

SMME Employment in South Africa

Rashaad Amra, Ayanda Hlatshwayo and Landon McMillan¹²

Paper to be presented at the biennial conference of the Economic Society of South Africa, Bloemfontein, 25-27th September 2013

Abstract

The promotion and development of SMMEs is a key policy focus area of South Africa, identified in 1995 with the White Paper on Small Business and most recently in the NDP. The key rationale for the promotion of SMMEs is the potential this sector offers the economy in terms of employment creation. A wide range of policies, policy programs and initiatives have subsequently been initiated in this respect. Given the current policy emphasis on SMME promotion, this paper seeks to shed light on the nature of employment created by SMMEs.

This study utilises the Quarterly Labour Force Survey to investigate SMME employment in South Africa. It analyses the characteristics of individuals employed in SMMEs, both formal and informal. It considers the implications for policies directed towards SMME promotion and employment creation.

JEL Codes:

J21 - Labor Force and Employment, Size, and Structure

J23 - Labor Demand

E26 - Informal Economy;

Keywords:

SMME; SME; small business; micro enterprise; job creation; unemployment; informal economy

¹ Senior Economist, Intern and Chief Director respectively in the Microeconomic Policy unit of the National Treasury's Economic Policy Division.

² The views expressed in this paper do not reflect the views of the National Treasury of the Republic of South Africa

The unemployment challenge in South Africa

South Africa is undoubtedly characterised by high unemployment. Since 1994 South Africa's unemployment levels have increased and persisted in the region of 25%, the most recent official estimate from Stats SA being 25.6% (2Q2013). Unemployment, together with poverty and inequality, has been and still remains one of South Africa's key development challenges. Given the magnitude and importance of this challenge a wide and exhaustive range of studies have been written locally and internationally (see Fourie, 2012). Literature on the subject has considered the relationship between unemployment and a wide range of factors including the role of skills, education, search-costs, discrimination, poverty, labour costs, trade, macro- and sectoral- performance etc.

Along with studies on South Africa's unemployment there have also been a range of policy recommendations and policies implemented to address the country's unemployment challenge. As employment is core to the economy, most policies can invariably be considered policies affecting employment, nonetheless certain policies having a more direct impact on employment can be identified. Policies implemented to increase employment have included; education, skills and training promotion on the supply side and on the demand side; the expanded public works programme, procurement, investment in infrastructure and Broad Based Black Economic Empowerment. In addition to broad policies intended to affect employment on the demand and supply side, there have also been a range of sectors prioritised based on the employment potential of the sector. These have included agriculture, manufacturing, the motor industry and SMMEs. It is the latter that is the focus of this paper.

South Africa's promotion of SMMEs

South Africa has since the advent of democracy prioritized the promotion and development of small, medium and micro enterprises (SMMEs)³. The country's first general economic policy, the Reconstruction and Development Programme (RDP), gazetted in 1994, highlighted that small and medium business, important in developing the economy and creating employment, did not receive sufficient support and struggled to survive. The RDP advocated support for small and medium enterprises for purposes of employment creation, income distribution and growth. The promotion of SMMEs for employment creation and economic development has constituted a recurring policy emphasis in the country's succeeding general economic strategies. This has included the Growth, Employment and Redistribution plan (1998), the Accelerated Shared Growth Initiative for South Africa (2006), the New Growth Path (2010) and most recently in the National Development Plan (2012).

South Africa's 1995 White Paper on small business emphasized the need for government to facilitate access to information and advice for small business, boost procurement from small enterprises and

³ There is no international agreed-upon definition or criteria on what constitutes micro, small and medium enterprises. Definitions differ according number of employees and annual turnover and along industry type. This constitutes a challenge to the study of SMMEs. To allow for the use of cross country studies, this section relaxes the criteria using a "loose" criteria allowing for a range of different country and organization definitions to be used including ; small business, SMEs and SMMEs, these are all referred to small business accordingly.

to improve access to finance and affordable physical infrastructure. The White Paper led to the 1996 National Small Business Act.

Since the passing of the Small Business Act a wide range of policies and programmes have been initiated and implemented to support SMMEs. The rationale for SMME support in South Africa has been two fold. Firstly SMMEs have been considered the engine for economic growth and secondly; of relevance to this study, has been the rationale of job creation.

Early developments included the establishment of Khula Enterprise Finance Limited in 1996. Khula focussed on promoting small business access to finance. At the same time Ntsika was established to provide non-financial support for small business. The Centre for Small Business Promotion (CSBP), which implements and administers the aims of the national strategy small business strategy, was also established. The Department of Trade and Industry later launched its BRAIN (Business Referral and Information Network), which provided basic information and essential service links to entrepreneurs online, and its FRAIN (Franchise Advice and Information Network), which aimed to supply information and support services to individuals on small business. In 2001 the Umsobomvu Youth Fund was initiated to provide access to finance for youth run SMMEs. In 2004 Ntsika was replaced by merging it with the Community Public Private Partnership Programme (CPPP) and the National Manufacturing Advice Centre (NAMAC), to form the Small Enterprise Development Agency (SEDA). SEDA's mandate was to implement government's small business strategy and integrate government-funded small enterprise support agencies across all tiers of government. In 2012 the Small Enterprise Finance Agency (SEFA) was formed amalgamating Khula, SA Micro Finance Apex Fund (SAMAF) and the IDC's small business book. South Africa has also made several amendments to its tax regime to promote small business. These have included tax concession for small business as well as a Venture Capital Company tax allowance to promote investment in small business

In addition to national government initiatives and programmes, a wide range of initiatives have been embarked upon by provincial government, municipalities, NGOs and the private sector. These have included business mentorship, entrepreneurship and skills training, business incubators and the provision of finance.

Given the wide range of initiatives that have been attempted to increase employment through the promotion of SMMEs and the significant public and private resources dedicated towards SMME promotion, it is necessary to investigate SMME employment in South Africa. This study considers SMME employment in South Africa

Literature review: SMMEs and employment

The study of the relationship between SMMEs and employment has traditionally been focussed on the question of whether large firms or SMMEs create more jobs. This is due to a key rationale for SMME promotion, over the past 3 decades, being based on the view that SMMEs are more labour intensive than large firms and thus the growth of the SMMEs would result in higher levels of employment⁴ (Thorsten Beck, Asli Demirguc-Kunt, and Ross Levine, 2003: 2 ; Beck et al : 2003: 1).

