

2020

# A Survey Report on the Garment Workers of Bangladesh



ASIAN CENTER FOR  
DEVELOPMENT

## **A Survey Report on the Garment Workers of Bangladesh, 2020**

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# **A Survey Report on the Garment Workers of Bangladesh**

Asian Center for Development

**December 2020**

# ACKNOWLEDGEMENT

Asian Centre for Development (ACD) is pleased to publish this second survey report on workers of the garment industry in Bangladesh. ACD published the first comprehensive report in 2015. This follow-up report would help readers to get a clear picture about the changes in the garment sector in Bangladesh.

ACD gratefully acknowledge the support from the Research Development and Trade Information (RDTI) unit of the Bangladesh Garment Manufacturers and Exporters Association (BGMEA). In particular, we express our deepest gratitude to Md Arshad Jamal (Vice President & Director in Charge, RDTI, BGMEA). His keen interest to have independent statistics on the industry was pivotal for ACD to enter into this venture. In addition, we are thankful to Dr. Rubana Huq, President of BGMEA, for her cooperation and her comments on the draft report. It has helped us to interpret a few of our findings.

The biggest challenge for conducting the survey in 2020 was COVID-19. We planned to survey 160 factories and the survey began in February 2020. However, COVID-19 literally halted the survey process. It was our brave enumerators who finally agreed to restart the survey as COVID-19 infection rate slightly decreased. Our gratitude to all of them including Md. Masud Parvez who managed the field work safely and efficiently both in Dhaka and in Chattogram.

Access to factories for data collection has always been a very difficult task and it is even more difficult for conducting a randomized survey. In this regard, we would like to express our gratitude to the RDTI's research team who provided the letter of introduction. We gratefully acknowledge the support that we received from Mr. Nur Mohammad Amin Rasel (Joint Secretary, RDTI, BGMEA) and Ms. Fahmida Haq Majumder (RDTI, BGMEA) in terms of field level access to the factories when required.

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Dr. A.K. Enamul Haque  
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## ACRONYMS

<b>ACD</b>	Asian Center for Development
<b>BGMEA</b>	Bangladesh Garment Manufacturers and Exporters Association
<b>CPD</b>	Centre for Policy Dialogue
<b>EPB</b>	Export Promotion Bureau
<b>GDP</b>	Gross Domestic Product
<b>NGOs</b>	Non-government Organizations
<b>RMG</b>	Ready Made Garments
<b>USD</b>	US Dollar
<b>WB</b>	World Bank

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# 1. Rationale of the Study

## 1.1 INTRODUCTION

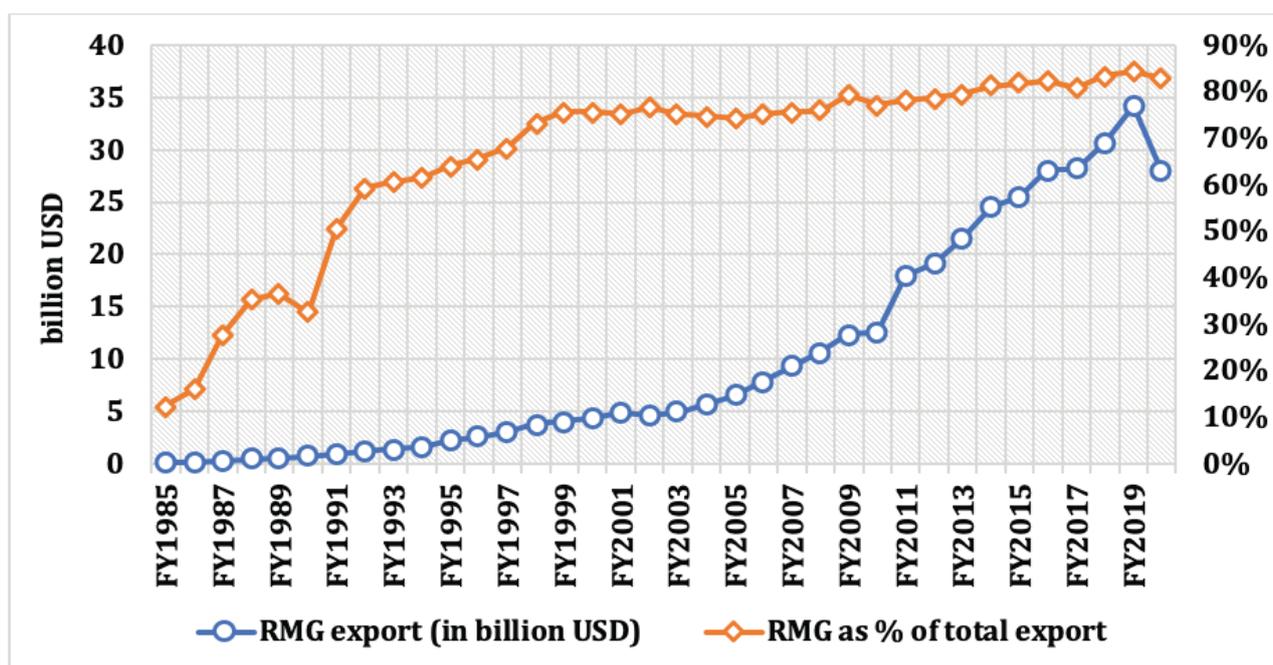
Bangladesh is among the five fastest growing economies in the world with an average growth rate of 7.39% (2015-2019) in its Gross Domestic Product (GDP) (Ministry of Finance, 2020). Its GDP is nearly USD 317 billion and it is the 41st largest economy of the world (World Bank, 2020). Bangladesh is also the world's second largest exporter of apparel products with an export value of USD 34 billion in 2019 (Export Promotion Bureau, 2020). At the same time, export of the largest exporter, China, is nearly USD 137 billion in terms of apparel products, which is nearly 4 times the export of Bangladesh. Having said that, Bangladesh has been increasing its RMG export at a rate of 8% (2015-2019) and it occupies more than 84% of the total export value (Figure 1). This indicates the importance of this sector for Bangladesh's economy.

Based on this, the Asian Center for Development (ACD) completed the first comprehensive survey on workers of the garment industry in Bangladesh in 2014 (Haque & Bari, 2015) and reported the impact of this sector in terms of workers' welfare, women empowerment, and overall socio-economic changes in the workers' life. Five years later, ACD has conducted this second comprehensive survey on the workers to understand the changes.

Apart from generating foreign earnings for the country, the sector is the largest employing sector after agriculture in the economy and in terms of formal employment, it employs the highest number of women workers in Bangladesh. Earlier in 2015, we estimated that the sector employed nearly 4 million workers of whom 65% were women (Haque & Bari, 2015). The report also showed that the sector had significantly contributed to raise the voice of women in their household decision-making process. Moreover, it is also the largest manufacturing sector of Bangladesh.

After Rana Plaza accident in 2013, the ready-made garments (RMG) sector has gone through a massive reorganization process and implemented many changes in their health and safety measures. With the intervention from the Accord and Alliance, producers in Bangladesh had to make investments to comply with (i) the building codes, and (ii) the workers and workplace safety measures. In addition, the sector has been under pressure from its global partners to implement changes in its labor standards.

Figure 1: RMG export and its share in export of Bangladesh (1985-2019)



Source: Export Promotion Bureau of Bangladesh Data.

Furthermore, the industry has revised the wages of its workers twice between 2013 and 2020. The current minimum wage in the sector is Tk. 8,000 per month, whereas it was Tk. 5,300 in 2013. Despite a 50% increase in the minimum wage (over 6 years), garments workers and unions continue to express their demand to revise wages in the sector.

These changes have helped many firms to improve their overall factory compliance records. Now Bangladesh's RMG industry has 120 green buildings and more than 500 factories are in the pipeline to become green status factory (BGMEA, 2020). On the other hand, a number of relatively smaller firms had to shut down their operations, hence, currently there are about 3,856 factories are in operation (Centre for Policy Dialogue, 2018). In the same year, there were 4,560 members in the BGMEA, which means nearly 15% of the factories were either closed or merged with others to comply with the regulations.

Figure 2 shows the growth of employment and number of firms in the RMG sectors in Bangladesh according to BGMEA data. It suggests that after the Rana Plaza accident, the sector went through a structural change and many factories had to shut

down their operations. Employment, however, did not change, which implies a kind of reorganization of the industry.

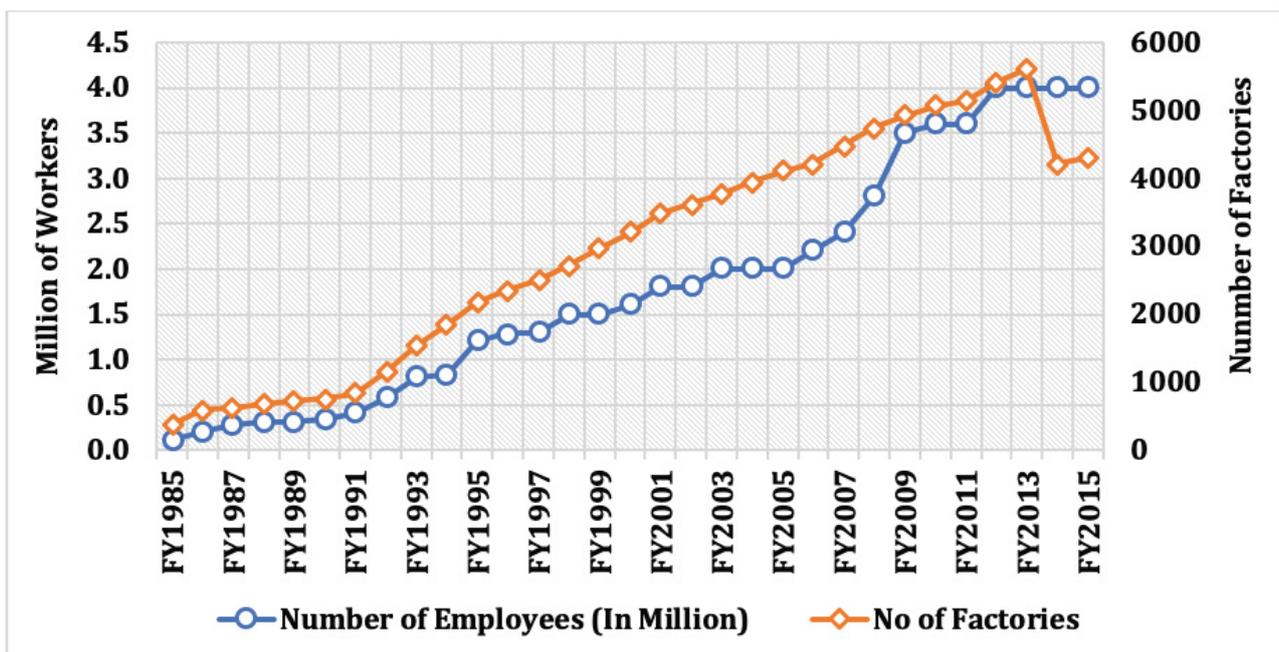
Against this backdrop, this research is initiated to study the changes in the socio-economic conditions of garment workers in Bangladesh.

