

FIDIC-GAMA 2017



Conference on Infrastructure

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African Partnerships for Sustainable Growth

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The Numbers Game – Shifting the reality of underpaid engineers (when compared to other professions)



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STUDY OBJECTIVES AND METHODOLOGY

STUDY OBJECTIVES

1. To determine the salary levels of different professionals in different countries
2. To determine the factors that affect salaries across professionals
3. To assess the growth of salaries pertaining in the engineering profession
4. To assess the sustainability of salaries in the engineering profession

METHODOLOGY

- Online survey to professionals through questionnaires by means of a software
- Survey results analyzed and conclusions drawn



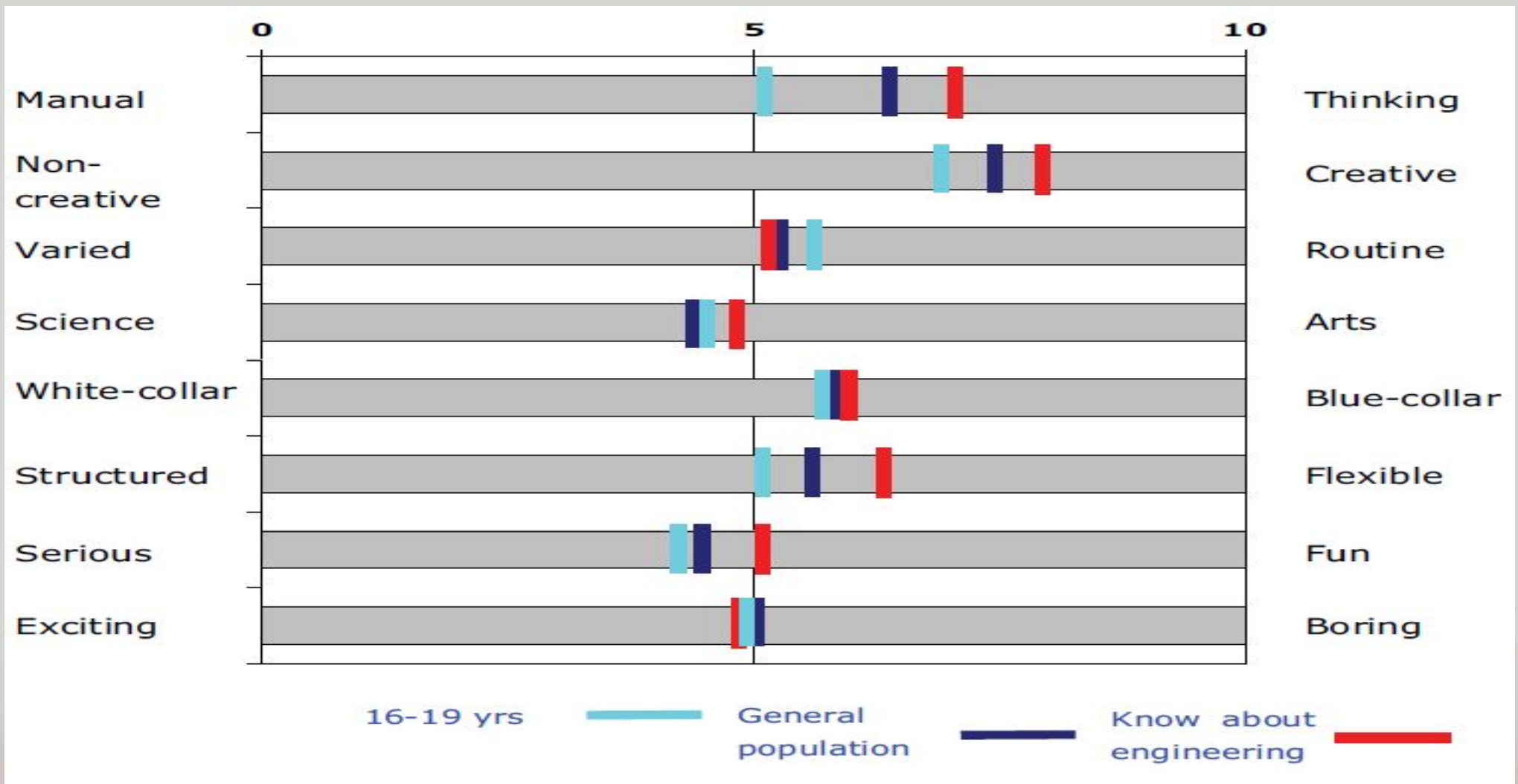
LITERATURE REVIEW

- **Public-Attitude-Perceptions of Engineering or Engineers**
 - Building or Construction and Mechanics or fixing things
 - Design, Innovation or creativity
 - Used to describe other trades like technicians, repairers
 - Viewed positively as problem solvers
 - Perceived as making good contributing to society
 - So many types of engineers making engineering confusion
 - Young people generally have limited knowledge of engineering
 - Engineers not viewed as professionals or well paid



LITERATURE REVIEW

- Public-Attitude-Perceptions of Engineering or Engineers



Source: The Royal Academy of Engineering



LITERATURE REVIEW

- Cost of Living Around the World

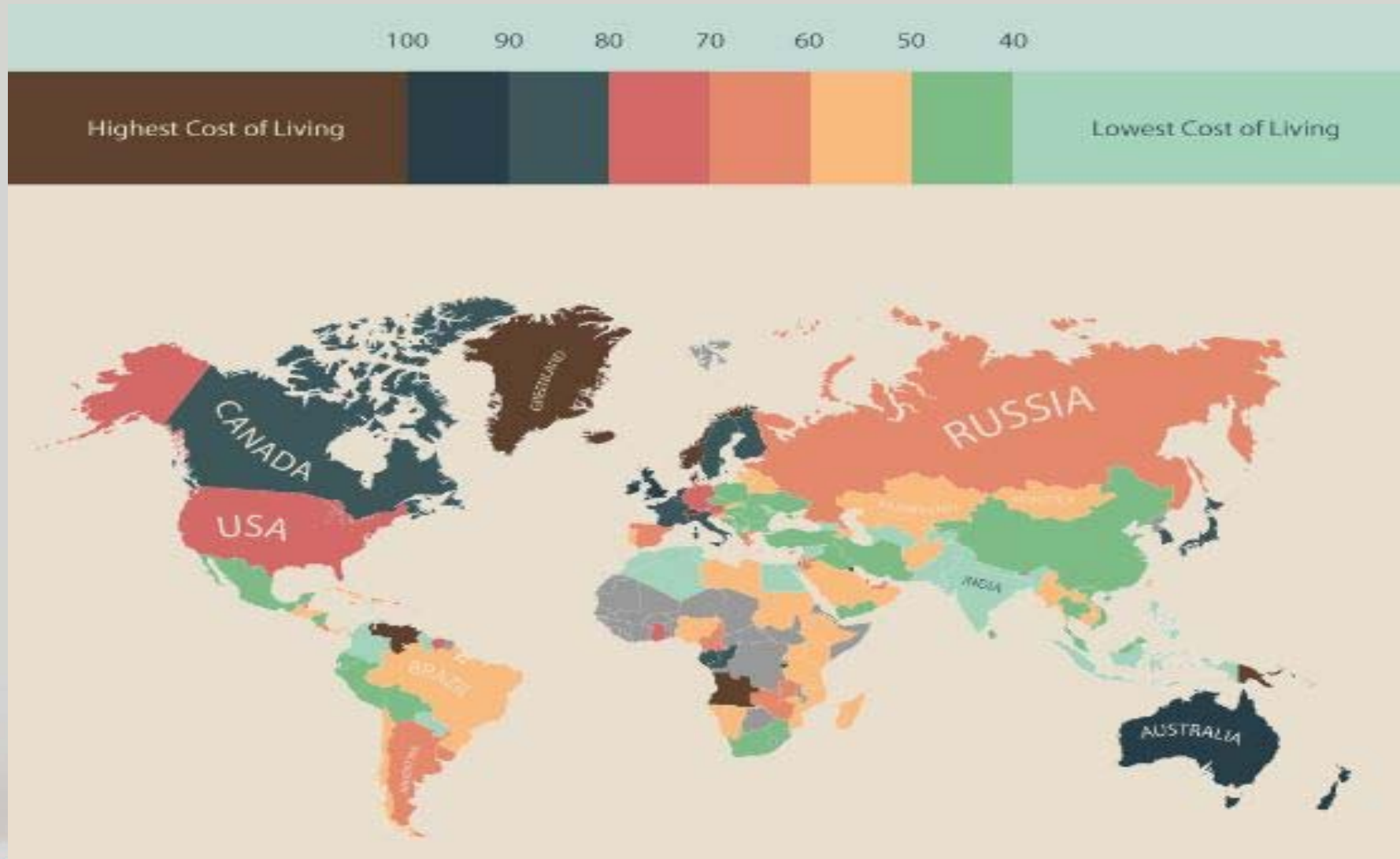


Source: Business Insider



LITERATURE REVIEW

- Cost of Living Around the World



Source: Business Insider



LITERATURE REVIEW

- Cost of Living Index Around the World

The Highest Cost of Living

1 Switzerland 126.03	2 Norway 118.59	3 Venezuela 111.51	4 Iceland 102.14	5 Denmark 100.6
6 Australia 99.32	7 New Zealand 93.71	8 Singapore 93.61	9 Kuwait 92.97	10 UK 92.19
11 Ireland 92.09	12 Luxembourg 91.78	13 Finland 89.68	14 France 88.37	15 Belgium 87.22

