



## THE SOUTH AFRICAN SKILLS CRISIS

---

### A report from the corporate coalface

*The shortage of skilled people in South Africa is one of the most pressing issues on the agendas of both business and government. What are the realities of this situation in the day-to-day operations of companies? How do they cope? What do they think of government strategies to overcome the dearth of skilled people? CDE surveyed a cross-section of 40 businesses that recruit skilled labour in this climate of constraint. The research findings have important implications for government policies aimed at a 'skills revolution', and South Africa's prospects of accelerated and shared growth.*

**T**HE RECRUITMENT EXPERIENCES OF private sector companies and their perceptions of skills shortages are central to a proper understanding of this crucial issue. For this reason, CDE undertook a survey to find out more about business and skills shortages (see box, **Companies and skills: CDE's research**, page 2).

The key objectives of the research were to seek answers to the following questions:

- how do skills shortages show themselves in the day-to-day operations of a cross-section of businesses?
- how are businesses coping with skills shortages?
- is foreign recruitment a viable response to the skills crisis?

### COMPANY PROFILES

The 40 firms surveyed varied significantly in terms of sectors and types of operations:

- Nearly half (19) were in various kinds of manufacturing, and the rest were spread across mining, retail and services.
- One quarter (10) had fewer than 100 employees, three had more than 10 000, and the rest were spread fairly evenly between these extremes.
- Gross operating income varied between R5 billion (6) and less than R25 million (6), with the rest again spread fairly evenly between these points.

In order to profile the skills needs of the surveyed companies, they were asked what types of skills they use and what percentage of their staff fell into each skills category. Table 1 shows the results.

**Table 1: Skills utilised**

	No of companies mentioning particular skill	Average % of total staff
Management	30	10%
Supervisory	6	10%
Professionals	21	17.5%
Semi-professionals	7	36.5%
White collar technical	20	23%
Advanced blue collar technical	8	33%
Artisans	13	39%
Admin/clerical/sales/finance	26	24%
Semi-skilled	11	46%
Unskilled	4	38%
Other	2	13%
No response	2	

Respondents were allowed to comment spontaneously on the importance of skills shortages for their businesses

While the survey may not be nationally representative in strictly statistical terms, the profiles of the companies suggest that the results are based on a meaningful cross-section of South African business.

### Companies and skills: CDE's research

The study was based on a random sample of 40 cases in Gauteng, the centre of the South African economy. The intention was not to generate quantitative generalisations for South African business as a whole, but to provide insights into the nature of skills constraints, steps taken to deal with them, and the difficulties encountered, through detailed interviews with a cross-section of businesses that have had to take difficult decisions about the deployment of personnel in a climate of constraints.

In drawing the sample, a filter was applied to eliminate firms of a kind not likely to face skills shortages or complex deployment decisions (cleaning services, general dealers, etc). Hence, while the sample is random, it cannot be generalised for routine operations, and is somewhat more typical of the leading edge of the private sector. However more complex firms are a vital aspect of the growth potential and innovation in the business sector.

Only CEOs or other very senior company representatives were interviewed. The interviews probed a number of themes related to skills and human capital issues, including companies' experience of the general business climate; specific operational problems encountered; the classification and nature of skills that are difficult to recruit; assessments of existing education and training systems; and problems in overseas recruitment.

CDE 2007

## KEY RESULTS

### How do businesses see skills shortages?

The study left no doubt that the skills shortage is the most difficult issue the respondent companies have to deal with. This finding is based on responses to questions about the business climate, the ease of managing business, and specific difficulties and challenges.

In terms of their experience of the business climate, most of the 40 respondents registered growth in the market for their products and output in the previous two years, and a substantial majority (32) noted an increase in productivity over the same period. At the same time, smaller majorities registered increases in staff and profitability over the same period. However, these generally positive trends were sharply contradicted by the responses to a question on the ease of managing business, as table 2 shows.

**Table 2: Ease of managing business over the past two years**

Easier	3
Much the same	4
More difficult	32
Other (different instead of more difficult)	1
Total	40

The study left no doubt that the skills shortage is the most difficult issue the respondent companies have to deal with

These findings about the perceived difficulties of managing business provide the context for investigating the effects of skills shortages. At the start of the interviews, respondents were allowed to comment spontaneously on the importance of skills shortages for their businesses, without any structured prioritisation of issues. The following became apparent.

When factors affecting management and operational processes were discussed, the skills shortage emerged as an unassailable top priority. This result was consistent across both open questions (table 3) and a more structured enquiry in which respondents were asked to select major difficulties from a list of options (table 4).

