

*It is alarming that 75% of the respondents did not disagree that they often think about quitting their job.*

## Executive Summary

Consulting engineering has long been facing several problems that is affecting the industry as a whole – increasing staff turnover rate and lack of middle management in the industry as they join the government, contractors and other client-side organisations.

There are consensus on the main causes for the phenomena, being the large wage gap between consulting firms and these organisations for chartered engineers (85% or more<sup>1</sup>), as well as the heavy workload and long working hours of consulting engineers.

This has led to knock-on effects severely affecting also the quality of the works and resulted in a vicious cycle to continue worsen the working environment of the consulting companies. The issues can be broadly boiled down in a few key areas:

- **Lack of resource to undertake the tasks to match the project programme.**  
Working-level resource in consulting engineering firm are perceived to be under resourced. They often have to work overtime and are placed under a large amount of stress to deliver works in an “unreasonable” timeline.
- **Lack of the “right” resource to perform the tasks.**  
There is inadequate experienced engineers working in the project team. This leads to inefficient and prolonged design and decision making processes, errors and omissions and abortive works. This also means increased workloads, long working hours (as resource are limited) and low job satisfaction when graduate engineers always needs to double handle the tasks.
- **Lack of the middle management.**  
This means that the graduate engineers usually work directly with the project manager and senior engineers. Most often, graduate engineers do not feel that there are enough support and training on the job to guide them through the tasks. This then leads back to the same issues as the above point relating to abortive works and double handling. This also demotivates the young engineers to stay in the industry or the company.

From the above, it is fair to say that consulting engineering industry is generally viewed to be a not-so-attractive industry in terms of working conditions. Graduates, however, are keen to join the Industry due to the exposure and training opportunities it has to offer to enable them to obtain their chartership, being one of the first stepping stone in their engineering career. Retaining these young engineers, long after chartership, to uphold the standard and quality of works to be designed and constructed, however, is a key challenge industry leaders, the Government and the clients need to work together to solve to provide the ultimate benefit of quality infrastructure and built-environment delivered in a timely manner within budget. We

---

<sup>1</sup> The starting salary of a chartered engineer (C+0) is at around HKD38,000 in consulting firm, while it is HKD70,465 in government of Master Pay Scale (MPS) 32 according to Management Handbook for Direct Employment of RSS by Consultants for Public Works Projects.

should remember the significance of the works delivered by our industry would directly enhance living quality of our fellow societies, turning vision and policy into reality, as well as safeguarding the environment and sustainability of lives on earth.

As young professionals in the industry group are looking to pursue long-term career in engineering, our YMC undertook a market research to gauge views of over 160 practitioners from the consulting engineering industry. It is alarming that 75% of the respondents did not disagree that they often think about quitting their job. The results generally align with the understanding discussed earlier. We have prioritised the key issues to enable our readers, stakeholders of our industry, industry leaders and future young leaders to act on these priorities for retaining and attracting talents in the consulting industry to enable sustainable development.

It is our hope that this paper will bring together stakeholders of our industry, while many of which are undertaking discussions to tackle various problems of the industry, to undertake a consolidation of works in this area, identify the leaders for each area of improvement to be made, to efficiently progress on the development and implementation of solutions.

The Top 5 Pull Factors that attracted people to leave jobs in the company/ consulting industry are listed in the order of descending importance as:

1. High salary
2. Career advancement
3. Workload (work-life balance)
4. Personal family-related issues
5. Training opportunities

Other pull factors worthwhile to be mentioned that differentiates a firm from other firms include Facilities and funding, Reputation of organization, Freedom and autonomy and Job security.

The Top 5 Push Factors that prompted people to leave jobs in the company/ consulting industry are listed in the order of descending importance as:

1. Tiring job makes people too tired to enjoy family life
2. Heavy workload
3. Lack of fairness and justice in the organisation
4. Job leaves little time for family
5. Low salary

Other push factors people feel strongly about include social status of their job, job security, freedom in the organisation, small size of organization, unattractive fringe benefits and poor working environment.

Echoing with the push and pull factors, it is not surprising to note that aspects of their employment that the Industry is most unsatisfied are: (listed in descending orders of dissatisfaction)

1. Fringe benefits(e.g. allowances, transportation fees, company shares)
2. Salary level
3. Other forms of remuneration(e.g. bonus)
4. Imbalance of pay level and the amount of work undertaken
5. Working alone on the job

The two apparent contributors to the current market situation point towards the fee-diving culture by the consulting industry themselves (and yet recognised and accepted by the clients) and the large intake of engineers the Government, public institutions and client-side organisations (refer to collectively as “Clients”).

If the industry and the Clients continue to behave this way and you take the view that the issues will be resolved themselves via market-driven changes in the brutal and unhealthy competition of the consulting engineering industry of Hong Kong, this is simply unrealistic, as if this was the case, the industry will not be at where we stand today and nor would the market research results be reflecting and surrounding low wage, heavy workload and long working hours.

Both top management of the consulting engineering companies and the Clients need to urgently action, to engage and work with the industry, to bring us all back to the right track for the mega developments that are underway. Failure to do so could result in catastrophic problems and delays if design changes are only made during construction phase.

Broad categories of improvements suggested to top management of consulting engineering companies are under these four umbrellas to meet the needs of young professionals:

1. Salary, OT and Reward System
2. Job opportunities, Trainings and Career Planning
3. Resource and Workload
4. Organisational behavior

Review and changes the Government and the Clients need to make are proposed for these areas:

1. Role and workload of the Client team, and the intake of engineers
2. Role and workload of the RSS
3. Bidding system, Contract Type and Fee
4. Project-related enhancements and administrative works
5. Government project strategy and liaison with the Education Institutes and the Industry

Should you be interested to find out more about the research and work with us to create a better ecosystem for consulting engineers, you can navigate the detailed results of the research findings using the following index:

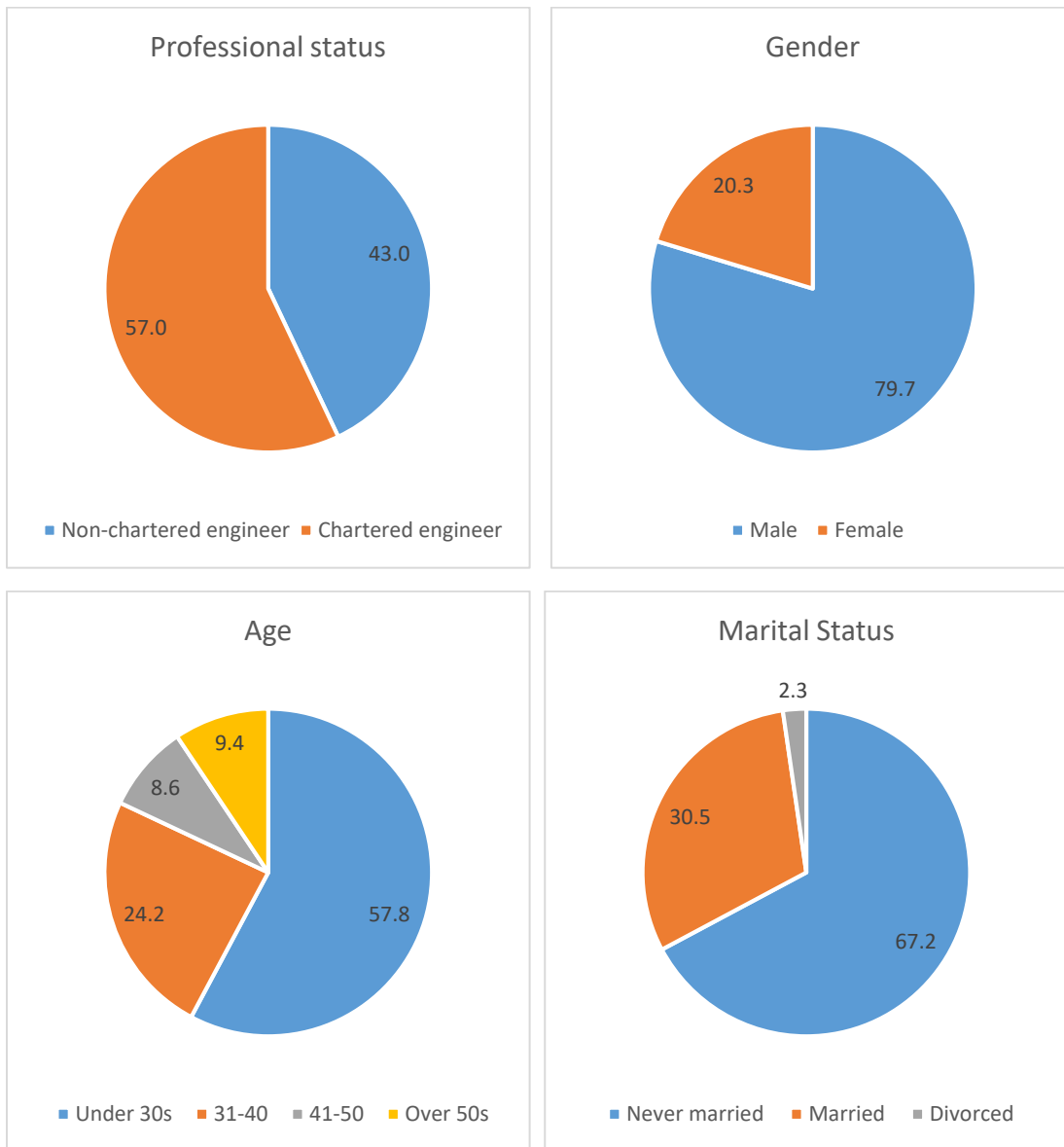
- Section 1 – Information of the Respondents
- Section 2 – Detailed results of the questionnaire
- Section 2.5 and 2.6 – Suggestions made by the respondents to top management of the companies and the government
- Section 3 – Recommendation by the YMC
- About the research – Further background of the research and the team can be found at the back of this paper

