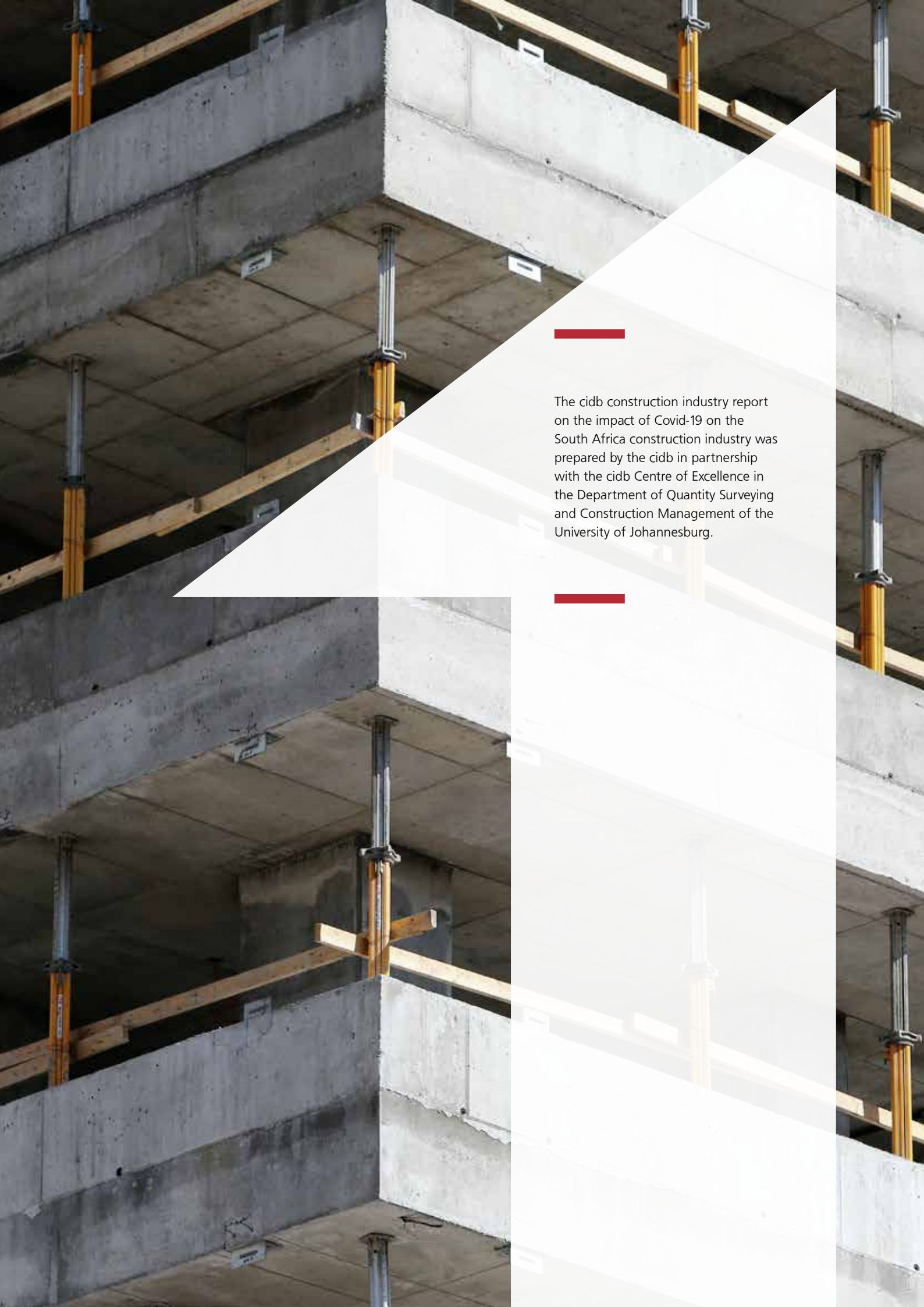


REPORT ON THE
IMPACTS OF COVID-19
ON THE SOUTH AFRICAN
CONSTRUCTION INDUSTRY

NOVEMBER 2020





The cidb construction industry report on the impact of Covid-19 on the South Africa construction industry was prepared by the cidb in partnership with the cidb Centre of Excellence in the Department of Quantity Surveying and Construction Management of the University of Johannesburg.

INTRODUCTION

The coronavirus (Covid-19) was first reported in the latter half of 2019 in Wuhan city in China and declared a global pandemic by the World Health Organisation (WHO) in 2020. This virus has had a significant effect on every sector of the world's economy. Amid fear of further spread and loss of life, countries around the world had to close their borders, commercial and social activities were suspended, and non-essential businesses put on hold. As with every other government, South Africa initiated a level five lockdown protocol – from midnight 26 March 2020.

While this was done to save the lives of the country's citizens, there were concerns that the economy was going to be negatively impacted by the 'hard lockdown'. All businesses had to stop all onsite activities, except where they were declared essential services or could adopt work-from-home or remote operations. Unfortunately, the construction sector, with its brick and mortar orientation, requires significant hands-on operation to deliver its product. It is also known for its slow adoption of technologies. The lockdown, therefore, posed a serious dilemma for the construction industry as sites were closed to curb the spread of Covid-19.

The cidb, in partnership with the cidb Centre of Excellence at the University of Johannesburg, conducted a study to assess the impact of the Covid-19 pandemic on cidb-registered contractors in grades 2 to 9 to recommend workable solutions to alleviate the impact on contractors, post-Covid-19.

