

# South African Reserve Bank Occasional Bulletin of Economic Notes OBEN/19/02

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Chris Loewald

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South African Reserve Bank

# SARB Occasional Bulletin of Economic Notes

## August 2019

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## The effectiveness of the Employment Tax Incentive

*Bojosi Morule and Konstantin Makrelov*

### Abstract

The Employment Tax Incentive (the ETI) is designed to increase the labour demand for young workers. It is one of very few incentives targeted towards reducing the cost of labour rather than capital. The cost per job supported is significantly lower than other government incentives and the ETI supports more jobs than any other incentive. In 2016/17, the ETI direct cost was R4.6bn compared to R28bn for the automotive sector. South Africa spends a lot more on incentives encouraging capital rather than labour use, causing labour substitution and capital misallocation. Improving the ETI job creation impacts requires: improved targeting; reduction in dismissal costs; improved coordination with other policies; and a review of the size of the implicit wage subsidy and the relative subsidy compared to capital costs.

### 1. Introduction<sup>1</sup>

This note presents a review of the Employment Tax Incentive (ETI) based on the available literature and provides recommendations on how to improve the impact. We also compare the ETI's performance against other South African incentives, such as the Automotive Investment Scheme (AIS) and the Section 12i Tax Allowance Incentive.

The ETI was introduced in 2014 for a two-year period, which was subsequently extended to February 2029 (National Treasury, 2019). It is a tax credit given to firms to stimulate labour demand for the 18 to 29 age group. The wage subsidy reduces the cost of labour to employers without lowering the wages of the workers themselves. This helps with reducing the rigidities in the labour market and allows young workers to gain experience, which is important for their future employment and wage growth.

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## 2. Background

The ETI was proposed in 2011 (National Treasury, 2011). The original policy concept of a wage subsidy to support youth employment in South Africa dates back to 2002 (Fletcher and Loewald, 2002). The original proposal was for a tax credit which targets the supply of labour. This would increase the labour participation rate and enable unemployed youth to receive the market clearing wage.<sup>2</sup> Additional proposals followed. These argued that the subsidy design should include a training and skills development component, probationary period with a “no questions asked” dismissal policy and be complemented by an immigration reform to support youth employment through its complementarity with skilled employment (Levinsohn, 2008; National Treasury, 2011). Levinsohn (2008) proposed a wage voucher capped at 50% of the actual wage for recent school leavers.

Several studies assessed the likely impact of a youth wage subsidy prior to its introduction. Go *et al.* (2009), using a Computable General Equilibrium (CGE) model, analysed the impact of a subsidy equivalent to 10% of earnings on the employment of low- and medium-skilled labour in scenarios with low, medium and high factor substitution elasticity. They found employment gains of 1.9 to 7.2%, depending on the elasticity. Burns, Edwards, & Pauw (2010) also used a CGE model to assess the impact of a subsidy of R5,000 for low-skilled workers in the manufacturing and some service sectors and found a 6% increase in low-skilled employment.<sup>3</sup>

Other studies employed survey and randomised control trial (RCT) methods to assess the impact of a wage subsidy. They found that a wage subsidy could increase the probability of employment of eligible individuals by 25% and decrease long-term unemployment (Levinsohn *et al.*, 2014; Levinsohn and Pugatch, 2014). The preliminary estimates indicate that a wage subsidy can be an effective tool to address youth unemployment, depending on its design.

National Treasury estimated that the ETI would subsidise 423,000 youth jobs and create 178,000 new youth jobs over the initial three year period at a cost to the government of R5 billion (National Treasury 2011). Box 1 presents the ETI design features.

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<sup>2</sup> The choice between a supply-side or demand-side wage subsidy hinges on whether the labour market suffers from low participation (perhaps as a result of high reservation wages) or a lack of labour demand from firms. Other factors such as ease of implementation may also influence the design of the policy. For a discussion of the theoretical concepts regarding wage subsidies see Burns, J., Edwards, L., & Pauw, K. (2010). Wage Subsidies to Combat Unemployment and Poverty: Assessing South Africa's Options. *Southern Africa Labour and Development Research Unit Working Paper Number 45*.

