

# **Productivity Without Exclusion: An Augmented Development Strategy for South Africa's AI Economy**

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## **1. INTRODUCTION**

South Africa needs faster productivity growth at precisely the moment it can least afford a disruptive labour-market shock. Real GDP contracted by 0.2% in the second quarter of 2026, with manufacturing output falling by 1.8% (Statistics South Africa [Stats SA]: 2026a). The official unemployment rate reached 33.6%, representing 8.5 million unemployed people, while unemployment among those aged 15 to 34 reached 47.4% (Stats SA: 2026b). Artificial intelligence (AI) therefore enters an economy that needs new sources of productivity but has unusually little capacity to absorb prolonged labour displacement.

The tension creates two policy risks. The first being premature substitution: firms may automate tasks faster than workers can move into new productive roles, deepening exclusion in an already weak labour market. The second is insufficient diffusion: firms may fail to integrate AI deeply enough to generate the productivity gains South Africa needs. National Treasury (2026a) identifies faster AI adoption that boosts productivity as an upside risk to growth. Its downside fiscal scenario also shows why productivity matters beyond firms: weaker growth raises the long-run primary surplus required to stabilise debt from 2.9% to 3.7% of GDP. This implies a broader constraint: when growth is weak, South Africa has less fiscal room to absorb disruption, so deliberately slowing productivity-enhancing adoption is not costless.

South Africa should respond with an augmented development strategy: using AI to raise productivity while widening the capabilities and pathways through which people participate in that growth. The analysis proceeds from the economic problem to education, industrial policy, fiscal incentives and labour-market transition, before drawing the evidence together in a conclusion and recommendations. The central test throughout is whether policy raises productive diffusion without weakening pathways into productive work.

The objective is neither maximum automation nor maximum job preservation. It is to convert AI into broader productive capability while limiting the duration and social cost of disruption. Two principles follow: subsidise the spillover, not the technology; and protect pathways, not tasks.

## **2. THE ECONOMIC PROBLEM: FROM TASK-LEVEL GAINS TO ECONOMY-WIDE PRODUCTIVITY**

AI can generate substantial productivity gains within particular tasks without producing equally large gains across an economy. Acemoglu and Restrepo (2019) provide the starting point: automation can displace labour from existing tasks, while productivity improvements can expand output and new tasks can restore labour demand. The eventual employment effect depends on the interaction of these forces.

Experimental studies show sizeable task-level gains. Using data from 5,172 customer-support agents, Brynjolfsson et al. (2025) found that AI assistance increased productivity, measured as issues resolved per hour, by 15% on average, with the largest gains among less-experienced and lower-skilled workers. Noy and Zhang (2023) found that ChatGPT reduced completion time on professional writing tasks by 40% and improved output quality by 18%. Dell'Acqua et al. (2026) found that consultants working within AI's capability frontier completed 12.2% more tasks and worked 25.1% faster, while users attempting a task outside that frontier were 19 percentage points less likely to produce a correct solution. The common implication is that productivity depends on task fit and human judgement.