Table 3 shows that skills issues were spontaneously identified as the greatest single source of frustration – well ahead of high and fluctuating input costs, competition from imports, compliance with government regulations, and problems in meeting BEE requirements. Table 4 shows the results of the more structured enquiry in which respondents were asked to select three major difficulties from a list of options. Twenty-six out of the 40 companies chose skills shortages as one of them.

**Table 3: The most costly or troublesome issues experienced during the past two years**

	No of companies			
	1st mention	2nd	3rd	All mentions
Skills shortages/poaching	8	10	8	26
Regulatory environment (especially labour policies)	6	1	4	11
BEE/EE requirements/managing transformation	6	5	0	11
High/fluctuating input costs (raw materials, import parity pricing; electricity, fuel, telecommunications)	7	8	2	17
Foreign/import competition	3	4	5	12
Unions	2	0	0	2
Lack of capacity in/inconsistent requirements by government departments	2	1	1	4
Strong currency	2	0	2	4
Lack of tax incentives/of capital/cash flow	1	1	4	6
Lack of infrastructure spend by government	1	1	1	3
Staff issues (poor quality, demotivated, need to outsource)	0	0	3	3
Other (tax legislation; agricultural policy; liquor licensing; crime; breaking into markets; limited local market; operating in diverse environments; competition regulations)	2	7	2	11

When factors impeding growth and expansion were at issue, the skills shortage dropped to joint third place in companies' responses

**Table 4: Three most costly or troublesome factors**

	No of companies
Labour regulations	9
Fuel prices	8
Shortages of skills	26
Trade union activity	2
Black empowerment issues	14
The quality and productivity of labour	12
Foreign competition	17
The quality of government or municipal services and infrastructure	14
Complying with government regulations generally	3
Availability of finance	6
Outsourcing	1
Rules of corporate governance	2
Other, including currency strength, shortage/import prices of raw materials, communication with government, labour costs	6

However, when factors impeding growth and expansion were at issue, the skills shortage dropped to joint third place in companies' responses, behind the increasingly complex regulatory environment and a generally more competitive environment, which placed a greater burden on companies to find new products, innovate, and keep prices down. Therefore, in the current context of economic growth and expansion, the burden of complying with government regulations and coping with the global environment has become more important than skills shortages (although the skills-related issue of staff quality also figured as a factor impeding growth and expansion for some firms).

Why does the skills shortage fluctuate in perceived importance in this way? Arguably, differences in the nature of the difficulties posed by government regulation and global competition on the one hand and skills shortages on the other account for the discrepancies. Firms have no adaptive strategies in the face of restrictive government regulations. Either they comply, or take the risks of non-compliance. Similarly, global competition and the value of the rand are immutable factors as far as an individual business is concerned.

In respect of skills constraints, however, businesses have a few options. These vary in their effectiveness, and none are without costs, but the relevant point here is that the stranglehold of skills shortages, although the most serious managerial challenge, is not quite as vice-like as government regulations and cheap Chinese imports, for example.

However, the study leaves us in no doubt that the skills shortage is not only the most difficult issue companies have to deal with, but also erodes the competitiveness of the South African economy.

Skills that are defined and quantified by certification are not the only ones in short supply

### What are the most difficult skills to recruit?

The breadth and depth of the skills problem is illustrated by the fact that for two thirds of the firms surveyed, the skills they define as scarce comprise well over 50 per cent of their current staff, a level gradually rising because of the need to compete in the global marketplace. Within this general trend, the rank order of skills in short supply emphasised concrete and technical skills, especially in professional, artisan and financial categories, which are in particularly short supply. There is no way around these deficits - the proficiency either exists, or it does not. One cannot fudge the qualifications of a toolmaker, metallurgist, or civil engineer.

However, skills that are defined and quantified by certification are not the only ones in short supply. Other categories of scarce and vital skills cannot be easily and quickly reproduced. These are management and co-ordination skills and the skills needed at the public, client, and marketing interfaces. These positions all require judgement, social skills, lateral knowledge, and other attributes that develop out of a high-quality general education, experience, and exposure.

This is borne out by one of the survey's most serious findings, illustrated in table 5. Respondents made it clear that they needed far more than raw qualifications. Experience and learnt competence were far more important than certificates, even in the case of people with technical or professional skills.

