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# **Biannual Economic and Capacity Survey**

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## 1. General Economic Overview

Key economic developments in the last 6 months:

- The global economic growth outlook remains uncertain, although the International Monetary Fund (IMF) raised its forecast from 4,2% to 4,6%. Nonetheless, most countries are expected to perform below potential for a number of years, including the United States and China.
- GDP growth slowed in the 2<sup>nd</sup> quarter from 4,6% to 3,2% mainly due to slower growth in construction and a sharper than expected contraction in the mining sector. The impact of the FIFA World Cup on the economy may only be more prevalent in the 3<sup>rd</sup> quarter, although any benefits may have been neutralized by the negative impact of firstly the Transnet strike, followed by the public sector and motor vehicle industry strike in August and September.
- Growth in the construction sector slowed to 1,5% in the 2<sup>nd</sup> quarter, from 2% in the 1<sup>st</sup> quarter, as the completion of larger projects in preparation for the soccer world cup and postponement of many private sector projects, had a negative impact on turnover in the industry.
- Demand indicators continued to show an improvement in the first six months of 2010, including retail spending, motor vehicle sales and house prices.
- Given the more subdued global economic outlook, coupled with a slow pace of recovery domestically, inflationary pressures are subdued and do not pose an immediate risk to the domestic inflation environment. The low interest rate environment in the United States has created substantial inflows to emerging markets, adding impetus to a stronger currency. The Reserve Bank is however taking a very cautious approach to monetary easing, and is nervous about the impact of a possible correction of the domestic currency that is more than likely overvalued, potential for higher oil prices and the impact of higher energy tariffs. Sadly none of these factors are in the control of consumers, who ultimately will bear the brunt of higher lending rates, should inflation, caused by these exogenous factors, start to increase beyond the 6% target range.
- SARB's leading indicator is pointing towards an imminent recovery, as many of the leading indicators have shown various degrees of recovery.
- Nominal house price growth improved, although real prices remained in the red for 2009. House prices are likely to show stronger than expected real growth of between 5% and 10% in 2010.
- Postponements of projects have increased during 2009, affecting both the building and civil industries. Turnover in the construction industry will be severely affected by the delays in critical, "planned" projects. Investment in social infrastructure alongside critical economic infrastructure is likely to slow in coming years.
- Judging by the spending pattern of local authorities, up to the third quarter of the 2009/10 financial period, conditions are not likely to improve. Gross inefficiencies continue to hamper expenditure, in some areas (for example North West) where less than 30% of the capital budget (R2,5bn) had been spent. After three quarters, theoretically, 75% of the budget should have already been spent, however on average only 53% of the capital budget was spent. (*Extract Industry Insight Construction Monitor June 2010*)

**Table 1: Macro economic growth projections (Economist Poll)**

	2009	2010	2011	2012	2013	2014
GDP	-1.85	2.70	3.20	3.70	4.0	4.3
Household consumption	-1.60	1.90	3.00	3.50	3.80	4.40
Government consumption	4.77	4.10	3.70	3.70	4.10	4.90
Gross Fixed capital formation	-2.93	0.70	4.80	6.10	7.30	8.80
US/ZAR	8.56	8.00	7.60	8.12	8.50	8.80
CPI Inflation	7.13	4.90	5.10	5.70	5.60	6.0
Prime Lending rate	10.75	10.0	10.40	11.50	12.0	12.0

Poll: RMB, Investec, FNB, Standard Bank.

### Gross fixed capital formation

Growth in gross fixed capital formation slowed to -2,5% in the 1<sup>st</sup> quarter of 2010, following growth of 6,9% in the 1<sup>st</sup> quarter of 2009. A decline in private sector investment particularly in new housing construction, machinery, equipment and transport contributed to the poor performance in gross fixed investment. Slower growth in non-residential construction will have a negative impact on gross fixed capital formation in 2010.

The contribution of GFCF to GDP averaged between 20% and 22% during the last five quarters, a marked improvement from an average of 17% in 2005. Over the last four years there has been a substantial increase in fixed capital, necessary to support longer term and sustainable economic growth. Strong investment in fixed capital will provide structural support to the economy. The construction sector contributed 49% to GFCF, but poor private sector spending lowered its contribution slightly to 10,5% of GDP (from 10,6% in the preceding quarter). Over the last four years the construction industry was supported by stronger government investment as well as an increase in capital spending by Eskom, ACSA and Transnet, while private sector investment was boosted primarily by residential and retail construction. Given the current economic climate, private sector investment has already contracted sharply, and is likely to contract further during 2010. Given the commitment by government to improve capacity, we believe that spending on infrastructure such as roads, water and electricity (albeit over the longer term) will continue to support future investment in construction.

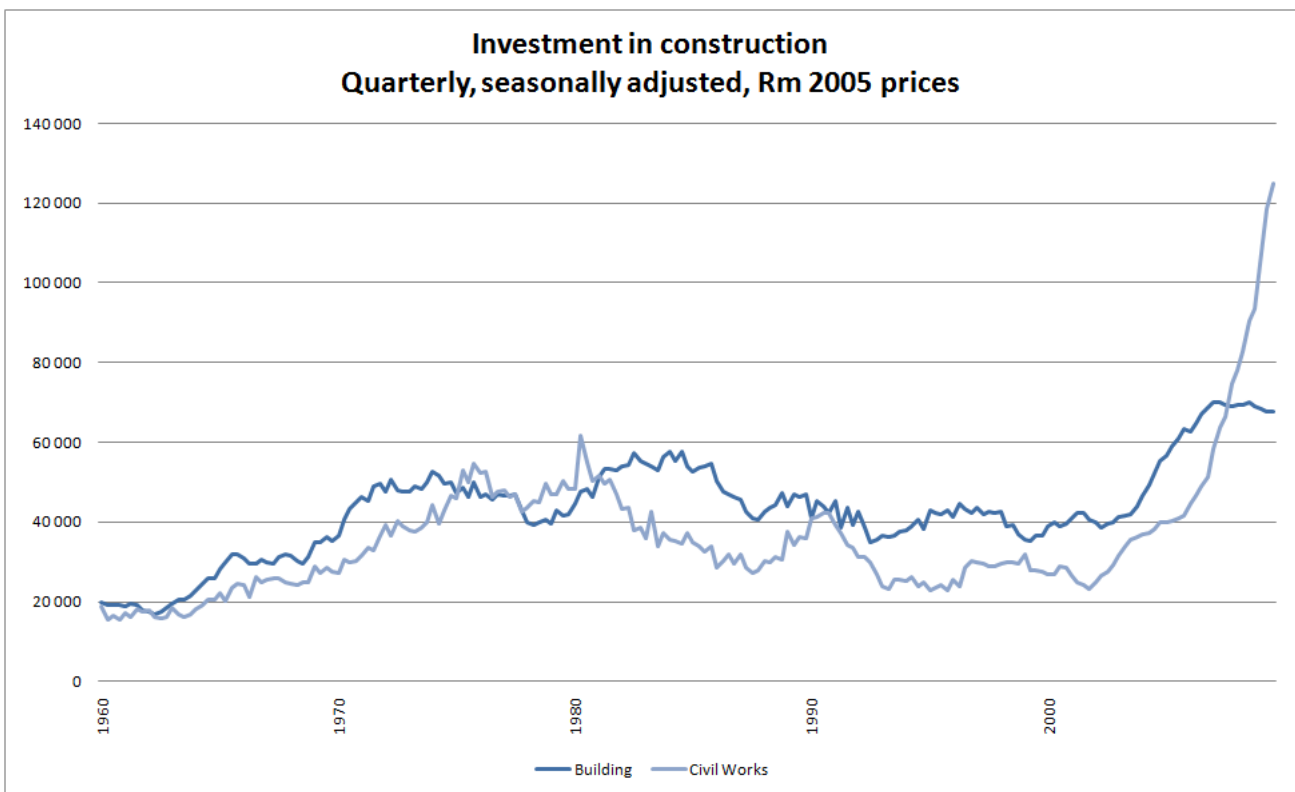


Figure 1: Investment in construction

For the first time since the late seventies, investment in the civil construction industry has a higher contribution to GDP compared to the building industry. Sustained investment in buildings is impossible without supportive investment in civil works, and given the rapid increase in civil investment in recent years, greater investment in buildings is likely to follow once the current financial crunch has filtered through the economy.

## 2. CESA Survey: Background

CESA implemented a more efficient on-line data management system to streamline the questionnaire and data capturing system. Due to many firms still not familiar with the new electronic system, the response rate has been weaker for the past three consecutive surveys, and weakened from 71 in the December 2009 survey to 34 in the June 2010 survey. The poor response is a major cause for concern and will affect the more micro analysis of the report where responses are aggregated at firm size level. The response rate from larger firms was satisfactorily, while the smaller firms contribution was disappointing.

The analysis of the questionnaires completed by active firms in the consulting engineering profession provides a proxy of current and expected working conditions for the profession, which can be measured on a regular basis.

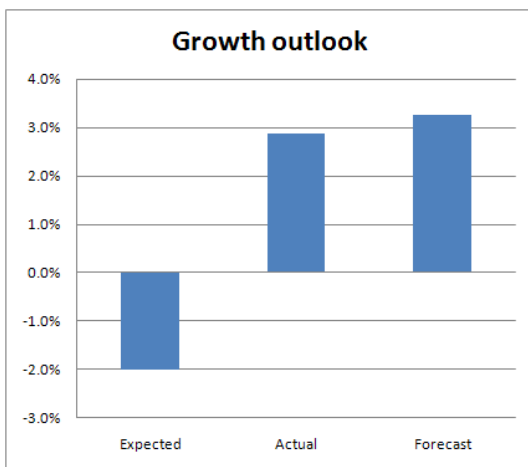
Questionnaires were distributed to all member firms of the Consulting Engineers South Africa (CESA). To eliminate possible distortions in the statistics and prevent anomalies, only responses received from firms that have submitted questionnaires for the last two consecutive surveys are used. **The CESA welcomes commentary received** from firms and invites all members to actively participate in sending commentary on either the survey or conditions in the work place thereby increasing the relevance of these reports.

The sample size for the June 2010 survey was a 31 out of 458 surveys received. The sample was based on a total fee income of R2,2 billion and approximately 7648 employees for the period January to June 2010.

The survey is re-evaluated on a continuous basis, to ensure that the questions asked are pertinent and relevant to current conditions in the industry.