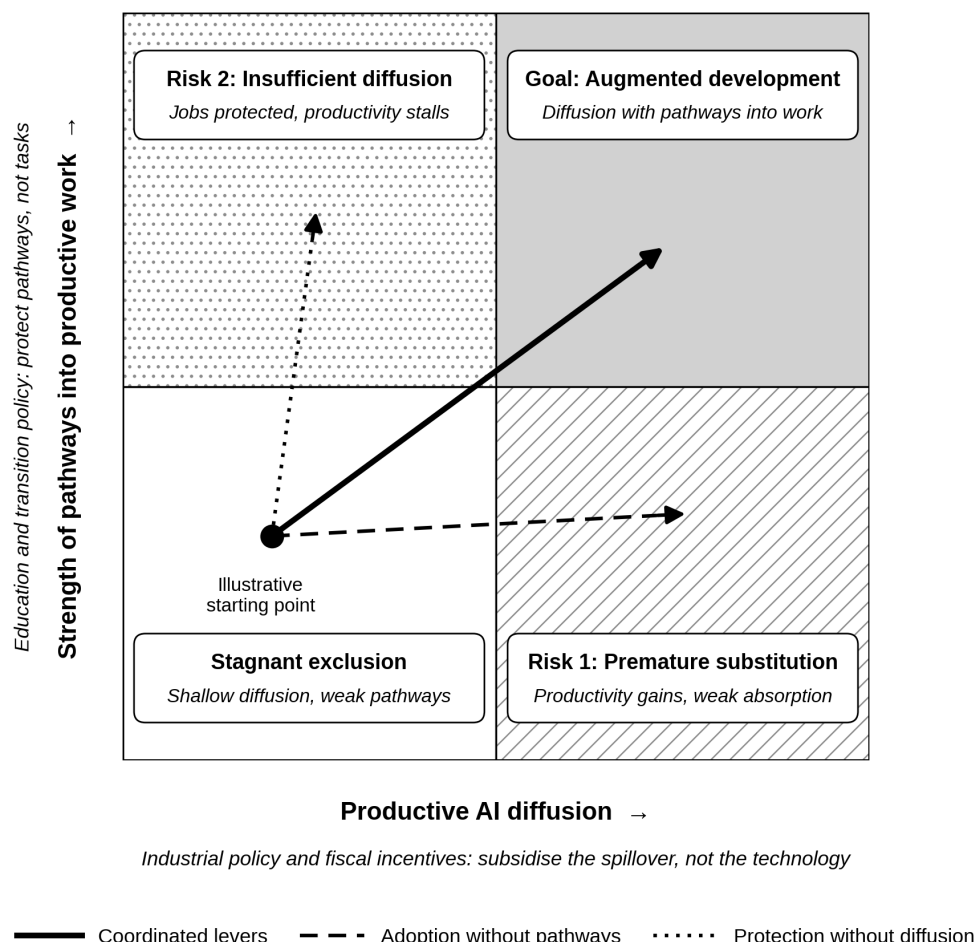
The macroeconomic effect may be considerably smaller. Acemoglu (2025) estimates an upper bound of 0.66% for the increase in total factor productivity over ten years using existing estimates of task exposure and task-level cost savings. After adjusting for harder-to-learn tasks where AI may be less effective, the estimate falls below 0.53%. These are model-based estimates rather than forecasts, but they illustrate why large gains in selected activities need not translate

into comparable aggregate productivity growth. A modest aggregate estimate does not imply trivial labour-market effects: task exposure is uneven, so disruption can be concentrated even when economy-wide TFP gains are small (Acemoglu & Restrepo: 2019; Gmyrek et al.: 2025). Acemoglu (2025) also finds no evidence that AI will reduce labour-income inequality.

South African evidence suggests a similar distinction between access and integration. World Wide Worx's (2025) survey of more than 100 medium-sized and large enterprises found that generative AI (GenAI) adoption had risen from 45% in 2024 to 67% in 2025, while only about 14% of respondents had an organisation-wide strategy. Although limited to larger firms, the survey points to an implementation gap between using AI tools and reorganising businesses around them. General technology evidence reinforces the point. Using more than 21,000 establishments across 15 countries, Cirera et al. (2026) find that establishments often possess sophisticated technologies within a business function but conduct most activity using simpler ones; these persistent gaps are strongly associated with productivity.

The two risks are not equally evidenced in South Africa. The implementation gap is visible in a survey of medium-sized and large firms (World Wide Worx: 2025), but South Africa still lacks a representative local measure of AI-driven displacement. On current evidence, insufficient diffusion appears to be the larger economy-wide risk; substitution is better treated as a concentrated risk in exposed tasks and entry pathways (Gmyrek et al.: 2025). Figure 1 sets out the resulting policy logic: increase productive AI diffusion while strengthening pathways into productive work.

**Figure 1: The Augmented Development Framework: Two Risks and the Policy Response**



**Source:** Author's framework, based on the displacement, productivity and new-task mechanisms in Acemoglu and Restrepo (2019). Positions and trajectories are illustrative rather than measured.