The objectives of the study were to:

1. assess the response of construction companies during the Covid-19 lockdown period;
2. assess the challenges facing the South African construction industry during the initial phases of the Covid-19 lockdown;
3. examine the short-, medium- and long-term impact of the pandemic on the South African construction industry;
4. determine the measures needed for the recovery of the South Africa construction industry from the effects of the pandemic; and
5. make recommendations on support measures for the construction industry during the pandemic and beyond.

This was done to ensure the continued survival of businesses in the industry and the continuous and sustained service delivery of the industry to fulfil its mandate of employment creation, creation of opportunities for other businesses and development of the South African built environment.

This study adopted a quantitative survey approach. A questionnaire was developed using literature that examined the impacts of the pandemic on the economy and distributed to all active, registered grades 2 to 9 contractors on the cidb Register of Contractors.

There were 825 valid responses from contractors across all grading categories in the nine provinces of the country. The data were analysed for characterisation of the respondents and mean item scores used to rank the variables as rated by the different grades of respondents. The analysis used the cidb developmental classification of grades 2 to 4 being emerging contractors in the early stages of development, requiring significant sustained support and mostly operating at a local level; grades 5 and 6 being semi-established, developing contractors operating locally but transitioning to regionally and provincially; and grades 7 to 9 being contractors that operate regionally, provincially and internationally.

FINDINGS

BACKGROUND INFORMATION ON RESPONDENTS

The data were collected from cidb-registered contractors in grades 2 to 9 using Google Forms. Figures 1 to 10 characterise the contractors who responded to the survey.

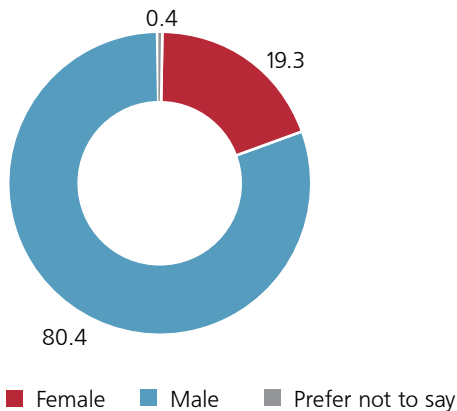


Figure 1: Respondents' gender

Figure 1 shows that most respondents are male (80.4%), with female representation at 19.3%. This is consistent with the gender split on the Register of Contractors and shows the male domination of the industry. Only 0.4% of the respondents did not state their gender.

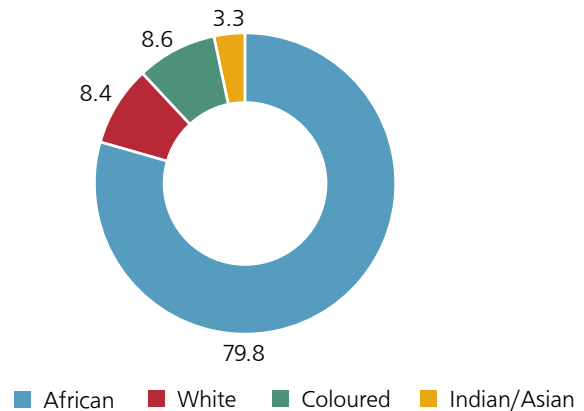


Figure 2: Respondents' race

Majority of respondents – 79.8% – are black, 8.6% coloured, 8.4% whites and 3.3% Indians or Asians.

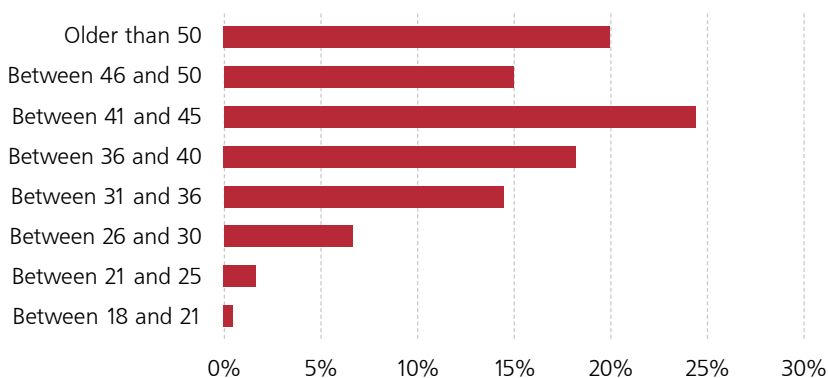


Figure 3: Respondents' age

The average age of respondents is 41.5 years, with most of the respondents (24.4%) in the 41 to 45 age group, followed by those older than 50 (19.8%) and those aged 36 to 40 (18.2%), 46 to 50 (14.9%) and 31 to 35 (14.7%).