## 3. Prevailing conditions in the Consulting Engineering Industry

### 3.1 Financial Indicators



Conditions in the consulting engineering industry continued to be extremely challenging. Fee earnings in the first six months were expected to decline by 2%, but earnings were better than expected and increased by 2,9%. The industry is still grappling with lower revenues, as fee earnings have fallen by 8% y/y in real terms (adjusted for inflation (CPI)). A total of 46,8% of firms reported higher growth in the first six months, and earnings are expected to increase by 3% in current prices in the second half of 2010.

The average (un-weighted) net profit (before tax) moderated in the last six months, from 18,9% in the first six months of 2009 to 15.47% in the first six months of 2010. Profit margins are expected to moderate further in 2010, to an average of between 10% and 13%. Although a larger number of firms were dissatisfied with profit margins (22.3% compared to 8.4% in preceding survey), majority of firms still feel that the profit margins are between satisfactory and good.

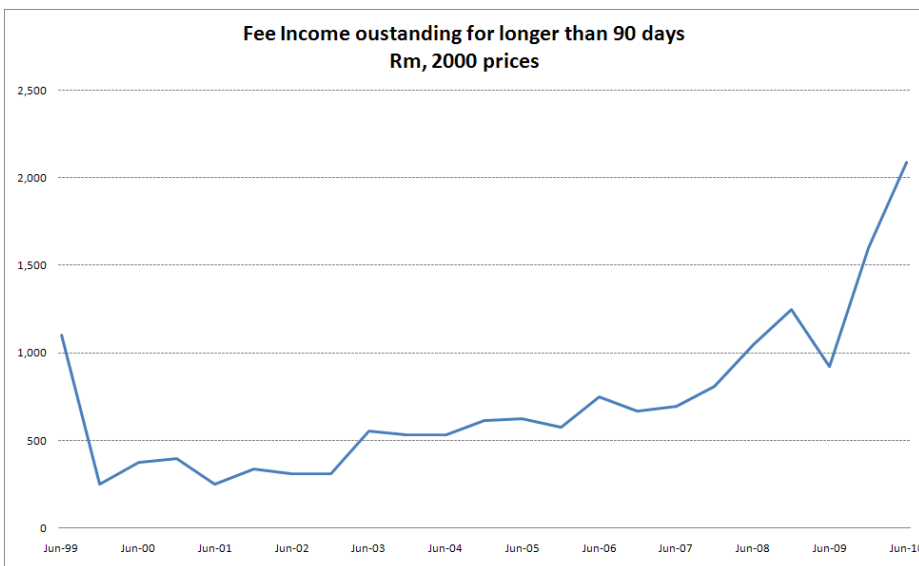
Order books (the value of outstanding (not yet invoiced) for confirmed appointments, (excluding sub-consultants or JV partners) increased by 21% since the June 2009 survey, compared to a 29% decrease in the December 2008 survey. However, in relation to income, the order book : current income ratio deteriorated from 71.9 in June 2009 to 52.1 in December. This means the gap between current income and order books is widening, translating into fewer prospects for future earnings. In the first six months, this gap narrowed to 140.9, mainly due to an increase in the order books of larger firms, suggesting an increase in earnings for the next 6 to 12 months.

The industry's ROI (un weighted average) increased from 65.8% to 73.9. Majority of firms reported a ROI of between 20% and 100%.

*Return on investment is defined as the company's annual profit after interest and tax, as a percentage of Net Working Capital (current assets – current liabilities) during the last completed financial year. Working capital is considered part of operating capital as it affects the day to day operating liquidity. An increase in working capital indicates the business has either increased current assets (ie accounts receivable or inventory) or has decreased its current liabilities (accounts payable).*

Fee earnings outstanding from local government, for longer than 90 days, remained at above 16%, the highest level since the December 2004 survey when fees outstanding escalated to over 14%. Fees outstanding from provincial governments moderated to 14.7% (from 27% in the December 2009 survey). Payments from the private sector deteriorated to over 65% outstanding for longer than 90 days. The overall rate has skyrocketed to above 20%, from 18% in December 2009. This means the consulting industry is hit twice as hard, on the one side, by a contraction in demand and on the other side, a tendency by clients to withhold payments for work already completed. This has serious implications for the industry, already struggling with fewer work opportunities, lower margins and increased competition.

*Employment estimates were revised in the December 2007 survey to correlate with information supplied by CESA firms in their annual declaration submissions*



**Figure 2: Fee income outstanding for longer than 90 days**

Conditions in the **civil engineering contracting industry** deteriorated significantly over the past 12 to 18 months. Turnover is estimated to have declined by 23,5% in real terms during the 1st quarter of 2010 compared to a year ago. However, on the upside there was a pickup in civil contractor confidence levels, but this may have been related to the (then) upcoming soccer world cup. According to SAFCEC, turnover in the civil industry is expected to fall by 37,5% in 2010, following a decline of 11,9% in 2009, but recover in 2011, with an expected 8,9% increase in real terms. **(Source SAFCEC)**

### 3.2 Human Resources

There was no real change in total employment since the June 2009 survey, up marginally by 0,2% y/y to an estimated 19 632. Black people represented between 43% and 45% of the total number of people employed (at all levels), (including African, Coloured and Asian). The contribution of black people in professional appointments (including engineers, architects, quantity surveyors and other) averaged between 13% and 15%, with no real change reported in the June 2010 survey.

There was a significant change in firms looking to increase employment. The number of firms looking for engineers fell from 26,1% in the preceding survey to just 16,6%, the lowest rate since June 2000 (12,85). The decline was reported across all employment types, including technologists, technicians and support staff. Subsequently fewer firms reported difficulties in recruiting engineers, including those from a previously disadvantaged background. A drop in fee earnings, economic uncertainty, and higher than inflationary increases in labour costs, means firms must carefully consider the risks associated with increasing labour, especially considering that a firms salary and wage bill is its largest operating expense.

**Table 2: % of firms wanting to increase staff, by type of personnel**

Type of personnel	% of firms wanting to increase staff December 2008	% of firms wanting to increase staff June 2009	% of firms wanting to increase staff December 2009	% of firms wanting to increase staff June 2010
Engineers	33.2	26.4	26.1	16.6
Technologists	11.3	12.8	73.6	11.9
Technicians	9.3	12.5	25.5	1.7
Other technical staff	2.5	3.8	14.9	11.0
Support Staff	2.3	1.9	14.0	0.4

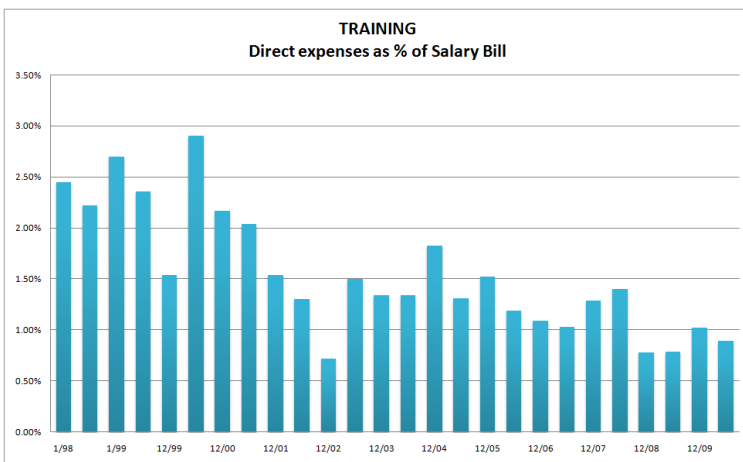
Even though employment has slowed, there haven't been any major retrenchments resulting in significant job losses. Retrenchments will more than likely be focused on the lower skilled employment levels, as engineers continue to be a critical scarce skill.

Asian employment increased by 8% between June and December, with a 45% increase in admin staff, and an increase of 3% and 4% in unregistered engineers and unregistered technologists.

Trying to conform to BBBEE requirements, means demand for black engineers will continue to put pressure on firms, as there are simply not enough black engineers available to fill those positions. There was a 16% increase in black Pr. Eng in the first six months of 2010 compared to the December 2009 survey, as well as a 41% increase in technical assistants.

The salary and wage bill represented 54% of total fee earnings (down from 58%). Firms reported a salary and wage bill of R8,3bn in nominal terms, which if adjusted for inflation fell by 6,3% y/y.

On average, between 16% and 20% of firms total fee income earned were outsourced to external enterprises or individuals, including sub-consultants, joint venture and contract workers. This amounted to between R1billion and R2 billion (annualised) in constant rand terms (2000 prices), or around R3bn in current prices. Larger firms (employing more than 100 people) by comparison to the industry average, outsourced a higher percentage of turnover (by between 24% and 28%). There appears to be a tendency amongst firms (particularly larger firms) to lower their levels of outsourcing, having to better utilize internal capacity.



**Figure 3: Training**

Training expenses, which include the costs directly associated with training as well as the cost of salaries but excluding the 1% CETA skills development levy, averaged 23,6%, compared to 17,4% in the June 2009 survey. Direct training costs, an easier measurement of firms contribution to training, averaged 0,9% of the salary and wage bill, compared to 1,02% in the preceding survey. Although there are some minor adjustments, the overall contribution has deteriorated in recent years from an average of between 1,3% and 1,8% to less than 1%. There seems to be lesser focus on training, which could be a factor of capacity that has been running at full steam in recent years. On the other hand, pressure on fee earnings could also affect the need for training. However, training is critical to secure long term productivity in the industry.

Bursaries are important to improve productivity in the industry as well as to secure employment opportunities. The industry spent between 0,4% and 0,8% of the salary and wage bill on bursaries, with no real significant change reported in the last five years. However, given the role that bursaries play and the shortage of skilled engineers, particularly black and female engineers,

firms are not spending enough on black bursaries. Spending on black bursaries remained below the target of 0,3% (set out in the construction charter) and averaged between 0,15% and 0,20% of the salary and wage bill.