The Lowest Cost of Living

1 India 26.27	2 Nepal 28.85	3 Pakistan 30.71	4 Tunisia 34.06	5 Algeria 34.10
6 Moldova 34.72	7 Egypt 37.22	8 Macedonia 37.41	9 Syria 38.24	10 Colombia 38.92
11 Bangladesh 39.22	12 Indonesia 39.35	13 Georgia 39.56	14 Morocco 39.78	15 Philippines 40.00

Source: Business Insider



LITERATURE REVIEW

- Salary Review in South Africa (2016)**

Profession	Salary (USD/month)	
	Highest paid (Senior)	Lowest paid (Skilled)
Admin, Office, and Support	2,403.57	394.70
Design, Media and Arts	3,096.76	1,069.35
Engineering	5,241.85	2,056.78
Building and Construction	5,241.85	1,040.85
Design, Media and Arts	3,096.81	1,069.37
Finance	5,066.15	930.67
Marketing	3,627.59	1,023.66
Manufacturing and Assembly	3,354.39	846.46
Warehousing and Logistics	3,700.62	542.27

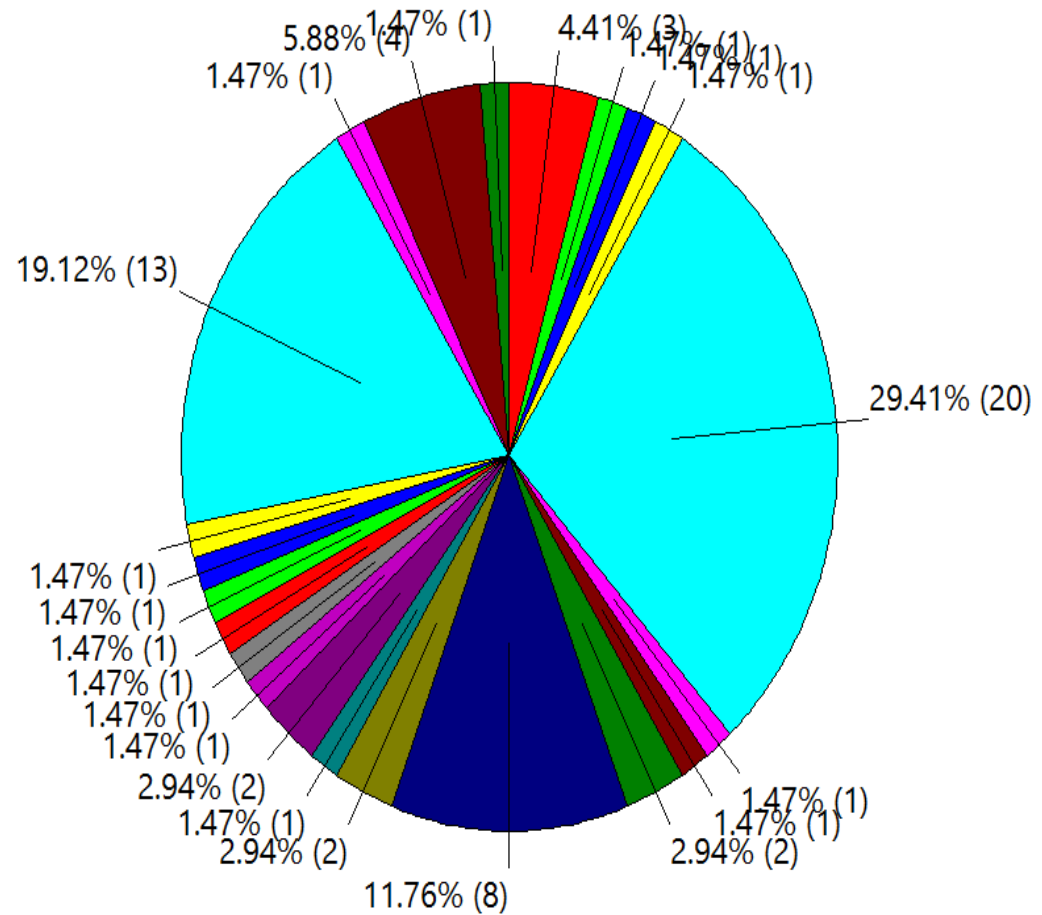
Source: Career Junction



SURVEY RESULTS

Country

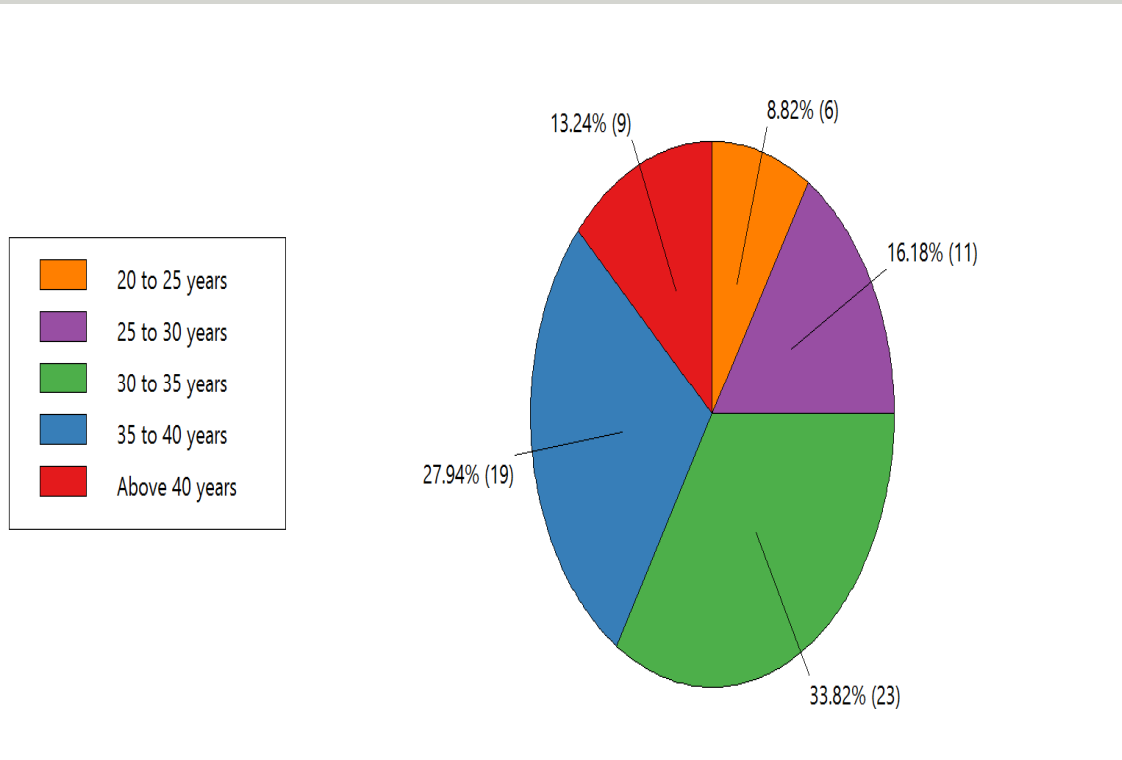
	Denmark
	Estonia
	Ghana
	India
	Iran
	Japan
	Jordan
	Kenya
	Liberia
	Nigeria
	Philippines
	Romania
	Saudi Arabia
	Slovakia
	South Africa
	Spain
	Sudan
	Thailand
	United Arab Emirates
	Zambia



