The Challenges that Young South Africans Face in Accessing Jobs: Could a Targeted Wage Subsidy Help?

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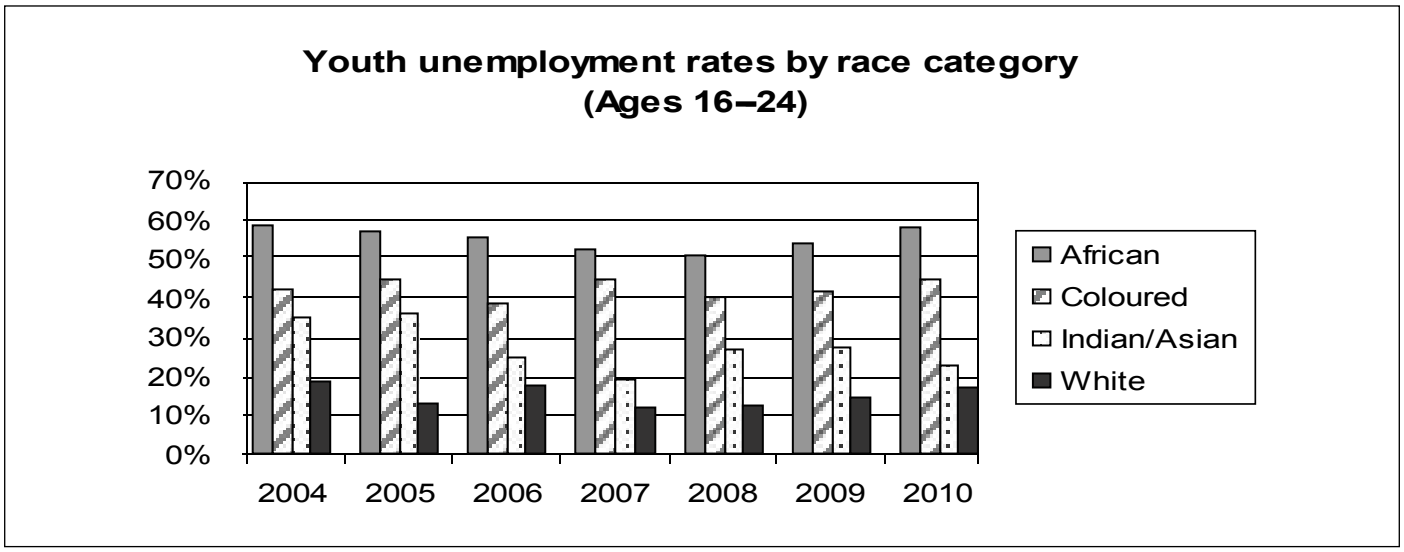
Acronyms

1 INTRODUCTION

Globally youth unemployment has increased dramatically during the recent financial crisis (Verick, 2011). South Africa is no exception with youth unemployment increasing to over 50% by early 2010.[1] More worryingly, as Figure 1 shows, the already marginalised group of young Africans has been the most affected, experiencing an increase in youth unemployment to almost 60%.Not only do the youth constitute the largest group of the unemployed in South Africa, but acquiring the first job is crucial in a worker's employment trajectory (Banerjee, Galiani, Levinsohn, Mclaren & Worlfard, 2008). To facilitate more active youth participation in the labour market the South African government has proposed and implemented a number of policies[2].

Figure 1: South African youth unemployment rates by race category (2004 – 2010)



Sources: Labour Force Survey and Quarterly Labour Force Survey, StatsSA: Authors' calculations

1 Based on Quarterly Labour Force Survey (QLFS) data for 2008, 2009 and 2010 obtained from Statistics South Africa, authors' calculations of the strict definition of youth unemployment (age 16-24). Including discouraged job seekers (broad definition) increases the youth unemployment rates to 60% overall and 67% for African youth.

2 For instance, the Expanded Public Works Programme was implemented in 2004 and aims to allow unskilled job seekers to develop work experience through temporary employment in government funded projects. Furthermore, the National Youth Development Agency provides various programmes intended to facilitate participation in the labour market. Also, the government uses various financial incentives for firms to increase youth participation and employment through, for example, learnerships.

However, relatively little is known about the obstacles that young, particularly African, South Africans face in transitioning into employment and the type of policy options that are required to remove these obstacles. This paper focuses on the group that makes up the bulk of the unemployed, young Africans, who typically have relatively low skills levels. While it is unquestionable that low education and skills levels are a constraint to employment, policies to deal with these issues are mainly long term in nature. However, in the short run, one needs to consider how the labour market can absorb the type of young workers who currently enter the labour force.

Getting a job requires an acceptable match between the job seeker and the firm. It is thus a function of the characteristics of the job seeker relative to the job requirements but also of the matching process itself. More importantly, though, in an environment of mass unemployment such as South Africa, this matching process is determined by the firm. Thus, firms decide on the recruitment channel they use to hire against a vacancy of a particular skill level, weighing up the costs of the channel and balancing this with the requirements of the job. The key concern of the firm is to establish the true productivity level of the applicant in order to ensure an acceptable match and an accurate price of the labour input. Thus, firms want to reduce their risk of low quality matches and overpriced labour inputs. To facilitate labour market entry for young job seekers, policies need to change the incentives that firms face in deciding who and how to hire new workers even in the face of uncertainty. One possible policy would be to allow firms to experiment with applicants whose true productivity level is difficult to establish by changing the relative price of such applicants, for example, through a targeted wage subsidy.

Using two innovative data sets of young Africans and firms that employ young Africans, this paper investigates the obstacles that young African job seekers face in securing a job and discusses one potential policy proposed by the South African government – a targeted youth wage subsidy or hiring voucher – and how this may impact on the opportunities facing young South Africans.

The paper is structured as follows: the first section outlines the severity of youth unemployment experiences, especially by African youth, followed by a discussion of the obstacles that affect the employment probabilities of young job seekers and possible interventions that could be used by government to address these obstacles. The second section reports key findings of a youth survey and a firm survey with regards to the matching process and firms' responses to a hypothetical youth wage subsidy. The final section conclude the discussion.

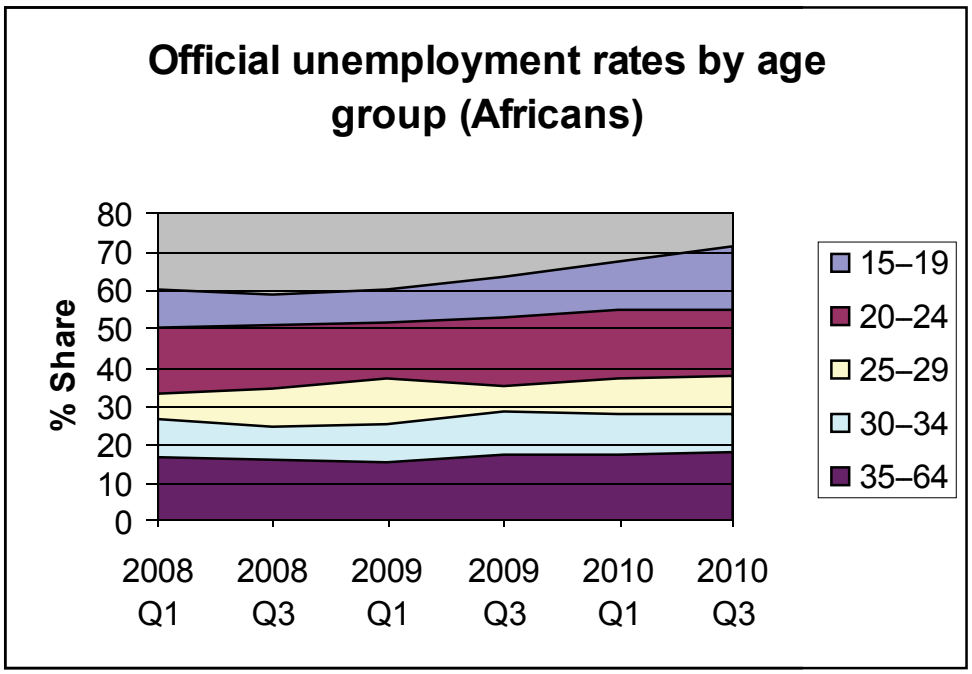
2 YOUTH UNEMPLOYMENT IN SOUTH AFRICA

2.1 The Youth Unemployment problem

Figure 2 illustrates that in the wake of the financial crises, the official unemployment rate has increased for most age groups, particularly among younger Africans (see Table 1A in appendix for data on all race groups). More worryingly, even these alarming figures do not fully reflect both the general problem of joblessness and the extent of the youth unemployment in South Africa. Firstly, the official unemployment rate is calculated as the number of unemployed people who actively searched for work in the four weeks prior to the time they were interviewed for these surveys, divided by the sum of this number and the number of people who had done any work in the week prior to the survey. It therefore excludes those people who were not searching for work because they were studying or discouraged. Individuals may also choose to stay in school if they view their job prospects as poor, such as in recessions. Secondly, work includes any labour, even if it was only for one hour and it was unpaid, and thus includes the under-employed. Finally, the rates themselves do not provide an indication of the contribution of each cohort to the general unemployment rate.