Table 3: % of salaries and wage bill spent on black bursaries

	Black Bursaries	Total
Jun-08	0.5%	1.07%
Dec-08	0.24%	0.45%
Jun-09	0.15%	0.60%
Dec-09	0.2%	0.43%
Jun-10	0.2%	0.86%

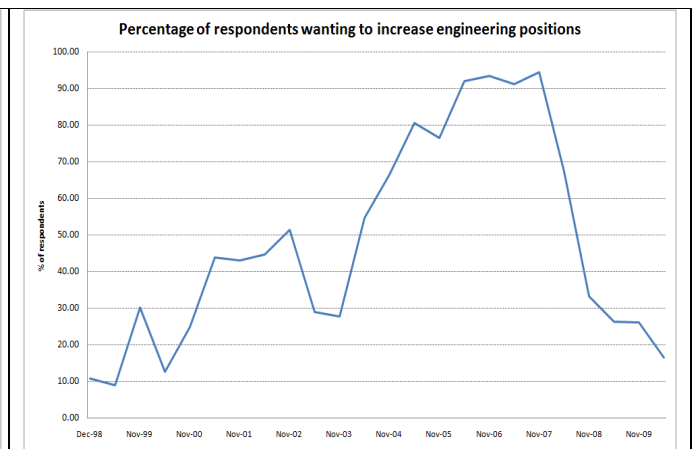
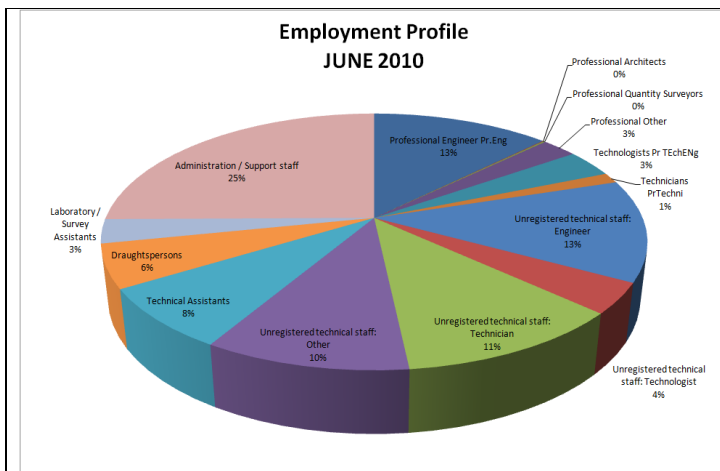


Figure 4

Figure 5

**Industry Equity / Ownership Profile**

Black (including Asian and Colored) equity, including executive directors, non-executive directors, members and partners, stabilized at a contribution of 28% of total equity in the June 2010, on par with results from the December 2009 survey. Black executive directors represented a 19,6% of total equity, while black non-executive directors represented a questionable 91%.

**3.4 Capacity Utilisation**

Capacity utilization fell for the fourth consecutive survey, and is currently still below 90% (87,6%), the lowest rate since the June 2002 survey (80,9%). Almost one quarter of the firms expect utilization rates to fall in the next 6 months (24% compared to 31% in the December 2009 survey). Larger firms remain busy though. A number of firms (employing more than 100 people) continued to operate at 100% utilization, although a few of the larger firms reported a lower utilization rate of 75%. Most of the larger firms expect utilization to either stay the same or fall. No one expects an increase.

The busier larger firms, earn a higher percentage from local authorities, while those firms that are operating at a lower utilization rate, earn on average 50% from the private sector. Being busier however does not necessarily yield higher profits. The average profit margin for those firms earning a higher percentage of earnings from local authorities were lower compared to those firms working in the private sector, while the discounting rate was higher. Firms working for the private sector discounted by 40% less (averaging 16%), compared to those working in local authorities (average of 27%). Most firms expect profit margins to deteriorate by between 1% and 2% percentage points.



### 3.5 Competition in tendering

Competition in tendering generally eases during a time when the availability of work increases and intensifies during periods of work shortages. An easing of competition will generally lead to an increase in prices, while price inflation is capped during periods of work shortages due to the fact that an increasing number of firms tender on the same project. The tendering process is costly and time consuming, and higher levels of competition significantly increases the risk for the engineering firm.

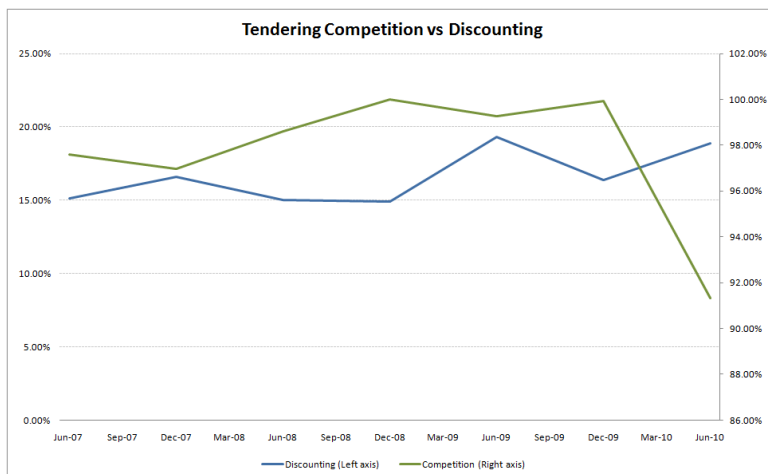
The percentage of respondents saying that competition was very keen to fierce increased to 88%, compared to 78% in the December 2009 survey. Competition undoubtedly remains fierce in this industry, and any improvement has been marginal. Competition really intensified in 2008, and subsequently led to an increase in the rate by which firms were discounting fees.

The smaller firms, operating in specialist fields are more likely to report on lower levels of competition. Competition was extremely fierce in Western Cape, especially for those firms working in local government and the private sector. Fierce competition was also reported by firms working in the Western Cape mainly within the private sector (disciplines of civil and structural services).

### 3.6 Pricing

*No specific escalation index is available for the consulting engineering industry. After exploring many different avenues it was proposed to calculate a CESA Cost index that is based on a “labour unit cost” and extracted directly from the CESA MIS Survey. This should accommodate at least 50% of the firms’ costs and should therefore, in theory, be a reliable indicator of escalation. The CPI is currently used to deflate all financial information, until such time CESA officially applies the CESA Labour cost index as an industry price deflator.*

*The index is based on the sample of total number of employees versus the salaries and wages paid during the period under review*



Discounting of fees, benchmarked against fee guidelines gazetted by ECSA, continued during the survey period, and accelerated to 18,9%, compared to 16,4% in the preceding survey. 43% of the firms reported a discounting rate of 20% or more, the highest being 45%. High discounting rates were offered by firms mainly operating in Western Cape and Gauteng, where a higher percentage of fees were earned from local authorities particularly in the transportation sector. Larger firms discounted by between 10% and 30% (compared to an average of 25% and 15% in the previous two surveys). Interestingly those firms already running at a capacity rate of 100% or more, also seem to be offering the highest discounting rates (more than 25%).

CESA’s labour cost indicator, increased by 4,3% y/y, compared to 10,7% in December. The increase in engineering costs has since June 2003, surpassed the increase in the CPI, which means the real change in fee income is probably overstated, given the fact that the CPI is used as a nominal fee income deflator.

Changes in the general cost of living (as measured by the Statistics South Africa’s Consumer Price Index) are clearly not indicative of labour cost changes in the consulting engineering industry. However, the CPI may have a strong influence in the determination of ECSA Fees, which has shown an average - much lower - increase of 4,2% in the first half 2010, down from 6,2% in the last six months of 2009.

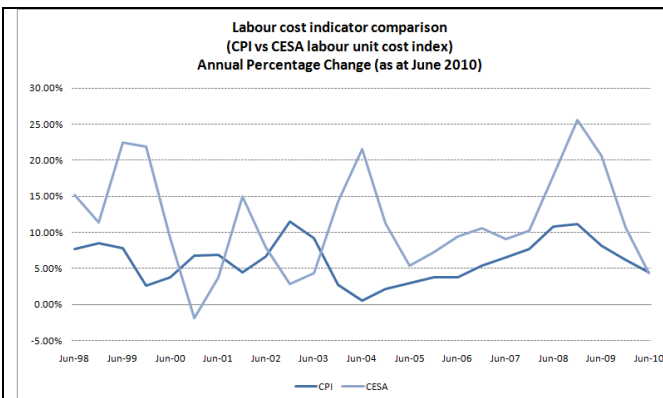


Figure 6: CESA Labour Cost Indicator

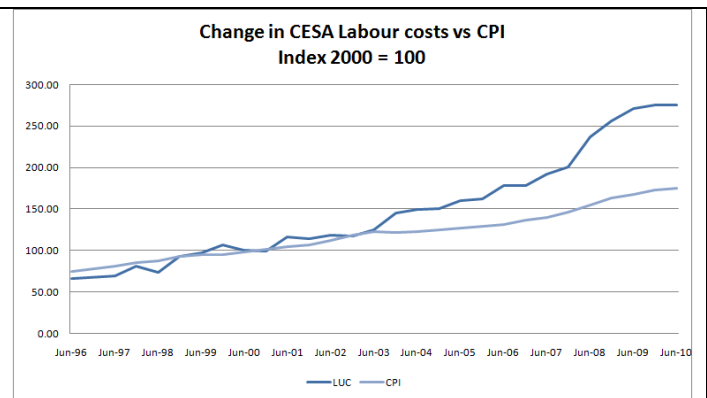


Figure 7: Change in CESA LCI vs CPI

### 3.7 Industry Outlook

*The confidence index, as an indicator of members’ assessments regarding current and future prospects with regard to market developments, is a “weighted” index. The response of each company is weighted according to its total employment, including full and part time staff, and the index represents the net percentage of members satisfied with business conditions.<sup>1</sup> To ensure that possible distortions emanating from ad hoc replies do not occur, only those members that have submitted returns during the last two consecutive surveys are used. The confidence index is used as a leading indicator to determine a short to medium term outlook for the consulting engineering industry.*

Confidence levels did not deteriorate as badly as expected in the first half of 2010. The level of optimism for working conditions in the first six months weakened to a level of 74.6 in the December 2009 survey, but actual working conditions were better than expected and confidence recovered to 87.1. The outlook for the next 6 months of 2010 is poorer conditions yet again with confidence deteriorating to 71.9, but recovering quite strongly in the first half of 2011 to 93,6. The depressed outlook in the consulting engineering industry will have a lagged impact on industry turnover, affecting downstream opportunities for suppliers and contractors.

All things considered, confidence levels are still seen as optimistic, because it has not fallen below the 50% mark. However, it must be noted that the confidence index is a weighted index and thus somewhat biased towards the outlook for larger firms. Greater disparity between key indicators is generally a sign of cyclical turning points. Larger firms are neutral regarding the outlook for the next 6 and 12 months, and reported working conditions as mostly satisfactorily, with fierce competition.