**Table 5: Most important quality of the skills that are difficult or impossible to recruit**

	No of companies	%
Possession or otherwise of qualifications	2	5
The standard or quality of qualifications	6	15
Level of experience and acquired competence	18	45
Other: Quantity	4	10
Other: Qualifications and experience	3	8
Other: Quality and experience	2	5
Other: Lack of work ethic, responsibility	1	3
N/A – company provides in-house training	2	5
No response	2	5
Total	40	100

Table 5 shows that the term ‘scarce skills’ can be misleading to the extent that it suggests that external training of various kinds can provide the answer in the short term. By far the most important need articulated in table 5 is for ‘experience and acquired competence’ – an attribute that is relatively independent of formal qualifications or training. This is the most important aspect of human capital, and is the resource most vulnerable to emigration, poaching, promotion to managerial positions and, of course, aging. There are no easy solutions to this problem.

Thirteen of the 40 respondents did not pay higher salaries or wages to staff whose skills are in short supply

#### How do firms cope in a tight skills market?

The reaction of firms to skills shortages included paying more for skills in short supply, providing in-house training, recruiting abroad, and outsourcing specialised functions.

Thirteen of the 40 respondents did not pay higher salaries or wages to staff whose skills are in short supply. Some said this was not company policy, or that they offered incentives or paid premiums for good performance rather than for qualifications. Twenty-seven did pay higher salaries to certain types of staff, with highly skilled or experienced staff topping the list, followed by BEE personnel (table 18).

**Table 6: Staff who are paid more because their skills are in short supply (n=27)**

Highly qualified, experienced or skilled staff	10
BEE personnel	7
Senior/top management	4
IT personnel	4
Artisans	4
Engineers	3
Professionals (CAs, lawyers, trainers)	2
Sales staff	2
Other (varies according to supply and demand, critical skills, semi-nurses)	3

While higher pay is not universal, it is general enough to amount to considerable overall expenditure to compensate for the scarcity of skills.

Respondents were also asked whether they provided in-house training which they could claim against skills levies. Twenty-four said they did, with training offered ranging from on-the-job training to comprehensive training modules and accredited technikon courses. Ten companies provided no training (other than some informal induction or on-the-job training), nor claimed against their SETA levies. One firm did not know that claims against levies were possible. Four companies provided training but did not claim against their SETA levies, and one said it did not yet have the capacity to justify accrediting its training. Table 7 summarises responses on training expenditure.

**Table 7: Training as a percentage of operating income**

	No of companies
Less than 0.1%	1
0.1% – 0.49%	10
0.5% – 0.99%	3
1% – 1.9%	6
2% – 2.9%	2
3% – 4.9%	3
5%+	2
Don't know	13
Total	40

Asked how adequate their training was in terms of meeting their skills needs, 20 said it was adequate, although some added provisos such as: 'time-consuming and costly'; 'costly, and not enough longer-term investment in skills'; 'but difficult to find trainers'; or 'not in respect of graduates or black senior management'. Eight said the training was inadequate in terms of meeting their skills needs, with comments such as 'we cannot train enough to meet our needs', while several expressed unhappiness about the lack of support from Setas.

While higher pay is not universal, it is general enough to amount to considerable overall expenditure to compensate for the scarcity of skills

Since the practice of outsourcing is widespread and is justified on quite varied business grounds, it is difficult to isolate the extent that skills shortages play in popularising it. However, a review of the detailed replies suggests that at least half the firms surveyed were outsourcing functions dependent on scarce skills – although seven of the 27 complained that in doing so they encountered the same problems as among their own staff (lack of skills, quality, experience, poor work ethic etc).

### Overseas recruitment: practice and problems

Recruiting skilled people abroad might well be more widespread than is generally recognised. No fewer than half (20) of the companies surveyed had recruited skills abroad during the previous two years. Seven of the 20 were subsidiaries of international companies, and therefore recruited some staff (usually specialised management, training, artisans, specialists and engineers) overseas to work in South Africa on a temporary basis. Eight of the 20 said they only recruited abroad on a limited basis, and usually recruited people on short-term contracts to assist with specific issues such as training and the transfer of skills, or recruited specialists to deal with specific problems or assist during peak production periods. Examples include training staff from Europe and the United Kingdom, as well as software developers from India. Five of the 20 were South African concerns that continually recruited staff abroad.

