5	4.5	6.6	11.7	18.8	79.3	22.5	
Total	28.5	8.9	2.0	4.2	4.3	4.5	17.2	7.8	22.5	100.0	
Observations	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	25737										

Own calculations using the QLFS Q2-Q3 balanced panel and panel weights supplied by StatsSA.

Table 2: Employment sector transitions between Q3 and Q4, 2013. (Row proportion reported above column proportion.)

		2013:Q4 STATUS								Total	
		Formal wage	Public sector	Formal ent. owner	Private HH	Informal wage	Informal ent. owner	Unemployed	Discouraged		NEA
2013:Q3 STATUS	Formal wage	87.8	2.2	0.3	0.4	2.8	0.4	3.5	1.1	1.6	100.0
		86.5	6.8	3.8	2.8	19.4	2.3	5.8	4.4	2.0	28.4
	Public sector	5.6	90.5	0.1	0.1	0.9	0.1	1.0	0.5	1.3	100.0
		1.8	89.2	0.5	0.2	2.1	0.1	0.5	0.6	0.5	9.2
	Formal ent. owner	3.6	0.2	83.8	0.0	1.1	9.7	0.5	0.0	1.0	100.0
		0.2	0.0	82.3	0.0	0.5	3.9	0.1	0.0	0.1	2.0
	Private HH	3.0	0.3	0.0	83.7	2.0	1.2	4.2	2.1	3.5	100.0
		0.5	0.1	0.0	83.8	2.1	1.0	1.0	1.3	0.7	4.3
	Informal wage	24.3	2.1	0.4	1.8	54.8	3.2	6.8	3.1	3.5	100.0
		3.5	1.0	0.8	1.8	56.7	2.7	1.7	1.8	0.6	4.2
	Informal ent. owner	2.2	0.1	3.9	0.3	1.7	77.8	5.2	3.1	5.7	100.0
		0.4	0.0	9.1	0.3	2.0	74.4	1.4	2.1	1.2	4.7
	Unemployed	7.0	0.8	0.2	1.7	2.0	1.8	68.7	5.8	12.0	100.0
		4.3	1.5	2.1	6.9	8.6	6.6	71.6	15.0	9.5	17.8
	Discouraged	4.3	1.0	0.0	1.0	2.5	2.0	15.9	53.6	19.7	100.0
		1.1	0.8	0.1	1.7	4.5	2.9	6.6	54.6	6.2	7.1
NEA	2.3	0.2	0.1	0.5	0.7	1.3	8.6	6.3	79.8	100.0	
	1.8	0.6	1.3	2.5	4.1	6.1	11.3	20.3	79.3	22.4	
Total	28.8	9.4	2.0	4.3	4.0	4.9	17.1	7.0	22.6	100.0	
Observations	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	25943										

Own calculations using the QLFS Q3-Q4 balanced panel and panel weights supplied by StatsSA.

In Table 1 there is a higher share of exit than entrance from informal enterprise ownership (the sectors share went from 4.8 per cent to 4.5 per cent - given by the total rows and columns), while in Table 2, the reverse is the case (4.7 per cent to 4.9 per cent). Total immobility for the informal enterprise owners (the proportion who remain in the same position as depicted by the row percentage of the diagonal cell) is also higher (77.8 per cent) in Table 2 relative to Table 1 (69.3 per cent). These differences may point to a degree of seasonality or business cycle fluctuations in the informal sector which are independent of other sectors.

4.2 Transition matrix decomposition

The above transition matrices can be partitioned into different sub-groups (as demonstrated by the colour coding). Total immobility (i.e. stability) can be measured as the share of the sample that lies along the diagonal in the transition matrix (as coded red). Total mobility is therefore the complement of this (i.e. 100 - total mobility) and can be further decomposed into mobility within 'working' (e.g. a transition from working as a formal-sector employee to an informal-sector enterprise owner), mobility within 'not-working', upward transitions from not-working to working, and downward transitions. This decomposition is therefore a way to summarise the larger matrices observed in Tables 1 and 2 (though with informal enterprise ownership as such not being visible). These decompositions are shown in Table 3 for the above samples, including a separate decomposition by gender.

Table 3: Decomposition of mobility index by employment status

Panel	Sample	Immobility			Mobility					Obs.
		Overall	Within 'working'	Within 'not-working'	Overall	Within 'working'	Downward	Within 'not-working'	Upward	
Q2-Q3	Total	0.772	0.431	0.341	0.228	0.049	0.038	0.096	0.045	25737
	(Relative)		56%	44%		21%	17%	42%	20%	
	Male	0.765	0.371	0.394	0.235	0.040	0.035	0.114	0.047	14011
	Female	0.780	0.493	0.287	0.220	0.059	0.042	0.077	0.044	11726
Q3-Q4	Total	0.783	0.444	0.339	0.217	0.046	0.037	0.090	0.043	25943
	(Relative)		57%	43%		21%	17%	41%	20%	
	Male	0.777	0.387	0.391	0.223	0.039	0.035	0.108	0.041	14200
	Female	0.790	0.504	0.286	0.210	0.054	0.038	0.072	0.046	11743

Own calculations using the 2013 QLFS Q2-Q3 and Q3-Q4 balanced panels and panel weights provided by StatsSA.

