NATIONAL PLUMBING SURVEY

2020

October 2020

National Plumbing Survey 2020

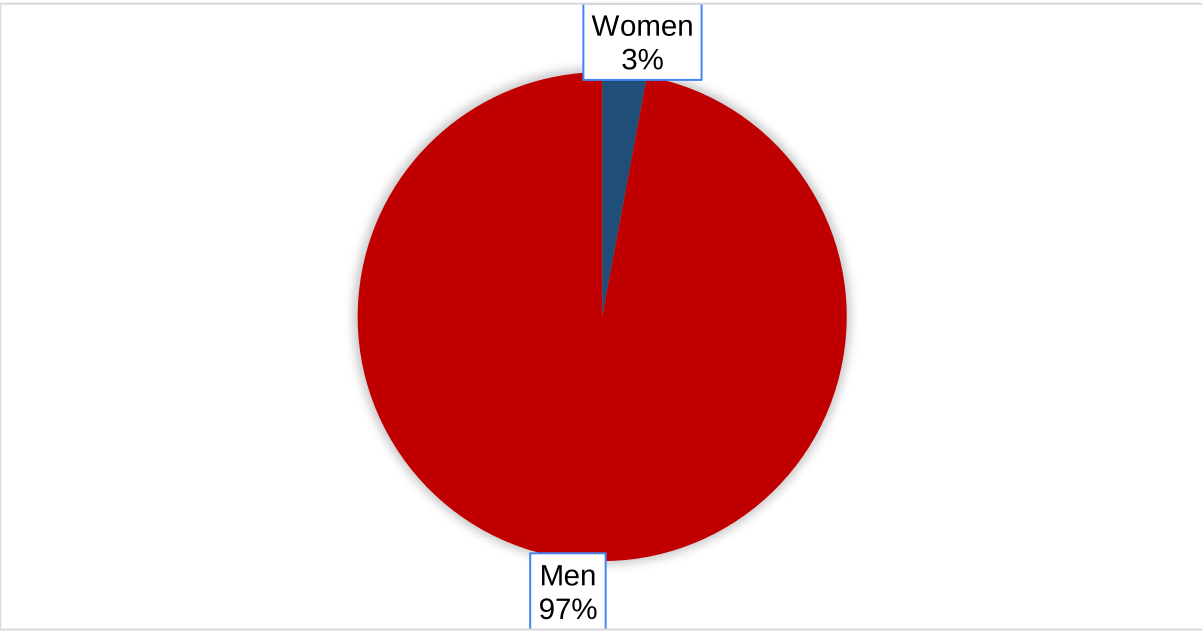
The Institute of Plumbing South Africa (IOPSA) and the Plumbing Industry Registration Board (PIRB) conducts the Plumbing National Survey annually. The survey is sent out digitally through the main IOPSA and PIRB communication channels including emails, social media, the IOPSA website and Plumbing Africa online. The aim of the analysis is as follows: (i) to understand IOPSA's market and the plumbing industry better, (ii) to track progress and assess whether there have been any significant changes from the previous survey, and (iii) to get guidance for future strategic direction. This analysis, reported and evaluated by Trade and Industrial Policy Strategies (TIPS)[1] is an initial review of the responses and some preliminary findings from the Plumbing National Survey 2020.

According to Statistics South Africa (StatsSA, 2019), there are approximately 126 000 self-identify as plumbers and apprentices operating in South Africa of these it is estimated that 10 000 – 15 000 are Qualified Plumbers. In total, 1024 respondents completed the Plumbing National Survey 2020 accounting for 0,8% of all plumbers and apprentices in the country or an estimated 6-8% of Qualified Plumbers. Compared to the previous survey, the 2020 analysis indicates that participation in the survey increased by an additional 85 respondents from 2019.

[1] Trade & Industrial Policy Strategies (TIPS) is a research organisation that facilitates policy development and dialogue across three focus areas: trade and industrial policy, inequality and economic inclusion, and sustainable growth.

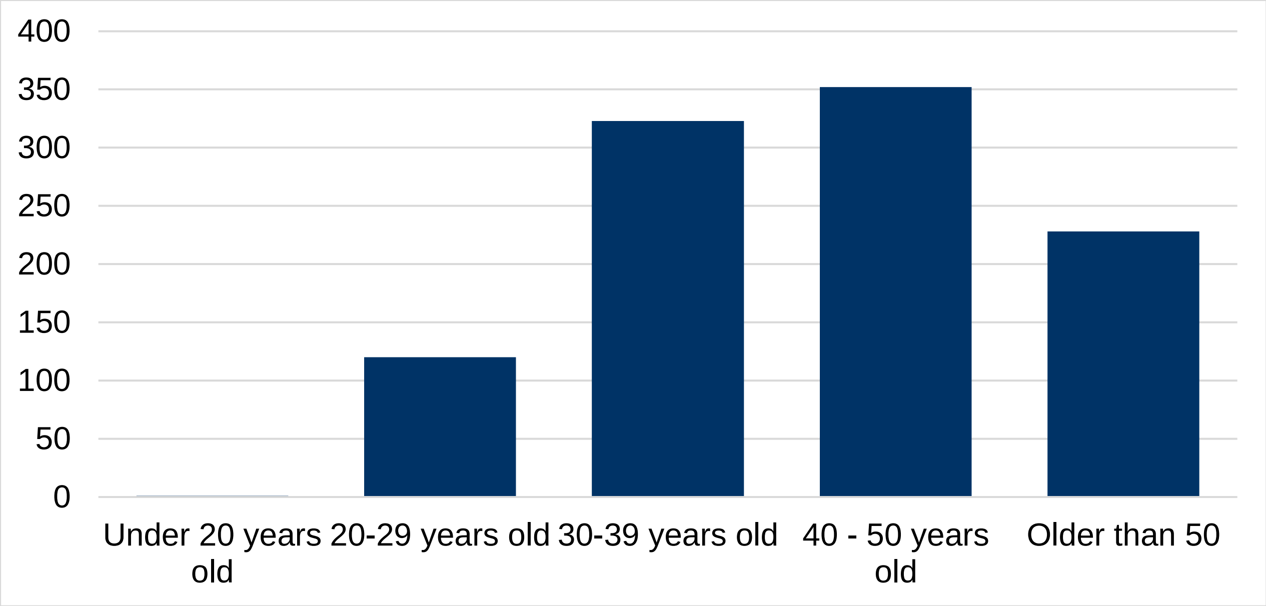
Graph 1: What is your gender?

Plumbing is considered a predominately male industry. The results in Graph 1 show that the survey was almost entirely completed by men. Of the 1024 responses received from the survey, 97% were men. Only 3% of responses received from the survey were women, up from 2% in 2019. StatsSA (2019) estimates that women make up 8% of the total percentage of plumbers and apprentices in South Africa, most of whom are in formal employment. These figures illustrate that there is big opportunity through diversifying the traditionally male dominated membership of IOPSA and PIRB, and the plumbing industry in general. From the survey, respondents who are women were either self-employed or work in plumbing and construction companies.



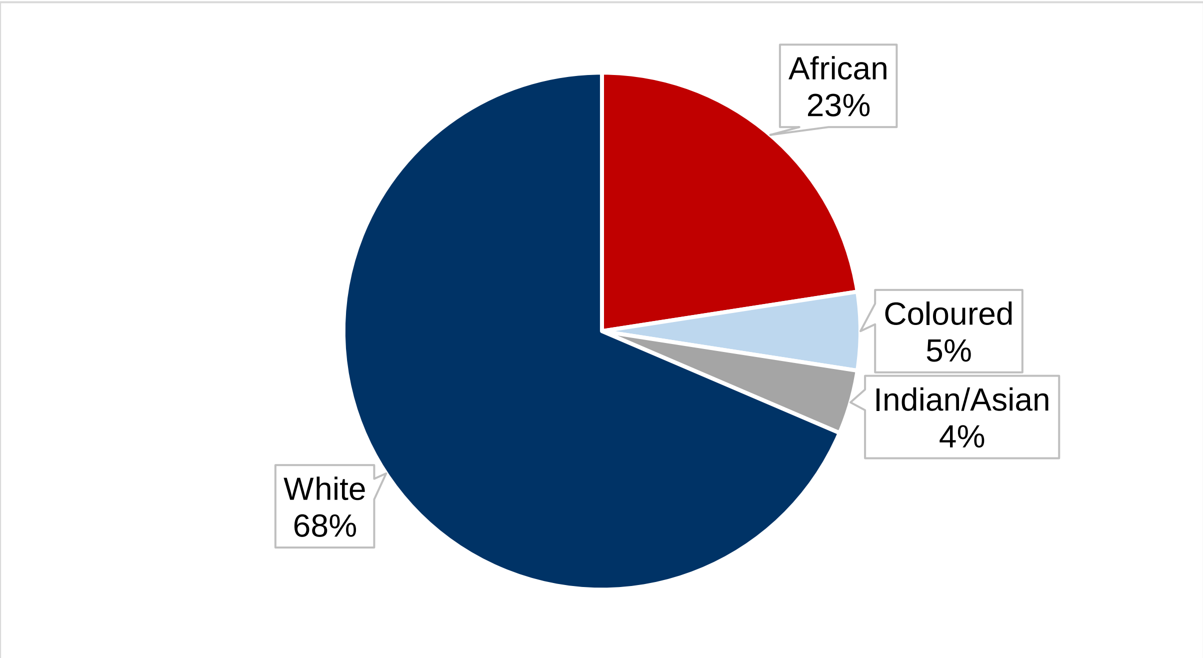
Graph 2: What is your age?

Graph 2 shows that a significant majority (two-thirds) of plumbers from the survey are between 30 and 50 years old. From the results, there is one young plumber under 20 years old and a relatively small portion of plumbers who are 20-29 years old. Similar to Graph 2, from the 2019 survey, there was only one plumber under 20 years old, while the portion of plumbers aged 20-29 years old increased from 9% in 2019 to 12% in 2020. Respondents older than 50 make up a notable share (22%) of plumbers in the industry. The response rate from this group however declined in 2020 from 25% in 2019. Workers in the plumbing industry are often said to be aging, and according to Plumbing Africa (2019), it is estimated the average age of a tradesman in South Africa, including plumbers, is at least 55 years old. The survey results confirm that South Africa's plumbing industry is becoming increasingly confined to an ageing workforce, which can often limit opportunities for younger job entrants looking to supplement the industry's skills base.



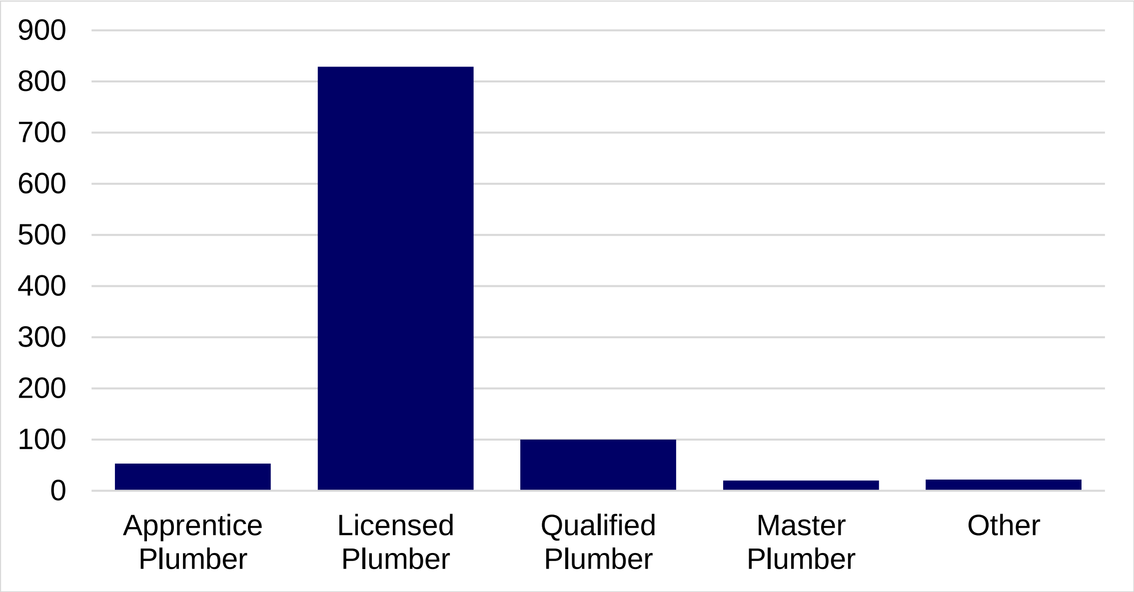
Graph 3: What is your racial classification?

Referring to Graph 3, the graph reveals that 68% (702) of respondents from the survey are White. Africans make up the second largest number of respondents from the survey with 23% (231), while 5% (50) of respondents are Coloureds, and only 4% (41) of respondents are Indian/Asian. From the 2020 results, the share of African respondents increased from the previous year, while fewer Indian/Asian and Coloured respondents took part in the 2020 survey compared to 2019. The share of White respondents remained unchanged. From the StatsSA Labour Market Dynamics (LMD) data (2017), African plumbers make up at least 85% of plumbers and apprentices in South Africa, with approximately 50% of these plumbers operating in the formal sector. From the survey results, it is evident that the Whites are largely overrepresented in the survey.



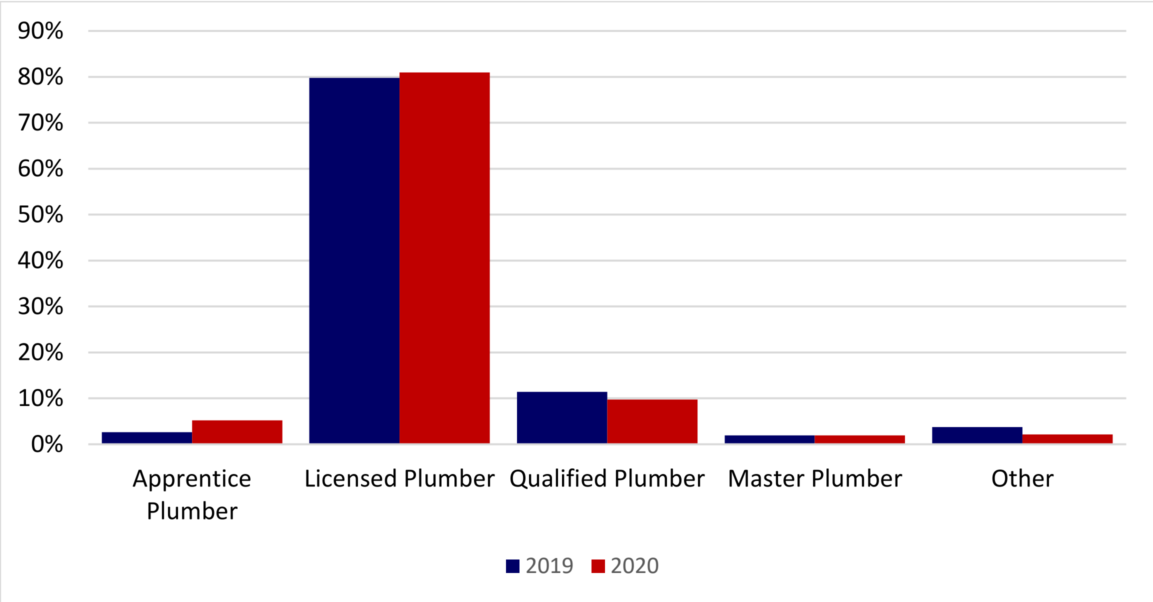
Graph 4a: What plumbing qualification do you have?

The results from Graph 4 show that a significant number of respondents from the survey are licensed plumbers (81%), followed by 10% of respondents who reported that they are qualified plumbers. There are 5% respondents surveyed who are apprentices, and only 2% said they are Master plumbers. Just 2% of respondents said they have 'other' qualifications, which include National (N) diplomas, and qualifications outside the plumbing industry, such as in engineering, electrician, project management and auditing. Four respondents had neither a plumbing qualification nor any qualification, which means it is unlawful for them to operate as plumbers without supervision or training.



Graph 5b: What plumbing qualification do you have? (2019 vs 2020)

When compared with results from 2019, in 2020, there are more respondents who qualified as apprentices, showing a 2% increase in the participation of apprentices from 3% in 2019. Although the share of apprentices increased by 2% from 2019, the number of respondents more than doubled from 25 respondents to 53 respondents. The share of Master Plumbers and licensed plumbers in both years remained relatively unchanged.