Where staff were recruited on a longer-term basis, it was because the skills were categorically unavailable locally

Where staff were recruited on a longer-term basis, it was because the skills were categorically unavailable locally. Skills mentioned in this regard include qualified nurses from India and the Philippines; R&D staff and machine setters from the United Kingdom; specialist engineers from Europe or Africa; artisans from Korea and Thailand; and executives from Europe and the United Kingdom. One company mentioned actively recruiting South Africans abroad, while two focused on using African expertise. Problems with recruiting skills from abroad includes:

- high costs;
- union opposition, especially when foreign staff are cheaper than the (inflated) costs of their South African equivalents;
- local staff resistance (xenophobia);
- language problems; and
- problems with the immigration authorities.

The last-named problems are important, and have to be examined further. When asked about their experiences in dealing with the South African immigration authorities, 20 respondents indicated that this was not applicable, either because they did not recruit abroad or because they formed part of an international company. This left 20 companies with experience of dealing with the Department of Home Affairs.

Eight of the 20 firms said they had not experienced any noteworthy or significant problems. Twelve firms, however, (60 per cent of those dealing with the department) complained about the arduous bureaucratic process. Some saw this as a deterrent, but others not: one respondent commented that it was ‘one of those things one has to accept about life in South Africa.’ Two of the companies had outsourced this process: one to immigration specialists, and another to a Department of Home Affairs official (on a private basis?).



Other problems and comments included:

- the high cost of legal requirements, recruitment agencies, and relocation, which one respondent said pushed hiring costs up by 30–50 per cent;
- delays in the processing of work permits, representing a huge loss of opportunity, and making high-speed secondments impossible;
- trade union resistance, said to be a major obstacle in getting work permits;
- the difficulty of proving that importing skilled personnel was justified

Asked whether the situation was improving or not, four of 14 companies with relevant experience said they did not know, while ten said it was not improving, and two said the situation had deteriorated. One firm expected the costs and burden of regulations to become more difficult, while another hoped it would improve.

Only two respondents were able to provide a rough estimate of the costs to their companies of dealing with immigration issues; one said it exceeded R100 000, and the other said it ran into ‘millions of rands.’

The picture of the interface between the business sector and immigration authorities is complex and mixed. However, the responses broadly show that importing skills is an expensive and time-consuming process, which is not improving as time goes by.

## Business perspectives on education and training

We asked respondents to comment on the quality and value of training provided by Sector Education and Training Authorities (SETAs).

Only three were positive about SETA training; two of these said they used dedicated staff (either their own or outside specialists) to deal with the red tape involved in SETA work. In addition, two of the three have developed the training courses themselves.

Seven firms had mixed feelings; two use some of the training and plan to engage more closely with SETAs; one said their SETA was ‘adequate’; and another said SETAs had been slow to produce but it was hoped this would change with private sector involvement. Three provided accredited training: one did not recruit skills from the SETA-trained pool, another said SETAs were constrained in terms of capacity, and the third employed a specialist consultant to deal with the ‘bureaucratic game.’

Nine firms had no or minimal engagement with SETAs, some because SETA programmes do not meet their needs. Three of these companies provided accredited training themselves.

The majority (19 companies) was roundly negative about SETAs, mainly because they found dealing with SETAs to be cumbersome, SETA assessors to be poorly trained themselves, SETA training was too theoretical, or did not meet their training needs.

Some illustrative comments were:

- ‘The benefits [to us] are virtually nil. It’s a government attempt to create employment opportunities . . . they produce nothing.’
- ‘SETAs are woefully inefficient; in practice they lead to a lowering of standards. They don’t do training properly; learners have a shocking standard of workmanship. . . . The system is also open to abuse by Seta rebate “consultants”. According to this respondent, training reports were commonly embellished.’

‘SETAs are woefully inefficient; in practice they lead to a lowering of standards’

- ‘Rarely adequate, poorly managed, too idealistic, and hideously bureaucratic.’
- ‘The Seta provides no value; there is no improvement in the skills pool or in the quality of workmanship.’
- Several companies suggested that the old apprenticeship system should be reinstated, or that companies should be given tax rebates for providing accredited training.

The most effective and most enduring way of resolving the skills crisis would be to dramatically improve the education system. Respondents were asked how well or badly they thought the educational system was performing in producing the skilled personnel they required. Twenty seven respondents commented on the schooling system, and 18 on higher education. Respondents’ views on higher education are set out in table 8.