<sup>3</sup> The subsidy was capped at 50% and limited to R10,000 per year.

### Box 1: ETI features

Eligibility criteria:

- Age: 18 – 29 years old
- Income: Minimum wage or R2,000 up to R6,000 per month
- Eligible employers: All industries, excluding the public sector and domestic workers
- ETI jobs have to be new hires
- Eligibility period: 24 months

Penalties will be imposed on firms if:

- ETI is claimed on an employee earning less than the minimum wage.
- An existing employee is displaced in order for an ETI-eligible employee to be hired.

**Table 1: Monthly subsidy per employee**

Monthly remuneration (R)	First 12 months	Next 12 months
0-2,000	50% of monthly pay	25% of monthly pay
2,001-4,000	R1,000	R500
4,001-6,000	R1,000-0.5 x (monthly pay – R4,000)	R1,000-0.25 x (monthly pay – R4,000)

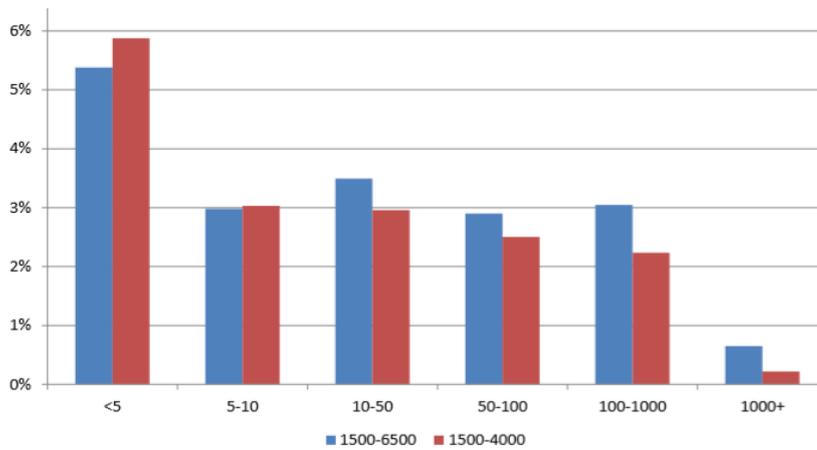
### 3. The impact of ETI in South Africa

In this section, we assess the impact of the ETI against the National Treasury estimates. In the 2014/15 fiscal year, the first full year of its existence, the ETI was claimed by 32,368 firms to support 686,402 jobs at a cost of R2.2 billion (National Treasury, 2016). This was higher than initially expected due to a high take-up by firms in agriculture, manufacturing, retail trade and finance and business services. These sectors had large number of eligible jobs, better trading conditions than sectors such as construction and were more effective at claiming the incentive. Labour brokers had the largest proportion of ETI eligible workers across sectors, however the sector only accounted for 11% of ETI jobs. ETI recipients had higher wages compared to non-recipients, particularly in firms with fewer than 5 employees and smallest in firms with over 1,000 employees (Figure 1). The take-up of ETI was comparatively higher among large firms (firms with employees exceeding 100).<sup>4</sup> The cost of ETI peaked at R4.8 billion in 2016/17 (Figure 2).<sup>5</sup>

<sup>4</sup> The lowest proportion of ETI supported jobs is in the following industries: Electricity, gas, steam & air conditioning supply; water supply, sewerage & waste management and information and communication.