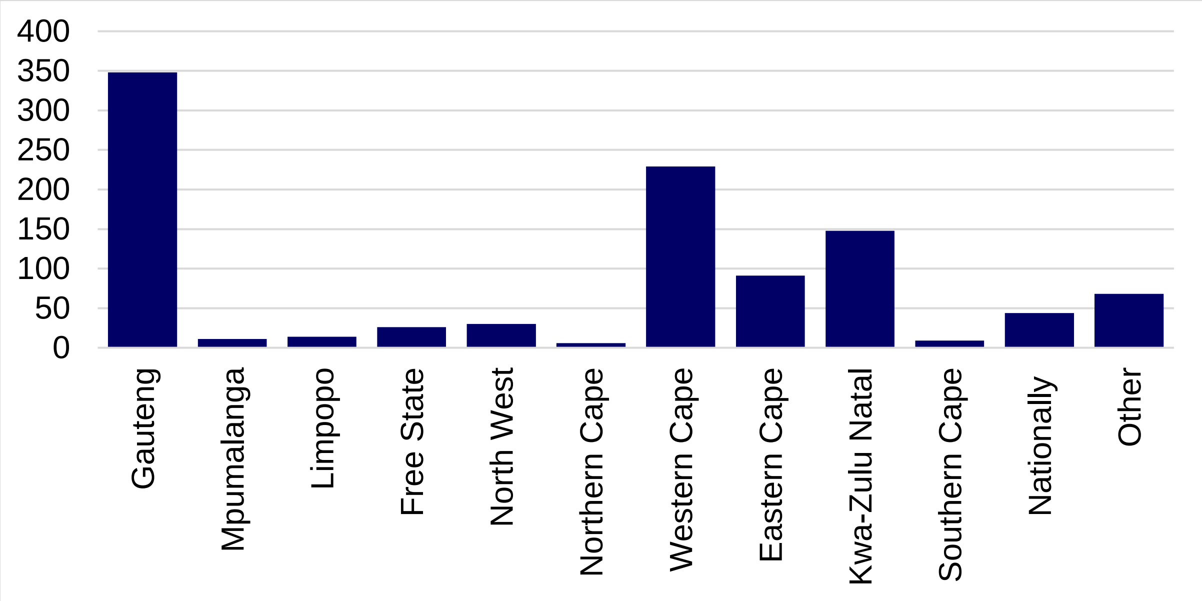
Graph 6: Which province does your company trade in?

From Graph 5, over two-thirds of respondents from the survey work for companies that trade in Gauteng (34%), Western Cape (22%) and Kwa-Zulu Natal (14%). The share of respondents from these three provinces declined from 80% in 2019 to only 71% in 2020, largely owing to the decrease in the respondents' rate from both Gauteng and Western Cape. Less than 5% of those who took part in the survey said that their companies trade nationally. Combined, 2% of respondents' trade in the Northern and Southern Cape, up from 1% in 2019, due to additional 5 respondents from the Northern Cape. There are at least 5% of respondents from the survey that traded in two provinces, while those trading in three and four provinces also made up a considerable percentage of the 'other' grouping.

The major difference between the findings from 2019 compared to 2020 is the increase in the share of respondents who trade in the Eastern Cape. In 2019, the Eastern Cape accounted for 5% of respondents, but by the 2020 results, this increased to 9%.

When compared to the StatsSA (2017) data, almost 60% of plumbers and apprentices are based in Gauteng, Kwa-Zulu Natal and the Western Cape, with Limpopo and Mpumalanga both accounting for a sizeable share of plumbers each. The data shows that by province, Limpopo and Mpumalanga each account for 10% of plumbers and apprentices operating in South Africa. This provides an opportunity for IOPSA to expand their membership to the two provinces given the number of plumbers in these areas. The Eastern Cape, according to the survey results accounts for a far greater share of respondents than Free State and the North West, but in comparison to the StatsSA (2017) data, the

Eastern Cape, Free State and North West all account for 7% of plumbers and apprentices operating nationally.

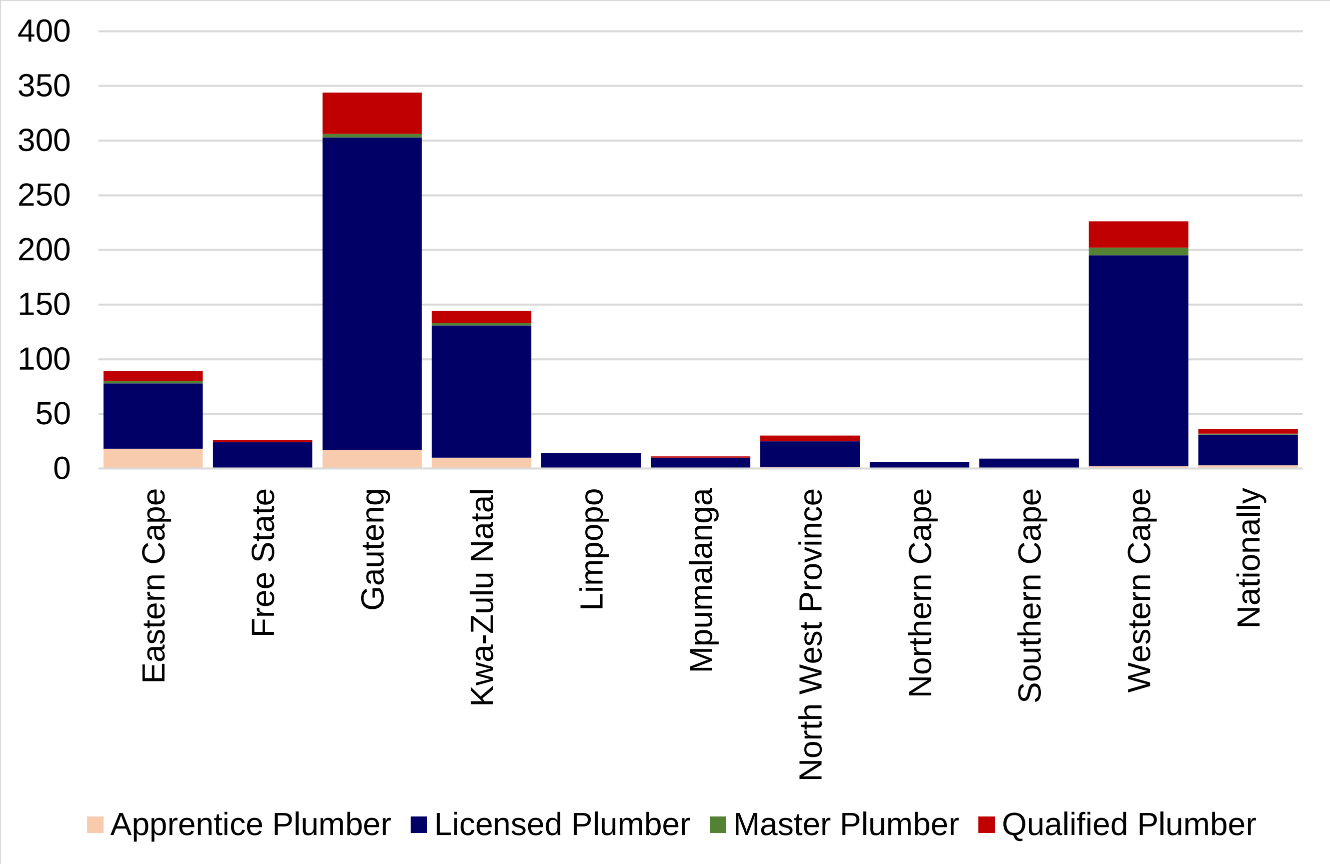


Graph 7: Plumbing qualifications by province

The survey shows that the largest number of licensed plumbers are in Gauteng, Western Cape and Kwa-Zulu Natal, closely followed by the Eastern Cape. The least number of licensed plumbers are in the Southern Cape[2] (9), Northern Cape (6) and Mpumalanga (10). From this, one can conclude that from the survey, all the respondents from the Northern Cape and Southern Cape are qualified as licensed plumbers. Of the 20 Master Plumbers who took part in the survey, they all traded across four provinces and nationally. The Western Cape had the highest number of Master Plumbers (7), while both the Eastern Cape and Kwa-Zulu Natal each had 2 Master Plumbers and Gauteng with 3 Master Plumbers. The rest of the Master Plumbers traded in the 'other' grouping, either in two or three provinces.

Gauteng has the highest number of respondents who are qualified plumbers; compared to 2019, both Gauteng and the Western Cape had the same number of qualified plumbers, being 38 plumbers and 39 plumbers respectively. But in 2020, only 24 respondents from the Western Cape said that they are qualified plumbers. The Northern Cape, Southern Cape and Limpopo are the only provinces with no respondents who are qualified plumbers. The survey tells us that the Eastern Cape has more apprentice plumbers than any other province, followed by Gauteng and Kwa-Zulu Natal.

[2] Although not an official province in South Africa, the Institute notes the Southern Cape as a province in its survey.



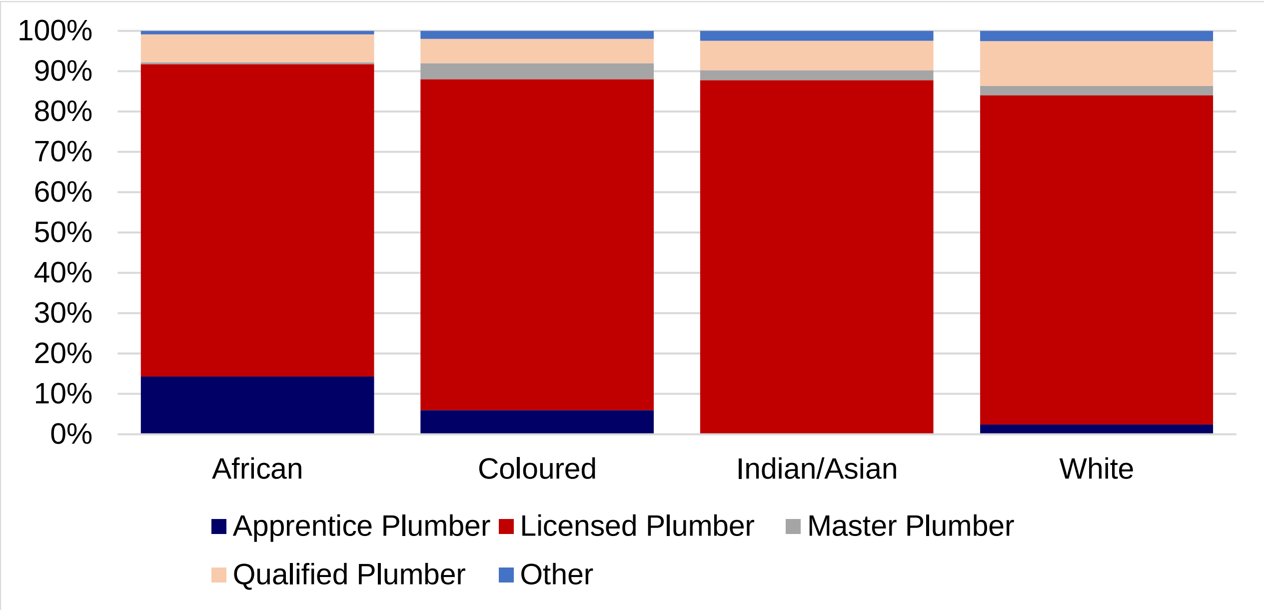
Graph 8: Plumbing qualification by race

From Graph 7, licensed plumbers are spread across all race classifications. Because the majority of respondents are White (68%), there are significantly more White licensed plumbers compared to other classifications. The second highest form of qualification after licensed plumbers for White respondents is qualified plumbers, followed by Master Plumbers and 'other' qualifications. Out of the 53 apprentices surveyed, the largest number of apprentice plumbers are African with 62% respondents, followed by 32% White respondents and 6% Coloured respondents who are apprentices. There are no Asian/Indian apprentices from the survey. The lack of African representation among licensed and Master Plumbers may reflect the difficulty Africans had getting qualifications, however the shift at apprentice level with increasing Africans becomes very important as an indication of improvements towards Africans obtaining plumbing qualifications.

From a total of 829 licensed plumbers, only 4% Indian/Asian respondents indicated that they are licensed plumbers, 5% are Coloured and 17% are African plumbers, up from 14% in 2019 – this was the largest increased of respondents in any race group. All race groups have at least one Master Plumber, but compared to the 2019 survey, there were no African respondents who were Master Plumbers. As previously highlighted, the number of respondents who are qualified as Master Plumbers however declined from 23 in 2019 to 20 in 2020, owing to 4 fewer respondents by Coloured Master Plumbers, while the number of Indian/Asian and White Plumbers did not change.

In 2020, as shown in Graph 7, there are 56% licensed White plumbers and 17% African licensed plumbers, an increase from previous figures in 2019. For apprentices, in 2019, African apprentices accounted for 44% of all apprentices in the survey, White apprentices accounted for 40% and Coloured apprentices accounted for 16% of apprentices surveyed. In 2020, these results differed significantly as

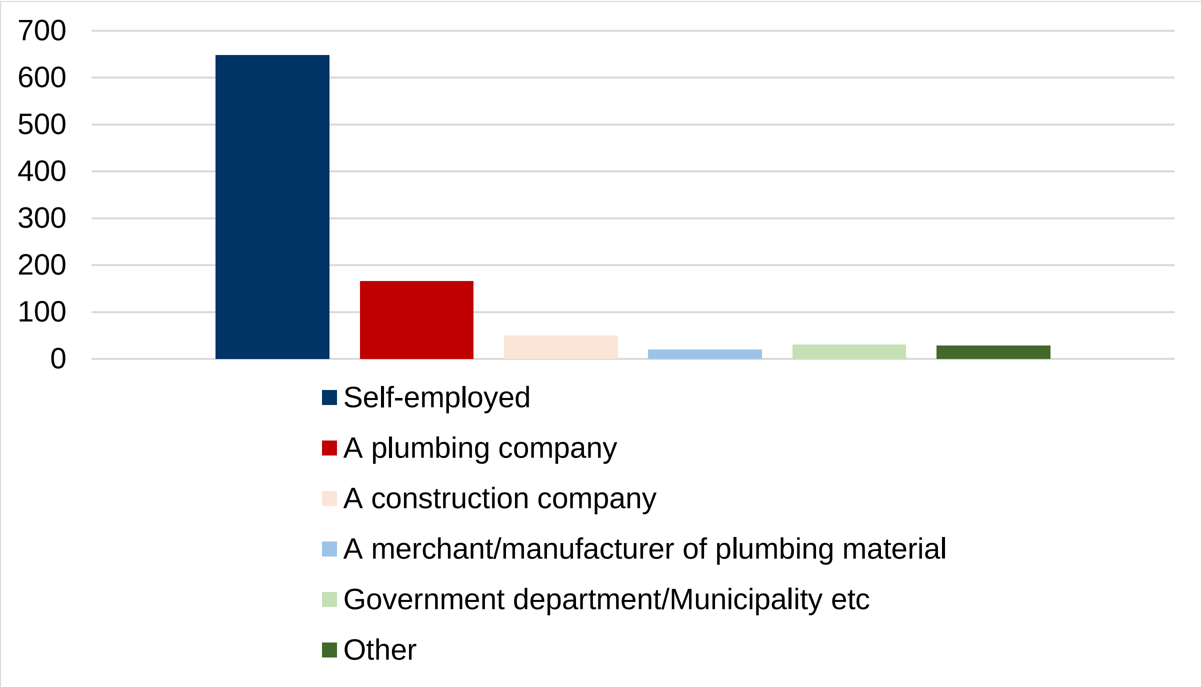
African apprentices accounted for a majority of 62% of all apprentices, while White apprentices only accounted for 32% of apprentices.



Graph 9: Who do you work for?