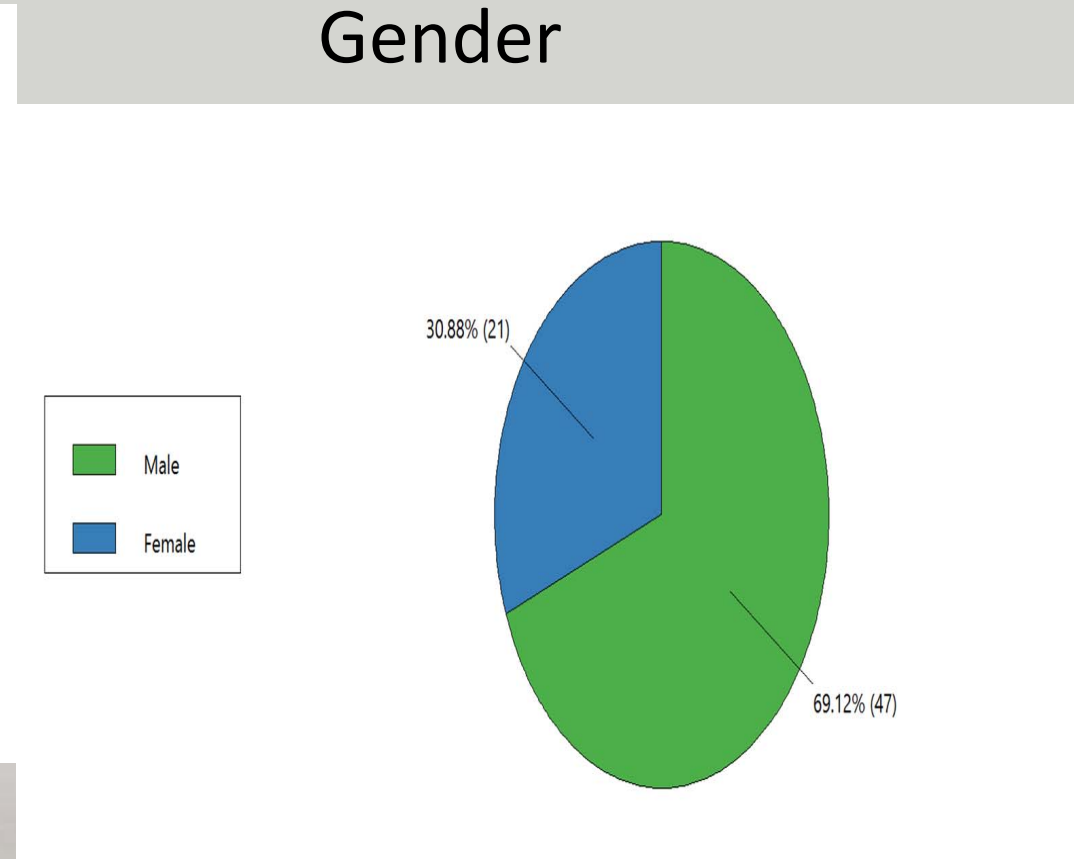


SURVEY RESULTS

Age



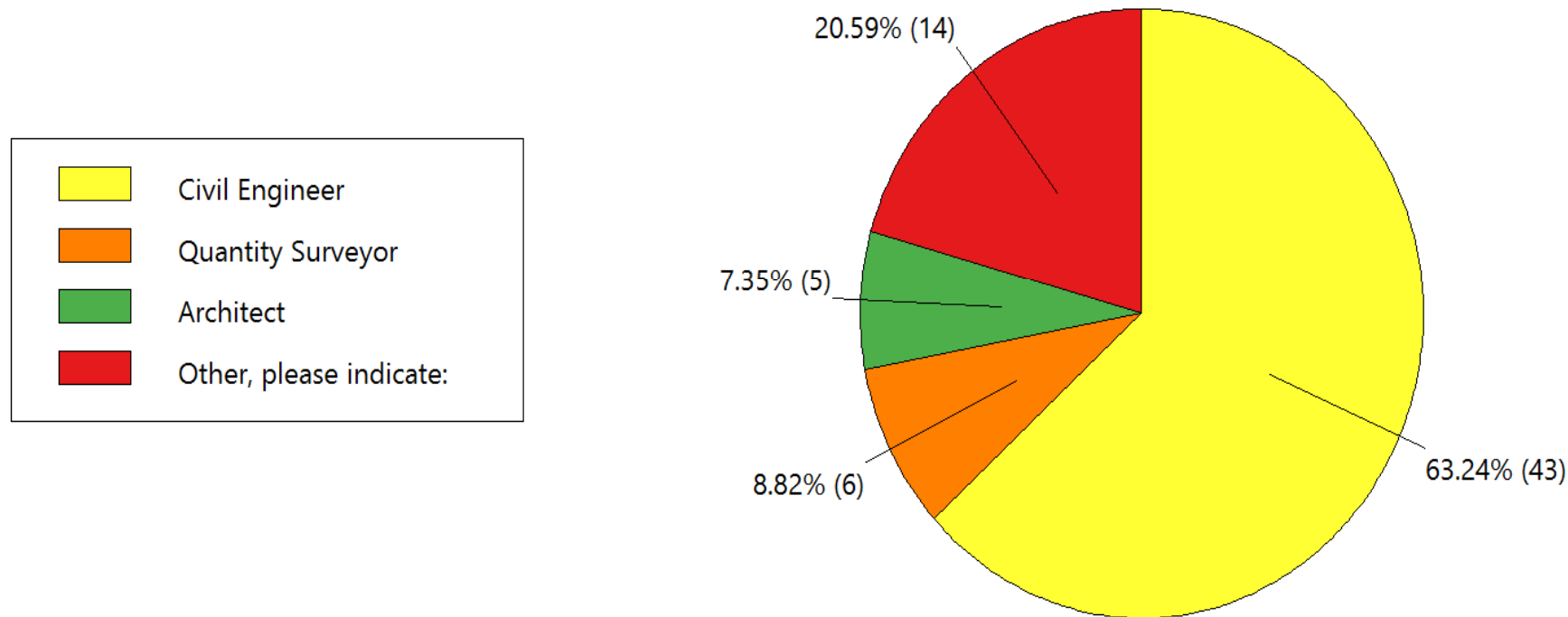
Gender





SURVEY RESULTS

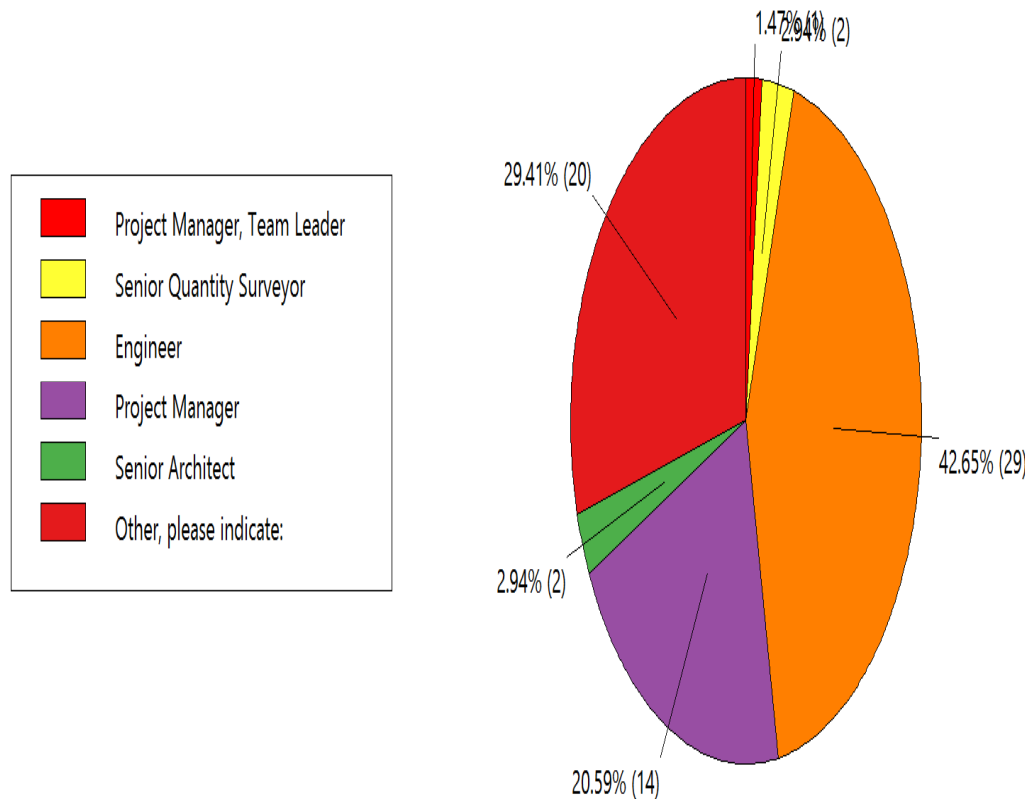
Profession