Comparing the decompositions of the Q2-Q3 and Q3-Q4 balanced panels, we see that the decomposition is relatively stable across time. Total immobility (measured by the share of individuals along the diagonal of the transition matrix) is approximately 78 per cent, with total mobility around 22 per cent in both periods. This is relatively high, as it suggests that over a fifth of adults aged 20-55 find themselves in a different labour market position in the

next 3 months. This in turn is suggestive of a labour market with high job turnover and a large quantity of temporary or casually employed.

Approximately 56% of total immobility is made of up individuals who remain in a 'working' state, while 44% reflect those remaining in the same 'non-working' state. It is important to note that while stability of employment may be a positive sign, immobility in unemployment is not: 34 per cent of the sample remained in their non-working state one quarter later in both panels. Approximately 21 per cent of this mobility is explained by transitions between different forms of employment, while 42 per cent is explained by transitions between unemployment and non-economic activity. Moreover, 20 per cent of this mobility is upward in direction and 17 per cent downward, suggesting a net upward transition of approximately 6.5 per cent of the working age population. This means that approximately two-thirds of those who exit a 'not-working' state end up in another 'not-working' state, while only a third move upward into employment.

Quarterly mobility in the South African labour market is high. It is highest among the 'discouraged' unemployed and informal wage-employed. Relative to sectors, informal enterprise ownership has a high level of mobility (entry/exit) (Table 3). Moreover, while the measures of mobility are relatively stable for other sectors over the 6-month period, it varied more for informal enterprise owners. This suggests that seasonal or business cycle factors may affect informal enterprise ownership entry and exit, but longer time series would be needed to confirm this. Finally, of the 'working' states, informal enterprise ownership has the highest share of transitions from and into 'not-working' states, but is the most stable among more 'vulnerable' labour market states.

5. Entry into and exit from informal enterprise ownership

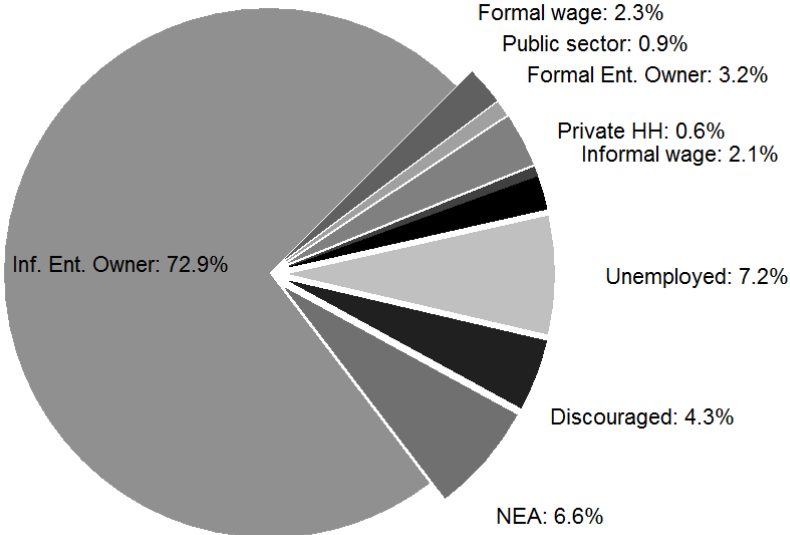
Section 4 provided the broader context for further investigating entry and exit from informal enterprise ownership. We now focus on the informal enterprise sample, and in particular the 2013:Q3 sample which includes enterprise owners observed in the SESE. Section 5 begins by revisiting the two panel samples used in Tables 1 and 2 focusing on the Q3 informal enterprise sample, and then briefly investigates the longevity of new entrants using the Q2-Q3-Q4 panel. Thereafter, we separately investigate entry and exit using the Q2-Q3 and Q3-Q4 panels. These later subsections include both summary statistics and regression analyses.