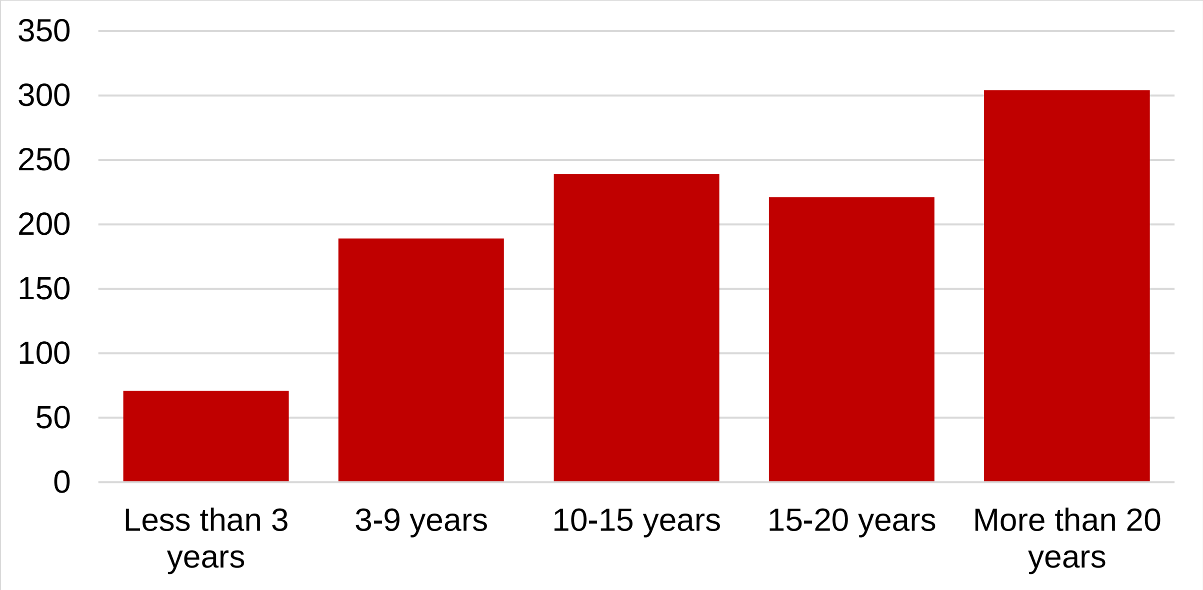
A significant number of respondents in the survey operate as self-employed (70%[3]). Outside of self-employment, a large number of respondents surveyed (21%) are employed by plumbing companies, with the construction sector as the second largest employer (4%), followed by 3% employed by government departments and municipalities. The smallest number of respondents (1%) are employed by merchants and manufacturers of material and equipment. 3% of respondents are employed in various 'other' companies and sectors including mining, education and training, insurance and by IOPSA.

In comparison to the 2019 survey results, self-employment, plumbing and construction sectors remained key employers of plumbers, even though the number and percentage share of plumbers in employed in construction and merchant and manufacturers of plumbing material and equipment declined in 2020.



[3] It is possible that IOPSA and PIRBs membership may be largely skewed towards self-employed plumbers.

Graph 10: For how long have you been in the plumbing industry?

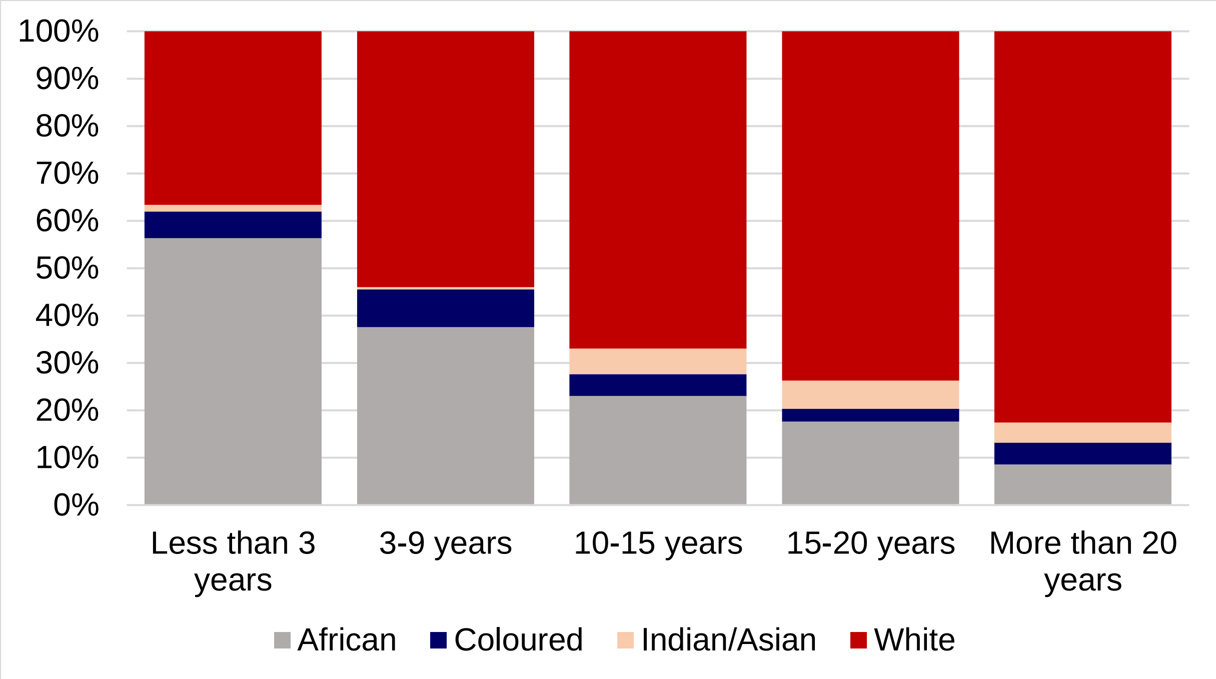


A very small portion (7%) of respondents have been in the plumbing industry for less than 3 years, up from 4% in 2019. Over half (51%) of the respondents from the survey have been operating in the plumbing industry for over 15 years, a figure that remains unchanged from year 2019, although the big difference was the 3% or 43 more respondents in 2020 who have been in plumbing for 15-20 years. From Graph 9, 304 (30%) respondents indicated that they have been in the plumbing industry for more than 20 years compared to 33% in 2019. This shows that the majority of respondents from the survey are highly experienced in the industry, which is to be expected.

Graph 11: Number of years in the plumbing industry by race

Looking at the numbers of years in the plumbing industry by race, a majority of White respondents (83%) have more than 20 years' experience in the plumbing industry. This group makes up the largest share of White respondents by number of years in the industry. According to the other racial classifications, 26 (9%) African respondents have more than 20 years of experience in the industry, while Indian/Asian and Coloured respondents with more than 20 years of experience in the plumbing industry account for 4% (13) and 5% (14) of responses, respectively. Comparatively, in 2019, African respondents had the lowest number and share of respondents with more than 20 years of experience in the industry, with Indian/Asian and Coloured respondents making up 18% (56) of respondents with more than 20 years of experience, this figure however halved to 9% (27) in 2020. From the survey results, 4 (6%) Coloured respondents indicated that they have been in the plumbing industry for less than 3 years compared to 40 (56%) Africans and 26 (37%) White respondents.

As can be seen in Graph 10, there are 75% of White respondents with more than 10 years of experience, while only 16% of African respondents have 10 or more years of experience. In 2019, these figures were lower. Only 70% of White respondents had 10 or more years of experience, while 15% Black respondents had 10 or more years of experience in the industry. On average, one is likely to find African respondents with 3-15 years of experience, and most Coloured and Indian/Asian respondents with 10 or more than 20 years of experience.

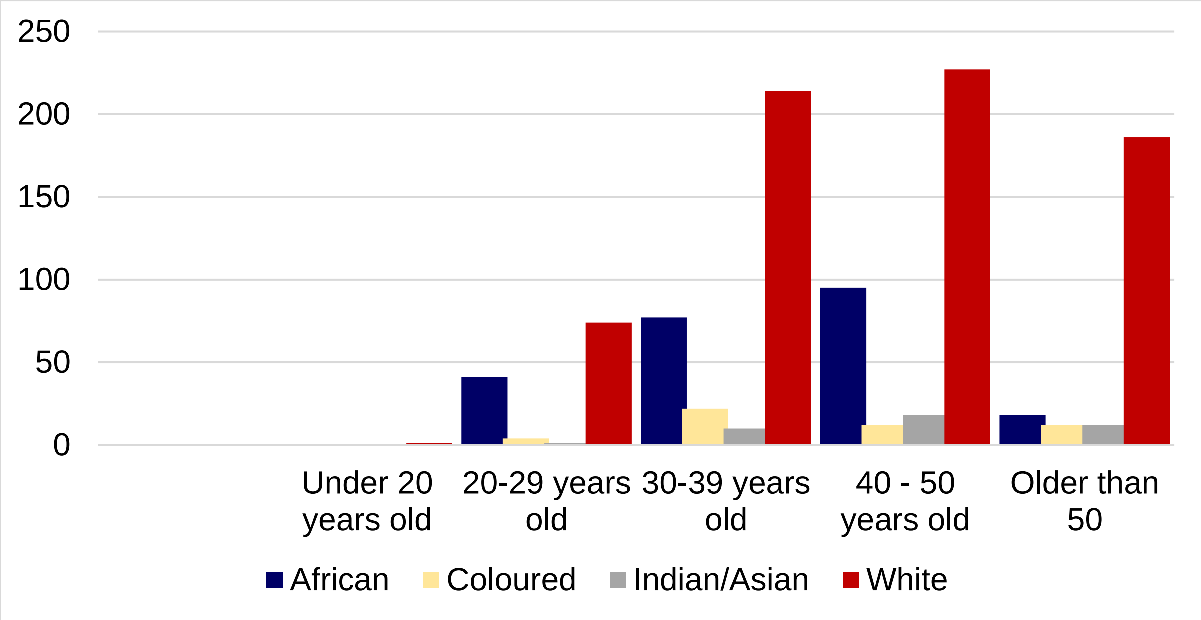


Graph 12: Age of respondents by race

Looking at the participation of African respondents in their 20s in relation to the overall response from the 20s cohort, in 2019, 26% of respondents in their 20s were African and 66% were White, and in 2020, both participation rates declined by at least 4%, but the number of respondents increased.

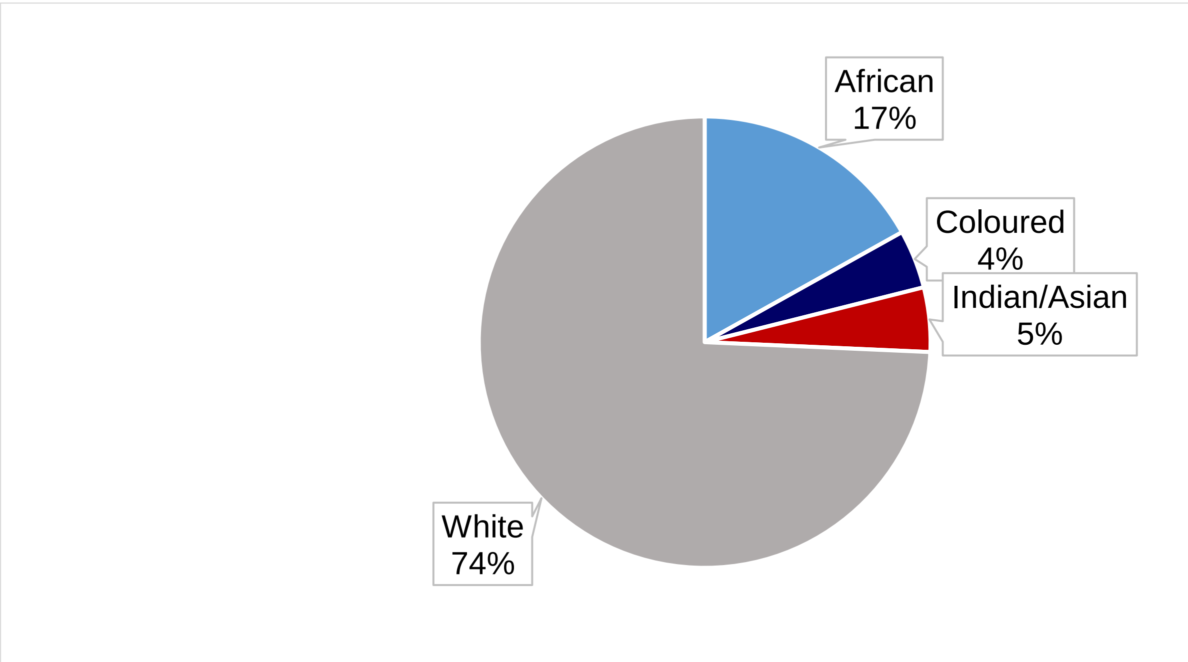
From 41 Indian/Asian respondents, there are 10 (2%) Indian/Asian plumbers between 30-39 years old, 18 (24%) between 40-50 years old and 12 (44%) respondents older than 50. As Graph 11 shows, White plumbers account for 82% of all plumbers older than 50 from the survey results, up from 73% in the previous year. That said, White respondents are predominately between 30-50 years old, while the majority of African respondents are between 40-50 years old.

In the previous survey, results showed that Coloured and Indian/Asian plumbers who are older than 50 made up a considerable share of respondents, while African plumbers made up the lowest number of plumbers older than 50. In 2020, African respondents make up the second largest share of respondents older than 50.



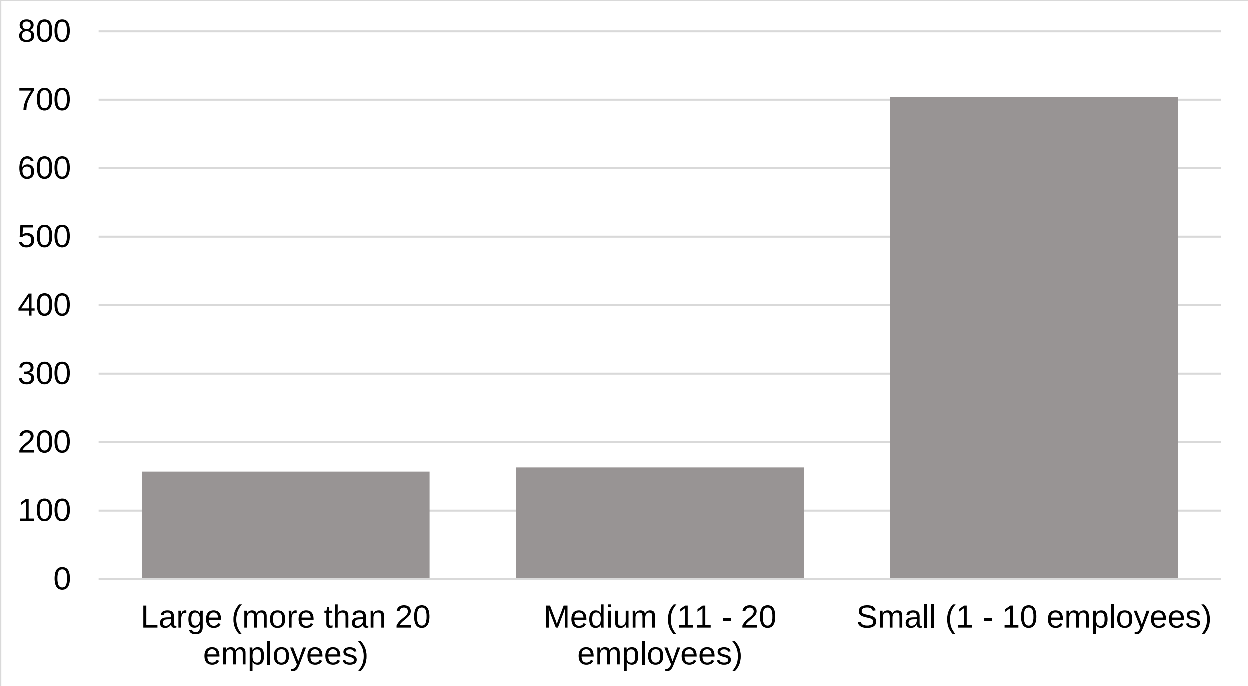
Graph 13: Self-employment by race

An analysis of self-employment by race shows that White respondents are self-employed by a large margin (74%), with Indian/Asian and Coloured owners accounting for the lowest share of self-employment. Africans account for 17% of self-employed respondents from the survey, an increase of 4% or 38 respondents compared to the last year. In the 2019 survey, the share of White self-employed respondents stayed the same, while the share of Indian/Asian and Coloured respondents dropped.



Graph 14: How big is the company you work for?[4]

Most respondents (69%) worked for small companies employing 1 to 10 employees. 157 (15%) respondents worked for large companies, while 163 (16%) respondents' reported that they worked for medium companies employing 11-20 employees. Previously, 20% or 189 of respondents worked for large companies, while the share of respondents working for medium companies remained the same.



Graph 15: Self-employed plumbers by size of their companies

Referring to Graph 14, we can see that 82% of respondents who are self-employed plumbers operate small businesses with either an own-account worker, or between 2 to 10 employees. Graph 14 shows that there are only 42 (6%) self-employed respondents from the survey who operate as large businesses with more than 20 employees, a drop of 12 respondents (2%) from 2019. Only 12% of self-employed respondents operate medium sized business.

