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Importance of employment programs for the youth in South Africa

Discussion Document 08

JANUARY 2023

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Director



Importance of employment programs for the youth in South Africa*

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Executive Summary**

The present report reviews the literature on interventions to enhance employment – primarily focused on the youth – and discusses how such interventions might help the youth unemployment issue in South Africa. The design of employment programs should consider the causes of unemployment, which may vary depending on the context.

On the one hand, if unemployment is caused by an unmet demand for qualified labour due to the population's low investments in human capital, then supply-side interventions might be the most indicated policies to be adopted. Examples of such interventions are training workers with the skills demanded by the labour market or entrepreneurship programs.

On the other hand, if the pressing cause of youth unemployment is a lack of jobs due to low labour demand, interventions that support job creation, or demand-side interventions, might be the most successful. Such policies include workforce programs – or guaranteed public jobs, wage subsidies, and apprenticeships.

Finally, unemployment also emerges when market frictions do not allow qualified workers to be matched with firms looking for them. If this is the case, policies that help the labour market clear might be the most effective ones. Such policies include subsidies for job-seekers to travel for job interviews, job fairs, or workshops to help workers build their CVs.

The report indicates that, while several supply-side interventions have been ineffective, we can extract valuable lessons from successful interventions. In particular, offering life-skills training and combining the training with apprenticeships or job-

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seeking assistance are likely good practices for such interventions. Demand-side interventions, in turn, show that while apprenticeships and wage subsidies might have positive impacts on labour outcomes, guaranteed jobs that aim only to lift people out of poverty are likely not the most effective policy. Finally, interventions that help the market clear do not always work, but, if anything, they seem to help job-seekers and firms to update their expectations about the market.

The report concludes by discussing youth unemployment in South Africa and which type of intervention would be most effective in the country. The labour market in South Africa is characterized by a substantial mismatch between labour demand – which seeks qualified workers – and labour supply – mostly composed of lower-skilled workers. Hence, well-designed supply-side interventions, especially those that encourage and facilitate entrepreneurship, might improve employment rates in the country.

1. Introduction

Youth unemployment is a critical issue for many developing countries. On the one hand, the rate of youth entering the labour market has grown steeply in the past decade, with a high proportion of low-skill workers among this population. On the other hand, the demand for labour has been stagnating for low-skill labour, especially in the manufacturing sector, due to advances in automation (Acemoglu & Restrepo, 2019). This combination of factors has led to an increasingly tough match between the youth labour supply and the market's labour demand. Worldwide, youth unemployment reached the rate of 15.6% in 2021, three times the unemployment rate of adults (ILO, 2022). The situation is even trickier for lower-middle and upper-middle income countries, with an average unemployment rate of 17.9% and 16.4%, which can be as high as 73% in Djibouti.

In the face of this challenge, several researchers and policymakers have been investigating and testing some policies aiming to include the youth in the labour market. The nature of such policies varies substantially and depends on their premises about the causes of youth unemployment. Suppose policymakers identify that employers have an unmet demand for labour due, for instance, to workers' low skills. In that case, supply-side interventions – such as training workers with the skills demanded by the labour market – might be the most indicated policies to be adopted. These interventions can potentially improve the quality of the labour supplied by the youth, increasing their chance of getting a job.





However, if the pressing cause of youth unemployment is a lack of jobs due to low labour demand – perhaps caused by automation and technological improvements – supply-side interventions will likely have a low impact (Fox & Kaul, 2018). In this case, interventions that support job creation, or demand-side interventions, might be the most successful. Such policies include workforce programs – or guaranteed public jobs –, wage subsidies, and apprenticeships.

Finally, unemployment might emerge if the structure of the labour market makes the match between workers and employers difficult. Suppose, for instance, that labour demand is concentrated in urban areas while labour supply is more prevalent in rural areas. Alternatively, suppose that workers cannot credibly certify their skills to firms at the time of hiring. If this is the case, policies that help the labour market clear might be the most effective ones. Such policies include subsidies for job-seekers to travel for job interviews, job fairs, or workshops to help workers build their CVs.

In the present report, we revise the literature on these three classes of policies to address youth unemployment. We start by documenting evaluations of supply-side policies. These are by far the most commonly adopted policies. However, meta-analyses that investigate their impacts usually find null or small-size results. There are, however, some successful examples of supply-side interventions. Lessons from such interventions show that women's empowerment, programs' design and quality, and facilitating program participation might be crucial elements for the success of these policies. In particular, offering life-skills training and combining the training with apprenticeships or job-seeking assistance are likely good practices for such interventions.