⁴ The other key rationale for SMME promotion is based on the view that SMMEs improve economic growth through enhancing competition, entrepreneurship, innovation and efficiency,

The debate can be traced to the early work of David Birch (1979 and 1981). Writing in a context of the US “losing manufacturing jobs” to Japan and consequently needing to create more employment of its own, Birch raised the issue that little was known regarding the process of job creation, in particular he stressed that it was not known whether it was small or large firms which contributed more significantly to employment creation. The answer to this question had considerable implications for economic policies and the nation’s ability to create jobs. Answering this question would allow for more efficient allocation of scarce resources in terms of which firms, small or large, should be targeted for support to create employment. Birch stressed that the gap between understanding the micro and macro was a serious shortcoming affecting the ability of the state to provide policies that would develop jobs. Aggregating a rich data set on 4 million businesses, representing over 80% of total recognized (formal) establishments in the US Birch and his team looked at net new job creation across small and large businesses. Birch found that between 1969 and 1976 over two thirds of total net new jobs created were by small firms (fewer than 20 employees), whilst large corporation appeared to be stagnant (Birch, 1979: 17). Birch also found that small firms were more likely to employ youth.

Following Birch’s seminal work, and arguably its real impact on economic policies, there emerged a body of literature criticising and contesting Birch’s findings. These included; Brown, Hamilton and Medoff (1990); Davis, Haltiwanger and Schuh (1996) and; Haltiwanger, Jarmin and Miranda (2013). For the South African context Kerr, Wittenberg and Arrow (2013) find that large firms contribute more to net employment growth than small firms. At the same time other studies emerged confirming Birch’s finding of a negative relationship existing between firm size and net employment creation. These included the work of ; Kirchoff and Phillips (1988) ; Baldwin and Picot (1995) ; Broersma and Gautlier (1997) ; Davidson et al (1998) ; Barnes and Haskel (2002); Voulgaris et al (2005) ; and Neumark, Wall and Zhang (2011).

Notwithstanding studies with findings to the contrary, Birch’s seminal work sparked wide-ranging interest in the role of small business in creating jobs. A view was engendered, that SMMEs were more labour intensive than large firms and accordingly the expansion of this sector would boost employment and reduce poverty. SMMEs emerged as a tool for fighting poverty. Many countries, including South Africa, along with the World Bank and other multi-lateral agencies embarked upon SMME promotion and development as a key policy in the process of economic development and poverty reduction. In the US Birch’s findings were used as justification for favourable government regulations, tax incentives and support programmes for small business (Neumark, Wall and Zhang, 2011).

However the fixation on firm size and net employment creation in the study of SMME employment severely limits the understanding of SMME employment.

Firstly studies that have looked at the relationship between firm size and employment have almost always been in the context of the developed world. For example David Birch’s original work (1979) looked at the US, Baldwin and Picot (1995) considered Canadian manufacturing, Broersma and Gautlier (1997) looked at the Dutch economy, whilst Davidson et al (1998) studied the Swedish economy. The reason there exists little work on developing economies is owing to the absence of rich panel data in the developing world.

The second reason that the fixation on firm size and net employment creation limits the understanding of SMME employment is the implicit assumption that firm size, and by extension SMME employment, constitutes an exogenous variable. In the industrial organisation literature firm size is considered an endogenous variable determined by a range of economy, time and context specific factors. These factors include natural resource endowments, technology, policies and institutions. The range of factors interact to determine a nation's economic structure and optimal firm size (Kumar, Rajan and Zingales, 2001). For example a nation's endowments allow a country comparative advantage in the production of goods which can be produced more efficiently in large firms or small firms (You, 1995). This then reflects in a nation's macro-level data indicating a negative or positive relationship between firm size and net job creation.

The industrial organisation literature highlights the importance of a range of economy specific factors in understanding SMME employment beyond macro-indicators of SMME contribution to growth. Furthermore the use of aggregate studies that consider small versus large firm contribution to employment as a guide for policy development is problematic, as aggregate level data does not consider the type of industry. Optimal firm size differs according to industry. This study therefore focuses on key determinants of SMME employment rather than SMME contribution to growth.

SMME employment in South Africa

South African literature on SMMEs has generally been qualitative, owing to data limitations. Most published studies have subsequently analysed the shortcomings of small businesses and the entrepreneurial mind-set of SMMEs (Bruwer, 2012). Using a specially constructed panel from the Quarterly Employment Survey (QES) Kerr, Wittenberg and Arrow (2013) find that large firms contribute more to net employment growth than small firms in South Africa. A limitation of their finding lies in the use of the QES, which only includes formal enterprises in the survey. South Africa, like other developing countries, is characterised by having a non-negligible informal sector, thus any conclusion on SMME employment need to consider the informal sector, most of whose firms are likely to be small and micro enterprises.

Attempting to address the serious hindrance to understanding SMMEs, several private initiatives have been embarked upon gathering data on SMMEs in South Africa. These include the Finmark Trust's Flnscope Survey, SBP SME index and the Global Entrepreneurship Monitor.

Notwithstanding sampling limitations of commercial studies, The Flnscope Survey 2010 highlights several important findings with respect to SMME employment in South Africa. It finds that in 2010 South Africa had 5 979 510 small businesses. Of these small businesses over 60% of the owners had less than a matric certificate, whilst 58% of small business owners were women. These two findings are of particular importance as South Africa's unemployment challenge is characterised as being structural, with unemployment levels higher amongst lower-skilled and lower-educated persons, and gender-biased, with unemployment levels being higher amongst women (Banerjee et al, 2008). Further analysis of the Flnscope Survey 2010 reveal that 86% of small businesses were not registered with CIPRO. This indicates that the majority of the businesses surveyed were informal SMMEs.

These findings, of higher entrepreneurial activity amongst females and less educated persons, are somewhat incongruent with the country's national picture of unemployment as higher amongst

females and lower educated persons. This suggests that the dynamics characterising employment generally in South Africa may be different to the dynamics characterising SMME employment, in particular gender, education and skills may behave differently as determinants of SMME and large firm employment. It is therefore necessary to further investigate the SMME employment and consider the policy implications given that SMMEs form a key focus area for South Africa.

Theoretical Framework

Mattos and Ogura (2008) set up a model for the formality choice by firms, the model is adapted from Fortin et al. (1997). The model is based on the following assumptions: Heterogeneity of firms (due to differences in productivity) and workers (due to differences in skills). Competition in the labour market makes the wage rate equal to the opportunity cost incurred by a worker to supply quality labour, the cost includes learning effort to obtain qualification. Based on the wage rates observable in the market, workers are supposed to choose a qualification level taking into consideration how much additional effort is needed to get additional income. Each firm is skill specific, meaning that there is no substitution between workers of different labour skill levels. Firms in the informal sector face a concealment cost that increases with production rather than with the number of workers. Constant returns to scale in firm-level production. The model implies that firms with high productivity and workers with higher skill levels tend to operate in the formal sector.