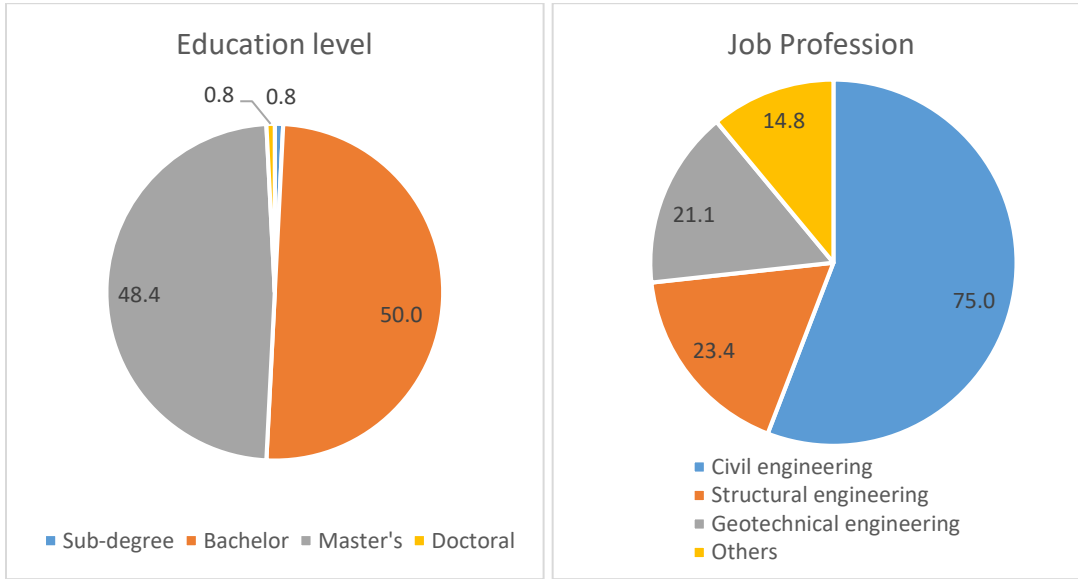
## 1 Information of respondents

This section presents the information of respondents from the Stage 2 Market Research – Online Questionnaire. Details of the interviewees from Stage 1 are not disclosed.

### 1.1 Demographic information

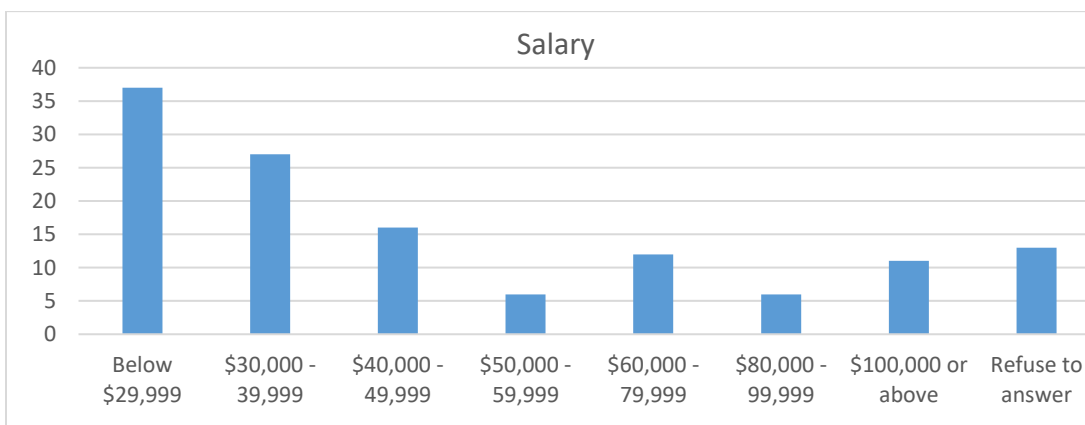
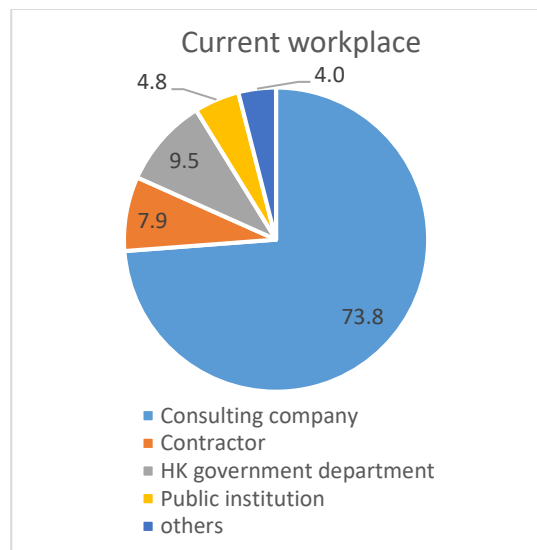
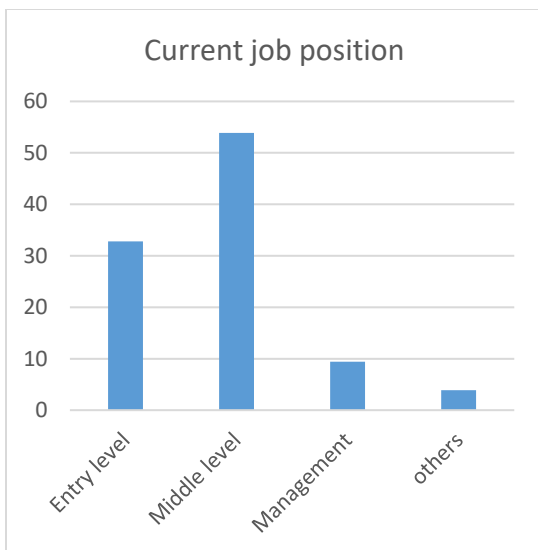
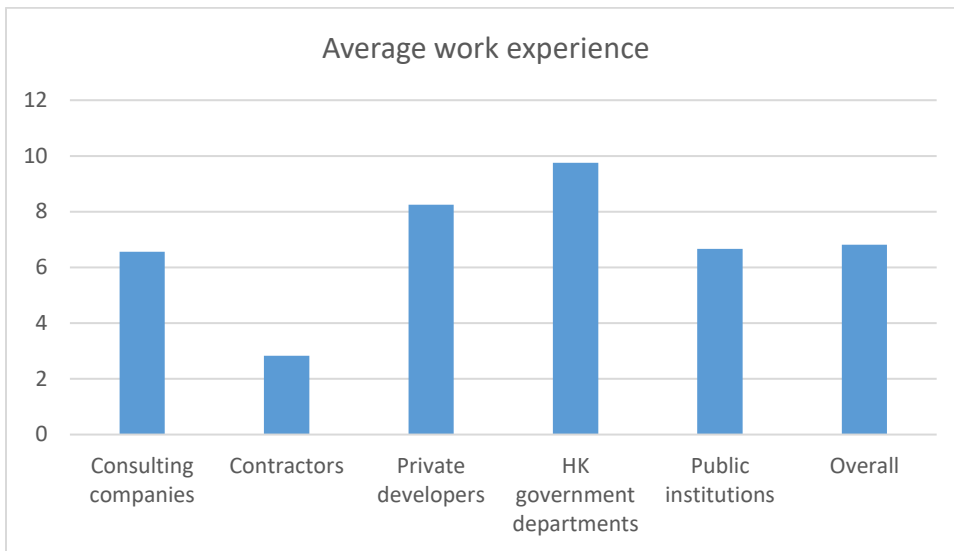
The demographic information of respondents are presented in the following charts.