To illustrate some of these points we provide in Figure 3 an estimate of the population pyramid for Africans in 2010[3] (Figures 3A–6A in the Appendix show the other population groups). Each cohort is

Figure 2: Official unemployment rate of African labour force by age group (2008 – 2010)



Sources: Quarterly Labour Force Survey (QLFS), Statistics South Africa: authors' calculations

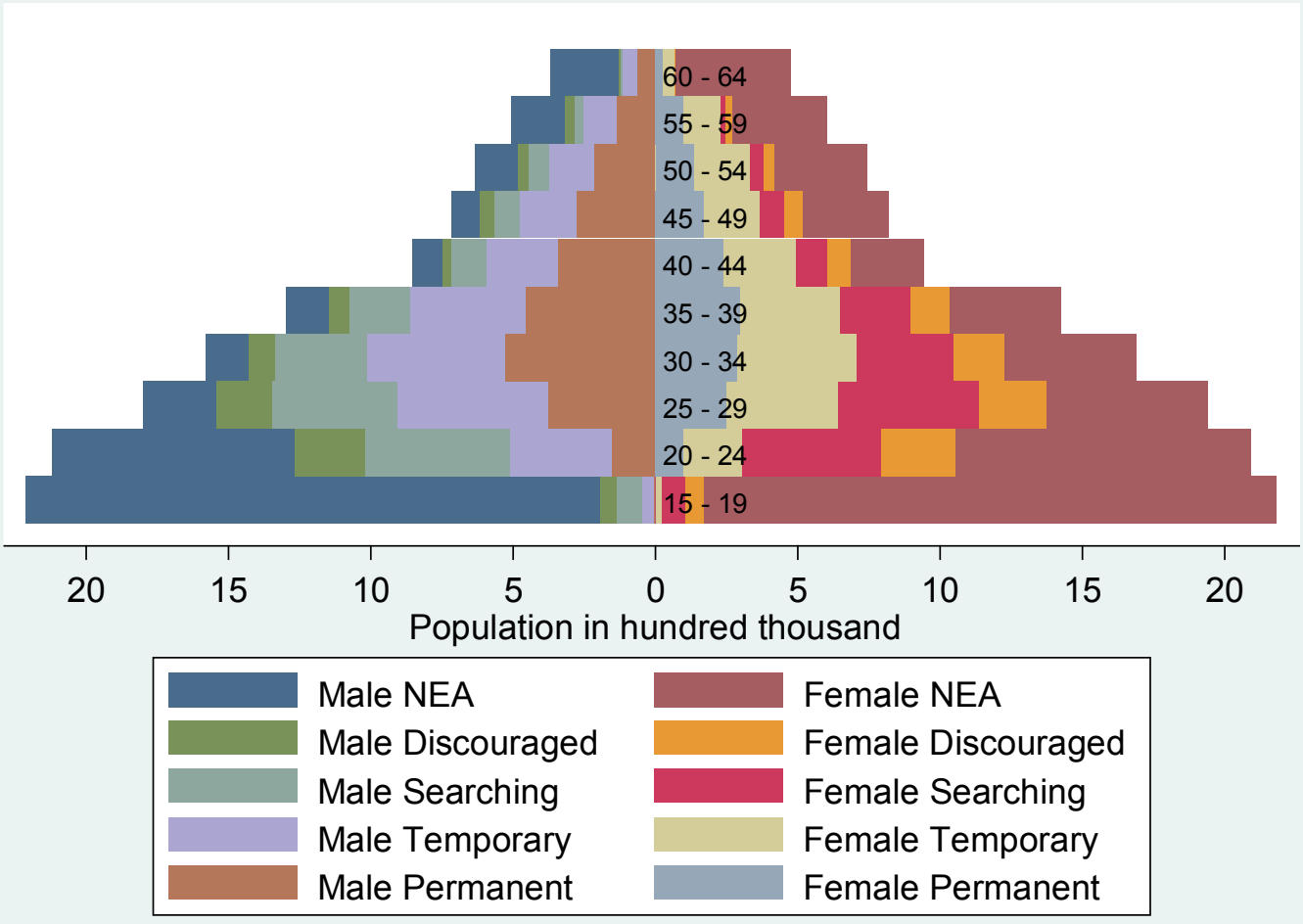
3 The numbers are the weighted average for the first three QLFSs of 2010.

separated by gender into the number of people who are permanent by wage-employed, those who are contract wage-employed or self-employed, those workers who are unemployed, and those who are not economically active[4]. These figures show that the number of permanently wage-employed workers is significantly higher than the number of contract and self-employed workers for the other population groups in South Africa. However, among young Africans aged 20 to 29[5] the number of permanently employed wage-workers is lower than the number of contract and self-employed workers. Furthermore, the number of unemployed and not economically active Africans in this cohort dwarfs the number of employed, and is approximately equal to the number of people in this group for the rest of the African population combined.

This suggests that the youth unemployment problem is not confined only to those under 25. It shows that the incidence of joblessness and non-permanent employment is highest among young Africans, and that this group contributes disproportionately more to the overall problem of unemployment than any of the other population groups.

Not only are unemployment rates for youth higher than for the general population, but the nature of youth unemployment is different. Freeman and Wise (1982) argue that transitions out of work are more frequent, as younger workers are more likely to switch between searching for work and "non-economic" activities such as education, and they are prone to being discouraged or less active job seekers. Furthermore, while youth unemployment is generally related to the level of aggregate demand in the economy and the proportion of young people in the population, it tends to be concentrated among a group of youths with particular distinguishing characteristics (such as coming from poor families or lower levels of education), who lack work for extended periods of time.

Figure 3: The number of working-age Africans by labour market status and age cohort in 2010



4 Labour force participation is endogenous and is determined by labour market conditions.

5 The majority of those aged 15 to 19 are still in school.

Youth unemployment also has dynamic effects for those experiencing it. It is a concern not only because of the immediate effects of inactivity (for example, crime, alcohol and drug abuse, and other social problems) but also because, as evidence from other countries shows, a long spell of unemployment following the completion of school may have little effect on employment more than three years later, such unemployment is associated with a sizeable negative effect on the wages (Freeman and Wise, 1982).[6]

Unfortunately, the relative paucity of research on the issue in developing countries, particularly in Africa and Asia, is due to a general lack of good data (Blanchflower, 1999). Notable exceptions include O'Higgins (2003) and the International Labour organization (ILO, 2010) annual global employment trends for youth which, despite this constraint, plot aggregate trends associated with the problem in developing countries and attempt to draw common inferences within regions. A key finding in this research is that both the level and rate of youth unemployment are high and may be growing in most developing countries. O'Higgins (2003) points out that in developing countries the youth unemployment rate is between two and eight times higher than the corresponding rate for adults[7]. Together, these findings suggest that the youth unemployment problem in developing economies may not, unlike for developed countries, be confined to a small group.

Work on African data indicates a long duration for the transition from school to work (see, for example, Guarcello, Manacorda, Rosati, Fares, Lyon and Valdivia, 2005, who uses data from 13 countries). Garcia and Fares (2008) argue that this may be because most African youth generally start working too early and are unprepared to meet the demands of the labour markets. However, there is considerable variation across countries in various aspects of youth unemployment, which indicates that there are a number of country-specific circumstances that are important (Leibbrandt & Mlatsheni, 2004).

One of the most widely cited academic studies that specifically looks at the characteristics associated with youth unemployment in South Africa is Mlatsheni and Rospabe (2002). They define young people as those aged 15 to 30[8]; on the basis that entry into the labour market in South Africa is thought to occur later than in developed countries.[9] Using the 1999 October Household Survey (OHS) they argue that "large amounts of the differences in employment of youth and older participants are attributable to disparities in observable characteristics such as experience and education in the case of wage employment and family characteristics in the case of self-employment. The latter is also likely to be influenced by differences in access to credit (Mlatsheni and Rospabe, 2002). Furthermore, unemployment is highest among African youth, young females, and those with less education. Lam, Leibbrandt, and Mlatsheni (2007) extend the definition of youth even further to 35. However, they acknowledge that the different groups in this range are not homogeneous, and therefore propose that there are three cohorts within this group that have similar properties: 15 to19, 20 to 24, and 25 to 35. Using data from the Cape Area Panel Study (CAPS), they find that "by age 20, only 20% of African females and 31% of African males have ever done any paid work, using a very broad definition. In contrast, 86% of white females and 90% of white males have done paid work, with only slightly lower percentages for coloured youth" (Lam et al, 2007). They find that while African and coloured youth experience a sharp jump in labour force participation immediately after leaving school, coloured youth find work much more quickly. Among African youth, there is a "steady increase in the percentage searching for work during the first 20 months after leaving school". However, "by the 20th month after leaving school, only about 30% of African males and 20% of African females are working". Lam et al (2007) also find that, while there is a high correlation between completed Grade 12 or higher education and the probability of finding employment in the first 20 months after leaving school, this impact is halved when they include scores from a literacy and numeracy exam that was administered to the CAPS respondents. This, they argue, may "indicate that employers do not use schooling alone as a signal, but are also able to discriminate on the basis of ability". The question remains why these differences exist in the transition probability of young job seekers even after controlling for educational attainment. To provide a possible explanation, we have to look at the matching process itself.

6 No work on the long-term effects on youth unemployment among South Africans has been undertaken so these results may be different in a South African context. However, it seems highly unlikely that sustained periods of unemployment have no dynamic effects on those experiencing them.

7 The figures presented in O'Higgins (2003) for South Africa show that the rate is higher for adults than it is for young people between the ages of 15 to 24. They were based on the latest available data from the ILO, but appear to be incorrect. Recent data suggest that the youth rate is significantly higher than the adult rate.

8 The National Youth Policy in South Africa extends the definition of young people as those aged 14 to 35 (Government of the Republic of South Africa, 1997).