We then turn to demand-side interventions. The literature has studied such policies less intensively than supply-side policies. However, the lessons, for now, show that workforce interventions that aim only to lift people out of poverty are not the most effective policy. These interventions are very costly and risk locking individuals into low-quality jobs. Moreover, if the aim is to lift individuals out of poverty, a more cost-effective policy might be cash transfers. Apprenticeships and wage subsidies, in turn, usually have positive impacts on labour outcomes, although sometimes they also deliver null results – mainly when we focus on the formal labour market that is constrained by the minimum wage.

We finally document evaluations of policies that help the market to clear. The literature has found some positive impacts stemming from these policies. One interesting result coming from interventions that match job-seekers with firms is that, even when the

policy does not lead to higher employment, it helps workers and firms update their priors about wages and skills.

We conclude the report with a discussion about the South African youth unemployment context and how the literature documented here can help policymakers in the country. We highlight that the country's most pressing problem leading to unemployment is a mismatch between firms demanding qualified labour and workers with low human capital investments. Hence, well-designed supply-side demands might successfully raise job seekers' qualifications. In turn, policies helping the market to clear, such as subsidizing the travel costs for job-seekers, might be a short-term solution for the persistent spatial segregation problem that the country faces. Finally, interventions that encourage entrepreneurship might be especially valuable for the current context in the country.

2. Supply-side interventions

Supply-side interventions aim to qualify workers to find jobs more efficiently or successfully open their own businesses. Examples of such interventions are skills training – either some practical work aptitudes or life skills, such as socioemotional abilities – or business training. They can be coupled with on-the-job training or with business grants.

Supply-side interventions are the most common type of employment program. As such, they have been vastly evaluated, and the literature on the topic is extensive. In this section, we first describe the findings of several reviews and meta-analyses on the topic. Then, we describe some successful interventions in developing countries in more detail.

Kluge et al. (2019) perform a meta-analysis on youth employment programs that primarily focus on disadvantaged youth in high, middle, and low-income countries. Their results show that, on average, youth employment programs have positive and significant effects on youth employment, but the magnitude of the impact is small (0.04). The authors argue that programs' impact depends on the design and implementation of the program, the country, and the participants' characteristics. For instance, they find that the initiatives are more successful in low- and middle-income countries compared to high-income countries. This difference might emerge because low-skilled, low-income individuals – who are over-represented in poorer countries – benefit the most from such programs.



The authors also show that the most successful youth employment programs have multiple elements. For instance, interventions that provide skills development followed by supplying access to capital and counseling participants are more effective than just skills training. Moreover, there is evidence that programs are more successful when the private sector is involved in the interventions.

The study by Fox and Kaul (2018) brings less optimistic results regarding employment programs. The authors look at the evidence in low-income countries and show that general interventions such as vocational training usually have null effects on youth employment. Only vocational training that included life skills teaching followed by an apprenticeship had a positive impact on wage employment in some countries. However, due to low demand for labour, even interventions that delivered positive effects risk displacing other workers from the market.

The authors suggest that the most effective intervention is to change the labour market by pushing agricultural and domestic employees into self-employment. Therefore, interventions to help improve self-employment and entrepreneurship, including a cash grant that overcomes credit barriers and sufficiently allows for business growth, as well as mentorship and training in skills, can lead to self-employment for the unemployed.

Entrepreneurship programs, however, are not bulletproof. In a meta-analysis of such interventions, Cho and Honorati (2014) find that their effectiveness differs according to the country, context, and people targeted. The result of all the programs showed that outcomes were significantly higher for the youth. Still, the interventions had no immediate effect on their labour income or business setup. They also find some interesting heterogeneities. For instance, business training for entrepreneurs improved business performance relative to financial training offered to participants. Moreover, combining financial grants with skills development is generally more beneficial than giving entrepreneurs micro credit. The meta-analysis reveals that financing is women's most significant obstacle: by providing credit to women, they can create business start-ups.

In line with these findings, Alaref, Brodmann, and Premand (2020) show that entrepreneurial training without financial support has only short-lived impacts. The authors evaluate an intervention targeting university students in Tunisia. The intervention taught students about business and networking skills for 17 days, followed by three days in the field to interview professionals about managing a business.

Professors and entrepreneurs mentored students in writing a business plan. As a prize, monetary awards were given to the best 50 business proposals.