<sup>1</sup> The net percentage reflects only those members that expect conditions to be satisfactory, quite busy or very busy.

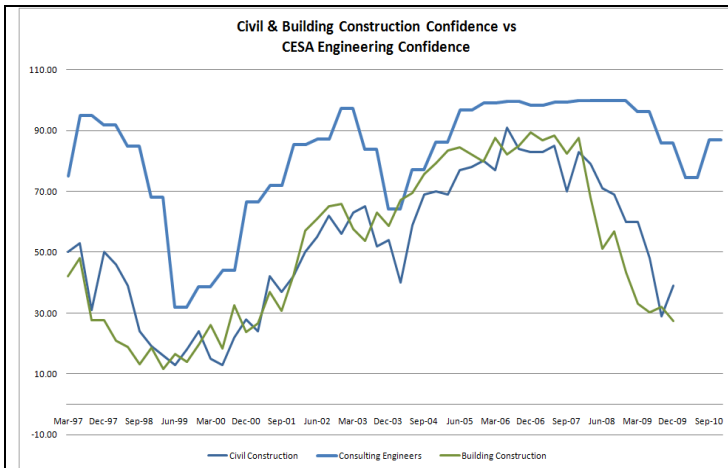


Figure 8: Confidence indices (Source: FNB/BER, CESA)

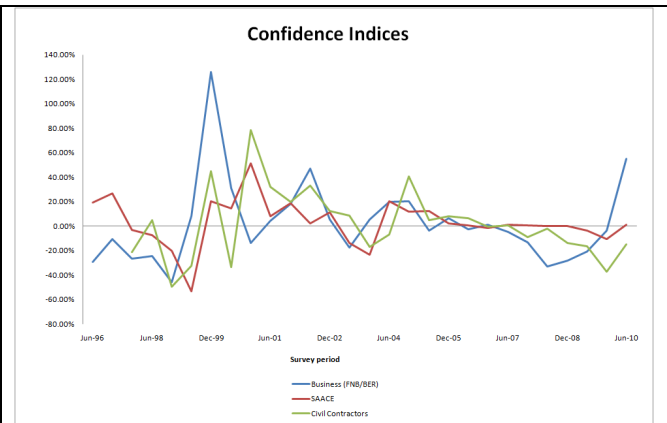


Figure 9: Confidence Indices – Y-Y change

Confidence in the engineering sector generally lags business sentiment. Business sentiment, albeit still very low by historical terms – averaging 28 in the second half of 2009 - have shown a notable improvement (up 54% y/y) to an index value of 39 in the 2<sup>nd</sup> quarter of 2010. Still well below the 50 level, but hopefully a more positive sign of things to come.

Increased spending by government and state owned enterprises, supported consulting engineering confidence during a time when the economy and the business sector showed considerable weakness. Project postponements and delays in project implementation affected confidence in the contracting fraternity. Civil contracting confidence deteriorated from an average of 34.0 in the last six months of 2009 to 29 in the first half of 2010. Lack of funding and a review of capital expenditure plans have now also affected confidence in the consulting industry.

Any change in market sentiment must be taken in relation to the level from which the industry is operating. Rapid growth over the past five years has required an increase in capital, including human, financial and manufacturing. Understandably this needs to be sustained. A mild slowdown in investment could therefore have a sharper than expected impact on confidence, given the increased level of risk.

Table 4: CESA Confidence index: % respondents satisfied with working conditions

Survey Period	CESA Confidence Index	% Change on previous survey	% Change on survey same time last year
Jun-05	96.8	12.2%	25.4%
Dec-05	99.3	2.5%	14.9%
Jun-06	99.7	0.5%	3.0%
Dec-06	98.4	-1.30	-0.8
Jun-07	99.4	1.0%	-0.3%
Dec-07	99.8	0.4%	1.4%
Jun-08	99.9	0.1%	0.5%
Dec-08	99.8	-0.1%	0.0%
Jun-09	96.2	-3.6%	-3.7%
Dec-09	86.0	-10.6%	-13.8%
Jun-10	74.6	-13.3%	-22.5%
Dec-10	87.0	16.6%	1.2%
Jun-10	87.1	1.3%	-9.4%

### 3.8 Industry challenges

- Unlocking greater private sector participation is seen as a critical element to fast track delivery which will support engineering fees and as such engineering development in the industry. Private sector participation in this context refers to involvement on a more technical level (and not as a client), to improve municipal capacity and efficiency.
- The public sector strike in August and September will undoubtedly affect the streamline of government projects, further weakening the state of the project pipeline.
- The upcoming municipal elections in 2011 could create further delays in project planning and implementation as it ultimately brings decision making to a standstill over that time.
- The consulting engineering industry is threatened by incapacitated local and provincial governments. As major clients to the industry it is important that these institutions become more effective, more proactive in identifying needs and priorities and more efficient in project implementation and – management.
- The image of the municipal engineering industry, although much improved in the private sector continues to deteriorate in the public sector environment. Career prospects are limited, affecting the development of mentors and the transfer of critical skills in the public sector. The fact that engineers are generally appointed in a five year contract by government, doesn't make for an attractive career opportunity, and no matter the price, not many professional qualified engineers would be interested.
- Lack of capacity within government, not only threatens the future growth of the consulting engineering industry, but also the economic growth potential of the South African economy, and with it, the future prospects of each and every South African citizen. Investment in critical scarce resources such as water, is after all, a non-negotiable, but continues to fail to be listed on the priority list of many departments.
- The involvement of non CESA members in government tenders and procurement continues to threaten the standard and performance of the industry. Non-Cesa members do not seem to comply with the same standards and principles as those firms that are members of CESA. Whether this is linked to complaints of “below cost” tendering during 2009, is not certain, but CESA members should be better informed about engaging in below cost tendering.
- The current tendering and procurement procedures do not acknowledge performance.
- Firms from across South African borders are tendering at rates that are not competitive for local firms. Complaints have been received of some of these firms not producing proper drawings and not attending site visits. Clients, unfortunately, are not always properly experienced or educated to conduct proper procurement assessments and unknowingly award contracts to these “unscrupulous” firms. While these occurrences may be limited to smaller rural areas, it remains an unacceptable practice.
- Lack of attention to maintain infrastructure poses a serious problem to the industry. Not only is it much more costly to build new infrastructure, but dilapidated infrastructure hampers economic growth potential. The cost of resurfacing a road after seven years at current prices, is estimated at R175 000 per kilometre, compared to R3 million per kilometer to rebuild, less than 6% of the construction price. In many cases infrastructure is left to deteriorate to such a state, that maintenance becomes almost impossible. This simply translates to ineffective spending of tax payer's money.
- As clients struggle to secure funding (including private sector developers and government departments) the issue of non-payment will intensify during 2010.
- A major challenge to the industry is to find a way to standardize the procurement procedures applied by the different government departments. Procurement procedures should be standard for the country, or at least for the specific tier of government.

## 4. Salient Features

### 4.1 Sub-disciplines of fee income earned

The South African consulting engineering industry is represented by many different sub-disciplines. The most common disciplines within larger firms include civil, structural services and project management. Within the smaller and micro firms, electrical services and mechanical building services also play an important role in earnings.

### 4.2 Economic Sectors

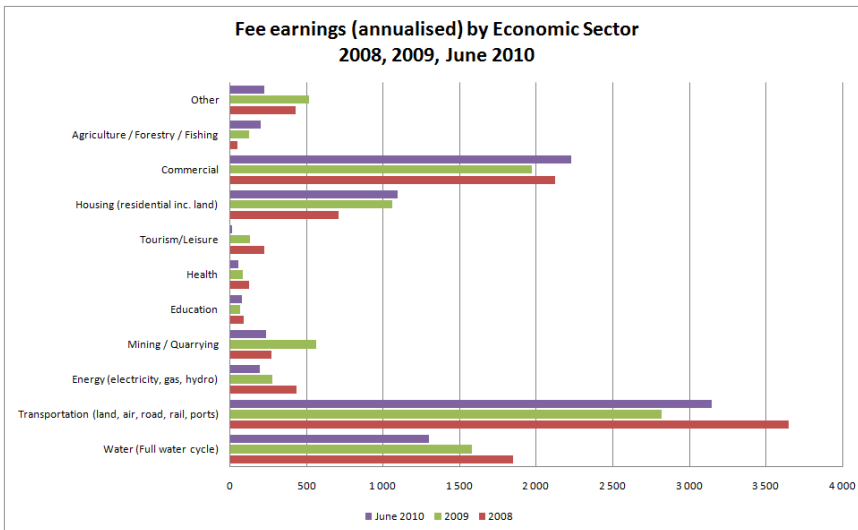


Figure 10: Economic Sectors

The economic sectors include all infrastructure associated within that sector including expenditure related to soft issues such as feasibility studies or environmental assessments. From this, three key sectors evolved namely water services, transportation and commercial.

The transportation sector contributed the highest to fee earnings, (37,6% in the June 2010 survey), followed by 22% earned in the commercial sector, and 14,6% in water. In the first six months of 2010, compared with the second half of 2009, there was more focus on transportation, and a small increase reported in mining and quarrying. Earnings in the commercial sector dropped from a market share of 28,8% in December 2009 to 22% in June 2010. The issues related to the lack of attention given to the maintenance and expansion of water infrastructure has been raised on numerous occasions by CESA. Water and sanitation requires immediate attention as there are no quick fixes to problems that occur over years of neglect. Several research reports have highlighted the fact that water demand could exceed supply by 2025, a mere 15 years from now.

