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## **Bi-Annual Economic and Capacity Survey**

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**July - December 2010**

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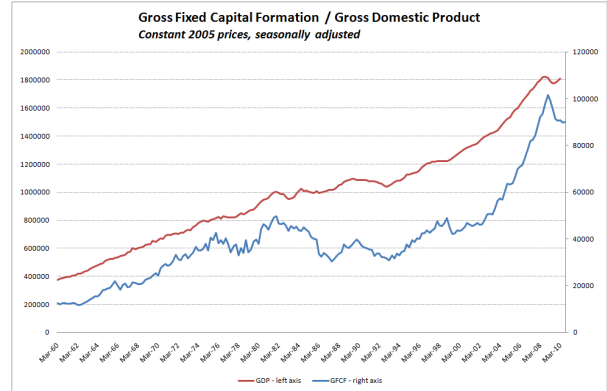
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# 1. General Economic Overview

Key economic developments in the last 6 months:

- The global economy’s recovery was overshadowed by the unrests in Africa, which started in Egypt, spreading quickly to Bahrain and Libya. A resolution in Libya is unlikely to be as swift as in the case of Egypt – and certainly will be more violent - and will have a more prolonged impact on oil prices.
- The threat of a double dip recession in the US has eased but sovereign debt vulnerabilities continued across Europe. Money flowed into emerging markets, dominated by higher cyclical economic growth and higher interest rates (compared to developed economies), supporting commodity prices and strengthening currencies against the dollar.
- GDP growth slowed in the 3<sup>rd</sup> quarter from 2,8% (Q2) to 2,6% due to slower growth in construction and financial services and a contraction in manufacturing, electricity and water. The impact of the FIFA World Cup on the economy had no impact on the 3<sup>rd</sup> quarter results, which was clearly more adversely affected by the Transnet strike, and the public sector and motor vehicle industry strike in August and September last year.
- Demand indicators showed an improvement in the last six months of 2010, including retail spending, motor vehicle sales and house prices, but performance during the 4th quarter was more subdued, with some of the gains being reversed. Household consumption expenditure however performed well in the 3<sup>rd</sup> quarter, but it is the improvement in production that is more encouraging as it creates an environment where economic growth is not only led by consumer spending.

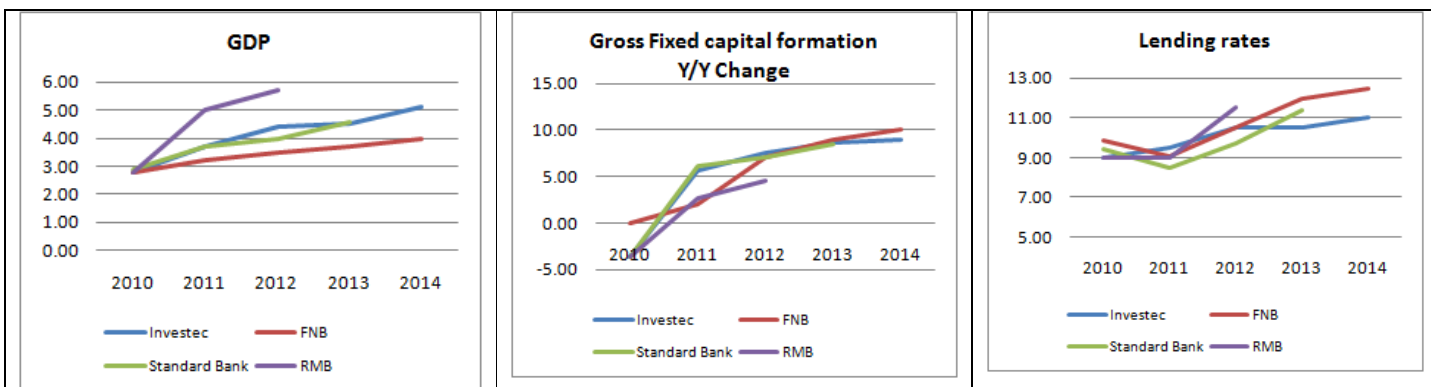


**Table 1: Macro economic growth projections (Economist Poll)**

	2009	2010	2011	2012	2013	2014
GDP	-1.85	2.8	3.9	4.4	4.3	4.6
Household consumption	-1.60	4.60	4.80	5.00	4.30	4.4
Government consumption	4.77	4.2	3.9	3.8	3.8	4.5
Gross Fixed capital formation	-2.93	-2.7	4.1	6.5	8.7	9.5
US/ZAR	8.56	7.41	7.33	7.82	8.14	8.31
CPI Inflation	7.13	4.3	4.5	5.4	5.7	6.0
Prime Lending rate	10.75	9.3	9.0	10.6	11.3	11.8

Poll: RMB, Investec, FNB, Standard Bank.

**Table 2: Macro economic forecasts: 2011Q1**



## Gross fixed capital formation

Investment in gross fixed capital formation continued to contract, down 1,2% y/y in 2010Q3, following a contraction of 8% in 2010Q1 and -5,8% in 2010Q2. A decline in private sector investment particularly in new housing construction, machinery, equipment and transport contributed to the poor performance in gross fixed investment. An expected sharp decline in non-residential construction will have a negative impact on gross fixed capital formation in 2011.

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 stock, which is critical 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 robust 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 have contracted further during 2010 and continue deteriorating in 2011. 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, albeit at much slower growth rates than those experienced in recent years.

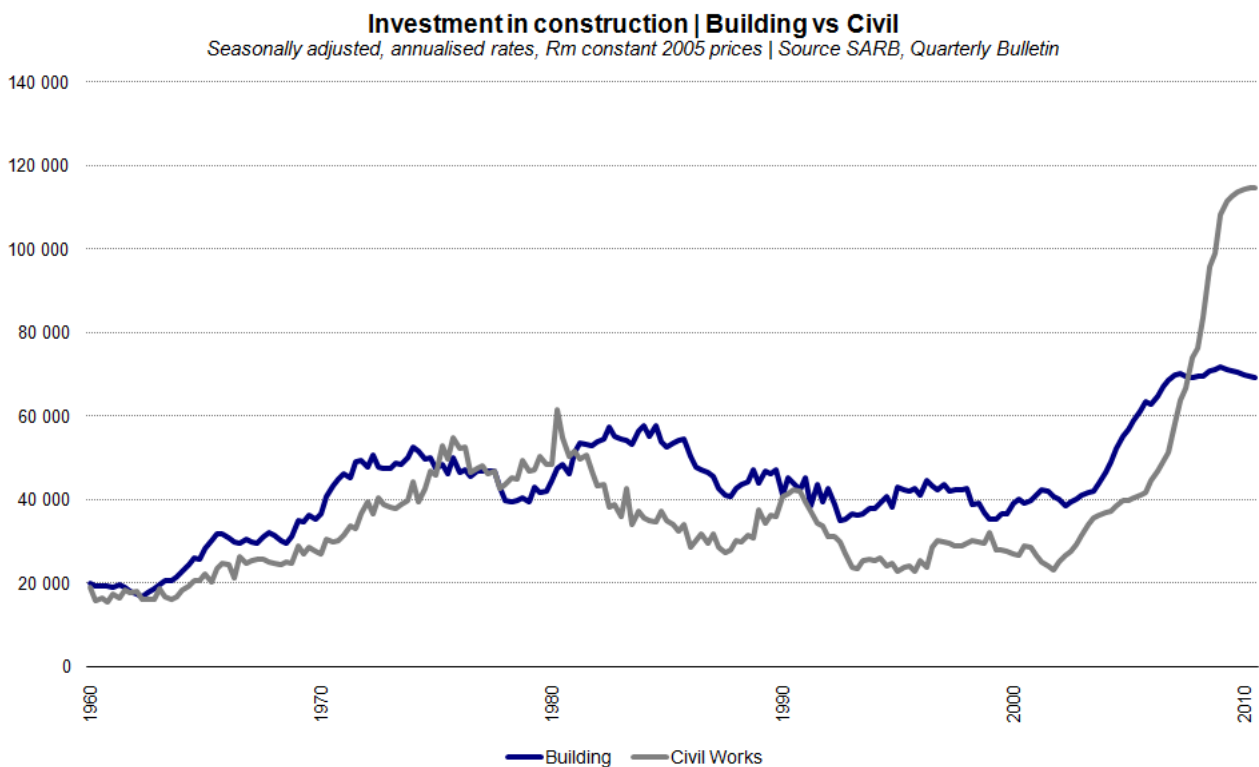


Figure 1: **Investment in construction**

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 an 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 38 in the December 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 continue to disappoint.