The figure shows the trade-off directly: adoption without pathways risks weak labour absorption, while protection without diffusion risks stalled productivity. The preferred path combines diffusion with stronger routes into work.

### 3. EDUCATION: BUILD HUMAN-AI COMPLEMENTARITY

South Africa's education response should begin with a distinction between specialist AI capability and the skills required to work productively with AI. Evidence from OECD economies indicates that fewer than 1% of workers require advanced AI-specific skills, while a much larger share increasingly needs digital capability and the ability to use, analyse and interpret data.

Around 40% of non-adopting employers surveyed in manufacturing and finance identified skills

as the main barrier to AI adoption (Organisation for Economic Co-operation and Development: 2026). Education policy is also productivity policy: diffusion will stall if firms cannot find workers capable of integrating AI into real production processes.

This problem starts in basic education. The frontier evidence above shows that AI becomes less useful when workers lack the judgement to recognise an incorrect answer (Dell'Acqua et al.: 2026). The Progress in International Reading Literacy Study 2021 found that 81% of South African Grade 4 learners did not reach the low international benchmark, meaning they could not read for meaning at the level expected by that benchmark (Roux et al.: 2023). Foundational literacy and numeracy therefore set a ceiling on human-AI complementarity: workers cannot reliably interrogate an AI-generated argument, diagnosis or calculation without understanding the underlying material independently.

At post-school level, AI should be taught inside disciplines and occupations rather than as a stand-alone skill. Universities should embed it in disciplinary practice, while technical and vocational education and training colleges and occupational programmes should combine it with workplace tasks. An accounting student might verify AI-supported analysis; a technician might use AI in diagnosis and process improvement; a service trainee might learn to resolve cases that automated systems escalate. The Quality Council for Trades and Occupations could shorten review cycles in fast-changing occupations and make greater use of modular skills programmes that can be updated without redesigning an entire qualification (Quality Council for Trades and Occupations: n.d.).

Funding should reward labour-market outcomes, not course completion alone. Botha and Havemann (2025) find that between 2011/12 and 2023/24 real Sector Education and Training Authority (SETA) revenue rose 46% while certifications fell 23%, and certifications per SETA employee declined from 92 to 35. For AI-exposed occupations, a portion of discretionary funding could instead depend on verified placement, sustained employment, real wage progression and occupational progression.

The proposed restoration of the mandatory grant creates a practical lever. The operative mandatory grant remains 20% of an employer's skills levy, while the 2026 State of the Nation Address announced an intention to restore the share returned to employers to 40% (Health and Welfare Sector Education and Training Authority: n.d.; The Presidency: 2026). If implemented,

the Department of Higher Education and Training (DHET) should make part of the additional 20 percentage points conditional on verified workplace learning and progression outcomes, rather than simply expanding payment for workplace skills plans and training reports. No increase in the levy would be required.

South Africa needs foundationally capable workers, domain experts who can exercise judgement with AI, and a skills-financing system that rewards movement into productive work. Those capabilities become economically valuable only when firms reorganise production to use them.

#### **4. INDUSTRIAL POLICY: DIFFUSE AI WHERE SOUTH AFRICA CAN COMPETE**

Because firms often underuse sophisticated technologies they already possess (Cirera et al.: 2026), the constraint on diffusion is frequently organisational rather than technological. Firms must identify valuable use cases, prepare data, redesign workflows and build complementary skills. A subsidy for purchasing AI software does little to solve those problems.

South Africa can embed AI diffusion in its existing Industrial Development Strategy (IDS). The 2026 IDS is organised around decarbonisation, diversification and digitalisation. Its diversification pathway includes agro-processing, health industries and services such as tourism, finance, logistics and business services, while its digitalisation pathway seeks to embed digital technologies across industries. Crucially, the IDS calls for coordinated policy packages that align instruments with priorities and address coordination failures (Department of Trade, Industry and Competition [dtic]: 2026). AI policy can therefore work through existing sectoral architecture rather than sit beside it as a separate technology programme.