## 1.2 OBJECTIVE OF THE STUDY

The broad objective of the study is to assess the current status of employment in garments sector and living conditions of the workers and their family members. The specific issues considered in the survey are to assess:

- (i) The status of employment in the sector
- (ii) The status of living standards
- (iii) The status of environment in the workplace
- (iv) The status of wages, income, asset, and expenditure
- (v) The status of women empowerment

Figure 2: Employment and number of factories according to BGMEA



Source: BGMEA Statistics

## 2. Methodology

### 2.1 INTRODUCTION

This survey of garment factories followed the stratified random sampling technique to draw samples from the list of members of BGMEA. A three-stage sampling process has been followed to select the workers (respondents) for the survey at the factory level. In the first stage, number of factories were determined based on the location of factory (e.g., Dhaka, Chittagong, etc.). In the second stage, factories were randomly selected based on type of the factories (e.g., Knit, Woven, Sweater or Others). In the third stage, seven workers from each of the selected factories were picked by using a systematic random sampling process. In addition, a manager (production, operational or human resource - depending on the availability of the person during the survey) from each of these randomly selected factories was interviewed with a structured questionnaire. Further details on the survey methods are explained in Annex B.

### 2.2 THE FACTORY SAMPLE

The sample of factories has been drawn from the list of members of BGMEA based on two-way categorization using location of factories (clusters) and types of factory (see Table 1).

Table 1: The factory sample by factory type and by location

Factory Types	Dhaka	Chattogram	Total
Knit	36	5	41
Woven	58	12	70
Sweater	25	2	27
Others	10	12	22
All	129	31	160

Source: ACD Survey 2020

According to the sample framework and required sample size, the survey was finally conducted on 160 factories; of which 129 was from the Dhaka-belt and 31 was from the Chattogram-belt (Table 1). However, a total 483 factories were originally selected randomly using a computerized random table with replacements. In this case, the location wise and industry wise proportions were maintained. Of which, chronologically the first 160 factories by location and by factory type were defined as the first set of garments factories to conduct the survey. From that list, if a factory was not found in its current location or could not be accessed, then a replacement sample located nearby was drawn from the replacement list of same factory type. As a result, the initial randomized factory list was nearly three times larger than the required sample. During

the survey, a total of 82 managers or persons in-charge at the factory level did not grant permission to conduct the survey after having initial conversation with the survey team (Table 2).

Table 2: Number of managers approached at factory level

Location	Permission not granted	Permission granted	Total number of factories
Dhaka City	8	17	25
Savar	19	53	72
Gazipur	21	46	67
Narayanganj	10	13	23
Chattogram	24	31	55
All	82	160	242

Source: ACD Survey 2020

A further distribution of factories in the sample is shown in Table 3. Among randomly selected 160 factories, zone wise geographical distribution is: 17 factories from Dhaka City, 53 factories from Savar, 46 factories from Gazipur, 13 factories from Narayanganj and 31 factories from Chattogram.

Table 3: Sample distribution of factories by type of factories and by zone

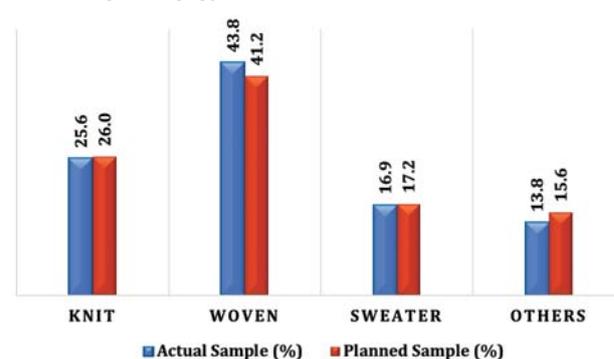
Factory Type	Dhaka City	Savar	Gazipur	Narayanganj	Chattogram	Total
Knit	2	18	11	5	5	41
Woven	9	25	19	5	12	70
Sweater	6	7	10	2	2	27
Others	0	3	6	1	12	22
All	17	53	46	13	31	160

Source: ACD Survey 2020

### 2.3 ACTUAL VS PLANNED DISTRIBUTION OF SAMPLE BY FACTORY TYPE

Figure 3 shows the comparison between percentage distribution of actual and planned number of factories by factory types. The final distribution shows that the sample factories consist of 43.8% woven, 25.6% knitwear, 16.9% sweater and 13.8% other factories.

Figure 3: Percentage distribution of actual and planned number of factories by factory type



Source: ACD Survey 2020 and BGMEA membership database

## 2.4 THE WORKER SAMPLE

Workers were drawn in the third stage of the sampling procedure. From each factory, at least seven workers were surveyed. During selection of workers, the workers' proportion at different pay scale was maintained. Grade 8 workers, the apprentice group, were excluded from the survey. The distribution of workers in the sample based on grades and factory types is shown in Table 4.

According to the final sample distribution by grades and by factory type, the highest responses, 28.6%, were collected from the grade 4 workers, followed by 23.8% from workers of grade 7. Correspondingly, collected responses from grade 6 workers are 19.5%; grade 5 workers are 14.3%, grade 3 workers are 11.0%, Grade 2 workers are 1.6% and grade 1 workers are 1.3% (Table 5).

Table 4: The worker sample by grades and by types of factories

Factory Type	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Total
<b>Knit</b>	3	5	32	80	43	55	66	284
<b>Woven</b>	9	8	54	142	70	89	123	495
<b>Sweater</b>	2	4	18	50	23	45	43	185
<b>Others</b>	0	1	19	48	24	29	34	155
<b>All</b>	14	18	123	320	160	218	266	1,119

Source: ACD Survey 2020

Table 5: Percentage Distribution of RMG workers by grades of pay

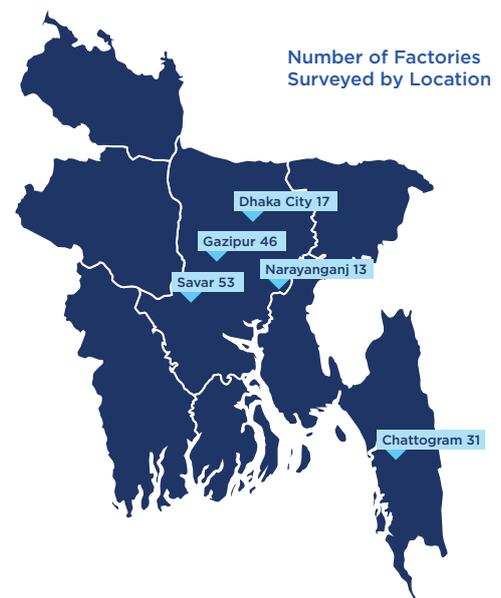
Factory Type	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
<b>Knit</b>	1.1	1.8	11.3	28.2	15.1	19.4	23.2
<b>Woven</b>	1.8	1.6	10.9	28.7	14.1	18.0	24.9
<b>Sweater</b>	1.1	2.2	9.7	27.0	12.4	24.3	23.2
<b>Others</b>	0.0	0.7	12.3	31.0	15.5	18.7	21.9
<b>All</b>	1.3	1.6	11.0	28.6	14.3	19.5	23.8

Source: ACD Survey 2020

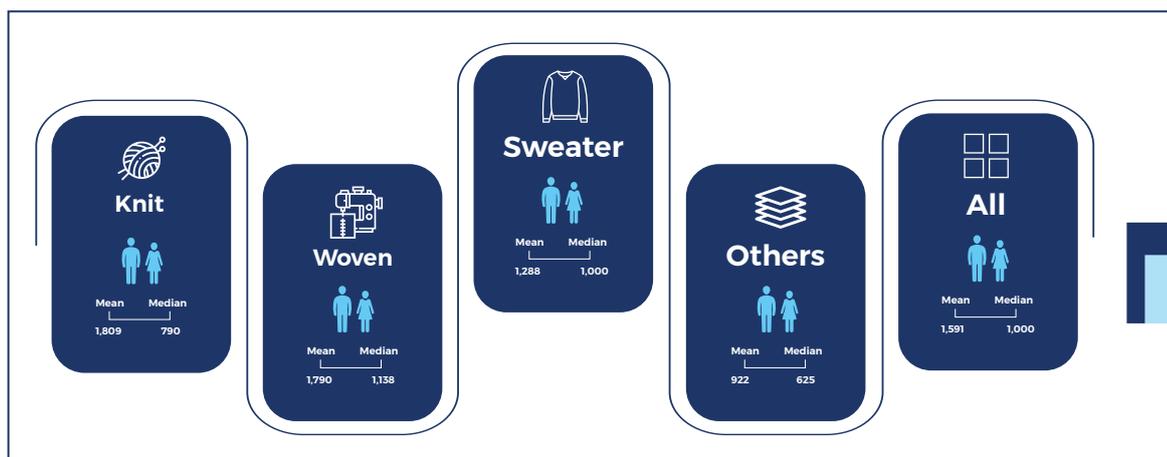
## 2.5 SURVEY INSTRUMENT

A questionnaire was developed in two separate sections; one for managers and another for workers. The questionnaire had sections on basic information about factories and workers. The set of questions for managers was arranged in a single module. On the other hand, eight separate modules were designed to conduct the survey on workers. These are as follows:

- Module A:** Information on Work and Workplace
- Module B:** Information on Women Empowerment
- Module D:** Information on Other Members in the Family
- Module E:** Information on Family Income and Assets
- Section F:** Information on Living Standards and Expenses
- Module G:** Information on Health and Food Intake
- Section H:** Information on Child Health
- Module I:** Information on Food Habit



### 3. Profile of the Garment Industry



#### 3.1 EMPLOYMENT PATTERN IN THE RMG SECTOR

The size of the workforce at the factory level varies highly among the 160 sample factories. The range of workforce is in between 100 to 16,300 workers. Table 6 shows the size of employment by percentile of factories as well as indicates towards large variation in the number of workers. For example, in terms of workers size, the bottom 10% of the factories have 299 or less workers, the bottom 25% of the factories have less than 500 workers and so on. Similarly, the top 5% of the factories have more than 4,800 workers and the top 10% of the factories have more than 3,800 workers and so on.

Table 6: Size of workers by percentile of factories

Percent of Factories	Male Workers	Female Workers	All Workers
10%	96	175	299
25%	164	305	500
50%	380	560	1,000
75%	700	910	1,782
90%	1,220	1,800	3,800
95%	2,956	2,470	4,800

Source: ACD Survey 2020

Considering such a variation in the number of workers across the factories, we present both the mean and the median number of workers in the RMG sector (see Table 7). The Table 7 shows that mean size of employment per factory is 1,591, while the median size is around 1,000. It reveals that the distribution is skewed and a large number of

factories have less than 1,591 workers. According to Table 6, only around 25% of the factories have more than 1,782 workers.

However, average size of employment in the knit factories is around 1,809 and in woven factories is around 1790. Correspondingly, the average number of workers in sweater factories is 1,288 and in other factories is 922. Table 7 also presents the median size of workers per factory by type of factories.

Table 7: Average size of workers (in person) per factory by types of factories

Factory Types	Male workers		Female workers		All workers	
	Mean	Median	Mean	Median	Mean	Median
Knit	743	382	1,000	425	1,809	790
Woven	637	380	1,109	705	1,790	1,138
Sweater	668	470	516	440	1,288	1,000
Others	348	215	608	450	922	625
All	628	380	911	560	1,591	1,000

Source: ACD Survey 2020

Figure 4: Employment size by type of factories



Source: ACD Survey 2020

### 3.2 GENDER DISTRIBUTION OF EMPLOYMENT

The survey collected data from 160 factories, which included total count of workers by gender. At the time of the survey, the male to female gender distribution was taken according to the gender composition of the respective factories. The survey result reveals that current ratio of male to female workers in RMG sector is nearly 40:60 (Figure 5).