### 1.2 Work experience

The work experience and the salary of the respondents are presented in the following charts.

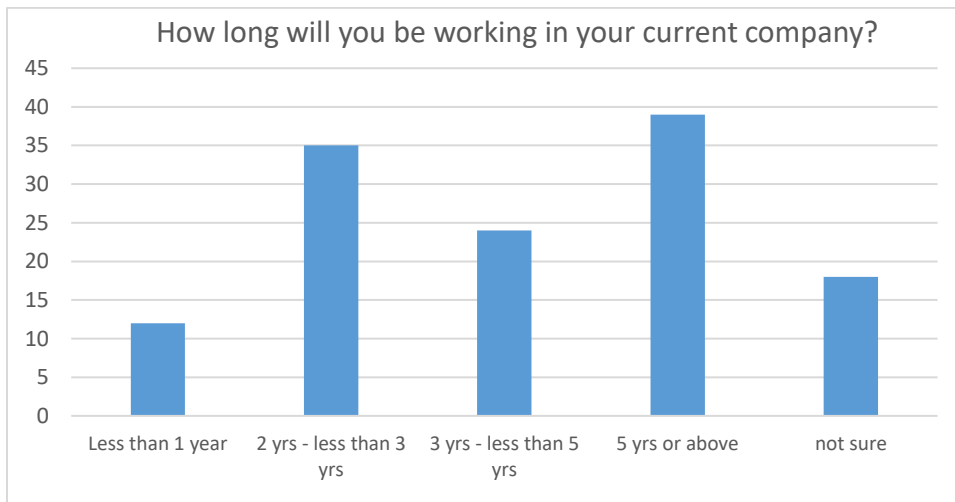
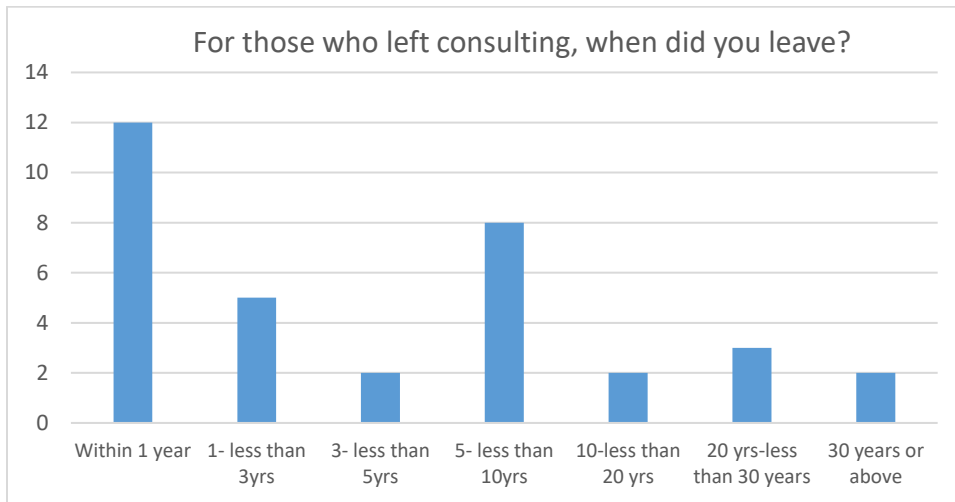


By comparing the figures of current job position and salary of respondents and our understanding of the general market salary, it can be seen that monthly salary of entry level jobs are generally below \$29,999. For management, salary are deduced to be generally above \$100,000.

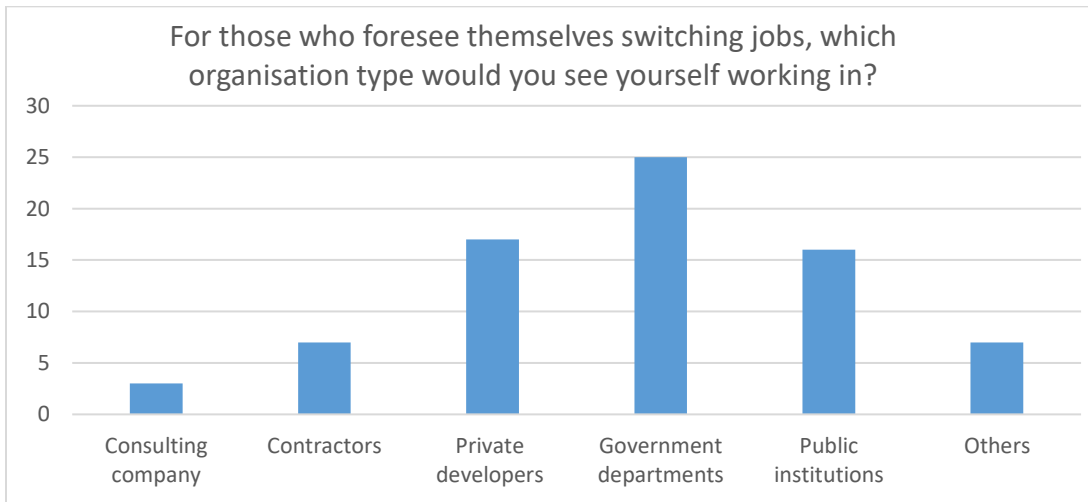
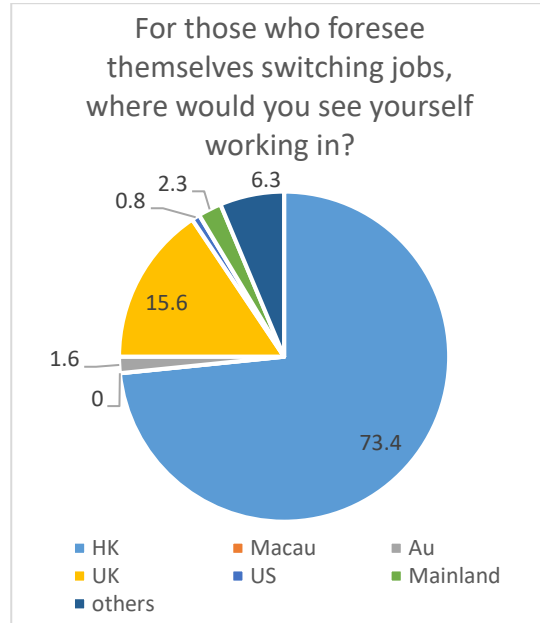
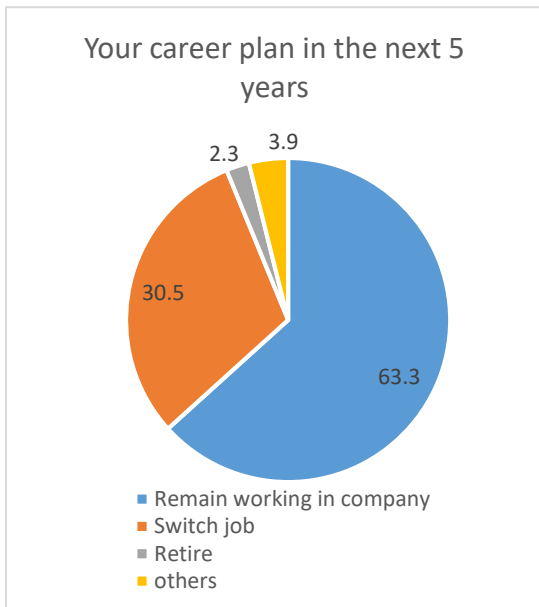
However, for middle management, there is a large range of \$30,000 to \$99,999.