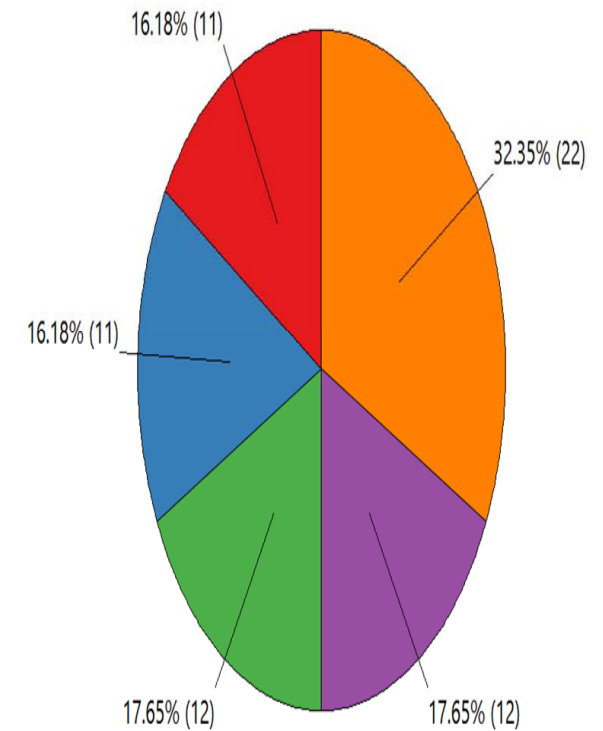


SURVEY RESULTS

Position Occupied



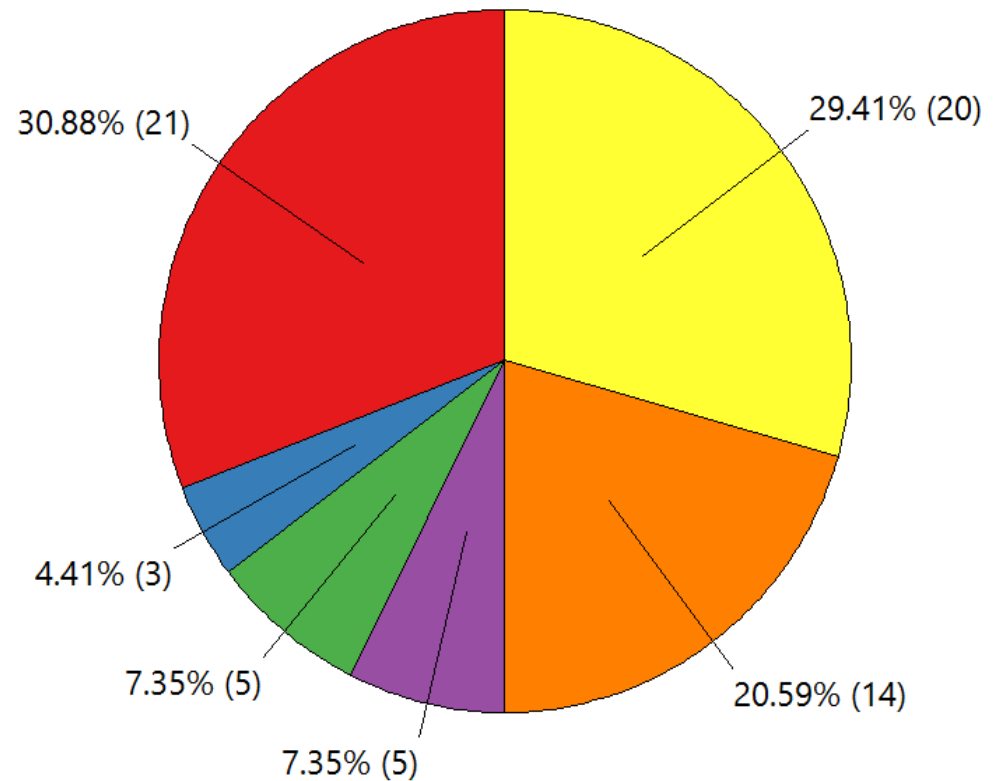
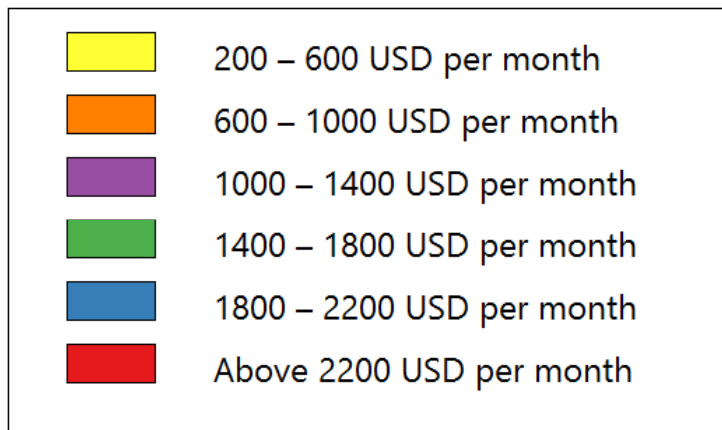
Years served in Position