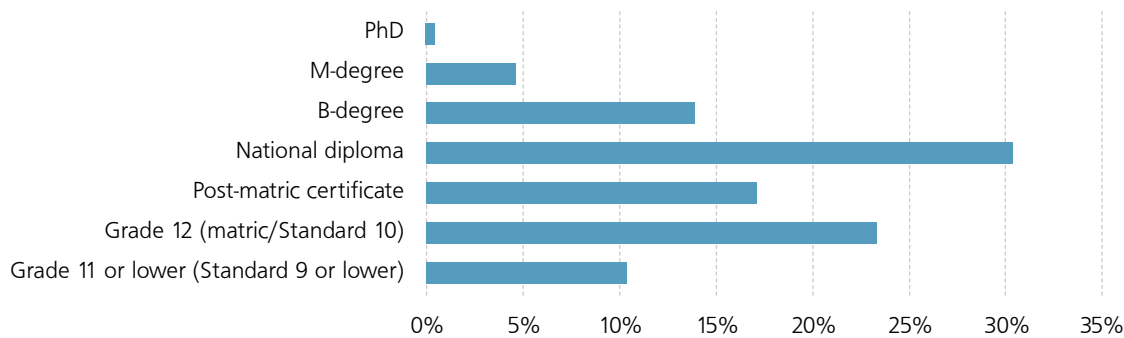


Figure 4: Highest qualifications

Figure 4 shows that most respondents have national diploma (30.2%) and/or Grade 12 (23.3%) qualifications. This is followed by post-matric certificates (17.6%), bachelor's degrees (13.9%) and Grade 11 or lower (10.1%). The least represented qualifications in the study are a master's degree and PhD, at 4.6% and 0.4% respectively.

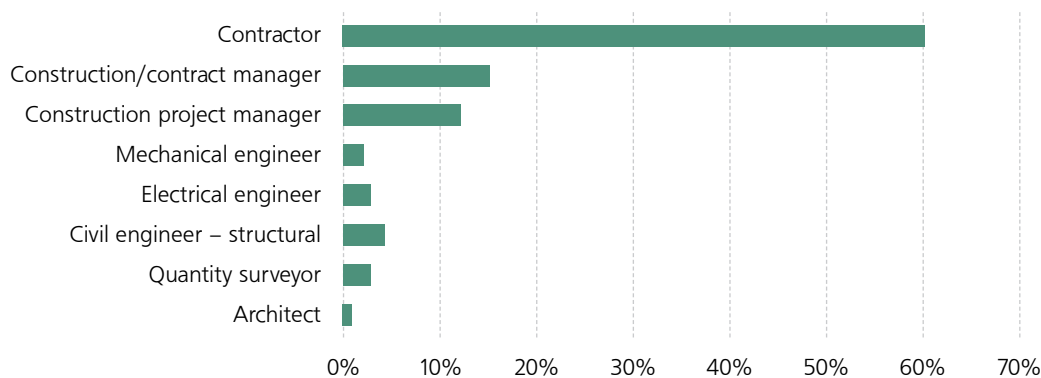


Figure 5: Respondents' role in company

The respondents were asked to indicate their primary role in the company. Figure 5 shows that a majority of the respondents (60.1%) are contractors, while construction/contracts managers and construction project managers make up 15.8% and 12% respectively. The least represented are engineers (9%), quantity surveyors (2.7%) and architects (0.5%).

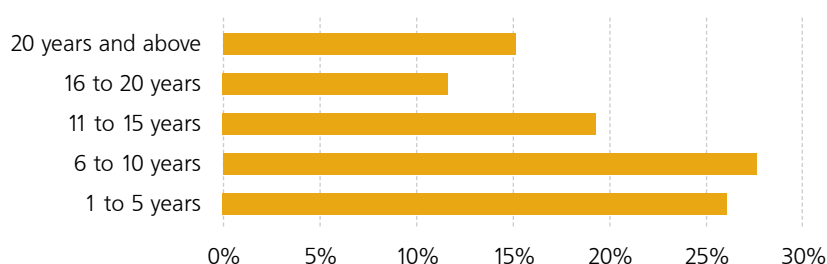


Figure 6: Years of construction experience

To assess the contractors' qualification to comment on industry issues, they were asked to indicate the length of their participation/experience in the construction industry. Figure 6 shows that 74.3% have more than five years of working experience in the South African construction industry, with only 25.7% of respondents indicating that they joined the industry in the past five years. On average, the respondents have 10.7 years of experience, which indicates that they have the wealth of experience needed to give a fair reflection of industry challenges.

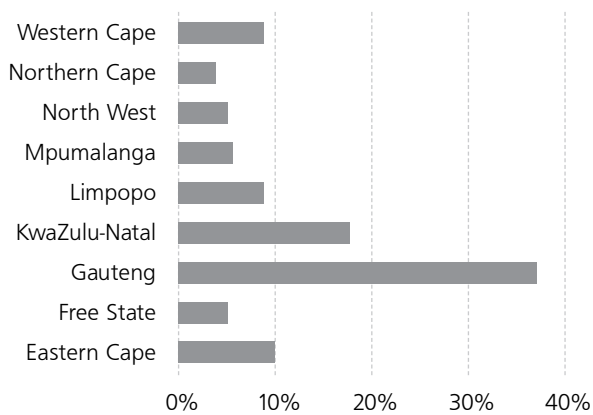


Figure 7: Geographic location

Respondents were spread across the country, with most having their company headquarters in Gauteng, consistent with the Register of Contractors, which shows that Gauteng has the highest concentration of construction companies. Next highest was KwaZulu-Natal, followed by Eastern Cape, Limpopo, Western Cape and Mpumalanga, Free State, North West and Northern Cape.