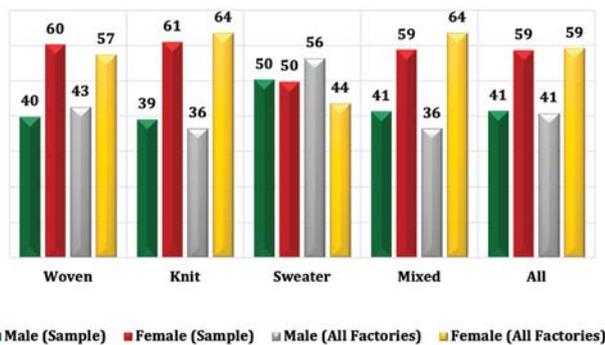
Figure 5: Percentage distribution of RMG workers by gender



Source: ACD Survey 2020

Gender wise distribution of workers varies by type of factories. In woven factories, 64% workers are female, while in knit industries it is 57%. On the other hand, the number of male workers is greater than that of their female counterpart in sweater industries. The male to female workers ratio there is 56:44. Among the factories under others category, the current ratio of male to female is 36:64 (Figure 6).

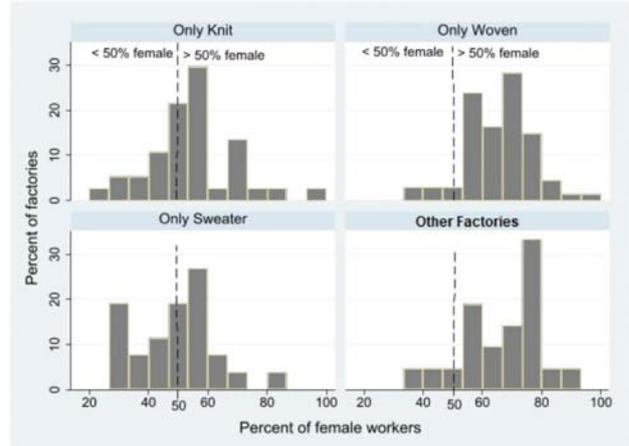
Figure 6: Gender-wise percentage distribution of workers by types of factories



Source: ACD Survey 2020

Figure 7 shows distribution of female workers by types of factories. It shows that the woven and the other factories have more than 50% female workers, while in sweater and knit factories, the share of percentage of male workers is increasing.

Figure 7: Percentage of female workers by factory type



Source: ACD Survey 2020

### 3.3 OVERALL EMPLOYMENT IN THE RMG SECTOR

Furthermore, Mapped in Bangladesh (MiB) (2020) – a project of Center for Entrepreneurship Development, BRAC University in collaboration with BGMEA, BKMEA, Laudes Foundation, and the Government of Netherlands - has GIS location of 3223 factories in Bangladesh of which 18% are factories are not listed as members of either BGMEA or BKMEA. Excluding the non-members, it also suggests that nearly 71% of the factories are members of BGMEA, 19% are members of BKMEA and the rest are members in both of these associations. Based on this information, we have estimated the total number of workers in the garment industry in Bangladesh and it is presented in Table 8.

Our estimate suggests that between 2015 and 2020, number of RMG workers in Bangladesh has grown by 1.07% per year. The growth rate is positive for male workers (about 4%) and for female workers it is -0.7% per year. Total estimated workers in RMG sector is around 4.22 million of which 1.72 million are male and 2.50 million are female workers. Of the total workers, nearly 20% are employed in knit factories, 20% are in sweater, 51% are in woven factories, and the rest are in mixed factories. Total workers estimated in the Moazzem and Radia (2018) study was around 3.8 million (excluding undefined factories) which is similar to our estimate.

Table 8: Workers Employed in the Garments Sector in 2020 (in person)

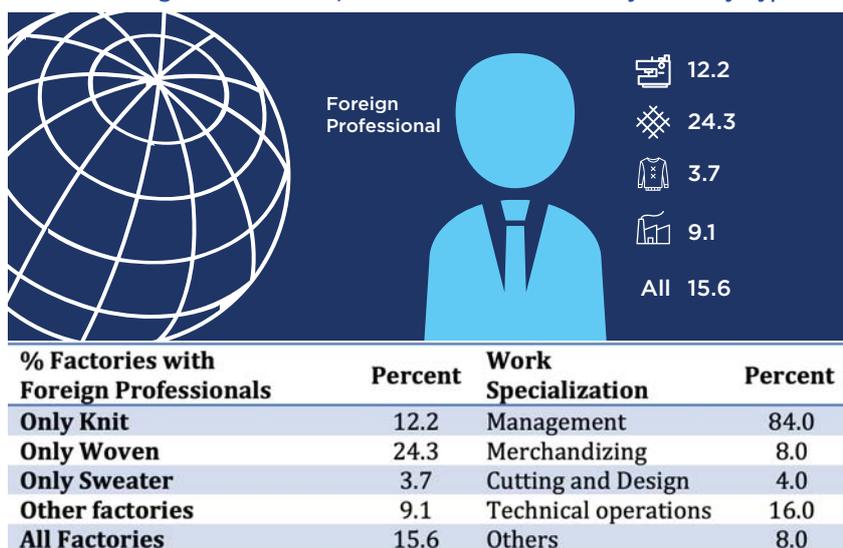
Factory type	2020			2015		
	Male	Female	Total	Male	Female	Total
Knit	2,98,000	5,18,000	8,16,000	4,45,000	6,20,000	10,65,000
Woven	9,24,000	12,44,000	21,68,000	5,65,000	13,55,000	19,20,000
Sweater	4,72,000	3,64,000	8,36,000	2,41,000	2,78,000	5,19,000
Mixed	1,46,000	2,54,000	4,00,000	1,10,000	2,54,000	3,64,000
All	17,22,000	24,98,000	42,20,000	14,10,000	25,91,000	40,01,000

Source: ACD Surveys 2020, 2015

### 3.4 FOREIGN STAFF IN GARMENT FACTORIES

Garment industries have been employing a number of foreign professionals. To understand the involvement of foreign professional in the sector, we collected information on the number of foreign staffs and their current job responsibility in the factory level. Table 9 shows that nearly 15% of the factories have foreign staff. More specially, 24% are in woven factories, 13% are in knit factories, 3.7% are in sweater factories and 9.1% are in other types of factories. The Table 9 also informs that most of them are engaged in management positions, followed by technical operations, merchandising and others. Based on this, our estimate suggests that there are around 2,200 foreign professionals working in RMG sector of Bangladesh at different positions.

Table 9: Foreign Professionals/Workers in RMG Sector by Industry Type



Source: ACD Survey 2020

### 3.5 TYPE OF BUSINESS OPERATIONS

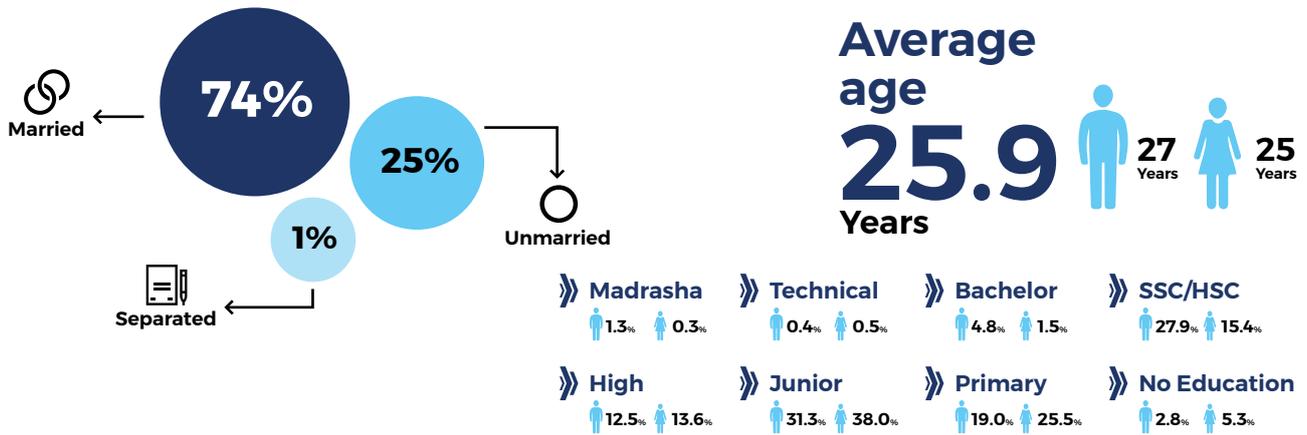
Estimates further show that among the BGMEA member factories, 91% are direct exporters, 6% are sub-contractors, and the rest do both (see Figure 8). In terms of their export destinations, about 80% of them export to Europe. However, about 50% also export to USA. It suggests that many of these factories export both in the Europe and in the USA. Outside traditional markets, other export destinations are Australia, Africa, Canada, China, India, Japan, Middle-east, New Zealand, Russia, Singapore, etc. According to the 2015 ACD survey report, nearly 13% factories were involved in sub-contracting (Haque & Bari, 2015).

Figure 8: Types of business module among BGMEA members



Source: ACD Survey 2020

# 4. Workers and Workplace



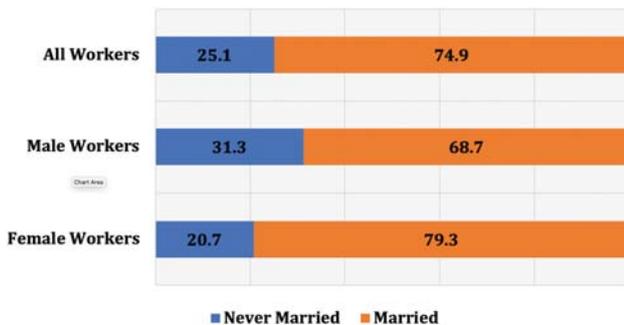
### 4.1 INTRODUCTION

The section presents the statistics on the status of workers and the condition of workplace in the factories based on a randomized survey on 1,119 workers from 160 factories. These include their marital status, educational attainments, age distribution, migration pattern, their salary, promotion practices, and so on.

### 4.2 MARITAL STATUS OF WORKERS

The survey result indicates that around 25% of RMG workers are currently unmarried and 74% are married. Rest, 1% workers are either separated or divorced or widow/widower (Figure 9). In our earlier survey in 2015, about 57% of the workers were married (Haque & Bari, 2015).

Figure 9: Marital status of workers



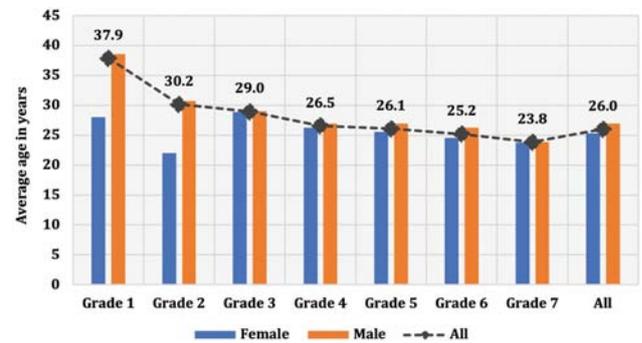
Source: ACD Survey 2020

### 4.3 AGE DISTRIBUTION OF WORKERS

The average age of workers of RMG sector in Bangladesh is 25.9 years. The average age of female workers is around 25 years while the number is around 27 years for male workers (Table 10). There is no surprise that the average age is higher for workers who are employed in higher grades. According to the 2015 ACD survey report, the average age of workers was 24.5 years; where

female workers' average age was 24.2 years and male workers' average age was 24.8 years (Haque & Bari, 2015).