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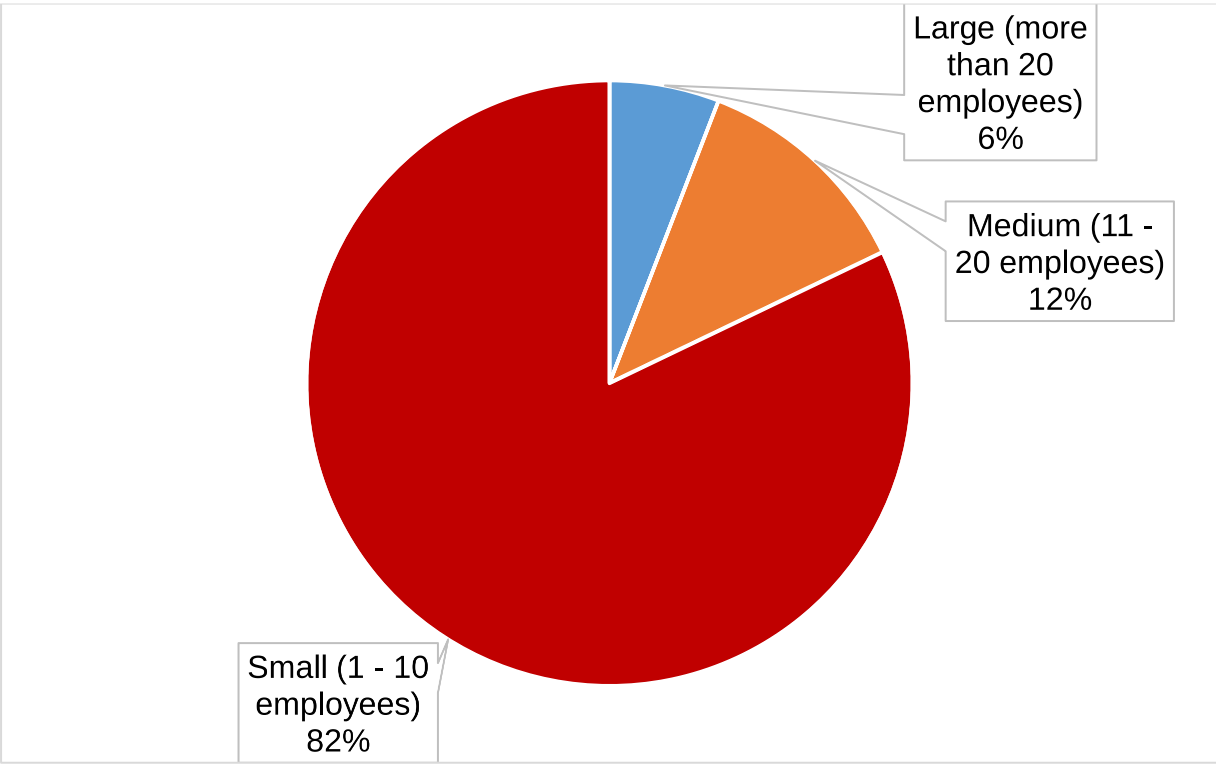
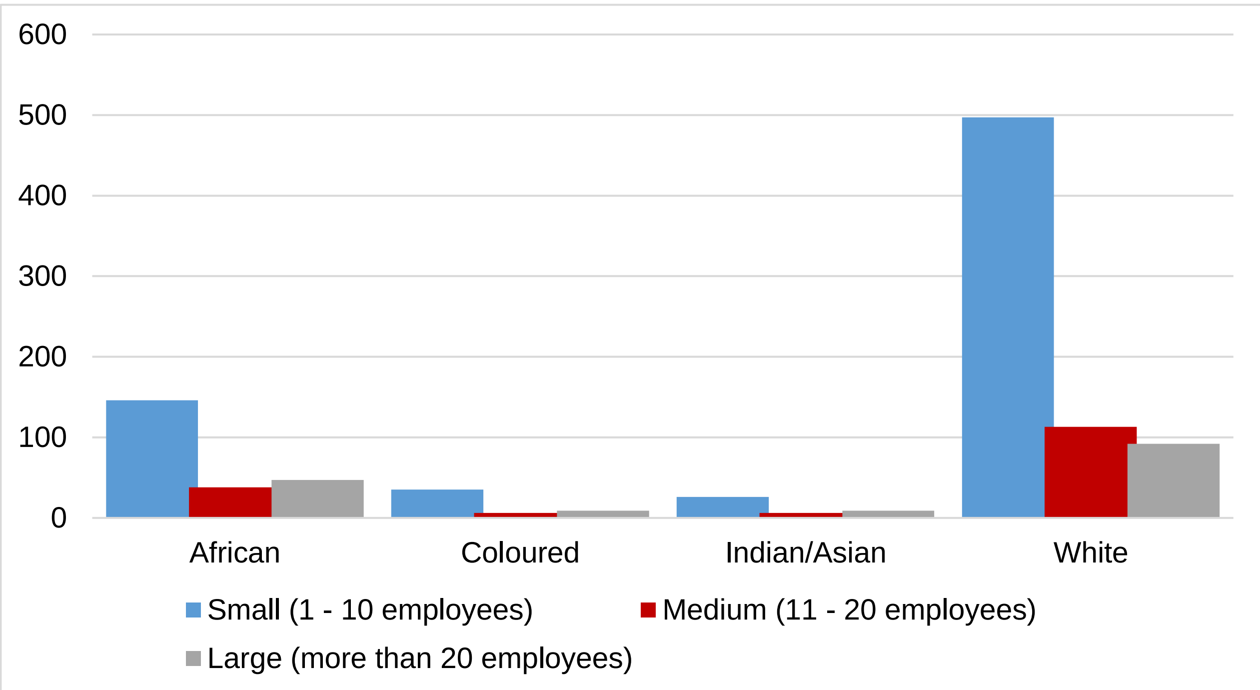
[4] According to various sources including the Government Gazette (2019) and the Small Business Institute (SBI) (2018), definitions of micro, small and medium enterprises (SMME) in South Africa are as follows: SMME definitions for the service industry – micro (1-10), small (11-50), and medium (51-250), so large would have 250+ employees https://businesstech.co.za/news/business/305592/these-are-the-new-definitions-for-micro-small-and-medium-enterprises-in-south-africa/. For the SBI, micro is 1-10, small (11-50), medium (51- 200) and large (201+) https://www.smallbusinessinstitute.co.za/wp-content/uploads/2018/10/SBIbaselineAlert1final.pdf.



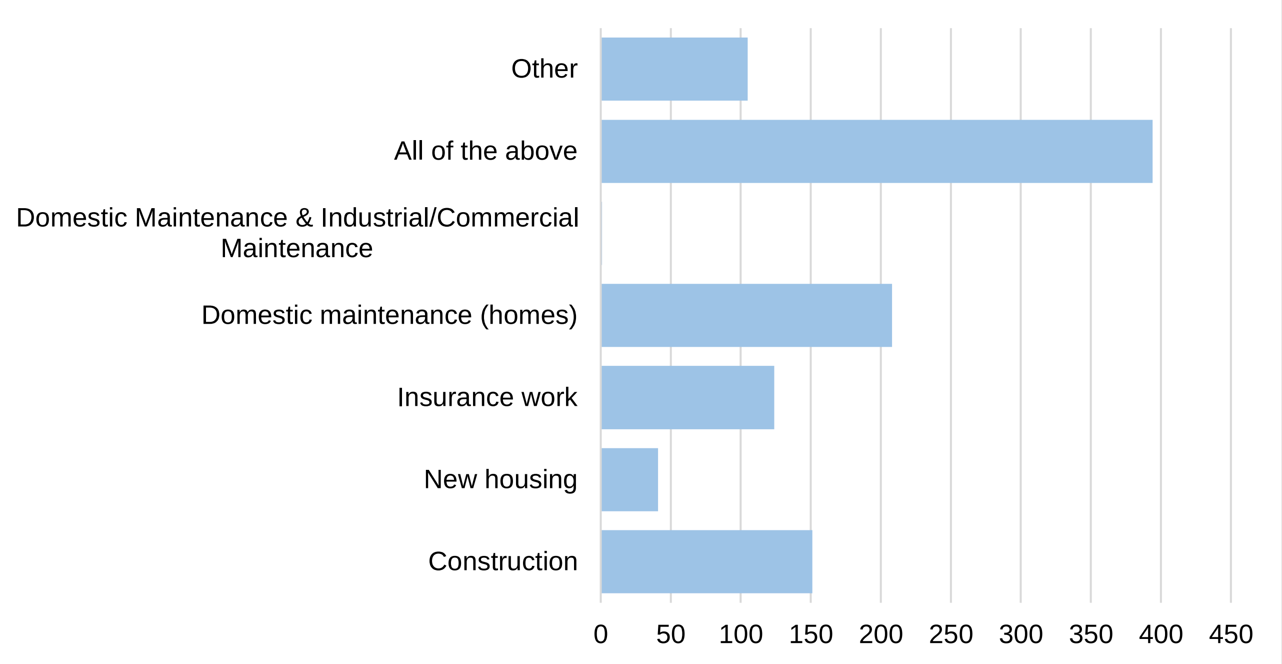
Graph 16: Company size by race

By looking at race by company sizes in Graph 15, small companies are the biggest employer of respondents across all race classifications. More Coloured, Asian/Indian and African respondents work for large companies employing more than 20 employees than medium companies. 497 (71%) of White respondents work for small companies, 113 (16%) work for medium companies and 92 (13%) said that they work for large companies. Among the African population, 146 (63%) African respondents in total worked in small companies followed by 47 or 20% who in large companies.



Graph 17: What is your company's main area of business?

As can be seen from Graph 16, 394 (38%) respondents reported that they operate in all areas of business being construction, new housing, insurance and domestic maintenance and industrial and commercial maintenance. The second most popular area of business for respondents is in domestic maintenance (20%) and the construction sector (15%). 105 (10%) respondents said that they work in other businesses. These 'other' areas of businesses largely include education and training, as well as solar and heating systems and cattle feeding. Very few, 41 (4%) respondents said they work in new housing.

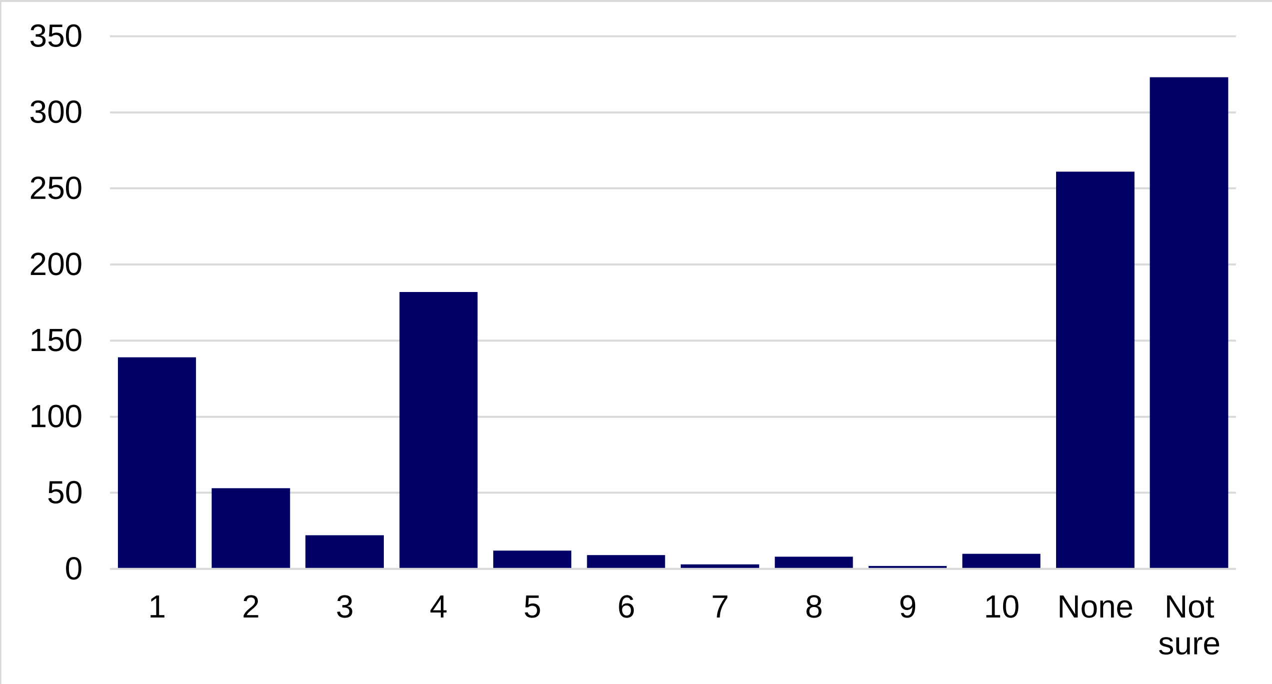


According to the StatsSA (2019) data, the majority of plumbers in South Africa work in the construction sector, which reveals a different picture when compared to Graph 16. Within the construction sector, from the survey results, according to race classifications, 73% of White respondents and 23% of African respondents are employed in the construction sector. The construction sector employed 12% of respondents in 2019, by 2020, 15% of respondents indicated that they are employed in construction.

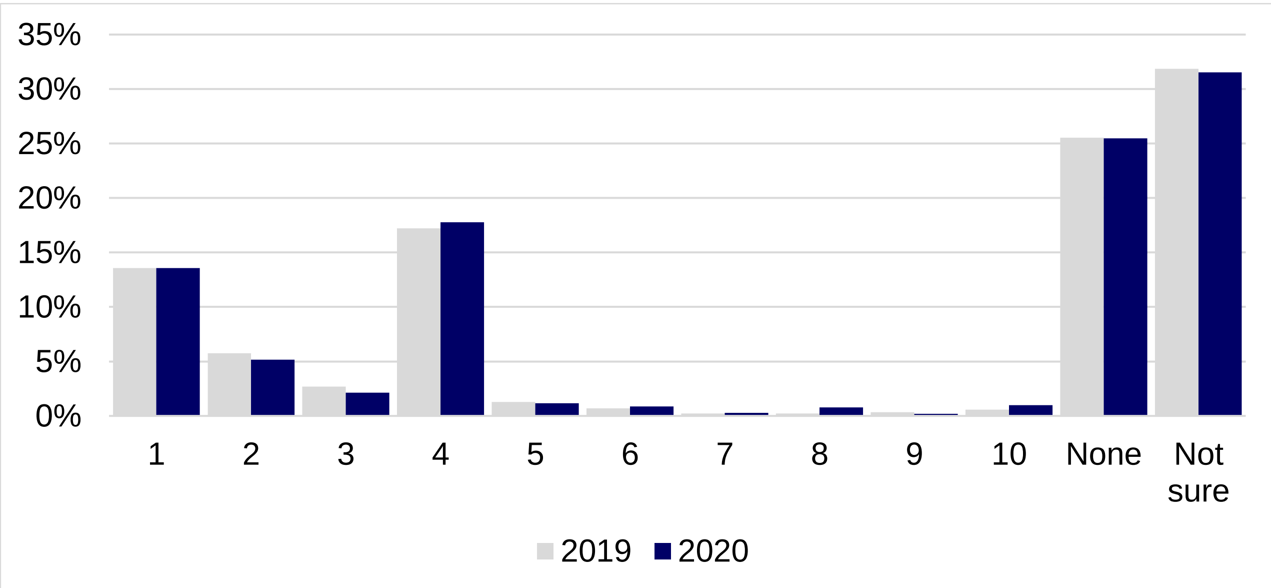
As can be seen from Graph 16, 394 (38%) respondents reported that they operate in all areas of business being construction, new housing, insurance and domestic maintenance and industrial and commercial maintenance. The second most popular area of business for respondents is in domestic maintenance (20%) and the construction sector (15%). 105 (10%) respondents said that they work in other businesses. These 'other' areas of businesses largely include education and training, as well as solar and heating systems. Very few, 41 (4%) respondents said they work in new housing.

Graph 18a: What is your company's BBBEE score?

Graph 17 shows BBBEE scores of companies that respondents from the survey work for. 139 (14%) respondents say that they work for companies with a BBBEE score of 1, and 53 (5%) work for companies rated level 2. The majority of respondents (18%), who work for BBBEE compliant companies work for companies recognised as level 4 BBBEE. 323 (32%) respondents say that they are not sure of their BBBEE score, while 261 (25%) say they work for companies that either do not have a BBBEE score or are BBBEE non-compliant. 39% of respondents in 2020 say that their companies have a BBBEE score of 4 or better, in comparison to 36% of respondents in 2019 who reported a BBBEE score of 4 or below (see Graph 17b).