**Table 8: Comments on higher education (n=18)**

	<b>No of companies</b>
Uneven standards between universities, with mainstream universities maintaining standards & producing good graduates; strong decline at former black universities	6
Tertiary graduates adequate/quite good	5
Technikon qualifications reasonable or excellent	2
Higher education is not addressing the skills needs/too academic – need more technical and practical post-graduate courses	4
Quality of graduates problematic (no capacity for analysis, independent thinking, problem solving; engineering skills deteriorating)	4
Not producing sufficient graduates (particularly engineers, technicians and good black graduates)	3
Pool of black graduates mediocre, no work ethic, discipline	3

The most effective and most enduring way of resolving the skills crisis would be to dramatically improve the education system

The situation at the tertiary level was perceived as mixed, with disheartening trends predominating in respect of quality in the overall system. One third of respondents believed that there was still a remaining core of adequacy and indeed excellence in the mainstream academic and technical universities.

Reactions to secondary schooling were significantly more negative.

**Table 9 : Comments about schooling (n=28)**

	<b>No of companies</b>
Decline in quality of school leavers in terms of science, maths and language skills/no work ethic: don’t have the capacity to be trained	12
Schools not performing well/standards low or slipping (especially language skills)/lack of discipline, culture of learning	8
Does not provide for future skills needs (quantity and quality); is not building capacity	7
Poor teaching standards/shortage of competent teachers	6
Too academic; need to inculcate culture of entrepreneurship	5
Schools are improving but have a long way to go, especially former black schools	3

As table 9 shows, respondents had almost nothing positive to say about the schooling system. The firms interviewed had the following suggestions:

- train and hire competent teachers and improve their salaries instead of ‘fiddling with the curriculum’, and ‘let good teachers get on with their jobs’;
- boost science and maths teaching;
- get the basics right (three Rs);
- improve thinking skills, and give people the ability to adapt to changing circumstances;
- inculcate a culture of entrepreneurship, work ethic, and excellence;
- don’t over-regulate; and
- address the ‘appalling lack of capacity’ in the provincial departments of education.

Six interviewees commented on training; five lamented the removal of the apprenticeship system. They said artisans and nurses were poorly trained, and the current one-year diploma provided by SETAs and some training centres did not even remotely replace the five-year apprentice system. Consequently, they deplored the fact that the skills base was not being built up, thus placing the onus on companies to provide time-consuming training. However, personnel trained by institutions such as Telkom and Eskom had excellent foundations.

## SUMMARY OF FINDINGS

The experiences of the 40 companies surveyed makes it clear that skills shortages cause serious operational difficulties for South African firms. As a result of short-falls in key recruitment categories, many enterprises in this cross-section of South African business:

- Pay inflated wages and salaries for scarce skills (and for designated categories to satisfy ‘transformation’ requirements).
- Tolerate inadequate staff: up to one fifth of staff in skilled positions in the 40 firms is below par and would be replaced if there were a deeper skills pool.
- Experience poaching of skilled staff (half reported being targets, fewer admitted to the practice, especially to recruit women and blacks).

Moreover, the skills shortage is not getting better; in fact, it is getting worse because of the emigration of skilled people, the ageing of skilled staff, their movement to more senior positions, and interventions by the government itself. The government’s growing emphasis on employment equity is making the skills market far tighter because the most skilled people – whites – are no longer freely employable. Perhaps most significant of all is the fact that private sector employers have grave reservations about the overall quality of our education system at all levels.

The implications for productivity, growth, and profits are far-reaching. In responding to scenarios in which skills would be more freely available, the firms made it abundantly clear that the skills issue was not merely a matter of ease of management or operational performance, but was intimately related to core issues of productivity, prospects for expansion, growth, and profits.

The experiences of the 40 companies surveyed makes it clear that skills shortages cause serious operational difficulties for South African firms

Are there solutions? The messages emerging from the research are sobering. SETAs are not the answer. Few businesses see any utility in them, and complaints of bureaucratic rigidity and inappropriate and superficial course material are widespread. A resurrection of the apprenticeship system would be welcomed.

The mainstream universities get the credit they deserve, but the throughput of skills is not nearly sufficient because of the weaknesses in our schooling system. Hardly anyone had anything positive to say about the schools. Those that deliver, mainly the former Model C schools, are too few and under-resourced relative to their contribution to the economy. No respondent expected the secondary school system to provide solutions within the foreseeable future.

The survey's results on firms' own training efforts are varied, to say the least. The responses to questions about in-house training, expenditure and participation in government-led training initiatives seem to reveal sharply differing levels of commitment to, understanding of, and even awareness of skills, which suggests that all is not well on the business side of the skills and training field. At a minimum we need to know more about the expectations, practices and partnerships that are crucial to driving a national skills effort. The following questions point the way: What is the responsibility of business for skills and training? Do business and government share an understanding of the extent of this responsibility? Are individual companies doing enough? Can they effectively do more when the educational system is failing so badly? Is the partnership with government – so essential in this of all fields – working as well as it might?