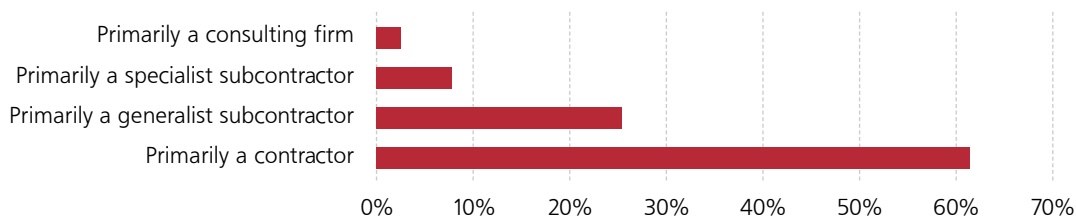


Figure 8: Primary activity in industry

Figure 8 shows that most respondents (61.8%) were from companies whose primary role is contracting. This is followed by generalist subcontractors (26.4%), specialist subcontractors (8.6%) and consulting firms (3.2%).

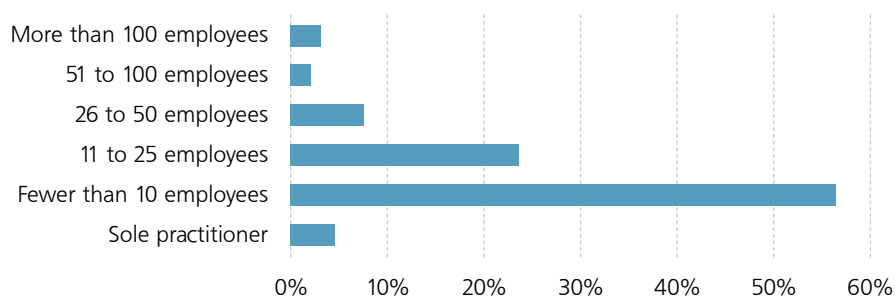


Figure 9: Number of employees

The South African construction industry and cidb Register of Contractors comprise mainly small and medium-sized construction companies with fewer than 10 employees. This was reflected in the survey findings, where the most companies (56.6%) reported having fewer than 10 employees, with very few (3.9%) having more than 100 employees (Figure 9).

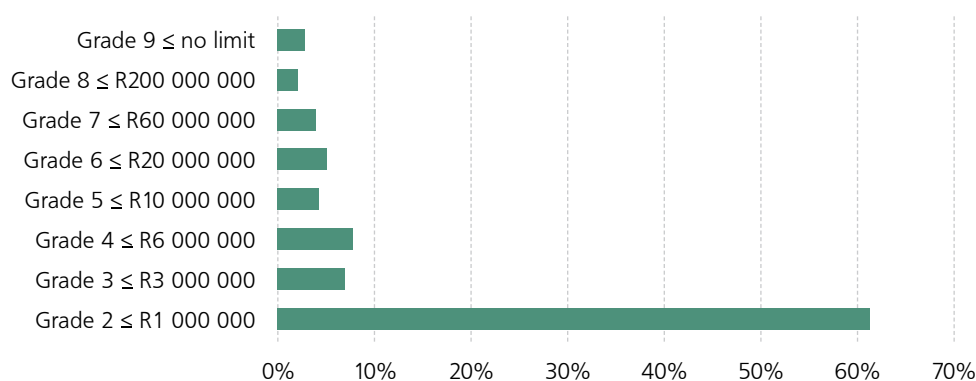


Figure 10: cidb grading

Figure 10 shows that most of these companies are cidb Grade 2 contractors handling projects of up to R1 million. Only 2.9% of the respondents' companies are on cidb Grade 9 with no project limit.

To assess transformation, respondents were asked to show the shareholding structure of their companies. Women own 34.3% and men 66.6%. Black ownership is 90.2%, with broad-based black economic empowerment 39.3%.

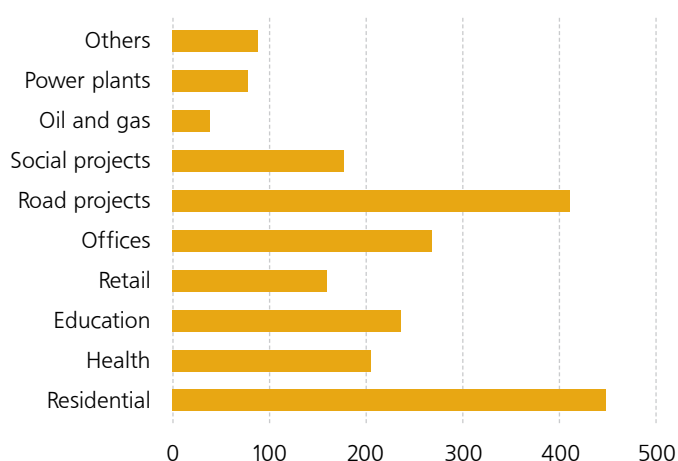


Figure 11: Project types

Respondents were asked to select their companies' activities from a list of construction project types. They could select more than one area or add a category if it was not on the list.

Figure 11 shows that most respondents (452) are involved in residential projects, followed by road projects (408), office construction (278), education (235) and healthcare facilities (204). Ninety-one respondents put forward projects that were not listed, including mining, water infrastructure, fibre optics, building maintenance, electrical installations and repairs, and landscaping.

IMMEDIATE IMPACT OF THE COVID-19 LOCKDOWN

To understand the response of construction companies to the Covid-19 lockdown, respondents were asked specific questions, firstly whether they experienced interruption in the supply of materials for current projects.

Figure 12 shows that most of the respondents did. Very few (7.8%) reported that they faced no interruption, but this survey was conducted in the earlier period of the lockdown. Some (5.9%) believed they would face interruption as the lockdown continued.