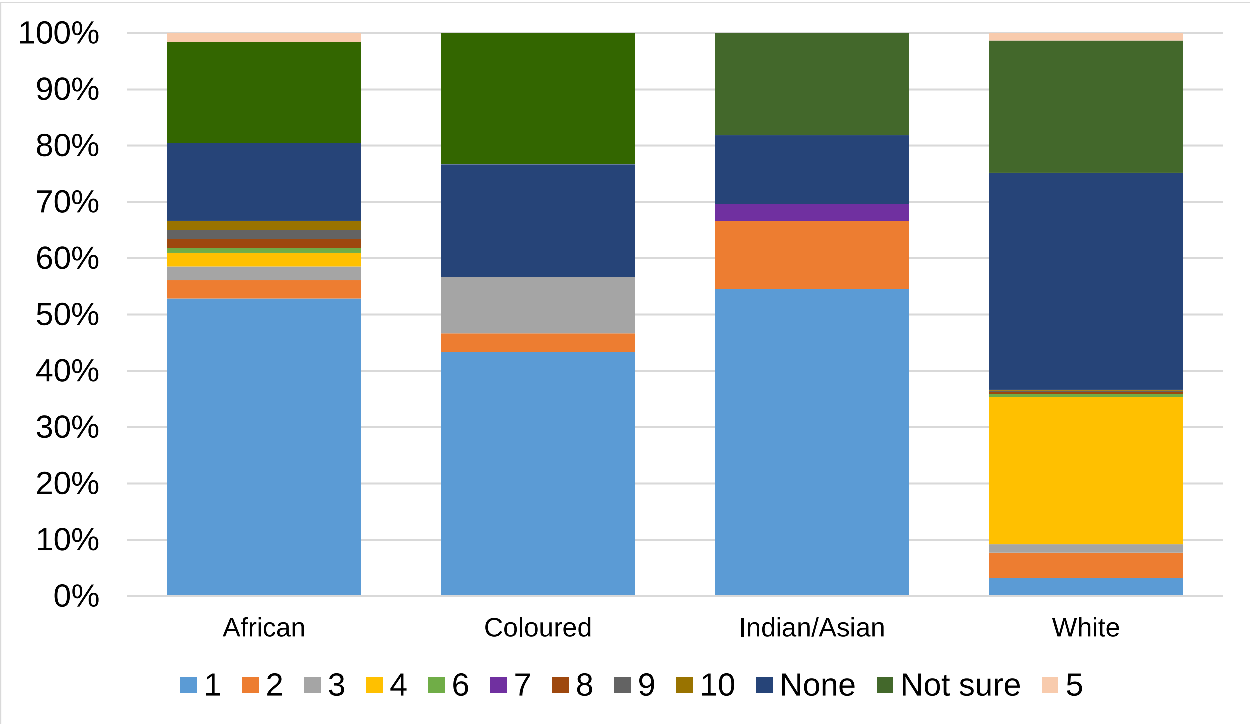


Graph 19b: What is your company's BBBEE score? (2019 vs 2020)



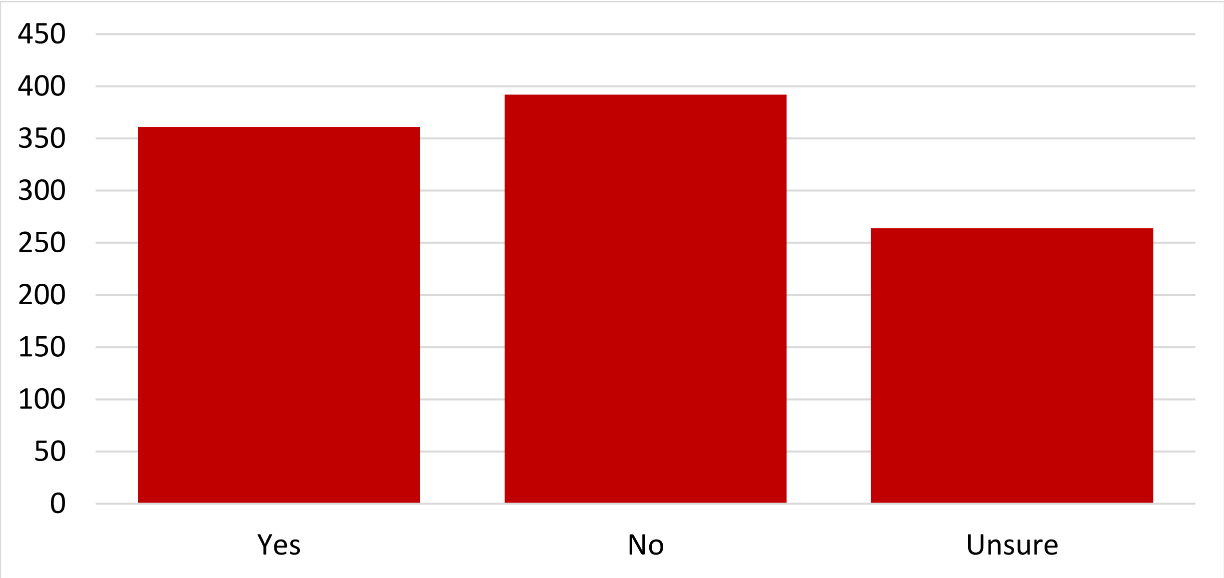
Graph 20: BBBEE score and ownership by race

From Graph 18, at least 68% of African owned businesses are said to be BBBEE compliant. African respondents who owned businesses have ratings across all levels from levels 1 to 10 (excluding level 7). From a total of 716 self-employed respondents, surprisingly, only 56% of African business owners received a BBBEE rating of level 1 or 2. African owners make up the largest share of businesses rated at level 1. Self-employed Africans who own small businesses do not need a BBBEE certificate, only an Official BEE Affidavit. More Indian/Asian respondents are given a rating of 1 compared to Coloured respondents. 17 or 3% of White-owned businesses had a BBBEE rating of level 1, while the majority of White respondents (26%) who are self-employed are rated at level 4 of BBBEE. A noteworthy percentage of all races (29%), pariticularly White respondents, do not have a BBBEE score, while 22% of all races say they are unsure of their score.



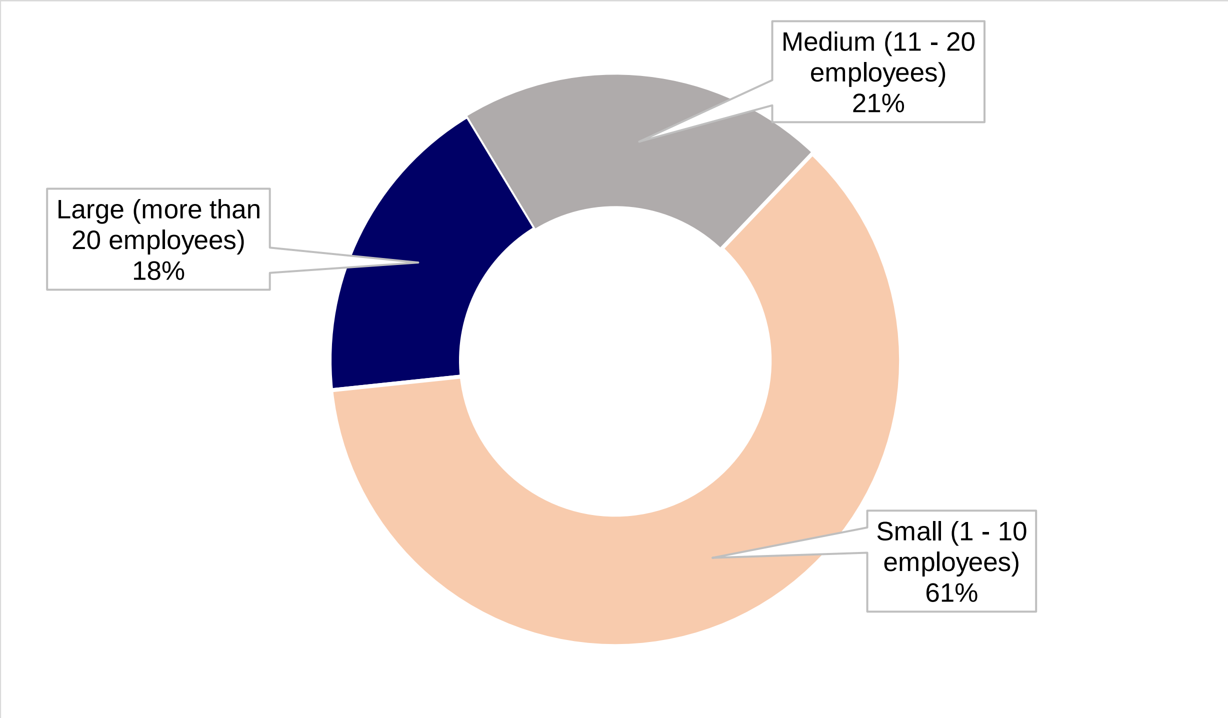
Graph 21: Do you or your company conduct/participate in formal training?

According to the respondents, the majority (392) indicate that their companies do not participate/conduct formal training and 361 say their companies do conduct/participate in formal training. In 2019, there were more companies that participated in training compared to those that did not participate. 264 respondents indicate that they are unsure if their companies conduct or participate in formal training. For those who do participate in training, an overwhelming 50+ respondents report that they participated in webinars and online training (mostly offered by IOPSA), while another large share reports they that they are involved in Kwikot training, apprentice training, tool box training and other various forms of in-house training.



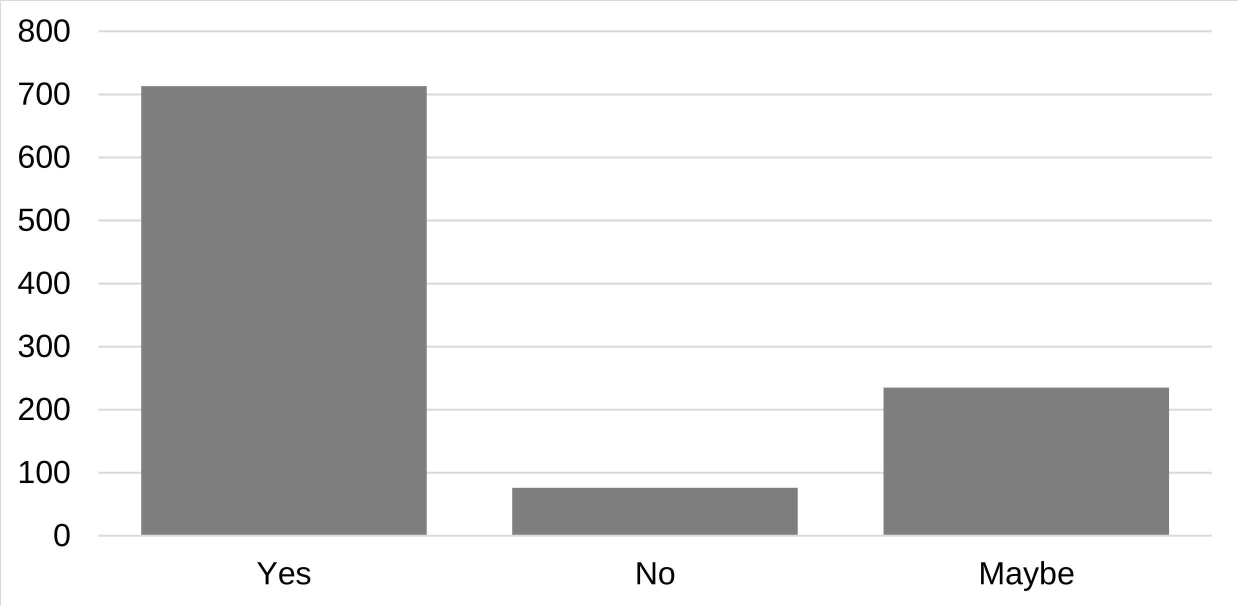
Graph 22: Training participation by company size

61% of respondents working for small companies indicate that they their companies participate in formal training, up from 55% in 2019. 21% of respondents working for medium companies say that their employers participate in formal training. Only 18% respondents employed at large companies employing more than 20 employees say that their companies participate in formal training, in 2019, there were 26% of respondents from large companies who said they participated in training.



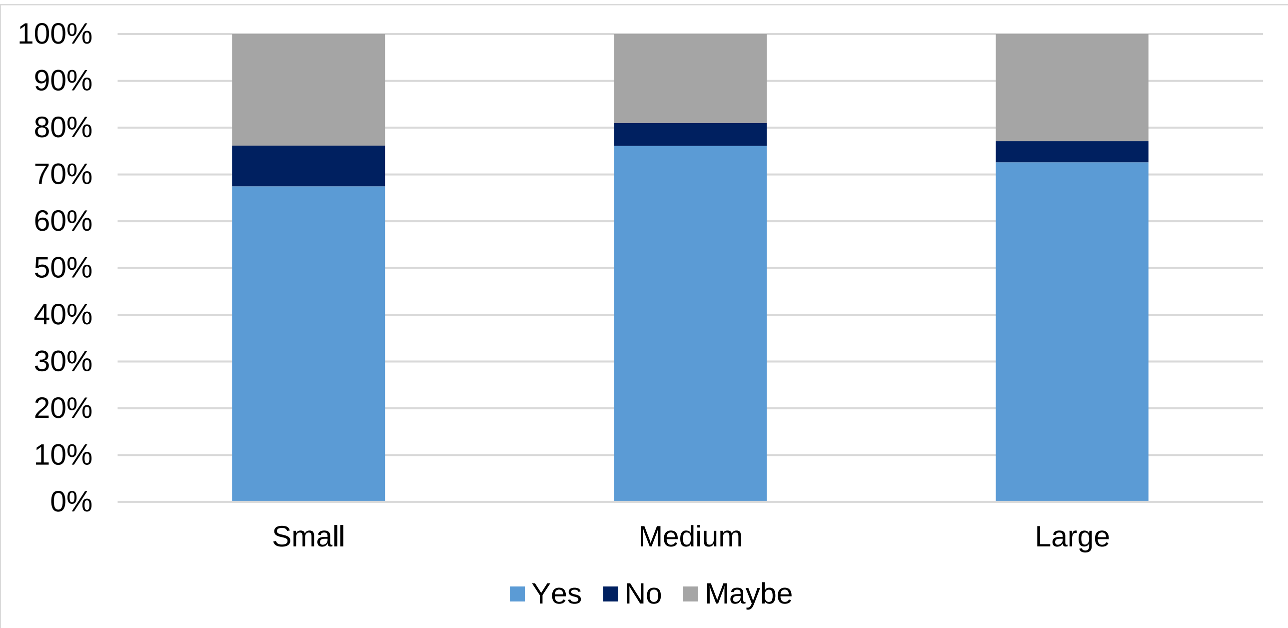
Graph 23: Would you or your company participate in formal plumber training with the support of IOPSA?

Most respondents say that their companies would participate in formal training with the support of IOPSA, however 7% respondents say their companies would not participate in training even with the support of IOPSA. Although this is a relatively small share, it is rather a disappointing finding because many respondents do cite upskilling as an area that impacts their business success, so one would expect training to be a priority for many businesses.