Global Business Services (GBS) is the clearest sectoral test case. It created 26,346 new international-market jobs in 2025, around 90% filled by young people (Business Process Enabling South Africa [BPESA]: 2026). In Q2 2025, 71% of new international roles were frontline voice positions, with insurance accounting for 22.75% of demand (BPESA: 2025b). These figures are not forecasts of job loss, but they show a youth-employment success concentrated in tasks that global clients may increasingly automate or redesign. South African providers therefore have an incentive to move into more complex service lines before routine work is automated internally or shifted elsewhere.

The current GBS incentive already seeks to create employment through offshore services, with youth employment and export revenue as secondary objectives (dtic: n.d.-a). Its redesign could retain a labour-absorption floor while rewarding measurable expansion into new export markets or higher-value service lines, sustained employment and progression into more complex AI-enabled work. Firms should compete through open windows rather than government selecting technologies, vendors or individual winners. BPESA reports that the sector is building capabilities in analytics, AI, machine learning and cloud services (BPESA: 2025a); support could reinforce movement up the value chain without treating every low-complexity seat as equally valuable.

In manufacturing, the main barrier is often implementation rather than invention. Smaller firms may struggle to identify viable applications or redesign workflows. The AI Productivity Diffusion Window proposed in the fiscal section would combine vendor-neutral diagnostics, co-funded pilots, worker training and process redesign.

## **5. FISCAL INCENTIVES: SUBSIDISE THE SPILLOVER, NOT THE TECHNOLOGY**

South Africa does not need a general AI tax incentive. Firms already have strong private reasons to adopt technologies that lower costs or raise revenue, so a blanket subsidy would reward some investments that would have happened anyway. It could also reduce the relative cost of capital in activities where labour substitution is commercially attractive. Public support is better reserved for benefits firms cannot fully capture, including transferable worker capability, knowledge spillovers, technology diffusion, export-market discovery and the costs of moving workers between tasks and occupations.

The Employment Tax Incentive (ETI) should be treated cautiously. Eligible employers may reduce the pay-as-you-earn tax they remit in respect of qualifying employees, generally aged 18 to 29, for a maximum of 24 months; the incentive currently expires on 28 February 2029 (South African Revenue Service [SARS]: 2026). Its latest published tax-expenditure estimate was R4.462 billion in 2023/24 (National Treasury: 2026a), while evaluations have found limited or statistically uncertain aggregate employment effects (Ebrahim et al.: 2017; Ebrahim & Pirttilä: 2019; Ranchhod & Finn: 2016). Before the 2029 expiry, National Treasury should test a narrow redesign in AI-exposed sectors by linking claims for selected entry roles to a structured workplace-learning plan and evaluating outcomes against comparable firms.

The Skills Development Levy (SDL) should not be increased for this purpose. It is a 1% payroll levy, so raising it to finance technological adjustment would also raise the cost of formal employment. SETAs and the National Skills Fund together receive approximately R27.7 billion in SDL-funded direct charges in 2026/27, while SETAs plan R68.4 billion of programme spending over the medium term (National Treasury: 2026b). The better use of this funding is to link more of it to verified placement and progression rather than training volumes.

Section 11D should remain tightly focused on genuine research and development (R&D). Approved scientific or technological R&D undertaken in South Africa can qualify for a 150% deduction, with the incentive applying to qualifying activities undertaken until 31 December 2033 (SARS: n.d.). The latest published tax-expenditure estimate was R141 million in 2023/24 (National Treasury: 2026a). Developing new technological knowledge can produce spillovers that justify support; purchasing an existing AI subscription usually does not. Turning Section 11D into a mass-adoption allowance would blur that distinction.

Manufacturing needs an implementation instrument rather than another tax break. The Manufacturing Support Programme (MSP) already funds competitiveness improvements, process upgrading and technology transfer, while Productivity SA's Workplace Challenge Programme provides coached workplace and productivity improvement (dtic: n.d.-b; Productivity SA: n.d.). The dtic should pilot an AI Productivity Diffusion Window within existing MSP allocations. Firms would compete through open calls, identify a specific production problem, establish a baseline, co-invest and commit to worker capability development. Outcomes should be measured against the problem identified at entry, such as downtime, defect rates or throughput, rather than noisy firm-wide productivity.