### 1.3 Career development

The career development of the respondents are presented in the following charts.







## 2 Results

This section presents the results of Stage 1 and Stage 2 Market Research.

### 2.1 Pull factors: Attracted you to leave jobs in consulting

This section presents the list of pull factors in the order of descending importance.

Each respondents were given the choice to select between Strong agree, Agree, Neutral, Disagree and Strongly disagree for each factor. The following table ranks the pull factors in 2 ways, which gives different ranking to the factors:

- To consider the level of Strongly agree AND Agree
- To consider only the level of Strongly Agree

Table 2-1 Ranking of pull factors

Rank	Ranking of <i>Strongly Agree + Agree</i>	%	Ranking of <i>Strongly Agree</i>	%
1	Salary	64.8	Facilities and funding	35.9
2	Career advancement / promotion	57.8	Reputation of organisation	30.5
3	Work load (work-life balance)	57.8	Training opportunities	29.7
4	Personal family-related issues	51.6	Freedom and autonomy	28.9
5	Training opportunities	51.6	Job security	25.8
6	Working environment	50.8	Personal family-related issues	25.0
7	Freedom and autonomy	50.0	Organizational support	25.0
8	Financial benefits	49.2	Organization culture	25.0
9	Respect and values	48.4	Respect and values	24.2
10	Facilities and funding	46.8	Personal health issues	23.4
11	Organizational support	46.1	Career advancement / promotion	22.7
12	Personal health issues	46.1	Financial benefits	21.9
13	Job security	45.3	Working environment	14.1
14	Reputation of organization	43.8	Salary	12.5
15	Organization culture	41.4	Work load (work-life balance)	7.8

### 2.2 Push factors: Prompted you to leave

This section presents the list of push factors in the order of descending importance.

Each respondents were given the choice to select between Strong agree, Agree, Neutral, Disagree and Strongly disagree for each factor. The following table ranks the push factors in 2 ways, which gives different ranking to the factors:

- To consider the level of Strongly agree AND Agree
- To consider only the level of Strongly Agree

Table 2-2 Ranking of push factors

Rank	Ranking of <i>Strongly Agree + Agree</i>	%	Ranking of <i>Strongly Agree</i>	%
1	Because my job makes me too tired to enjoy my family life	54.7	Because it is not according to my social status	46.9
2	More office workload	52.4	Because my job is not secure	41.4
3	Because there is no fairness/justice in organization	52.3	Lack of freedom in the organization	38.3
4	Because my job does not give me enough time for my family	51.6	Because there is no fairness/justice in organization	37.5
5	Because my salary is low	51.6	Because the size of the organization is small	36.7
6	Bad behaviour of my boss	51.5	Because the fringe benefits are not attractive	35.9
7	Because my job is not secure	50.8	Because the working environment is not good	34.4
8	Lack of motivation and encouragement for good work	50	Lack of facilities and opportunities	34.4
9	Because it is not according to my social status	49.3	Lack of recognition of my work	33.6
10	Because the fringe benefits are not attractive	49.2	Lack of motivation and encouragement for good work	32.8
11	Because the working environment is not good	49.2	There is a conflict among employees	32.8
12	Lack of recognition of my work	47.7	Bad behaviour of my boss	32
13	Lack of freedom in the organization	46.9	Lack of career advancement	31.3
14	Lack of career advancement	45.4	More office workload	25.8
15	Lack of facilities and opportunities	44.6	Because my job makes me too tired to enjoy my family life	25.8
16	There is a conflict among employees	41.4	Because my job does not give me enough time for my family	23.5
17	Because the size of the organization is small	39	Because my salary is low	20.3

### 2.3 Thoughts about career move

Two statements were suggested for respondents to rate their agreement regarding their thoughts on career change, as shown in the below chart.

Figure 2-1 Agreement to “As soon as I find a better job I will quit working at this organisation”

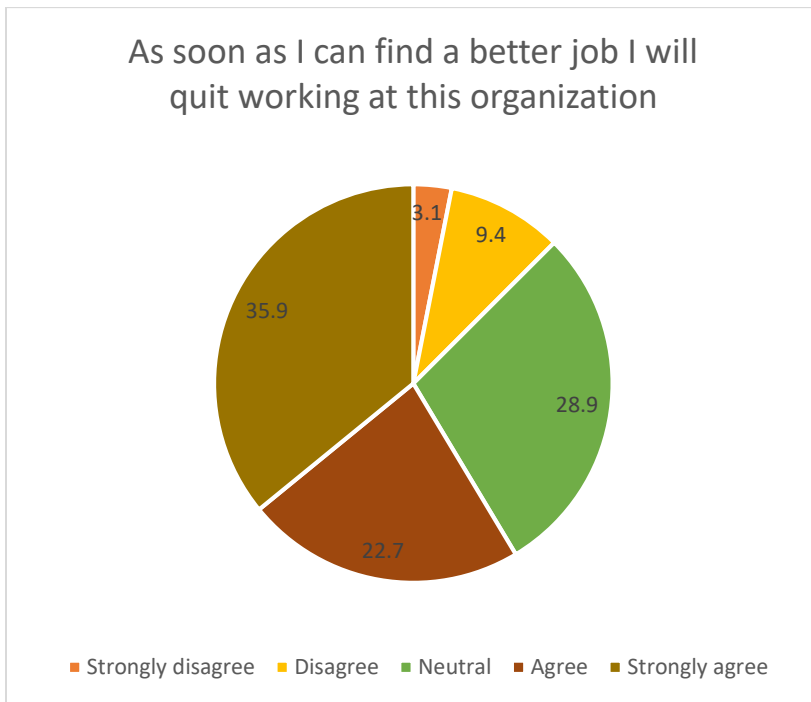


Figure 2-2 Agreement to “I often think about quitting my job”



## 2.4 Satisfaction of various components

A list of statements were suggested for respondents to rate their satisfactions against various aspects of the company and the work nature.

Each respondents were given the choice to select between Strong agree, Agree, Neutral, Disagree and Strongly disagree for each factor. The following table ranks their job satisfaction in 4 ways, which gives different ranking to the factors:

- To consider the level of Strongly agree AND Agree
- To consider only the level of Strongly Agree
- To consider the level of Strong disagree
- To consider the level of Strong disagree AND Disagree

Table 2-3 Satisfaction - according to level of agreement

Rank	Ranking of Strongly Agree + Agree		Ranking of Strongly Agree	
1	I am satisfied with the way company policies are put into practice	56.2	I am satisfied with being able to keep busy all the time	53.1
2	I am satisfied with being able to keep busy all the time	54.7	I am satisfied with the way company policies are put into practice	50
3	I am satisfied with having to do things that don't go against my conscience	53.9	I am satisfied with the sense of accomplishment in my job	44.5
4	I am satisfied with the sense of accomplishment in my job	50	I am satisfied with having to do things that don't go against my conscience	43
5	I am satisfied to be somebody in the community	47.6	I am satisfied with chances for advancement at this job	43
6	I am satisfied with the competence of my supervisor	46.9	I am satisfied with working alone on the job	42.2
7	I am satisfied to tell people what to do	46.1	I am satisfied with the recognition I get for doing a good job	41.4
8	I am satisfied with working alone on the job	45.3	I am satisfied to be somebody in the community	40.6
9	I am satisfied with chances for advancement at this job	45.3	I am satisfied to tell people what to do	38.3
10	I am satisfied with my pay which commensurates with the amount of work I have to do	44.5	I am satisfied with my pay which commensurates with the amount of work I have to do	38.3
11	I am satisfied with the way my job provides for steady employment	43	I am satisfied with the working conditions	38.3
12	I am satisfied with the recognition I get for doing a good job	43	I am satisfied with the way my coworkers get along with each other	35.2
13	I am satisfied with doing things for other people	42.2	I am satisfied with doing things for other people	34.4
14	I am satisfied with the way my coworkers get along with each other	41.5	I am satisfied with other forms of remuneration(e.g bonus)	34.4
15	I am satisfied with the working conditions	41.4	I am satisfied with the competence of my supervisor	33.6
16	I am satisfied with the way my boss handles his/her workers	39.9	I am satisfied with the way my job provides for steady employment	33.6
17	I am satisfied with other forms of remuneration(e.g bonus)	38.3	I am satisfied with the way my boss handles his/her workers	33.6