No respondent expected the secondary school system to provide solutions within the foreseeable future

## RECOMMENDATIONS

The realities of skills shortages are felt very painfully by businesses, and the crisis has concrete impacts on the economy. Given the fact that local education and training will not deliver larger numbers or adequately trained people before it is too late, some aspects of government policy standing in the way of other solutions – notably supplementing South Africa's pool of human capital from the global market in skills – have to be amended.

In this light, two familiar recommendations and one less familiar one need to be restated. The first is the speedy restoration of the apprenticeship system, with necessary improvements, supported by urgently resourced technical colleges (now 'Further Education and Training Colleges'). Close collaboration with business will be essential.

The second is putting the president's commitment into action and opening up immigration as the only short-term solution to the skills problem. This will require far more than conventional government undertakings to boost the capacity and improve the efficiency of public services. This is urgent enough to require the establishment of a dedicated immigration service with personnel capable of making quick and accurate decisions, in the light of the importance of boosting the competitiveness of our economy.

The third and final suggestion is that the government should modulate its pressure for employment equity. Businesses are being prevented from utilising highly skilled

and experienced people because they belong to the wrong race group. This official aggravation of the skills situation is unconscionable. Also, given that the overwhelming majority of unemployed South Africans are black, to prejudice the economic growth rate for the sake of employment equity means pitting some black interests against other black interests.

## THE WIDER CONTEXT

This report forms part of a larger CDE project on growth, skills and migration and it confirms some of the major findings of a recent CDE study entitled *Skills, Growth and Migration Policy: overcoming the 'fatal constraint'* (February 2007). It is worthwhile restating here why so many top business and political leaders are so worried about skills, in order to put the experiences and perceptions of this sample of South African firms in the context of the wider skills shortage, which affects all public and private sector employers.

We are failing to meet the increased demand for skills which we need to feed both the private sector of an economy that is growing faster and needs to grow faster yet, as well as a public sector that is failing at basic levels of service delivery, never mind the great ambitions of the 'developmental state' because:

- The failure of the public education system at all levels to deliver quality outputs consistently and in enough quantity has reached crisis proportions.
- The unintended consequences of transformation policies have increased pressure on an already limited pool of skills produced by our flawed education and training systems.
- We are losing human capital to a global market for skills that has become increasingly competitive in recent years.
- Our immigration system is flawed in conception and in its capacity to deliver, and it is obstructing our ability to recruit the skilled people we need from abroad.

In facing these challenging realities, we should be inspired by the belief that great national success stories are driven by the development of a country's own human capital, by all means, across all fronts – including education, training, and the encouragement of enterprises. But we do not have to rely exclusively on our own resources. Playing the world market in skills is a resource not only to fill vacancies in growth industries, but also to develop the education and training system that is currently failing our own people, to manage development projects that will improve their lives, and create businesses that in turn will expand opportunities for employment.

We are losing human capital to a global market for skills that has become increasingly competitive in recent years

The research on which this CDE Focus is based was designed, executed and analysed for CDE by Professor Lawrence Schlemmer, with the collaboration of Monica Bot and Colleen Lewis. Their research report was edited and abridged by Dr Sandy Johnston and CDE's executive director, Ann Bernstein. This publication has been edited and produced by Riaan de Villiers.

---

The study leaves us in no doubt that the skills shortage is not only the most difficult issue companies have to deal with, but also erodes the competitiveness of the South African economy



THE C ENTRE FOR D EVELOPMENT AND E NTERPRISE

## BOARD

L Dippenaar (chairman), A Bernstein (executive director), F Bam,  
E Bradley, C Coovadia, B Figaji, S Jonah, I Mkhabela, S Ndukwana,  
W Nkuhlu, S Ridley, M Spicer, E van As, T van Kralingen

## INTERNATIONAL ASSOCIATE

Professor Peter Berger

---

Published in June 2007 by

The Centre for Development and Enterprise  
Transmedit Place, 5 Eton Road, Parktown, Johannesburg 2193, South Africa  
P O Box 1936, Johannesburg 2000, South Africa  
Tel 27-11-482-5140 · Fax 27-11-482-5089  
info@cde.org.za · www.cde.org.za

© The Centre for Development and Enterprise

All rights reserved. This publication may not be reproduced, stored, or transmitted  
without the express permission of the copyright holder. It may be quoted and  
short extracts used, provided the source is fully acknowledged.