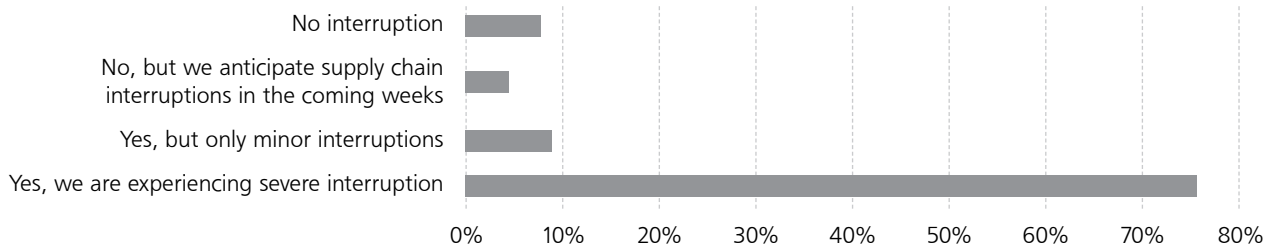


Figure 12: Disruption in material supply

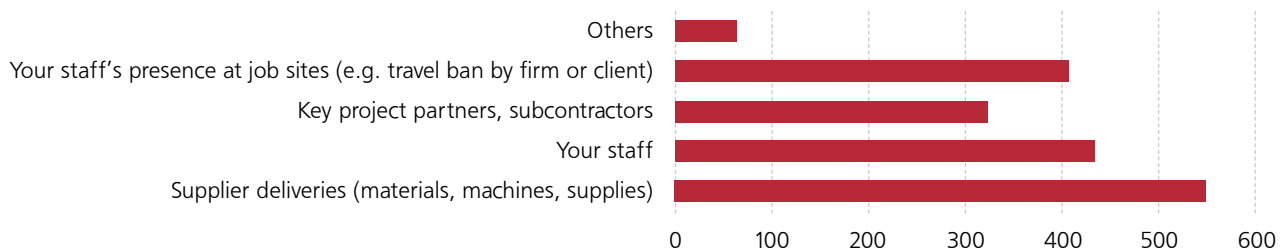


Figure 13: Major immediate impacts of Covid-19

Respondents were given four key ways in which the lockdown may affect their current projects. They could pick more than one of the options.

Figure 13 shows that 558 indicated that the delivery of supplies was the major area affected, followed by the effect on staff's presence at the job site and the effect on key project partners. Sixty respondents noted other area, such as the non-payment by clients, inability to find jobs and suspension of projects.

Interestingly, as presented in Figure 14, most respondents (619) believed contractors should be allowed back to work during the lockdown. They also suggested that related professions should be allowed back, including project management, planning, design and costing firms.

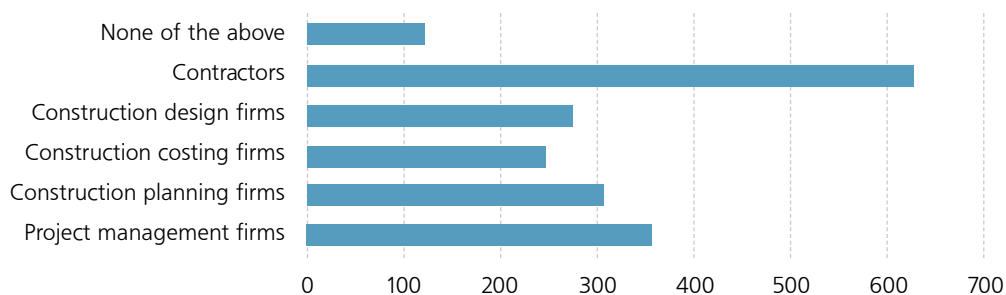


Figure 14: Who should be allowed back at work?

Respondents indicated that staff rotation onsite when needed was the best approach to reopening construction sites and firms. Working remotely was also considered a possibility to supplement the work performed by staff on site-rotation schedules. Some respondents suggested approaches such as critically evaluating the risk involved in the area before considering opening sites, testing of staff by medical professionals, strict compliance to health and safety practices on sites, sanitisation of machinery, allowing small workgroups on site and in offices depending on the magnitude of the project, and allowing staff working in shifts.

During the hard lockdown, most companies implemented a complete travel ban to curb the spread of the virus. Where possible, offices were closed and a complete work-from-home policy instituted, followed by halting of all business operations on sites and in offices. Employees were asked to stay at home when they or a family member was sick. Some companies limited human contact in the workspace, supplying hand sanitisers to employees, and continuously promoting hygiene and strict compliance with recommended health and safety measures, such as a reduction in the number of working hours and days per week, and fewer workers on projects/sites. Respondents also mentioned implementation of Covid-19 awareness campaigns and stopping biometric scanning and breathalyser testing.

Most of the respondents indicated that offices and sites were closed for all business operations, with a 100% work-from-home policy. Since this research was conducted during the level 5 lockdown, it is likely that responses changed as lockdown levels and restrictions eased. During level 5, the few companies classified as providing essential service to the country had their sites and offices open with rotation of workers to reduce contact and the spread of the virus.