5.1 Transitions into and from informal enterprise ownership

Figures 1 and 2 provide a visualization of the entry and exit from the Q3:2013 sample. The percentages reported in figure 1 correspond to the second set of percentages reported in column 6 of Table 1. Figure 1 therefore visualizes the share of new entrants relative to in-

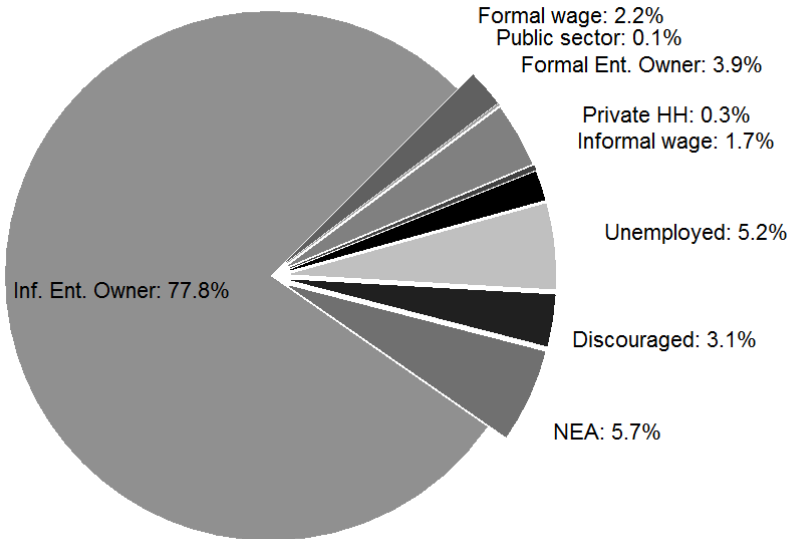
cumbent informal enterprises in Q3:2013 using the Q2-Q3 panel. The percentages reported in figure 2 correspond to the first set of percentages reported in row 6 of Table 2. Figure 2 visualizes the share of Q3:2013 informal enterprise owners which exited informal enterprise ownership by Q4:2013.

Figure 1: Entry into informal enterprise ownership in Q3:2013



Constructed using the Q2-Q3 balanced panel and relevant panel weights provided by StatsSA. N=1184

Figure 2: Exit from informal enterprise ownership in Q3:2013



Constructed using the Q2-Q3 balanced panel and relevant panel weights provided by StatsSA. N=1222

It is striking how similar the picture of entry and exit is in terms sector movements. As previously mentioned, the majority of movement (entry and exit) occurs between informal enterprise ownership and other ‘non-working’ states. Among the working states there is a fair bit of movement between informal and formal enterprise ownership. It is not clear whether this depicts a definite change in activity by the enterprise owner regarding taxation or merely a change in reported behaviour.

It is this higher proportion of transitions between informal enterprise ownership and ‘not-working’ states than working states which motivates our central hypothesis that informal-enterprises established by previously ‘working’ individuals are in some way distinct from those established by individuals transitioning from a state of not-working. Moreover, do these respective groups of enterprises have different economic value/potential, and does short-term (3 month) owner duration differ markedly between these groups?

Neither Tables 1 and 2 nor Figures 1 and 2 reveal the relationship between new entrants in Figure 1 and leavers in Figure 2. What share of new entrants between Q2 and Q3, are those observed as leavers between Q3-Q4? For this we briefly turn to the Q2-Q3-Q4 balanced panel. Table 4 depicts a transition matrix of the Q2 and Q4 statuses for the Q3 informal enterprise owner sample. This provides a picture of a six-month transition period. Due to the dramatic decrease in sample size (from 1184 in Figure 1 and 1222 in Figure 2 to 720 in Table 4), we treat all transitions from or to another ‘working’/‘not-working’ state equally. Note, the table does not report row and column percentages as in Tables 1 and 2, but rather row and cell percentages. For example, the first figure in row 1 at column 3 tells us that, of those who entered informal enterprise ownership from a different ‘working’ state in Q2, 8.2 per cent were not-working by Q4; while the second figure tells us that this groups represents 2.9 per cent of the Q3 informal enterprise owner sample. The table is therefore a depiction of the short term (6 month) duration of new firms in particular, in the Q3 enterprise owner sample.

Table 4: The 2013:Q3 Informal Enterprise Owner Sample’s Q2 and Q4 Statuses

Q2 Status	Q4 Status			Total
	Working	Inf. Ent. Owner	Not Working	
Working	34.43	57.38	8.2	100
	2.92	4.86	0.69	8.47
Informal Ent. Owner	4.88	86.72	8.4	100
Not Working	3.47	61.67	5.97	71.11
	4.76	55.1	40.14	100
	0.97	11.25	8.19	20.42
Total Observations	7.36	77.78	14.86	100
	720			

Row proportion reported above cell proportion.
Own calculations using 2013 QLFS Q2-Q3-Q4 balanced panel. Unweighted.

Table 4 shows that over a third (34 per cent) of all those who entered informal enterprise ownership from another 'working' state in Q2:2013, exited informal self-employment for another source of employment by Q4:2013. Recall, that this should be interpreted as a change in "main job" status, and may not exactly depict a discontinuation of the enterprise. Nevertheless, it is striking that 43 per cent (34.4 + 8.2 per cent) of new enterprise owners who were previously working exited informal enterprise ownership by Q4. In the case of a transition to unemployment, this is in fact a discontinuation of the enterprise. Thus, only 57 per cent (row 1, column 2) of enterprises started between Q2 and Q3 by previously employed individuals were still active in Q4.