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.

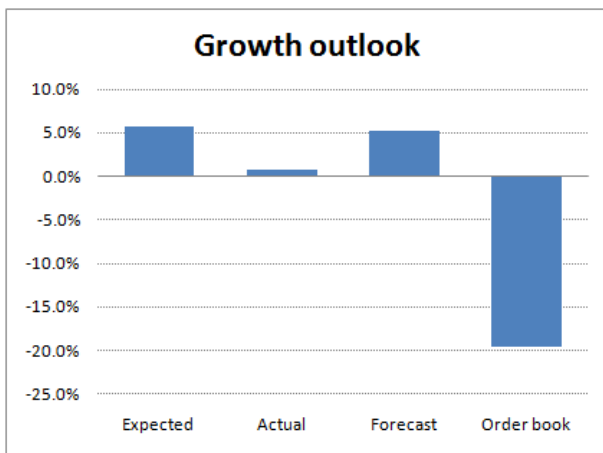
Questionnaires were distributed to all member firms of the Consulting Engineers South Africa (CESA). To eliminate possible distortions in the statistics and prevent anomalies, only responses received from firms that have submitted questionnaires for the last two consecutive surveys are used. **The CESA 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 December 2010 survey was 38 out of 458 firms surveyed. The sample was based on a total fee income of R2,2 billion and approximately 7926 employees for the period July to December 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 increase by between 3% and 5%, but ended flat (0,8%) for the last 6 months of 2010. From the peak experienced in the last 6 months of 2008, earnings have fallen by 8% in current prices from R16,9bn (Dec-08 survey) to R15,6bn (Dec-10 survey). In real terms, revenue ended flat in the period under review, following a 16,9% and 8% annual decline in the previous two surveys (adjusted for inflation using the CPI). A total of 55% of firms reported higher growth in the first six months, and earnings are expected to increase by 5% in current prices in the first half of 2011.

The average (un-weighted) net profit (before tax) moderated in the last six months, from 15,4% in the first six months of 2010 to 11,3% in the last six months of 2010. Profit margins are expected

to stabilize in the next 6 months, with a possible marginal improvement to an average of 14%. The industry did not expect profit margins to deteriorate at the rate it did (at a rate of 11,3% on average, it is the lowest rate since being measured by CESA), which explains why a vast majority of participating firms were unsatisfied with the current profit margins (59%).

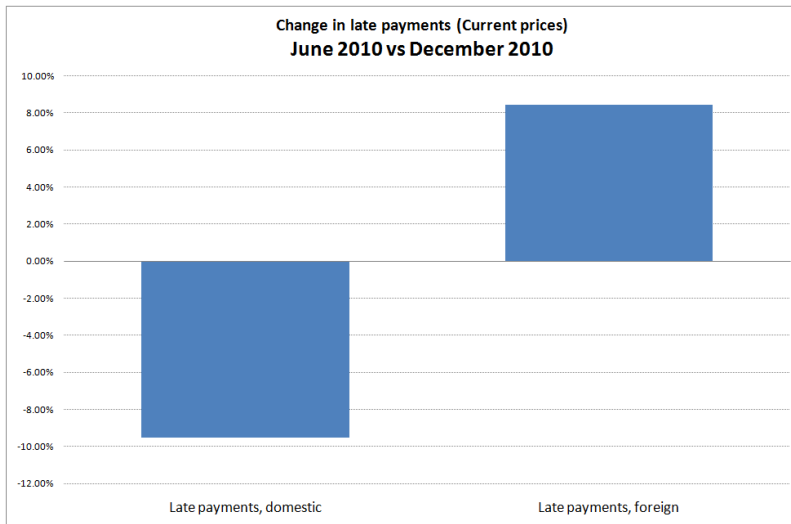
Order books (the value of outstanding (not yet invoiced) for confirmed appointments, (excluding sub-consultants or JV partners) has fallen sharply in the last survey, down 19% on average, with larger firms reporting a drop of between 20% and 30%. However, in relation to income, the order book : current 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, the gap widened again from 140.9 (June 2010) to 107.5, mainly due to an deterioration in the order books of larger firms, suggesting tougher times ahead.

The industry's ROI (un weighted average) dropped from 73.9% (Jun-10) to 50.9%. 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).

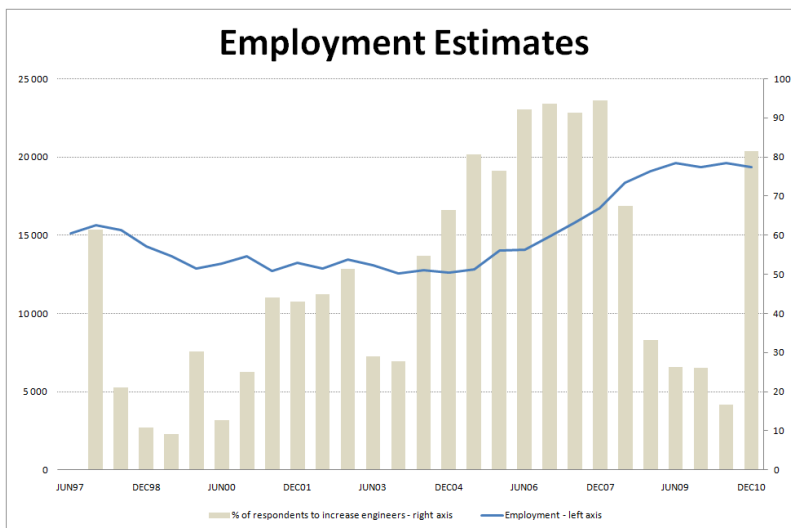
*Employment estimates were revised in the December 2007 survey to correlate with information supplied by CESA firms in their annual declaration submissions*

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.

Payment improved in terms of domestic earnings, as the amount of earnings outstanding for longer than 60 days declined by 9,5% between June 2010 and December 2010, according to participating firms. However payment from foreign clients worsened as late payments increased by 8,4% during the same period.



### 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 19 357. Black people represented between 41% 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) increased marginally to 12,8% from 12.1% in the June survey.

There was a significant change in firms looking to increase employment. The number of firms looking for engineers rose rapidly, up to 82%, following a period from 2007 where fewer firms expected to increase employment.

As employment opportunities dwindled, 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. The increase in the number of firms wanting to increase employment can be explained by the better than expected performance in the consulting engineering industry. Engineers are considered a critical scarce resource and a key component to a successful consulting engineering firm.

**Table 3: % 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	% of firms wanting to increase staff December 2010
Engineers	33.2	26.4	26.1	16.6	81.5
Technologists	11.3	12.8	73.6	11.9	18.3
Technicians	9.3	12.5	25.5	1.7	18.3
Other technical staff	2.5	3.8	14.9	11.0	10.1
Support Staff	2.3	1.9	14.0	0.4	5.8

Employment in the private consulting engineering industry decreased by between 1% and 1,5% between June and December 2010, to an estimated 19 356. Even though employment has slowed, major retrenchments remained elusive. Where retrenchments are necessary it will more than likely be focused on the lower skilled employment levels, as engineers continue to be a critical scarce

skill. The strongest decrease was reported in technicians (including unregistered), and unregistered engineers, while appointments of other professionals rose by 11%, quantity surveyors by 20% unregistered other by 11,8%.