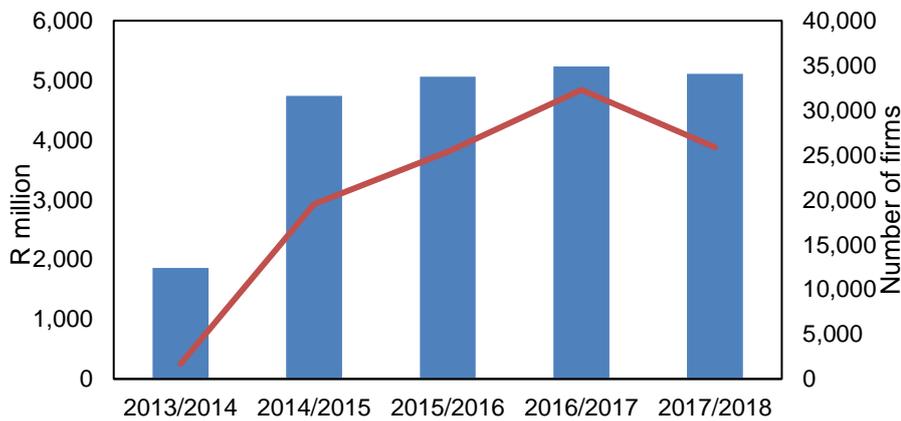
<sup>5</sup> The cost fell to R3.8 billion in 2017/18 due to employees reaching the second half of the programme on which a smaller amount can be claimed. Disaggregated administrative tax data is provided with long lags; hence most of the current studies cover only the first two years of ETI support.

**Figure 1: Wage premium of ETI jobs by firm size**



Source: Chatterjee and Rankin

**Figure 2: ETI utilisation by firms**



Source: National Treasury and SARS

Several independent studies have assessed the impact of the Employment Tax Incentive on employment. Most studies (particularly those using administrative tax data from SARS) find a positive, but small, impact on youth job creation compared to preliminary estimates (Ebrahim, Leibbrandt, & Ranchhod, 2017; Chatterjee and Rankin, 2016; Bhorat, Lilenstein, & Khan, 2018). The impact is estimated at 97,850 jobs over the first two years of implementation (Ebrahim, Leibbrandt, & Ranchhod, 2017).

The evidence of job creation is most pronounced in smaller firms (Bhorat, Lilenstein, & Khan, 2018; Chatterjee and Rankin, 2016; Makgetla, 2016).<sup>6</sup> Several studies find no evidence young workers, eligible for the ETI, replacing older workers (Ebrahim, Leibbrandt, & Ranchhod, 2017; Bhorat, Lilenstein, & Khan, 2018; Makgetla, 2016). The results also suggest that many of the jobs supported by the ETI would have been created anyway, implying that the incentive is an unconditional transfer from government to firms (Ebrahim, Leibbrandt, & Ranchhod, 2017).

<sup>6</sup> In the regressions, smaller firms tend to have positive, larger and statistically significant coefficients. This result is despite take-up being higher in larger firms. This suggests that large firms use the ETI to fund jobs they were going to create anyway, while smaller firms use the incentive to create new jobs.

There are various factors that could have contributed to the observed results. The absence of recommended design features such as a training requirement (though many standalone training subsidies exist in South Africa) and lower dismissal costs, could have diminished the potential of the ETI to create new jobs. Better training preceding the implementation of a wage subsidy can increase the employability of young workers and the creation of new jobs. Lower dismissal costs reduce the risk associated with hiring and thus increase the willingness of employers to hire or use the subsidy. The results also suggest a need to improve the targeting of the Employment Tax Incentive. We provide some suggestions below based on examples from other countries.

Additionally, the results are based on a very short period of data (the first 15 to 27 months of implementation) that is dominated by low take-up in the first fiscal year, low GDP growth and rising unemployment. Economic growth is a necessary criteria for the creation of new jobs and, in its absence, a wage subsidy could be insufficient for firms to increase their labour demand. There is insufficient data to assess the longer-term employment impacts as none of the studies covers an entire business cycle.