Data

The Quarterly labour force survey (QLFS) is used for the empirical analysis. Data from the first quarter of 2008 and 2013 are used for the analysis. The sample size for the QLFS is roughly 30 000 dwellings. The sample is based on information collected during the 2001 population census which was conducted by Stats SA. The QLFS sample covers the non-institutional population except for workers' hostels. However, persons living in private dwelling units within institutions are also enumerated. The sample is designed to be representative at the provincial level. Data on all the aspects of the labour market and economic activities of individuals is collected.

Defining informal employment and informal sector employment

This study considers both informal employment and informal sector employment. Informal employment refers to the nature of the relationship between the employer and the employee (i.e. is the employee employed formally or informally?). A worker based definition is used to estimate informal employment. Informal sector employment refers to the status of the firm (i.e. is the firm formal or informal?). An enterprise based definition is used to measure employment in the informal sector. These two concepts are useful and complementary. The distinction between the two arose due to concerns that the enterprise based definition did not capture the number of individuals employed informally in the formal sector (casualization of labour) or formally in the informal sector.

An enterprise is formal if it is registered, this is based on question 4.10⁵ of the QLFS which establishes whether the businesses/organisation the respondent worked for was registered for tax. Employers and own-account workers report on whether or not their businesses are registered for income tax and VAT⁶. Therefore an informal enterprise is one that is not registered for tax. The number of employees is also used by Stats SA to determine informal and formal firms. Any firm with

⁵ Does your employer deduct income tax (PAYE/SITE) from your salary/wage?

⁶ Question 4.13 and 4.14

more than 10 employees is recorded as a formal firm. In this paper we follow the same methodology with all firms not registered for tax with less than 10 employees being informal. All firms registered for tax are formal and firms that have 10 or more employees and were not registered for tax are also considered formal. We capture unregistered firms with 10 or more employees as formal because individuals reporting to be employed in these firms are likely to fall below the tax threshold and therefore do not have tax deducted from their salary/wage. The latter is more plausible compared to having larger firms in the informal sector.

The definition used for individuals who are formally employed is the same as Heintz and Posel (2008) using the 17th International Conference of Labour Statisticians (ICLS). A worker is formally employed if they work for someone else and have a written contract⁷ or they receive paid leave⁸ and pension contributions⁹. This definition captures the nature of employment (protected or unprotected), rather than the occupation, industry or location employment (Heintz and Posel, 2008). UIF deductions and medical aid benefits are not used because they indicate whether or not the business/organisation was registered and provided their employees with basic benefits. Self-employed individuals and own account workers are formal if their enterprise is registered for income tax or VAT. Stats SA defines an individual as informal if they work for someone else for pay and are not entitled to basic benefits from their employer such as pension or medical aid and have no written contract. In this paper an individual is informal if they do not have a written contract or protection (paid leave and pension).

Descriptive statistics

Individual employment

The worker based definition shows that the informally employed individuals account for approximately 30% of employed individuals. Among informally employed workers, approximately 90% of workers have a matric or lower, whilst most formally employed workers had a matric or higher (see table 1). Skilled workers are prevalent in the formal sector although most formally employed workers are semi-skilled and 50% of workers who are informally employed have low-skill levels. Semi-skilled workers hold a large proportion of informal jobs see table 2 below. All the statistics presented in the paper are weighted.

Table 1:

	2008		2013	
	Informal	Formal	Informal	Formal
No schooling	8.94	2.27	5.74	1.36
Lower than matric	72.19	39.29	71.36	37.52
Matric	16.01	34.74	19.34	34.83
Higher than matric	2.85	23.7	3.57	26.29

⁷ Question 4.11

⁸ Question 4.7

⁹ Question 4.6

	Informal	Formal	Informal	Formal
Skilled	6.03	31.27	7.86	32.34
semi-skilled	41.59	50.04	40.53	47.56
low-skilled	52.38	18.69	51.61	20.1

In 2008 77.7% of informally employed individuals worked for firms with less than 10 employees and 84.25% in 2013. Formal employment has an even spread across all firm sizes. However, most formally employed individuals are employed by large firms (50 or more employees) see table 3 below. Firms with less than 10 employees hire the most of the informally employed individuals. Therefore the informal component of employment is vital when analysing small businesses.

	2008		2013	
	Informal	Formal	Informal	Formal
0-9	77.7	25.03	84.25	19.11
10-19	8.48	17.42	6.58	15.27
20-49	7.29	21.86	4.18	19.42
50+	6.52	35.69	4.98	46.2

Sector employment

The informal sector accounted for 31.2% and 28.13% of employment in 2008 and 2013 respectively and the formal sector 68.8% and 71.87% respectively. These figures corroborate with proportions derived using the worker based definition. Respondents with lower than a matric account for almost half the working individuals in both 2008 and 2013. Approximately 70% of individuals employed in the informal sector have lower than a matric and less than 4% have higher than a matric. In the formal sector most individuals hold a matric or higher, see table 4. Around 51% of informal sector firms employ low-skilled workers. Semi-skilled workers are evenly represented in both formal and informal sector. Skilled workers make up almost half employees among formal sector, see table 5 below.

	2008			2013		
	Informal	Formal	Overall	Informal	Formal	Overall
No schooling	9.11	2.33	4.38	5.53	1.4	2.51
Lower than matric	70.44	40.74	49.84	70.31	37.63	46.45
Matric	16.79	34.01	28.81	20.31	34.6	30.77
Higher than matric	3.66	22.92	16.97	3.85	26.36	20.28

	2008			2013		
	Informal	Formal	Overall	Informal	Formal	Overall
Skilled	6.95	30.3	25.81	8.64	32.23	23.12
semi-skilled	40.29	50.43	45.82	40.26	47.71	47.54
low-skilled	52.76	19.25	28.37	51.11	20.06	29.34

Differentiating skills by firm size, we find that over 50% of low-skilled individuals are employed in firms with less than 10 employees. 17.97 % and 27.33% low-skilled workers in 2008 and 2013 respectively were employed in firms with more than 50 employees. Firms with less than 10 and those with more than 50 employees have the highest proportions, this is because these two firm sizes account for almost 70% of all jobs in 2008 and 2013 see table 7 below.