One year after the program, the treated group had more active intentions to start their business than the control group. However, more than one-year post-intervention saw no significant differences in the intention to start a business or the likelihood of being self-employed between the treated and control group. An end-line survey uncovered that financial constraints were the main barrier for youth when starting up a business.

2.1 Lessons from successful supply-side interventions

Even though meta-analysis and literature reviews usually find small to null impacts of training and entrepreneurship programs, the lessons from some studies in the literature tell us that such programs' effects can be rather significant, depending on their design and settings.

The first lesson is that training programs that empower women usually deliver positive impacts.

For instance, Maitra and Mani (2017) evaluate the impact of vocational training for women between the age of 18 and 39 living in the Indian slums. The treatment group underwent training in stitching and tailoring clothes. The skills training lasted for two hours daily for six months. The authors find that women participating in the intervention had better labour market outcomes than the control group. This result is still evident in the medium run. Women in the treated group showed an increase in employment numbers, increase in income earned, and increase in the number of hours worked; this improvement has positive effects on the welfare of the household. Lastly, female participants in the treatment group were more likely to enter entrepreneurship in the medium term relative to the control group.

The program was also cost-effective: the authors' cost-benefit analysis indicates that the program costs can be recovered with less than four years of employment.

Another example is the work of Adoho, Chakravarty, Korkoyah, Lundberg, and Tasneem (2014), which evaluated the "Economic Empowerment of Adolescent Girls and Young Women" initiative. Such an initiative provided skills training and support to find a job or start a business for vulnerable women in Liberia. The program participants were divided into a job skills track or a business development track. Both programs consisted of classroom-based training for six months, followed by support to enter wage employment



or start a business. The job skills treatment developed skills specific to activities with high market demand, such as professional driving, computer services, and house painting. The business development program provided entrepreneurship training in business management, customer service, and market analysis.

The authors find that participants in both programs experienced positive effects on earnings and employment relative to the control group. The women assigned to the business development track had a greater likelihood of finding employment, and their earnings were higher relative to the job skills program. Interestingly, half of the women in the job skills treatment started their own businesses.

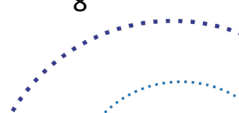
Finally, Chakravarty, Lundberg, Nikolov, and Zenker (2019) find a large impact of a vocational training program in Nepal and show that the results are mainly driven by women who started a home business. The authors explain that such a large impact on women stems from the fact that the Nepalese job market is still very restrictive for women and the program allowed them to start their own businesses.

The second lesson regards the design and quality of training programs. An example is the work of Galdo and Chong (2012), who leveraged a bidding process that put in competition different program providers in Peru to compare the programs' impact depending on their quality. The authors show that participants attending high-quality training had better outcomes in the labour market than participants attending low-quality training and the control group.

Besides quality, and as pointed out by the previous meta-analyzes, combining different employment programs seems to be the most effective. Chakravarty et al. (2019), for instance, argues that one source of their programs' success is that the program was bundled with other services such as job placement, life-skill training, and business training. Moreover, the program was tailored to meet the needs of the target population.

Das (2021) also shows that an on-the-job training program had sustained positive effects on participants' earnings in Bangladesh. The effects were mainly driven by a shift from casual to formal jobs. Importantly, the authors show that adding classroom training that includes topics such as soft skills and financial literacy made the program's impact even more sustained.

Finally, the third lesson behind successful training programs is that they usually incentivize the participation of beneficiaries. As John List argues in his book (List, 2022),





one of the secrets behind the success of scalable ideas is that beneficiaries should have enough “dosage” of a policy. The idea here can be simplified with an analogy: if a patient does not take his prescriptions, he will not heal, no matter how good the medication is. Likewise, training participants need to engage in the course for it to be effective.

Indeed, most studies described above have an element of incentive or facilitation for beneficiaries’ participation. Maitra and Mani (2017), for instance, describes that for women to participate in the skills training, they need to pay 50 rupees to the course instructors. Once these participants completed the course, they received 350 rupees. This deposit was used to encourage participation and course completion.

Chakravarty et al. (2019) also describes several measures to encourage the retention and attendance of the girls participating in the program. Examples of such efforts are free childcare in the training site, the payment of a small stipend and a completion bonus conditional on attendance, and a mentoring program.

Perhaps the most remarkable training program in terms of impact was Jovenes en Accion (Youth in Action) in Colombia. Attanasio, Kugler, and Meghir (2011) show that the program delivered significant labour market results, especially for women. According to the authors’ cost-benefit analysis, even the most pessimistic scenario about the program’s impact would justify the implementation of such a program.