Table 10: Average age of the workers by gender (in years)

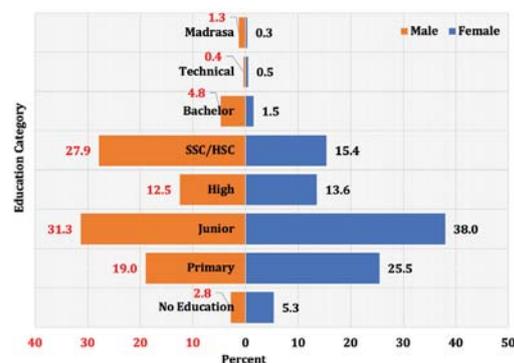


Source: ACD Survey 2020

### 4.4 EDUCATIONAL ATTAINMENT OF WORKERS

Among the RMG workers, 4.3% have no formal education, 22.8% have attained primary schooling, 35.1% have completed junior schooling and 13.1% have finished high schooling (Figure 10). Around one-fifth of the workers have completed SSC/HSC or equivalent. Rest 4% workers either received madrasa education, or technical education, or completed bachelor's degree or equivalent (Figure 10).

Figure 10: Percentage distribution of educational attainment of workers by gender



Source: ACD Survey 2020

In terms of educational attainments, male workers are more educated than the female workers. For example, 4.8% of male workers have a bachelor's degree while it is only 1.5% for female workers. Moreover, nearly 28% of male workers have SSC/HSC or equivalent qualifications while the percentage is only 15% for female workers. On the contrary, majority of the female workers have passed primary, junior or high school.

Table 11 shows educational attainments of workers by grade. It clearly indicates that for grade 1 and 2 educational qualifications are more important than for grades 3 to 7. However, it also reveals that some workers even in grade 3 to 7 have an equivalent to bachelor's degree.

Table 11: Educational attainments by grades of workers

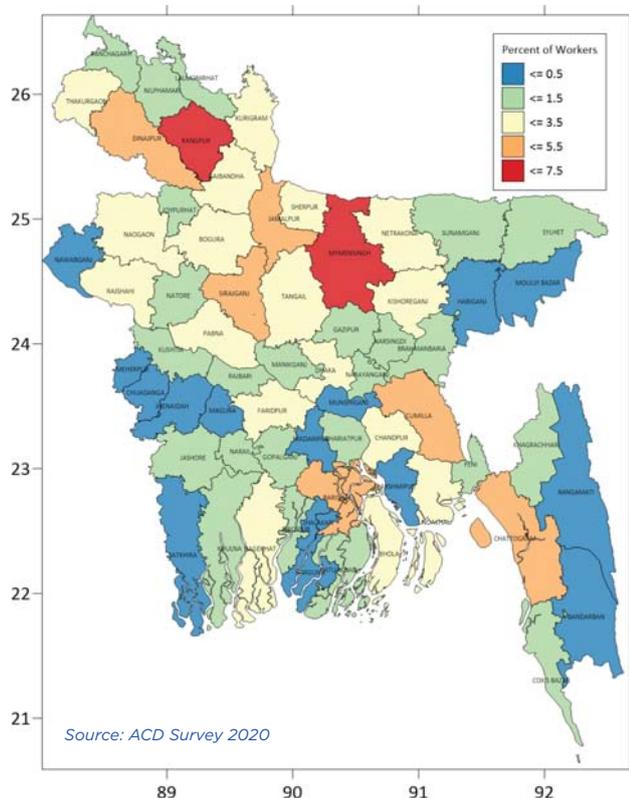
Grade	No Education	Primary School	Junior School	High School	SSC/HSC	Bachelor	Technical	Madrassa
Grade 1	0.0	0.0	7.1	7.1	64.3	14.3	7.1	0.0
Grade 2	0.0	0.0	11.1	27.8	50.0	5.6	5.6	0.0
Grade 3	4.1	26.8	37.4	8.9	18.7	0.8	0.0	3.3
Grade 4	4.1	22.5	40.3	7.8	20.6	4.1	0.0	0.6
Grade 5	5.6	26.9	34.4	13.1	14.4	4.4	0.6	0.6
Grade 6	3.7	25.2	29.8	19.7	19.3	1.8	0.5	0.0
Grade 7	4.9	19.6	36.1	15.4	21.8	1.5	0.4	0.4
All	4.3	22.8	35.2	13.1	20.6	2.9	0.5	0.7

Source: ACD Survey 2020

#### 4.5 LABOR MIGRATION

Many of the garment workers have migrated from rural areas. Figure 11 shows that workers have migrated to the factories from almost all the districts of Bangladesh. The top ten districts where most of the workers have come from are: Mymensingh, Rangpur, Cumilla, Barishal, Sirajganj, Dinajpur, Jamalpur, Chattogram, Gaibandha, Bogura and they comprise nearly 45% of the RMG workers. Furthermore, nearly 89% of the workers have migrated to the factory locations from other districts and the rest are local.

Figure 11: Home district of the RMG workers

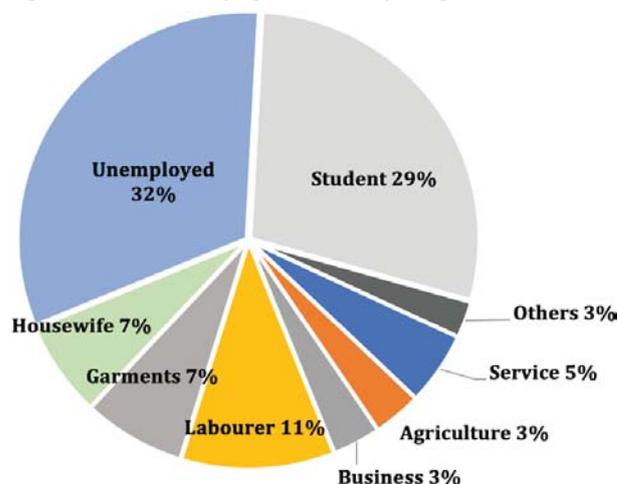


Source: ACD Survey 2020

#### 4.6 OCCUPATION PRIOR TO JOINING RMG SECTOR

As we understood that workers had come from all over Bangladesh, we were also interested to know, in what activities these workers were involved before joining garment industry. Figure 12 shows that around 32% were unemployed before joining the sector and about 29% were students. In addition, nearly 7% of the workers were housewives before joining the sector. Thus, it reveals that the RMG sector contributes to create job newly for 68% of its current workers (see Table 11).

Figure 12: Status of employment before joining the RMG Sector



Source: ACD Survey 2020

#### 4.7 NATURE OF THE WORK

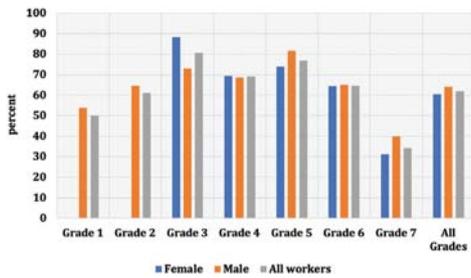
Nearly one third of the RMG workers perform their duty standing. In addition, 13% of the female and 21% of the male workers stand or sit while on duty at the factories (see Table 12). On the other hand, about 62% of the workers operate machines at work and the percentage is higher for male workers than the female workers. Figure 13 shows that most of the workers in grade 3, 4, 5 and 6 use machines and there is no difference between male and female workers.

Table 12: Nature of work at the workplace

Grade	Sitting		Standing		Sitting / Standing		Carrying	Security
	Female	Male	Female	Male	Female	Male		
Grade 1	-	61.5	100.0	7.7	-	30.8	-	-
Grade 2	100.0	17.7	-	29.4	-	47.1	-	5.9
Grade 3	86.7	57.1	10.0	30.2	3.3	12.7	-	-
Grade 4	62.8	48.9	29.5	32.9	7.7	18.3	-	-
Grade 5	70.0	66.7	23.0	15.0	7.0	16.7	1.7	-
Grade 6	60.7	41.0	29.6	41.0	9.6	18.1	-	-
Grade 7	27.8	11.1	44.3	52.2	27.8	33.3	3.3	-
All workers	56.3	42.8	30.8	34.6	13.0	21.6	0.9	-

Source: ACD Survey 2020; Note: - means not available

Figure 13: Grade-wise percentage of workers using machines at work



Source: ACD Survey 2020

#### 4.8 WORKING HOUR AND OVERTIME

In general, RMG workers work six days a week and it does not vary significantly based on grades (Table 13). On average, workers work around 8 hours a day and nearly 73% of the them do overtime in a week and this rate varies across different grades (see Table 13). In a week, they work for another 8.5 hours as overtime.

Table 13: No of working days, working hours and overtime by Grade

Grade	Work days/week			Working hours /day	Overtime hours / week	% of workers doing overtime
	Female workers	Male workers	All workers			
Grade 1	6.0	5.8	5.8	8.7	7.0	36%
Grade 2	6.0	6.1	6.1	8.8	5.5	11%
Grade 3	6.0	5.9	6.0	8.5	8.3	64%
Grade 4	5.9	5.9	5.9	8.7	8.6	78%
Grade 5	5.9	5.8	5.9	8.5	8.7	73%
Grade 6	6.0	5.9	5.9	8.6	8.7	75%
Grade 7	5.9	5.9	5.9	8.6	8.4	77%
All Grades	5.9	5.9	5.9	8.6	8.5	73%

Source: ACD Survey 2020

#### 4.9 LEAVE OF ABSENCE

Nearly 98.4% workers have mentioned that they were allowed to take leave from work for personal reason (Table 14). On average, workers took leave for 4.7 days in the last year. During the leave, 91.4% workers received full salary, 4.6% received partial salary and 4.0% did not receive any payments. About 8.3% of the female workers became mother in the past 12 months. In terms of receiving paid maternity leave during childbirth, nearly 3.1% of the workers were eligible and all of them enjoyed paid leave. The rest, however, did not receive paid leave during the childbirth. About 98% of the workers reported receiving their last Eid bonus.

Table 14: Leave and other benefits during leave

Particulars	Female workers	Male workers	All workers
Personal leave (days/year)	4.6	4.8	4.7
Workers taken leave in the last year (%)	98.8	97.8	98.4
Full compensation received during leave (%)	90.1%	93.2%	91.4%
Partial compensation received during leave (%)	4.8%	4.4%	4.6%
No compensation received during leave (%)	5.1%	2.4%	4.0%
Last Eid bonus received by (%)	98.4%	98.2%	98.1%
Female workers became mother in past 12 months (%)	8.3%	-	-
Female workers legally eligible to avail maternity leave (%)	3.1%	[with continuous 12 months of work prior to taking maternity leave]	
Female workers received maternity leave with pay (%)	100%	-	-
Duration of Maternity leave (months)	3.7	-	-

Source: ACD Survey 2020

#### 4.10 WORKERS' EXPERIENCE IN THE GARMENTS INDUSTRY

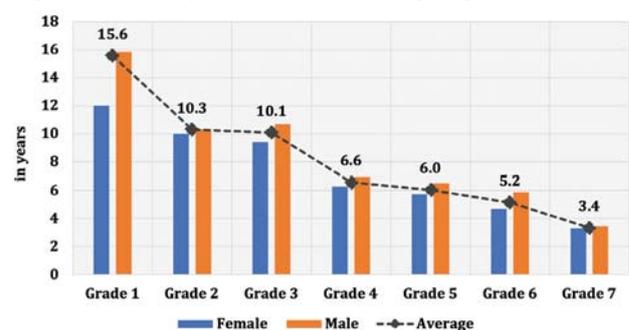
Figure 14 and Table 15 show years of experiences of workers by their grades and by gender. It shows that on average, a grade 1 worker has been working in the sector for 15 years, while it is 10 years for grade 2. On average, a grade 3 worker has been working for 10 years, while corresponding figure for a grade 4 worker is 6.6 years. A grade 5 and a grade 6 worker have been working for approximately 6 and 5.2 years respectively in this sector. A grade 7 worker has been servicing RMG sector for 3.4 years on average. Table 15 further shows that many of the workers are in their current position in the same factory for 4 to 7 years on average.