SURVEY RESULTS

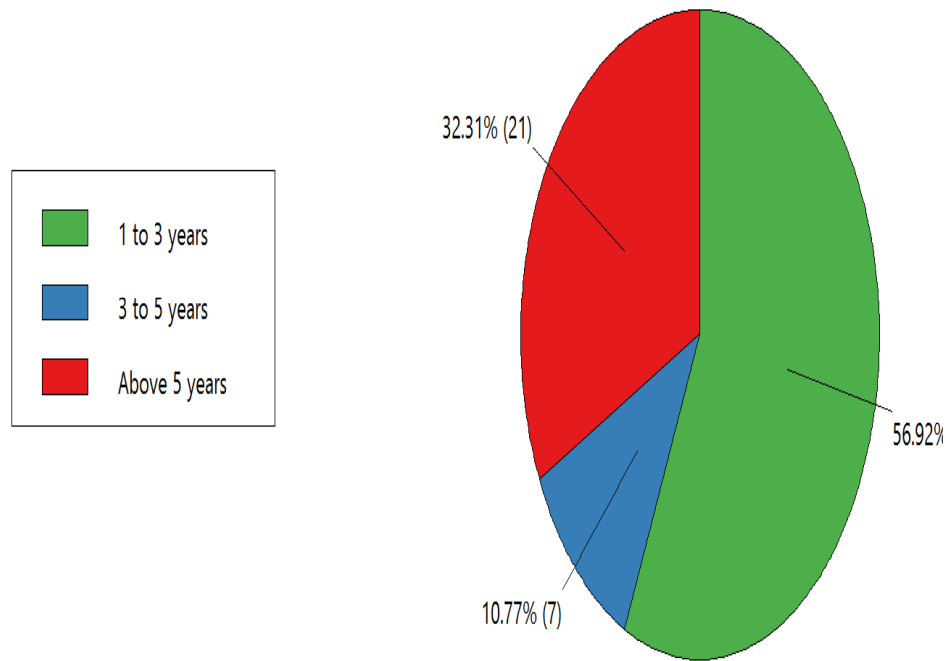
Salary as Professional Staff



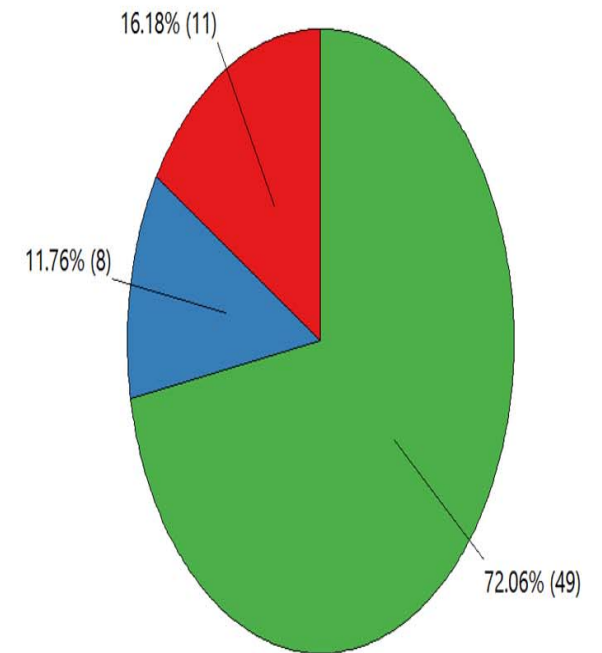


SURVEY RESULTS

Years Served as Graduate Staff



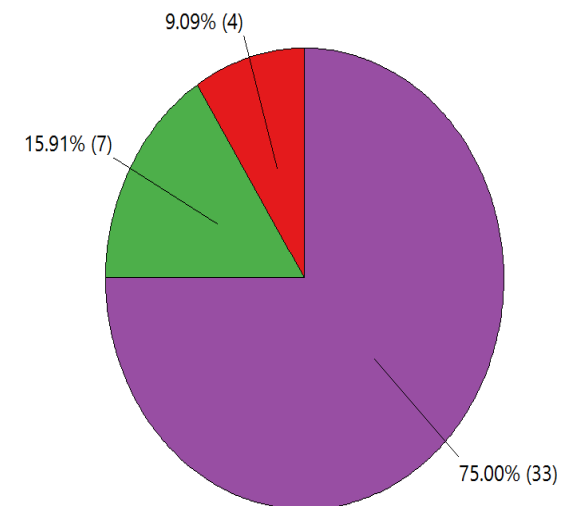
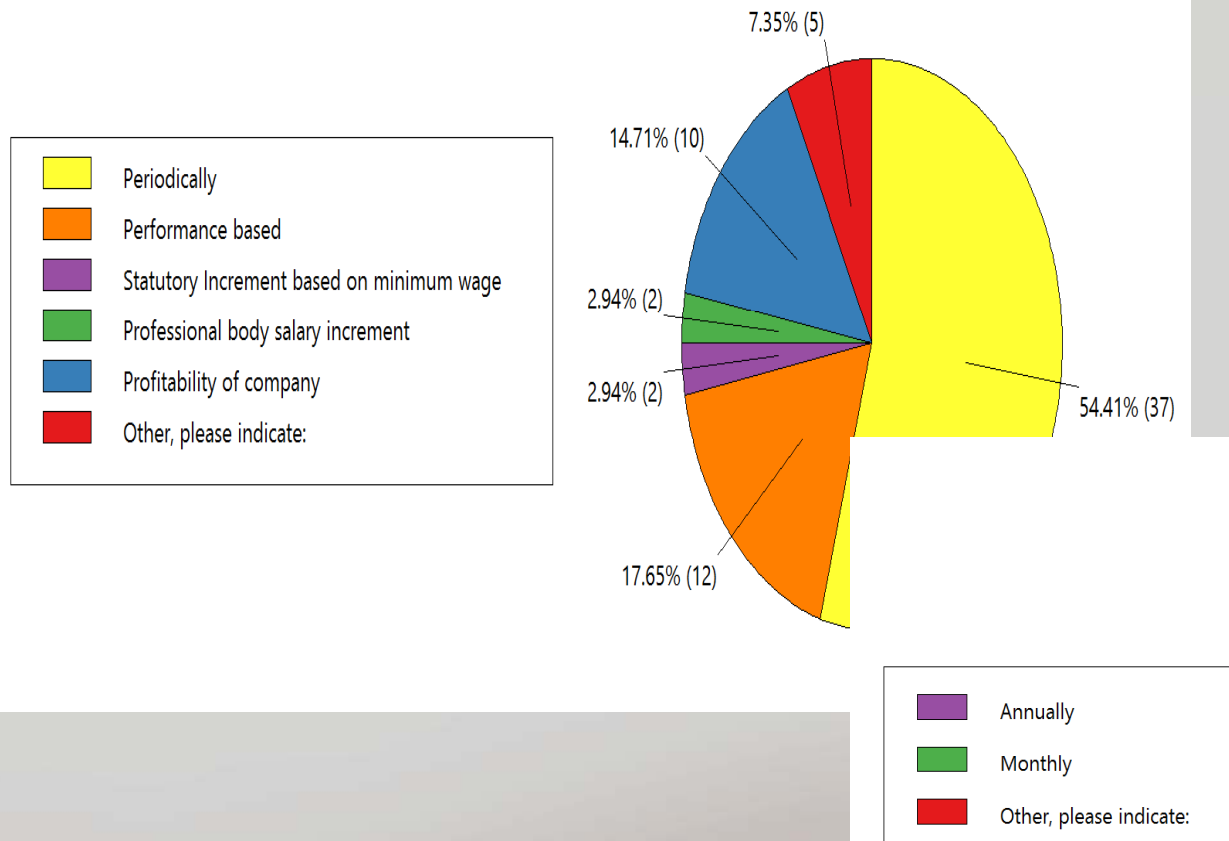
Salary as Graduate Staff





SURVEY RESULTS

Mode of Salary Increment and Frequency

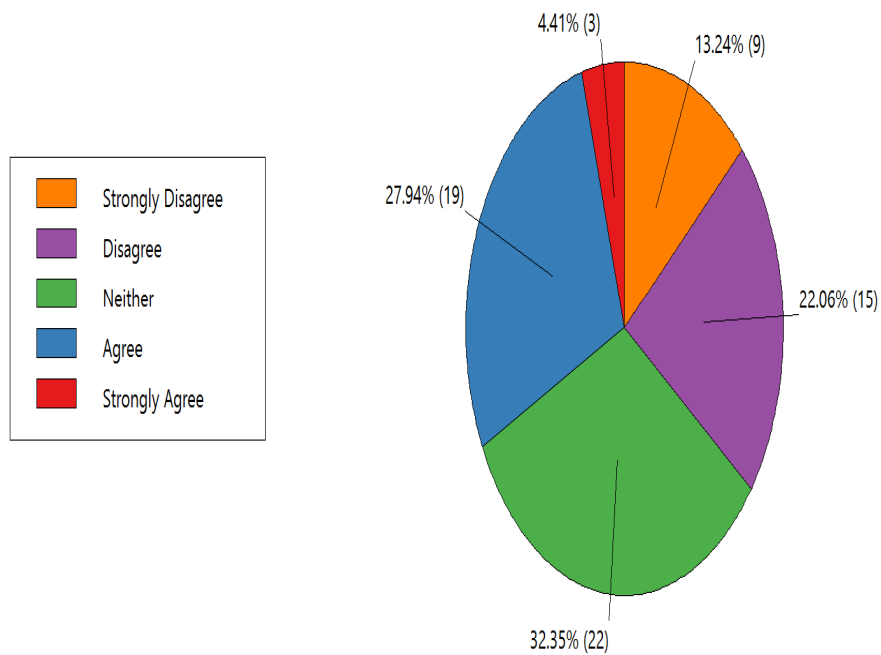




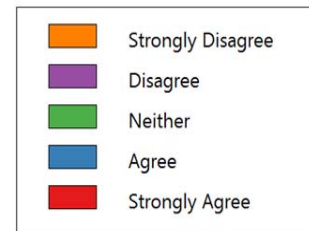
SURVEY RESULTS

Factors Affecting Salary Levels

Labour Union



Industry Type

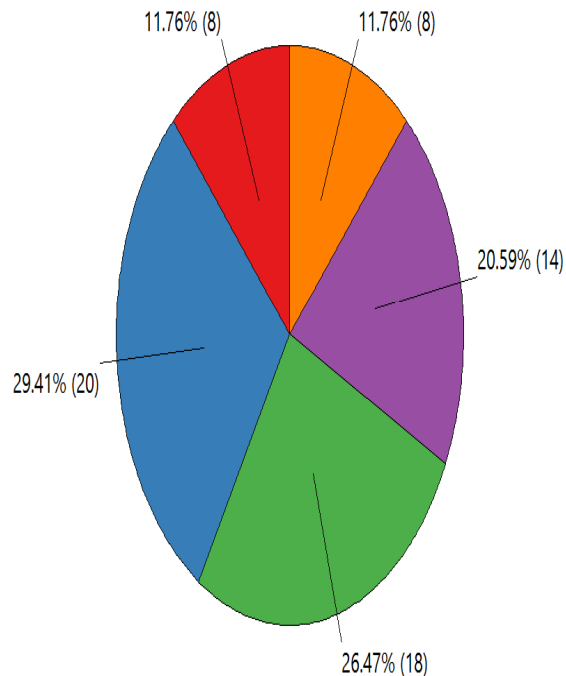




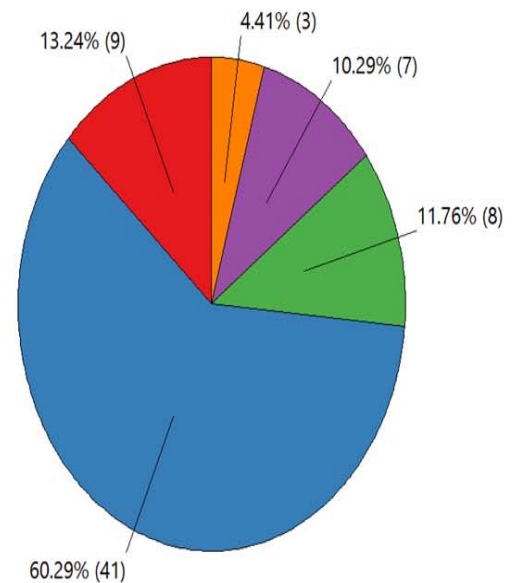
SURVEY RESULTS

Factors Affecting Salary Levels.....