	2008			2013		
	Low	Semi	High	Low	Semi	High
0-9	58.73	37.64	31.39	52.29	32.75	27.75
10-19	10.17	15.33	18.16	9.53	13.13	16.13
20-49	13.13	17.04	22	10.85	15.8	18.98
50+	17.97	29.99	28.45	27.33	38.32	37.14

Businesses with less than 10 employees make up approximately 40% of all firms in the economy and approximately 75%¹⁰ of these firms are in the informal sector. 99% of the informal sector consists of firms with less than 10 employees. Based on our definition the individuals in the informal sector with more than 10 employees are self-employed and own account workers. Large firms have the highest representation in the formal sector. However, the proportions are evenly distributed across all firm sizes.

	2008			2013		
	Informal	Formal	Overall	Informal	Formal	Overall
0-9	99.77	15.75	42.42	99.8	11.99	37.05
10-19	0.13	21.08	14.46	0.09	17.95	12.88
20-49	0.08	24.93	17.04	0.06	21.27	15.21
50+	0.02	38.24	26.09	0.04	48.79	34.87

Methodology

The regression analysis examines informality using both definitions. A probit model is utilised to analyse the characteristics of employed individuals, informally employed workers and the informal sector smmes. All regressions are run for 2008 and 2013.

Probit

Regression equation 1:

$$\text{Employed} = \beta_0 + \beta_1 \text{age} + \beta_2 \text{age}^2 + i.\text{gender} + i.\text{race} + i.\text{education} + i.\text{province} + \varepsilon$$

Regression equation 2:

$$\text{SMME} = \beta_0 + \beta_1 \text{age} + \beta_2 \text{age}^2 + i.\text{gender} + i.\text{race} + i.\text{education} + i.\text{prov} + i.\text{industry} + \varepsilon$$

(Regression 2 is also run using skills)

Regression equation 3:

$$\text{Formal Sector SMME} = \beta_0 + \beta_1 \text{age} + \beta_2 \text{age}^2 + i.\text{gender} + i.\text{race} + i.\text{edu} + i.\text{firm size} + i.\text{prov} + i.\text{industry} + \varepsilon$$

Regression equation 4:

¹⁰ Weighted proportion, calculated using QLFS but not shown in the table.

Formal Employment = $\beta_0 + \beta_1\text{age} + \beta_2\text{age}^2 + i.\text{gender} + i.\text{race} + i.\text{edu} + i.\text{skills} + i.\text{prov} + i.\text{industry} + \epsilon$

Multinomial logit

Regression equation 5:

Firm size = $\beta_0 + \beta_1\text{age} + \beta_2\text{age}^2 + i.\text{gender} + i.\text{race} + i.\text{education} + i.\text{skills} + i.\text{prov} + i.\text{indus} + \epsilon$

- In the first regression the dependent variable assigns a 1 to employed individuals and a 0 to the unemployed using the strict definition (discouraged workers and those not economically active are not included).
- The second regression assigns a 1 to SMMEs and a 0 to large firms. SMMEs are defined as firms with less than 50 employees.
- All the regressions use similar variables.
- Education is divided into four sub-categories: no schooling, lower than matric, matric and higher than matric (no schooling is the omitted category).
- Race is categorised as African, Coloured, Indian/Asian and White. Africans are the omitted category in all the regressions.
- Occupation is used as a proxy for skills namely; skilled, semi-skilled, low skilled. Legislators, senior officials, managers, professionals, associate professionals and technicians are classified as skilled. Clerks, service workers, shop and sales workers, skilled agriculture and fishery workers, craft and related trade workers, plant and machine operators and assemblers are classified as semi-skilled. Elementary occupations and domestic workers are low skilled. Unskilled workers are the omitted category.
- Province and Industry are used as control variables.
- The formal employment regression looks at the characteristics of individuals employed formally in SMMEs controlling for firm size, This is because firm size is used to create the formal sector variable.
- All the regression results present marginal effects. Therefore, caution should be exercised when interpreting the findings because the marginal effects are calculated using the mean values of all the variables.
- Weights are applied to all regressions.
- A multinomial logistic regression is used to analyse characteristics across firm sizes. Firm size is categorised as: 0-9, 10-19, 20-49 and greater than or equal to 50. Firms with greater than 50 firms are the omitted category. The regression presents relative risk ratios.

Results

The employment regression (for sector-employment) shows results which have been relatively well documented in the literature; that females have a significantly lower probability of being employed compared to males, that Coloureds, Indians and Whites are significantly more likely to be employed compared to Africans And that older workers are likely to be employed. These results hold for both 2008 and 2013. Individuals with higher than a matric have a higher probability of being employed compared to those with no schooling. However, there is no significant difference between having no schooling and a matric. Whilst having lower than a matric made you less likely to be employed in 2008, in the 2013 regression there was no significant difference between having a matric (but no further education) and having less than a matric. Whilst all the characteristics derived from these

regressions are useful, for the remaining regressions we will focus on skills and education using age, race, gender, province and industry as control variables.

Focusing on employment by SMMEs, where an SMME is defined as a firm with less than 50 employees, we run two regressions using the regression equation 2 specification, with one using the education variables and one using the skills variables. The two variables are not put on the same regression due to their potential correlation. Running the equation using skills we see that in 2008 there was significant difference between semi and low skilled workers employment probability, however high-skilled workers were more likely to be employed in an SMME compared to low-skilled workers. In 2013, semi- and high-skilled individuals were more likely to work in an SMME compared to those who were low skilled. The same regression is then run including education, we find that individuals with a matric or higher have a lower probability of being employed by an SMME compared to those without any schooling. In 2013 there is no significant difference between individuals with lower than a matric and no schooling. In the 2008 sample they were less likely to be employed by SMMEs. Both regressions control for age, gender, race, province and industry.

Using the enterprise definition and restricting the sample to firms with less than 10 employees, individuals with lower than a matric, matric and higher than a matric are more likely to be employed in a formal SMME. In 2008 females had a significantly lower probability of being employed in a formal SMME. This is corroborated by the findings from analysing all employed individuals based on the nature of their employment (formal or informal), we find that the higher an individual's education level they are significantly more likely to be employed formally compared to individuals without any schooling.

The final regression is a multinomial logistic regression presenting relative risk ratios (RRR). In 2008, there was no significant difference between low-skilled and semi-skilled individuals in large and small firms. There was also no significant difference between high-skilled and low-skilled individuals in firms with less than 10 employees and those with more than 50 employees. However, high-skilled individuals are significantly more likely than low-skilled to work in a firm with 10-19 and 20-49 compared to one with more than 50 employees. In 2013, there is no significant difference between semi-skilled and low-skilled individuals in firms with less than 10 employees and those with more than 50 employees. However, semi-skilled individuals are significantly more likely than low-skilled to work in a firm with 10-19 and 20-49 compared to one with more than 50 employees. High-skilled individuals are significantly more likely than low-skilled to work in a firm with 0-9 (low level of significance), 10-19 and 20-49 compared to one with more than 50 employees.