18	I am satisfied with doing different things from time to time	38.3	I am satisfied with fringe benefits(e.g allowances, transportation fees, company shares)	30.5
19	I am satisfied with being able to make use of my abilities in performing my duties	35.9	I am satisfied with doing different things from time to time	29.7
20	I am satisfied with the salary level (i.e wages)	34.4	I am satisfied with the salary level (i.e wages)	28.9
21	I am satisfied with fringe benefits(e.g allowances, transportation fees, company shares)	32.8	I am satisfied with being able to make use of my abilities in performing my duties	25.8

Table 2-4 Satisfaction – according to the level of disagreement

Rank	Ranking of <b>Strongly disagree</b>		Ranking of <b>Strongly disagree + disagree</b>	
1	I am satisfied with fringe benefits(e.g allowances, transportation fees, company shares)	8.6	I am satisfied with fringe benefits(e.g allowances, transportation fees, company shares)	38.30
2	I am satisfied with other forms of remuneration(e.g bonus)	7.8	I am satisfied with the salary level (i.e wages)	35.90
3	I am satisfied with my pay which commensurates with the amount of work I have to do	7.8	I am satisfied with other forms of remuneration(e.g bonus)	33.60
4	I am satisfied with the salary level (i.e wages)	7	I am satisfied with my pay which commensurates with the amount of work I have to do	24.20
5	I am satisfied with being able to keep busy all the time	7	I am satisfied with working alone on the job	23.50
6	I am satisfied with the way my boss handles his/her workers	6.3	I am satisfied with being able to keep busy all the time	21.90
7	I am satisfied with the competence of my supervisor	6.2	I am satisfied with the way my boss handles his/her workers	17.20
8	I am satisfied with working alone on the job	5.5	I am satisfied with the recognition I get for doing a good job	15.60
9	I am satisfied with doing different things from time to time	4.7	I am satisfied with chances for advancement at this job	14.90
10	I am satisfied with the way company policies are put into practice	3.1	I am satisfied with doing different things from time to time	14.10
11	I am satisfied with having to do things that don't go against my conscience	3.1	I am satisfied with the competence of my supervisor	14.00
12	I am satisfied with chances for advancement at this job	2.4	I am satisfied with the way company policies are put into practice	13.30
13	I am satisfied with the way my coworkers get along with each other	2.3	I am satisfied with the working conditions	11.70
14	I am satisfied with the way my job provides for steady employment	2.3	I am satisfied with having to do things that don't go against my conscience	10.90

15	I am satisfied with the recognition I get for doing a good job	1.6	I am satisfied with the way my coworkers get along with each other	10.10
16	I am satisfied with the working conditions	1.6	I am satisfied with the sense of accomplishment in my job	7.80
17	I am satisfied with the sense of accomplishment in my job	1.6	I am satisfied to be somebody in the community	7.10
18	I am satisfied to be somebody in the community	1.6	I am satisfied to tell people what to do	7.00
19	I am satisfied with doing things for other people	1.6	I am satisfied with the way my job provides for steady employment	6.20
20	I am satisfied to tell people what to do	1.5	I am satisfied with being able to make use of my abilities in performing my duties	4.70
21	I am satisfied with being able to make use of my abilities in performing my duties	32.8	I am satisfied with doing things for other people	3.90

## 2.5 Suggestions to top management of companies

The following sections summarises the comments received from respondents to top management of the consulting engineering companies in various categories. The full list of comments from respondents can be found in Section 4.

### 2.5.1 Salary, OT and Reward System

In general, consultants are paid less than the Clients. Salary is low compared to the Government. However, it is of view that consultants deserve more given the vast amount of work they produce and the value they contribute. It is of view that consulting engineers and the engineers of the same grade from the Clients' side (range from graduate to chartered engineers) should not have such a large disparity in salary.

There should be regular salary review. Comparison should be made with market norm and other organisations. This is especially true for loyal employees to be paid less if they have not left the company, as they did not benefit from the "jump" in salary that often accompany a job change. Loyalty should be valued and appreciated by providing better salaries and increments. Loyal employees should not be left behind in the pay scale if they perform. It is especially demeaning for some respondents when they felt like they had to "beg for what they deserve".

For fresh graduate engineers, the salary is comparable to other industries, except for law and medicines. The progression in terms of salary and grade is, however, unexpectedly slow compared to the other industry which can be discouraging.

With the large amount of workload, consultants often have to work overtime. There are various respondents suggesting that their companies should either pay the consultants more and compensate for overtime works, or they should employ more resources so there is less work for each employee. In other words, they feel that the pay and the work should be balanced. There are comments that employees feel that they have been mistreated when the company does not

respect their work life balance. Companies should pay employees their fair share, i.e. If you make them do overtime work, pay for it.

While increasing the pay of consultants are important, perhaps it would also be useful to put an upper limit to the number of hours an engineer work each week to control the extreme workload.

Respondents also suggested that there is lack of reward/ motivational system to incentivise their employees to perform. Hard works should be recognized, appreciated and rewarded accordingly for all levels, including the good work by junior and middle management. Appreciation should be given by both words and actions. Encouragement is also important. Reference can be made to headhunting or sales role where there is clear KPIs on their performance and rewards. At the same time, if some staff are performing poorly or lack competency, the company should also take action or have a system to identify these employees and have different treatment to the performing staff. A respondent commented that there is only punishment for not performing, but no benefits for good performance. Incentives could be in the form of benefits or income.

Having a reward system encourages staff to work harder and smarter as they share the future and prospect of the company.

### 2.5.2 Job opportunities, Trainings and Career Planning

Some respondents commented on the increase of work variety and overseas opportunities/ mobility within the company to retain staff. While these may be available already, perhaps these opportunities of job rotation and overseas secondment has not be publicised enough and therefore not known to employees.

A respondent suggested knowledge sharing amongst different consultancies so that there is a collective growth of the industry, and to offer collaborations so that the young can continue to learn. Companies should support comprehensive training, continual personal development and embrace the latest international practices. In addition, constructive feedback and performance review is important, including providing career advancement guidelines and platforms.

Aside from the above, there are specific comments regarding the training and career planning for middle management:

- To reinforce middle management in technical competency, so as to bring up the standards and sustain engineering knowledges for trainees
- Clear, defined pathway for career progression needed for motivating mid-level employees
- Company must invest in employees continuing professional development including team leadership and management skills.

### 2.5.3 Resource and Workload

To manage the resource and workload of their employees, companies should undertake better time and resource management for the projects and ensure adequate resource/manpower are



assigned. It is viewed that generally there is inadequate staff working on projects, so more staff should be employed at the correct level. More specifically, a healthy organization chart of a team with balanced number of staff at different levels is important to make the employee feel supportive and feel the sustainability of a company. (e.g. 1 director, 3 seniors, 9 engineers + 18 graduates, 9 draughtsman).

It is believed that work-life balance is achievable by either by hiring more engineers to share workloads or to give reasonable projects and milestone deadlines which will be achievable without unbearable extensive working hours. It is worthy to mention that sometimes too much workload is put on the same person, and these should be shared.