Similarly, 55 per cent of those enterprises that were established by individuals in a 'not-working' state in Q2 were still active in Q4. This is striking, as it suggests that the short-term survival of these enterprises may not be very different from those of previously 'working' enterprises. Moreover, while the majority of firms established by previously employed individuals left for another source of employment (row 1, column 1), the clear majority of enterprise owners who established an enterprise from a state of not-working in Q2 returned to a state of not-working in (row 3, column 3). This suggests a pattern in which just over 55 per cent of new enterprise owners remain in operation for more than 6 months and those who exit after a quarter generally exit into the state they entered from. In section 5.4 we show that earnings may play a more significant role in determining exit into 'not-working' states rather than into 'working' states.

5.2 Factors affecting entry into informal enterprise ownership: a discrete choice analysis

At this point we consider a regression-based approach to assess the factors which may affect the probability of an individual entering into informal enterprise ownership. That is, we compare the base line (Q2) individual and job (when applicable) characteristics of those who entered into informal enterprise ownership in Q3 with those who could have, but did not. The sample is made up of all individuals the Q2-Q3 panel excluding the Q2 informal enterprise owners (i.e. Q3 incumbent informal enterprise owners).

We first consider entry into informal enterprise ownership from both 'working' and 'not-working' states (before modelling them as separate processes). This analysis is somewhat limited by the small number of entrants, as it limits the number of explanatory variables to be examined. We use a probit estimator to model these differences (1 = entrant; 0 = non-entrant).

Table 5: Predicting entry into informal enterprise ownership

	Probit estimates		
	Entry from Working or Not-working	Entry from Not-Working	Entry from Working
Age	0.112*** (0.019)	0.141*** (0.023)	0.115** (0.045)
Age squared	-0.001*** (0.000)	-0.002*** (0.000)	-0.001** (0.001)
Male	0.055 (0.044)	0.064 (0.058)	0.262** (0.104)
Education (yrs)	-0.015** (0.007)	-0.003 (0.009)	0.015 (0.017)
Married	0.075 (0.047)	0.146** (0.060)	-0.098 (0.097)
Urban	-0.443*** (0.046)	-0.465*** (0.058)	-0.246** (0.099)
Informal Sector			0.317** (0.128)
ln(Wage)			-0.121*** (0.044)
ln(Usual hours)			-0.004 (0.129)
Occupation in previous state*			
Management			0.609*** (0.161)
Professional			0.053 (0.252)
Technical			0.007 (0.177)
Clerks			-0.653** (0.328)
Service and retail workers			-0.173 (0.157)
Craft/trade			0.181 (0.140)
Machine operator			-0.559** (0.253)
Domestic Workers			-0.604* (0.335)
Constant	-4.049*** (0.354)	-4.686*** (0.432)	-3.771*** (0.970)
Observations	24,329	13,020	9,848

Own calculations using the QLFS Q2-Q3 balanced panel and panel weights supplied by StatsSA. Standard probit coefficients, not marginal effects, are reported. *Omitted category: elementary worker.

Column 1 of Table 5 shows that geographical location, age and education are significant indicators of selection into informal enterprise ownership. That is to say individuals from a rural area are more likely to enter into informal enterprise ownership. Older individuals (at a decreasing rate) and less educated individuals are also more likely to enter informal enterprise ownership.

Columns 2 and 3 treat entry from a 'working'/'not-working' state separately. For those entering from a 'not-working' state the picture is not very different from column 1, although education is not significant. For those entering from a 'working' state we can control for some of their previous job-characteristics. We control for previous occupation, log of average work hours, log of wage, and an indicator variable for whether or not the individual was previously employed in the informal sector. This last variable just identifies those who were informal wage employed in Q2.

Entrants from a state of 'working' are more likely to be male, while gender is not significant overall (column 1). While living in a rural location is still a significant indicator of entry, it is less economically significant than in column 1 or 2. Individuals employed in informal wage employment are more likely to enter informal enterprise ownership than those employed in the formal sector. This fits with Fajnzylber et al.'s (2006) finding that workers in larger firms are less likely to enter the informal enterprise ownership.

In terms of their prior earnings, we find the entrants earned, on average, lower wages in their prior employment state than non-entrants. This result, which appears to confirm incentive-based behaviour (responding to higher potential earnings in a different sector), differs with studies on informal sector entry in Latin American countries. Fajnzylber et al. (2006) find that, after conditioning on firm size, higher wages increase the likelihood of entry. While we do not control for firm size, our informal sector variable is likely to act as a proxy for firm size. Fajnzylber et al. conclude that this evidence supports the idea that micro-entrepreneurship attracts individuals with high unobserved ability and not 'misfits'.

Consistent with the findings of Fajnzylber et al. (2006), we also find that new entrants into the informal enterprise ownership are more likely to have had management experience in their previous occupation, but are less likely to come from occupations such as machine operation or clerking (valuable labour-market skills, but apparently more for wage employment than entrepreneurship).