#### 4. International experience with wage subsidies<sup>7</sup>

The international literature finds positive impacts from the introduction of wage subsidies. In New Zealand, a wage subsidy, aimed at reducing long-term welfare dependency and targeted at disadvantaged jobseekers, increased the long-term probability of employment by 13% and the earnings of participants by \$20,000 over the three years following the introduction of the subsidy (Crichton & Maré, 2013). The subsidy ran concurrently with several smaller subsidies for training and skills development and paid up to \$16,900 per person in 2007.<sup>8</sup> In Turkey, subsidising employers' unemployment insurance contributions for young (18 to 29 years old) or female employees yielded 142,000 new jobs with deadweight losses of 27 - 46% (Betcherman, Daysal, & Pagés, 2010).<sup>9</sup> The deadweight losses and cost per job were smaller than in a previous program due to improved targeting.

The introduction of wage subsidies in Germany, Denmark and the United Kingdom have also generated large positive impacts. For Germany, the probability of employment amongst recipients increased by 20 percentage points (Caliendo, Künn, & Schmidl, 2011). In Denmark, the subsidy led to 71% increase in the new hires of long-term unemployed workers (Rotger & Arendt, 2010). In the United Kingdom, the wage subsidy was part of a group of programmes targeted at 18 to 24 year olds who had been unemployed for at least 6 months. The beneficiaries first had to participate in a job search assistance programme. If they were unsuccessful at finding a job, they would be provided with a wage subsidy. This reduced deadweight losses and increased the positive impacts. The programmes increased the probability of being employed for men by 20% (Van Reenen, 2003). The effect was amplified by the addition of a training component. The subsidy ranged between 40 and 60% of the wage.

The international literature indicates that improving targeting requires the following:

1. Selecting beneficiaries who are unlikely to get a job through other labour market programmes, such as a job search assistance programme.<sup>10</sup>
2. Targeting specific sectors or types of firms, which have more elastic demand for labour.

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<sup>7</sup> For a complete review, see Annexure B.

<sup>8</sup> The majority of subsidies were less than \$5,000.

<sup>9</sup> The deadweight loss shows the jobs supported by the subsidy, which would have been created anyway. It is expressed as a share to job created due to the incentive.

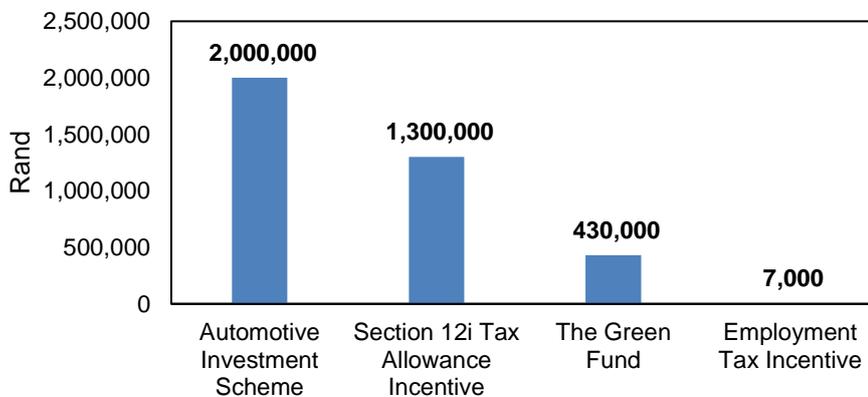
<sup>10</sup> A job assistance programmes can provide career counselling and skills assessment and help jobseekers with applications and interview preparation, among other things.

3. Identifying individuals with specific skill sets or qualifications, which are less likely to be employed. For example, workers in the age group 18 to 25 only with matric certificate.
4. Identifying regions where employment growth is weak and the impact of a wage subsidy is likely to be high.
5. Reducing dismissal costs for beneficiaries.
6. Sequencing reforms e.g. improving access to the labour market for skilled immigrants before the wage subsidy is introduced.<sup>11</sup>

## 5. How does the ETI compare to other incentives?

A review by the Department of Planning, Monitoring and Evaluation (DPME) shows that the ETI has more positive impacts on employment than other incentives and its cost per job is lower. In addition, the ETI is one of a few incentives that supports labour use rather than capital.