Government Legislation



Ability to Pay

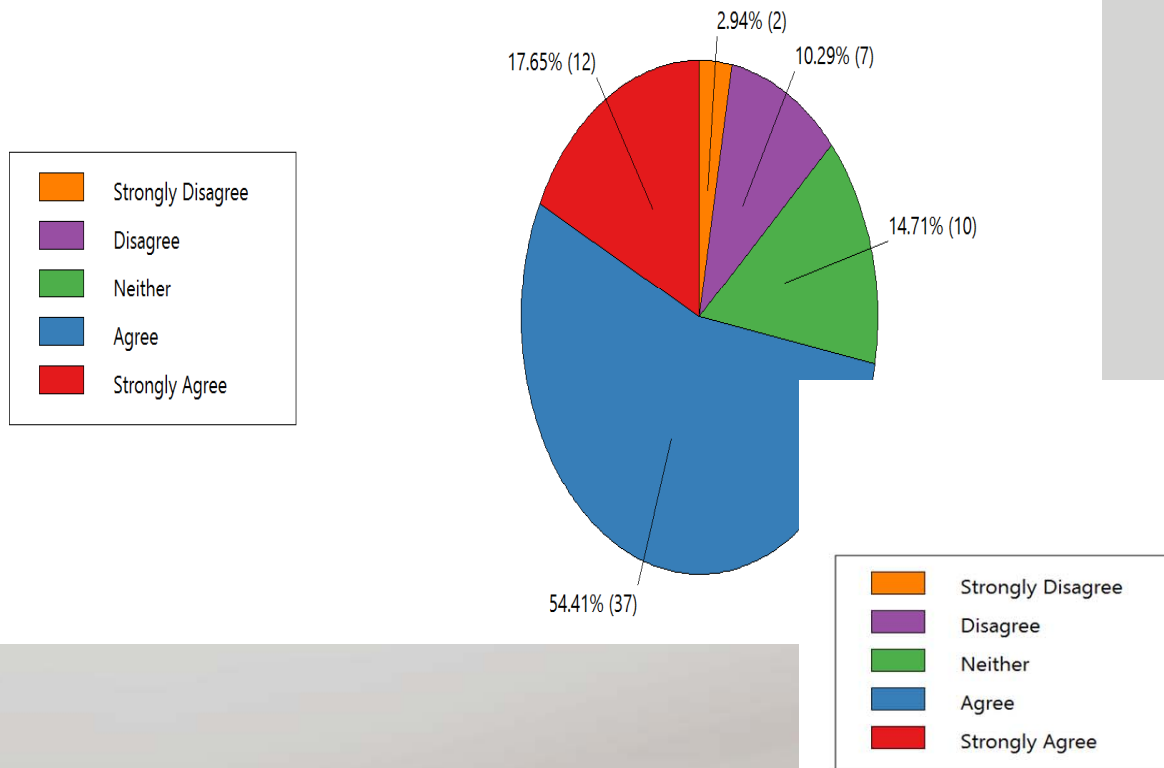




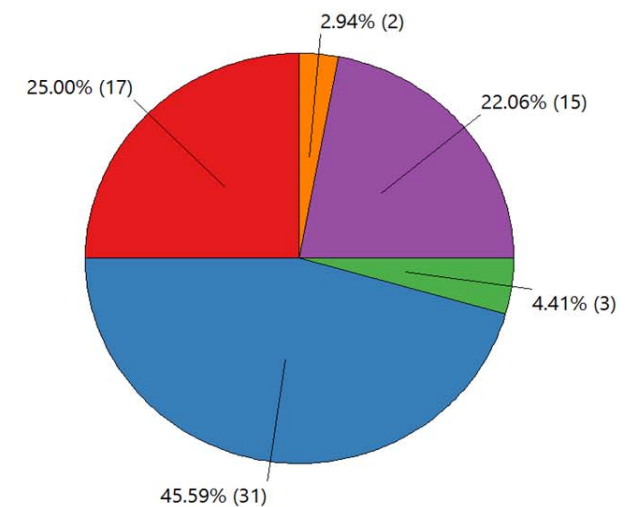
SURVEY RESULTS

Factors Affecting Salary Levels.....

Supply and Demand



Productivity

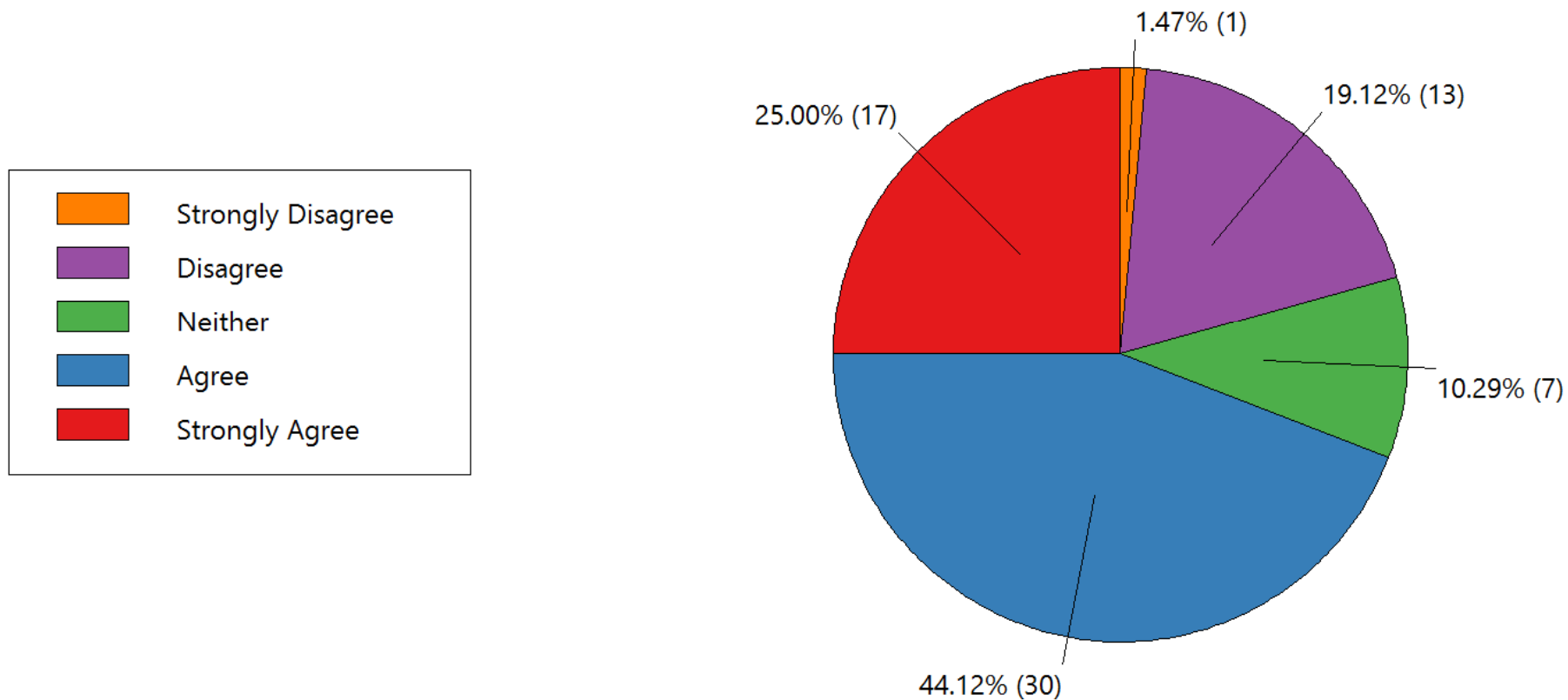




SURVEY RESULTS

Factors Affecting Salary Levels.....