The GBS redesign proposed above applies the same additionality test. Where the appropriate mechanism remains uncertain, experimentation is preferable to another permanent entitlement. The Jobs Fund is a competitive, co-funded challenge fund (Jobs Fund: n.d.); since inception, National Treasury reports R7.7 billion in public funding and R15.7 billion in matched contributions (National Treasury: 2026c). Targeted AI-and-work rounds could test SME diffusion, redesigned apprenticeships and transition models before national scaling.

The implication is straightforward. That firms should finance the ordinary private return from AI. Public money should be reserved for identifiable spillovers or market failures, with co-

funding, baselines, outcome-based payment, sunset clauses and clawbacks used to limit deadweight loss.

## 6. PROTECT PATHWAYS, NOT TASKS

Some task displacement is unavoidable. Preventing every change would sacrifice productivity and lock firms into inefficient work design. Transition policy should instead reduce the cost and duration of movement into new productive activities. The relevant unit to protect is not the existing job description, but the pathway through which a person can enter, learn and progress in productive work.

That challenge is unusually severe in South Africa because unemployment is persistent, not merely high. In Q2 2026, 77.9% of unemployed people had been unemployed for at least a year, up from 66.9% in Q2 2016 (Stats SA: 2026b). A failed transition can therefore become prolonged labour-market exclusion.

Consider a 40-year-old bank back-office processor whose routine work is being automated. A proposed early-notice requirement should trigger support before retrenchment. Employment Services of South Africa can register her as a work seeker and match her to vacancies, while a sector SETA or accredited provider assesses transferable capabilities against adjacent roles (Department of Employment and Labour [DEL]: n.d.). Redeployment should come first, supported by short, employer-co-funded retraining. BANKSETA's current special-projects window, for example, supports employed beneficiaries needing reskilling because of technological change, digital transformation and changing job roles (BANKSETA: 2026b). If retrenchment still occurs, Unemployment Insurance Fund (UIF) benefits provide the statutory income bridge where she qualifies. The Temporary Employer/Employee Relief Scheme should remain an instrument for distressed employers seeking to retain workers rather than become a general AI-transition benefit (DEL: 2024). Job matching should begin before training ends. The institutions exist; what is missing is a process that connects them around the worker.

The second pathway is into work. In Q1 2026, sales and services accounted for 19.2% of employed youth and clerical occupations another 13.8% (Stats SA: 2026c). Clerical occupations have the highest global exposure to GenAI, although exposure does not mean job loss (Gmyrek et al.: 2025). If routine junior tasks disappear, workers may lose some of the tasks through which

experience is built. Yet AI can also strengthen that ladder: Brynjolfsson et al. (2025) found that less-experienced customer-service agents gained the most from AI assistance and moved more quickly towards experienced-worker performance. The ETI experiment proposed above should therefore be judged partly on whether redesigned entry roles continue to produce transferable experience, not merely whether a subsidised job exists.

The transition mechanism must also be fiscally bounded. BANKSETA's 2026/27 caps are R30,000 for an employed-worker skills programme and up to R56,000 for an unemployed learner programme (BANKSETA: 2026a). Adding 10% to 15% for assessment, recognition of prior learning, matching and evaluation gives an indicative incremental cost of R33,000 to R64,400 per participant, excluding existing UIF entitlements. A 5,000-worker pilot would cost R165 million to R322 million, or 0.6% to 1.2% of the R27.7 billion SDL-funded envelope (author's calculation based on BANKSETA: 2026a; National Treasury: 2026b). It is deliberately too small to be a national employment programme: its purpose is to establish additionality, unit cost and sustained-placement effects before scale-up. Success should be measured by median days to re-employment, twelve-month employment retention, real earnings change and public cost per sustained placement. DEL and DHET should jointly sponsor it, with National Treasury requiring independent evaluation before scale-up.