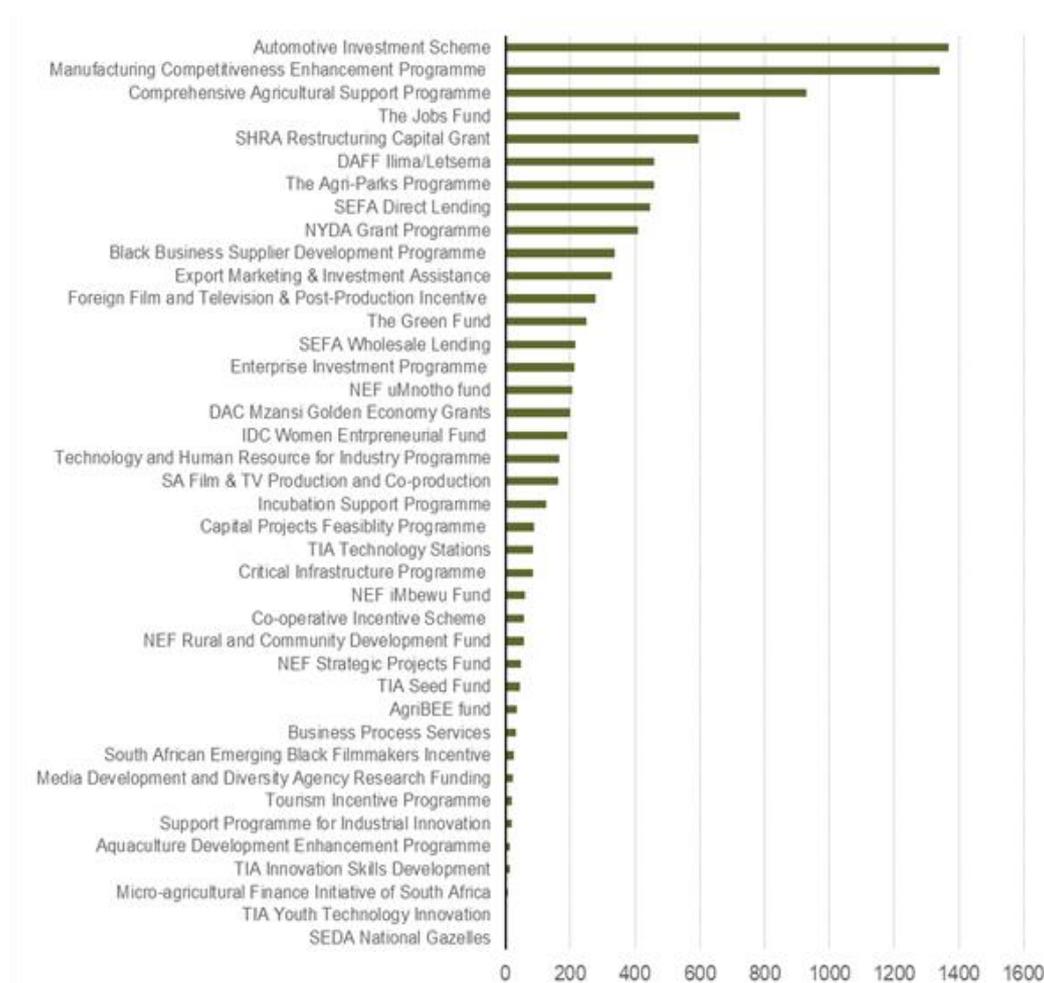
**Figure 3: Average cost per job of industrial incentives**



Source: Department of Planning, Monitoring and Evaluation, Own calculations

<sup>11</sup> A wage subsidy aims to address the cost of hiring of young works. There are, however, other factor, which hinder youth employment either directly or indirectly and reduce the effectiveness of a youth wage subsidy. For example, a firms may be limited in their expansion plans by the unavailability of high skilled labour.

**Figure 4: Total expenditure – direct incentives (R million, 2014/15)**



Source: Department of Planning, Monitoring and Evaluation

Figure 3 compares the ETI against other incentives in terms of cost per job. The Automotive Investment Scheme and Section 12i Tax Allowance Incentive have a cost per job of R2 million and R1.3 million, respectively, compared to ETI's R7,000 per year.<sup>12</sup> The production of cars is very capital intensive with labour intensity continually declining as production lines become more sophisticated.