9 Both reports define youth in the labour market as being from 15 to 24 years. O'Higgins (2003) points out that even though 15 to 24 is generally used in most developed countries, it is arbitrary, and the definition may be specific to the economy.

2.2 The match between firms and workers

Employment probabilities and wages represent equilibrium outcomes of the interactions between firms (demand side) and job seekers (supply side) in the labour market. Firms have to generate a pool of suitable applicants through advertising of the job and then screen applicants to find the one candidate whose characteristics are most suitable to the requirements of the job. Job seekers need to find firms with suitable vacancies. Once they have found a firm with a suitable vacancy, job seekers apply and have to convince the employer that they are the most suitable candidates compared to all other applicants. The outcome of this matching process is eventually driven by the overlap between the firm's recruitment channels and the job seeker's search methods (Gorter et al, 1993; Lindeboom et al, 1994; Russo et al, 2000; Schöer et al, 2010, for South Africa).

Both firms and job seekers face an optimisation problem with regard to their search/recruitment behaviour in order to overcome two main problems: information dissemination and asymmetric information (see Holzer, 1987 for firms' recruitment optimisation; Devine & Kiefer, 1991 for job search optimisation; and Schöer & Leibbrandt, 2007 for job seeker strategies in South Africa). Firms and job seekers in the labour market face these two problems during the extensive margin and the intensive margin of their search process. Search at the extensive margin allows both sides to gather information about possible options, that is, more vacancies for the job seeker and more applicants for the firm. Search at the intensive margin provides more detailed information on already identified options, for example, the job requirements and work conditions to the job applicant and the suitability of the applicant to the firm (Calvo-Armengol, 2006). The ability of the search/recruitment channels to overcome the information problems at the extensive and intensive margin of search determines the matching quality which itself is reflected in the wage.

However, a problem arises when the firm is not able to determine the true productivity level of the applicant and makes an appointment with substantial uncertainty but also faces significant retrenchment costs. In such cases, firms are less willing to experiment with applicants whose productivity level is most difficult to establish in order to reduce the risk of being stuck with a low-quality match that will be costly to terminate (see Levinsohn, 2007; Go, Kearne, Korman, Robinson & Thierfelder, 2009).

This represents a major obstacle to young job seekers who can only signal their productivity potential through their performance at school if they have no previous work experience. However, school performance signals can only act as productivity proxies when employers are confident in the signalling ability of school performance scores. While educational qualifications are generally able to fulfil this function, only completed secondary schooling (matric) and further qualifications seem to be considered trustworthy in South Africa. Thus, school leavers with less than completed secondary schooling who are looking for unskilled jobs will be least able to convince employers of their productivity levels. As was indicated above, the majority of young African job seekers fall into this category of low levels of schooling.

Why then is getting the first job important for the work-life trajectory of the applicant? One reason is the productivity signalling ability of previous work experience. A subsequent employer can use the fact that someone was employed before as a partial signal that another firm was willing to engage in the employment relationship. They may also be able to ask the previous employer how the candidate performed in a work environment. Furthermore, if the applicant received training from the previous employer, this acts both as a signal that the previous employer considered training a worthwhile investment and also reduces the hiring cost of the subsequent employer as he or she can potentially build on the existing human capital gain from the previous employment.

South African firms recruit in an environment with a number of distinct characteristics. These include: (i) a constant stream of unskilled job applicants whose productivity levels are difficult to establish; and (ii) relatively high retrenchment costs. This, in line with the above considerations, should lead to the following recruitment behaviour: (i) firms are less likely to advertise jobs for which they already experience a high applicant arrival rate; (ii) firms are more likely to hire applicants whose productivity level can be established relatively costlessly; and (iii) firms will use recruitment channels that allow them to gather trustworthy information about the applicant without incurring high recruitment costs. Thus, unskilled job seekers, who make up the majority of the unemployed, will find it difficult to locate vacancies that are not advertised; firms are more likely to employ workers with work experience as this can be used as a reliable productivity signal; and firms will use social networks to establish a pool of applicants and a trustworthy productivity signal for unskilled jobs.

In such an environment, young unskilled job seekers are systematically disadvantaged. A targeted wage subsidy for young workers could reduce the cost of hiring a young applicant whose productivity level is difficult for the employer to establish. Thus, the wage subsidy would allow firms to "experiment" with the hire of a young applicant over a more expensive older worker in whose productivity level the employer is more confident (see Levinsohn, 2007).

2.3 Interventions to facilitate youth employment

Governments globally have experimented with a large range of interventions to reduce youth unemployment. In the most extensive investigation into the impact of different interventions that attempt to address the youth unemployment. Betcherman, Godfrey, Ruerto, Rother and Stavreska, (2007) examine 289 active labour market policies in 84 countries (not including South Africa). The interventions they examine include those that make the labour market work better for young people–such as improving information (counselling and job search skills); those that increase labour demand, including wage subsidies and public works programmes; and those that remove discrimination. They also extend their investigation to interventions that are intended to promote entrepreneurship among young people; those that attempt to resolve post-school training problems and training market failures; mobility barriers; and regulatory reforms such as changes in labour law.

The results from their investigation show that there are, on average, no differences across the different interventions in terms of impact or cost-effectiveness. Nevertheless, while most had a positive impact, less than half were efficient. They find that the impact of the programmes on employment was generally greater in developing countries, but also find that the impact was lower in countries with less flexible labour markets. Crucially, Betcherman et al (2007) suggest that the highest returns for disadvantaged youths come from early and sustained interventions. They therefore argue that "any policy advice on addressing youth unemployment problems should emphasise that prevention is more effective than curing". Furthermore, they point out that the level of evaluation of programmes is generally weak and conclude that there is a "need for major improvements in the quality of evidence available for youth employment interventions" and that "the absence of rigorous evaluations almost certainly leads to an overestimation of program impacts by policy-makers."

Indeed, the National Treasury of South Africa (2011) recognises that "by themselves, labour market policies cannot end unemployment in South Africa. To create more jobs, it is critical for the economy to achieve more rapid, sustained and inclusive growth". However, it also acknowledges that "South Africa needs to introduce labour market policies, initiatives and incentives that strengthen demand for young workers as soon as possible". While there is a high correlation between lower levels of education and unemployment (and conversely between education, growth and decent employment in general), the National Treasury (2011) recognises that any interventions that are intended to address the problems associated with basic education take time, and that it cannot ignore the plight of young people who have already left school. It therefore proposes a multi-faceted approach that extends the programmes that are intended to facilitate the transition into employment for this group including training programmes, continued direct employment creation, services that improve job search and matching, and entrepreneurship schemes. It also proposes the introduction of an additional intervention: a targeted employment subsidy for young people aged 18 to 29 that lowers the cost of their labour.

Bernstein (2008) draws attention to the absence of rigorous evaluation in South Africa on the impact of programmes designed to decrease unemployment. She points out that less than a third of the 114 interventions identified "are externally assessed in any way," that with a few exceptions there was no financial data that would permit an assessment of the cost to benefit ratio of these programmes, and that "no data appears to be collected on the experiences of young people in the months and years after their contact with an employment creation intervention". The study finds that approximately 40% of the government-sponsored programmes involve direct employment creation (for example, public works programmes), 30% promote skills development, and the remaining 30% support business development. Furthermore, despite the breadth of access to these programmes, the available evidence suggests that together they have facilitated a transition into employment for only a small proportion of the unemployed youth.

The motivation for a temporary wage subsidy (a hiring voucher) is that, in addition to the existing programmes, it provides another way to tackle these issues. Crucially, it directly addresses what is generally regarded as one of the primary causes of youth unemployment–deficient labour demand. Employment subsidies have been "successful in improving the short-term employment outcomes in many transition economies". (National Treasury, 2011) and may reduce the risk associated with employing inexperienced young workers who, even if they are relatively better educated, have not been able to prove themselves. For a wage subsidy, unlike other programmes that involve direct employment creation, co-ordination is decentralised and responsive to both domestic and international demand for locally produced private goods and services. Nevertheless, while there is strong theoretical and empirical evidence[10] supporting employment subsidies, this does not necessarily mean that this intervention will succeed in reducing overall or youth unemployment in South Africa. The specific labour market conditions and the extent of both general and youth unemployment in the economy may have an effect on the responsiveness of both firms and labour to the intervention. Furthermore, while the intervention may facilitate employment of younger workers, it could do so at the expense of older workers. These are empirical issues that need to be evaluated.

3 DATA

In order to understand better the potential impacts of a policy such as a wage subsidy, we use data from two unique surveys. The first, the Labour Market Entry Survey (LMES), tracks young people, aged between 20 and 24, as they enter the labour market. In the first round of this survey in 2009, 4 010 young Africans in the provinces of Gauteng, KwaZulu-Natal and Limpopo were interviewed. Approximately 75% of these respondents were re-interviewed in the second wave in 2010. Besides individual, household and family history information, the survey also includes information of the respondent's education spells as well as any unemployment and employment spells. The aim of the survey is to unpack the process through which young Africans enter the South African labour market and as a consequence includes a series of detailed questions on the respondents' job search behaviour and the matching process into employment. The sampling strategy lead to two samples with one group consisting of approximately 2 600 young people who were randomly identified in 45 enumeration areas, and a second group of approximately 1 400 young people who were attached to 20 Department of Labour Centres, near to these enumeration areas. More than half of the respondents in both groups were living in greater Johannesburg at the time of the first survey wave, with the remaining respondents evenly split between eThekwini and several locations (including Polokwane and the peri-rural Dikgale region) in Limpopo province.