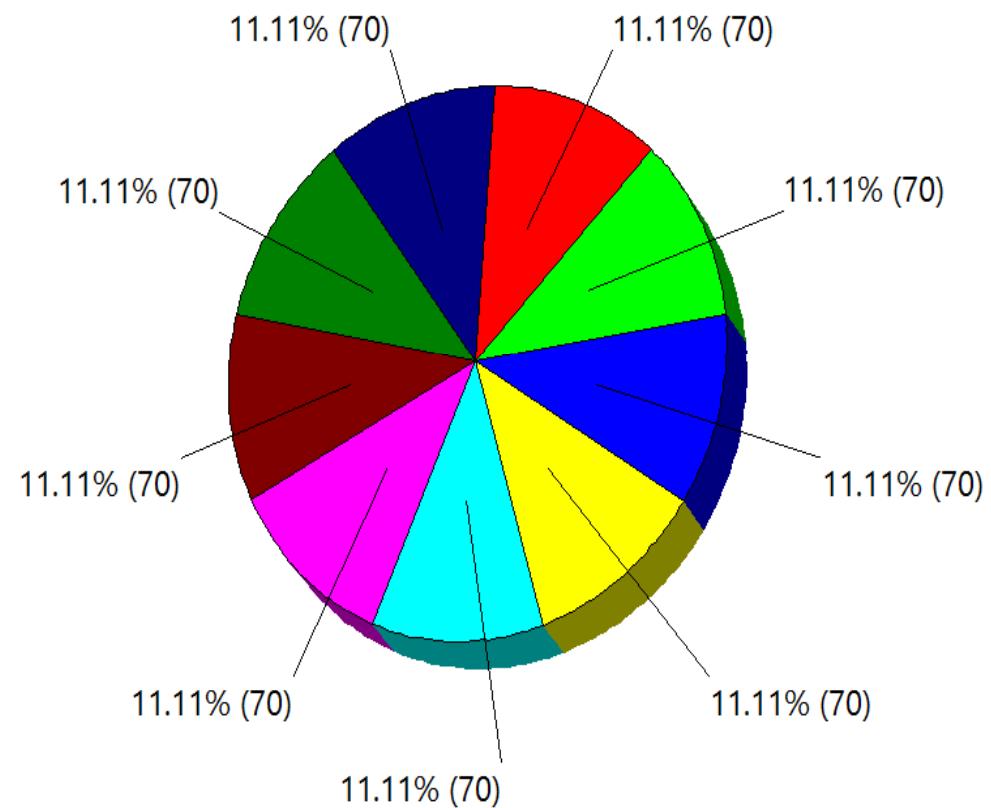
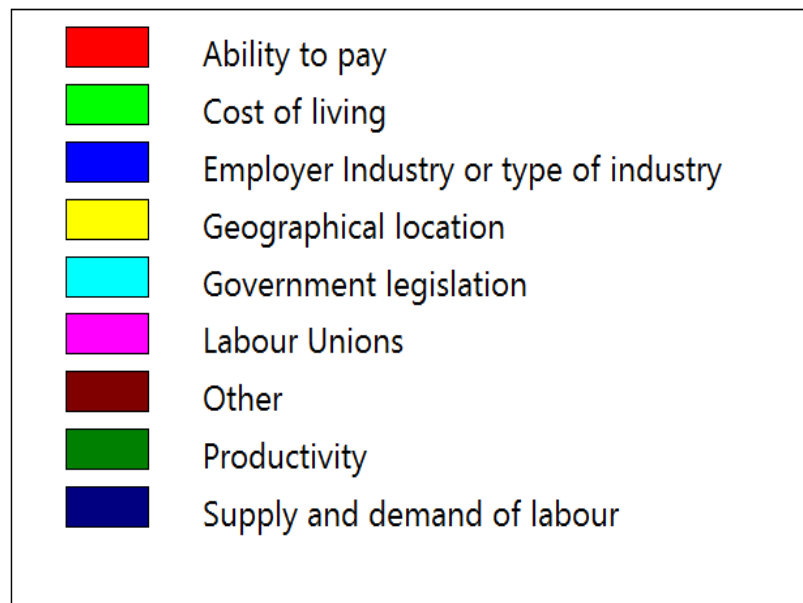
Geographical Location





SURVEY RESULTS

Ranking of Factors Affecting Salary Levels

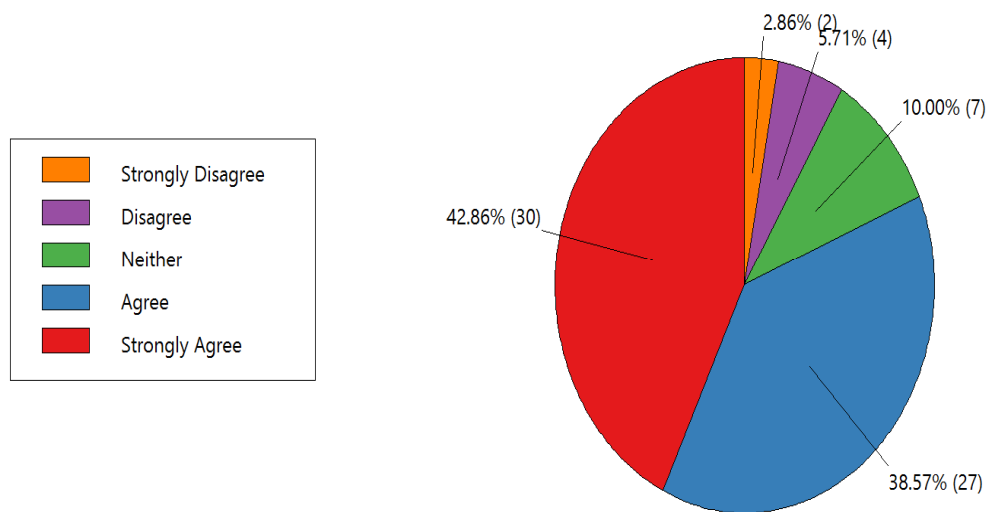




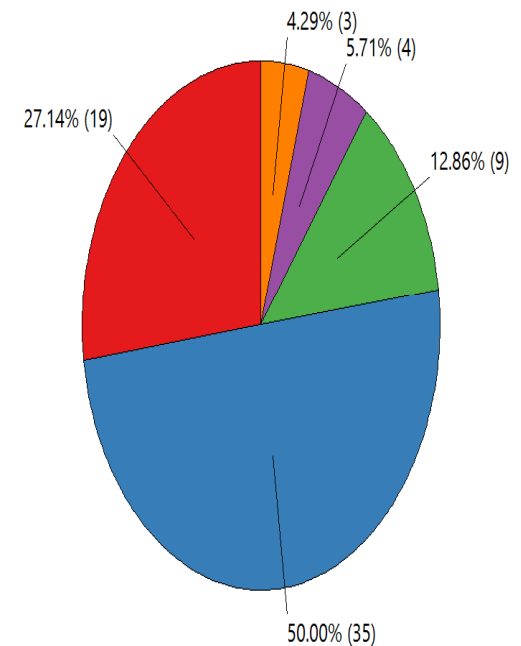
SURVEY RESULTS

Salary Levels Sustainability Strategies

Well-organised industrial policy



Well implemented Govt. Policy

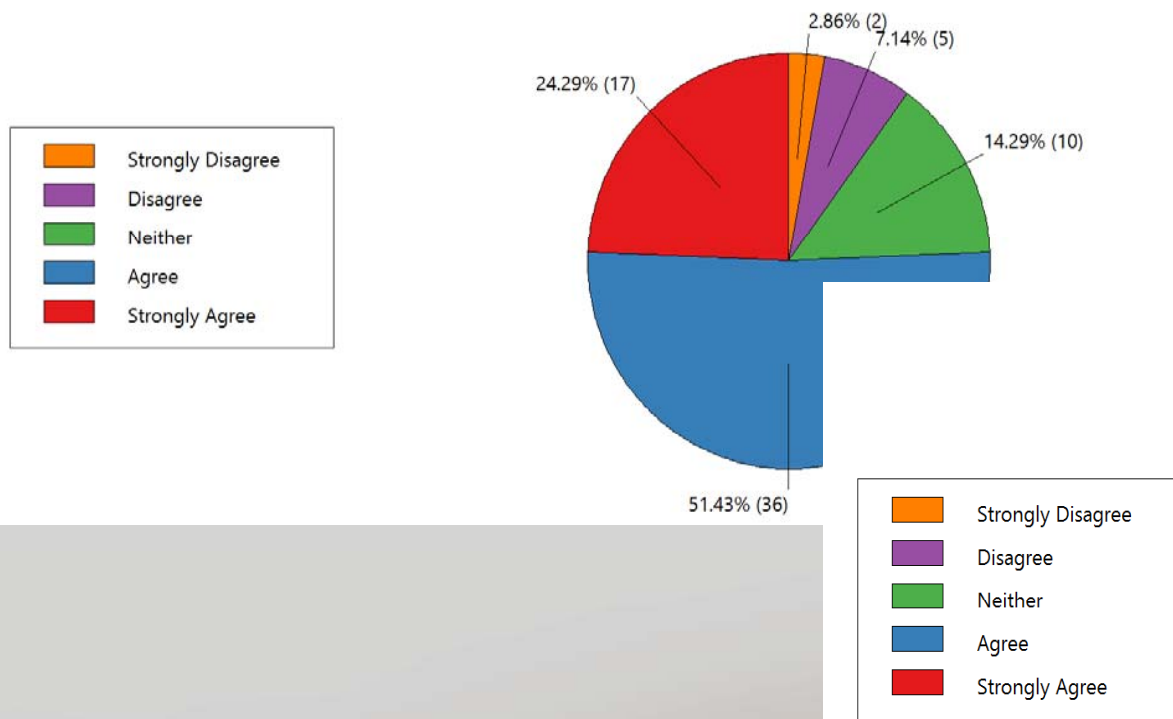




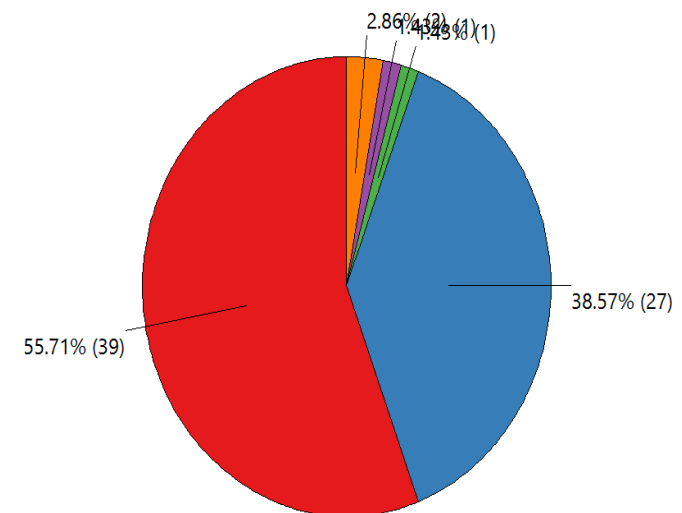
SURVEY RESULTS

Salary Levels Sustainability Strategies.....