5.3 Comparing the profiles of informal enterprise entrants and incumbents

The above analysis is limited by the fact that it compares a small number of entrants with a very heterogeneous group of non-entrants. This makes inference difficult. Thus, we focus now on comparing the characteristics of entrant and incumbent informal enterprise owners. Such a comparison does not fit into a discrete choice model specification; hence, we provide a table of means for incumbent and entrant owners. As before, we distinguish between entrants who were previously working and those who were not.

All firm-specific information is based on data from the SESE. In addition to standard demographic details provided by the QLFS, the SESE provides us with the following variables: whether or not the business employs other individuals (we distinguish between 1-person firms (own account workers) and multi-person firms); total costs (calculated as total of sub-categories); total revenue (calculated); whether or not the owner withdraw money for himself (or household) from the business; level of financial records; details of financial support.¹¹ In addition, we consider the geographical location and type of premises (in household dwelling or not) of the enterprise, as well as the industry in which it operates.

Table 6: Comparison of means for incumbent and entrant owners 2013Q3

	Incumbents	Entrants		
		All	Previously Working	Previously Not-Working
DEMOGRAPHICS:				
Age	40.331 <i>0.438</i>	36.293 <i>0.783</i>	36.912 <i>1.513</i>	36.017 <i>0.904</i>
Male	0.451 <i>0.026</i>	0.366 <i>0.039</i>	0.577 <i>0.071</i>	0.272 <i>0.042</i>
Years of Education	9.051 <i>0.172</i>	9.501 <i>0.237</i>	10.288 <i>0.311</i>	9.151 <i>0.307</i>
Married	0.485 <i>0.026</i>	0.468 <i>0.040</i>	0.461 <i>0.072</i>	0.472 <i>0.049</i>
Urban	0.611 <i>0.024</i>	0.432 <i>0.041</i>	0.617 <i>0.067</i>	0.349 <i>0.050</i>
BUSINESS ACCOUNTS:				
1-person firms (non-employ)	0.807 <i>0.021</i>	0.859 <i>0.027</i>	0.719 <i>0.064</i>	0.922 <i>0.024</i>
Multi-person firms (employing)	0.193 <i>0.021</i>	0.141 <i>0.027</i>	0.281 <i>0.064</i>	0.078 <i>0.024</i>
Total Cost	1402.649 <i>198.638</i>	871.310 <i>176.185</i>	1566.796 <i>456.077</i>	562.161 <i>138.760</i>
Total Revenue	2748.048 <i>259.071</i>	2099.060 <i>296.212</i>	3991.399 <i>562.125</i>	1257.903 <i>315.581</i>
Owner draws income	0.832 <i>0.019</i>	0.700 <i>0.037</i>	0.767 <i>0.059</i>	0.670 <i>0.047</i>
Own wage (if withdrawn)	1520.430 <i>110.139</i>	1314.616 <i>148.672</i>	2146.182 <i>366.046</i>	945.653 <i>116.275</i>
Average Profit	1797.569 <i>155.444</i>	1586.871 <i>343.903</i>	2896.267 <i>835.189</i>	1004.836 <i>301.655</i>
Profit absorbed by Household	0.722 <i>0.023</i>	0.753 <i>0.034</i>	0.672 <i>0.068</i>	0.789 <i>0.039</i>

¹¹ The cost and revenue variables are constructed using detailed answers from the SESE survey regarding a number of expenditures and income sources. Average profit is given as a once-off answer by respondents in the survey. Revenue is calculated as the sum of total turnover and as well as other sources of income. Total costs are calculated as the sum of raw material, supplies, labour and debt expenses. It should be noted that the revenue and profit data in SESE is very similar for a number of firms, which has brought into question the accuracy of the SESE's earnings data.

Accounts Kept	0.193 <i>0.020</i>	0.216 <i>0.034</i>	0.427 <i>0.074</i>	0.121 <i>0.031</i>
Received financial support to start	0.629 <i>0.025</i>	0.568 <i>0.040</i>	0.507 <i>0.072</i>	0.595 <i>0.047</i>
If so, used own money as support	0.791 <i>0.021</i>	0.758 <i>0.036</i>	0.780 <i>0.065</i>	0.750 <i>0.044</i>
<u>BUSINESS LOCATION:</u>				
Home-related location	0.638 <i>0.025</i>	0.725 <i>0.034</i>	0.549 <i>0.071</i>	0.803 <i>0.036</i>
Paid location	0.103 <i>0.016</i>	0.071 <i>0.020</i>	0.192 <i>0.056</i>	0.017 <i>0.012</i>
Location has electricity	0.692 <i>0.025</i>	0.763 <i>0.034</i>	0.700 <i>0.062</i>	0.792 <i>0.041</i>
<u>INDUSTRY:</u>				
Agriculture	0.005 <i>0.002</i>	0.011 <i>0.006</i>	0.011 <i>0.011</i>	0.011 <i>0.007</i>
Manufacturing	0.076 <i>0.010</i>	0.083 <i>0.018</i>	0.138 <i>0.045</i>	0.060 <i>0.016</i>
Construction	0.111 <i>0.013</i>	0.142 <i>0.021</i>	0.187 <i>0.046</i>	0.123 <i>0.023</i>
Wholesale/Retail	0.571 <i>0.022</i>	0.547 <i>0.033</i>	0.428 <i>0.061</i>	0.597 <i>0.038</i>
Transport, Storage, Communication	0.047 <i>0.009</i>	0.051 <i>0.014</i>	0.077 <i>0.030</i>	0.041 <i>0.015</i>
Financial Services	0.048 <i>0.011</i>	0.066 <i>0.017</i>	0.055 <i>0.025</i>	0.070 <i>0.021</i>
Social	0.143 <i>0.017</i>	0.100 <i>0.023</i>	0.103 <i>0.035</i>	0.098 <i>0.029</i>
Observations	498	204	59	145