Regression equation 1: overall employment

VARIABLES	2008	2013
	Employed	Employed
Age	0.0282*** (0.00125)	0.0334*** (0.00168)
age2	-0.000238*** (1.57e-05)	-0.000285*** (2.12e-05)
Lower than matric	-0.0458*** (0.0135)	-0.0264 (0.0224)
Matric	0.000111 (0.0145)	0.0228 (0.0225)
Higher than matric	0.110*** (0.0117)	0.140*** (0.0171)
Female	-0.0670*** (0.00540)	-0.0447*** (0.00622)
Coloured	0.0721*** (0.00848)	0.0598*** (0.00979)
Indian/Asian	0.106*** (0.0124)	0.0984*** (0.0182)
White	0.160*** (0.00720)	0.158*** (0.00907)
prov==2	-0.0587*** (0.0145)	-0.0193 (0.0139)
prov==3	-0.0602*** (0.0153)	-0.0305* (0.0159)
prov==4	-0.0376*** (0.0144)	-0.0273* (0.0148)
prov==5	-0.00309 (0.0122)	0.0620*** (0.0118)
prov==6	-0.00631 (0.0137)	0.0114 (0.0151)
prov==7	-0.0376*** (0.0119)	-0.0175 (0.0124)
prov==8	-0.0111 (0.0137)	-0.00827 (0.0141)
prov==9	-0.0910*** (0.0156)	0.0660*** (0.0130)
Observations	32,686	27,973

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

SMME employment VARIABLES	2008 SMME	2013 SMME
Age	-0.00435** (0.00191)	-0.00773*** (0.00257)
age2	6.40e-05*** (2.36e-05)	0.000118*** (3.13e-05)
Semi-skilled	-0.00888 (0.00824)	0.0238** (0.0115)
High-skilled	0.0246** (0.0104)	0.0563*** (0.0136)
Female	0.0270*** (0.00682)	0.00126 (0.00957)
Coloured	-0.0886*** (0.0140)	-0.0739*** (0.0163)
Indian/Asian	-0.0190 (0.0194)	-0.0746*** (0.0274)
White	-0.000992 (0.0108)	0.00928 (0.0145)
indus==2	-0.600*** (0.0260)	-0.560*** (0.0261)
indus==3	-0.119*** (0.0173)	-0.0902*** (0.0233)
indus==4	-0.240*** (0.0530)	-0.292*** (0.0522)
indus==5	0.0852*** (0.0134)	0.181*** (0.0164)
indus==6	0.107*** (0.0114)	0.258*** (0.0141)
indus==7	-0.0485** (0.0197)	0.0337 (0.0242)
indus==8	-0.0668*** (0.0173)	0.0498** (0.0209)
indus==9	-0.0903*** (0.0163)	0.0155 (0.0206)
indus==10	0.263*** (0.00419)	0.373*** (0.00569)
prov==2	0.0782*** (0.0113)	0.0995*** (0.0154)
prov==3	0.125*** (0.0103)	0.0977*** (0.0189)
prov==4	0.0412*** (0.0133)	0.0550*** (0.0177)
prov==5	0.0774*** (0.0118)	-0.0192 (0.0175)
prov==6	0.0260* (0.0141)	0.00418 (0.0215)
prov==7	-0.0115 (0.0122)	-0.0279* (0.0160)
prov==8	0.0620*** (0.0127)	0.0534*** (0.0189)
prov==9	0.100*** (0.0117)	0.0798*** (0.0188)
Observations	24,564	20,179

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

SMME employment VARIABLES	2008 SMME	2013 SMME
Age	-0.00421** (0.00182)	-0.00580** (0.00259)
age2	5.54e-05** (2.25e-05)	8.84e-05*** (3.16e-05)
Lower than matric	-0.0337* (0.0183)	0.00663 (0.0292)
Matric	-0.103*** (0.0214)	-0.0743** (0.0311)
Higher than matric	-0.0994*** (0.0233)	-0.0956*** (0.0331)
Female	0.0274*** (0.00683)	0.00115 (0.00953)
Coloured	-0.0816*** (0.0139)	-0.0664*** (0.0164)
Indian/Asian	0.00797 (0.0180)	-0.0383 (0.0265)
White	0.0354*** (0.0101)	0.0605*** (0.0138)
indus==2	-0.582*** (0.0273)	-0.531*** (0.0281)
indus==3	-0.102*** (0.0167)	-0.0477** (0.0219)
indus==4	-0.170*** (0.0506)	-0.212*** (0.0532)
indus==5	0.0865*** (0.0131)	0.197*** (0.0152)
indus==6	0.120*** (0.0110)	0.282*** (0.0132)
indus==7	-0.0287 (0.0188)	0.0769*** (0.0218)
indus==8	-0.0325** (0.0163)	0.101*** (0.0188)
indus==9	-0.0442*** (0.0152)	0.0847*** (0.0187)
indus==10	0.262*** (0.00419)	0.372*** (0.00576)
prov==2	0.0803*** (0.0112)	0.0992*** (0.0156)
prov==3	0.123*** (0.0103)	0.0942*** (0.0193)
prov==4	0.0423*** (0.0133)	0.0563*** (0.0178)
prov==5	0.0793*** (0.0117)	-0.0167 (0.0175)
prov==6	0.0252* (0.0142)	0.00201 (0.0215)
prov==7	-0.00520 (0.0121)	-0.0174 (0.0160)
prov==8	0.0625*** (0.0127)	0.0544*** (0.0189)
prov==9	0.101*** (0.0118)	0.0819*** (0.0190)
Observations	24,286	20,024
df_m	26	26
chi2	1708	1634