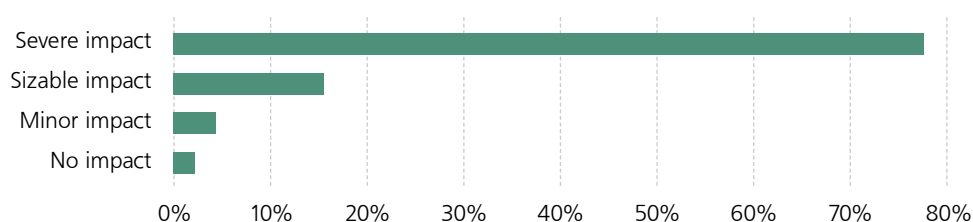


Figure 15: Severity of Covid-19 impacts on businesses

Most respondents (77.3%) believed that the outbreak would have a negative impact on their business, particularly revenue. Only 1.9% believed that the outbreak would have no impact at all on their business (Figure 15). However, the issue of the outbreak having no impact on their business is worth exploring further, as it is assumed that the outbreak and the lockdown will affect construction companies negatively.

The most widely expected negative impact was the postponement of construction projects (76.8% of responses), while about 22% of respondents believed that while they might not lose the works they were handling, there was every possibility of a delay in these projects. Only 0.7% believed that all work will progress without delay.

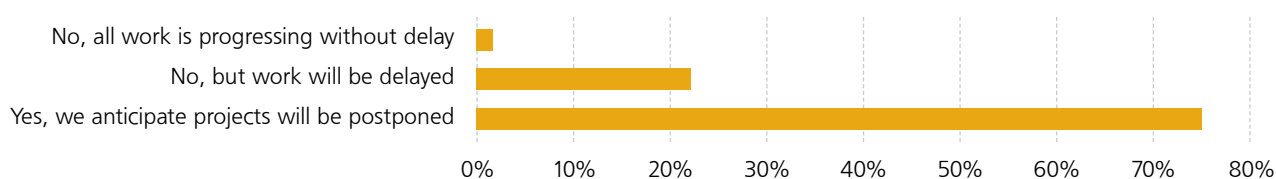


Figure 16: Expected impacts of the pandemic on businesses

Every construction worker feared the loss of his or her job, which invariably would hamper survival. Most companies reported that if they were unable to recover from the loss of jobs or were unable to find new jobs, they would lay off their workers (Figure 17). Only a few would not lay off their workers but would instead restructure wages/salary and defer payment to workers until new works are acquired. However, 3.3% suggested that if workers refuse to take pay cuts, then layoff might be their only option. It is evident from these findings that construction company owners have much empathy with their workers, and that the lockdown built the solidarity that was expressed when the country went into hard lockdown.

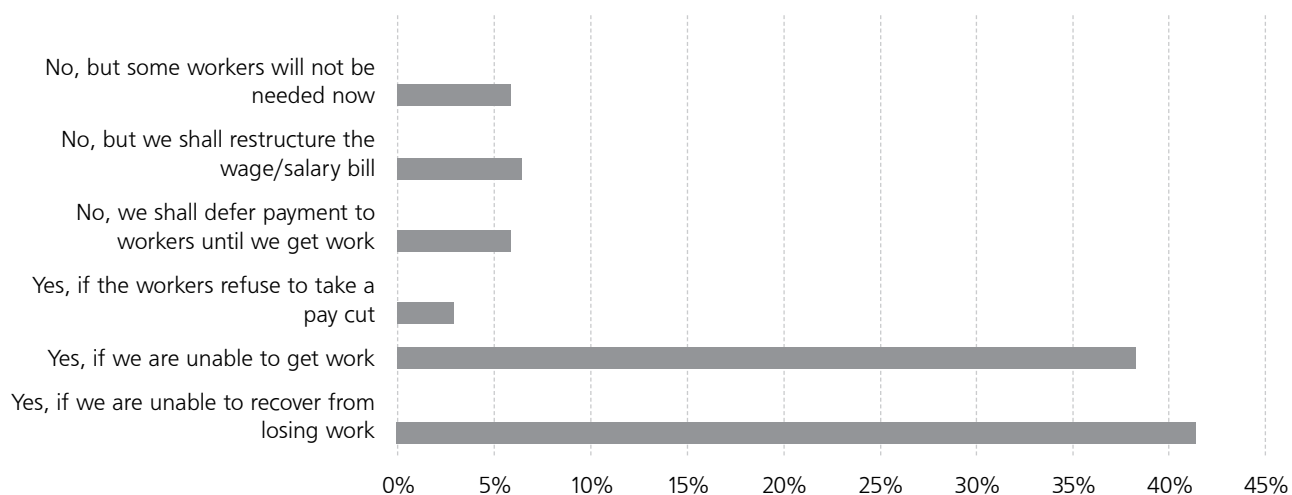


Figure 17: Expected reactions to pandemic





CHALLENGES FACING THE SOUTH AFRICAN CONSTRUCTION INDUSTRY VIS-À-VIS COVID-19

The cidb Construction Monitor categorises contractors into developmental stages based on their cidb grades. These categories are grades 2 to 4 – emerging contractors in the early stages of development, requiring significant sustained support and mostly operating locally; grades 5 and 6 – semi-established, developing contractors operating locally but transitioning to regional/provincial level; and grades 7 to 9 – contractors operating at regional/provincial level and internationally. The challenges facing the industry were evaluated from the perspective of these developmental classifications.

Table 1 presents how respondents in the different developmental categories ranked the challenges of the

pandemic differently, indicating that the impact varies according to levels of development.

The top concern for contractors in grades 2 to 4, and 5 and 6 was late payment of contractors for work already done, whilst for those in grades 7 to 9, delay in the award of already priced tenders was the most significant challenge. This is understandable as those in the upper grades of 7 to 9 will most likely have the financial capability to see current projects through to completion, even when payment from clients for the job done is delayed. This might not be the case for those in the lower grades.