### 4.3 Geographic Location

## South African Consulting Engineering Industry

Fee earnings by province: January - June 2010  
R8,913 million (Annualised, constant prices)

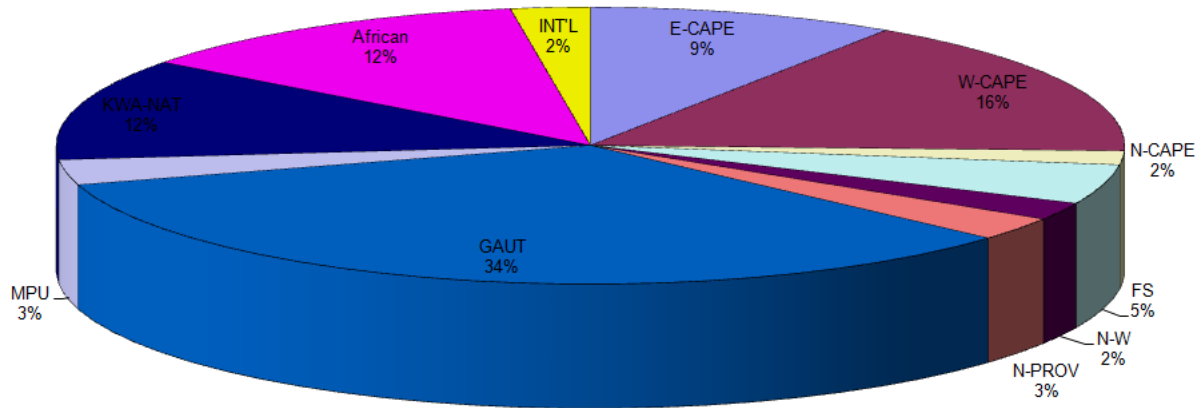
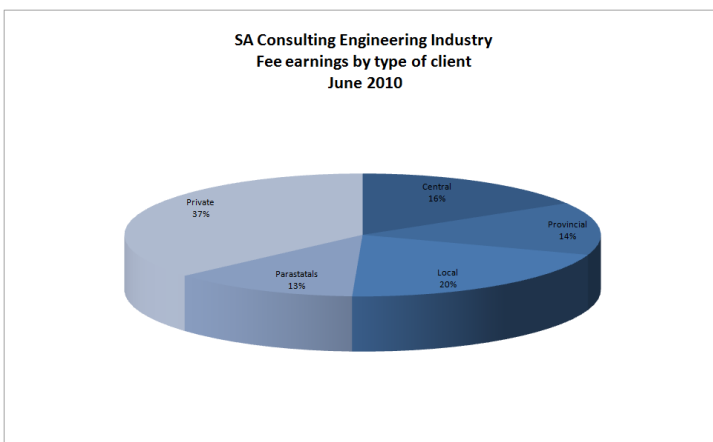


Figure 11: Fee earnings by province: January – June 2010

The bulk of fees were earned in Gauteng (34%), followed by 16% in the Western Cape and 12% in Kwazulu Natal. The contribution of Kwazulu Natal, dropped from an average of 18% in 2009, to 12%, which equates to a 47% y/y decline in fee earnings. Earnings in Gauteng were 31% lower compared to last year, but conditions were more favourable in the Western Cape where earnings increased by 59%, contributing 16% to total fee earnings. Cross border activity represented 12,3% in Africa and 2,4% internationally. There was a significant increase in earnings in Africa, up 18% from the last 6 months of 2009 and 190% higher compared to the same period in 2009. Growth in the international market was slower, but nonetheless up 5% y/y.

### 4.4 Clients



Local authorities accounted for 20% of earnings during June 2010, down 27% in the December 2009. This is the biggest public sector client, while around 36% of earnings were generated in the private sector. The contribution of the private sector has weakened over the last 12 months, but showed a small improvement in the June 2010 survey.

Capital spending, apart from state owned enterprises, is more and more geared toward rural development and much of the budgetary allocations are specifically channelled through the municipal departments. Fee earnings from the private sector were supported mostly by developments in the commercial sector, while earnings in the local sector were focused on transportation, water services and to a lesser extent housing.

The role of central government continued to improve in the last 6 months, contributing 16,4% of fee earnings, up from 6,4% in the first 6 months of 2009. There was a notable increase in the contribution by provincial departments, which increased from 9,9% (December 2009) to 13,9%. The role of Parastatals stabilized at 12,7% in the last two surveys.

Given the high volumes earned in the local sector, the industry is concerned over the lack of capacity in local and provincial governments. CESA estimates that the number of registered engineers employed in government, fell from 5100 in 2005 (serving 14 million people mostly in the homelands) to an estimated 1800 serving a total population of 47 million. The number of professional engineers working in the public sector is projected to have declined to 10% from 40% in 2005. The image of the municipal engineer in the public sector has shifted from being a highly respected professional, with a long term career, to no more than a five year contract, making it difficult to obtain and retain qualified staff in the public sector.

## 5. Professional Indemnity Insurance

The annual premium as a percentage of gross fee income over a 12 month period, averaged 2,6% for the industry (unweighted) compared to 1,8% in the December 2009 survey. However, a few firms reported very high premiums, which is very likely to be calculation errors. A few firms reported premiums as high 25% of fee income. Most of the larger firms reported between 1% and 1,5%.

Majority of firms (68%) reported a low risk exposure, and 3,1% reported a high risk exposure.

The total value of claims paid by firms insurers as a percentage of premiums paid averaged 3% for the industry. The number of claims over the past five years averaged less than 1 per firm. Approximately 27% of the claims notified to insurers by the respondents were not refunded, affecting mostly the larger firms, who also had a premium contribution of less than 1% to fee earnings. None of the smaller firms (who contributed 30% to the total number of claims reported by the participating firms) complained of any claims that had not been refunded.

The industry's average limit of indemnity as a percentage of gross fee income over the 12 month period ranged from 1.2% to as much as 167%, with a weighted industry average of 11,4%. From the high discrepancy rate, we question the accuracy of this information that has been provided by firms. Less than 20% of the firms reported an indemnity limit of 100% or more, majority reported between 20% and 80%. The industry average in terms of deductibles as a percentage of the indemnity limit increased to 5,2% from 2,6% in December 2009, with a maximum reported of 21%.

## 6. Quality Management System

A quality management system (QMS) is a control that is implemented at various stages of production process or service delivery stages. A QMS system is important for all firms, big and small. A total of 97% of the firms reported to have a QMS in place, compared to an industry average of 84% in the June 2009 survey.

Having a QMS in place is now compulsory for all CESA members, who recognize the importance of good efficient quality control. CESA recommends the ISO:9001:2000 frame work, recognizing this framework as being comprehensive and internationally recognized.

Members can, provided the correct procedures are followed, claim a portion of the skills development levy for quality management training.

For more information on statutory requirements for members, please refer to the advisory note released by CESA.

Members are obliged to use accredited agents should they wish to obtain an ISO 9001:2000 certificate. Details of certification bodies used by Members consenting to make this information available, is published on the CESA website. On average 50% of the firms complied, which is an improvement from the 46,5% reported in the previous survey. 20% of the medium to smaller firms., up from 16% in the preceding survey.

***The industry's ISO's compliance rate improved to 50% in the current survey, from 46,5% in the previous survey.***

# Statistical Tables



The following table provides a quick synopsis of some of the key indicators in the consulting engineering profession by firm size.

**Table 5: Summary of key indicators by firm size**

Employment category	Data	Average
Larger than 100	Average % of turnover outsourced	24.1
	Average capacity utilization %	88.3
	Average net profit percentage	15.0
	Discounting	21.1
	% of payment outstanding for longer than 90 days	24.7
	Average of salary bill to gross fee income	54.0
Between 20 and 100	Average % of turnover outsourced	10.4
	Average capacity utilization %	82.3
	Average net profit percentage	11.4
	Discounting	17.2
	% of payment outstanding for longer than 90 days	12.9
	Average of salary bill to gross fee income	57.0
Between 10 and 20	Average % of turnover outsourced	33.2
	Average capacity utilization %	85.0
	Average net profit percentage	16.0
	Discounting	18.3
	% of payment outstanding for longer than 90 days	2.3
	Average of salary bill to gross fee income	58.0
< 10	Average % of turnover outsourced	17.8
	Average capacity utilization %	101.0
	Average net profit percentage	18.0
	Discounting	13.4
	% of payment outstanding for longer than 90 days	6.4
	Average of salary bill to gross fee income	21.2
Average % of turnover outsourced		19.2
Average capacity utilization %		87.6
Total average net profit percentage		15.4
Discounting		18.9
% of payment outstanding for longer than 90 days		23.4
Total average of salary bill to gross fee income		54.0

**Table 6: General financial indicators**

Survey period	Employment <sup>2</sup>	Salaries / Wages 2000 prices (Annualised)	Fee Income, R mill (Annualised)			Cost Deflator	
			Current prices	Constant 2000 prices	Y/Y real % change	CPI Index 2000 = 100	CPI y/y % Change
Jun-02	12,850	1,765	4,394	3,922	5.46%	112.0	6.70%
Dec-02	13,467	1,714	4,418	3,725	4.59%	118.6	11.52%
Jun-03	13,063	1,725	4,396	3,593	-8.39%	122.4	9.21%
Dec-03	12,540	1,713	4,176	3,426	-8.0%	121.9	2.8%
Jun-04	12,791	1,870	4,511	3,666	2.0%	123.0	0.6%
Dec-04	12,599	1,957	4,601	3,692	7.8%	124.6	2.2%
Jun-05	12,798	2,030	5,015	3,957	7.9%	126.8	3.0%
Dec-05	14,026	2,247	5,597	4,330	17.3%	129.3	3.7%
Jun-06	14,068	3,096	7,835	5,954	50.5%	131.6	3.8%
Dec-06	14,912	3,350	8,149	5,983	38.2%	136.2	5.4%
Jun-07	15,807	3,613	9,493	6,771	13.7%	140.2	6.5%
Dec-07	16,755	3,542	10,537	7,183	20.1%	146.7	7.7%
Jun-08	18,347	4,940	14,752	9,499	40.3%	155.3	10.8%
Dec-08	19,081	5,516	16,965	10,407	44.9%	163.0	11.1%
Jun-09	19,596	5,141	16,287	9,700	2.1%	167.9	8.1%
Dec-09	19,342	5,019	14,984	8,653	-16.9%	173.2	6.2%
Jun-10	19,632	4,888	15,433	8,913	-8.1%	175.5	4.5%

**Table 7: Consulting Engineering Profession: Financial indicators: Annual Percentage Change (Real)**

Survey period	Employment	Salaries and Wage Bill	Fee income	Cost escalation based on CPI index (Stats Sa)
Jun-02	1.3%	3.2%	5.5%	6.70%
Dec-02	1.7%	9.3%	4.6%	11.52%
Jun-03	1.6%	-2.3%	-8.4%	9.21%
Dec-03	-6.9%	0.0%	-8.0%	2.8%
Jun-04	-2.1%	8.4%	2.0%	0.6%
Dec-04	0.5%	14.2%	7.8%	2.2%
Jun-05 *	0.0%	8.6%	7.9%	3.0%
Dec-05	11.3	14.8%	17.3%	3.7%
Jun-06	9.9%	52.5%	50.5%	3.8%
Dec-06	6.3%	49.1%	38.2%	5.4%
Jun-07	12.3%	16.7%	13.7%	6.5%
Dec-07	12.3%	5.7%	20.1%	7.7%
Jun-08	16.1%	36.7%	40.3%	10.8%
Dec-08	13.8%	54.1%	44.9%	11.1%
Jun-09	6.8%	53.0%	2.1%	8.1%
Dec-09	1.4%	58.0%	-16.9%	6.2%
Jun-10	0.2%	54.0%	-8.1%	4.5%