Another way to reduce workload is to consolidate effective system of the company to enhance efficiency (i.e. administration works, template for report/ submission/ presentation, library for codes/CAD for typical details or notes).

#### 2.5.4 Organisational behavior

There was a wide range of suggestion regarding the company's internal mechanism to create a better work environment as listed below:

- Listen to staff
- Promote team building, networking event and off-work gathering colleagues regard each other with mutual respect, and staff have a better sense of place, identity, and belonging, which are proven strategies to improve organisational behavior
- Improve work environment, not necessarily only high wage

In addition, there was also suggestions to management on their attitude and mindset to better respect the employees:

- Workload should be equally shared among all employees, and all employees should receive a fair salary.
- Overwork, and perceived favouritism of some staff for pay increases/ bonus etc are common sources of disgruntlement among employees.
- It is important to motivate staff, give sufficient and reasonable timeframe to your colleagues for their works.
- Respect the Engineer's advice and difficulties in both project management and technical delivery, and not just tell the Engineer what Top Management wants and ignoring reality entirely.
- Respect and give space to the Engineer to breathe and rest when necessary, not just pressurising and pushing the engineers to the impossible limit all the time.
- Respect your colleagues who do not like to work overtime if they are performing reasonably, and do not discriminate these colleagues if they leave on time as long as their works are done.

There was repeated suggestions that consulting firms must bid at reasonable fee and stop bidding job with low price. Such competition leads to overloading work and ultimately impact the work-life balance that the employees are looking for.

Last but not least, some respondents feel that the social status seems low for engineers. It was suggested that change of titles may improve the situation. For instance, engineers remain as graduate or assistant engineer for the first 3-4 years of their career and after that they become chartered engineers. Engineers with 6-10 year of experience are usually senior engineers. When compared to other industry, finance for instance, people with 6-10 years' experience would be assistant vice presidents or directors.

## 2.6 Suggestions to the Government and/or the Clients

The following sections summarises the comments received from respondents to the Government and the Client in various areas. The full list of comments from respondents can be found in Section 5.

### 2.6.1 Role and workload of the Client team, and the intake of engineers

There were many responses relating to the intake of engineers as the government's continual intake absorbing young engineers from the industry with attractive salary is killing the consulting industry business. While there was comments on the need to limit the openings of chartered engineer and project coordinators into the Government, there was suggestion to stop recruiting young chartered engineers. Young engineers should gain more experience in the industry before they join the Government so they can positively and constructively contribute to the project, such as a minimum of 10 years' of post-qualification experience.

Furthermore, there are sudden raise or drop of intake amount, which adversely affect the consulting engineering industry's ability to deliver work. The Government should plan their intake and keep the annual intake of government engineer in a consistent number. Instead of increasing permanent and contracted engineers in Government for promoting in-house design and general administration works, the Government may consider to launch more consultancy including consultancy management works or term services to consulting companies.

There was comment on the request for the Government to allow a diverse group to enter the civil services and release the language requirements so that diverse talents could contribute to the Government.

This competition of resource between the consulting industry and the Clients is anticipated to be worsened in the coming years with the MTR projects and the northern metropolis developments. It is perhaps critical to review the roles and workload of the Client, what tasks are to be performed in-house, which ones are administrative works that could be streamlines or trimmed if the Client would like to see good quality works delivered. It is also worthy to note that once a division/ team in the government has increased in size, it is unusual for it to downsize despite the doubt that the workload could be sustained.

### 2.6.2 Role and workload of the RSS

There was suggestion to limit the salary of assistant resident engineer (ARE) assigned to site for training to match that of the consultant's salary. This suggestion was made due to the fact that the AREs after training would effectively have a decrease in salary when they return to the head office. The difference usually prompt the AREs to leave the company as soon as they complete their training scheme to seek for ARE positions to match the previous salary they had enjoyed. However, the Government and the Industry should review and work together to close the salary disparity of the Government roles and those of the consultants, rather than limiting the ARE salary.

There was little comments regarding RSS in the questionnaire otherwise. However, the deployment of RSS, the review of the roles and workload of the RSS should also be undertaken at times of desperate need of resource.

### 2.6.3 Bidding system, Contract Type and Fee

Repeated similar and detailed response on the Government's role on prevent fee-diving and the devastating impact it has had on the Consultant's livelihood are summarised as follow:

- The consultants have been adopting an extremely low price below a reasonable level for tendering to get the consultancy in an unhealthy manner. This has happened for over a decade for some consultants when they are desperate to win new work.
- Seeing such unhealthy competition, the crux of the matter is seen also to be on the Government side for letting the issue persist for over a decade.
- As a result, all staffs in consultants suffer with very low salary and long working time (ridiculous workload) to earn money for the consultants. At the same time, the quality of the service has also been compromised at times.
- This is one main reason for chartered engineers in consultants to leave the industry as they get half the pay even though they regularly work long hours contrasting to those in government departments.
- The government should shoulder the responsibility and combat using low tendering price to get the consultancies, and review all salary, whatever the position, among government, consultants and contractors to ensure that professional fees cover a fair pay for a fair task, not the cheapest tenderer.
- Agreeing on how to revamp the bidding/award process is the tricky question to be solved.
- With this problem solved, consultants can pay fair wages and benefits that are in competition to the market rates and the large numbers of chartered engineers would not automatically join the Government each year.
- Consulting company can then also spend more time and money focusing on professional development and training.

A respondent particularly claims that *"it is disappointing to see that the government claimed to do something but nothing has been done till now"*. Most likely due to the fact that they have not experienced any improvement.

Some suggestions for improving the situation include:

- Weight on technical proposal should be at least 70% of the overall marking
- Setting a minimum amount of consultancy fee for each project
- There should be mechanism to reward good design
- Bid fee to benchmark real staff cost, or against government salary
- Introduce reimbursement contract instead of lump sum

### 2.6.4 Project-related enhancements and administrative works

One main obstacle in project is working with the Clients. The Clients, especially civil servants, has an employee mindset, and have little accountability on the design and delivery of the project. Being professional engineers themselves, we have seen many examples when the Client restrain themselves merely as administrators. The Clients should also be proactively involved in solving engineering problems when they raise a question, instead of blaming other parties and has no responsibilities.

Although there was little comments regarding project-related enhancements and administrative works in the questionnaire response, there are a large number of administrative processes that should be reviewed, slimmed and trimmed by the Government so that the ratio of project design/technical works and the administrative works are at reasonable proportion.

#### 2.6.5 Government project strategy and liaison with the Industry

The Government should try to keep up the pace of how the industry is transforming and advancing among the world. Hong Kong is one of the top cities globally and we need to maintain up-to-date information and put them into practice. It is currently seen to be slow at implementing new measures or any changes as at all in the Government. For example, the rate of Government Works Departments to be trained and competent in BIM is low, compared to the industry.

It is of view that Government bodies assert their authority to force consultants to do extra work and unreasonable requests at times that is outside of contract specification. Some officers do not act fairly.

The Government should push projects steadily so there will not be unmanageable spikes and drops of demand of engineers to deliver the projects. The Government should also recognise professional qualifications outside of Hong Kong.

The Government should also provide more subsidy for companies in training the engineering professionals and develop advanced technology and programmes for design purpose, since consultancy fees are slim. These incentives schemes may also help to retain consulting engineers before any long-term measures can be put in place.

The Government should work together with their officers to develop respect for people working in the industry. In addition, the Government should play a part in establish a better image of the engineering industry and promote it in better ways to young students, so they will not only think about joining the finance or medical industries after graduation.

### 3 What's next?

The market research report identifies a list of broad categories of areas that require imminent review and improvements that could have a huge effect on the attractiveness and environment of the industry.