Table 1: Top 10 Covid-19 concerns

	Grades 2 to 4	Grades 5 and 6	Grades 7 and 8	Grade 9	Overall
CHALLENGES	RANKING	RANKING	RANKING	RANKING	RANKING
Late payment of contractors	1	1	2	3	1
Delay in the awarding of already priced tenders	2	2	1	1	2
Corruption in both public and private projects	3	11	4	6	3
Uncontrolled illegal construction site invasions by syndicated organised crime, and civil unrest due to higher unemployment	5	9	2	6	4
Lack of business continuity plans in construction businesses	4	4	12	3	5
Decline in tender activity (projects out to tender)	8	3	7	6	6
Civil unrest due to higher unemployment	7	6	5	6	7
Late payment of professionals	6	6	17	13	8
The performance of state-owned entities/ financial constraints of state-owned entities	10	6	6	1	9
Late payment of suppliers by contractors	9	14	19	20	10

Companies in the higher grades stated that being awarded already priced tenders in time will mean more jobs at hand, while delays in awarding of already priced tenders might affect the businesses as going concerns considering overheads and other expenses.

Other factors considered by contractors in grades 2 to 4 were delays in awarding already priced tenders, corruption in both public and private projects, lack of business continuity plans, construction site invasions and civil unrest due to higher unemployment. Problems such as skills shortage, inadequate risk assessment and management systems, and poor health and safety management were of less significance to these contractors.

Besides late payment, contractors in grades 5 and 6 were concerned about delays in awarding of already priced tenders, a decline in tender activity (i.e. reduction in number of projects put out to tender), lack of business continuity

plans in construction, and underspending of budgets by client departments. Perceived shortcomings in industry regulations, and inadequate risk assessment and management systems, were considered the least significant Covid-19-related challenges to contractors in grades 2 to 6.

For grades 7 to 9 contractors, besides delays in awarding already priced tenders, other significant impacts were late payment for work done, construction site invasions, corruption in both public and private sector projects, and civil unrest due to higher unemployment. Among Grade 9 contractors, the top two challenges were delays in awarding already priced work and the performance of state-owned entities/financial constraints of state-owned entities. As with their counterparts in grades 2 to 6, grades 7 to 9 contractors considered inadequate risk assessment and management systems, and poor health and safety management systems as the least significant challenges.

IMPACTS OF COVID-19 PANDEMIC ON THE SOUTH AFRICAN CONSTRUCTION INDUSTRY

To assess the short-, medium- and long-term impacts of the Covid-19 pandemic on the industry, contractors were asked to rate a range of factors according to when they perceive their impact on their businesses and the industry will manifest.

1. SHORT-TERM IMPACTS

The top three short-term issues for contractors in grades 2 to 6 are the same, thus showing a similarity in the perception and operating environment of these grades (Table 2). These factors are job losses for construction workers, loss

of income/revenue for the company, and retrenchment of construction workers. For those in grades 7 and 8, the most significant short-term impacts are job losses for construction workers, retrenchment of construction workers by organisations, and non-payment of preliminaries and general during the lockdown. Grade 9 contractors also considered retrenchment of construction workers by organisations, job losses for construction workers and lack of payment for certified work the most significant short-term impacts of the pandemic.



Table 2: Short-term impacts of the pandemic

	Grades 2 to 4	Grades 5 and 6	Grades 7 and 8	Grade 9	Overall
SHORT-TERM IMPACTS	RANKING	RANKING	RANKING	RANKING	RANKING
Job losses for construction workers	1	1	1	2	1
Loss of income/revenue for organisations	2	2	4	5	2
Retrenchment of construction workers by firms	3	3	1	1	3
Non-payment of preliminaries and general during the lockdown	4	6	3	4	4
Significant increase in the cost of materials	4	7	6	9	5
Lack of payment for certified work	6	4	5	2	6
Delay in the delivery of projects	6	5	7	6	7
Supply chain disruption	6	8	8	11	8
Disruption in the promotion of teamwork	9	11	12	10	9
Cancellation/termination of construction contracts	10	9	9	6	10

All contractors reported that, short-term, some workers would lose their jobs. They recommended putting measures in place to ensure continuous job procurement for construction companies, as catering for envisaged job losses is paramount to the survival of the industry and its participants. There is also loss of revenue for construction companies, which will ultimately lead to retrenchment of workers. Non-payment of preliminaries and general during the lockdown is another problem envisaged, accompanied by a likely increase in the cost of construction materials.

During the early days of the lockdown, all the grades of respondents considered poor communication (inability to meet) and non-availability of construction materials the least significant short-term impacts of the pandemic on the South African construction industry. But these factors are worth noting, as they both have an above-average mean value, which indicates that they can impact negatively on the industry if not properly managed.

2. MEDIUM-TERM IMPACTS

Respondents in grades 2 to 4 identified potential bankruptcy of contractors, a decline in the economy and in company profits as the top three possible medium-term impacts of the pandemic. Those in grades 5 and 6 mentioned the potential bankruptcy of contractors and a decline in the economy as the top two impacts in the medium-term, followed by companies' inability to pay staff and loss of revenue. For those in grades 7 and 8, the greatest concerns were possible declines of the economy, in investment by the private sector due to low investor confidence, and in company profits. Grade 9 respondents identified loss of revenue for companies, inability to pay staff and job losses as the most significant medium-term impacts of the pandemic.