\* Revised

<sup>2</sup> Revised June 2007

Table 8: Sub-disciplines: June 2009 – June 2010, Percentage share

Sub-discipline	Jun-09	Dec-09	Jun-10	Change in market share Last 6 months	Change in market share Last 12 months
Agricultural	2.0%	0.6%	0.7%	0.2%	-1.3%
Architecture	0.3%	0.0%	0.0%	0.0%	-0.3%
Mechanical building Services	2.0%	2.6%	1.6%	-1.0%	-0.4%
Civil	51.1%	52.8%	43.6%	-9.2%	-7.5%
Electrical / Electronic	4.8%	4.0%	4.3%	0.3%	-0.5%
Environmental	4.7%	3.5%	13.4%	9.9%	8.7%
Facilities Management (New)	1.8%	1.3%	1.4%	0.1%	-0.5%
Geotechnical	1.2%	0.5%	0.5%	0.0%	-0.7%
Industrial Process / Chemical	0.5%	0.5%	0.5%	0.1%	0.0%
GIS	0.4%	0.8%	0.9%	0.0%	0.5%
Hydraulics (New)	0.5%	0.2%	0.6%	0.3%	0.0%
Information Systems / Technology	0.4%	1.2%	1.1%	-0.2%	0.7%
Marine	0.0%	0.1%	0.3%	0.2%	0.3%
Mechanical	1.2%	2.3%	2.1%	-0.1%	0.9%
Mining	8.7%	2.5%	3.1%	0.6%	-5.6%
Project Management	10.0%	6.9%	9.3%	2.4%	-0.6%
Quantity Surveying	0.1%	1.7%	0.3%	-1.4%	0.3%
Structural	9.7%	18.3%	15.9%	-2.4%	6.2%
Town planning	0.4%	0.2%	0.3%	0.1%	-0.1%
Total	100.0%	100.0%	0.0%	0.0%	0.0%

**Table 9: Sub-disciplines: June 2009 – June 2010, Annualized R mill, 2000 prices**

Sub-discipline	Jun-09	Dec-09	Jun-10	Change Jun-10/Dec-09	Change Jun-10 / Jun-09
Agricultural	R 198	R 49	R 64	31.7%	-67.5%
Architecture	R 32	R 0	R 0	#DIV/0!	-100.0%
Mechanical building Services	R 196	R 225	R 147	-34.8%	-25.1%
Civil	R 4 954	R 4 567	R 3 885	-14.9%	-21.6%
Electrical / Electronic	R 468	R 349	R 386	10.5%	-17.5%
Environmental	R 455	R 304	R 1 196	292.8%	162.8%
Facilities Management (New)	R 177	R 111	R 123	10.0%	-31.0%
Geotechnical	R 114	R 43	R 43	1.0%	-61.9%
Industrial Process / Chemical	R 50	R 41	R 47	16.4%	-4.7%
GIS	R 37	R 71	R 78	9.1%	111.1%
Hydraulics (New)	R 52	R 20	R 50	151.6%	-4.8%
Information Systems / Technology	R 42	R 108	R 96	-10.9%	130.6%
Marine	R 3	R 8	R 25	210.2%	635.1%
Mechanical	R 119	R 197	R 190	-3.6%	60.2%
Mining	R 849	R 216	R 280	29.6%	-67.0%
Project Management	R 966	R 601	R 830	38.1%	-14.1%
Quantity Surveying	R 6	R 147	R 28	-80.8%	396.8%
Structural	R 946	R 1 582	R 1 419	-10.3%	50.0%
Town planning	R 40	R 14	R 27	90.2%	-33.0%
Total	R9,700	R 8 653	R8 913	3.0%	-8.1%

**Table 10: Provincial Turnover, R mill, 2000 prices (Annualized)**

Province	Survey period							
	Dec-06	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
EC	640	670	664	836	552	757	900	832
WC	956	1 198	1 307	1 263	1 342	912	1 471	1 452
NC	123	76	119	180	104	155	69	144
FS	251	296	336	389	250	213	260	413
NW	262	262	586	266	364	184	199	183
LIM	211	242	175	275	291	310	277	243
GAU	1 921	2 306	2 510	3 116	4 048	4 375	2 596	3 007
MPU	176	210	283	304	343	252	251	262
KZN	747	931	811	1 320	1 280	1 959	1 497	1 062
AFRICAN	585	477	324	1 016	1 301	378	926	1 100
INT'L	112	103	68	532	541	204	208	214
<b>Total</b>	5 983	6 771	7 183	9 499	10 417	9 700	8 653	8 913

**Table 11: Y-Y Change (Trend – Smoothed over two consecutive surveys)**

Province	Survey period							
	Dec-06	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
EC	48.7%	40.9%	13.6%	14.5%	4.0%	-12.8%	19.4%	32.4%
WC	70.9%	1.8%	7.7%	19.3%	4.0%	-12.3%	-8.6%	29.7%
NC	48.3%	-23.2%	-26.8%	50.2%	46.4%	-13.3%	-21.1%	-17.6%
FS	38.7%	32.1%	33.4%	32.8%	1.1%	-36.2%	-26.0%	45.1%
NW	64.0%	41.7%	79.8%	62.6%	-25.7%	-35.6%	-39.2%	-30.4%
LIM	39.4%	54.4%	10.2%	-0.5%	36.2%	33.7%	3.6%	-13.6%
GAU	34.6%	19.5%	23.2%	33.1%	48.8%	49.7%	-2.7%	-33.5%
MPU	0.5%	12.1%	37.0%	52.1%	31.3%	1.5%	-22.3%	-13.9%
KZN	28.0%	22.0%	15.1%	27.0%	49.3%	52.0%	32.9%	-21.0%
AFRICAN	75.9%	95.0%	-10.1%	26.3%	189.4%	25.3%	-43.7%	20.6%
INT'L	66.7%	114.8%	-1.5%	178.6%	527.0%	24.1%	-61.7%	-43.4%
<b>Total</b>	44.1%	24.0%	16.9%	30.8%	42.7%	20.6%	-7.8%	-12.7%

**Table 12: Market share (% of fee earnings)**

Province	Survey period							
	Dec-06	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
EC	10.69	9.90	9.25	8.80	5.30	7.80	10.40	9.34
WC	15.98	17.70	18.20	13.30	12.90	9.40	17.00	16.29
NC	2.06	1.12	1.65	1.90	1.00	1.60	0.80	1.62
FS	4.19	4.37	4.68	4.10	2.40	2.20	3.00	4.63
NW	4.38	3.87	8.16	2.80	3.50	1.90	2.30	2.05
LIM	3.52	3.57	2.43	2.90	2.80	3.20	3.20	2.73
GAU	32.10	34.06	34.94	32.80	38.90	45.10	30.00	33.74
MPU	2.94	3.10	3.94	3.20	3.30	2.60	2.90	2.94
KZN	12.49	13.75	11.29	13.90	12.30	20.20	17.30	11.92
AFRICAN	9.77	7.04	4.51	10.70	12.50	3.90	10.70	12.34
INT'L	1.88	1.52	0.95	5.60	5.20	2.10	2.40	2.40
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%

**Table 13: Fee income earned by type of client, R mill, 2000 prices (Annualized)**

Client	Survey period						
	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
Central	605	654	921	728	621	1 359	1 459
Provincial	860	692	1 501	1 842	1 038	857	1 240
Local	1 950	1 863	1 995	2 904	2 231	2 371	1 820
State Owned	772	771	1 216	1 082	951	1 108	1 131
Private	2 587	3 204	3 866	3 851	4 870	2 959	3 263
<b>Total</b>	<b>6 774</b>	<b>7 183</b>	<b>9 499</b>	<b>10 407</b>	<b>9 710</b>	<b>8 653</b>	<b>8 913</b>

**Table 14: Percentage market share by client**

Client	Survey period						
	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10
Central	8.9%	9.1%	9.7%	7.0%	6.4%	15.7%	16.4%
Provincial	12.7%	9.6%	15.8%	17.7%	10.7%	9.9%	13.9%
Local	28.8%	25.9%	21.0%	27.9%	23.0%	27.4%	20.4%
State Owned	11.4%	10.7%	12.8%	10.4%	9.8%	12.8%	12.7%
Private	38.2%	44.6%	40.7%	37.0%	50.2%	34.2%	36.6%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 15: Percentage of fee income earned by economic sector**

Economic sector	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Change in the last 6 months
Water (Full water cycle)	16.7%	19.5%	17.8%	19.2%	15.0%	14.57%	-0.5%
Transportation (land, air, road, rail, ports)	27.5%	41.2%	32.5%	27.8%	34.0%	37.57%	3.6%
Energy (electricity, gas, hydro)	4.4%	3.0%	5.5%	3.6%	2.3%	2.07%	-0.3%
Mining / Quarrying	3.6%	2.1%	3.3%	9.9%	1.9%	3.53%	1.6%
Education	1.8%	1.0%	0.9%	0.6%	0.9%	0.98%	0.1%
Health	2.1%	1.4%	1.1%	1.1%	0.7%	0.57%	-0.1%
Tourism/Leisure	2.3%	1.0%	3.4%	2.4%	0.3%	0.05%	-0.3%
Housing (residential inc. land)	11.1%	9.2%	5.2%	10.9%	12.3%	12.74%	0.5%
Commercial <sup>3</sup>	28.9%	16.6%	25.6%	14.9%	28.8%	22.03%	-6.8%
Agriculture / Forestry / Fishing	0.4%	0.8%	0.2%	0.8%	2.0%	2.65%	0.7%
Other	1.1%	4.2%	4.4%	9.0%	1.8%	3.24%	1.4%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100%</b>	-