Table 15: Workers' average length of experience by grades

Grade	Average length in years					
	Experience in RMG sector			Experience in current job		
	Female	Male	Average	Female	Male	Average
Grade 1	12.0*	15.8	15.6	1.5*	8.5	7.9
Grade 2	10.0*	10.3	10.3	0.6*	7.4	7.0
Grade 3	9.4	10.7	10.1	8.7	8.9	8.8
Grade 4	6.3	7.0	6.6	4.8	4.5	4.7
Grade 5	5.7	6.5	6.0	4.9	4.4	4.7
Grade 6	4.7	5.9	5.2	3.4	3.9	3.6
Grade 7	3.3	3.5	3.4	2.8	2.8	2.8
All	5.3	6.9	6.0	4.3	4.9	4.6

Source: ACD Survey 2020; Note: \* not enough observations

Figure 14: Work experience in RMG Industry (in years)



Source: ACD Survey 2020

#### 4.11 EXPECTED LENGTH OF SERVICE IN RMG SECTOR BY WORKERS

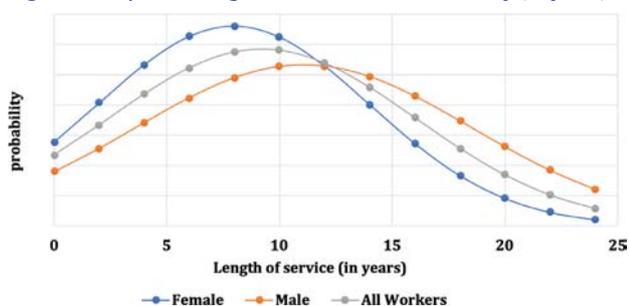
Upon inquiring about the expected length of service in RMG sector, we have found that on average male workers expect to work for 11 years and the number is 8 years for female workers (Table 16). The distribution based on mean and variance estimates is shown in Figure 15. Female workers seem to retire from work earlier than their male counterpart. One probable reason behind quitting earlier than male may be the sense of responsibility toward their family and catering to their needs.

Table 15: Workers' average length of experience by grades

Grade	Wishes to retire after ___ years		
	Female workers	Male workers	All workers
Grade 1	*	9.3	9.3
Grade 2	*	17.7	17.7
Grade 3	9.4	12.9	11.3
Grade 4	8.1	10.1	9.1
Grade 5	8.4	12.9	9.7
Grade 6	8.2	11.5	9.4
Grade 7	6.9	8.2	7.2
Total	8.0	11.1	9.2

Source: ACD Survey 2020; Note: \* not enough observations

Figure 15: Expected length of service in RMG Industry (in years)



Source: estimates from ACD Survey 2020

Table 17 shows the minimum, average and maximum years of service a worker wants to render to the sector. It reveals that on average a female worker wants to work between 7 to 10 years and a male worker wants to work between 8 to 14 years. The expected average length of service for both male and female workers is 8.6 years.

Table 17: Expected length of services in the sector by grade and by gender

Grade	Female workers			Male workers			All workers		
	Min	Average	Max	Min	Average	Max	Min	Average	Max
Grade 1	-	10*	10	8	8.6	10	8	8.7	10
Grade 2	-	8*	-	8	8.8	10	8	8.8	10
Grade 3	8	8.5	10	8	8.5	12	8	8.5	12
Grade 4	8	8.7	12	8	8.7	12	8	8.7	12
Grade 5	7	8.6	12	8	8.4	10	7	8.5	12
Grade 6	6	8.6	11	8	8.6	12	6	8.6	12
Grade 7	7	8.7	12	8	8.6	14	7	8.6	14
All Grades	7	8.6	10	8	8.6	14	7	8.6	14

Source: ACD Survey 2020

Table 18 shows that nearly 18% of the workers want to switch their job. The most important reason for switching jobs for both male and female is to earn higher income. However, nearly 28% of the female workers want to switch because they think they have worked long enough and about 36% of the male workers want to switch their job to start their

own business. One other compelling reason for female workers to quit their job is 'family pressure', which is true for 11% of them.

Table 18: Reasons for switching jobs

Training and facilities	Female workers	Male workers	All workers
Percent interested in switching jobs	15%	22%	18%
Reasons for switching jobs			
Higher income	33.0%	49.0%	41.1%
Family pressure	11.3%	0.0%	5.6%
Want to be self-employed	13.4%	36.0%	24.8%
Worked long enough	27.8%	7.0%	17.3%
Others	14.4%	8.0%	11.2%
All reasons	100.0%	100.0%	100.0%

Source: ACD Survey 2020

#### 4.12 TRAINING FOR WORKERS

Training is an important part in order to ensure health and safety of workers at their workplace. It is also a significant strategy to improve productivity of workers. Table 19 reveals that 59% of the workers have received formal training on operating machines. However, it shall be noted that 61% of the workers reported using machines at their work. Nearly 96% of the workers received fire drill training, 78% receive training on labor rights, and only 45% received training on managing their savings.



Table 19: Percentage distribution of workers received following training

Training and facilities	Female	Male	All workers
Training for using machine	59	60	59
Fire Drill training	96	95	96
Labor rights related training	78	79	78
Savings management training	44	47	45

Source: ACD Survey 2020

#### 4.13 WORKERS' SATISFACTION AT WORKPLACE

Table 20 presents workers' perception on various conditions in their workplace. It shows a large majority of workers are contented with conditions in their workplace. Responses were collected from workers to whom it was relevant. Areas which need improvement include toilet facilities, canteen facilities, health care facilities, doctor's services, child care facilities, transport services, and salary disbursement process.

Table 20: Perception on workplace environment

Perception on	Very Bad	Bad	Satisfactory	Good	Very Good
Working Condition	1.2	1.9	1.6	21.5	73.8
Lighting/Brightness	1.4	1.4	1.3	20.8	75.1
Emergency Exit	0.5	2.4	1.4	24.6	71.1
Toilet Facilities	0.9	2.2	3.1	29.3	64.5
Water Supplies	0.8	2.5	1.5	26.2	69.0
Canteen Facilities	1.3	1.8	4.0	28.6	64.3
Health Care Facilities	0.5	3.0	3.1	27.1	66.3
Doctor's Services	0.5	2.6	3.4	27.0	66.5
Child Care Facilities	1.7	3.7	6.2	25.4	63.0
Transport Services	8.1	7.9	14.1	18.3	51.6
Salary Disbursement Process	1.1	2.5	3.2	24.0	69.2
Internal Relationship with Seniors	0.6	2.4	2.6	26.6	67.8

Source: ACD Survey 2020

Table 21 shows the usage of different facilities at their workplace and the mode of transportation of workers to their workplace. About 84% of the workers use the canteen at their work. Although nearly 73% of the canteens sell food, survey data shows only 25% of the workers buy food from these canteens.

On the issue of commuting to workplace, our analysis reveals that 80% of the workers walk, which takes on average 19 mins for them to reach their destination and the average cost of commuting to work is 28 taka per day for those who use any mode of transportation.

Table 21: Use of canteen and commuting mode

Other facilities	Female	Male	All workers
Use of canteens by workers	84%	83%	84%
Availability of food in canteens	73%	73%	73%
Buying food from canteens	25%	24%	25%
Commuting to work			
Walking (%)	79.9	80.4	80.1
Non-motorized vehicles (%)	6.6	4.3	5.6
Bus (%)	7.9	6.9	7.3
Other motorized vehicles (%)	5.6	8.7	7.0
Time to walk from home (mins)	20.0	18.0	19.0
Commuting cost per day (in taka)	25.3	31.5	27.8

Source: ACD Survey 2020

## Use Of Canteen



Availability of foods in canteens  
**73%**

Use of canteens by workers  **84%**

Buying foods from canteens  **25%**

## 4.14 WORKPLACE MISCONDUCT

Surprisingly, only 1.5% female workers mentioned about experiences of misconduct from their superiors or co-workers at their workplace. In terms of the number of cases, only 10 out of 656 female workers in the survey reported it. Among them, 8 workers were satisfied with the actions taken after reporting such incidences. Among other two workers, one did not report it to the factory authorities while another one mentioned that her allegation was not addressed.

Table 22: Incidences of workplace misconduct

Incidents	Percent
No incidences of misconduct	98.5
Incidences of misconduct by male coworkers	1.5
Reported and problem addressed	1.2
Reported and problem not addressed	0.15
Not reported	0.15

Source: ACD Survey 2020

## Commuting To Work



Non-motorized vehicles  
**5.6%**



Walking  
**81.1%**



Bus  
**7.3%**



Others motorized vehicles  
**19.0%**



Time to walk from home  
**19.0**  
minutes



Commuting cost per day  
**27.8**  
BDT

# 5. Profile of Worker's Family



## 5.1 HOUSEHOLD COMPOSITION

On average, there are four members in the household of a RMG worker and male to female members ratio is equal (Table 23). In general, there are two earning members in the household. About 84% of the workers stay with their family and on average every family has a child.

Table 23: Profile of workers' household

Particulars	Female Workers	Male Workers	All Workers
Family size (in person)	3.8	4.3	4.0
Female members (in person)	1.9	2.0	2.0
Male members (in person)	2.0	2.3	2.1
Living with families (%)	91%	75%	84%
Earning members (in person)	2.2	2.0	2.1
Female earning members (in person)	1.2	0.6	1.0
Male earning members (in person)	1.1	1.8	1.3
No of children	1.0	1.0	1.0
Percent of boys (%)	51%	55%	52%

Source: ACD Survey 2020

Table 24 reveals that 14% of the households have female heads and among the female workers only 11% are head of their own household, whereas it is 55% for male workers. Within the female workers' household, in 63% cases their husband is the formal head. Interestingly, for 25% of the workers' households, father is the formal head.

Table 24: Head of the household

Head of the Household	Female Workers	Male Workers	All Workers
Worker (himself/herself)	11%	55%	29%
Father	18%	36%	25%
Mother	3%	3%	3%
Spouse	63%	0%	37%
Others	4%	6%	5%

Source: ACD Survey 2020

## 5.2 HOUSEHOLD INCOME

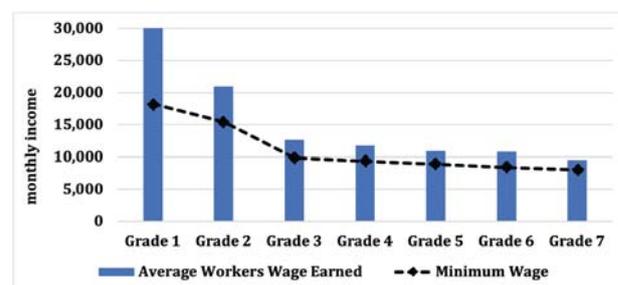
Table 25 shows the monthly average family income is around Tk. 23,699, whereas workers own monthly average income is Tk. 11,402. This income varies between Tk. 23,195 to Tk. 36,929 in case of family income and between Tk. 9,519 to Tk. 30,143 for workers own income by grades in the garment industry. This has been about 10% increase in workers' own income per year between 2014 to 2020 while the increase is 9.1% in family income. Figure 16 presents their monthly income against minimum wages under the 2018 pay scales for garments workers. It shows that for all grades, the average salary earned by the workers is above the minimum wage prescribed by the corresponding pay scale.