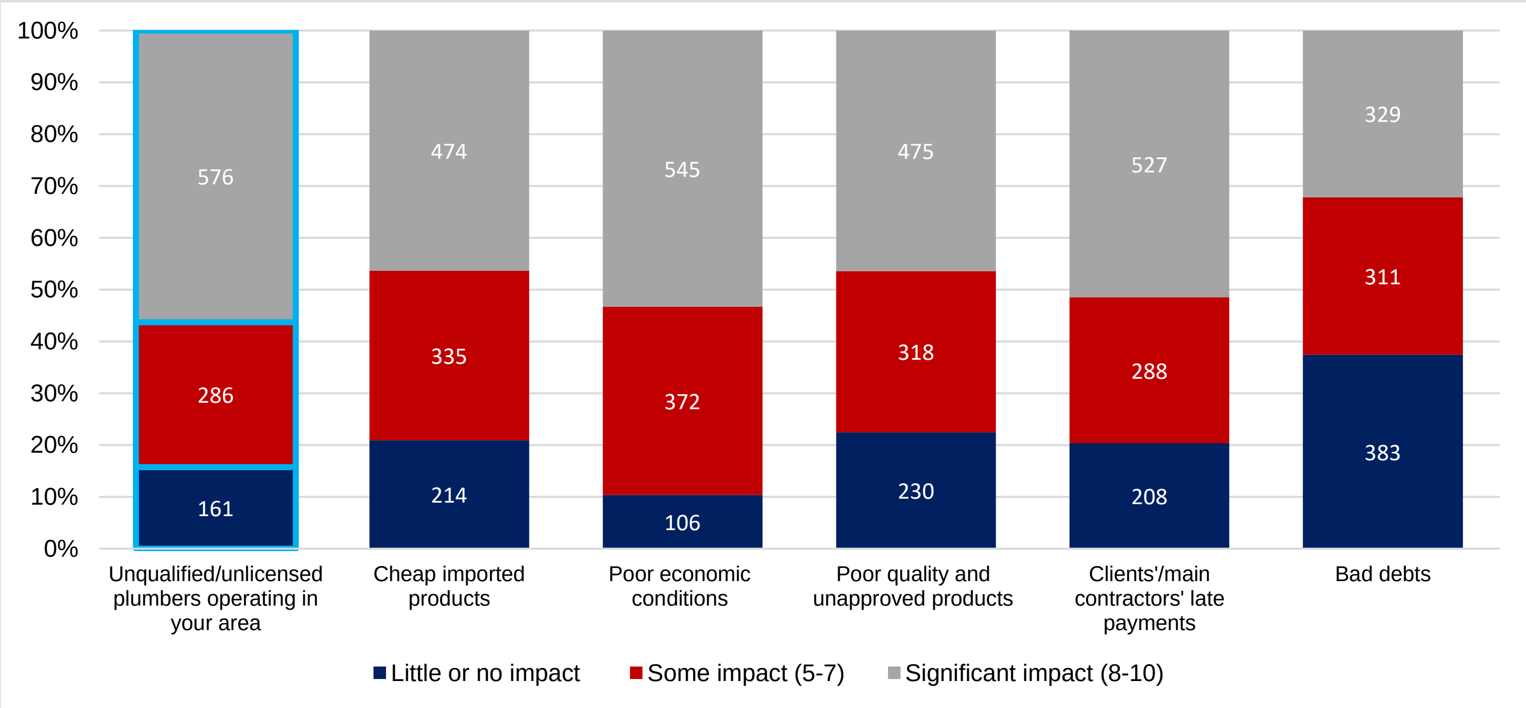
Graph 24: Would you or your company participate in formal plumber training with the support of IOPSA, by size of business?

It is clear from the graph in Graph 22 that the majority of respondents from across various company sizes say that their companies would have an interest in participating in formal training with the support of IOPSA. Almost 67% (475) of respondents from small companies say that their companies would be interested in training with the support of IOPSA, 24% (168) indicated maybe and 9% (61) say their companies would not be interested. For respondents working in large companies, over 70% (114) say that their companies would be interested in formal training, while 4% (7) say no. Although there arevery few respondents working for medium companies from the survey results, 76% (124) respondents who work for medium sized companies say that their companies would particpate in formal training with the support of IOPSA.



Graph 25: What impact do the following items have on your business' ability to be successful?

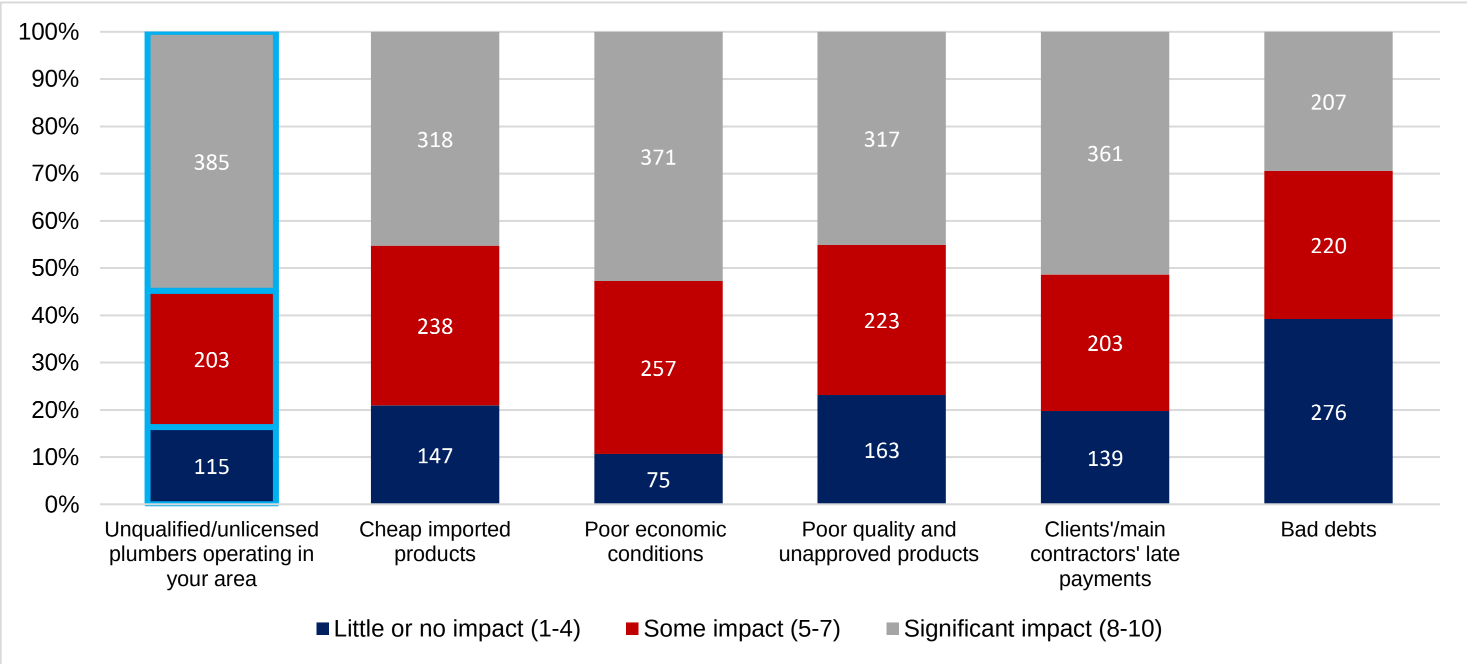
From the survey, respondents were asked to rate the level of impact different items affected the success of their businesses[5]. The results from Graph 23 show that from the respondents, there is no item of focus that significantly stood out as a huge impediment for businesses' ability to be successful, but unqualified plumbers operating in the area, clients' contractors' late payments, poor economic conditions and unapproved products and cheap imported products had the most significant impact on plumbing businesses' ability to be successful, while bad debts had the least impact on the businesses' ability to be successful. Unsurprisingly, based on the responses from the 2019 survey and Graph 23, the biggest impact on plumbers' business success remains unqualified plumbers operating in the market and late payments by contractors and main clients. It is clear from previous surveys – since 2018, that there is growing concern that there are many plumbers operating in the market without any certification or qualification. Not only do unqualified plumbers drive down market prices and undermine prices for plumbing work of a standard quality, they also pose a huge risk to public safety.



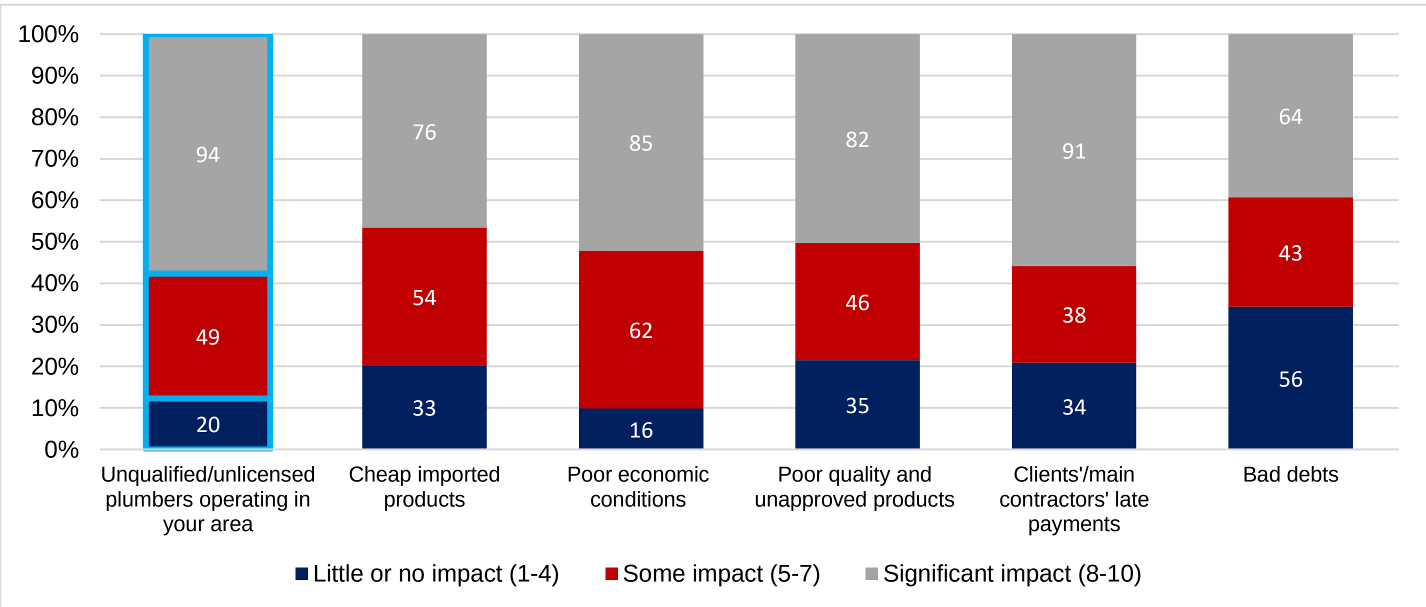
[5] The reason why we have decided to group the responses is because the average human being does not make meaningful distinctions between more than 10 levels of a given stimulus, and it makes things manageable for the analysis (since few people will have a clear idea of the difference between, say, the eighth and ninth point on a ten-point impact- no impact scale).

Graph 26: What impact do the following items have on your small business' ability to be successful?

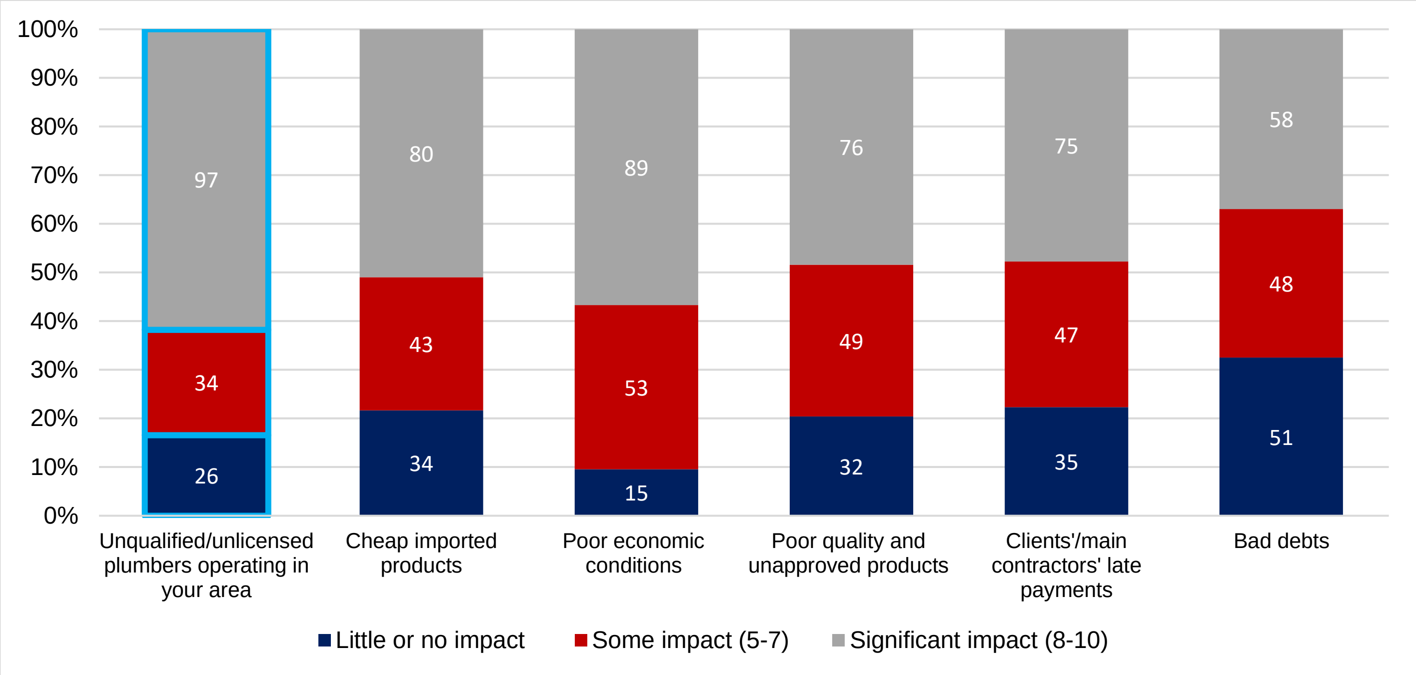
The majority of respondents from the survey are small businesses and their impacts mirror the general pattern in Graph 23 above. The results in Graphs 24, 25 and 26 show that as companies grow in size, they are most likely affected by poor quality and unapproved products, although as previously highlighted there is no one impact that showed to be significantly more impactful than the others. For all company sizes, the impacts on business challenges are more or less spread across all five areas, however bad debts are less of an issue for large and medium businesses as opposed to smaller businesses' ability to be successful.



Graph 27: What impact do the following items have on your medium business' ability to be successful?



Graph 28: What impact do the following items have on your large business' ability to be successful?



Graph 29: What area would you like IOPSA to focus on?

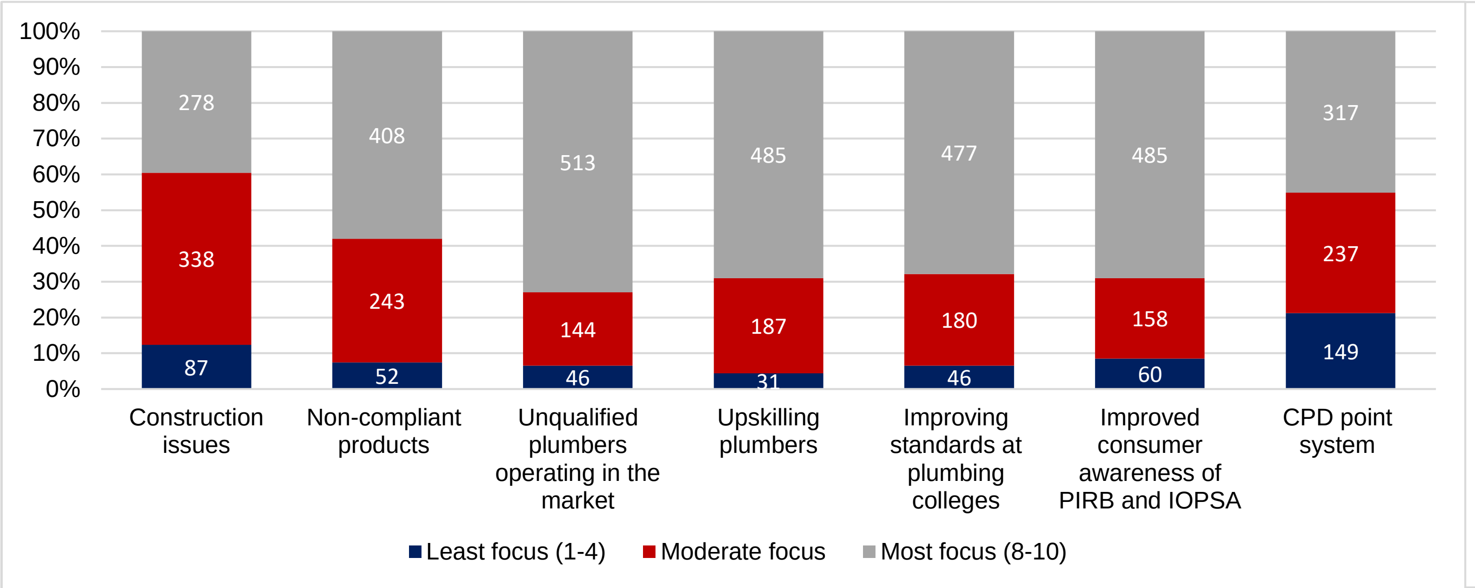
Graph 27 shows that, according to the respondents surveyed, the issue of unqualified plumbers operating in the market (73%) is the most important area that IOPSA should focus on followed by improving standards (70%) and improved awareness of PIRB and IOPSA (71%), as well as a focus on the upskilling of plumbers (70%). The CPD point system is shown as the least area of focus that respondents with 19% respondents scoring the CPD point system between 1-4. Construction issues and the focus on non-compliant products are rated among issues requiring moderate focus from IOPSA.