The second data set was drawn from telephonic interviews with firms. The aim of these firm surveys was to establish responses to hypothetical youth-targeted wage voucher questions and to relate these responses to firm characteristics and their recruitment behaviour.

The sample of firms was drawn from two different sources: firm contact information obtained through responses of employed young Africans during the LMES as well as from the Companies and Intellectual Property Commission (CIPC) data. While the firms drawn from the LMES are a random draw of firms that hire at least one young African employee, the firms from the CIPC fewer data are randomly contacted but limited to firms that employ less than 200 workers and operate in the manufacturing sector. In total, a full set of information for 97 firms and shortened survey versions for 15 firms have been collected.

The survey includes questions on firm characteristics, an extensive recruitment section, and questions on the firms' recruitment behaviour in response to a hypothetical targeted wage voucher for young workers. Specifically, firms were asked to indicate their likely changes in demand for young workers if their wages were subsidised up to a maximum of R833 per month for a six-month period. Young workers are defined in line with the sample of youth in the LMES as workers aged 20 to 24.

Based on these two data sets, we present some key findings on the transitions between jobs for young people, the types of firms that employ young people, the characteristics they look for, and the channels these firms use for recruitment.

DESCRIPTIVE RESULTS

4 SOME KEY DESCRIPTIVE RESULTS

4.1 How do young people find jobs?

Table 2 shows transitions among our sample of young Africans of the enumerator area sample[11] over a period of one year. Transitions out of unemployment of those who were unemployed but looking for a job in the first round (the searching unemployed) are low. Seventy percent of those who were looking for a job in the first wave remain unemployed (either searching or non-searching) a year later. Approximately one-fifth are now in some type of employment, with the bulk of these, 17%, in wage employment.

There is also a large rate of churn among the wage-employed. Less than half of the young people in this category are still employed, while the majority report that they are unemployed and searching. Self-employment is also very volatile. Thirty five percent of those originally in this category remained self-employed, 21% shifted into wage-employment and 28% became unemployed. Where do young people transition from to get into wage employment? The largest relative transition into wage employment is from self-employment. The transition rates from searching and non-searching unemployment are similar (17% compared to 13%)11% of those that were in further
education in the previous year entered employment, this is approximately 20% of those leaving further education.

These results indicate that transitions into wage employment are relatively low. How do these young Africans transition into employment, i.e., what are the channels through which young people in this sample find available jobs? As is indicated in table 3, almost 66% of all respondents report that they heard about the vacancy through a social contact. Especially weak ties (friends) are key in this information process as more than one third heard about the job from a friend (34%) followed by a family member in the household (13%).

Table 2: Transitions for enumeration area respondent sample

	Activity in 2010					
Activity in 2009	High School	Further education	Non-searching unemployed	Searching unemployed	**Wage-employed**	Self-employed
High school	29.66	13.1	6.21	40.69	**6.21**	4.14
Further education	1.46	50.73	0.73	33.94	**10.58**	2.55
Non-searching unemployed	2.78	5.56	13.19	63.19	**12.5**	2.78
Searching unemployed	**1.95**	**7.43**	**4.83**	**65.18**	**16.81**	**3.81**
Wage-employed	0.54	7.53	3.76	45.7	**39.78**	2.69
Self-employed	0	6.9	0	37.93	**20.69**	34.48

11 Comparisons of the two samples (enumerator area versus labour centre) indicate that job seekers with higher educational attainment select themselves into the use of labour centres. For consistency, we concentrate on the enumerator area sample in this paper as they are more representative of the type of young job seeker who is likely to struggle to become employed.

Table 3: Channels through which young job seekers heard about the job (enumerator area only)

Ways in which individuals found jobs in 2010	EA (%)
A friend told me about the job	34.1
I saw it advertised in the newspaper	12.9
A family member in the household told me about the job	12.9
I did not know about the job until I asked at the gate of the factory, home, or side of the road	10.4
I was contacted by the employer	10.4
The employment agency told me about the job	6.9
A family member outside the household told me about the job	6.6
I saw the job advertised on a notice board	4.7
Other	0.9

To put it differently, only one third of the respondents heard about the availability of the job because it was advertised (13% newspaper and 5% notice board), filled via an employment agency (7%), or because they heard about it when they directly asked at the gate of the factory (10%). This suggests that dissemination of relevant market information about the availability of vacancies is reduced to specific channels such as word-of-mouth.

In the context of mass unemployment, specifically of the unskilled, firms face a vast pool of potential workers and do not have to advertise jobs. From the job seeker's point of view, information about the availability of vacancies is therefore extremely valuable as it reduces search costs when trying to identify firms with vacancies. It is therefore not surprising that the information itself does not travel far from the job source. The contact who informed the respondent works at the company in 20% of the cases, and in a further 52% of the cases was the contact directly linked to someone at the company. This once again confirms the impact of social contacts on the employment probability of job seekers in the South African labour market and suggests that not having access to such networks creates a systematic disadvantage for job seekers.

Table 4: Channels through which contact heard about the job (enumerator area only)

How did the respondent's contact knew about the availability of the job?	EA (%)
A friend who works there told him/her about the job	25
He/she works at the company where the job was acquired	20
A family member, who works there, told him/her about the job	19
A friend, who does not work there, told him/her about the job	10
He/she was contacted by the employer	8
A family member, who does not work there, told him/her about the job	5
He/she saw advertised on a notice board	5
I don't know	4
The employment agency told him/her about the job	2
He/she saw it advertised in the newspaper	1
Other	1
Ex-worker	1
The contact was told by the employer	1
He/she did not know about the job until they asked at the gate of the factory/home/side of the road	0
Total	100

4.2 The types of firms employing young people and the way that they recruit

The results above indicate that there are relatively small numbers of young people transitioning into employment over this period and that the most common way of finding a job is through networks. What are the types of firms that employ young people? Figure 7 shows the ratio of young employees to the total workforce for our sample of firms. In the average firm, young employees represent around 29% of the total workforce (25% at the median firm). This illustrates that young people form a relatively small component of the workforce at most firms. In the general population of firms, this ratio is likely to be even lower since the sample of firms is partly selected based on them employing young people. As Regression 1A in the Appendix shows, the age of the firm is negatively associated with this ratio – younger firms employ, on average, a higher proportion of young workers.

The firms in the sample claim that they experience a constant stream of unskilled applicants - on average 58 applicants per month approach them. As is illustrated in Figure 8, the main channel through which firms are approached by these unskilled applicants is through direct applications (55% of firms report this as the main channel). Around 29% of the applicants respond to newspaper advertisements or send their CVs to the company. Only 16% of the firms claim that they are approached through a referral by someone who works at the company itself. However, these methods which unskilled individuals use are in contrast to the preferred methods through which firms prefer applicants to apply.

At the extensive margin, when firms establish the pool of applicants, their least preferred application channel is for job seekers to directly apply at the gate of the company (see Figure 9A in the Appendix). Thus, while firms are mainly approached by unskilled job seekers directly at the gate, they are less likely to inform these applicants about vacancies and/or consider them in the pool of applicants. The preference of firms for using word-of-mouth for advertising unskilled vacancies and establishing the pool of applicants could reflect their desire to reduce the pool of applicants in order to make the recruitment process more manageable and/or to impose some sort of pre-selection on the pool of applicants, as the pool consists mainly of candidates who are somehow related to the firm's workforce.

At the intensive margin of recruitment, when firms screen the pool of applicants, the most common reason that firms give for using referrals is that these act as a signal of ability. A further 20% indicate that they use them to reduce monitoring costs, since, for example, the person who referred the new recruit could act as the monitor. Thus, 61% of the firms consider referrals the best way to ensure a high-quality match during the recruitment process, which highlights the concern of firms not wishing to engage in an employment relationship with risky applicants whose productivity level is difficult to establish. There is further support for this explanation when the type of references that firms consider acceptable for unskilled vacancies are considered. Only 16% of the firms in the sample do not use references in the screening process. 52% of the firms report that they consider references that can reflect the observed productivity level of the applicant as acceptable. These references include previous employers and work colleagues as well as labour

Figure: Distribution of young employees to total employee ratio (2010)

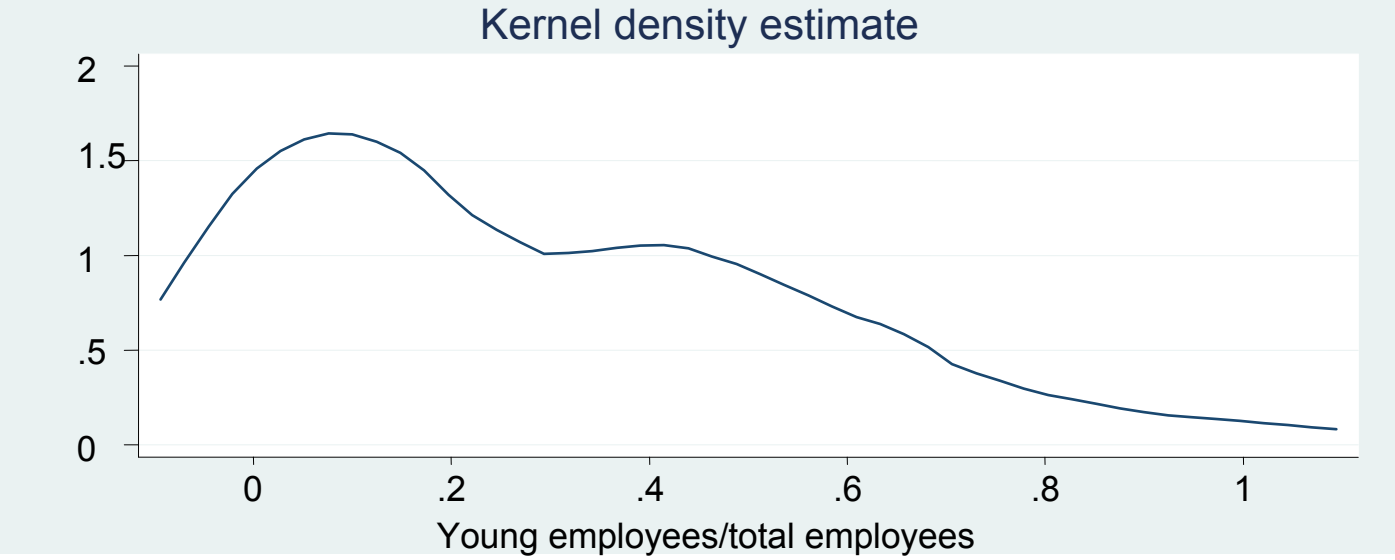


Figure: Main channels through which unskilled applicants approach firms (%)