**Table 4: Employment change (sample based as reported by respondents in June 2010 and December 2010 surveys)**

Type	Dec-10	Jun-10	% Change
Admin	1939	1974	-1.77%
Draughtsperson	459	456	0.66%
Lab	216	219	-1.37%
Prof Arch	5	5	0.00%
Prof Engineer	978	983	-0.51%
Prof Other	297	266	11.65%
Prof QS	12	10	20.00%
Tech Assistant	624	682	-8.50%
Technicians	84	98	-14.29%
Technologist	252	239	5.44%
Unreg eng	932	1024	-8.98%
Unreg technicians	819	846	-3.19%
Unreg technical other	796	712	11.80%
Unreg technologist	304	285	6.67%
<b>Total</b>	<b>7717</b>	<b>7799</b>	<b>-1.05%</b>

Employment declined at a stronger rate amongst males down 1,3% in the last two surveys, compared to a 0,6% decrease reported amongst females.

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 10% increase in black Pr. Eng in the last six months of 2010 compared to the June 2010 survey.

#### **Salary and wage bill put increased pressure on firms**

In spite of a marginal decrease in employment, the salary and wage bill represented a much higher percentage of fee earnings, up from 54% to 65% to an estimated R9,3bn in nominal terms, which if - adjusted for inflation- increased by 7,9% compared to the first six months of 2010 and

3,5% compared to the last six months of 2009.

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.

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 22,6% compared to 23,6% in the June 2010 survey. Direct training costs, an easier measurement of firms contribution to training, averaged 1,3% of the salary and wage bill, compared to 0,9% in the preceding survey. There was a definite stronger focus on training in the last survey, pushing the direct training costs contribution to salaries beyond 1% - the first time since the June 2008 survey.

Government's new growth plan aims to deliver 30 000 engineers per annum by 2014, a daunting target considering that only 2500 engineers graduate annually from local universities. Of further concern is that 60% of first year entrants do not graduate, according to a report by CESA, while those that do graduate struggle to find employment as they lack the necessary experience. (Source: CESA Media Conference 2 February 2011)

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 5: % of salaries and wage bill spent on black bursaries

	<i>Black Bursaries</i>	<i>Total</i>
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%
Dec-10	0.2%	0.40%

**Student enrolments**

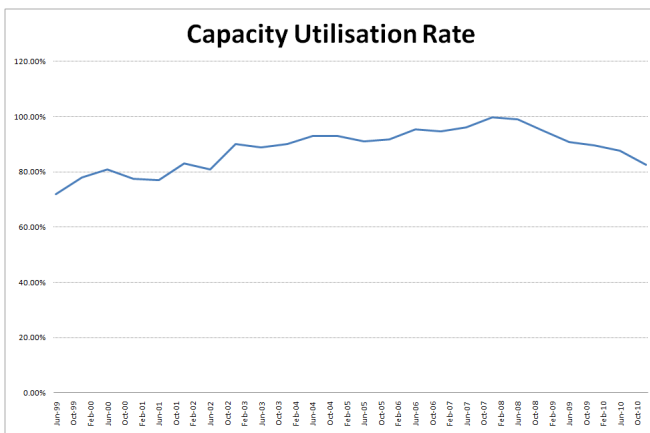
The number of students that have enrolled in public higher education institutions in the fields of science and engineering, increased to 237 000 in 2009, from 224 948 in 2008

*Source: Department of Education*

**Industry Equity / Ownership Profile**

Black (including Asian and Colored) equity, including executive directors, non-executive directors, members and partners, stabilized at a contribution of 27,5% of total equity in the June 2010, on par with results from the June 2010 and December 2009 survey.

**3.4 Capacity Utilisation**



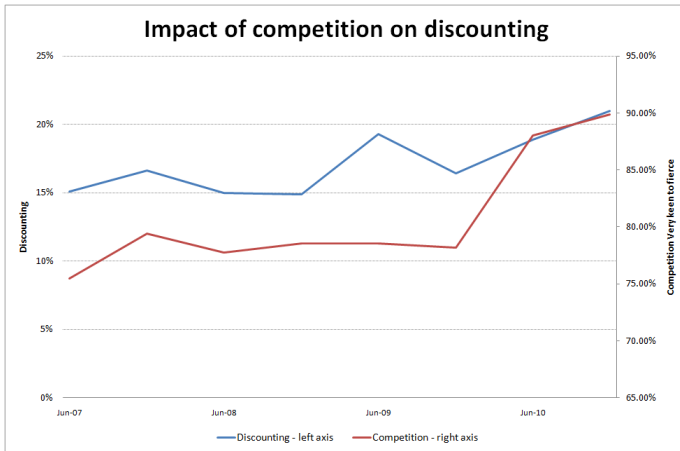
Capacity utilization fell for the fifth consecutive survey, and is currently still below 90% (82,5%), the lowest rate since the June 2002 survey (80,9%). Majority of firms expect capacity utilisation rates to remain static for the first six months of 2011, while 26% expect rates to increase. Most of the larger firms expect rates to either remain stable or 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 89,9%, compared to 88% in the June 2010 survey, the highest level since the inception of the survey. Competition really intensified since 2008, and subsequently led to an increase in the rate

by which firms were discounting fees to 21% (from 18,9% in the June 2010 survey).

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 21%, (highest rate since the inception of the survey) compared to an average of 18,9% 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 7,8% y/y, compared to an average of 4,3% during the first six months of 2010. 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 5,1% in the first half 2010 and 3,5% in the second half of 2010, down from an average of 7% in 2009.

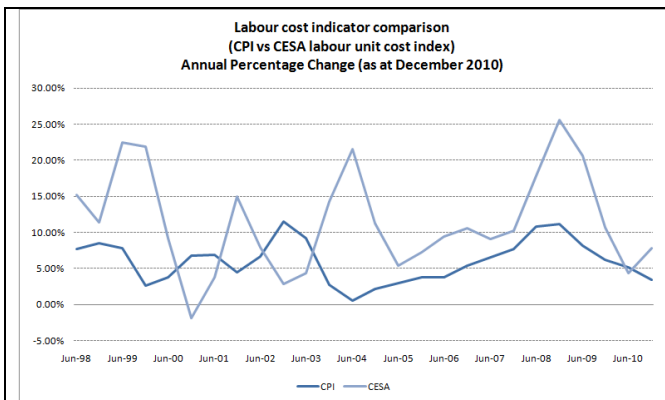


Figure 2: CESA Labour Cost Indicator

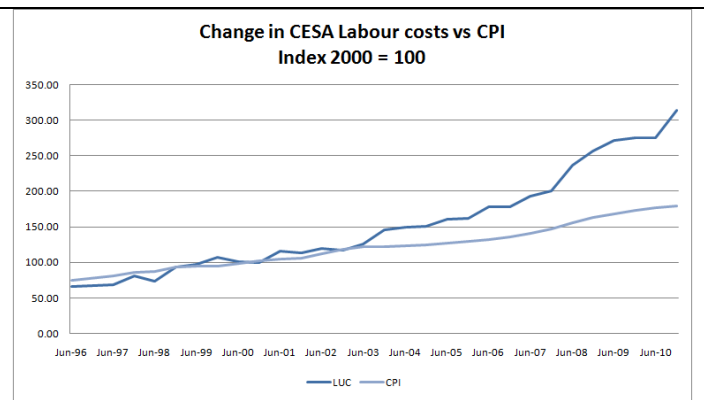


Figure 3: Change in CESA LCI vs CPI

### 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 last 6 months of 2010 was also initially poor, but actual conditions were better with confidence levels dropping just marginally to an index value of 86.7 (down 0,5% compared to the first six months of 2010). Confidence levels seem to remain relatively stable in the next 6 to 12 months averaging between 86 and 87 – considered high if we take into account the current contraction in work in the pipeline and limited work opportunities for the contracting fraternity. It remains to be seen if these firms’ expectations will be met during 2011.

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, coupled with fierce competition.