Graphs 28-30 show areas that IOPSA should focus on by size of enterprise. From the graphs, similar to Graph 27, respondents across all sizes point out that IOPSA should give priority focus on unqualified plumbers operating in the market, upskilling plumbers, improving standards at plumbing colleges and improved awareness of PIRB and IOPSA. For respondents in small businesses, the issue of unqualified plumbers, upskilling plumbers and improved awareness of PIRB and IOPSA are three key areas that emerged as concerns, while for medium companies, their area of focus is to improve standards at plumbing colleges and to focus in unqualified plumbers operating in the market. For large businesses, most respondents say that IOPSA should focus primarily on the issue of unqualified plumbers operating in the market, improving standards at plumbing colleges and also on improving awareness of PIRB and IOPSA.

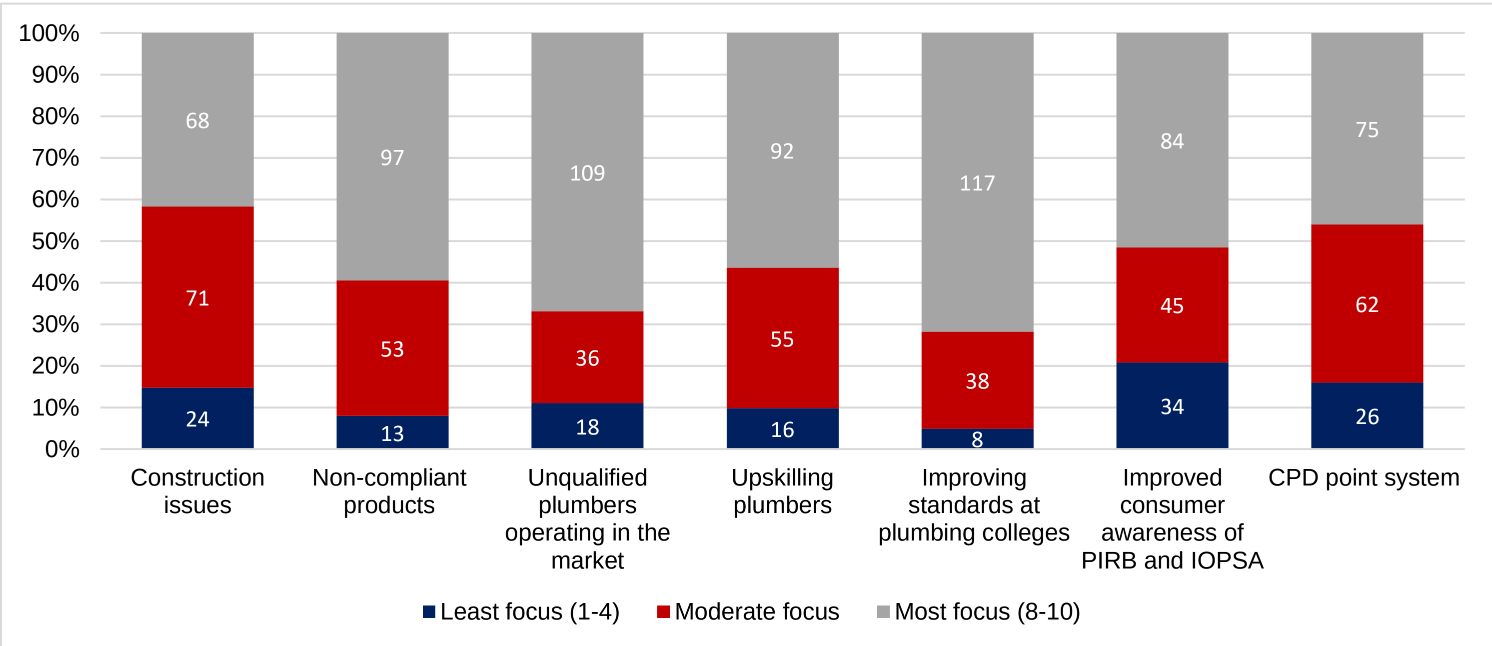
The challenge of unqualified plumbers and cheap products in the plumbing industry are highlighted in Graph 20 as key areas of concerns that impact on business' ability to be successful. These challenges closely link to Graph 27, as respondents highlight that they would like IOPSA to focus largely on addressing the issue of unqualified plumbers operating in the market.

Based on the previous responses from the 2019 survey, similar to the response from the 2020 survey, respondents said that they would like to focus on the issues of unqualified plumbers, improving the awareness of IOPSA and PIRB and on upskilling plumbers.

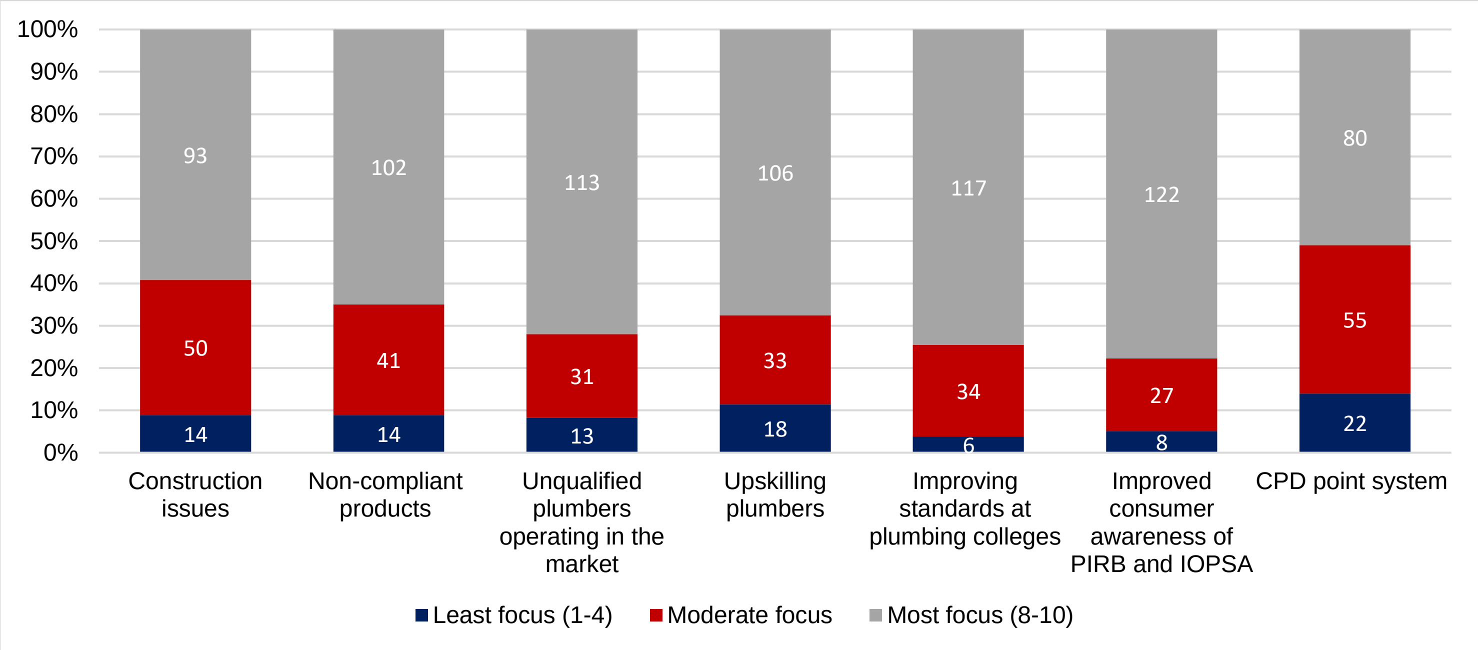
Graph 30: What area would you like IOPSA to focus on for small businesses?



Graph 31: What area would you like IOPSA to focus on for medium businesses?



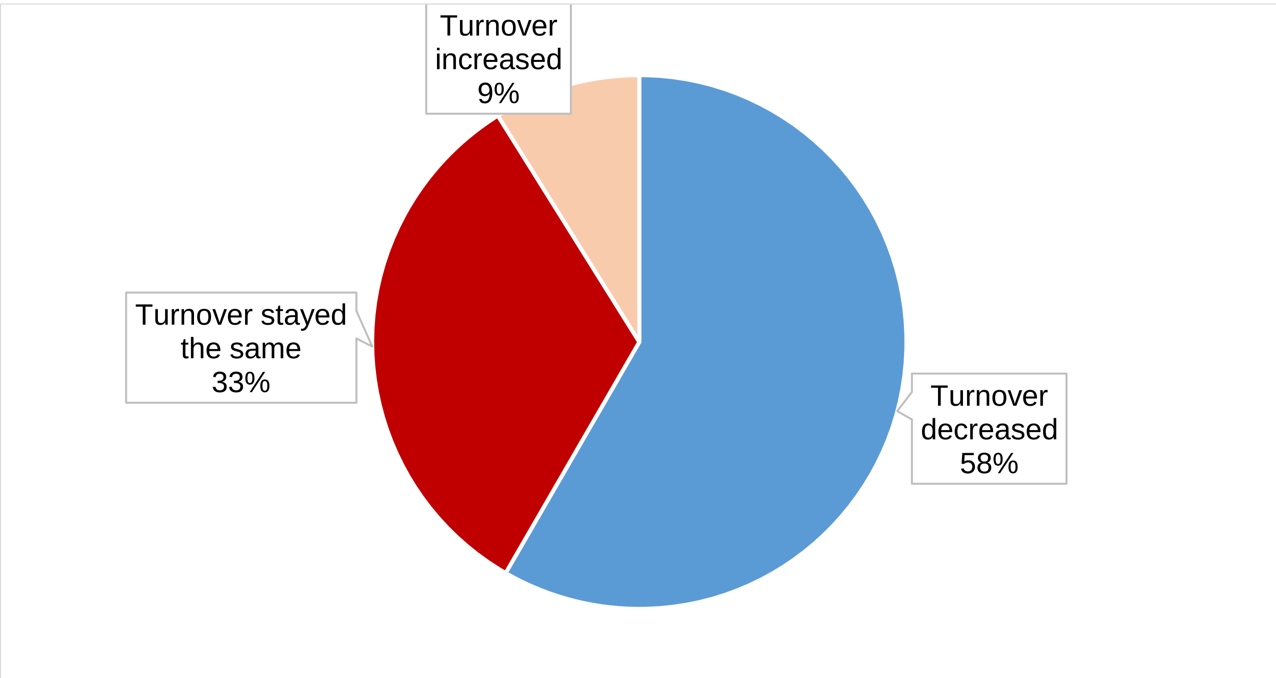
Graph 32: What area would you like IOPSA to focus on for large businesses?



Graph 33: What has happened to your turnover since lockdown?

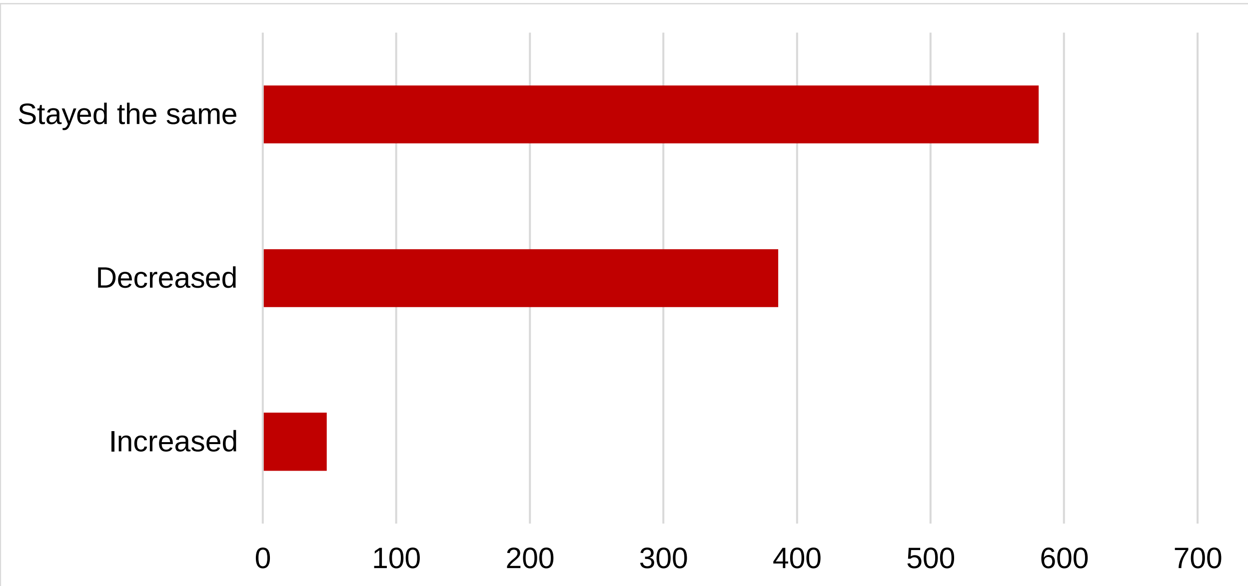
Many businesses across various industries in South Africa reported lower turnover as a result of the national lockdown. Although plumbing is considered an essential service and many of those working in the industry could perform their duties, the survey results tells us that many respondents saw changes in their turnover. The plumbing industry faced challenges, even though it might have been in a better position compared to many other service industries that could not operate at all.

9% respondents report that they saw an increase in their turnover, while 58% of respondents' report that their turnover declined, possibly as a result of the decrease in the use of plumbing systems, the postponement of maintenance work in some areas, and the likely infection of plumbers carrying out their essential duties. Furthermore, the loss in turnover is also likely also due to (a) fears of infection if people come into homes, and (b) a decline in household (customers) incomes. Almost 33% of the respondents surveyed say their turnover remained the same. From these results, it is clear that essential businesses are not left out as they had no other choice but to adapt to the new environment.



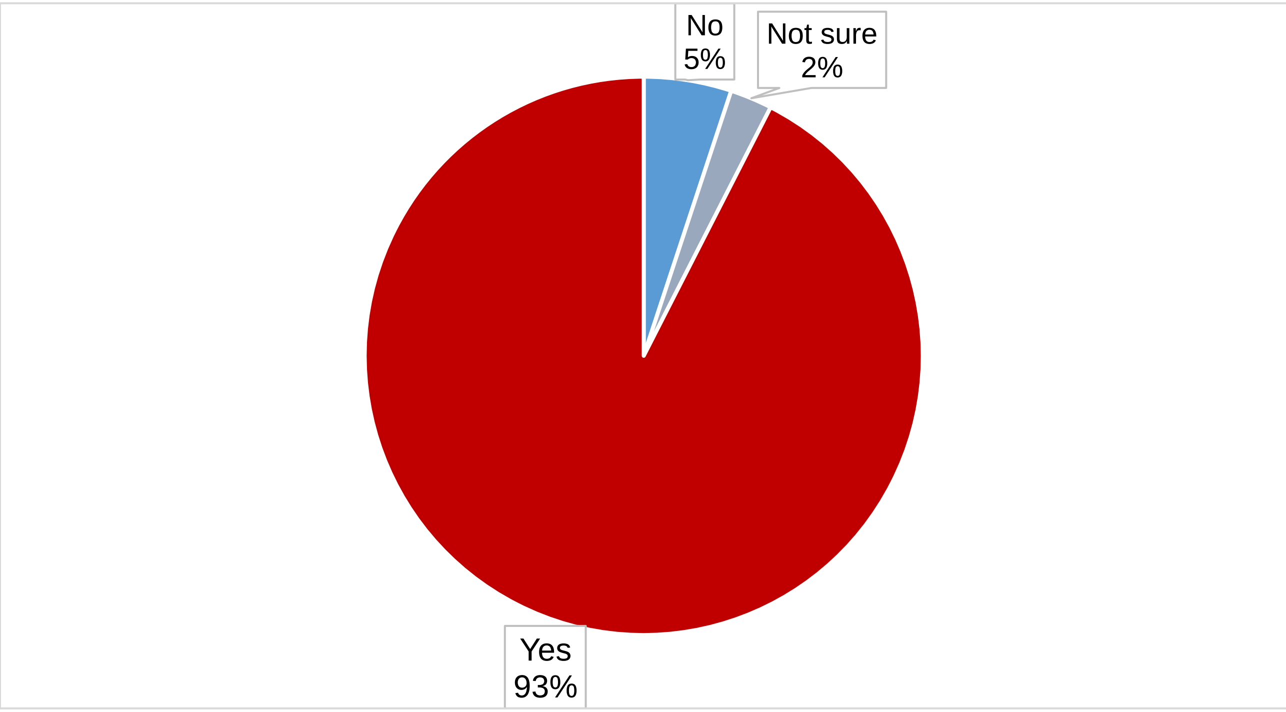
Graph 34: What has happened to your staff complement since lockdown?