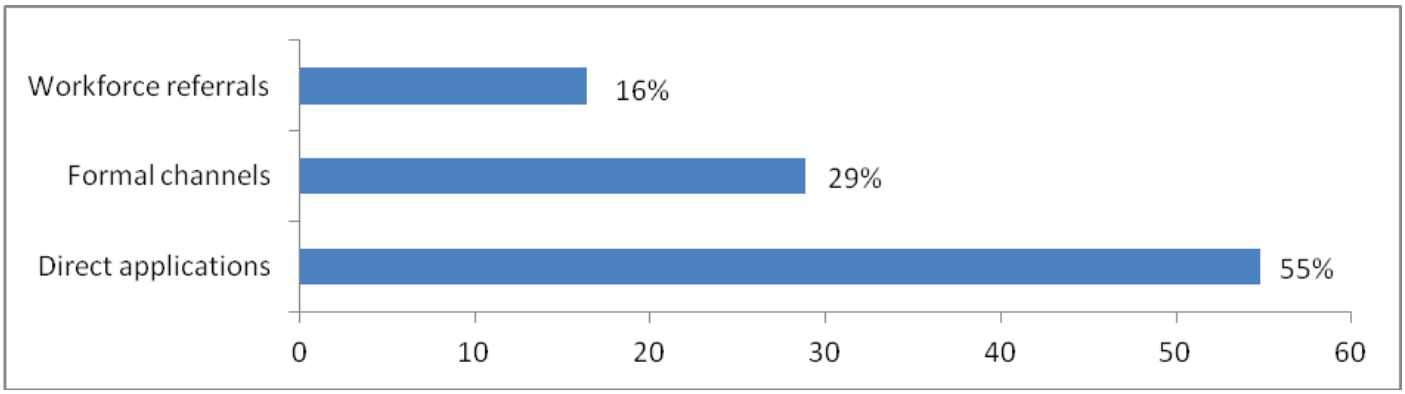
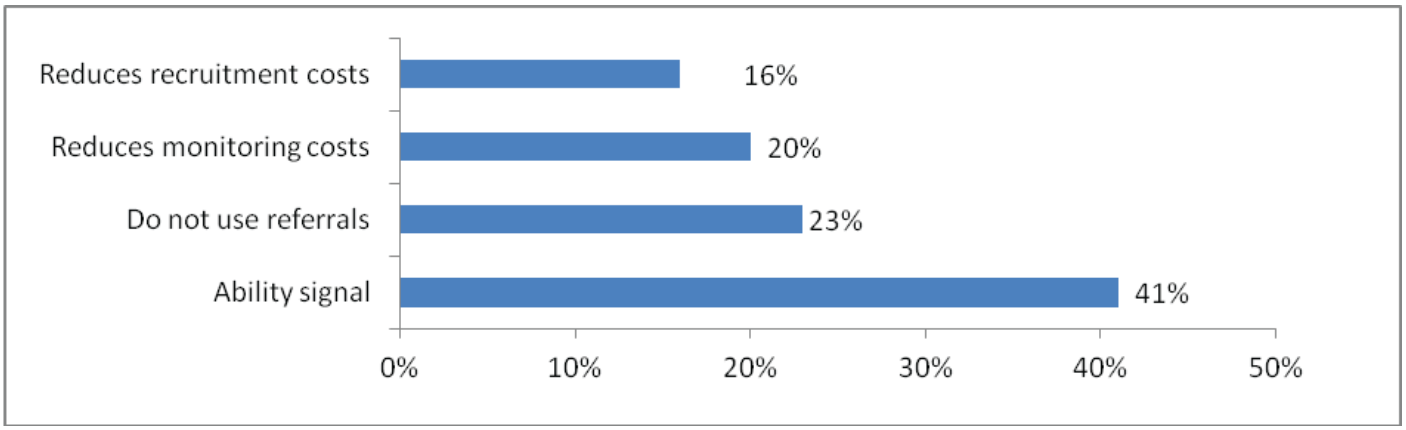


Figure 9: Reasons for firms' preference of referrals in the recruitment of unskilled labour



brokers. This reflects the importance of getting into the first job in order to develop a relationship with someone who can attest the productivity level. The firm's own workforce is considered by only 25% of the firms as reliable references and in most cases only when the reference is not directly related to the applicant.

Table 5: Acceptable references for unskilled vacancies

Acceptable references	Share
Previous employer	43%
No personal reference	16%
Workforce (not family member)	16%
Workforce (family member)	9%
Previous work colleague	7%
Respected community member	7%
Labour broker	2%

These results indicate that young job seekers could face two major obstacles to finding employment: (i) limited access to relevant job market information as the size of a worker's social networks tend to increase with employment experience, and (ii) the lack of a trustworthy productivity signal, which would force firms to take a chance when hiring a young job applicant.

From the perspective of firms, they are looking to fill the vacancy with the most suitable candidate but do not want to be saddled with a candidate who is a bad match and potentially costly, in terms of both money and time, to dismiss. This concern is reflected in the way firms recruit. To encourage the hiring of candidates whose productivity, or productivity signal, is uncertain, the relative price of these types of candidates needs to be reduced. This would potentially increase the willingness of firms to experiment with such applicants.

5 THE POTENTIAL IMPACT OF HIRING VOUCHERS

As discussed above, the National Treasury has proposed a temporary wage subsidy, or hiring voucher, as one possible solution to the problem of youth unemployment. This section examines the potential impacts of a hiring voucher. It begins with examining whether the proposed magnitude of the voucher is large in relation to starting wages for unskilled young people. Next it considers the firm-level factors affecting starting wages and thus the types of firms where the impact may be relatively high. It also investigates training at the firm-level and the potential influence a hiring voucher may have on training.

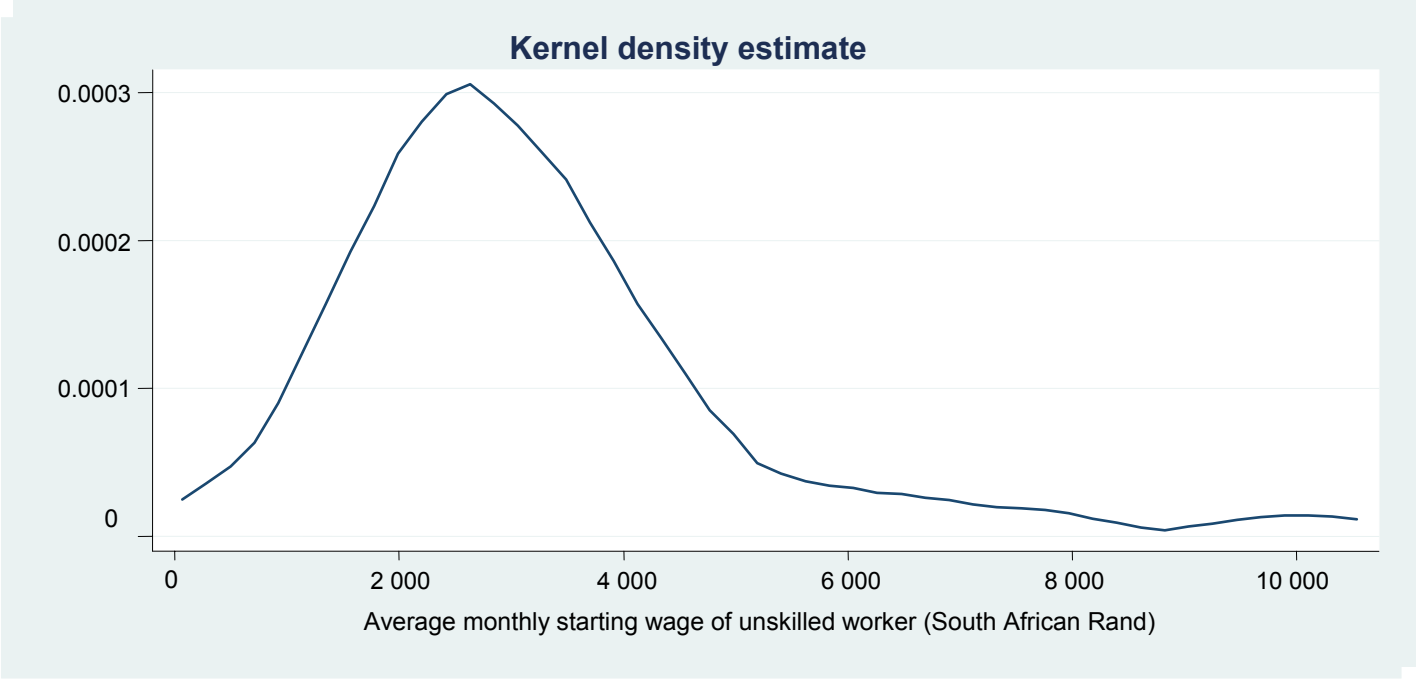
In the second part of the section we examine firm's responses to a hypothetical hiring voucher. This includes which firms are likely to report that they would take up the voucher. We also consider potential impacts of the voucher such as substitution.