In a follow-up study about the program, Attanasio, Guarín, Medina, and Meghir (2017) found that ten years after the initial program was implemented, individuals that were a part of the program experienced a greater likelihood of working for a firm in the formal sector and had higher productivity levels. By being employed in the formal sector, individuals can contribute more to social security as the earnings are higher for the individuals in the treated program than participants in the control group. The authors conduct a cost-benefit analysis and find that since the program gains are stable over time, the program’s effect seems permanent. Hence, the program has a calculated net benefit of 17.7%.

The features of this program encompass all the lessons described above. First, program participation was encouraged and facilitated. For instance, the program covered participants’ transport and lunch costs, conditional on going to the course. If individuals had children, daycare fees were also covered, which is especially important for women’s participation. Second, the training was combined with a three-month on-the-job internship. Hence, the private institutions that offered training focused on the skills

demanded by firms that would provide the apprenticeship. This led to an alignment between the training and the skills required in the labour market. Moreover, the on-the-job experience helped firms to have a period of experimentation with employees before hiring them. It also allowed workers to know about other job openings in firms connected to the internship network.

2.2 Non-anticipated results from training programs

Even if they do not change labour market outcomes immediately, training might impact long-term outcomes not measured by the researchers.

Ibarraran, Ripani, Taboada, Villa, and Garcia (2014), for instance, show that youth training in the Dominican Republic decreased teenage pregnancy among girls and increased individuals' socio-emotional skills. The program did not find that the training increased individuals' likelihood of finding a job (albeit there was a positive impact on income and the possibility of moving to the formal labour market). However, these other unanticipated impacts could lead to better labour market outcomes in the future.

Training might also change beneficiaries' expectations and behavior when looking for a job, bringing critical long-term changes. In a paper about the topic, Bandiera et al. (2021) investigate the impact of a combination of vocational training and job match in Uganda. The intervention targeted disadvantaged unskilled youth with limited labour market experience and randomly assigned the participant into three treatments (besides a control group). The first treatment arm was vocational training in different sectors considered to have good jobs, such as welding, hairdressing, and electrical wiring. The second treatment arm was vocational training coupled with matching to a firm once the course was completed (no jobs were guaranteed, though). Finally, the third treatment arm consisted of putting participants in touch with a firm without previous training.

The main purpose of this intervention was to improve long-run labour market outcomes for the participants, either equipping them with skills needed in the market, decreasing job search frictions, or both. However, the intervention also changed workers' expectations about their likelihood of finding a good job, and such expectations played an essential role in their job search.

The authors show that, at baseline, workers were optimistic about their chances of finding jobs in good sectors. Workers in the control group, or those only offered the match with firms without training, gradually revise their expectations down and are more



likely to start their own business in the future as they perceive job opportunities as low. Workers offered vocational training, in turn, increased their optimism regarding labour market opportunities. However, such an increase in optimism had different impacts on workers assigned to vocational training depending on whether they were offered the chance to be matched with firms. While the likelihood of being employed in the long run was greater for workers receiving vocational training compared to the control group, workers in the vocational training treatment who had the opportunity to be matched with firms had significantly worse labour market outcomes compared to those not matched with firms.

The authors explain that such a difference in the outcomes of trained workers was due to a decrease in the optimism of those matched to firms once they did not receive as many callbacks from the firms as they expected. Hence, while workers receiving only vocational training searched for longer and only for high-quality firms, individuals that received vocational training and matching became more discouraged and looked for employment at lower-quality firms.

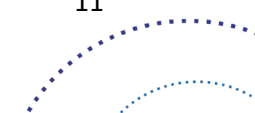
2.3 Opportunity costs of training programs

The final remark we would like to make regarding skill training programs is on the opportunity costs of such programs. On the one hand, the literature has found small or insignificant impacts of such training. On the other hand, even if we consider successful programs, one needs to consider other programs addressing unemployment that were forgone due to the implementation of training programs.

For instance, McIntosh and Zeitlin (2022) use the results of a randomized control trial in Rwanda to compare the effectiveness of a training program versus simply offering cost- equivalent cash transfers to beneficiaries. The authors show that, even though the training program effectively raised individuals' productivity and well-being, the cash transfers proved a more effective policy. It not only moved the previous outcomes as well, but it also improved consumption, income, and wealth.