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

SMME employment in formal sector VARIABLES	2008 Formal sector	2013 Formal sector
Age	0.0106*** (0.00250)	0.0117*** (0.00350)
age2	-0.000132*** (3.06e-05)	-0.000146*** (4.22e-05)
Lower than matric	0.158*** (0.0230)	0.212*** (0.0349)
Matric	0.336*** (0.0210)	0.375*** (0.0302)
Higher than matric	0.431*** (0.0161)	0.501*** (0.0197)
Female	-0.0726*** (0.0110)	-0.0164 (0.0138)
Coloured	0.128*** (0.0205)	0.175*** (0.0213)
Indian/Asian	0.231*** (0.0239)	0.176*** (0.0365)
White	0.207*** (0.0175)	0.204*** (0.0212)
indus==2	0.370*** (0.0393)	0.394*** (0.0418)
indus==3	0.0293 (0.0226)	-0.105*** (0.0325)
indus==4	0.148* (0.0894)	0.417*** (0.0503)
indus==5	-0.143*** (0.0234)	-0.179*** (0.0299)
indus==6	-0.171*** (0.0196)	-0.227*** (0.0271)
indus==7	-0.164*** (0.0256)	-0.311*** (0.0281)
indus==8	-0.00328 (0.0254)	-0.0122 (0.0332)
indus==9	0.0277 (0.0221)	-0.0911*** (0.0303)
indus==10	-0.661*** (0.00670)	-0.677*** (0.00722)
prov==2	-0.102*** (0.0252)	-0.0881*** (0.0264)
prov==3	-0.0286 (0.0256)	-0.0412 (0.0355)
prov==4	-0.0589** (0.0262)	-0.0410 (0.0291)
prov==5	-0.0547** (0.0241)	-0.0381 (0.0266)
prov==6	-0.0234 (0.0283)	-0.0127 (0.0328)
prov==7	0.0160 (0.0236)	0.0160 (0.0254)
prov==8	-0.0795*** (0.0260)	-0.123*** (0.0288)
prov==9	-0.153*** (0.0264)	-0.197*** (0.0274)
Observations	17,992	13,266

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	2008	2013
	Formal sector	Formal sector
Age	0.0170*** (0.00265)	0.0149*** (0.00350)
age2	-0.000166*** (3.20e-05)	-0.000150*** (4.10e-05)
educ==2	0.143*** (0.0215)	0.123*** (0.0368)
educ==3	0.234*** (0.0165)	0.226*** (0.0270)
educ==4	0.240*** (0.0148)	0.269*** (0.0223)
gen==2	-0.0743*** (0.0115)	-0.0402*** (0.0149)
race==2	0.102*** (0.0149)	0.142*** (0.0163)
race==3	0.160*** (0.0125)	0.146*** (0.0212)
race==4	0.189*** (0.0124)	0.205*** (0.0168)
indus==2	0.185*** (0.0130)	0.199*** (0.0183)
indus==3	0.128*** (0.0144)	0.0243 (0.0345)
indus==4	0.166*** (0.0174)	0.200*** (0.0183)
indus==5	0.0103 (0.0239)	-0.0151 (0.0348)
indus==6	0.0706*** (0.0179)	0.0313 (0.0293)
indus==7	0.103*** (0.0158)	0.0441 (0.0306)
indus==8	0.148*** (0.0137)	0.130*** (0.0226)
indus==9	0.158*** (0.0138)	0.0841*** (0.0273)
indus==10	-0.569*** (0.0430)	-0.682*** (0.0443)
prov==2	0.0128 (0.0219)	-0.0166 (0.0271)
prov==3	0.0536*** (0.0206)	-0.0144 (0.0365)
prov==4	0.0410** (0.0207)	0.0255 (0.0263)
prov==5	0.0374* (0.0206)	-0.00444 (0.0288)
prov==6	0.0467** (0.0213)	-0.0374 (0.0352)
prov==7	0.0596*** (0.0199)	0.0487** (0.0233)
prov==8	0.0361* (0.0215)	-0.0489 (0.0345)
prov==9	-0.0141 (0.0260)	-0.0551 (0.0341)
firmsize1==2	0.438*** (0.0158)	0.464*** (0.0227)
firmsize1==3	0.507*** (0.0128)	0.533*** (0.0156)
Observations	17,992	13,266

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	2008			2013		
	0_9	10_19	20_49	0_9	10_19	20_49
Age	0.972** (0.0125)	0.979 (0.0147)	0.969** (0.0134)	0.954*** (0.0133)	0.970* (0.0167)	0.981 (0.0164)
age2	1.001*** (0.000159)	1.000 (0.000186)	1.000* (0.000170)	1.001*** (0.000168)	1.000* (0.000210)	1.000 (0.000205)
Semi-skilled	0.919 (0.0500)	1.078 (0.0764)	0.925 (0.0611)	1.079 (0.0672)	1.190** (0.0982)	1.178** (0.0898)
High-skilled	0.940 (0.0677)	1.517*** (0.134)	1.363*** (0.112)	1.144* (0.0899)	1.620*** (0.162)	1.431*** (0.127)
Female	1.229*** (0.0562)	1.159*** (0.0658)	1.113** (0.0589)	0.964 (0.0507)	1.038 (0.0670)	1.035 (0.0622)
Coloured	0.498*** (0.0412)	0.653*** (0.0617)	0.781*** (0.0690)	0.560*** (0.0473)	0.740*** (0.0749)	0.960 (0.0933)
Indian/Asian	0.776** (0.0961)	1.048 (0.146)	1.001 (0.137)	0.630*** (0.0936)	0.742 (0.138)	0.846 (0.129)
White	1.041 (0.0762)	0.990 (0.0876)	0.962 (0.0793)	1.053 (0.0853)	1.097 (0.109)	1.045 (0.100)
indus==2	0.0430*** (0.0120)	0.0454*** (0.0116)	0.0962*** (0.0206)	0.0527*** (0.0188)	0.0861*** (0.0293)	0.0585*** (0.0175)
indus==3	0.554*** (0.0545)	0.471*** (0.0578)	0.520*** (0.0563)	0.860 (0.103)	0.466*** (0.0681)	0.615*** (0.0885)
indus==4	0.279*** (0.0886)	0.453** (0.146)	0.264*** (0.0721)	0.150*** (0.0547)	0.423*** (0.121)	0.309*** (0.106)
indus==5	2.427*** (0.288)	1.556*** (0.222)	1.212 (0.163)	4.079*** (0.539)	2.328*** (0.365)	1.679*** (0.272)
indus==6	3.135*** (0.297)	1.730*** (0.197)	1.021 (0.110)	7.553*** (0.862)	2.900*** (0.378)	2.370*** (0.328)
indus==7	1.211* (0.140)	0.489*** (0.0755)	0.415*** (0.0608)	2.398*** (0.319)	0.419*** (0.0841)	0.566*** (0.104)
indus==8	0.854 (0.0883)	0.569*** (0.0723)	0.526*** (0.0603)	1.576*** (0.191)	1.010 (0.148)	1.070 (0.156)
indus==9	0.621*** (0.0605)	0.581*** (0.0676)	0.563*** (0.0597)	1.233* (0.143)	0.897 (0.118)	0.979 (0.133)
indus==10	377.9*** (204.6)	4.217** (2.712)	0.466 (0.481)	339.5*** (179.9)	1.655 (1.109)	0.548 (0.454)
prov==2	2.090*** (0.199)	1.397*** (0.163)	1.210* (0.137)	1.888*** (0.187)	1.758*** (0.209)	1.250* (0.146)
prov==3	3.094*** (0.392)	2.525*** (0.353)	2.369*** (0.313)	1.677*** (0.222)	1.698*** (0.246)	1.581*** (0.216)
prov==4	1.522*** (0.153)	0.903 (0.116)	1.240* (0.137)	1.365*** (0.147)	1.318** (0.169)	1.254* (0.154)
prov==5	1.917*** (0.181)	1.450*** (0.159)	1.407*** (0.150)	0.893 (0.0853)	0.992 (0.118)	0.874 (0.0952)
prov==6	1.290** (0.133)	0.949 (0.120)	1.137 (0.134)	0.992 (0.121)	1.051 (0.159)	1.087 (0.148)
prov==7	0.900 (0.0745)	0.896 (0.0864)	1.007 (0.0905)	0.828** (0.0730)	0.838 (0.0905)	0.987 (0.0994)
prov==8	1.867*** (0.193)	0.993 (0.129)	1.315** (0.155)	1.565*** (0.175)	1.173 (0.161)	0.956 (0.128)
prov==9	2.661*** (0.298)	1.618*** (0.222)	1.420*** (0.186)	2.076*** (0.235)	1.350** (0.194)	0.852 (0.121)
Constant	1.243 (0.327)	0.941 (0.287)	1.725* (0.493)	0.702 (0.206)	0.492** (0.178)	0.498** (0.170)
Observations	24,564	24,564	24,564	20,179	20,179	20,179