Own calculations using the 2013:Q3 QLFS and SESE surveys. (Standard errors italicised.)

Comparing columns 1 and 2, we see that entrants on average have a higher level of education than incumbents. They are also younger and a higher proportion are rural and women. With regard to measures of business size, the enterprises established by entrants are smaller on average. That is, fewer entrants employ individuals and their average costs and revenues are lower. It also appears that fewer entrants have, on average, received financial assistance for start-up than incumbent firms. However, fewer entrants tend to withdraw money from the businesses for own expenses, perhaps reflecting the precariousness of the starting phase of an enterprise. A greater proportion of entrants tend to operate outside of the household and fewer use a paid location. Yet, more entrants have a location with access to electricity.

If we now consider columns 3 and 4, together with 1, we see that those entering from a previous position of employment are on average more educated, slightly younger and more often male than incumbent owners, in contrast with columns 1 and 2. They are also more likely to be located in an urban area, but are less likely to be married. In contrast, those

entering into enterprise ownership from a position of non-working are more likely to be female and live in a rural area than other entrants (*and* incumbents).

When we compare the business characteristics of these three groups stark differences emerge. For example:

- Approximately 20 per cent of incumbent firms employ individuals. Approximately 28 per cent of entrants from employment employ individuals to work for them, but only 8 per cent of entrants who were previously non-working, i.e. 92 per cent of entrants from non-employment are own-account workers. Previously-working entrants are more likely to have employees than those entering from non-employment.
- Entrants from 'working' also have on average higher monthly costs, revenue and average profit than incumbent enterprises. Entrants from 'not-working' have on average lower costs and revenues than incumbent firms. These higher costs and revenue may be indicative of the different industries which they occupy. Entrants from 'working' are more likely to be in construction and manufacturing. They also reflect the higher tendency to employ other individuals.
- This is also reflected in the fact that previously working entrants are more likely to start an enterprise that pays for a location outside of the household, while almost all entrants from non-employment run their enterprise from within the household. However, possibly for this reason, previously non-employed entrants are more likely to have a location with electricity.

The finding on location enables us to expand on findings from Fourie & Kerr (2015) regarding factors that increase the likelihood that an enterprise is established and operated as a standalone entity separate from the household. Entrants from employment appear to be more likely to operate a standalone business entity. Such a pursuit is also indicated by owners keeping some type of accounts (see Fourie & Kerr). In our analysis, over 40 per cent of previously employed entrants keep regular records of accounts (in a formal or informal capacity), while only 20 per cent of incumbents and only 12 per cent of previously non-employed keep accounts. These firms are also less likely to let the profits of the firm be absorbed by the household, and therefore either save them or re-invest them into the firm. Finally, enterprise owners entering from outside of employment generally are more likely to enter the retail or wholesale sector, while previously employed entrants more often start enterprises in the construction and manufacturing industries.

These findings support the hypothesis that there are two very distinct profiles of informal enterprise entrants, with those entering the sector from a previous place of employment more likely to establish higher-earning, relatively more self-reliantly-established firms, with

greater employment capacity. This heterogeneity among informal enterprise owners is supported by studies, not limited to Fourie & Kerr (2015), and Makaluza & Burger (2016). Prior employment, also in the informal-sector, serves as a stepping-stone to informal-sector enterprise ownership. This is so despite the fact that the results in Table 5 suggest that lower wages are predictor of selection into informal enterprise ownership from 'working' state. These individuals may therefore reflect relatively 'undervalued' employees in the labour market, who lack the skills or opportunity in the labour market to earn their true marginal product, but actually have entrepreneurial potential (a skill not necessarily valued in the wage-labour market). Entering into enterprise ownership is a better option for them.