3 Demand-side interventions

Demand-side interventions aim to increase the demand for labour, either from the government or the private sector. The most prominent example of such programs is





workforce programs – or guaranteed public jobs – where the government provides public jobs to the poor for a certain period of time. Other examples of demand-side programs are wage subsidies and apprenticeships, where the government – or NGOs – subsidizes hiring workers for on-the-job training. The main goal of this second type of demand-side program is to foster the upskilling of workers. From this perspective, they can also be considered supply-side programs. However, as jobs are created to absorb such workers, these programs fall more into the umbrella of demand-side interventions.

There is less research on the impact of demand-side programs than on supply-side programs. However, the evidence, for now, shows that guaranteed jobs that aim to pull people out of poverty are not the most cost-effective policy for this purpose, mainly because they usually lock workers into low-quality jobs. The literature on apprenticeships or wage subsidies, in turn, presents more mixed results, with some successful cases and some null results.

3.1 Workforce programs

The Indian National Rural Employment Guarantee Act (NREGA) is perhaps the most famous example of a guaranteed job intervention. Under NREGA, every household in rural India is guaranteed a job at a state-level wage for 100 days per year. The program works well in terms of targeting. The government does not exclude anyone from the 100 days guaranteed jobs; instead, it lets individuals who will benefit from the program to self-select to it. Such a scheme is efficient since it does not incur costs associated with monitoring who is entitled to the program and who is not (Banerjee, Niehaus, & Suri, 2019).

Imbert and Papp (2015) studied several aspects of NREGA. First, the authors show that the program led to an increase in low-wage, low-skilled employment work and a decrease in private-sector work. That is, the increase in public-sector jobs crowded out private-sector work. This led to a rise in private-sector wages. Second, the authors analyze the redistributive aspect of the program. They find that, through the increase in wages, NREGA led to a redistribution of income from richer to poorer rural households. However, such welfare gains were not enough to surpass the program's costs, which were quite expensive. The authors show that, even if we consider only the poorest household, the ones that benefited most from the program, their welfare gains were still about half of the costs of the program.





In a related discussion about the effectiveness of NREGA, Ravallion (2019) compares it to cash transfers, another renowned anti-poverty program. The author argues that, in India, the Employment Guarantee scheme is more costly relative to the Universal-based income grant. He also argues that guaranteed employment schemes will lead to the rationing of jobs and, consequently, to reduced benefits to poor people, such as insurance and empowerment benefits. These initiatives also carry high administrative costs, and institutions must be aware of corruption. Direct cash transfers, in turn, also have notable problems. Directing them only to poor people requires the government to finely target those needing transfers, which increases the programs' costs. However, the author states that if targeting a cash transfer can have limited cost implications, this approach can yield better cost-effectiveness outcomes than guaranteed jobs.

Besides the problems mentioned above, workforce programs also do not seem to deliver sustained effects. Leight and Mvukiyehe (2022), for instance, implement a randomized control trial in Tunisia to evaluate the medium and long-term effects of public works programs such as upgrading infrastructure projects. Individuals in the treatment group showed positive effects in terms of short-term economic and psychosocial outcomes. Earnings in the short term from the program increased household consumption, assets, and financial inclusion. Women that were included in the program experienced better female empowerment and improved psychological well-being. However, five years after the intervention, differences between the control and treatment groups have equalized. The authors conclude that the program did not change the economic trajectory or improve psychological well-being.

One important issue with workfare programs is that they risk locking beneficiaries in low-quality jobs. In an evaluation of a temporary employment program in Peru, Escudero et al. (2016) shows that the program increased employment for some beneficiaries. However, an unintended consequence of the program is that beneficiaries got trapped in low-quality jobs, such as those in the informal sector, with low pay and extensive working hours.

Consequently, individuals might take jobs in such workforce programs only if they are the last available resource to escape poverty. In related work, Blattman and Dercon (2018) evaluated an intervention that offered some individuals the opportunity to join an industrial job and other individuals the chance to receive financial support and business training to open their own businesses. The authors conclude that individuals offered industrial work quit within a year, and hence the policy did not positively impact their



labour market outcomes – if anything, industrial jobs increase their likelihood of having health problems. Individuals who were offered the opportunity to start a business, in turn, increased individual earnings by 33 percent. The authors conclude that when the barriers to become an entrepreneur are lifted, individuals prefer this track to an industrial job.

3.2 Apprenticeships

Wage subsidies or apprenticeships with the specific goal of increasing the experience and skills of participants delivered more positive results than workforce programs.