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

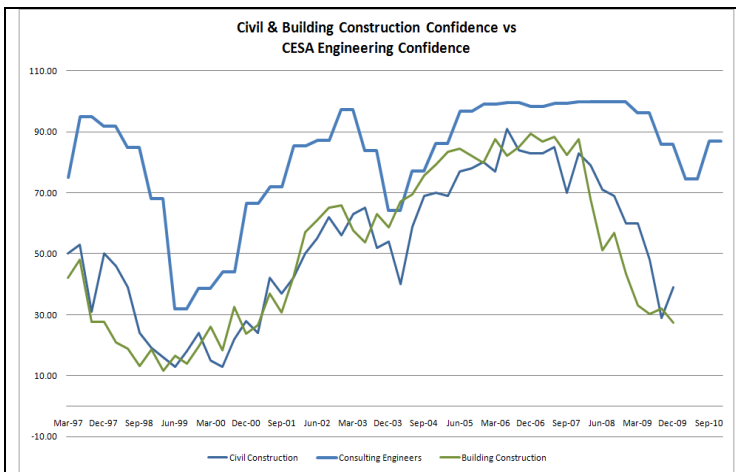


Figure 4: Confidence indices (Source: FNB/BER, CESA)

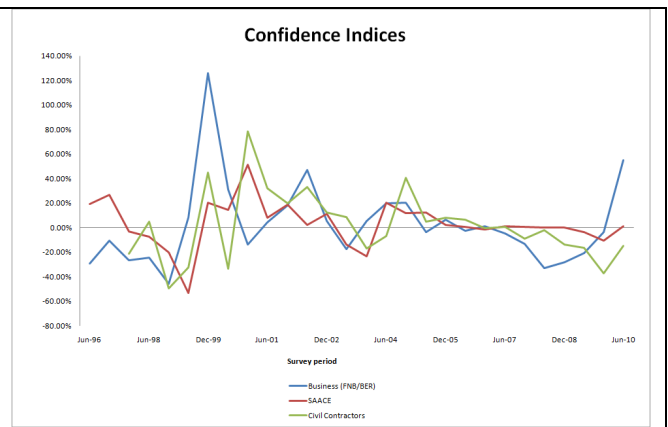


Figure 5: Confidence Indices – Y-Y change

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 average index value of 45.5 in the last six months 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 27,5 in the second half of 2010 – the lowest level since the last six months of 2000, and also the lower turning point before the last recovery. Lack of funding and a review of capital expenditure plans have affected confidence in the consulting industry, but levels of optimism remain surprisingly upbeat, maintaining a level an index level of more than 85,0.

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 6: 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	87.1	1.3%	-9.4%
Dec-10	86.7	-0.5%	0.8%
Jun-11	86.3	-0.5%	-0.9%
Dec-11	87.5	1.4%	0.9%

### 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 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.
- Service delivery, especially at municipal level remains a critical burning issue. The consulting engineering industry is threatened by an 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. Nothing has come of many initiatives including the Turn-Around-Strategy document and the Adopt-a-town approach announced by COGTA.
- 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 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.
- 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.
- Firms are of the opinion that the increasing tendency to discount is suicide to the industry, as firms are forced to discount more aggressively to secure work.
- 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. The 2011 Budget included a R1,5 bn road infrastructure grant to facilitate the maintenance of roads. However this will be geared primarily towards pothole repairs.
- 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.
- Lack of broad based cooperation from clients to adhere to procurement procedures as prescribed by the Construction Industry Charter.
- The Municipal Systems Amendment Bill, announced in May 2010 has still not been enacted, although a decision is expected soon in 2011.
- The Construction Education and Training Authority (CETA) remain dysfunctional with no resolution in sight. Calls for the entity to be placed under administration was met by the CETA taking legal action.
- Energy constraints could lead to a rebound in load shedding, as supply will be under more severe threat in 2011/12 as economic activity is expected to pick up more strongly with no additional supply coming under stream during those period. Load shedding poses a serious risk to the economic wellbeing of the country and could stall approval of upcoming commercial and residential developments. For this reason it is critical for all energy users to conserve power.

## 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.

Details of the various sub-disciplines are provided for under Statistical Tables.

### 4.2 Economic Sectors

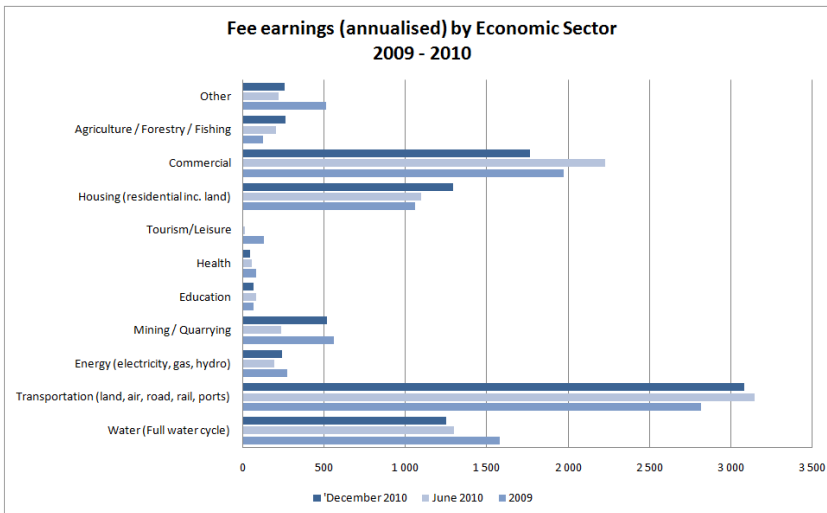


Figure 6: Economic Sectors

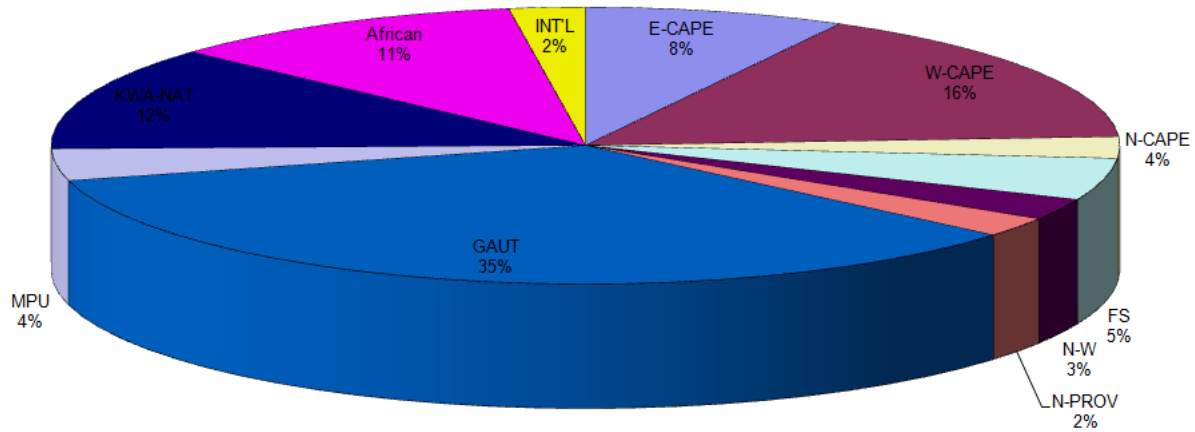
The economic sectors include all infrastructure associated within that sector including expenditure related to soft issues such as feasibility studies or environmental assessments. From this, three key sectors evolved namely water services, transportation and commercial, with a growing emphasis on housing.

The transportation sector contributed the highest to fee earnings, (32,5% in the December 2010 survey), followed by 18% earned in the commercial sector (down from 22% in the June 2010 survey), and 14,0% in water. The contribution of housing has increased markedly in the last 6 months, contributing 16,8% of earnings, compared to 12,3% in December 2009. This is now the 3<sup>rd</sup> largest sector in terms of earnings, surpassing water. Earnings in the commercial sector dropped from a market share of 28,8% in December 2009 to 18% in December 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. National Treasury has announced that a much greater focus will be given in future budgets to maintenance, upgrade and renovations of infrastructure and less on new infrastructure.