5.4 Factors affecting informal enterprise exit: a discrete choice analysis

We now consider exit from informal enterprise ownership. As with our analysis of entry (subsection 5.2. above), we use a discrete choice approach to investigate the decision to exit informal enterprise ownership; once again we distinguish transitions from ownership into a state of 'working' from those into a 'not-working' state. As earlier, due to the limited sample size we are unable to investigate as many explanatory variables as we would wish to and thus focus on a small number of demographic and earnings-related variables.

Columns 1-4 of Table 7 make use of the Q3-Q4 balanced panel drawing on the SESE data for profit and employment information, while columns 5-6 using the Q2-Q3-Q4 panel to add the individual's Q2 status to the model. The first two models (columns 1-2) treat exit into either state in the same way, while columns 3-4 and 5-6 give the results of a multinomial probit model that distinguishes the two destination states between remaining an owner (base category), and exit into a 'working' or 'not-working' state in Q4.

In columns 1 and 2 we estimate the same model, controlling for total revenue and costs in column 1 and average (expected) profit in column 2. The probability of exit appears to decrease with the age of the owner, which may reflect greater outside options for younger individuals and/or the importance of experience in surviving this milieu. In column 1 we find that the probability of exit is negatively related to total revenue, but is unrelated to total cost, which may point to a limited cash flow as primary motivation for exit. In column 2 we show that, as with revenue, the probability of exit is decreasing in average profit. Moreover, these results find that being an employer significantly reduces the probability of exit, i.e. single-person firms (own-account workers) are more vulnerable to exit. Being in an urban area reduces the likelihood of exit.

Table 7: Predicting exit from informal enterprise ownership in Q3:2013

	Probit Exit (All)	Probit Exit (All)	Multinomial Probit Exit to Working	Multinomial Probit Exit to Not- Working	Multinomial Probit Exit to Working	Multinomial Probit Exit to Not- Working
Age	-0.097** (0.049)	-0.093* (0.048)	-0.136 (0.089)	-0.119* (0.070)	-0.143 (0.119)	-0.050 (0.091)
Age squared	0.001** (0.001)	0.001** (0.001)	0.002 (0.001)	0.002* (0.001)	0.002 (0.002)	0.001 (0.001)
Male	-0.101 (0.106)	-0.059 (0.102)	0.322* (0.191)	-0.272* (0.161)	0.232 (0.268)	-0.113 (0.212)
Education (yrs)	-0.022 (0.015)	-0.020 (0.015)	0.081** (0.032)	-0.063*** (0.023)	0.100* (0.052)	-0.043 (0.030)
Urban	-0.195* (0.100)	-0.197** (0.099)	-0.020 (0.185)	-0.411*** (0.153)	-0.059 (0.269)	-0.077 (0.211)
log(avg. profit)		-0.060** (0.029)	-0.056 (0.065)	-0.097** (0.038)	0.039 (0.113)	-0.243*** (0.086)
ln(revenue)	-0.063** (0.030)					
ln(total costs)	-0.015 (0.018)					
Has employees	-0.201 (0.145)	-0.274** (0.130)	-0.225 (0.230)	-0.438** (0.208)	0.065 (0.298)	-0.141 (0.271)
Working in Q2					1.557*** (0.325)	0.634* (0.364)
Not-working in Q2					0.577* (0.341)	1.397*** (0.218)
Constant	1.818** (0.905)	1.579* (0.906)	-0.085 (1.672)	2.252* (1.340)	-1.259 (2.258)	1.078 (1.785)
Observations	1,042	1,042	1,042	1,042	588	588

Own calculations using the QLFS Q3-Q4 and Q2-Q3-Q4 balanced panel and panel weights supplied by StatsSA.

The multinomial probit models (columns 3 and 4) reveal a number of key differences relating to the ‘destination’ of owners that exit an informal business. For those exiting into another working state, enterprise revenues appear to be a significant determining factor. Indeed, a closer analysis of these individuals found that they earned on average more in their Q4 source of employment than their Q3 enterprise earnings. This upward earnings pattern is consistent with the coefficient on education, which shows that those with better education are more likely to exit into ‘working’ rather than ‘not-working’. Moreover, the positive coefficient on male is also indicative of a gender wage premium in the labour market.

The opposite is true for those who exit into an unemployed state; the likelihood of such an exit is higher if an owner is less educated, are in a rural location and is female. Low average profits increase the probability of exit into an unemployed state and exit; this also applies to own account workers (non-employing owners).

In columns 5 and 6 we use the Q2-Q3-Q4 balanced panel to control for an individual's labour market status in Q2, with the idea being to pick up some of the transition dynamics discussed in Table 4. The short nature of the panel, and limited sample size does not allow for the estimation of a full hazard-based, duration model (the probability of exit is related to duration), but controlling for an individual's state in Q2 may shed light on what such a model would find. Columns 5 and 6 show that entry and exit are strongly correlated over time. Those who entered from a state of working are significantly more likely to exit back into a working position. Likewise, those who enter from a not-working state are significantly more likely to return to that state (all within a very short period). The coefficients picture is symmetric, which suggests that a large share of entry and exit occurs among individuals who only recently entered informal enterprise ownership. This is supported by Table 4's results, which show that 57.5 per cent of Q3-Q4 exit is explained by individuals who entered in Q3.