Table 3: Medium-term impacts of the pandemic

	Grades 2 to 4	Grades 5 and 6	Grades 7 and 8	Grade 9	Overall
MEDIUM-TERM IMPACT	RANKING	RANKING	RANKING	RANKING	RANKING
The potential bankruptcy of contractors	1	1	4	2	1
A decline in the economy	2	1	1	10	2
Decline in firms' profits	2	7	2	5	3
Loss of income/revenue for organisations	4	4	7	1	4
Organisations' inability to pay staff	4	3	11	2	4
Job losses	6	4	9	2	6
Clients' inability to finance projects	7	6	8	10	7
Economic uncertainty	9	11	5	9	8
Business uncertainty	9	9	12	6	9
Reduction in workforce	8	10	13	10	9
A decline in investment by the private sector due to low investor confidence	11	11	3	16	11

In the medium-term, the pandemic will most likely lead to bankruptcy of some contractors. This could be because of the prevalence of small- and medium-sized companies, most of which struggle financially. The likelihood of an economic decline will affect the ability of companies to generate revenue and profits will drop. With this lack of revenue, companies with weak financial backing will find it difficult to pay their staff, which will invariably lead to retrenchment and job losses. Construction clients will also be affected in the medium-term, as they may find it difficult to finance projects with funds diverted to fighting the pandemic. Furthermore, economic uncertainty will most likely cause clients to withhold their finances instead of investing in infrastructure projects, which will cause business uncertainty for most construction companies.

3. LONG-TERM IMPACTS

In the long-term, the pandemic is expected to result in massive job losses for construction workers and bankruptcy of construction firms in grades 2 to 6. Those in grades 7 and 8 forecast an increase in contractual disputes and claims related to contractual scheduling along with mediations, arbitrations and litigation over construction delays. The major long-term problem for Grade 9 contractors is bankruptcy. Overall, bankruptcy of construction firms, suspension of projects/potential site closure and massive job losses for construction workers are significant long-term impacts of the pandemic.

Table 4: Long-term impacts of the pandemic

	Grades 2 to 4	Grades 5 and 6	Grades 7 and 8	Grade 9	Overall
LONG-TERM IMPACTS	RANKING	RANKING	RANKING	RANKING	RANKING
Massive job losses for construction workers	1	1	6	2	1
Bankruptcy of construction firms	2	2	2	1	2
Business interruption	3	4	3	5	3
Labour disruptions	4	5	4	7	4
Interruptions in the delivery of critical infrastructure projects	5	3	4	10	5
Suspension of projects/potential site closure	6	6	7	2	6
Increase in number of claims related to contractual scheduling along with mediations, arbitrations and litigation over construction delays	9	6	1	8	7
Delay in project delivery	9	6	8	2	8
Reduced capacity of municipalities to issue necessary work permits	8	9	8	10	8
Supply chain disruption	7	11	11	9	8
Inadequate supply of critical infrastructure	11	9	12	10	11
Project abandonment	12	12	10	5	12

Other consequences of the pandemic will be massive loss of jobs for construction workers as companies embrace the concept of working remotely, where possible. It is also anticipated that companies will cut down on work functions that they believe are not critical for company survival, or that can be automated both as a cost-cutting measure and to put in place mechanisms to cushion them from the effect of future catastrophic events.

Contractors also mentioned bankruptcy, business and labour disruptions, interruptions in the delivery of critical

infrastructure projects, suspension of projects/potential site closure, and increase in claims related to contractual scheduling along with mediations, arbitrations and litigation over construction delays, as other significant long-term impacts. They mentioned inadequate supply of housing stock and non-availability of specialist/international human resources as the least significant long-term impacts. This does not imply that these issues might not occur, but that contractors do not regard them as significant enough to warrant immediate mitigation strategies.

RECOMMENDATIONS

The contractors recommended the following measures to mitigate the impact of the pandemic on the industry and to make construction sites safe, while ensuring the profitability and sustainability of the industry.



Figure 18: Measures to ensure safe return to work

Grades 2 to 4 contractors believed careful assessment of the risk of viral transmission is the most significant measure to be adopted. Overall, the contractors recommended that there should be a thorough assessment of the risk of the outbreak to the industry and the reopening of construction sites and offices. They added that this should be followed by mandatory workplace sanitation rules, risk-mitigating programmes for employees needed onsite, mandating sick employees to stay home and keeping records of employees' movements during the crisis.

SUPPORT MEASURES TO SURVIVE THE PANDEMIC

To survive the outbreak and lockdown, the construction industry will need significant support to cushion the short-,

medium- and long-term effects of job loss among workers and loss of revenue for organisations, and the potential bankruptcy of construction organisations in the long-term.

Respondents stated that in the short- to medium-term, government can support the construction industry through tax benefits, fast-tracking of tender approval and award post-lockdown, reimbursement of outstanding invoices from stalled projects, support from financial institutions and ensuring the effectiveness of Unemployment Insurance Fund payments.

Increased government spending on infrastructure delivery will go a long way to help the industry gain stability and ensure sustainable recovery from the pandemic.

CONCLUSION

Social distancing and extensive sanitation are going to be 'the new normal' in the workplace. Construction companies that will survive this era will be flexible and willing to put in place measures to mitigate the impact of not only Covid-19, but other future disruptions that may impact business activities.

This study revealed the interdependence of the different sectors of the industry and highlighted the importance

of client departments in supporting the profitability and sustainability of construction companies. It further highlighted the need for the industry to embrace technological advancements so that its functionality is not totally dependent on extensive physical contact.





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