5.1 Is the proposed wage subsidy/hiring voucher large enough?

In order for a voucher to work it has to be large enough to overcome the administrative and other potential constraints, such as uncertainty, to hiring young people. The median starting wage of an unskilled worker employed by the sample of firms is R2 830 (R3 222 mean).[12] The initially proposed wage voucher amount of R833 means that the subsidy for a newly hired unskilled worker is almost 30% of the median unskilled starting wage (26% of the mean starting wage of unskilled workers in the sample).

The current National Treasury proposal envisions a wage subsidy for young workers who earn less than

Figure 11: Distribution of monthly starting wages of unskilled workers (2010)



12 The median starting wage of a skilled worker in the sample is R7 000 (mean R8 439.5). However, respondents were more reluctant/could not provide wages for skilled workers. Thus, there are very few observations for skilled wages.

R60 000 per year. As Figure 10 shows, almost 90% of firms in our sample paid starting wages of less than R60 000 a year and thus would be eligible for the wage subsidy. The subsidy is thus large relative to starting wages and a substantial amount of firms pay starting wages that would qualify for a subsidy.
The level of these starting wages is affected by a number of factors (see Regression 2 below). Family businesses pay, on average, lower than other types of businesses. A presence of a union, in the firm is associated with higher wages. There is a positive association between firm size and earnings for firms without a union and those firms with a higher proportion of younger workers pay relatively less. These results suggest that the relative magnitudes of the wage subsidy would be larger for smaller, non-unionised firms, those that are family owned, and those that already employ relatively large numbers of young people. It thus seems likely that it would be these types of firms and the new workers employed in these firms, that would benefit most from a wage subsidy

One potential channel through which a wage subsidy may encourage hiring of young people is through subsidising the training of the new young hire.

Regression 2: OLS regression of log of monthly starting wages for unskilled workers

	(1) Monthly starting wage (OLS)	(2) Monthly starting wage (OLS)	(3) Monthly starting wage (OLS)
Age (log)	–0.0262	0.0552	0.0976
	(0.0592)	(0.178)	(0.169)
Age squared (log)		–0.0170	–0.0246
		(0.0350)	(0.0331)
Family business	–0.259**	–0.261**	–0.194
	(0.124)	(0.125)	(0.129)
Unionised firm	0.830**	0.809**	0.872**
	(0.338)	(0.342)	(0.338)
Firm size (log of total employees in 2010)	0.151***	0.152***	0.126**
	(0.0517)	(0.0521)	(0.0498)
Union* firm size	–0.173**	–0.169**	–0.169**
	(0.0751)	(0.0760)	(0.0736)
Young employees/ total workforce	–0.452*	–0.440*	–0.319
	(0.235)	(0.237)	(0.236)
Manufacturing			0.120
			(0.165)
Community/social services			0.0113
			(0.161)
Financial/business services			0.728***
			(0.208)
Hotel/ catering			–0.0160
			(0.225)
Construction			0.325
			(0.350)
Constant	7.648***	7.565***	7.404***
	(0.212)	(0.273)	(0.271)
Observations	76	76	75
R-squared	0.232	0.235	0.391

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Young people may require training in either firm-specific or non-firm-specific skills. There is little incentive for firms to train in non-firm-specific skills since these are transferable. These training costs are implicitly included in the cost of hiring. A wage subsidy would reduce these costs as a larger share of young employees in the total workforce is significantly correlated with the probability of a firm providing training (see Regression 3A in the Appendix). However, this is not significantly related to SETA-accredited training – it may actually be negatively related (this would make sense since a firm would send only "trusted" workers on training that may be transferable). This indicates that tying a wage subsidy to accredited training, such as that provided by the SETAs, would be counter-productive (see Regression 4A below).

5.2 Which firms would use a wage subsidy?

In the survey, firms were asked to indicate how many young workers they would employ additionally to their existing workforce if the wages of these new hires were to be subsidised up to 50% (up to a total maximum of R833 per month) for a six-month period. Thirty-eight percent of the firms responded positively to this hypothetical scenario and indicated that they would on average hire an additional 7.5 young workers. The remaining 62% of the firms, however, pointed out that their hiring decision of young applicants with wage vouchers would depend relating had on the number of openings that they to; thus they would consider hiring

Regression 4A: Probit model of firm providing SETA accredited job training (conditional on providing training, marginal effects)

	(1) Seta accredited training (probit)	(2) Seta accredited training (probit)	(3) Seta accredited training (probit)
Age (log)	–0.0413	–0.245	–0.257
	(0.0604)	(0.186)	(0.194)
Age squared (log)		0.0399	0.0427
		(0.0347)	(0.0360)
Family business	0.0189	0.0421	–0.00209
	(0.132)	(0.135)	(0.179)
Unionized firm	0.807***	0.853***	0.832***
	(0.202)	(0.171)	(0.198)
Firm size (log of total employees in 2010)	0.271***	0.278***	0.277***
	(0.0763)	(0.0747)	(0.0843)
Union* firm size	–0.185**	–0.204**	–0.195*
	(0.0938)	(0.0926)	(0.102)
Young employees/ total workforce	–0.148	-0.160	–0.146
	(0.251)	(0.247)	(0.276)
Manufacturing			0.0632
			(0.220)
Community/social services			0.0688
			(0.199)
Financial/business services			–0.0770
			(0.208)
Hotel/ catering			–0.0588
			(0.275)
Construction			0.0995
			(0.418)
Observations	74	74	73

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

young applicants in response to the wage voucher but not additionally to their existing workforce. This is an interesting finding in itself as it suggests that firms may substitute young applicants for older applicants when faced with the two options in the hiring process.

Regression 5 shows firm characteristics that are correlated with the probability of hiring young subsidised workers additionally to the existing workforce.

Controlling for sectors and other firm characteristics, firms that already employ a larger share of younger workers in their workforce claim to be more likely to hire additional young workers and thereby grow their existing workforce. Family businesses and larger firms, on the other hand, are less likely to hire wage voucher holders additionally to their existing workforce. Surprisingly, firms that report the presence of a union also report that would be more likely to hire voucher holders additionally to their existing workforce. This may rather reflect the skill level of such firm, as one would expect firms with a larger share of unskilled workers to be unionised.

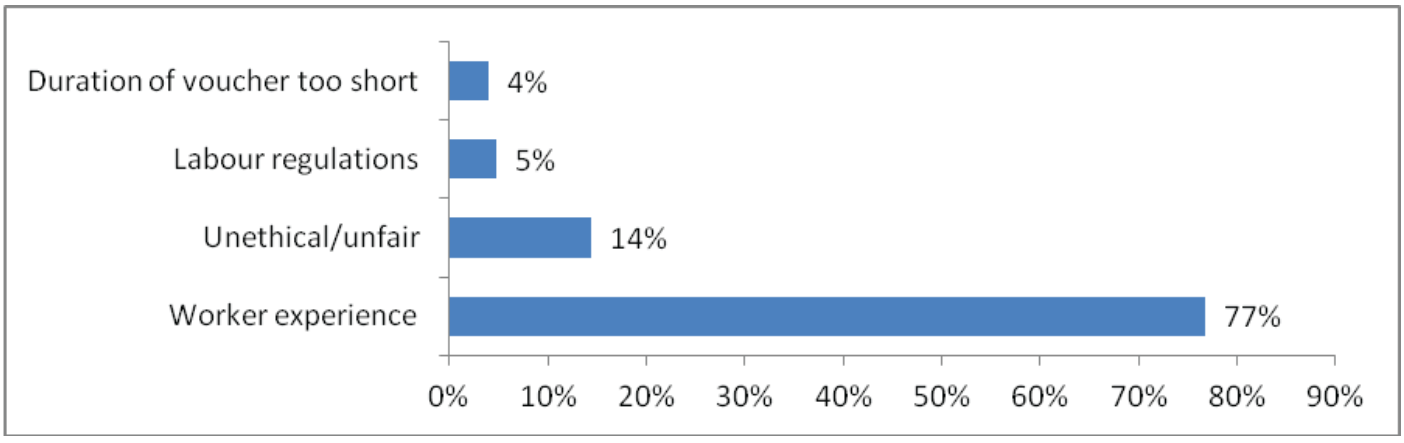
All in all, the findings seem to suggest that smaller firms who are already employing young workers are likely to grow in response to the implementation of the wage voucher. This finding is not surprising, given that firms that already employ a larger number of young workers in their workforce seem to pay lower starting wages (see findings in Regression 2) and the subsidy itself simply reduces the input cost to these firms. Thus, the proposed wage subsidy would potentially have a larger impact on the demand for workers in low wage jobs. Other firms, on the other hand, are more likely to keep the size of their existing workforce constant but may change the composition of their workforce over time by systematically increasing the share of younger employees in the workforce.