6. Conclusion and discussion

The QLFS rotating panel datasets allow for the tracking of individual labour market labour market behaviours. Our focus in this paper has been on the second, third and fourth quarters of the 2013 QLFS panel. The reason for this focus is the fact that, in the third quarter of 2013, Statistics South Africa followed-up those who, in the QLFS, said that they were employed in informal enterprises and administered the SESE survey, gathering detailed information on these enterprises. By merging together this SESE information with the three quarters of QLFS data, we have been able to describe short-run entry and exit from informal enterprise ownership in South Africa in 2013, within the broader context of the labour market transitions taking place at that time.

We start by taking a broad definition of labour market or 'work' status to investigate all possible positions that individuals hold within and outside the labour market and as owner-entrepreneurs. Overall quarter-on-quarter mobility (change in status) is around 22 per cent. Approximately 40 per cent of this mobility occurs among individuals moving between the 'not-working' states: unemployed, discouraged (non-searching unemployed) and not-economically-active. There is slightly more upward mobility than downward mobility (which reflects positive employment gains) and approximately 4.75 per cent of all individuals aged 20-55 move from one form of employment to another each quarter, as defined by our division of the labour market. Thus the data paint a picture of a labour market that contains a significant amount of churning and mobility, including movements into and out of informal sector enterprises. However, we also highlight the fact that among the more vulnerable informal and unemployed states informal enterprise ownership is the most stable.

We show that approximately two-thirds of all transitions into and out of informal enterprise ownership occur among individuals leaving or re-entering a 'not-working' state. This suggests that the majority of informal enterprise owners enter from and exit to a state of no wage income or employment. That said, one third of the transitions into and out of informal sector enterprises involve movements out of or into other 'working' states. Thus, these dynamics are worthy of attention too. Our signalling of the existence and relative sizes of both of these two components is one contribution from this paper.

Indeed, the detailed work in the paper on these two sets of transitions indicates that there are a number of notable differences in the flow of individuals between (a) non-employment and informal enterprise ownership and (b) working/employed states and informal enterprise ownership. The characteristics of these two groups of individuals as well as the characteristics of the informal enterprises that they own are markedly distinct. They differ on geographical location and gender make up, as well as employment and earnings capacity.

There is one dismal commonality. We find that entry is highly correlated with exit within a very short time frame, regardless of whether this entry is from employment or unemployment (keeping in mind that new/entrant owners comprise a small proportion of the total number of informal-sector owners). That said, entrant owners are significantly more likely to exit back into their previous state and, therefore, the specifics of exit differ markedly across these groups. Those entering from employment have relatively higher earnings and employment capacity in their informal enterprise and yet they tend to return to employment elsewhere in the labour market. It seems that such business owners may not be able to cover their opportunity costs. These dynamics contrast sharply with those who enter from non-employment. They tend to establish smaller businesses, with lower turnovers. This is a precarious situation and their very high exit rates out of informal sector enterprises back into the zero-earnings of unemployment or non-participation seems to imply that their enterprise earnings are not crossing a subsistence level threshold and/or that they are unable to withstand short term losses.

Looking across these details, the informal sector enterprise dynamics that we are able to tease out in the paper seem to imply an important distinction in the South African context between what Grimm et al. (2012) refer to as survivalist and grow-orientated enterprises. In both groups, the rapid exit from informal sector enterprises is highly costly to South African development.

It is sobering to see how a large proportion of prospective new owners slip back into non-employment, having tried to forge a livelihood through an informal sector enterprise. Each

of these individual failures must impose private costs on them and their families that are hard to bear. Given the low absorptive capacity of the formal sector labour market in South Africa, there are huge social costs to such failures. Our analysis suggests an urgent need for a specific policy focus on supporting the vulnerable who are trying to be proactive by making the risky transition out of non-employment into self-employment (ownership) in informal sector enterprises.

The survival of potential growth-orientated enterprises is important too. Viewed statically, if these individuals make a viable, enduring transition into informal sector enterprises from other forms of employment, their previous positions become available to other work-seekers. More dynamically, some of these potential growth-orientated enterprises will survive and evolve, creating employment and income. Thus, this group too should be a target of policy interventions that are directed supporting them in managing the many risks associated with start-up and survival. They may require different, or differently targeted, forms of policy support, though.

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The project is designed to promote dialogue across disciplines and paradigms and to forge a stronger engagement between research and policy making. By generating an independent, rich and nuanced knowledge base and expert network, it intends to contribute to integrated and consistent policies and development strategies that will address these three critical problem areas effectively.

Collaboration with researchers at universities and research entities and fostering engagement between researchers and policymakers are key objectives of the initiative.

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