### 4.3 Geographic Location

## South African Consulting Engineering Industry

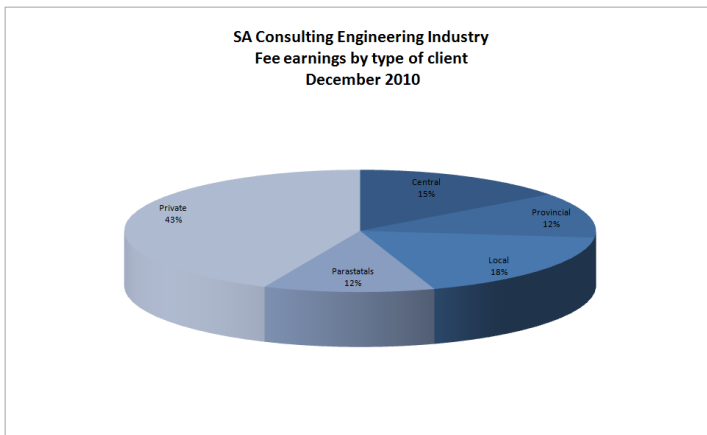
Fee earnings by province: July - December 2010  
R8,656 million (Annualised, constant prices)



**Figure 7: Fee earnings by province: July - December 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 38% y/y decline in fee earnings. Earnings in Gauteng were 13,8% lower compared to last year, but conditions were more favourable in the Western Cape where earnings increased by 19,4%, contributing 16% to total fee earnings. Cross border activity represented 11,6% in Africa and 2,4% internationally. Earnings stabilized in Africa over the last 6 months, but dropped by 4% in terms of the international markets.

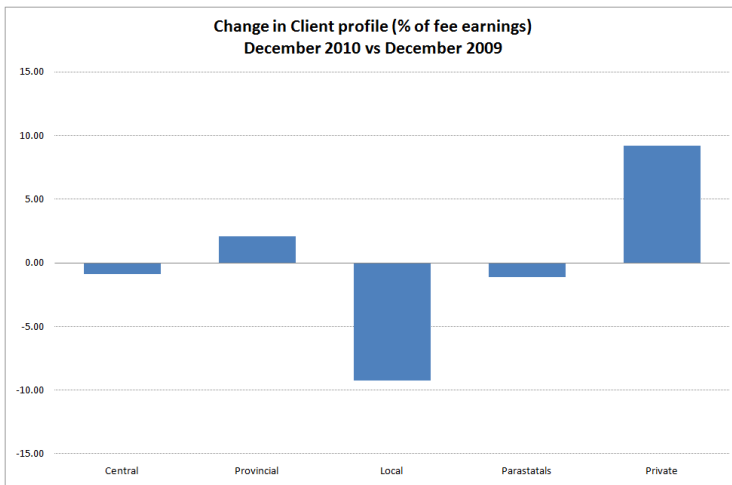
### 4.4 Clients



Local authorities accounted for 18% of earnings during December 2010, down from 27% in the December 2009. This is the biggest public sector client, while around 43% of earnings were generated in the private sector. The contribution of the private sector increased in the last 6 months, from 36,6% in June and 34,2% in December 2009. In view of the strong increase in private sector earnings, the contribution of all public sector clients weakened in the last six months, the most severe being in the local authorities.

Capital spending, apart from state owned enterprises, may be geared towards rural development and much of the budgetary allocations are specifically channeled through these municipal departments, but urban densification is also a key consideration in terms of budgetary allocations. Considering government’s targets to alleviate poverty, increase skills development and job creation, it is likely that an increasing portion of the budget will be focused on metropolitan

areas. Fee earnings from the private sector were supported mostly by developments in the commercial sector, while earnings in the public sector were focused on transportation, water services and housing.



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. R417 million was allocated to the Siyenza Manje programme in the 2010/11 budget (extended over the three year period

up to 2012/13), to provide training to municipal offices in financial and technical skills. Government plans to spend R1,7 bn between 2010/11 and 2012/13 to modernize local government budgeting and financial management systems, which will also provide the foundation for more effective planning.

## 5. Professional Indemnity Insurance

The annual premium as a percentage of gross fee income over a 12 month period, averaged 1,2% for the industry (unweighted) compared to 1,8% in the December 2009 survey. A few firms continue to report high premiums, (between 10 and 15) which is very likely to be calculation errors. For the purpose of this report, these outliers have been removed. Most of the larger firms reported a level of between 1% and 1,5%.

Majority of firms (68%) reported a low risk exposure, while none of the respondents in this survey reported to have a high risk exposure (compared to 3,1% in the previous survey).

The total value of claims paid by firms insurers as a percentage of premiums paid increased from an average of 3% to 5,5% in December 2010 survey. The average number of claims per firm increased from less than 1 to 1.6 over the last five years. Approximately 10% 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 13% (up from 11,4% in the June 2010 survey). 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 fell to 0,5% (probably also due to incorrect reporting) compared to 5,2% (June 2010) and 2,6% (December 2009).

## 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 44% of the firms complied, compared to 50% in the June 2010 survey and 46,5% in the December 2009 survey.

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

## Statistical Tables



**Table 7: Summary of key indicators by firm size**

Please note that due to a decrease in the number of respondents, credible information on this section of the report is no longer available.

**Table 8: 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
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	4,723	15,433	8,746	-9.8%	176.5	5.1%
Dec-11	19,357	5,219	15,588	8,698	0.5%	179.2	3.5%

**Table 9: 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)
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%	-9.8%	5.1%
Dec-10	0.1%	60.0%	0.5%	3.5%

\* Revised

<sup>2</sup> Revised June 2007

**Table 10: Sub-disciplines: Dec 2009 – Dec 2010, Percentage share**

Sub-discipline	Dec-09	Jun-10	Dec-10	Change in market share Last 6 months	Change in market share Last 12 months
Agricultural	0.6%	0.7%	0.8%	0.1%	0.3%
Architecture	0.0%	0.0%	0.2%	0.2%	0.2%
Mechanical building Services	2.6%	1.6%	3.1%	1.4%	0.5%
Civil	52.8%	43.6%	42.4%	-1.2%	-10.4%
Electrical / Electronic	4.0%	4.3%	4.3%	-0.1%	0.2%
Environmental	3.5%	13.4%	4.4%	-9.0%	0.9%
Facilities Management (New)	1.3%	1.4%	1.2%	-0.2%	-0.1%
Geotechnical	0.5%	0.5%	2.1%	1.6%	1.6%
Industrial Process / Chemical	0.5%	0.5%	0.5%	0.0%	0.1%
GIS	0.8%	0.9%	0.8%	0.0%	0.0%
Hydraulics (New)	0.2%	0.6%	0.8%	0.2%	0.6%
Information Systems / Technology	1.2%	1.1%	0.6%	-0.4%	-0.6%
Marine	0.1%	0.3%	2.5%	2.3%	2.4%
Mechanical	2.3%	2.1%	2.0%	-0.1%	-0.2%
Mining	2.5%	3.1%	4.6%	1.5%	2.1%
Project Management	6.9%	9.3%	9.4%	0.0%	2.4%
Quantity Surveying	1.7%	0.3%	0.0%	-0.3%	-1.7%
Structural	18.3%	15.9%	19.8%	3.8%	1.5%
Town planning	0.2%	0.3%	0.4%	0.1%	0.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>