Workers Collective Bargaining Agreement



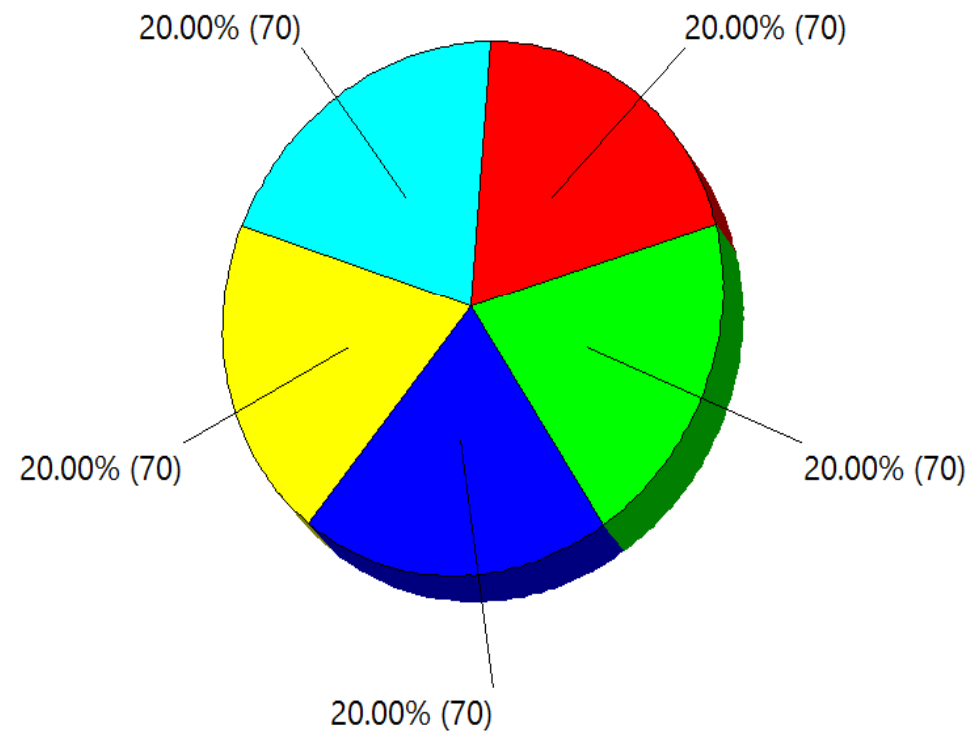
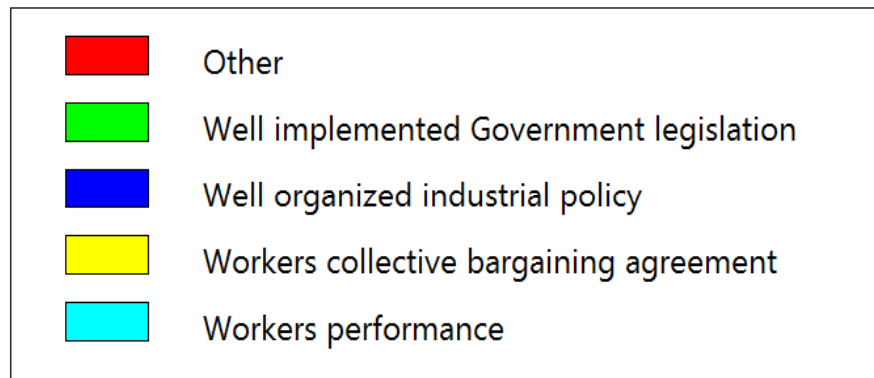
Workers Performance





SURVEY RESULTS

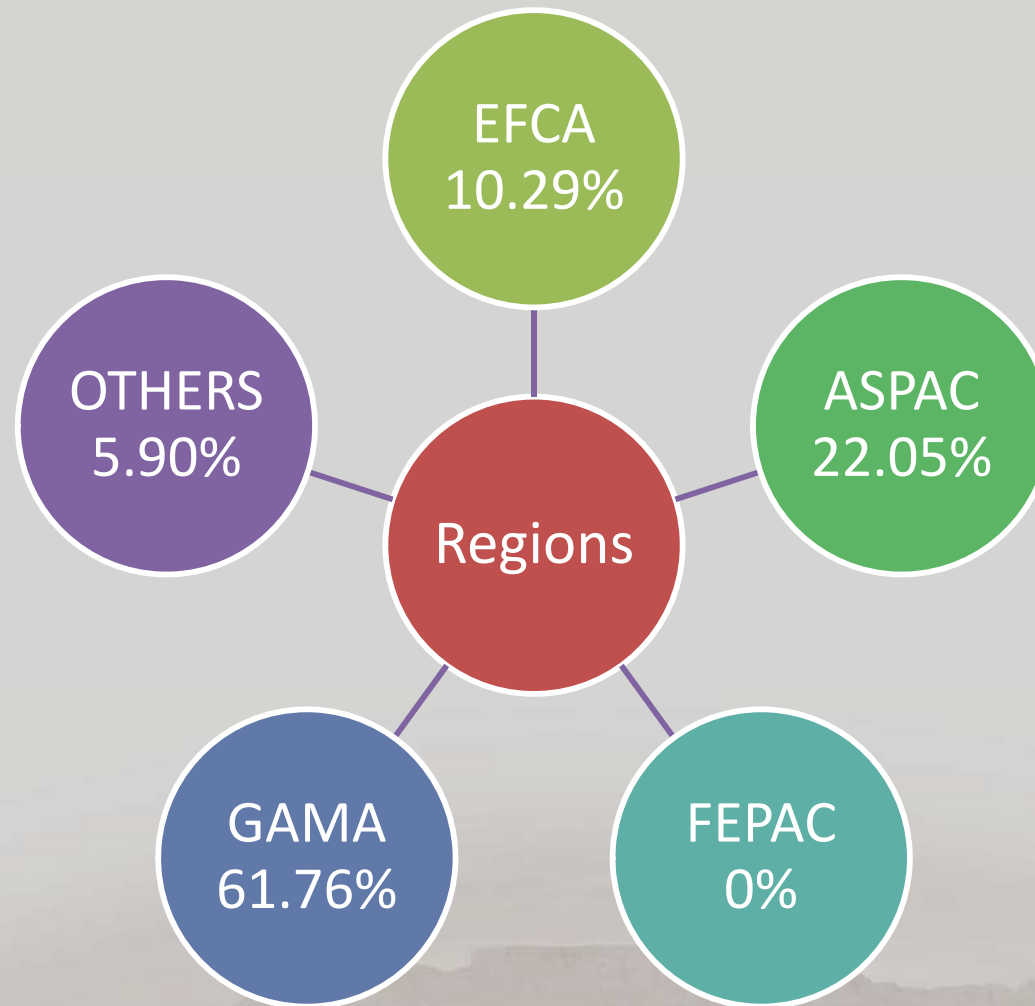
Ranking of Salary Levels Sustainability Strategies





FINDINGS

- 70 Respondents from 23 Countries



Regional Distribution



FINDINGS

- Engineers in the GAMA region are the lowest paid as compared to their counterparts in both ASPAC AND EFCA regions
- 26% of Engineers in the GAMA region earn an average of USD 400 per month after working for 6 years
- 26% of Engineers in both ASPAC AND EFCA regions earn an average of USD 2200 per month after working for 6 years
- 57% of graduate staff work for 3 years maximum to become professionals
- 73% of graduate staff earn an average of USD 250 per month



FINDINGS

- 43% of professionals including engineers are dissatisfied with their salaries irrespective of their geographical location
- 75% of professionals get their salaries increased annually
- The factors affecting salaries are multi-faceted
- All the factors affecting salaries are equally important



CONCLUSIONS

Salary Sustainability Strategies

- Salaries of Engineers can be sustained by taken a holistic approach
 - Well implemented Government Legislation
 - Well-organised industrial Policy
 - Workers Collective Bargaining Agreement
 - Workers Performance
 - Other relevant measures or approaches
- Knowledge and awareness about the Engineering profession must be increased especially at the basic school level



REFERENCES

- Business Insider, The cost of living worldwide, 2015
- Career Junction 2016 salary review in South Africa
- Engineering Perceptions- Dr. Gordon Mizner
- Engineers: Public Perception Matters, By Norman Augustine
- The Engineering Profession, A statistical Overview, Thirteenth Edition, February 2016
- The Royal Academy of Engineering-Public Attitudes to and Perceptions of Engineering and Engineers 2007

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Thank you for your Attention!



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