Results from Graph 32 show that staff complement since the national lockdown has mostly stayed the same for a significant share of respondents (57% or 581), while 38% or 386 of respondents reported their staff complement as having decreased. From Graph 31 above, 58% of respondents did report that their turnover decreased, hence this would explain the subsequent decrease in staff complement for the 38% of respondents, as companies possibly had to reduce their staff complement through retrenchments or layoffs to remain financially viable. Only 48 (5%) said their staff complement increased, likely as a result of the plumbing industry being an essential service.



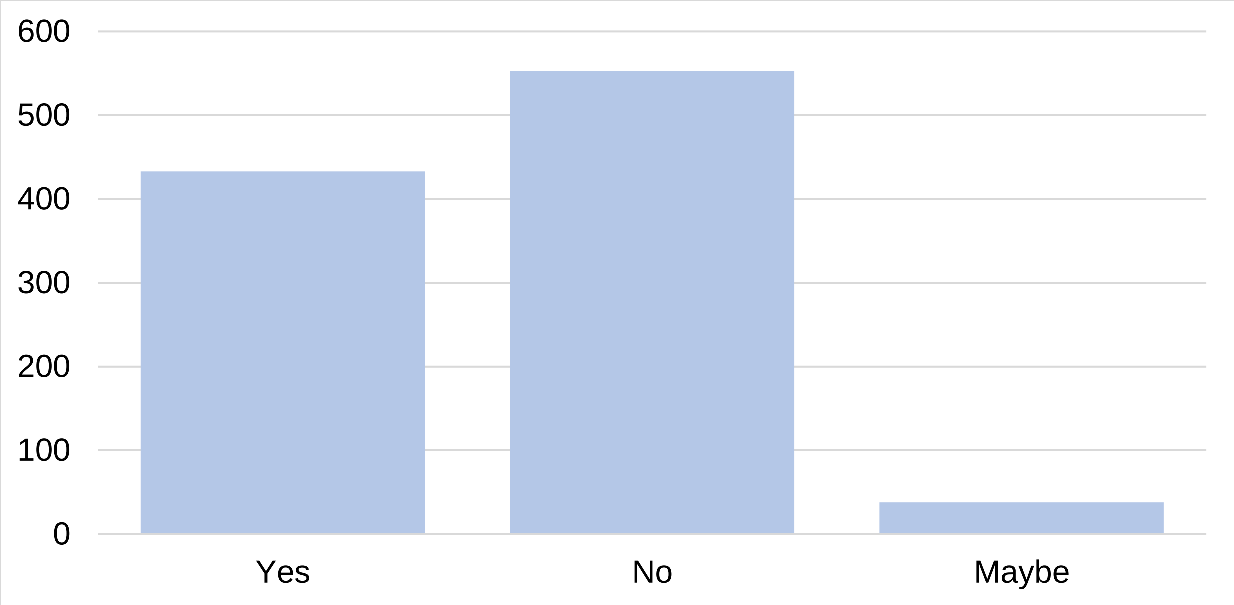
Graph 35: Are you PIRB registered?

According to 93% of respondents from the survey, they are registered with PIRB, and 5% say they are not registered with PIRB. 2% of respondents' state that they are unsure concerning their registration with PIRB. In comparison with 2019, there was a decline in the share of respondents registered with PIRB, however the total number of respondents who are registered increased from 883 respondents to 947 respondents.



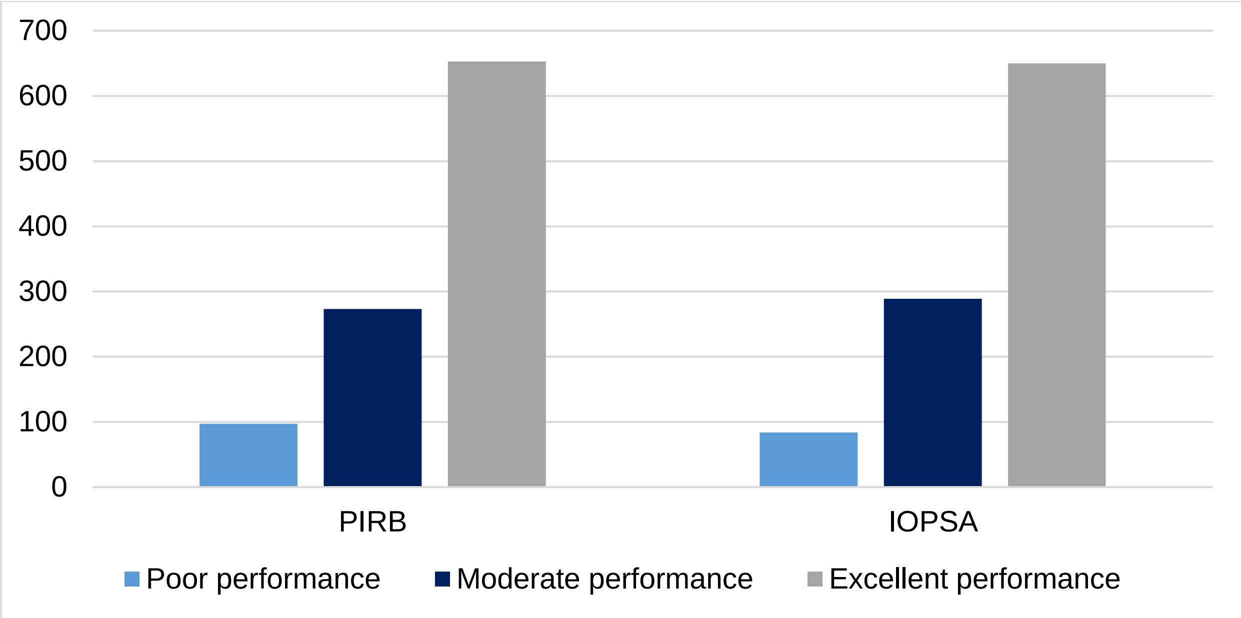
Graph 36: Do you receive the Plumbing Africa Magazine?

The survey results in Graph 34 show that 54% of respondents say they do not receive the Plumbing Africa magazine, and 42% say that they receive the magazine. These figures remain unchanged from the previous year.



Graph 37: How would you rate your service received from IOPSA and PIRB?

For the service received from IOPSA and PIRB, the majority of respondents' rate both services above 5, i.e. above moderate performance. From Graph 35, more points on the Likert scale should provide more information about the level of service received by respondents from IOPSA and PIRB, however, usually responses are concentrated in few options. From below, 64% of respondents surveyed view the service they receive from both IOPSA and PIRB as 'excellent', scoring it between 8-10, while previously only 54% of respondents said that the service they received from PIRB was 'excellent'. More respondents report that they receive poor service from PIRB, compared to those who receive the same level of service from IOPSA. In 2019, the rated service received by PRIB stayed relatively the same, although scoring on the low end, the difference in service received between IOPSA and PIRB in both years is actually not significant.

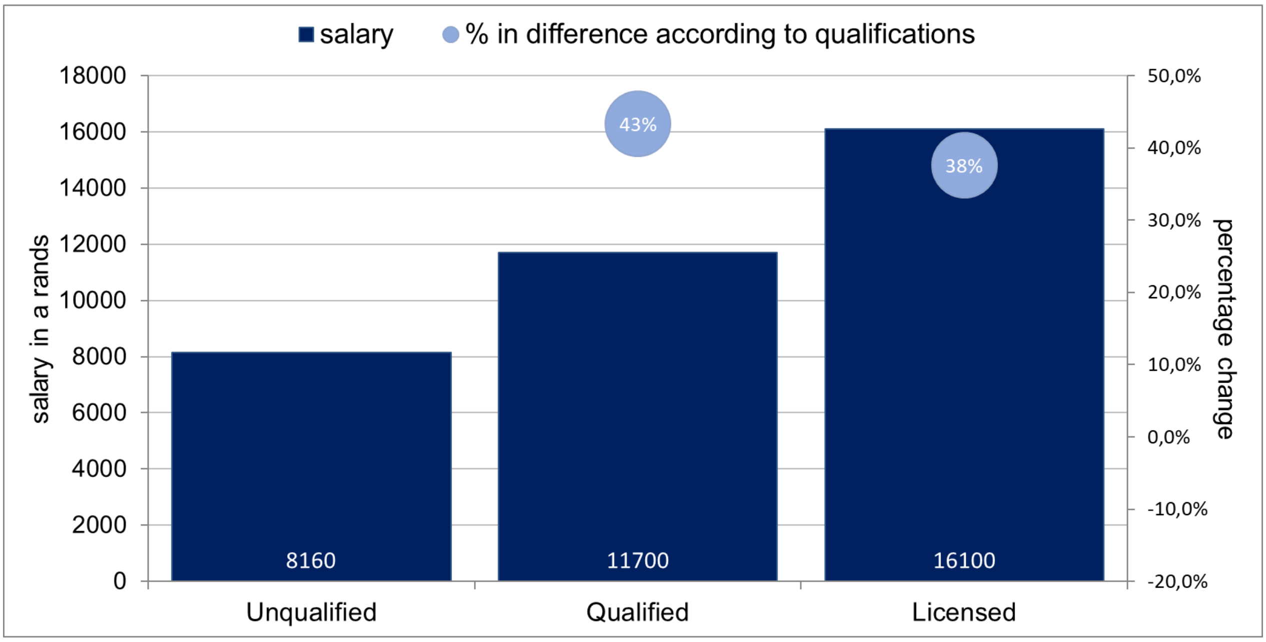

700
600
500
400
300
200
100
0
PIRB
IOPSA
Poor performance
Moderate performance
Excellent performance

Graph 36a: Average plumber's salary

According to Payscale South Africa and Salary Explorer, a plumber's salary in South Africa is influenced by various factors, being the plumber's years of experience, qualification and to some extent gender as well.

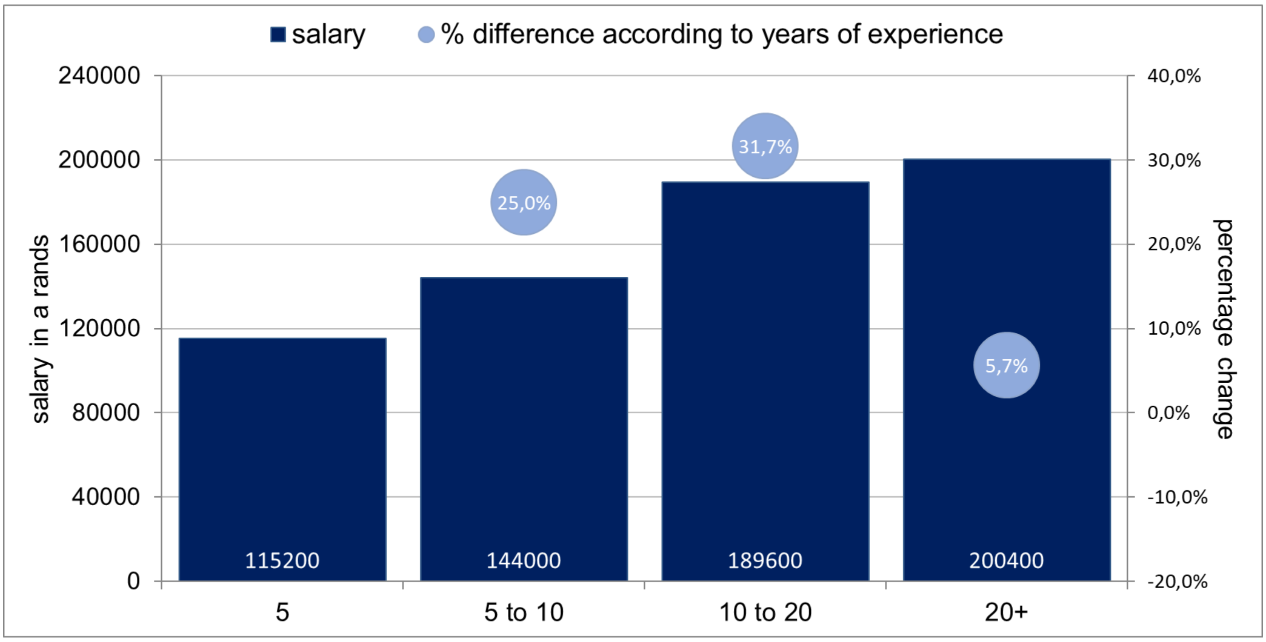
Licensed plumbers are the highest paid in the industry, earning up to R16 100 per month, while qualified plumbers receive at least R11 700 per month – this is 38% less than the salary of a licensed plumber (see Graph 36b). The salary of a plumber, who is unqualified is R8 160 per month. In comparison, a qualified plumber receives 43% more pay than a plumber with no qualifications.

Graph 36b: Average plumber's monthly salary by qualification



Salaries of plumbers can vary, with those with less than 5 years of experience starting out at the lower salary end, compared to those with for example, 10 to 20 years of experience. Graph 36c shows that a plumber with more than 20 years of experience can expect a salary of R200 400, while a plumber with 5 years of experience (or less) would expect to receive R11 5200. For plumbers with 10 to 20 years of experience, one would receive a salary of R189 600 – 5.7% less than that of a plumber with 20 years' experience.

Graph 36c: Average plumber's annual salary by years of experience



Additionally, from the survey results, women who are plumbers receive 7% less pay when compared to their male counterparts in the industry, even in instances where both men and women have the same years of experience and qualifications. Given that plumbing is a male dominated industry, it is not surprising that gender plays a big role in plumber's salary.

A qualification and years of experience influence a plumbers' potential towards earning a higher salary however, as previously mentioned, the average salary of plumbers are affected by not only years of experience, but also gender, and specialised skills i.e. qualified or licensed plumber. The lower-end salary of plumbers is applicable to plumbers in the industry with minimal experience and no qualifications, while the highest paid plumbers are qualified plumbers or plumbers with over 20 years' experience, or both.

Key takeaways from the 2020 survey are as follows:

- In comparison with the survey results from 2019, the number and share of Coloured and Asian/Indian respondents declined across many indicators, while a lot more African respondents participated in the survey in 2020. The 2020 survey shows an increase in the share of self-employed Africans, qualified Africans and Africans with more experience in the industry. The share of White respondents according to qualifications, ownership and years of experience remained relatively unchanged – it is not clear whether these changes reflect trends or are a result of the sampling instead.

- Most respondents are concentrated in South Africa's economic and metropolitan hubs including Gauteng, the Western Cape, Kwa-Zulu and the Eastern Cape. These provinces not only boast the largest share of respondents/IOPSA registered workers, but they also account for a large share of qualified and licensed plumbers in the country, including Master Plumbers.

- Although the constructions sector, government and municipalities and training and education centres as well as plumbing companies employ a good number of plumbers, most plumbers surveyed are self-employed. Additionally, most self-employed respondents say they own small-businesses, however it is not clear whether they are own account workers or employers employing more than one worker.

- The issue of unqualified plumbers operating in the market, late payments and poor economic conditions in the country impact on businesses' ability to be successful. As previously highlighted, the stand-out issue impacting on business success in plumbing is related to plumbing work carried out by non-qualified people. Respondents have emphasised over the years that this issue must be addressed as a matter of urgency. The opportunity to upskill plumbers was also highlighted as a key area of focus. With the changing nature of the plumbing industry, particularly relating to technology, upskilling has become even more important. Upskilling remains a key focus area for IOPSA to target. That said, it is rather surprising that despite the concern of unqualified plumbers operating in the market and the issue of needing to upskill plumbers, there are respondents who say that their companies do not participate in training, and even if IOPSA was to offer training support, they would still not participate. Upskilling in the plumbing industry is important for enhancing competencies, upgrading workers to the latest standards and regulations and also, to ensure customer safety.

- There is not a significant difference between the service received by PIRB and IOPSA. The majority of respondents say they receive excellent service from both institutions, however there are those that do score the service received as 'poor' and this should not be overlooked. Compared to 2019 results, respondents in 2020 rate PIRB and IOPSA services much more favourably.