**Table 16: Fee income earned by economic sector, Constant 2000 prices, Annualized**

Economic sector	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Real % Change Jun-10/Jun-09
Water (Full water cycle)	1 200	1 848	1 852	1 862	1 301	1 299	-30.3%
Transportation (land, air, road, rail, ports)	1 975	3 913	3 379	2 697	2 941	3 349	24.2%
Energy (electricity, gas, hydro)	316	289	577	349	202	185	-47.1%
Mining / Quarrying	259	204	339	960	164	314	-67.3%
Education	129	92	89	58	76	87	49.7%
Health	151	134	117	107	62	51	-52.2%
Tourism/Leisure	165	93	352	233	26	4	-98.2%
Housing (residential inc. land)	797	875	545	1 057	1 060	1 135	7.4%
Commercial	2 076	1 580	2 668	1 445	2 495	1 964	35.9%
Agriculture / Forestry / Fishing	29	74	23	78	170	236	204.2%
Other	79	397	461	873	156	289	-66.9%
<b>Total</b>	<b>7 176</b>	<b>9 499</b>	<b>10 403</b>	<b>9 720</b>	<b>8 653</b>	<b>8 913</b>	<b>-8.3%</b>

<sup>3</sup> Commercial includes: Manufacturing, industrial buildings, communication, financial, facilities management



**Table 17: Proposed CESA Labour unit cost index**

Survey period	Labour Unit cost (LUC) per hour	Index (2000 = 100) Smoothed	Year on Year percentage change in Index	Annual Average Annual Increase
Dec-97	R 51.64	75.13		
Jun-98	R 46.93	77.63	15.2%	
Dec-98	R 59.30	83.65	11.4%	13.3%
Jun-99	R 61.46	95.10	22.5%	
Dec-99	R 68.01	101.96	21.9%	22.2%
Jun-00	R 63.90	103.88	9.2%	
Dec-00	R 63.08	100.00	-1.9%	3.7%
Jun-01	R 73.80	107.80	3.8%	
Dec-01	R 72.23	115.00	15.0%	9.4%
Jun-02	R75.56	116.39	8.0%	
Dec-02	R74.67	118.31	2.9%	5.4%
Jun-03	R79.51	121.42	4.3%	
Dec-03	R92.14	135.18	14.3%	9.3%
Jun-04 * Revised	R95.22	147.56	21.5%	
Dec-04	R95.75	150.40	11.3%	16.4%
Jun-05	R101.62	155.44	5.3%	
Dec-05	R 103.07	161.20	7.2%	6.3%
Jun-06	R 112.97	170.14	9.5%	
Dec-06	R113.40	178.28	10.6%	10.0%
Jun-07	R122.3	185.61	9.1%	
Dec-07	R127,21	196.49	10.2%	9.7%
Jun-08	R150.43	218.65	17.8%	
Dec-08	R162.80	246.68	25.5%	21.7%
Jun-09	R171.98 r	263.65 r	20.6% r	
Dec-09	R174.77	273.07	10.7%	15.6%
Jun-10	R174.50	275.06	4.3%	

**Table 18: Fee income outstanding for more than 90 days (including foreign fee income earnings)**

Income distribution	Fee income outstanding for more than 90 days as % of total annualized fee income (total fee income = gross fee income + fee income outstanding)					Fee income outstanding longer than 90 days R mill, current prices
	Jan - Jun 2008	Jul - Dec 2008	Jan - Jun 2009	Jul - Dec 2009	Jan - Jun 2010	
	%	%	%	%	%	
Central government	5.3%	3.9%	7.3%	5.6%	11.6%	247
Provincial government	5.8%	4.3%	3.8%	27.2%	14.4%	285
Local government	10.5%	6.9%	13.2%	16.2%	16.4%	486
State owned enterprises	5.8%	7.7%	1.4%	9.7%	49.7%	104
Private Sector	9.6%	11.0%	11.9%	15.2%	65.9%	909
Foreign (all EX-RSA)	17.5%	27.0%	13.0%	104.2%	46.5%	1 631
<b>Total</b>	<b>11.1%</b>	<b>12.0%</b>	<b>9.5%</b>	<b>18.5%</b>	<b>23.4%</b>	<b>3 661</b>

**\* Note:**

In the July – December 2001 survey the questionnaire was changed to exclude non-payment for periods less than 60 days, which leads to distortions when comparing previous survey's results.

In the July – December 2002 survey the questionnaire was changed to include non-payments by foreign clients (irrespective of client classification). The total percentage of fee income outstanding therefore includes non-payments by foreign clients, previously excluded.

**Table 19: Contribution to education and training (excluding 1% CETA Levy)**

Survey	Bursaries % of salary bill	Bursaries R mill current prices	Training % of Salary bill <sup>4</sup>	Training R mill current prices
Jun-00	1,1%	R17	2,9%	R 44.5
Dec-00	0,6%	R10	2,1%	R 36.0
Jun-01	0,8%	R14	2,0%	R 36.6
Dec-01	0,5%	R9	1,5%	R 25.7
Jun-02	0,5%	R10	1,3%	R 25.7
Dec-02	0,9%	R19	0,7% <sup>5</sup>	R 14.6
Jun-03	0,6%	R13	1,5%	R 31.7
Dec-03	0,5%	R11	1,3%	R 28.0
Jun-04	0,6%	R13	1,3%	R30.0
Dec-04	0,5%	R12	1,8%	R44.6
Jun-05	0,6%	R15	1,3%	R33.7
Dec-05	0,7%	R19	1,5%	R44.2
Jun-06	0,9%	R35	1,2%	R48.5
Dec-06	0,6%	R29	1,1%	R49.7
Jun-07	0,9%	R44	1,0%	R52.2
Dec-07	0,6%	R32	1,3%	R67.0
Jun-08	1.1%	R82	1.4%	R107.4
Dec-08	0.5%	R40	0.8%	R70.1
Jun-09	0.6%	R52	0.8%	R68.2
Dec-09	0.4%	R37	1.0%	R88.9
Jun-10	0.9%	R72	0.9%	R74.2

<sup>4</sup> Training now includes all training, in-house and external. Comparisons with previous surveys not compatible. – excludes costs related to salaries

<sup>5</sup> Revised: Removed outlier questionnaire erroneously included in previous sample.

**Table 20: Employment profile of the consulting engineering industry: Percentage contribution: Jan – June 2010**

Job Category	Black	Coloured	Asian	White	Total
Professional Engineer Pr.Eng	5.5%	2.2%	5.3%	87.0%	100.00%
Professional Architects	0.0%	0.0%	0.0%	100.0%	100.00%
Professional Quantity Surveyors	10.0%	0.0%	0.0%	90.0%	100.00%
Professional Other	5.0%	5.0%	6.6%	83.4%	100.00%
Technologists Pr TEchENg	4.8%	7.2%	3.6%	84.3%	100.00%
Technicians PrTechni	18.1%	11.7%	3.2%	67.0%	100.00%
Unregistered technical staff: Engineer	17.2%	4.1%	10.3%	68.4%	100.00%
Unregistered technical staff: Technologist	31.7%	12.9%	9.4%	46.0%	100.00%
Unregistered technical staff: Technician	39.6%	11.9%	4.7%	43.8%	100.00%
Unregistered technical staff: Other	28.7%	7.7%	7.0%	56.5%	100.00%
Technical Assistants	54.0%	5.9%	6.3%	33.8%	100.00%
Draughts Persons	11.1%	14.1%	6.6%	68.2%	100.00%
Laboratory / Survey Assistants	86.8%	0.0%	0.9%	12.3%	100.00%
Administration / Support staff	33.6%	14.2%	6.2%	46.0%	100.00%
Total	28.0%	8.8%	6.4%	56.8%	100.00%

**Table 21: Employment profile of the consulting engineering industry: Percentage contribution: Jan – June 2010  
Change in contribution since June 2009 survey**

Job Category	Black	Coloured	Asian	White
Professional Engineer Pr.Eng	0.5%	0.4%	2.8%	-3.7%
Professional Architects	0.0%	0.0%	0.0%	0.0%
Professional Quantity Surveyors	-23.3%	0.0%	0.0%	23.3%
Professional Other	-11.2%	0.7%	0.3%	10.2%
Technologists Pr TEchENg	-0.4%	4.6%	-4.3%	0.1%
Technicians PrTechni	1.8%	0.1%	-8.4%	6.6%
Unregistered technical staff: Engineer	-12.4%	1.7%	2.2%	8.6%
Unregistered technical staff: Technologist	0.1%	2.9%	-3.0%	-0.1%
Unregistered technical staff: Technician	-9.6%	3.1%	-0.8%	7.3%
Unregistered technical staff: Other	-2.7%	6.0%	1.3%	-4.6%
Technical Assistants	9.0%	0.1%	0.1%	-9.2%
Draughts Persons	-1.2%	2.6%	-2.4%	0.9%
Laboratory / Survey Assistants	16.2%	-29.4%	0.9%	12.3%
Administration / Support staff	-6.1%	3.2%	-0.2%	3.2%
Total	-2.5%	2.2%	0.0%	0.3%

**Table 22: Ownership / equity controlled by black people, as percentage of TOTAL Equity**  
 (Black people include Asian and Coloured people)

Company Type	Owner category	Professional Category	Jun-07	Dec07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	
<b>(PTY) LTD</b>	Executive Directors	Pr.Eng	14.9%	11.5%	12.3%	7.4%	10.5%	14.9%	16.3%	
		PrTechEng	24.4%	38.5%	25.0%	16.7%	20.0%	12.9%	22.2%	
		Other	47.2%	28.9%	37.8%	43.7%	32.1%	40.4%	60.7%	
		<b>TOTAL</b>	<b>21.9%</b>	<b>16.8%</b>	<b>18.6%</b>	<b>13.5%</b>	<b>14.2%</b>	<b>19.6%</b>	<b>25.5%</b>	
	Non-Executive Directors	Pr.Eng	34.5%	27.3%	40.0%	71.4%	77.8%	100.0%	10.0%	
		PrTechEng	50.0%	33.3%	0.0%	0.0%	0.0%	100.0%	50.0%	
		Other	75.6%	69.2%	80.0%	85.0%	70.0%	84.0%	66.7%	
		<b>TOTAL</b>	<b>58.5%</b>	<b>55.0%</b>	<b>72%</b>	<b>81.5%</b>	<b>70.0%</b>	<b>88.0%</b>	<b>28.6%</b>	
	<b>CC</b>	Members	Pr.Eng	12.2%	20.8%	41.7%	28.6%	20.0%	50.0%	38.5%
			PrTechEng	36.8%	50.0%	33.3%	66.7%	40.0%	60.0%	60.0%
Other			65.2%	33.3%	42.9%	50.0%	50.0%	50.0%	66.7%	
		<b>TOTAL</b>	<b>32.5%</b>	<b>24.1%</b>	<b>41.2%</b>	<b>36.8%</b>	<b>20.0%</b>	<b>51.8%</b>	<b>47.6%</b>	
<b>Partnership</b>	Partners	Pr.Eng	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
		PrTechEng	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
		Other	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
		<b>TOTAL</b>	<b>7.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	
<b>Total</b>			<b>28.4%</b>	<b>21.7%</b>	<b>27.3%</b>	<b>22.4%</b>	<b>20.0%</b>	<b>28.0%</b>	<b>28.3%</b>	