This list is intended to be shared and discussed with stakeholders of the industry, identify what other parties are doing, so that we may prioritise resource to work on the tasks based on capability and the stance/background of each organization:

1. Salary, OT and Reward System
2. Job opportunities, Trainings and Career Planning
3. Resource and Workload
4. Organisational behavior
5. Role and workload of the Client team, and the intake of engineers by the Clients
6. Role and workload of the RSS
7. Bidding system, Contract Type and Fee
8. Project-related enhancements and administrative works
9. Government project strategy and liaison with the Education Institutes and the Industry

## 4 Full list of comments from respondents to Consulting Company Top Management

Manage work load, increase work variety
Listen the opinions of staff Improve the working environment Assign reasonable workload to staff
Listen the opinions of staff Improve the working environment Assign reasonable workload to staff
Balanced work life, not necessarily paying high wages
Either increase salary or reduce workload - Provide more comprehensive training
Increase the salary
Increased Communication. Increased Collaboration within the departments and with the stakeholders / clients. Increased respect from departments and from the stakeholders / clients to reflect the effort and professionalism demonstrated.
Review salary accordingly, less overtime (better time management)
Employ more, improve the package, retain the best engineers
Increase salary
Salary review
Salary review
Salary review that makes sure it reasonably matches with market norm
Allow more work life balance Prevent underpay to the workers
Allow more work life balance Prevent underpay to the workers
The current salary is considerably low comparing to clients
Friendly atmosphere
Reduce workload and employ more people
Treat people like humans and respect their work life balance. Compensate for OT. Give better salaries and increments. Don't make them beg for what they deserve.
Allow for knowledge sharing amongst different consultancies so that there is a collective growth of the industry Offer collaborations so that the young can find things to learn
Hire sufficient people for the job
Fairless is very importance but it seems difficulty to implement due to mindset of people.
Salary should try to match with government's salary

Review resource regularly
Pay should be competitive and work life flexibility should be included
To reinforce middle management in technical competency, so as to bring up the standards and sustain engineering knowledges for trainees
To reinforce middle management in technical competency, so as to bring up the standards and sustain engineering knowledges for trainees
Recognize and appreciate people's effort and give encouragement
recognise and appreciate the good work by junior and middle level by both words and actions. will to share the future / prospect of the company.
Provide more competent financial packages as competitors within the industry
Maintain a balanced number of staff at different levels (for example say 1 director, 3 seniors, 9 engineers + 18 graduates, 9 draughtsman)
I believe the salary should be reviewed (gov client even contractor has much higher salary and benefits) More training should be given to graduate engineer Too much work load are put on the same person, and these should be shared Stop discrimination on ppl who don't like work overtime, there's no harm if he/she leave early if the work is done
It is important to maintain a good team spirit among young engineers, as it comes to sense of belonging when companies understand my mind
Increase the wage of the consultant, they deserve more.
Reduce work load, provide all-round training to young engineers, make sure the company has technical competent personnel
Hire more middle level experienced staff to share work loads and training the juniors
Job satisfaction and security
Overseas opportunities
<ul style="list-style-type: none"> <li>- ensure adequacy of manpower/resource assigned to projects - full support of continuous training for employee</li> <li>- consolidate effective system of the company (i.e. administration works, template for report/ submission/ presentation, library for codes/CAD for typical details or notes), which could kill in-efficiency</li> <li>- regular salary/position review to employee, compare salary point to other organization/company to make sure it meet the market</li> <li>- ensure a healthy organization chart of a team, including director grade -&gt;senior engineer -&gt;chartered engineer -&gt; junior stuff/draftman and so on, to make the employee feel supportive and feel the sustainability of a company</li> <li>- networking event and off-work gathering are important, which makes colleagues regard each other more than colleagues - mutual respect</li> </ul>

Trust and respect to team member
Stop bidding job with low price
<p>Constructive feedback and performance review is important.</p> <p>Clear, defined pathway for career progression needed for motivating mid level employees.</p> <p>Company must invest in employees continuing professional development including team leadership and management skills.</p>
<p>Offering help from top management is required, especially in the case of shortage of resources, e.g. one person performs at least two people's workload, someone is doing some tasks under his/her scope of profession field, etc. Also, those consulting engineers' salary are definitely not consistent with those engineers in Government, which lead to losses of consultant industry with less competitiveness in terms of salary compared to government.</p>
Increase salary
middle-level employees and workload should be valued
<ol style="list-style-type: none"> <li>1. Consulting engineers salary is comparatively lower than client and contractor. As a result, graduate engineers tends to leave consultant soon after chartered or completed Scheme A training. An attractive salary can definitely retain the young engineer.</li> <li>2. Resignation of same grade engineer could be a chain reaction. No one wanna take over others workload when himself is already 120% overload. Find a replacement for the resigned engineer asap will help to retain people. Though the best plan is allowing some spare capacity in the team. Apparently it's not financially viable.</li> <li>3. Benefits like sponsorship to gym membership, allowance for training (not just ENGINEERING RELATED) and birthday leave etc. The small amount of money not just to satisfy the employee, it also make the company a little bit outstanding from other consultant.</li> </ol>
Employ more engineers, reduce workload and working hours
opportunity to learn is a key to me
<p>To built team spirit</p> <p>To have more experienced engineers to guide young engineers and give chance for young engineers to learn</p>
The higher management SHALL sacrifice themselves for the work life balance of their colleague in lower level because they have got the higher salary.
Employ the staff with competitive salary, offer different opportunities for the staff (different type of work, working aboard)
Attractive pension scheme shall be provided.
Constantly review the work load among the staffs, and provide chances to enhance the colleagues' relationship.
Proper supervisory from seniors
Continual personal development and embrace the latest international practices
Salary rise



Salary rise
increase salary
Please review the salaries and show appreciation towards loyal employees who have not left the company.
Bid at reasonable fee
Workload should be equally shared among all employees, and all employees should receive a fair salary. Overwork, and perceived favouritism of some staff for pay increases/bonus etc are common sources of disgruntlement among employees.
Better social status
Pay them their fair share. If you make them do Overtime work, pay for it. Provide career advancement guidelines and platforms. Use better titles. For first 3-4 years, engineers remain as graduate or assistant engineer and after that they become engineers. 6-10yr experienced engineers are usually senior engineers. On the other hand, in finance industry, they are assistant vice presidents or directors.
Remuneration comparable with the HKSAR and provide clear career path.
Salary Review, Work-life Balance!
Salary review regularly.
Increase man power, adjust salary level
Fairness, salary is too low for junior grade staff
work life balance
Good pay and good working environment.
Increase the pay and put a limit on the number of hours that engineers need to work each week; Also, hard works should be recognized and rewarded accordingly; and at the same time, if some staff are performing poorly or lack competency, the company should also
Ensure work-life balance is achievable by either by hiring more engineers to share workloads or to give reasonable projects and milestone deadlines which will be achievable without unbearable extensive working hours.
Respect the Engineer's advice and difficulties in both project management and technical delivery, and not just tell the Engineer what Top Management wants and ignoring reality entirely. Respect and give space to the Engineer to breathe and rest when necessary, not just pressurizing and using the Engineer to the ultimate and push for his or her limit all the time - a very bad example of a boss in my ex-consultant company
Higher salary, more annual leaves, more opportunities to work in other offices around the world
Keep motivate you staff, give sufficient and reasonable time frame to your colleague for their works
recruit more staff, salary review tally with the market trend, promote activity for work life balance

Three issues: 1)Punishment for not performing, no benefit for good performance. This is no incentive to performance. 2) Competition leads to overloading work. Less work-life balance. 3) The income of consultancy can't match the income of contractor and client. Form incentives in terms of benefits and income to reward those who perform.
Good pay, good remuneration and benefit.
Increase salaries and provide more opportunities
work-life balance is the most important issue for different work level employee
The consulting companies should decrease the profit to the company and pay more to the consulting engineers so that their salaries are relatively competitive to gov engineers, while they have such heavy workloads.
-Instead of assigning one person to handle an entire project, we may instead put a team of engineers with suitable hierarchy to effectively handle requests at different levels of the project, across a few projects. -Promote team building so juniors/employees have a better sense of place, identity, and belonging, which are proven strategies of to improve organizational behavior.
Higher salary and less working overtime
Provide more training opportunity