Crépon and Premand (2019), for instance, evaluate the impact of a dual apprenticeships in Cote d'Ivoire where participant received both general and specific on the job training. The authors argue that there is usually an incentive incompatibility between the training that firms want to offer (specific training) and the training that workers would like to receive (general training). On the one hand, firms are hesitant to provide general training since the skills acquired in such training are transferable to other jobs. Hence, firms face the risk of losing the workers they trained soon. On the other hand, workers are unwilling to incur the costs of specific training since the skills acquired in such training are too narrow. To address this problem, the program in Cote d'Ivoire subsidized a dual training program, paying workers to take part in both general and specific training. The authors document that the program increased the youth's access to apprenticeship and training and that undergoing such training substantially improved their future earnings.

The works of Le Barbanchon, Ubfal, and Araya (2021) and Beam and Quimbo (2021) offer other interesting lesson about apprenticeships programs.

Le Barbanchon et al. (2021) evaluate a program adopted in Uruguay that focus on youth that are still enrolled at school. The authors note that theory suggests that working while in school can help the transition from school to work by equipping the youth with relevant skills required in employment. On-the-job training can equip school-goers with sector-specific skills or general skills like teamwork and communication. They evaluate a program in Uruguay that matched students with a state-owned firm in their locality by lottery. The primary aim of the program was to enhance students' skills.

The firms were forbidden to offer students' a job once the program ended. Hence, whatever improvement in students' earnings and employability after the program came



from other channels, such as an increase in their skills and job experience. Indeed, two years following the program, the treated youth experienced an increase in their earnings up to four years following the program relative to the control group. The authors argue that this may be due to program participants' ability to perform more highly skilled tasks relative to the employment obtained by the control group.

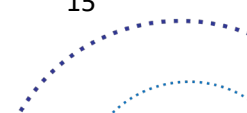
Beam and Quimbo (2021) evaluate another apprenticeship initiative for upskilling purposes. The employment program provided a summer/part-time job to the youth from low-income families who are enrolled in a college or secondary school with job opportunities in the public sector. Participants also needed to obtain a reference letter stating they were of good moral character. Participants earned minimum wages for the duration of employment which ranged from 20 to 52 days.

Ten months after the intervention, an end-line survey revealed that treated participants were more likely to be employed relative to the control group. Importantly having a summer job did not negatively affect training or education of the individuals. The summer job is an indication of worker quality, allowing the treated individual to find employment easier relative to the control group.

However, apprenticeships not always deliver positive results. It seems that the results vary considerably depending on the context. Groh, Krishnan, McKenzie, and Vishwanath (2016), for instance, study the impacts of a wage subsidy voucher offered to female community college graduates in Jordan. The primary goal of such a voucher was to test whether wage subsidies can serve as a stepping-stone to workers who are trapped in a vicious cycle where firms demand experience from workers, but new workers will not acquire experience unless they are given a chance to work in a firm.

However, while the vouchers did increase the experience of college graduates, they did not have an impact on their labour market opportunities in the long run. One possible explanation behind these results is that the increase in the productivity of recent graduates was not high enough to surpass the minimum wage.

The quality of employers also seem to make a difference regarding the impact of apprenticeships programs. Hardy, Mbiti, Mccasland, and Salcher (2019), for instance, show that a government-sponsored apprenticeship training program in Ghana shifted youth out of wage work and into self-employment, which reduced their earnings since profits in self-employment did not offset their wage loss. However, the authors show that trainees matched with the most experienced or profitable trainers had higher earnings, an increase that more than offsets the programs' average negative effects.



Hence, a crucial message stemming from this paper is that the quality of trainers plays an essential role in determining the success of such apprenticeship programs.

4 Policies to help the labour market clear

Youth unemployment might emerge even when there is demand for work and employees are qualified enough to supply the jobs on demand. The reason for that is the existence of searching frictions that prevent the match between workers and employers. Spatial barriers, for instance, emerge when job seekers face travel costs when looking for jobs that restrict the number of openings they apply to. Another type of friction is informational barriers that emerge when job seekers cannot credibly certify their skills.