5.3 The wage subsidy and substitution effects

There are two ways to conceptualise the impact of a hiring voucher on the composition of a firm's workforce. A hiring voucher reduces the cost of the labour supplied by the young person. Therefore, the wage subsidy may reduce the cost of the marginal new younger worker and encourage firms to hire more workers. As we have shown above, only a relatively small portion of firms in the sample considered this option. Alternatively, firms may younger workers use to replace older workers. This would imply that these two types of workers were close substitutes.

When asked explicitly whether they would replace older workers with younger subsidised workers, 27% of the sample indicated they would. Seventy-Three percent indicated that they would not replace older workers of their existing workforce through the hire of wage voucher holders. As is indicated in Figure 11, the majority of firms (77%) that report that they would not replace older workers state the level of experience and loyalty as the main reason for not retrenching older workers and replacing them with younger, wage-subsidised workers. This indicates that older and younger workers are not close substitutes, at least when younger workers are first hired. A further 14% claim that it would simply be "unethical" or "unfair" do use the younger, cheaper workers to replace older workers in the company. A small proportion of the firms that indicated that they would not replace older workers seem to suggest that they would consider doing so if the voucher period of six months was extended or if retrenchment was less restricted by labour regulations and institutions.

Figure 11: Reasons for not replacing older workers with younger, wage subsidized workers



Regression 5: Probit model of firm hiring wage voucher holders additionally to existing workforce (marginal effects)

	(1) Hiring voucher holders additionally to workforce	(2) Hiring voucher holders additionally to workforce (Probit)	(3) Hiring voucher holders additionally to workforce (Probit)
	(Probit)		
Age (log)	0.0931	0.107	0.103
	(0.0663)	(0.194)	(0.198)
Age squared (log)		-0.00292	-0.00307
		(0.0372)	(0.0381)
Family business	-0.294**	-0.295**	-0.215
	(0.117)	(0.119)	(0.134)
Unionized firm	0.522*	0.521*	0.621**
	(0.288)	(0.290)	(0.266)
Firm size (log of total employees in 2010)	-0.00622	-0.00629	-0.00397
	(0.0552)	(0.0552)	(0.0567)
Union* firm size	-0.140*	-0.140*	-0.167*
	(0.0841)	(0.0845)	(0.0878)
Young employees/ total workforce	0.805***	0.808***	0.641**
	(0.258)	(0.260)	(0.282)
Manufacturing			-0.154
			(0.175)
Community/social services			0.0240
			(0.186)
Financial/business services			0.131
			(0.251)
Construction			-0.140
			(0.409)
Observations	84	84	81

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1

5 CONCLUSION

Young people face numerous challenges in accessing jobs in South Africa. They have productivity signals which are uncertain. They may not have access to the types of networks which many firms use to recruit unskilled workers. Realised transition rates into wage employment are low and there is a large amount of "churn" as individuals seem to exit employment after relatively short spells.

One proposed policy to overcome this is a targeted wage subsidy or hiring voucher for firms that hire young people. The results presented in this paper suggest that this is likely to benefit firms that are younger and smaller and already employ young people. Responses by firms indicate that young and older workers are not close substitutes owning to the experience that older workers have. Thus, it is unlikely that older workers currently employed in firms will be retrenched in favour of younger subsidised workers. If substitution takes place, it would happen at the hiring stage should firms have to choose between workers of different ages but with similar other characteristics.

One could further hypothesise that if the size of the hiring voucher is large enough relative to the starting wage of young workers, this would allow firms to experiment with applicants whose productivity level is more uncertain to the employer. Thus, firms would have an incentive to source more young workers and this could potentially open up recruitment channels that are currently not utilised by firms. This may also have important dynamic effects such as providing work experience for young people and a source for references which would further reduce the uncertainty of their productivity signals.

However, a wage subsidy will not by itself solve South Africa's youth unemployment problem. Although almost 40% of the firms surveyed indicate that they would use a hiring voucher to hire more workers, the majority of firms are demand constrained. Increasing demand for the goods and services produced by firms in South Africa is thus an essential part of any strategy to reduce youth unemployment.

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APPENDIX

Table 1A: Official unemployment rate by age group and population group (Source: Quarterly Labour Force Survey)

Population group	Age	2008 Q1 %	2008 Q3 %	2009 Q1 %	2009 Q3 %	2010 Q1 %	2010 Q3 %
African							
	15-19	59.9	59.1	60.1	63.7	67.2	71.5
	20-24	50	50.6	51.3	52.9	55.2	54.9
	25-29	32.9	34.4	37	35.2	37.1	37.6
	30-34	26.2	24.5	25.1	28.3	28	27.8
	35-64	16.6	15.8	15	17.1	17.5	17.8
Coloured, Indian or Asian							
	15-19	49.8	52.5	57.5	57.8	59.8	58.9
	20-24	32.7	33.4	34	34	32.5	37.2
	25-29	20.5	19.2	21	25.3	21.7	24.5
	30-34	17	15.9	13.9	19.9	19.2	14.9
	35-64	8.4	9.5	10.1	11.3	11.8	12
White							
	15-19	37.2	22.8	20.1	22.1	23.4	33.7
	20-24	10.4	13.1	17.6	9.3	13.5	11.9
	25-29	6.2	5.7	10.2	6.1	12.7	9.4
	30-34	6.2	2.5	2.9	6.3	5.1	5.1
	35-64	3.1	2.4	1.9	3.6	3.8	3

Figure 3A: The number of working-age whites by labour market status and age cohort in 2010

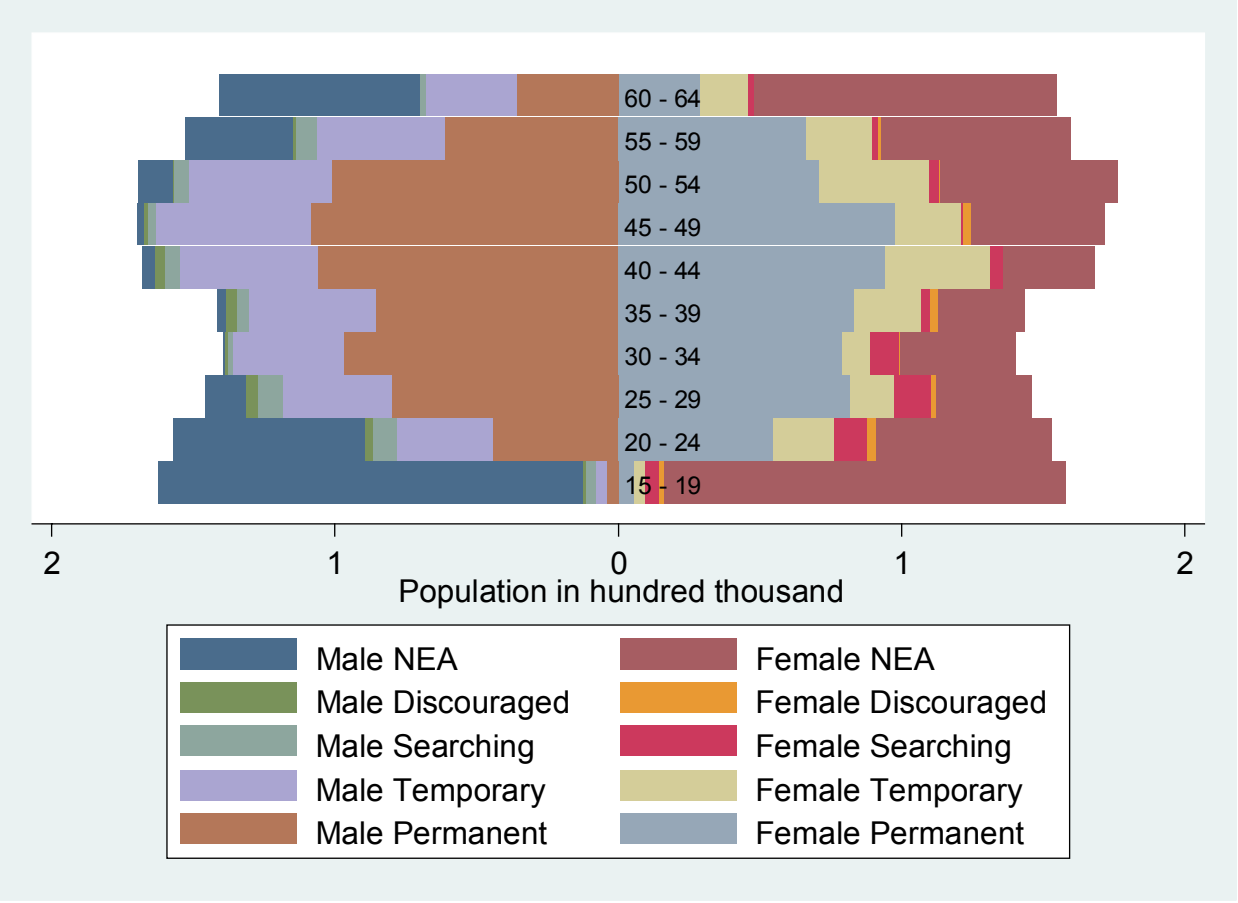


Figure 4A: The number of working-age Indians and Asians by labour market status and age cohort in 2010