*Note: There was a notable change in the information submitted by firms with regards to the contribution of black non-executive directors in the June 2010 survey compared to previous surveys. It is possible that the information was incorrectly submitted, but this can only be verified in the forthcoming survey.*

**Table 23: CESA Confidence index: % respondents satisfied with working conditions**

Survey Period	CESA Confidence Index	% Change on previous survey	% Change on survey same time last year
Dec-99	38.5	20.31%	-43.4%
Jun-00	44.0	14.29%	37.5%
Dec-00	66.5	51.05%	72.6%
Jun-01	71.9	8.23%	63.5%
Dec-01	85.4	18.67%	28.4%
Jun-02	87.3	2.24%	21.3%
Dec-02	97.2	11.34%	13.8%
Jun-03	83.8	-13.76%	-3.9%
Dec-03	64.2	-23.38%	-33.9%
Jun-04	77.2	20.25%	-7.9%
Dec-04	86.3	11.77%	34.4%
Jun-05	96.8	12.2%	25.4%
Dec-05	99.3	2.5%	14.9%
Jun-06	99.7	0.5%	3.0%
Dec-06	98.4	-1.30	-0.8
Jun-07	99.4	1.0%	-0.3%
Dec-07	99.8	0.4%	1.4%
Jun-08	99.9	0.1%	0.5%
Dec-08	99.8	-0.1%	0.0%
Jun-09	96.2	-3.61%	-3.7%
Dec-09	86.0	-10.6%	-13.8%
Jun-10	87.1	1.3%	-9.4%
Dec-10	71.9	-17.5%	-16.4%
Jun-11	93.6	30.2%	7.4%

**Table 24: Employment Breakdown, by race, gender and job category January – June 2010**

Job category	Black			Coloured			Asian			White			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Professional Engineer Pr.Eng	126	11	137	55	0	55	126	5	131	2 092	57	2 149	2 397	74	2 471
Professional Architects	0	0	0	0	0	0	0	0	0	5	8	14	5	8	14
Professional Quantity Surveyors	0	3	3	0	0	0	0	0	0	16	8	25	16	11	27
Professional Other	19	5	25	16	8	25	14	19	33	306	106	412	355	139	494
Technologists Pr TEchENg	30	3	33	49	0	49	25	0	25	565	8	573	669	11	680
Technicians PrTechni	46	0	46	27	3	30	8	0	8	167	5	172	248	8	257
Unregistered technical staff: Engineer	360	74	434	82	22	104	191	68	259	1 447	279	1 726	2 081	442	2 523
Unregistered technical staff: Technologist	177	63	240	76	22	98	66	5	71	300	49	349	620	139	759
Unregistered technical staff: Technician	745	147	893	150	117	268	90	16	106	931	57	988	1 917	339	2 255
Unregistered technical staff: Other	415	164	579	98	57	156	101	41	142	846	292	1 139	1 461	554	2 015
Technical Assistants	674	145	819	60	30	90	44	52	96	399	115	513	1 177	341	1 518
Draughts Persons	98	22	120	115	38	153	68	3	71	328	410	737	609	472	1 081
Laboratory / Survey Assistants	475	44	519	0	0	0	3	3	5	63	11	74	541	57	598
Administration / Support staff	562	1 095	1 657	169	530	699	79	229	309	472	1 802	2 274	1 283	3 656	4 939
<b>Total</b>	3 730	1 775	5 505	898	827	1 726	814	442	1 256	7 937	3 208	11 146	13 379	6 253	19 632
<b>% of total</b>	19.0%	9.0%	28.0%	4.6%	4.2%	8.8%	4.1%	2.3%	6.4%	40.4%	16.3%	56.8%	68.2%	31.8%	100.0%

**Table 25: Employment Breakdown, by race, gender and job category: January – June 2010: Percentage share**

Job category	Black			Coloured			Asian			White			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Professional Engineer Pr.Eng	0.6%	0.1%	0.7%	0.3%	0.0%	0.3%	0.6%	0.0%	0.7%	10.7%	0.3%	10.9%	12.2%	0.4%	12.6%
Professional Architects	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%
Professional Quantity Surveyors	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Professional Other	0.1%	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.2%	1.6%	0.5%	2.1%	1.8%	0.7%	2.5%
Technologists Pr TEchENg	0.2%	0.0%	0.2%	0.3%	0.0%	0.3%	0.1%	0.0%	0.1%	2.9%	0.0%	2.9%	3.4%	0.1%	3.5%
Technicians PrTechni	0.2%	0.0%	0.2%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.8%	0.0%	0.9%	1.3%	0.0%	1.3%
Unregistered technical staff: Engineer	1.8%	0.4%	2.2%	0.4%	0.1%	0.5%	1.0%	0.3%	1.3%	7.4%	1.4%	8.8%	10.6%	2.3%	12.9%
Unregistered technical staff: Technologist	0.9%	0.3%	1.2%	0.4%	0.1%	0.5%	0.3%	0.0%	0.4%	1.5%	0.3%	1.8%	3.2%	0.7%	3.9%
Unregistered technical staff: Technician	3.8%	0.8%	4.5%	0.8%	0.6%	1.4%	0.5%	0.1%	0.5%	4.7%	0.3%	5.0%	9.8%	1.7%	11.5%
Unregistered technical staff: Other	2.1%	0.8%	2.9%	0.5%	0.3%	0.8%	0.5%	0.2%	0.7%	4.3%	1.5%	5.8%	7.4%	2.8%	10.3%
Technical Assistants	3.4%	0.7%	4.2%	0.3%	0.2%	0.5%	0.2%	0.3%	0.5%	2.0%	0.6%	2.6%	6.0%	1.7%	7.7%
Draughts Persons	0.5%	0.1%	0.6%	0.6%	0.2%	0.8%	0.3%	0.0%	0.4%	1.7%	2.1%	3.8%	3.1%	2.4%	5.5%
Laboratory / Survey Assistants	2.4%	0.2%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.4%	2.8%	0.3%	3.0%
Administration / Support staff	2.9%	5.6%	8.4%	0.9%	2.7%	3.6%	0.4%	1.2%	1.6%	2.4%	9.2%	11.6%	6.5%	18.6%	25.2%
Total	19.0%	9.0%	28.0%	4.6%	4.2%	8.8%	4.1%	2.3%	6.4%	40.4%	16.3%	56.8%	68.2%	31.8%	100.0%



**Table 26: Ownership profile: Employment, company type, race & gender: January – June 2010**

Comp any Type	Owner category	Professional			Black			Coloured			Asian			White			Total		
		Category	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total		
(PTY) LTD	Executive Director	PrEng	14	3	16	11	0	11	19	0	19	238	0	238	281	3	284		
		PrTechEng	0	0	0	5	0	5	0	0	0	19	0	19	25	0	25		
		Other	16	3	19	11	0	11	14	3	16	25	5	30	66	11	76		
	Non-Executive Director	PrEng	8	0	8	3	0	3	3	3	5	147	0	147	161	3	164		
		PrTechEng	0	0	0	3	0	3	3	0	3	5	0	5	11	0	11		
		Other	16	8	25	14	0	14	8	3	11	22	3	25	60	14	74		
CC	Member	PrEng	3	0	3	5	0	5	5	0	5	22	0	22	35	0	35		
		PrTechEng	8	0	8	0	0	0	0	0	0	5	0	5	14	0	14		
		Other	3	3	5	0	0	0	0	0	0	3	0	3	5	3	8		
Partnership	Partner	PrEng	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		PrTechEng	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		Other	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3		
<b>GRAND TOTAL</b>			<b>68</b>	<b>16</b>	<b>85</b>	<b>52</b>	<b>0</b>	<b>52</b>	<b>52</b>	<b>8</b>	<b>60</b>	<b>486</b>	<b>8</b>	<b>497</b>	<b>658</b>	<b>33</b>	<b>694</b>		
<b>% distribution</b>			<b>9.8%</b>	<b>2.4%</b>	<b>12.2%</b>	<b>7.5%</b>	<b>0.0%</b>	<b>7.5%</b>	<b>7.5%</b>	<b>1.2%</b>	<b>8.7%</b>	<b>70.1%</b>	<b>1.2%</b>	<b>71.7%</b>	<b>94.9%</b>	<b>4.7%</b>	<b>100.0%</b>		
<b>% directorship only</b>			<b>7.8%</b>	<b>1.4%</b>	<b>9.2%</b>	<b>7.1%</b>	<b>0.0%</b>	<b>7.1%</b>	<b>8.5%</b>	<b>0.7%</b>	<b>9.2%</b>	<b>73.0%</b>	<b>1.4%</b>	<b>74.5%</b>	<b>96.5%</b>	<b>3.5%</b>	<b>100.0%</b>		
<b>Total employment</b>			<b>3 730</b>	<b>1 775</b>	<b>5 505</b>	<b>898</b>	<b>827</b>	<b>1 726</b>	<b>814</b>	<b>442</b>	<b>1 256</b>	<b>7 937</b>	<b>3 208</b>	<b>11 146</b>	<b>13 379</b>	<b>6 253</b>	<b>19 632</b>		
<b>% ownership / equity</b>			<b>1.8%</b>	<b>0.9%</b>	<b>1.5%</b>	<b>5.8%</b>	<b>0.0%</b>	<b>3.0%</b>	<b>6.4%</b>	<b>1.9%</b>	<b>4.8%</b>	<b>6.1%</b>	<b>0.3%</b>	<b>4.5%</b>	<b>4.9%</b>	<b>0.5%</b>	<b>3.5%</b>		

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**End of report**

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