Recent review of industrial and tax incentives by The Department of Planning, Monitoring and Evaluation The DPME review also reveals that South Africa spends between R50 billion and R60 billion per year on direct incentives. The incentives are not coordinated and their impact is not monitored. The system of incentives is designed and targeted towards old and mature industries rather than new industries (Figure 4 shows the main direct incentives). This contributes to low potential growth and the loss of competitiveness of South African enterprises.

The largest direct incentive is the Automotive Investment Scheme, followed by the Manufacturing Competitiveness programme. In 2018/19, these two programmes were allocated just over R3 billion. The

<sup>12</sup> The Section 12i Tax Allowance Incentive is aimed at boosting productivity in the manufacturing sector by funding capital investment and training for Greenfield (new industrial projects) and Brownfield investments (upgrades and expansions of existing industrial projects).

automotive sector also receives a large number of other incentives. The largest is through custom duties equivalent to over R28 billion. Table 2 lists the largest tax incentives.

**Table 2: Tax incentives to firms<sup>13</sup>**

<b>R million</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>
<b>Total personal income tax<sup>14</sup></b>	76599	78878	87565	106782
<b>Corporate income tax</b>				
Small business corporation tax savings	2423	2556	2669	2329
Reduced headline rate	2391	2523	2626	2293
Section 12E depreciation allowance	32	33	42	36
Research and development	219	209	268	218
Learnership allowances	912	949	990	926
Strategic industrial projects (12I)	473	423	479	693
Film incentive	36	13	5	5
Urban development zones	299	232	257	126
Employment tax incentive	140	2420	4063	4656
Energy-efficiency savings	690	128	974	1070
<b>Total corporate income tax</b>	5192	6930	9706	10022
<b>Customs duties and excise</b>				
Motor vehicles (MIDP/APDP, including IRCCs)	18415	23467	26936	28362
Textile and clothing (duty credits – DCCs)	468	539	788	725
Furniture and fixtures	156	180	217	181
Other customs	665	911	1040	963
Diesel refund	4955	5870	8175	3762
<b>Total customs and excise</b>	24659	30967	37156	33993
<b>Total tax expenditure</b>	157237	169155	190772	209007
<b>Total gross tax revenue</b>	900015	986295	1069983	1144081

Source: National Treasury

Newman *et al.* (2019) study how access to credit and corporate incentives – namely the research and development, learnerships allowance and section 12E depreciation allowance - affect the allocation of labour and capital across manufacturing firms.<sup>15</sup> They find that the misallocation of capital is greater than that of labour due to most incentives encouraging capital use and that resource misallocation has increased over time, leading to lower productivity.

<sup>13</sup> Note the Budget Review provides information on tax expenditures only once tax returns are finalised and audited, hence the most recent data is for 2016/17.

<sup>14</sup> Retirement fund contributions and medical tax credits make up over 90% of personal income tax expenditures.

<sup>15</sup> The section 12E depreciation allowance provides tax relief for the depreciation of capital assets of business corporations.

## 6. Conclusion

The ETI has been subject to more evaluations over its short span than any other government incentive and has the lowest cost per job. The results suggest that the incentive has created a small number of new jobs for young workers given the large number of recipients. All of the estimates suffer from data quality issues, but more importantly they are based on approximately one to two of data, which makes it impossible to identify the exact impacts of the incentive. There are several interventions that can increase the positive impacts:

1. Improve targeting of the incentive to reduce the deadweight losses.
2. Reduce dismissal costs
3. Introduce a training component
4. Improve coordination with other policies and incentives i.e. immigration reforms as proposed by Levinsohn (2008)
5. Review the size of the implicit wage subsidy and the relative subsidy compared to capital costs. Change the design if required and reduce the size of capital incentives.