**Table 11: Sub-disciplines: Dec 2009 – Dec 2010, Annualized R mill, 2000 prices**

Sub-discipline	Dec-09	Jun-10	Dec-10	Change Dec-10/Jun-10	Change Dec-10 / Dec-09
Agricultural	R 49	R 63	R 73	15.1%	48.8%
Architecture	R 0	R 0	R 14	-	-
Mechanical building Services	R 225	R 144	R 267	85.7%	18.8%
Civil	R 4 567	R 3 812	R 3 691	-3.2%	-19.2%
Electrical / Electronic	R 349	R 379	R 372	-1.9%	6.4%
Environmental	R 304	R 1 173	R 382	-67.4%	25.6%
Facilities Management (New)	R 111	R 120	R 102	-14.9%	-8.1%
Geotechnical	R 43	R 42	R 186	337.1%	333.2%
Industrial Process / Chemical	R 41	R 46	R 47	1.6%	16.0%
GIS	R 71	R 76	R 73	-3.7%	3.1%
Hydraulics (New)	R 20	R 49	R 70	43.8%	254.9%
Information Systems / Technology	R 108	R 94	R 56	-41.0%	-48.5%
Marine	R 8	R 25	R 221	783.7%	2589.6%
Mechanical	R 197	R 186	R 178	-4.6%	-9.7%
Mining	R 216	R 274	R 403	47.0%	86.9%
Project Management	R 601	R 814	R 814	0.0%	35.5%
Quantity Surveying	R 147	R 28	R 1	-97.8%	-99.6%
Structural	R 1 582	R 1 392	R 1 719	23.5%	8.7%
Town planning	R 14	R 26	R 31	18.0%	120.1%
Total	R 8 653	R 8 746	R 8 698	-0.5%	0.5%

**Table 12: Provincial Turnover, R mill, 2000 prices (Annualized)**

Province	Survey period							
	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10
EC	670	664	836	552	757	900	817	687
WC	1 198	1 307	1 263	1 342	912	1 471	1 425	1 400
NC	76	119	180	104	155	69	142	217
FS	296	336	389	250	213	260	405	426
NW	262	586	266	364	184	199	179	217
LIM	242	175	275	291	310	277	239	200
GAU	2 306	2 510	3 116	4 048	4 375	2 596	2 951	3 018
MPU	210	283	304	343	252	251	257	322
KZN	931	811	1 320	1 280	1 959	1 497	1 042	1 061
AFRICAN	477	324	1 016	1 301	378	926	1 079	948
INT'L	103	68	532	541	204	208	210	200
<b>Total</b>	<b>6 771</b>	<b>7 183</b>	<b>9 499</b>	<b>10 417</b>	<b>9 700</b>	<b>8 653</b>	<b>8 746</b>	<b>8 698</b>

**Table 13: Y-Y Change (Trend – Smoothed over two consecutive surveys)**

Province	Survey period							
	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10
EC	40.9%	13.6%	14.5%	4.0%	-12.8%	19.4%	31.2%	-9.2%
WC	1.8%	7.7%	19.3%	4.0%	-12.3%	-8.6%	28.5%	18.6%
NC	-23.2%	-26.8%	50.2%	46.4%	-13.3%	-21.1%	-18.7%	60.0%
FS	32.1%	33.4%	32.8%	1.1%	-36.2%	-26.0%	43.5%	75.7%
NW	41.7%	79.8%	62.6%	-25.7%	-35.6%	-39.2%	-31.0%	3.5%
LIM	54.4%	10.2%	-0.5%	36.2%	33.7%	3.6%	-14.3%	-25.3%
GAU	19.5%	23.2%	33.1%	48.8%	49.7%	-2.7%	-34.1%	-14.4%
MPU	12.1%	37.0%	52.1%	31.3%	1.5%	-22.3%	-14.7%	15.1%
KZN	22.0%	15.1%	27.0%	49.3%	52.0%	32.9%	-21.6%	-39.1%
AFRICAN	95.0%	-10.1%	26.3%	189.4%	25.3%	-43.7%	19.4%	55.4%
INT'L	114.8%	-1.5%	178.6%	527.0%	24.1%	-61.7%	-43.9%	-0.3%
<b>Total</b>	<b>24.0%</b>	<b>16.9%</b>	<b>30.8%</b>	<b>42.7%</b>	<b>20.6%</b>	<b>-7.8%</b>	<b>-13.5%</b>	<b>-5.0%</b>

**Table 14: Market share (% of fee earnings)**

Province	Survey period							
	Jun-07	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10
EC	9.90	9.25	8.80	5.30	7.80	10.40	9.34	7.90
WC	17.70	18.20	13.30	12.90	9.40	17.00	16.29	16.10
NC	1.12	1.65	1.90	1.00	1.60	0.80	1.62	2.50
FS	4.37	4.68	4.10	2.40	2.20	3.00	4.63	4.90
NW	3.87	8.16	2.80	3.50	1.90	2.30	2.05	2.50
LIM	3.57	2.43	2.90	2.80	3.20	3.20	2.73	2.30
GAU	34.06	34.94	32.80	38.90	45.10	30.00	33.74	34.70
MPU	3.10	3.94	3.20	3.30	2.60	2.90	2.94	3.70
KZN	13.75	11.29	13.90	12.30	20.20	17.30	11.92	12.20
AFRICAN	7.04	4.51	10.70	12.50	3.90	10.70	12.34	10.90
INT'L	1.52	0.95	5.60	5.20	2.10	2.40	2.40	2.30
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%

**Table 15: Fee income earned by type of client, R mill, 2000 prices (Annualized)**

Client	Survey period						
	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10
Central	654	921	728	621	1 359	1 432	1 287
Provincial	692	1 501	1 842	1 038	857	1 217	1 044
Local	1 863	1 995	2 904	2 231	2 371	1 786	1 578
State Owned	771	1 216	1 082	951	1 108	1 110	1 018
Private	3 204	3 866	3 851	4 870	2 959	3 202	3 775
<b>Total</b>	<b>7 183</b>	<b>9 499</b>	<b>10 407</b>	<b>9 710</b>	<b>8 653</b>	<b>8 746</b>	<b>8 702</b>

**Table 16: Percentage market share by client**

Client	Survey period						
	Dec-07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10
Central	9.1%	9.7%	7.0%	6.4%	15.7%	16.4%	14.8%
Provincial	9.6%	15.8%	17.7%	10.7%	9.9%	13.9%	12.0%
Local	25.9%	21.0%	27.9%	23.0%	27.4%	20.4%	18.1%
State Owned	10.7%	12.8%	10.4%	9.8%	12.8%	12.7%	11.7%
Private	44.6%	40.7%	37.0%	50.2%	34.2%	36.6%	43.4%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

**Table 17: Percentage of fee income earned by economic sector**

Economic sector	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Change in the last 6 months
Water (Full water cycle)	19.5%	17.8%	19.2%	15.0%	14.57%	14.0%	-0.6%
Transportation (land, air, road, rail, ports)	41.2%	32.5%	27.8%	34.0%	37.57%	32.5%	-5.1%
Energy (electricity, gas, hydro)	3.0%	5.5%	3.6%	2.3%	2.07%	3.4%	1.3%
Mining / Quarrying	2.1%	3.3%	9.9%	1.9%	3.53%	8.3%	4.8%
Education	1.0%	0.9%	0.6%	0.9%	0.98%	0.5%	-0.5%
Health	1.4%	1.1%	1.1%	0.7%	0.57%	0.4%	-0.1%
Tourism/Leisure	1.0%	3.4%	2.4%	0.3%	0.05%	0.1%	0.0%
Housing (residential inc. land)	9.2%	5.2%	10.9%	12.3%	12.74%	16.8%	4.0%
Commercial <sup>3</sup>	16.6%	25.6%	14.9%	28.8%	22.03%	18.1%	-3.9%
Agriculture / Forestry / Fishing	0.8%	0.2%	0.8%	2.0%	2.65%	3.3%	0.7%
Other	4.2%	4.4%	9.0%	1.8%	3.24%	2.6%	-0.6%
<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%</b>	-