Table 25: Own and family income of the workers

Family Income (monthly)	Family income per month				Workers' own income per month			
	Female workers	Male workers	All workers (2020)	All workers (2014)	Female workers	Male workers	All workers (2020)	All workers (2014)
Grade 1	27,500	37,654	36,929	19,923	18,000	31,077	30,143	19,044
Grade 2	32,500	30,941	31,028	16,308	13,500	21,401	20,962	12,687
Grade 3	26,450	22,865	25,224	16,364	12,192	13,121	12,668	7,729
Grade 4	24,530	22,624	24,339	15,424	11,395	12,216	11,747	6,581
Grade 5	24,070	21,025	23,397	15,426	10,790	11,258	10,965	6,494
Grade 6	23,489	23,699	24,085	15,685	10,568	11,149	10,790	6,329
Grade 7	22,284	23,311	23,195	15,500	9,355	9,841	9,519	5,625
Total	23,835	23,503	23,699	15,719	10,672	12,434	11,402	6,820

Source: ACD Survey 2020

Figure 16: Comparison of workers' income with minimum wages by grade

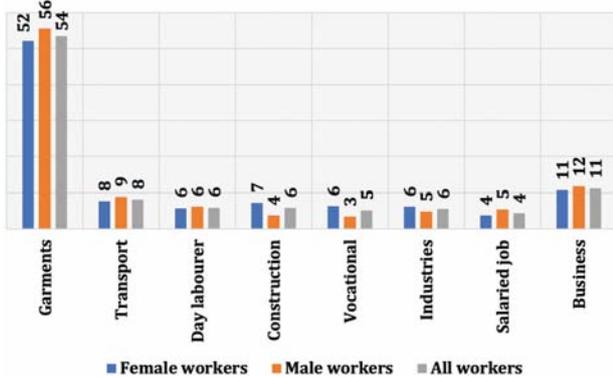


Source: ACD Survey 2020

### 5.3 FAMILY INCOME SOURCES

It has been already reported that each of the workers' family has more than one earning member. Figure 17 shows that in more than 50% of the families, another member is currently employed in the garment industry. In addition, about 11% of the workers also receive part of their income from business that one of their family members is operating.

Figure 17: Percentage distribution of additional source of income in the family (%)



Source: ACD Survey 2020

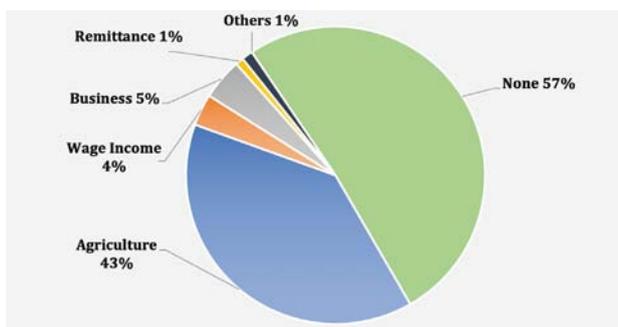
For married workers, about 65% of their spouses also work in the garment industry. Of the rest, 9.3% workers have their spouse working in transportation sector, 5.6% in the construction sector, and 8.5% in business (see Table 26).

Table 26: Spouse's workplace

Industry	Female workers	Male workers	All workers
Garments	65.6	64.2	65.1
Transport	7.5	12.1	9.3
Day Laborer	4.9	4.0	4.5
Construction	7.5	2.7	5.6
Salaried Jobs	2.2	5.4	3.5
Business	7.9	9.6	8.5
Other Industries	4.4	2.0	3.5

Source: ACD Survey 2020

Figure 18: Percentage of workers household having alternative income source



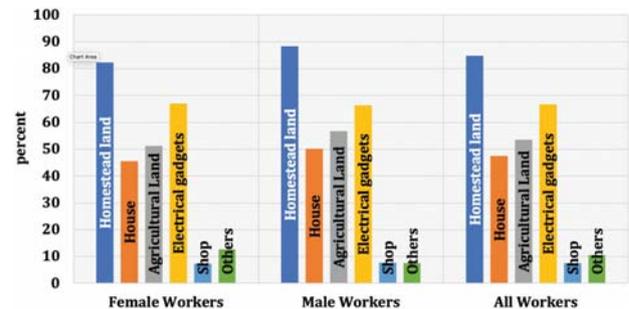
Source: ACD Survey 2020

In addition, there are other sources of income. Figure 18 shows that about 43% workers have alternative income source from agriculture sector like crop cultivation, livestock rearing and fish farming while 11% workers have also mentioned about income attained from non-agriculture sectors e.g., job, business etc. On the other hand, nearly 57% of them have no additional sources of income.

### 5.4 HOUSEHOLD ASSET

Figure 19 shows the distribution of assets in the family of a worker. It exhibits that 85% have homestead land, 47% have a house, 53% have agricultural land, 66% have electrical or electronic gadgets in their house and 15% have shops and other assets.

Figure 19: Percentage of Workers' Household Having Following Assets



Source: ACD Survey 2020

### 5.5 ACCESS TO AND USE OF FINANCIAL SERVICES

Nearly 67% of the workers have access to some kind of financial services (Table 27). Here, multiple responses were allowed, and we found, a number of workers use both general and mobile bank accounts simultaneously. In particular, 57% have general bank accounts, 43% have accounts with BKash and 3% with Nagad. Other mobile banking services are availed by 1% of the workers.

Table 27: Access to Financial Services by Workers

Financial Access	Female workers	Male workers	All workers
Bank Account	65.2	70.0	67.2
General Bank	57.0	57.4	57.2
Bkash	39.5	46.6	42.6
Nagad	2.1	4.3	3.1
Others	1.4	0.3	0.9

Source: ACD Survey 2020



67.2%  
Bank Account



42.6%  
BKash



3.1%  
Nagad

## 6. Family Expenditure

### 6.1 MONTHLY FAMILY EXPENDITURE

Monthly family expenditure pattern of garment workers has been analyzed in the terms of the following expenditure items: a) rent and utilities, b) food, c) education, d) health, e) entertainment, f) cosmetics, (g) mobile, (h) internet, (i) remittance to home, (j) transport and (k) others. Table 28 shows monthly family expenditure by different expenditure groups. On average, monthly family expenditure per household is Tk. 16,596 against their monthly family income of Tk. 23,699 (Table 28).

Table 28: Monthly household expenditure of garments workers

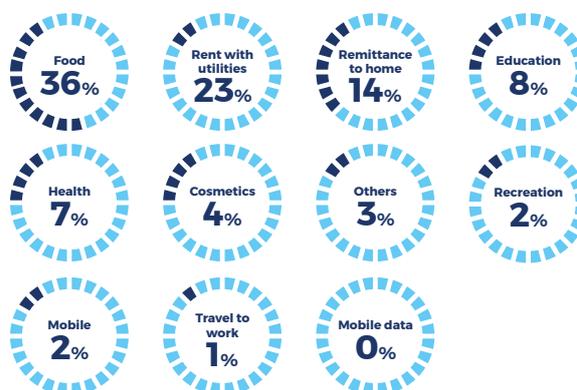
Items	Female workers	Male workers	All workers	All Workers (2014)	Growth rate (nominal)
Rent with utilities	4,088	3,581	3,878	3,410	2%
Food	6,300	5,583	6,004	4,782	4%
Education	1,363	1,191	1,292	667	12%
Mobile	211	305	250	317	-4%*
Cosmetics	629	533	589	299	12%
Health	957	1,394	1,137	604	11%
Recreation	317	360	335	99	23%
Travel to work	125	154	137	230	-8%
Remittance to home	2,023	2,925	2,396	1,292	11%
Mobile data	57	113	80		
Others	529	451	497	2,479	-24%
Monthly expenses	16,600	16,590	16,596	11,320	7%
Monthly income	23,835	23,503	23,699	15,719	7%
Savings	7,236	6,913	7,104	4,399	8%

Note: \* While expense of mobile has dropped, when expense of data and mobile put together, the number increases slightly. Source: ACD Survey 2020

ACD survey 2015 showed that in 2014, monthly family expenditure was around Tk. 11,320. Therefore, our estimates show that there was an increase in family expenditure by 7% per year between 2014 to 2020. Using the previous survey, we also estimate that there has been an income growth of 7% between 2014 to 2020 as well as their monthly savings has risen by 8% during that period.

In terms of distribution of expenditure per month, nearly 36% of their income is spent on food, about 23% is spent on housing, 8% on education, 7% on health, 4% on cosmetics, and so on. Table 28 also shows that over the past 6 years, expenditure on recreation has increased by 23%, and expenditure on both cosmetics and education have increased by 12% each.

Figure 20: Percentage Distribution of Monthly Household Expenditure

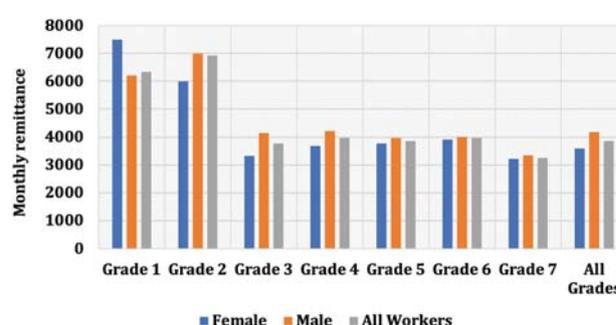


Source: ACD Survey 2020

### 6.2 REMITTANCE TO HOME

About 9.8% of their income is sent to home for their families living away. This means taka 1,011 crores is remitted monthly to rural areas by the garment workers. This remittance goes to almost all the districts of Bangladesh. Average remittance, however, varies by grades of pay among the workers. Nearly 62% of the workers send money to their family members on a regular basis and on average send around taka 3,869. In terms of money transfer, 82% use mobile banking services to transfer money, while 15% still use individuals to send money (see Figure 22).

Figure 21: Remittance sent home by grades of workers (in taka)



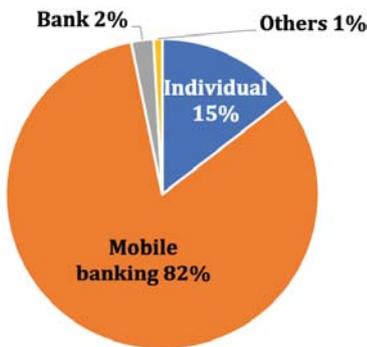
Source: ACD Survey 2020

Table 29: Monthly Remittance to Rural Areas by RMG workers in taka

Grade	Female workers	Male workers	All workers	Percent
Grade 1	7,500	6,222	6,350	71%
Grade 2	6,000	7,000	6,938	89%
Grade 3	3,339	4,151	3,786	56%
Grade 4	3,690	4,230	3,969	62%
Grade 5	3,780	3,982	3,863	63%
Grade 6	3,926	4,012	3,966	61%
Grade 7	3,220	3,353	3,265	63%
All Grades	3,597	4,179	3,869	62%

Source: ACD Survey 2020

Figure 22: Mode of money transfer



Source: ACD Survey 2020

### 6.3 ACCESS TO INTERNET SERVICES

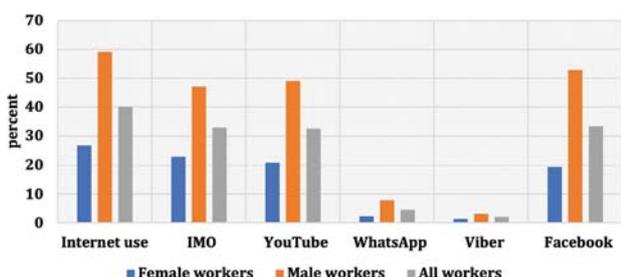
Internet has become an integral part of life for many workers. The survey collected data on internet usage of the workers. Table 30 shows that nearly 40% of workers use internet regularly. It is around 27% for female workers and 59% for male workers. In terms of different internet apps, the most used apps among the workers are Facebook and IMO, which are used by 33% of the workers. This is followed by YouTube which is used by 32.5% of the workers. In other words, Facebook, IMO and YouTube are the three most popular apps among the workers. Most of them (about 87%) buy monthly internet packages.