Abebe et al. (2016) evaluate an intervention in Ethiopia that aimed at breaking such geographical and informational barriers to improve the effectiveness of job matches. One of the program's treatment arms offered a transport subsidy where participants received a cash transfer conditional on being used for transportation to a job interview. Another treatment arm supported job seekers with building their CVs and signaling their skills to employers through certifications. The authors find that individuals receiving transport subsidies are twenty-five percent more likely to have a job in the formal economy relative to those in the control group. This transport subsidy allows the unemployed to search for a job more intensely, increasing the likelihood of finding employment. Moreover, after eight months, participants in the CV building intervention were forty percent more likely to have permanent jobs relative to the control group. Low-educated workers in the CV building treatment were able to signal their skills to employers, which can generate higher income for these workers. These interventions had stronger effects on women, and less educated participants.

However, facilitating the match between firms and job seekers only works when there is enough alignment in two dimensions. First, job seekers need to meet the quality criteria that firms demand. Second, the wages offered by firms need to be above workers' reservation wages. In another experiment in Ethiopia, Abebe et al. (2017) found that a job fair to facilitate the meeting between workers and firms led to very few matches due to workers, on average, lacking the skills firms were looking for, and low-skilled workers having a higher reservation wage than what firms were willing to offer. The intervention, however, helped make both firms and workers update their expectations. After the fairs, the unemployed increased their efforts to find a job and lowered their reservation wage,

increasing employment levels. Firms, in turn, increase their advertising and recruitment at the job vacancy boards to attract more qualified workers.

Another example of policies that help the market to clear is National Employment System (SINE), in Brazil. The government implemented the SINE program to help connect job seekers and employers. The program conducts services for firms and job seekers, such as job placement and interview referrals. An employee of SINE matches job seekers to available jobs based on skill sets. In a study about the program, O'Leary, Cravo, Sierra, and Veloso (2019) found that job referrals from SINE increase the likelihood that an individual will find employment within three months of the referral, relative to individuals that did not use the program. Individuals that received job referrals also found work at a faster rate compared to those that did not obtain job referrals. However, using job referrals from SINE reduced the mean time of employment and decreased the wages offered by employers. The authors argue that this may be due to stigma: SINE is notorious for helping low-skilled employees find jobs where employers may exploit this fact by offering lower wages.

5 Discussion – youth unemployment in South Africa

General unemployment is already a pressing issue in South Africa. However, the situation is even more complex if we focus on youth unemployment. Unemployment for the entire population is on the rise, going from 23.25% in 2008 to almost 30% in 2020. Youth unemployment, however, is almost twice as high as general unemployment, and it has also gotten worse with time. In 2008, the percentage of unemployed youth was 38.18%, and it reached 48.81% in 2020.

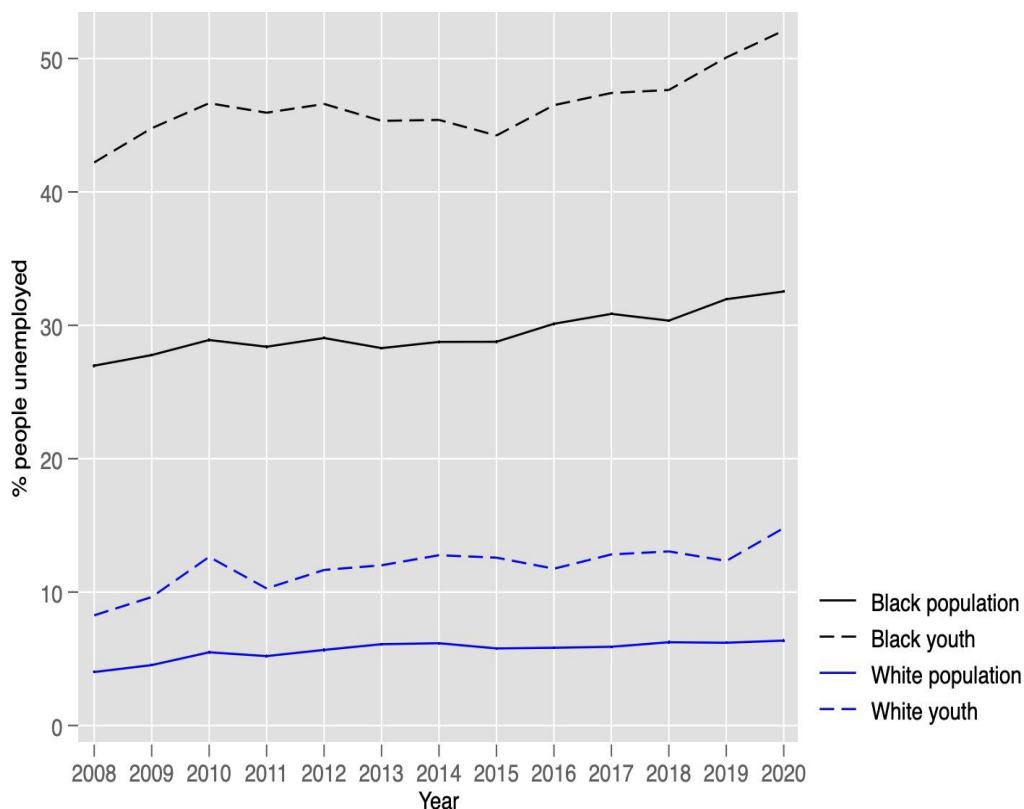
Figure 1 presents the trends in unemployment for the whole population and the youth by race from 2008 to 2020. The black population group has an unemployment rate of 32.53%, while 6.36% of the white population is unemployed in 2020. The youth unemployment rates have an increasing trend for both race groups, where the black population has a much higher unemployment rate relative to the white group. The youth unemployment rate for black race group is 52.09% and 14.80% for the white people.