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## Annexure A

**Table 2: Summarised results**

Author	Year	Results
Ebrahim, Leibbrandt, & Ranchhod (2017)	2014-5, SARS data	<ul style="list-style-type: none"> <li>• An increase in both youth and non-youth employment</li> <li>• Suggests firms were hiring anyway</li> <li>• No significant impact</li> </ul>
Ranchhod & Finn (2015)	2011-2014, QLFS	<ul style="list-style-type: none"> <li>• No significant impact on youth employment probabilities</li> <li>• No significant impact of extent of labour market churn amongst youth</li> </ul>
Bhorat, Lilenstein & Khan (2018)	2010-2016, SARS data	<ul style="list-style-type: none"> <li>• Evidence of positive impacts on youth employment, particularly in smaller firms.</li> <li>• No evidence of displacement for low-wage 30-35 year olds.</li> <li>• Evidence of low-wage youth churn in 2015, but not in 2016 (coefficients small but significant).</li> </ul>
Chatterjee & Rankin (2016)	2013-2015, SARS data	<ul style="list-style-type: none"> <li>• Positive impact on youth employment and limited displacement of (lower-paid) 30-35 year old workers.</li> <li>• Larger impact in smaller firms across sectors. There is a wage premium of about R122 per month in ETI jobs.</li> <li>• ETI individuals are more likely not to have been working in the last tax year (because these are new jobs).</li> </ul>
Makgetla (2016)	2013-2015, SARS data	<ul style="list-style-type: none"> <li>• No impact on youth employment though there are some positive effects among small firms at an aggregate level.</li> <li>• No evidence of increased non-youth hiring at ETI firms.</li> <li>• No evidence of employee displacement.</li> </ul>

## Annexure B

Country	Implementation period	Programme name and description	Target group	Evaluation
Argentina	1998-2000	<b>Proempleo Experiment:</b> Wage subsidy combined with specialised training	Poor households and low income workers	Galasso, Ravallion & Salvia (2001): <ul style="list-style-type: none"> <li>• Positive impact on private sector employment</li> <li>• Subsidy voucher raises employment by 6.1%</li> <li>• Subsidy voucher plus training results in an increase in employment rate of 7.5%</li> <li>• Employer take-up low due to the cost involved of registering a worker.</li> <li>• Substitution effects were limited due to cost of severance pay if regular worker was fired.</li> </ul>
Australia	1976-1985	<b>Special Youth Employment Training Program:</b> Wage subsidy with little emphasis on training	15-24 year olds	Richardson (1998): <ul style="list-style-type: none"> <li>• SYETP had large and significant effect on subsequent employability</li> <li>• Increased probability of having a job sometime between 8 and 13 months after expiry by 26% had</li> <li>• Increased probability of having a job sometime between 14 and 26 months after expiry by 20%</li> </ul>
Belgium	1990	<b>Employment Plan:</b> Subsidises social insurance contributions.	Long-term unemployed.	Cockx & Gobel (2005): <ul style="list-style-type: none"> <li>• Positive impact on employment duration.</li> <li>• Policy decreased transition rate from employment to non-employment in first year, with no significant effect in the second year.</li> </ul>
Belgium	2000	<b>Rosetta Plan (First Job Agreement programme):</b> Subsidies, on-the-job training and recruitment.	Young people	Nicaise (2001): <ul style="list-style-type: none"> <li>• Positive effects on job placement.</li> <li>• 85-90% still had jobs in the early months after the first job agreement.</li> </ul>
Colombia	2002-2006	<b>Program de Apoyo Directo al Empleo (PADE):</b> Provision of wage subsidy to small, micro and medium sized firms.	<ul style="list-style-type: none"> <li>• Disadvantaged workers</li> <li>• Other target groups: working mothers, the disabled and ex-combatants</li> </ul>	Ministry of Social Protection (2004): <ul style="list-style-type: none"> <li>• Subsidy value and duration sufficient to serve as an incentive.</li> <li>• Qualifications of workers in these lower income groups did not impact on the willingness of firms to hire them.</li> <li>• Administrative problems encountered.</li> </ul>
Czech Republic	1991	<b>Socially Purposeful Jobs:</b> Wage subsidy with repayment if employment did not last 2 years	Job seekers from Labour Office register	Leetmaa et al (2003): <ul style="list-style-type: none"> <li>• 9% net increase in employment .</li> </ul> Wilson & Fretwell (1999): <ul style="list-style-type: none"> <li>• Positive impact on initial employment, no impact on current employment , impact on current earnings found to be negative</li> </ul>
Denmark	2005	<b>Act on an Active Employment Effort:</b> Subsidy of approximately 50% of the wage	The long-term unemployed or those at risk of long-term unemployment	Rotger & Arendt (2010) <ul style="list-style-type: none"> <li>• Use of subsidy has a significant positive effect on subsidised firm's employment.</li> <li>• Subsidised employment creates about 0.5 ordinary jobs in the subsidised firm at the start of the subsidy period and rises over time.</li> <li>• Hiring a subsidised worker on average has no deadweight loss or direct substitution effect at the firm level.</li> </ul>
Germany	1998-2003	<b>EGZ:</b> Direct wage subsidy	Hard-to-place workers	Jaenich & Stephan (2007): <ul style="list-style-type: none"> <li>• EGZ accounted for only 2.6% of all unemployment exits in 2004.</li> <li>• Evaluation after 3 years: 25-42% of the subsidy beneficiaries (previously unemployed) would not have been in regular employment.</li> <li>• Short-term training measures also improved labour market prospects</li> </ul>