Robust standard errors in parentheses
>0.01, ** p<0.05, * p<0.1

Discussion

The regression results reveal that there are significant differences between SMMEs as a whole and when one is considering formal or informal SMMEs. Broadly, the results suggest that there is no significant difference between having no schooling, lower than a matric and a matric in terms of the probability of being employed across the entire economy, but having a post-matric qualification makes you more likely to be employed. However, when considering employment potential in an SMME, having a matric or higher makes an individual significantly less likely to be employed by an SMME. At first glance this might suggest that SMMEs are important employers for those with less education or lower skills sets, and hence it might support policy aiming to increase employment for particular labour market categories by promoting SMMEs. However it is important to note the differences between formal and informal SMMEs. When the probit is run comparing informal and formal SMMEs, the results suggest that in formal SMMEs an individual is far more likely to find employment if he/she has higher levels of education, or more skills. Hence for formal SMMEs, the skills intensity of employment is far more reminiscent of the general economy – than when the SMME grouping is taken as a whole. Clearly informal SMMEs are far more likely to employ lower educated or lower skilled individuals.

The results from the multinomial logit support to the findings described above, broadly suggesting that firms with less than 10 employees and firms with more than 50 employees are less skills intensive compared to firms with between 10 and 49 employees. When compared with larger firms (over 50 employees), SMMEs between 10 and 19 employees appear to be the most skills intensive. Slightly larger SMMEs, from 20-49 employees, are also more skills intensive than large (greater than 50) or very small SMMEs (0-9 employees), but slightly less so than SMMEs between 10 and 19 employees. This suggests that as firms start to grow, they become initially more skills intensive, but then less so as they expand beyond a certain threshold size.

Finally the regression examining the nature of employment, between informally and formally employed, shows that the probability of being formally employed in an SMME is still heavily weighted towards higher educated or higher skilled individuals. In combination with the above discussion about skills intensity, this in turn suggests that whilst micro and/or informal firms can potentially provide good opportunities for employment for those individuals with either lower educational attainment levels or lower skills, it is highly likely that they will be informally employed.

Policy Implications

Overall SMME employment

When overall SMME employment is considered we find that the relationship between skills and employment is reflective of that of the general economy. A person with higher levels of skills is more likely to be employed than a person with less skills. This simply implies that skills are important for SMME employment, just as skills are important for employment in the overall economy.

When the relationship between SMME employment and education is considered, the findings are less intuitive. We find that individuals with a matric or higher have a lower probability of being employed by an SMME compared to those with less schooling. This may reflect the overall structural change occurring in the economy with larger enterprises employing higher-educated persons. This

suggests that SMMEs play an important role in providing employment opportunities for less educated persons. In addition it is interesting to note that anecdotal international evidence indicates that large firms offer better wages and job security compared to SMMEs (de Kok et al, 2013: 38-41). Consequently individuals that are more mobile, due to higher levels of education, may exercise their preference to work for large firms.

We also find a change in the return to having a matric between 2008 and 2013. In 2008 persons with less than a matric were less likely to be employed by SMMEs compared to those with a matric, however in 2013 the difference between the two levels of education attainment disappears. This can be explained by the massive structural change that South Africa's labour force underwent with higher throughput levels at a secondary school level since the implementation of compulsory schooling laws (Banerjee et al, 2008: 736). This, combined with the perception of the poor quality of the matric certificate, rendered the matric certificate a poorer signal of ability.

However these findings mask differences between different SMME size classes. This is discussed in the next section.

Firms size and definitional challenges

A number of interesting and nuanced findings pertaining to firm size are identified from the results of the study. The study finds that firms with less than 10 employees, along with large firms, are less skills intensive compared to firms with between 10 and 49 employees. The study finds that over 50% of low-skilled individuals are employed in firms with less than 10 persons. This finding is important as according to the QLFS approximately 40% of all firms are classified as having less than 10 employees. This indicates that firms with 0-10 employees play an important role in the economy in terms of employment creation, particularly for low-skilled persons.

The study also finds that small (10-19 employees) and medium (20-49) firms are more skills intensive than micro (0-9 employees) and large (greater than 50 employees) firms, with small firms being the most skills intensive.

These findings have several key policy implications. The findings highlight that all firms that are classified as SMMEs are not the same and should not be treated the same. Firms with less than 10 employees should be targeted specifically for creating employment opportunities for lower skilled persons. Firms with between 10 and 49 employees should be considered for creating opportunities for higher skilled individuals. These policy implications further imply that in the design of SMME policy a distinction should be made between enterprises with less than 10 employees (i.e. micro-enterprises) and those with more.