South African youth also present low investments in their human capital. According to Statistics South Africa (2019), only 8.31% of youth have tertiary education, while more



than 54.65% have not completed secondary education¹ On the one hand, these figures are better when comparing secondary education completion between the youth and older population, but the youth struggles to obtain tertiary education relative to the older population (which has 14.96% of people with tertiary education and 56.82% of people with less than secondary education). On the other hand, the scenario is still very worrying: the number of jobs offered in the agricultural and manufacturing sectors – which usually demand lower-skilled labour – is decreasing while the service sector is developing and increasing the demand for skilled workers (Foko, 2015). Consequently, there is an ongoing mismatch of skills between demand and supply in South Africa: the high-skilled industries have labour shortages, but most labourers have low skills due to inadequate education attainment (Khuluvhe et al., 2022).

Figure 1: Unemployment rate for South Africa (2008-2020)



Note: authors' computation using the Labour Source Survey

¹ Once more, the scenario is worse for black youth, with a share of only 7.44% attaining tertiary education while more than 57% have less than secondary education.



South Africa has a poor economic climate. Relative to other upper-middle-income countries, South Africa has a low gross fixed capital formation rate. This, coupled with a movement towards automation seen in the expansion of the tertiary sector and reduction of labour-intensive agriculture and manufacturing jobs, limits employment. A shift towards technology creates a bias for high skills in the labour market, therefore, individuals are incentivized to attain higher education improving their likelihood of finding employment in the labour market. Problematically, the number of science, engineering, and technology graduates are decreasing, which will limit the capacity of the economy to develop (Khuluvhe et al., 2022). Additionally, this speaks to underqualified individuals filling positions, contributing to the skills mismatch in the economy. In contrast, uneducated individuals have difficulty finding employment. Further, low-skilled individuals struggle to read, write and actively listen, complicating the unemployment problem (Khuluvhe et al., 2022).

In such a scenario, supply-side interventions may assist with the unemployment crisis by promoting qualifications in science, technology, and engineering and improving skills for uneducated individuals. Even though interventions to help the market clear might have limited impact given the overall skills mismatch problem, they could offer a short-term solution to the problem of spatial segregation, which is still very predominant in the country (David et al., 2018). In such a context, interventions that subsidize job-seekers travel when looking for a job might be especially valuable.

However, the country could benefit particularly from policies encouraging self-employment as many people live in townships below the poverty line, hence turning to entrepreneurship to escape poverty. About 80% of the population declare owning a business, and this figure is about the same for the youth. However, South Africa has a low ease of doing business index: the country ranks 139 out of 190 countries in activities related to starting a business. While the cost of starting a business is low relative to other countries, it remains a deterrent for South African entrepreneurs. Further, the time and procedures required complicate this process (The World Bank, 2020). Not surprisingly, the reasons to start a business indicate how such activity is the second-best option for most people. About 74% of the population declare that such reasons involve either being unemployed, not having another source of income, having an inadequate income, or simply trying to survive.

Finally, policy makers should consider other reasons preventing self-employment in the informal sector over and above lack of access to capital and fear of the business failing. In Khayelitsha, a township near Cape Town, individuals state that crime hinders





their willingness to become an entrepreneur (Cichello, Almeleh, Mncube, & Oosthuizen, 2011). Individuals stated that opening a home based enterprise put entrepreneurs at risk for house robberies (Cichello et al., 2011). Therefore, to improve the rates of informal entrepreneurship, crime rates need to decrease for individuals to feel safe to open a business.

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