Table 30: Internet usage by workers (% of cases)

Items	Female workers	Male workers	All workers
<b>Internet use</b>	26.7	59.2	40.1
IMO	23.0	47.1	33.0
YouTube	20.9	49.0	32.5
WhatsApp	2.3	8.0	4.7
Viber	1.4	3.2	2.1
Facebook	19.5	52.9	33.3
All usages	67.1	160.3	105.6
<b>Purchase of internet packages</b>			
Weekly	8.3	6.9	7.5
Biweekly	1.2	4.6	3.3
Monthly	86.3	86.5	86.5
Occasionally	4.8	2.7	3.5

Source: ACD Survey 2020

Figure 23: Use of internet and software apps by gender (% of cases)



Source: ACD Survey 2020



**Internet use**  
**40.1**



**Imo**  
**33.0**



**Youtube**  
**32.5**



**WhatsApp**  
**4.7**



**viber**  
**2.1**



**Facebook**  
**33.3**



**All usages**  
**105.6**



**Purchase of internet packages**

**Weekly**  
**7.5**

**Biweekly**  
**3.3**

**Monthly**  
**86.5**

**Occasionally**  
**3.5**

\*Figures in percent

## 7. Women Empowerment

### 7.1 PARTICIPATION IN FAMILY DECISIONS

The garment industry has brought the women-folk of rural Bangladesh into the formal employment sector and created the scope for them to have a regular flow of cash. This opportunity is expected to contribute towards improving their importance in the decision-making process in the family. The survey analyzed twenty-four financial and non-financial decisions taken in the family to ascertain the level of participation of women in the decision-making process. The decisions range from purchase of family assets to purchase of personal items, from marriage in the family to her own marriage, from educating the children to educating siblings, from choice of health services to personal tidiness and so on.

Table 31: Perception on participation in household decisions

Decision issues	Never	Very few times	Sometimes	Most of the time	Always
Child's Education	0.6	1.7	6.9	21.0	69.7
Child's Marriage	0.6	2.0	7.0	22.4	68.2
Choice of Own Clothing	0.3	2.5	6.4	23.1	67.7
Buying Cosmetics	0.6	3.0	7.4	23.3	65.7
Own Job	3.0	3.5	5.6	24.0	64.0
Household Expenditure	2.2	6.3	8.8	20.8	62.0
Child's Treatment	0.6	3.1	8.1	26.2	61.9
Family Planning	3.6	3.2	6.6	26.7	59.9
Remittance to Home	7.9	3.5	7.3	23.8	57.6
Household Savings	6.7	4.9	10.3	23.6	54.5
Child's Job	7.3	3.9	9.9	26.3	52.6
Own Marriage	11.1	8.5	9.8	18.2	52.5
Choice of Residence	5.7	3.3	9.8	29.0	52.2
Renting House	4.1	4.0	11.6	29.4	50.9
Recreation/Vacation Trip	2.5	6.0	15.3	29.5	46.7
Treatment of Own Health	5.7	6.2	13.8	28.6	45.8
Others Health	5.7	6.2	13.8	28.6	45.8
Purchasing Assets	12.7	6.8	12.7	26.1	41.7
Husband's Work	10.4	8.2	16.9	23.6	40.9
Taking/Giving Loan	19.8	6.9	12.1	20.7	40.5
Making Contribution to Brother's/Sister's Treatment	10.5	8.5	16.5	27.6	36.9
Making Contribution to Brother's/Sister's Marriage	11.8	8.9	16.7	26.0	36.7
Making Contribution to Brother's/Sister's Education	10.6	9.1	18.6	25.0	36.7
Selling Assets	23.5	9.0	15.7	20.6	31.2

Source: ACD Survey 2020; Note: Green (less than 10%), Black (from 10% to 30%), Blue (from 30% to 50%) & Red (More than 50%).

Table 31 shows the perception held by the women workers on various decision-making process in the households. It shows that more than 60% of the women think that they 'always' have a say on decisions related to children's education, marriage, clothing, purchase of cosmetics, own job, household daily expenses, and children's treatment.

On the other hand, on issues related to selling of assets, siblings' education, marriage, treatment, giving or taking loan, husband's work, and purchase of assets, they think they have the least 'say'. On this account, more than 10% said that they think they have 'no' say at all.

### 7.2 EMPOWERMENT BY CATEGORIES

We further clubbed the decisions in terms of eight broad categories to get a better understanding on their perception on participation related to household decisions. On children's health, education and job, personal choices (own marriage, job, health and clothing, , family planning, and cosmetics), household expenses (choice of residence, monthly expenditure), more than 50% of female workers 'always' have their say. On asset (buying and selling, savings, remittance, and loan), recreation and other family choices like marriage of the children, decisions related to siblings, less than 50% workers have 'always' their own say.

Table 32: Perception related to major household decision-making process

Decisions	Never	Very few times	Sometimes	Most of the times	Always
Assets and Savings	14.1	6.2	11.6	23.0	45.1
Health	3.1	4.6	10.9	27.4	53.9
Education	0.6	1.7	6.9	21.0	69.7
Employment	7.3	3.9	9.9	26.3	52.6
Recreation	2.5	6.0	15.3	29.5	46.7
Personal choices	4.0	4.5	8.2	24.0	59.3
Household expenses	4.0	4.5	10.1	26.4	55.0
Other family choices	8.8	7.3	15.1	24.9	43.9
Average	5.6	4.8	11.0	25.3	53.3

Source: ACD Survey 2020; Note: Green (less than 10%), Black (from 10% to 30%), Blue (from 30% to 50%) & Red (More than 50%).



## 8. Food & Health

### 8.1 DAILY FOOD INTAKE

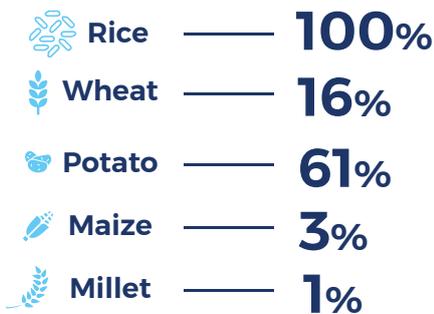
Information related to food intake pattern in their households are also analyzed in Table 33. It shows an average worker's family consume nearly two items from rice, wheat, potato, maize and millet. The common source of carbohydrate in their family is rice, potato and wheat.

Table 33: Source of per day carbohydrate intake at household level (%)

Source of carbohydrate intake	Female workers HH	Male workers HH	All workers HH
Rice	100%	100%	100%
Wheat	18%	14%	16%
Potato	60%	61%	61%
Maize	3%	2%	3%
Millet	1%	2%	1%
Carbohydrate: number of items	1.8	1.8	1.8

Source: ACD Survey 2020

**Source of carbohydrate intake**   **All workers HH**



**Carbohydrate: number of items** **1.8**  **per day**

In terms of protein and vitamin in daily food, an average worker's family consume at least two items from the list of egg, chicken, beef, fish, and vegetables. The most common among them are fish and vegetables (Table 34).

Table 34: Source of per day protein and vitamin intake at household level (%)

Source of protein and vitamin intake	Female workers HH	Male workers HH	All workers HH
Egg	25%	24%	25%
Chicken	24%	21%	22%
Beef	12%	10%	11%
Fish	68%	65%	67%
Vegetables	76%	71%	74%
Number of proteins and vitamin rich items	2.0	1.9	2.0

Source: ACD Survey 2020

In terms of other food, milk is consumed in only 27% of the families. Nearly 39% of the workers have mentioned about not consuming any food from the list above. (Table 35). The most common items in this group are Pitha and fruits.

Table 35: Per day intake of other food items at household level (%)

Other food items	Female workers HH	Male workers HH	All workers HH
Milk	29%	25%	27%
Fruits	41%	33%	38%
Soft Drinks	3%	8%	5%
Juice	3%	2%	3%
Street food	8%	12%	9%
Pitha	7%	3%	5%
None	38%	42%	39%
No. of other food items	0.9	0.9	0.9

Source: ACD Survey 2020

In terms of other food habits, survey results show that nearly 29% of the workers have someone in their family who consumes betel leaf, and about 31% have someone taking tobacco or tobacco-related products. However, 50% of the workers reported that no one in their family has any of these habits.

Table 36: Other daily food habits at household level (%)

Items	All workers
Betel leaf	29%
Tobacco or tobacco-related products	31%
Energy drinks	5%
None	50%

Source: ACD Survey 2020

### 8.2 HEALTH ISSUES

Table 37 reveals that around 15% households have at least one member suffering from chronic illness. Among the chronic illnesses, prevalence of asthma, long-term heart diseases, diabetes, blood pressure, long-term fever, injury or disability are commonly found. These households on average spend nearly Tk. 970 per month for the treatment of chronic illness.

Table 37: Percentage distribution of households with chronic illness

Family members	Female workers	Male workers	All workers
% of Household with chronic illness	13.3	16.6	14.7
Asthma	16.1	9.1	12.8
Long term heart disease	8.1	14.3	11.0
Diabetes	9.2	11.7	10.4
High/low blood pressure	9.2	9.1	9.2
Long term fever	9.2	6.5	7.9
Injury/Disability	10.3	5.2	7.9
Gastric/Ulcer	8.1	6.5	7.3
Monthly cost for chronic illness (in taka)	748.9	1,279.5	968.4

Source: ACD Survey 2020

Table 38 suggests that around two-third of the households did not suffer from any acute illness in the month prior to the survey. It also indicates that one out of every three households have suffered from acute illness in the month prior to the survey. Among the acute illnesses, in nearly 18.5% households, at least one member suffered from fever or cold or both, 5.3% suffered from injury and pain, 3.1% suffered from pressure and heart related complications, 1.2% went through gynecological problems, 1.1% had water borne diseases and so on. Among these households 48.7% and 19.5% have received treatment from private and public hospital/clinic/health care facilities. In addition, 27.7% used off the shelf counters to take medications against their respective acute illness. Only 1.5% households have availed factory health care facilities while 2.5% did not take any measures. It reveals that despite having health care facilities in factory premise, not many workers take advantage of the facility. While making a choice regarding preferred place to take treatment from, 'cost' of treatment is the most important factor, while distance of the health care facility, quality of treatment and easy access also influence the decision.

Interestingly, at household level, a smaller number of the incidences of acute diseases were found during COVID-19 period than that of pre-COVID-19 period. Using mask, washing hands and face regularly, and greater awareness in maintaining basic hygiene may have contributed to such decline in number of incidences.