The main implementation risk is gaming. Firms could relabel routine training as 'AI transition', while providers could select only workers easiest to place. Support should require employer co-funding and a pre-intervention baseline, with part of payment conditional on sustained employment and clawbacks where agreed outcomes do not materialise. Payment rates should also vary with placement difficulty so providers are not rewarded for cream-skimming. Officials do not need to predict whether each AI application will augment or automate; they need to pay for verified transition outcomes.

## 7. CONCLUSION

South Africa cannot treat productivity and employment as separable objectives. The evidence supports a clear policy bias: accelerate productive diffusion broadly and target transition support narrowly where displacement emerges. Weak productivity growth constrains investment, competitiveness and the fiscal resources available to address unemployment, while unmanaged

substitution can intensify exclusion and weaken the pathways through which workers acquire experience.

The evidence does not justify either blanket resistance to AI adoption or blanket subsidy of it. The more defensible approach is to distinguish between commercially viable adoption, which firms should finance themselves, and the skills, diffusion, transition and information failures that create a case for public intervention.

The policy test is whether public support buys something the market would otherwise underprovide. In that sense, the two principles remain: subsidise the spillover, not the technology, and protect pathways, not tasks.

## **8. RECOMMENDATIONS**

### **8.1 Education and skills funding**

If the mandatory grant rises from 20% to 40%, DHET should make part of the increase conditional on verified workplace learning, sustained employment and wage progression. SETA discretionary funding should likewise shift from training volumes towards labour-market outcomes.

### **8.2 Industrial diffusion**

The dtic should pilot an AI Productivity Diffusion Window within existing Manufacturing Support Programme allocations, using open calls, co-funding and problem-specific productivity baselines. GBS support should retain a labour-absorption floor while rewarding movement into new export markets and higher-value service lines.

### **8.3 Fiscal incentives and youth entry pathways**

National Treasury should not create a general AI tax allowance. Section 11D should remain limited to genuine R&D, while the period before the Employment Tax Incentive expires in 2029 should be used to test whether structured workplace-learning conditions can preserve viable youth entry roles in AI-exposed sectors.

### **8.4 Worker transition**

DEL and DHET should jointly test the proposed early-notice, retraining and matching mechanism with 5,000 workers before national scale-up. National Treasury should require

independent evaluation of additionality, cost per sustained placement, re-employment speed and real earnings change.

## 8.5 Coordination and evidence

National Treasury should convene a cross-departmental implementation compact, with DHET, the dtic and DEL accountable for their respective instruments and common evaluation criteria. Statistics South Africa should add AI-adoption, task-redesign and workforce questions to existing business surveys. These measures mainly reach formal firms and workers; informal and self-employed workers will require different enterprise-support and capability channels beyond this essay's scope.

## 9. LIST OF REFERENCES

- Acemoglu, D. 2025. 'The simple macroeconomics of AI'. *Economic Policy*, 40(121): 13-58. <https://doi.org/10.1093/epolic/eiae042>
- Acemoglu, D. & Restrepo, P. 2019. 'Automation and new tasks: How technology displaces and reinstates labor'. *Journal of Economic Perspectives*, 33(2): 3-30. <https://doi.org/10.1257/jep.33.2.3>
- BANKSETA. 2026a. *Funding window guidelines for employers 2026/27*. Available at: <https://bankseta.org.za/funding-window-1/funding-window-guidelines-for-employers-2026-27/> (Accessed: 16 September 2026).
- BANKSETA. 2026b. *Special projects for employed beneficiaries 2026/2027*. Available at: <https://bankseta.org.za/funding-window-1/special-projects-for-employed-beneficiaries-2026-2027/> (Accessed: 16 September 2026).
- Botha, R. & Havemann, R. 2025. *Time to rethink skills development: An independent review of the Sector Education and Training Authority system*. ERSA Policy Paper No. 42. Economic Research Southern Africa. <https://doi.org/10.71587/sfmjfa67>
- Brynjolfsson, E., Li, D. & Raymond, L. 2025. 'Generative AI at work'. *The Quarterly Journal of Economics*, 140(2): 889-942. <https://doi.org/10.1093/qje/qjae044>
- Business Process Enabling South Africa. 2025a. *BPESA's new value proposition aims for 500K jobs and global BPO expansion*. 19 March. Available at: <https://www.bpesa.org.za/news/667-bpesa%E2%80%99s-new-value-proposition-aims-for-500k-jobs-and-global-bpo-expansion.html> (Accessed: 16 September 2026).
- Business Process Enabling South Africa. 2025b. *Latest BPESA GBS job creation report shows positive trends across most areas*. 30 October. Available at: <https://www.bpesa.org.za/news/699-latest-bpesa-gbs-job-creation-report-shows-positive-trends-across-most-areas.html> (Accessed: 16 September 2026).