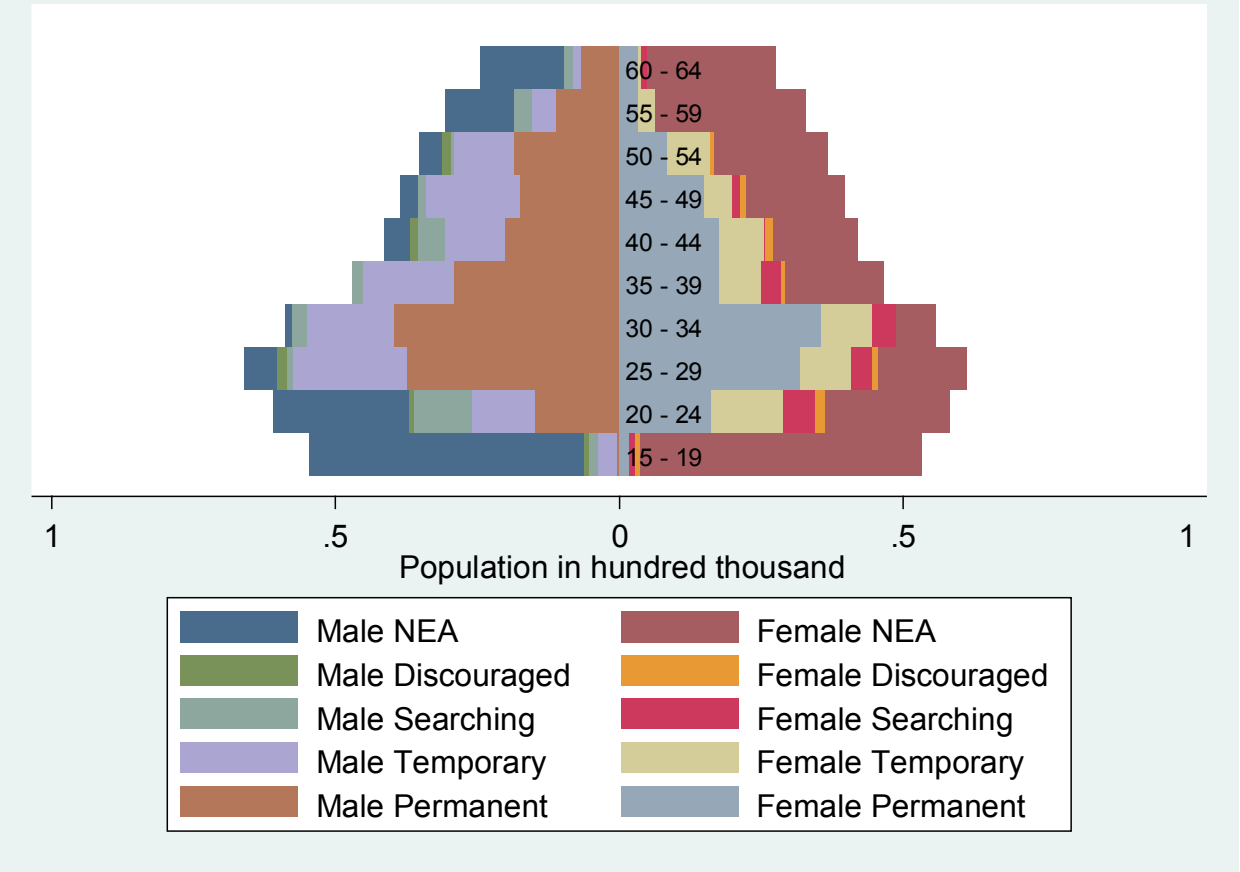


Figure 5A: The number of working-age coloureds by labour market status and age cohort in 2010

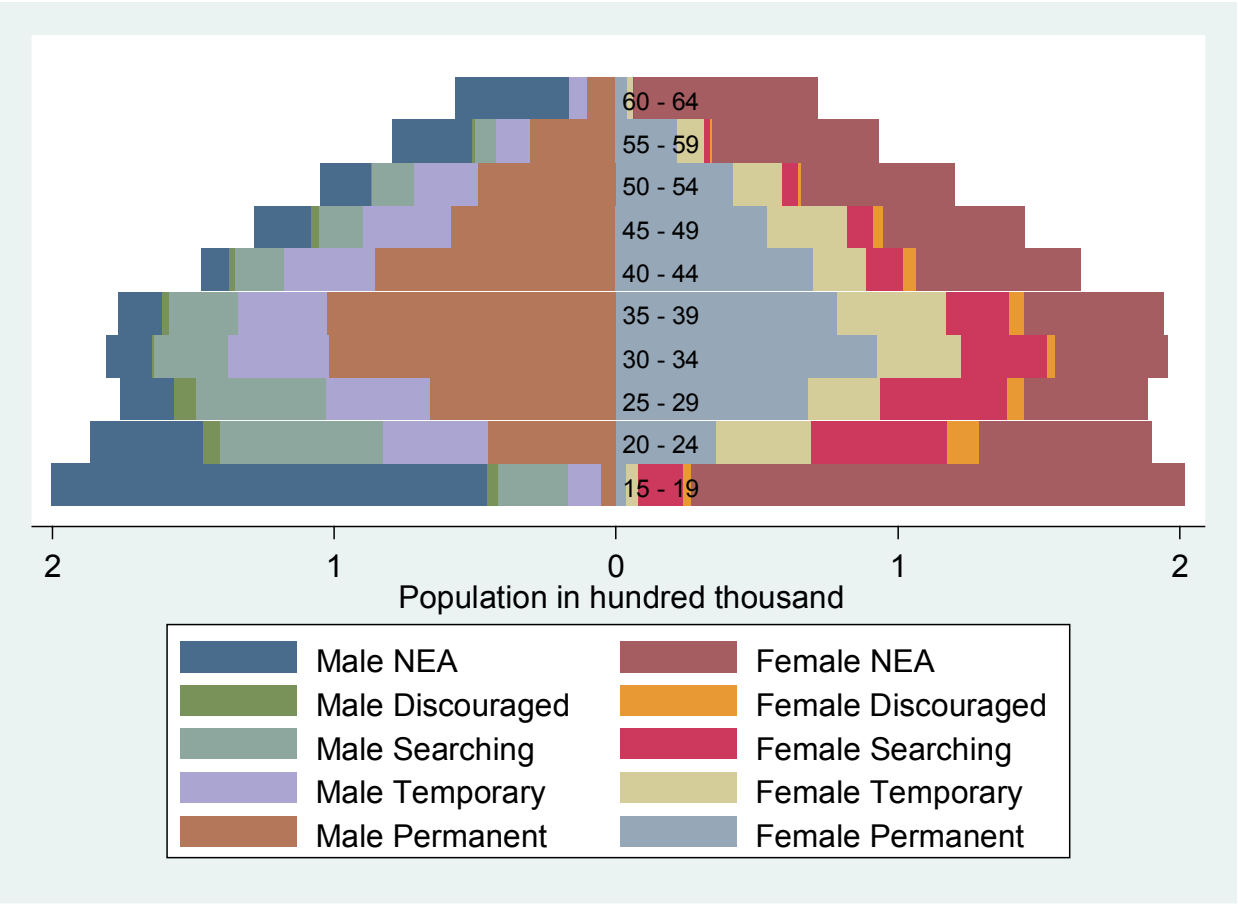
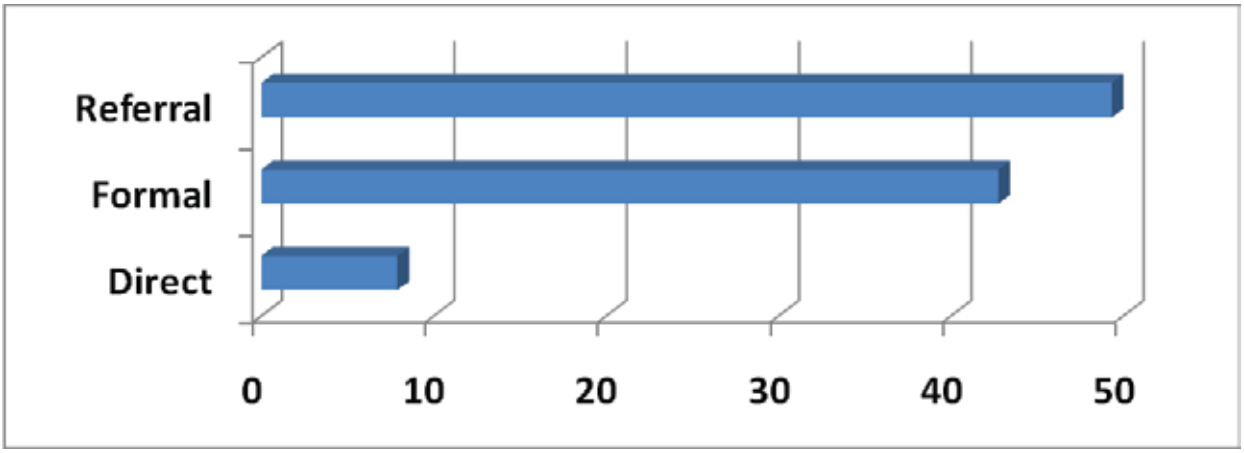


Figure 6A: Preferred application channel of firms



Regression 3A: Probit model of firm providing job training (marginal effects)

	(1)	(2)
VARIABLES	Providing job training (probit)	Providing job training (probit)
Age (log)	0.0115	0.0763
	(0.0315)	(0.0953)
Age squared (log)		–0.0137
		(0.0189)
Family business	0.0151	0.00987
	(0.0496)	(0.0495)
Unionised firm	–0.525	–0.535
	(0.378)	(0.370)
Firm size (log of total employees in 2010)	–0.00125	–0.000444
	(0.0216)	(0.0211)
Union*firm size	0.105**	0.106**
	(0.0493)	(0.0480)
Young employees/ total workforce	0.322**	0.329**
	(0.156)	(0.158)
Observations	90	90

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

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