				after end of programme.
<b>Slovakia</b>	1997	<b>Socially purposeful jobs (SPJ):</b> Wage subsidy for the employment of target group	Disadvantaged jobseekers, to the age of 25 or over the age of 50 and the long term unemployed.	Van Ours (2000): • SPJ have a negative effect on the job-finding rate.
<b>Sweden</b>	1992	<b>Youth Practice:</b> Provided employment subsidy	Unemployed young people below the age of 25	Larson (2000): • Zero or negative effect on earnings, employment probabilities, and probability of entering education in the short run. • Long run effect mainly zero or slightly positive. Larson (2003) • Negative employment and income effects of the programme 1 year after the programme started.
<b>Turkey</b>	2004 and 2005	<b>Law 5084 and 5350:</b> Regionally targeted employment subsidies.	All low income provinces with a per capita GDP of less \$1500 (2001 prices)	Betcherman & Daysal (2009): • Estimated registered employment gains of 5-13% under Law 5084 and 11 -15% on Law 5350.
<b>Turkey</b>	May-08	<b>Law 5763:</b> Subsidisation of private employer's unemployment insurance contribution	Youth (18-29 years) and woman	Betcherman & Daysal (2009): • Initial evaluations indicate 142,000 estimated new jobs; 166,000 new jobs for the youth, 19,000 jobs for adult woman and a loss of 43,000 jobs for adult males.
<b>United Kingdom</b>	1998	<b>New Deal for Youth Employment:</b> Comprehensive approach including subsidised employment (see Box 2)	Youth (18-24)	Van Reenen (2003): • Programme had significant impact in moving young people into jobs. • Young unemployed men are about 20% more likely to find jobs each month. • Social benefits appear to outweigh its social costs
<b>United States</b>	1979 -1994	<b>Targeted Jobs Tax Credit (TJTC):</b> Tax credit to employers. A voucher to the target group, entitled the employer to the credit if the person was hired.	Economically disadvantaged youths	Katz (1996): • Modest but positive employment effects on economically disadvantaged young adults. • Reduction in employer wage cost by approximately 15% for the typical participant in a job of six months duration in the early 1990s.
<b>United States</b>	1977 -1978	<b>New Jobs Tax Credit (NJTC):</b> Non-categorical employment subsidy in the form of a tax credit	No specific target group	Bishop (1981): • Estimates of an increase in employment in retail and construction from 150,000 to 670,000, or an economy-wide employment increase of 0.2 to 0.8 per cent.