- Business Process Enabling South Africa. 2026. *Business services job opportunities on the rise*. 17 July. Available at: <https://www.bpesa.org.za/news/716-business-services-job-opportunities-on-the-rise.html> (Accessed: 16 September 2026).
- Cirera, X., Comin, D. & Cruz, M. 2026. 'Technology sophistication across establishments'. *The Quarterly Journal of Economics*, 141(3): 2025-2085. <https://doi.org/10.1093/qje/qjag018>
- Dell'Acqua, F., McFowland, E. III, Mollick, E., Lifshitz, H., Kellogg, K.C., Rajendran, S., Kraymer, L., Candelon, F. & Lakhani, K.R. 2026. 'Navigating the jagged technological frontier: Field experimental evidence of the effects of artificial intelligence on knowledge worker productivity and quality'. *Organization Science*, 37(2): 403-423. <https://doi.org/10.1287/orsc.2025.21838>
- Department of Employment and Labour. n.d. *Employment Services of South Africa*. Available at: <https://www.labour.gov.za/Media-Desk/Pages/Employment-Services-of-South-Africa.aspx> (Accessed: 16 September 2026).
- Department of Employment and Labour. 2024. *The Department of Employment and Labour increases TERS budget from R400 million to R2.4 billion per annum, to prevent layoffs*. 6 October. Available at: <https://www.labour.gov.za/the-department-of-employment-and-labour-increases-TERS-budget-from-r400-million-to-r2-4-billion-per-annum-to-prevent-layof> (Accessed: 16 September 2026).
- Department of Trade, Industry and Competition. n.d.-a. *Global Business Services*. Available at: <https://www.thedtic.gov.za/financial-and-non-financial-support/incentives/global-business-servicescopy/> (Accessed: 16 September 2026).
- Department of Trade, Industry and Competition. n.d.-b. *Manufacturing Support Programme*. Available at: <https://www.thedtic.gov.za/financial-and-non-financial-support/incentives/manufacturing-support-programme-msp/> (Accessed: 16 September 2026).
- Department of Trade, Industry and Competition. 2026. *South Africa's Industrial Development Strategy 2026*. June. Available at: <https://www.thedtic.gov.za/wp-content/uploads/South-Africas-Industrial-Development-Strategy-2026.pdf> (Accessed: 16 September 2026).
- Ebrahim, A., Leibbrandt, M. & Ranchhod, V. 2017. *The effects of the Employment Tax Incentive on South African employment*. WIDER Working Paper No. 2017/5. UNU-WIDER. <https://doi.org/10.35188/UNU-WIDER/2017/229-8>
- Ebrahim, A. & Pirttilä, J. 2019. *Can a wage subsidy system help reduce 50 per cent youth unemployment? Evidence from South Africa*. WIDER Working Paper No. 2019/28. UNU-WIDER. <https://doi.org/10.35188/UNU-WIDER/2019/662-3>
- Gmyrek, P., Berg, J., Kamiński, K., Konopczyński, F., Ładna, A., Nafradi, B., Rosłaniec, K. & Troszyński, M. 2025. *Generative AI and jobs: A refined global index of occupational exposure*. ILO Working Paper No. 140. International Labour Organization. <https://doi.org/10.54394/HETP0387>
- Health and Welfare Sector Education and Training Authority. n.d. *Mandatory grants*. Available at: <https://www.hwseta.org.za/employers/mandatory-grants/> (Accessed: 16 September 2026).
- Jobs Fund. n.d. *The Jobs Fund*. Available at: <https://www.jobsfund.org.za/> (Accessed: 16 September 2026).