**Table 18: Fee income earned by economic sector, Constant 2000 prices, Annualized**

Economic sector	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10	Dec-10	Real % Change Dec-10/Dec-09
Water (Full water cycle)	1 848	1 852	1 862	1 301	1 275	1 214	-6.7%
Transportation (land, air, road, rail, ports)	3 913	3 379	2 697	2 941	3 286	2 825	-4.0%
Energy (electricity, gas, hydro)	289	577	349	202	181	297	47.3%
Mining / Quarrying	204	339	960	164	308	721	341.1%
Education	92	89	58	76	86	46	-39.8%
Health	134	117	107	62	50	38	-39.2%
Tourism/Leisure	93	352	233	26	4	5	-82.8%
Housing (residential inc. land)	875	545	1 057	1 060	1 114	1 460	37.7%
Commercial	1 580	2 668	1 445	2 495	1 927	1 574	-36.9%
Agriculture / Forestry / Fishing	74	23	78	170	232	290	70.4%
Other	397	461	873	156	283	230	47.6%
<b>Total</b>	<b>9 499</b>	<b>10 403</b>	<b>9 720</b>	<b>8 653</b>	<b>8 746</b>	<b>8 698</b>	0.5%

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

**Table 19: 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%	
Dec-10	R199.3	294.37	7.8%	6.1%



**Table 20: 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
	Jul - Dec 2008	Jan - Jun 2009	Jul - Dec 2009	Jan - Jun 2010	Jul - Dec 2010	
	%	%	%	%	%	
Central government	3.9%	7.3%	5.6%	11.6%	2.6%	R43
Provincial government	4.3%	3.8%	27.2%	14.4%	8.8%	R126
Local government	6.9%	13.2%	16.2%	16.4%	7.8%	R192
State owned enterprises	7.7%	1.4%	9.7%	49.7%	5.5%	R76
Private Sector	11.0%	11.9%	15.2%	65.9%	9.6%	R543
Foreign (all EX-RSA)	27.0%	13.0%	104.2%	46.5%	47.7%	R1 439
<b>Total</b>	<b>12.0%</b>	<b>9.5%</b>	<b>18.5%</b>	<b>23.4%</b>	<b>15.5%</b>	<b>R2 418</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 21: 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
Dec-10	0.4%	R37	1.3%	R121.6

<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 22: Employment profile of the consulting engineering industry: Percentage contribution: Jul – Dec 2010**

Job Category	Black	Coloured	Asian	White	Total
Professional Engineer Pr.Eng	5.7%	1.9%	4.0%	88.3%	100.00%
Professional Architects	0.0%	0.0%	0.0%	100.0%	100.00%
Professional Quantity Surveyors	8.3%	0.0%	0.0%	91.7%	100.00%
Professional Other	7.4%	3.0%	6.4%	83.2%	100.00%
Technologists Pr TEchENg	5.2%	4.4%	6.0%	84.5%	100.00%
Technicians PrTechni	19.0%	11.9%	2.4%	66.7%	100.00%
Unregistered technical staff: Engineer	18.2%	4.0%	8.8%	69.0%	100.00%
Unregistered technical staff: Technologist	30.3%	11.5%	8.9%	49.3%	100.00%
Unregistered technical staff: Technician	38.2%	11.6%	3.8%	46.4%	100.00%
Unregistered technical staff: Other	27.0%	6.8%	7.3%	58.9%	100.00%
Technical Assistants	51.6%	5.9%	4.5%	38.0%	100.00%
Draughts Persons	10.5%	8.7%	5.9%	74.9%	100.00%
Laboratory / Survey Assistants	86.6%	0.9%	0.0%	12.5%	100.00%
Administration / Support staff	34.4%	13.3%	6.1%	46.2%	100.00%
<b>Total</b>	<b>27.5%</b>	<b>7.9%</b>	<b>5.8%</b>	<b>58.8%</b>	<b>100.00%</b>

**Table 23: Employment profile of the consulting engineering industry: Percentage contribution: Jul - Dec 2010  
Change in contribution since Dec 2009 survey**

Job Category	Black	Coloured	Asian	White
Professional Engineer Pr.Eng	-0.5%	-0.8%	-1.5%	2.8%
Professional Architects	0.0%	0.0%	0.0%	0.0%
Professional Quantity Surveyors	0.6%	0.0%	-7.7%	7.1%
Professional Other	-2.6%	0.8%	0.3%	1.6%
Technologists Pr TEchENg	-0.7%	1.2%	-1.5%	1.0%
Technicians PrTechni	3.1%	-4.0%	-7.8%	8.7%
Unregistered technical staff: Engineer	-7.2%	0.6%	-2.7%	9.3%
Unregistered technical staff: Technologist	1.2%	3.5%	-4.3%	-0.4%
Unregistered technical staff: Technician	-6.0%	2.7%	-2.0%	5.3%
Unregistered technical staff: Other	0.6%	-1.9%	-0.4%	1.7%
Technical Assistants	7.6%	-1.8%	-1.4%	-4.3%
Draughts Persons	-3.4%	-3.4%	-3.9%	10.7%
Laboratory / Survey Assistants	13.2%	-11.3%	-2.2%	0.3%
Administration / Support staff	-5.0%	0.9%	-1.5%	5.6%
<b>Total</b>	<b>-2.2%</b>	<b>-0.3%</b>	<b>-1.8%</b>	<b>4.3%</b>

**Table 24: Ownership / equity controlled by black people, as percentage of TOTAL Equity**  
 (Black people include Asian and Coloured people)

Company Type	Owner category	Professional Category	Dec07	Jun-08	Dec-08	Jun-09	Dec-09	Jun-10 (Revised)	Dec-10
<b>(PTY) LTD</b>	Executive Directors	Pr.Eng	11.5%	12.3%	7.4%	10.5%	14.9%	9.8%	9.6%
		PrTechEng	38.5%	25.0%	16.7%	20.0%	12.0%	50.0%	33.3%
		Other	28.9%	37.8%	43.7%	32.1%	40.4%	27.9%	26.2%
		<b>TOTAL</b>	<b>16.8%</b>	<b>18.6%</b>	<b>13.5%</b>	<b>14.2%</b>	<b>19.6%</b>	<b>15.5%</b>	<b>15.2%</b>
	Non-Executive Directors	Pr.Eng	27.3%	40.0%	71.4%	77.8%	100.0%	10.0%	7.1%
		PrTechEng	33.3%	0.0%	0.0%	0.0%	100.0%	50.0%	50.0%
		Other	69.2%	80.0%	85.0%	70.0%	84.0%	65.6%	69.6%
		<b>TOTAL</b>	<b>55.0%</b>	<b>72%</b>	<b>81.5%</b>	<b>70.0%</b>	<b>88.0%</b>	<b>30.2%</b>	<b>35.8%</b>
	<b>CC</b>	Members	Pr.Eng	20.8%	41.7%	28.6%	20.0%	50.0%	41.7%
PrTechEng			50.0%	33.3%	66.7%	40.0%	60.0%	60.0%	60.0%
Other			33.3%	42.9%	50.0%	50.0%	50.0%	66.7%	50.0%
<b>TOTAL</b>		<b>24.1%</b>	<b>41.2%</b>	<b>36.8%</b>	<b>20.0%</b>	<b>51.8%</b>	<b>50.0%</b>	<b>45.4%</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	0.0%	0.0%	0.0%	0.0%	0.0%	80.0%	75.0%
	<b>TOTAL</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>15.4%</b>	<b>12.5%</b>	
<b>Total</b>			<b>21.7%</b>	<b>27.3%</b>	<b>22.4%</b>	<b>20.0%</b>	<b>28.0%</b>	<b>21.4%</b>	<b>20.4%</b>

*Note: June 2010 revised based on information submitted in December 2010.*

**Table 25: 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	86.7	-0.5%	0.8%
Jun-11	86.3	-0.5%	-0.9%
Dec-11	87.5	1.4%	0.9%