The data also indicate that approximately 75%¹¹ of firms employing less than 10 persons are in the informal sector, stressing the importance of the informal sector in the economy. It also implies that in the distinction between different SMME classes a distinction must be made between formal and informal enterprises.

The question of informal vs formal employment

A key focus area of the findings of the study related to the theme of informal and formal employment. The study has shown that the majority of informally-employed workers (approx. 90%)

¹¹ Weighted proportion, calculated using QLFS but not shown in the table.

have a matric or lower, whilst most formally-employed workers have a matric or higher. The study also shows that the higher an individual's education level the more likely the individual is to be employed formally compared to individuals without any schooling.

These findings confirm a prevalent view that informal employment plays an important role in the economy in a context of rigid labour legislation that increases the administrative and wage costs of formal employment. Indeed South Africa has been experiencing a trend of informalisation of labour in the context of slowing growth and rigid labour legislation. Several studies including the World Bank's Doing Business Survey confirm labour legislation as being a key constraint to business growth (World Bank, 2013). This suggests that the impact of labour legislation and other regulation must be considered if the number of employed, particularly less skilled and less educated, is to increase. In particular the ability of business to adjust labour numbers along with economic conditions and business cycles must be considered.

The finding of the probability of a person being formally employed increasing with education level attainment implies that for formal employment, referred to as "decent work" in the country's New Growth Path (EDD, 2008), emphasis should be placed on increasing the education attainment levels of the population instead of only focussing on attempting to legislate formal employment.

Informal vs formal firms

The study highlights important findings pertaining to the differences between the formal and informal economy. Approximately 70% of individuals employed in the informal sector have lower than a matric whilst less than 4% have higher than a matric. This finding is consistent with the South African and international literature which finds that the informal economy provides employment for those excluded from the formal economy due to factors such as education, skills, search costs etc.

Given that the informal sector in South Africa accounts for 28% of employment in South Africa, the intuitive policy implication of these findings is that the informal economy plays an important role in employment creation, particularly for those with lower educational attainment levels. Indeed the South African literature has shown that the informal economy has a strong relationship with the formal economy (Altman, 2011 ; Davies, 2008), whilst the international literature has shown that the informal economy plays an important role in absorbing macro-economic shocks providing socially vulnerable with employment opportunities (OECD, 2012). Despite these merits of the informal economy, there are also risks associated with the informal economy and the merits of promoting the formalisation of economy are numerous¹². Other literature explaining the determinants of the development of the informal economy shows that the informal economy develops as a response to prohibitive regulation, costly barriers to entry and taxation. Due consideration should be placed on the burden of regulation and compliance in attempting to formalise SMMEs as to prevent employment opportunities from being created. Indeed the recent SBP SME Growth Index 2012 has shown regulation to be a key factor affecting SMME performance. Furthermore the reasons for firms being informal or choosing to remain informal must be investigated prior to attempting to formalise firms.

¹² The merits of the formal economy over the informal economy include; the receipt of taxes by local and national authorities which can be used to provide key economic inputs such as education and infrastructure; the better access to formal credit institutions and foreign markets amongst formal enterprises ; access to legal protection

References

- Baldwin, John and Garnett Picott, "Employment Generation by Small Producers in the Canadian Manufacturing Sector," *Small Business Economics* 7. 1995 317-324
- Barnes, Matthew and Johnathan Haskel, "Job Creation, Job Destruction and the Contribution of Small Businesses: Evidence for UK manufacturing, Working Paper 461 University of London 2002.
- Banerjee. Abhijit, Galiani. Sebastian, Levinsohn. J, McClaren. Zoe, Woolard. Ingrid, 2008 "Why has unemployment risen in the New South Africa?", *Economics of Transition*, Vol 16(4) p 717-739
- Birch, D. L. (1979). *The Job Generation Process*. Unpublished report prepared by the MIT Program on Neighborhood and Regional Change for the Economic Development Administration, U.S. Department of Commerce, Washington, DC.
- Birch, D. L. (1981). Who Creates Jobs? *The Public Interest*, 65, 3-14.
- Broersma, Lourens and Pieter Gautier, "Job Creation and Job Destruction by Small Firms: An Empirical Investigation for the Dutch Manufacturing Sector, *Small Business Economics* 9, 1997: 211-225
- Brown, Charles, James Hamilton and James Medoff, *Employers Large and Small* (Cambridge, MA: Harvard University Press, 1990)
- Caves, Richard E., Michael E. Porter, and Michael A. Spence. (1980). *Competition in the Open Economy: A Model Applied to Canada*. Cambridge, MA: Harvard University Press.
- Davidsson, Per, Leif Lindmark and Christer Oloffson, : The Extent of Overestimation of Small Firm Job Creation- An Empirical Examination of the Regression Bias, *Small Business Economics* 11, 1998 87-100
- Davis, Steven J., John Haltiwagner, and Scott Schuhh, *Job creation and destruction* (Cambridge, MA: MIT Press, 1996)
- de Kok, Jan, Claudia Deijl and Veldhuis-Van Essen Christi 2013 *Is Small Still Beautiful: Literature Review of Recent Empirical Evidence on Contribution of SMEs to Employment Creation* ILO
- Finmark Trust 2011 *Finscope South Africa Small Business Survey 2010*, Johannesburg: Finmark Trust
- Hallberg, Kristin. (2001). "A Market-Oriented Strategy For Small and Medium-Scale Enterprises." IFC Discussion Paper # 48.
- Haltiwagner, John., Ron S. Jarmin and Javier Miranda, Who creates Job? Small versus large versus young. *The review of Economics and Statistics* 95 (2) May 2013 pp 347-361
- Kirchoff, Phillip and Bruce Phillips, "The Effect of Firm Formation and Growth on Job Creation in the United States," *Journal of Business Venturing* 3, 1988, 261-272.

Kumar, Krishna B., Raghuram G. Rajan, and Luigi Zingales. (2001). "What Determines Firms Size?" University of Chicago. CRSP Working Paper No. 496.

Neumark, David, Brandon Wall and Junfu Zhang, "Do Small businesses create more jobs? New evidence for the US from the National Establishment Time Series," *this Review* 93 (2011), 16-29.

Snodgrass, Donald, and Tyler Biggs. (1996). *Industrialization and the Small Firm*. San Francisco: International Center for Economic Growth.

Voulgaris, Fotini, Theodiore Papadogonas and George Agiomirgianakis, "Job Creation and Job Destruction in Greek Manufacturing," *Review of Development Economics* 9, 2005: 289-301

You, Jong-Il. (1995). "Small Firms in Economic Theory." *Cambridge Journal of Economics* 19, 441-462.