- National Treasury. 2026a. *Budget Review 2026*. Republic of South Africa. Available at: <https://www.treasury.gov.za/documents/national%20budget/2026/review/FullBR.pdf> (Accessed: 16 September 2026).
- National Treasury. 2026b. *Estimates of National Expenditure 2026*. Republic of South Africa. Available at: <https://www.treasury.gov.za/documents/national%20budget/2026/ene/FullENE.pdf> (Accessed: 16 September 2026).
- National Treasury. 2026c. Jobs Fund opens 13th funding round, catalysing demand-led growth in the green and informal economy. 18 May. Available at: [https://www.treasury.gov.za/comm\\_media/press/2026/2026052201%20Media%20Statement%20-%20Jobs%20Fund%20Opens%2013th%20Funding%20Round.pdf](https://www.treasury.gov.za/comm_media/press/2026/2026052201%20Media%20Statement%20-%20Jobs%20Fund%20Opens%2013th%20Funding%20Round.pdf) (Accessed: 4 October 2026).
- Noy, S. & Zhang, W. 2023. 'Experimental evidence on the productivity effects of generative artificial intelligence'. *Science*, 381(6654): 187-192. <https://doi.org/10.1126/science.adh2586>
- Organisation for Economic Co-operation and Development. 2026. *AI and skills: What we know so far*. <https://doi.org/10.1787/f843b352-en>
- The Presidency. 2026. *President Cyril Ramaphosa: 2026 State of the Nation Address*. Speech transcript, 12 February. Available at: <https://www.gov.za/news/speeches/2026StateOfTheNation> (Accessed: 16 September 2026).
- Productivity SA. n.d. *Competitiveness Improvement Services: Workplace Challenge Programme*. Available at: <https://productivitysa.co.za/services/competitiveness-improvement-services-cis/> (Accessed: 16 September 2026).
- Quality Council for Trades and Occupations. n.d. *Mandate*. Available at: <https://www.qcto.org.za/mandate.html> (Accessed: 16 September 2026).
- Ranchhod, V. & Finn, A. 2016. 'Estimating the short run effects of South Africa's Employment Tax Incentive on youth employment probabilities using a difference-in-differences approach'. *South African Journal of Economics*, 84(2): 199-216. <https://doi.org/10.1111/saje.12121>
- Roux, K., Van Staden, S. & Tshele, M. 2023. *Progress in International Reading Literacy Study 2021: South African main report*. Department of Basic Education. Available at: <https://repository.up.ac.za/items/6a65902b-8a8b-4f4a-8227-749ecc225bf2> (Accessed: 16 September 2026).
- South African Revenue Service. n.d. *Research and development incentive*. Available at: <https://www.sars.gov.za/businesses-and-employers/my-business-and-tax/research-and-development-incentive/> (Accessed: 16 September 2026).
- South African Revenue Service. 2026. *Employment Tax Incentive (ETI)*. Available at: <https://www.sars.gov.za/types-of-tax/pay-as-you-earn/employment-tax-incentive-eti/> (Accessed: 16 September 2026).
- Statistics South Africa. 2026a. *Gross domestic product: Second quarter 2026*. Statistical Release P0441. Available at: <https://www.statssa.gov.za/publications/P0441/P04412ndQuarter2026.pdf> (Accessed: 16 September 2026).

Statistics South Africa. 2026b. *Quarterly Labour Force Survey (QLFS), Q2:2026*. Presentation. Available at: <https://www.statssa.gov.za/publications/P0211/Presentation%20QLFS%20Q2%202026.pdf> (Accessed: 16 September 2026).

Statistics South Africa. 2026c. *South Africa's youth and the labour market in Q1 2026*. Available at: <https://www.statssa.gov.za/?p=19526> (Accessed: 16 September 2026).

World Wide Worx. 2025. *GenAI gains ground in SA but governance lags*. 21 July. Available at: <https://www.worldwideworx.com/sagenairoadmap2025/> (Accessed: 16 September 2026).