**Table 26: Employment Breakdown, by race, gender and job category July – December 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	130	10	140	48	0	48	93	5	98	2 102	65	2 167	2 373	80	2 453
Professional Architects	0	0	0	0	0	0	0	0	0	0	13	13	0	13	13
Professional Quantity Surveyors	0	3	3	0	0	0	0	0	0	20	8	28	20	10	30
Professional Other	30	25	55	13	10	23	25	23	48	444	176	620	512	233	745
Technologists Pr TEchENg	33	0	33	28	0	28	35	3	38	527	8	534	622	10	632
Technicians PrTechni	40	0	40	23	3	25	5	0	5	135	5	140	203	8	211
Unregistered technical staff: Engineer	356	70	426	70	23	93	148	58	206	1 352	261	1 613	1 926	411	2 338
Unregistered technical staff: Technologist	173	58	231	70	18	88	60	8	68	331	45	376	635	128	763
Unregistered technical staff: Technician	657	128	785	138	100	238	63	15	78	875	78	953	1 733	321	2 054
Unregistered technical staff: Other	394	145	539	73	63	135	93	53	145	815	361	1 176	1 375	622	1 997
Technical Assistants	660	148	808	68	25	93	25	45	70	477	118	594	1 229	336	1 565
Draughts Persons	95	25	120	83	18	100	65	3	68	389	474	863	632	519	1 151
Laboratory / Survey Assistants	426	43	469	3	3	5	0	0	0	58	10	68	487	55	542
Administration / Support staff	559	1 114	1 673	173	474	647	70	228	298	482	1 763	2 245	1 284	3 579	4 864
<b>Total</b>	3 554	1 768	5 323	788	735	1 523	682	439	1 121	8 007	3 384	11 390	13 031	6 326	<b>19 357</b>
<b>% of total</b>	18.4%	9.1%	27.5%	4.1%	3.8%	7.9%	3.5%	2.3%	5.8%	41.4%	17.5%	58.8%	67.3%	32.7%	100.0%

**Table 27: Employment Breakdown, by race, gender and job category: July - December 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	0.7%	0.1%	0.7%	0.2%	0.0%	0.2%	0.5%	0.0%	0.5%	10.9%	0.3%	11.2%	12.3%	0.4%	12.7%
Professional Architects	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	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%	0.2%
Professional Other	0.2%	0.1%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	2.3%	0.9%	3.2%	2.6%	1.2%	3.8%
Technologists Pr TEchENg	0.2%	0.0%	0.2%	0.1%	0.0%	0.1%	0.2%	0.0%	0.2%	2.7%	0.0%	2.8%	3.2%	0.1%	3.3%
Technicians PrTechni	0.2%	0.0%	0.2%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.7%	0.0%	0.7%	1.0%	0.0%	1.1%
Unregistered technical staff: Engineer	1.8%	0.4%	2.2%	0.4%	0.1%	0.5%	0.8%	0.3%	1.1%	7.0%	1.3%	8.3%	10.0%	2.1%	12.1%
Unregistered technical staff: Technologist	0.9%	0.3%	1.2%	0.4%	0.1%	0.5%	0.3%	0.0%	0.3%	1.7%	0.2%	1.9%	3.3%	0.7%	3.9%
Unregistered technical staff: Technician	3.4%	0.7%	4.1%	0.7%	0.5%	1.2%	0.3%	0.1%	0.4%	4.5%	0.4%	4.9%	9.0%	1.7%	10.6%
Unregistered technical staff: Other	2.0%	0.8%	2.8%	0.4%	0.3%	0.7%	0.5%	0.3%	0.8%	4.2%	1.9%	6.1%	7.1%	3.2%	10.3%
Technical Assistants	3.4%	0.8%	4.2%	0.3%	0.1%	0.5%	0.1%	0.2%	0.4%	2.5%	0.6%	3.1%	6.3%	1.7%	8.1%
Draughts Persons	0.5%	0.1%	0.6%	0.4%	0.1%	0.5%	0.3%	0.0%	0.3%	2.0%	2.4%	4.5%	3.3%	2.7%	5.9%
Laboratory / Survey Assistants	2.2%	0.2%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.3%	2.5%	0.3%	2.8%
Administration / Support staff	2.9%	5.8%	8.6%	0.9%	2.4%	3.3%	0.4%	1.2%	1.5%	2.5%	9.1%	11.6%	6.6%	18.5%	25.1%
<b>Total</b>	<b>18.4%</b>	<b>9.1%</b>	<b>27.5%</b>	<b>4.1%</b>	<b>3.8%</b>	<b>7.9%</b>	<b>3.5%</b>	<b>2.3%</b>	<b>5.8%</b>	<b>41.4%</b>	<b>17.5%</b>	<b>58.8%</b>	<b>67.3%</b>	<b>32.7%</b>	<b>100.0%</b>



**Table 28: Ownership profile: Employment, company type, race & gender: July - December 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	22	3	24	8	0	8	5	3	8	377	5	382	412	11	423		
		PrTechEng	0	0	0	8	0	8	0	0	0	16	0	16	24	0	24		
		Other	22	5	27	8	0	8	8	3	11	106	24	130	144	33	176		
	Non-Executive Director	PrEng	0	0	0	3	0	3	0	3	3	71	0	71	73	3	76		
		PrTechEng	0	0	0	0	0	0	3	0	3	3	0	3	5	0	5		
		Other	16	14	30	5	0	5	8	0	8	19	0	19	49	14	62		
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	3	5	5	5	11		
Partnership	Partner	PrEng	0	0	0	0	0	0	0	0	0	49	0	49	49	0	49		
		PrTechEng	0	0	0	0	0	0	0	0	0	5	0	5	5	0	5		
		Other	3	0	3	5	0	5	0	0	0	27	0	3	35	0	11		
<b>GRAND TOTAL</b>			<b>76</b>	<b>24</b>	<b>100</b>	<b>43</b>	<b>0</b>	<b>43</b>	<b>30</b>	<b>8</b>	<b>38</b>	<b>703</b>	<b>33</b>	<b>711</b>	<b>852</b>	<b>65</b>	<b>892</b>		
<b>% distribution</b>			<b>8.5%</b>	<b>2.7%</b>	<b>11.2%</b>	<b>4.9%</b>	<b>0.0%</b>	<b>4.9%</b>	<b>3.3%</b>	<b>0.9%</b>	<b>4.3%</b>	<b>78.7%</b>	<b>3.6%</b>	<b>79.6%</b>	<b>95.4%</b>	<b>7.3%</b>	<b>100.0%</b>		
<b>% directorship only</b>			<b>7.0%</b>	<b>1.3%</b>	<b>8.3%</b>	<b>3.9%</b>	<b>0.0%</b>	<b>3.9%</b>	<b>2.2%</b>	<b>0.9%</b>	<b>3.0%</b>	<b>80.0%</b>	<b>4.8%</b>	<b>84.8%</b>	<b>93.0%</b>	<b>7.0%</b>	<b>100.0%</b>		
<b>Total employment</b>			<b>3 554</b>	<b>1 768</b>	<b>5 323</b>	<b>788</b>	<b>735</b>	<b>1 523</b>	<b>682</b>	<b>439</b>	<b>1 121</b>	<b>8 007</b>	<b>3 384</b>	<b>11 390</b>	<b>13 031</b>	<b>6 326</b>	<b>19 357</b>		
<b>% ownership / equity</b>			<b>2.1%</b>	<b>1.4%</b>	<b>1.9%</b>	<b>5.5%</b>	<b>0.0%</b>	<b>2.9%</b>	<b>4.4%</b>	<b>1.9%</b>	<b>3.4%</b>	<b>8.8%</b>	<b>1.0%</b>	<b>6.2%</b>	<b>6.5%</b>	<b>1.0%</b>	<b>4.6%</b>		

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**End of report**

For further information please contact

**Consulting Engineers South Africa**

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Email CESA at [general@cesa.co.za](mailto:general@cesa.co.za)

CESA Head Office contact information is available below. The CESA also has branches throughout South Africa.

**Telephonic Contacts**

Tel: +27 (011) 463 2022

Fax: +27 (011) 463 7383

**Physical Address**

Fullham House, Hampton Park North,  
20 Georgian Crescent  
Bryanston  
Johannesburg, South Africa

**Postal Address**

PO Box 68482  
Bryanston  
Johannesburg, South Africa  
2021

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