## 5 Full list of comments from respondents to Government

More building/ civil projects.
Pay the consultant firms with reasonable prices in term of their services provided
Pay the consultant firms with reasonable prices in term of their services provided
- All engineers should follow salary of engineers of Gov
Work-life balance
Stop taking all the staff. Ensure that professional fees cover a fare pay for a fare task, not the cheapest tenderer. Therefore consultants can pay fare wages and benefits that are in competition to the market rates and then large numbers would not automatically join the Government each year.
Let the consultant to be paid according to the actual manpower input instead of a lump sum.
Increase subsidy
Increase the consultant fee for proj
Increase the consultant fee for proj
Limited the openings
Prevent under price tender award
Prevent under price tender award
Avoid
Projects allocation
Don't chase the consultant too much.
Do something about the ridiculous disparity in salaries and workload between govt depts and consultants. Why do chartered engineers in consultants get half the pay even though they regularly work long hours while those in govt depts can leave on time.
Allow a diverse group to enter the Civil services and release the language requirement
Provide more subsidy for companies in training the engineering professionals and develop advanced technology and programes for design purpose
Instead of increasing permanent and contracted engineers in Government for promoting in-house design and general administration works, the Government may consider to launch more consultancy including consultancy management works or term services to consulting companies.
Change the rules of consultancies and review government engineers salary comparison with the industry

Work hours/days can be revised by law as evidence is there to suggest even lesser days can increase productivity further.
To limit the salary of ARE on job training.
To limit the salary of ARE on job training.
push projects steadily and encourage comparative salary in non-government organisation.
Proactively involve in solving engineering problems when they raise a question, instead of blaming other parties and sneak out from bearing responsibilities.
價低者得 for tendering should not be the only way to judge who got the contract
Try keep up the pace of how the industry is transforming/ advancing among the world. HK is one of the top city to maintain up-to-date information and put them into practice.
Ban
Increase consultation fee, introduce means to reward good design
Government won't change, give up.
Recognition of professional qualifications outside HK
Control the working hour
More support in both financial and socially
Stop recruiting young chartered engineer with much above market salary. Let these young engineers gain more experience in the industry before they join government. Say at least C+10yrs.
For fresh graduate engineers, the salary compared to other industries is relatively low. The progression in terms of salary and grade is also slow in the first 3-4 years which can be discouraging when compared to other industries.
The crux of the matter is undoubtedly on government side. It lets the consultants using an extremely low price for tendering process to get the consultancy. Such atmosphere, as the only way to survive for consultant, has been continued for more than a decade, however, the government knows but still do nothing on such issue. As a result, all staffs in consultants suffer with very low salary and long working time (ridiculous workload) to earn money for the consultants. The government should shoulder the responsibility and combat using low tendering price to get the consultancies, and review all salary, whatever the position, among government, consultants and contractors. Most importantly, it is disappointing to see that the government claimed to do something but nothing has been done till now.
Issue more consulting job
Consultant fee in HK is pathetic. Weight on technical proposal should be at least 70% of the overall marking. Setting a min. amount of consultancy fee will help to stop the unhealthy development in the industry now. So consulting company can spend more time and money focusing on professional development and training

<p>Continually absorbing young engineer from the industry with attractive salary is killing the business. Please keep the annual intake of government engineer in a consistent numbers, instead of suddenly raise or drop of intake amount.</p>
<p>Provide more projects to the industry. Attract more consultants to do business in HK</p>
<p>To recruit less engineers and release chartered engineers to the private market</p>
<p>Provision of more incentive schemes. For example, provision of subsidy to the consulting companies for retaining consulting engineers.</p>
<p>Review the existing bidding system to prevent very low bidding price winning the consultancy project.</p>
<p>Avoid low bids in consultancy and construction contracts, which can allow more competitive package for the staff again working in government</p>
<p>Change of culture in accepting tender mainly due to cost; this lowers the average wage of consulting engineers and widen the wage gap between client, consultancy and contractors</p>
<p>Put in place mechanisms that would ensure reasonable fees for consultancies</p>
<p>Increase the consultant fee</p>
<p>Increase the consultant fee</p>
<p>increase salary</p>
<p>Market sharing is important. Bid fee benchmarking real staff cost</p>
<p>The fee levels for Government projects in particular are too low, and consultants are perpetually inclined to lower their fee proposals below a reasonable level when they are desperate to win new work. With higher fee levels should come higher pay/reduced workload for engineers which is the biggest incentive to stay in the industry. Agreeing on how to revamp the bidding/award process is the tricky question for which I do not have the answer.</p>
<p>Raise status</p>
<p>Bring consulting engineer salaries on par with government engineers and contractor engineers. Appreciate engineers and increase their overall</p>
<p>Improve the working environment.</p>
<p>Do not recruit loads of Engineers every year!</p>
<p>Minimize document control.</p>
<p>Large scale construction project is not much in Hong Kong</p>
<p>Increase wages.</p>

<p>Increase the pay in general and develop the respect for people working in the industry; provide more support to companies, students or people working in the industries; help establish a better image of the engineering industry and promote it in better ways to young students, so they will not only think about joining the finance or medical industries after graduation.</p>
<p>Improve management teams within consulting companies by ensuring communication and understanding are fully achieved through different events such as small meetings and gatherings</p>
<p>more subsidies to the employee not the company</p>
<p>Government bodies to be educated in BIM. Government bodies love to use their authority to force consultants to do extra work. Should stick to the contract specification without unreasonable requests.</p>
<p>The system of engaging consultants is not fair, in particular the medium and small size consultants.</p>
<p>the salary should be in line with each private company or lower</p>
<p>The gov should put more budget to the consultant services. The gov should also apply the policy in the agreement of gov projects with consultant companies to ensure the consulting engineers get the same payment like gov engineers, for example the Resident Engineer, Contract Engineer and body shopped Engineer form gov projects.</p>
<p>Regarding the bidding and marking of T&amp;F submissions for government consultancies, consider lowering the proportion of marks associated with consultancy fee (i.e. more marks allocated to technical proposals), and consider a more stringent approach to prevent fee diving. If consultants are less likely to fee dive, they would have less cash flow problems, and could have more resources to train/retain talents. Otherwise, hold regular seminar sessions to update top management of consultants on the latest mechanisms to prevent fee diving/controlling budget.</p>
<p>The government has job security and are hiring professionals every year. With the government hiring and employment package the government is offering, the consulting engineers would leave to the government sector.</p>
<p>Provide more funding</p>

## 6 Full list of other comments

Election rights for the young engineers should be considered in the city and industry.
The salary/ bonus should based on the output and performance regardless the year of experience!
The salary/ bonus should based on the output and performance regardless the year of experience!
Lack of respect is gained from the social community. The Engineering industry requires more promotion to get citizens involve in think from engineers' point of view.
Change the bidding system to avoid negative competition by lowering the cost. Improve the industry environment by prevent every company losing money by winning tender.
Consultants should increase young engineers salary to a level similar to RSS and government
Government shall furnish more chance to the consulting engineers that they get more recognition from the consulting industry in Mainland China.
HK government to review the intake and pay of engineers. Most of the consulting engineers are lured into joining the government because of much better terms and security.
As a developers/ government officials / clients' representatives, fair contract treatment and reasonable consultancy fee is the only way to ensure quality works
Raise professional image
People working at the consulting firms are often working work time and getting paid very little (or at least this is the image of the industry that people have been seeing for decades). I think companies or senior management should set up better better working environment for the staff, ensuring that they can maintain
Provide more job opportunity

## About the research

The research was initiated by the Association of Consulting Engineers of Hong Kong – Young Members Committee (ACEHK YMC) at the end of 2020. During the year of 2020, face-to-face events were on halt in effort to control the spread of COVID-19. The YMC has instead diverted their effort into gathering data on the market consensus relating to the industry so as to start the investigation on how to retain talents in the Consulting Engineering Industry.

**Author:** Angela Chao, Chairperson of ACEHK YMC

**Research committee members:** Derek Yu and Kathryn Chow

**Market research:** Policy21

Special thanks to the ACEHK Main Council for gathering us young professionals and started the YMC four years ago. We would like to thank also our member firms and the Main Council for funding this market research project and to open up the conversations with key stakeholders to work on the key issues for our industry together.