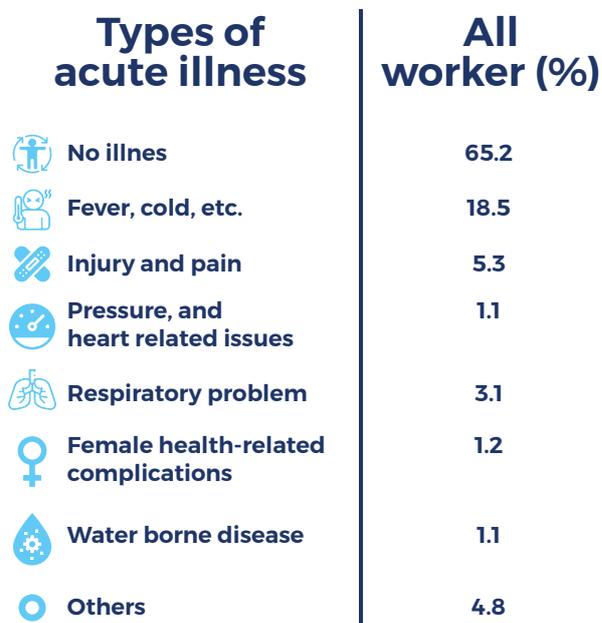
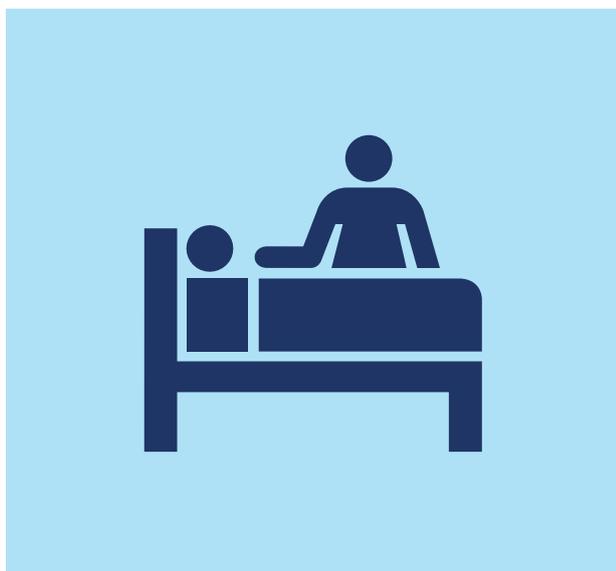
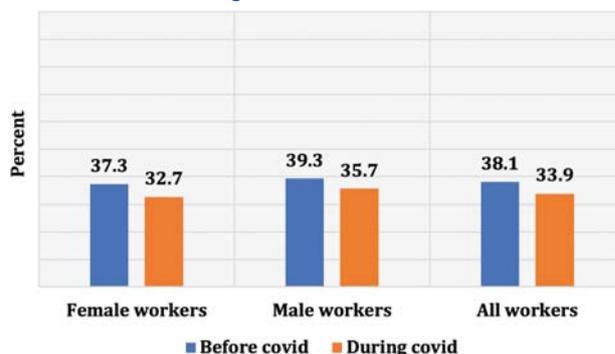


Table 38: Percentage distribution of households with acute illness

Acute health related issues	Female workers	Male workers	All workers
<b>Types of acute illness</b>			
No illness	66.1	64.0	65.2
Fever, cold, etc.	18.2	18.8	18.5
Injury and pain	4.7	6.2	5.3
Water borne disease	1.1	1.3	1.1
Pressure, and heart related issues	3.8	2.1	3.1
Respiratory problem	0.8	1.1	0.9
Female health-related complications	1.1	1.3	1.2
Others	4.4	5.3	4.8
<b>Facilities used</b>			
Government facilities	17.8	17.8	19.5
Private facilities	53.9	53.9	48.7
NGO facilities	0.6	0.6	1.5
Traditional medicine / Homeopathy	2.4	2.4	2.5
Off the shelf counters	22.5	22.5	27.7
Factory facilities	2.4	2.4	1.5
No treatment	3.0	3.0	2.5
<b>Reasons for the choice</b>			
Cost	34.2	30.8	32.7
Distance	27.1	20.7	24.4
Quality of treatment	16.9	17.2	17.0
Easy access	13.8	20.7	16.8
Others	8.0	10.6	9.1

Source: ACD Survey 2020

Figure 24: Percentage distribution of households with acute illness before and during COVID



Source: ACD Survey 2020

## 9. Summary of the Findings

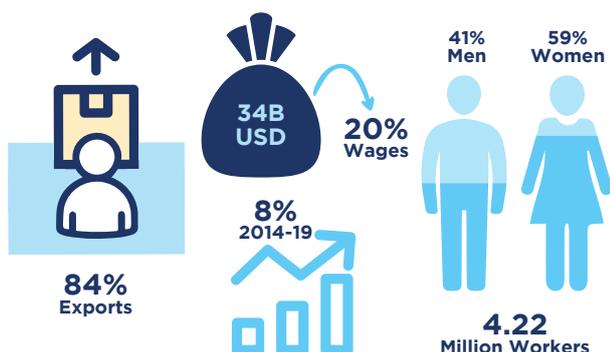
This is a comprehensive survey on workers of the garment industries in Bangladesh using randomized survey based on BGMEA, the largest organization of garment producers in Bangladesh, database. The survey also used the proportion of workers in different grades and selected them from the floors of the industries. BGMEA database also provided an estimate on the proportion of factories listed as Knit, Sweater, Woven and Others (Mixed) categories. We used these two proportions to decide on the number of workers to be selected for the survey from each factory. As such, number of workers selected from each factory varied between 6 to 8. These workers were selected at random from each floor of the factory building.

The survey was not without hiccups. In some cases, the factory could not be located because they no longer existed at the location (either shifted to other location or closed down). Therefore, the survey team used a replacement factory (also randomly drawn from the list of BGMEA members). The final blow came as our team had to stop the survey due to COVID-19 outbreak in Bangladesh in March. However, it was later completed with cooperation from both the factory owners and from our field enumerators.

Based on the findings listed in previous chapters, we can arrive at the following major conclusions.

### 9.1 EMPLOYMENT SIZE

Despite the fact that many factories were closed down as an aftermath of the Rana Plaza accident, our estimate shows an increase in the number of workers per factory and factories are about 70% larger than that of 2014. Based on several secondary sources and our sample results, we have estimated that total number of workers employed in the RMG sector is around 4.22 million in 2020.

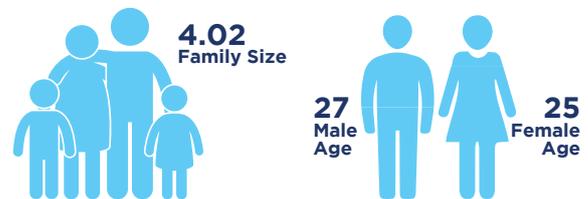


### 9.2 GENDER RATIO

The proportion of female workers has changed again from 65% in 2015 to 59% in 2020. However, there has been a rise in the number of both male and female workers in the industry. Our estimate shows that number of female workers has grown between 2 to 4 percent each year, while the number of male workers has grown by 7 to 10 percent during the same period. The changes in the proportion are probably linked to the changes in the structure of industries from woven to knit factories. A second important reason might be the higher level of human capital in male than in female. With changes in technologies, factories are looking for more skilled workers, which has been proven to be a great opportunity for the male workers. A probable third reason can be that the increase in wages is attracting male workers with higher level of education to seek these jobs, which in turn is increasing the competitiveness in the job market.

### 9.3 WORKERS AND THEIR FAMILIES

Only about 25% of the workers are not married. On the other hand, about 84% of the workers live with their families (including spouses/parents/siblings). On average, there are more than two income earning members in their families and average family size is 4.02. Average age of male workers is 27 and that of female workers is 25.



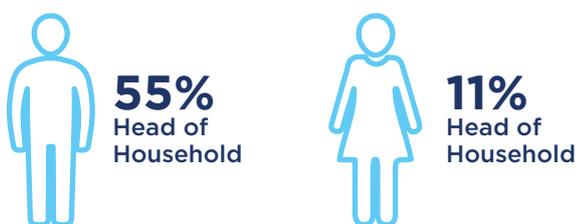
### 9.4 JOB CREATION

RMG sector is one of the most promising sectors of creating jobs for the unemployed youths. Nearly 32% of the workers were unemployed prior to joining the sector, whereas 28.5% were students and about 6.8% were housewives. As such, nearly 68% of them were not in any job prior to joining the sector. Hence, joining the RMG sector is the first job for a large majority of workers.



### 9.5 HOUSEHOLD HEADS

For a large majority of male workers (55%), they are the heads of their household while for female workers it is their husbands (63%). 11% of female workers are head of the family. This is not surprising given the fact that nearly 13% of households in Bangladesh have female heads.



### 9.6 WORKERS' EXPERIENCES IN THE RMG INDUSTRY

Average experience of workers in Grade 1 is 15.6 years, which is nearly 16 years for men and 12 years for women. The number is 10.3 years for Grade 2, 10.1 years for Grade 3, 6.6 years for Grade 4, 6 years for Grade 5, 5.2 years for Grade 6 and 3.4 years for Grade 7. In all the grades, average work experience for male is higher than that of female implying that they are working for longer period in the industry.

On average, male workers want to continue to work in the sector for 12 years and the number is close to 8 years for female workers. This implies that female workers plan to quit their job or retire earlier than that of their male counterpart. One of the reasons for female workers to quit early is to take up greater responsibilities in the family while for male workers, it is to join another job or start a business.

### 9.7 WORKPLACE ENVIRONMENT

Workplace environment is an important precondition for decent work and it is part of the SDG. On this, a vast majority of workers (more than 80%) perceive their workplace as either good or very good in terms of a) working environment, b) lighting, c) emergency exits d) washroom facilities, and e) canteen facilities.

Around 8.3% of female workers have given birth to a child in a year. Study observed that about 3.1% of workers were eligible and have enjoyed maternity leave with pay. However, the rest were not eligible to enjoy the leave with pay. They did not complete the eligibility criteria to be entitled for such leave. Under this situation, we suggest a careful study on the eligibility criteria so that a more humane rule can be set which may be a win-win for both the owners and the workers.

On average, a worker takes 4.7 days of leave in a year and about 98.4% of the workers did benefit from taking this leave. On average, they work for 6 days a week, nearly 9 hours per day and 8.5 hours of extra time per week. Results also show that nearly 73% of the workers worked paid extra hours a week.

### 9.8 DAILY COMMUTING AND DAY CARE FACILITIES

Nearly 80% of the workers walk to their workplace and it takes about 19 minutes to reach their factories from home. Therefore, it is fair to assume that they live within 1 to 2 kilometers from their workplace. This means that it is difficult for a mother to carry their baby along with their food and walk for about 19 mins (on average) to reach the factory. Consequently, provisions for establishing day-care centers at each and every factory is counter intuitive. For this reason, occupancy level at the day-care centers inside the factory premises is very low. It is rather efficient to relocate day-care centers to the locality where they live. In this case, either BGMEA or local factories can jointly manage day-care center more efficiently. Survey results show that while 87.5% of the factories had child care facilities for months, only 11.7% mothers used it. This clearly shows that commuting distance is an important factor for mothers to bring their child with them to the factories, which resulted in facilities remaining largely unused. Therefore, a better policy for the RMG sector would be to develop day-care facilities for children in areas where the workers live. This will serve the interest of the workers better and will be cost effective as well.



### 9.9 CANTEEN FACILITIES

Nearly 84% of the workers use canteen to eat their meals during the breaks. Data reveals that in 73% of the factories, the canteen sell food to workers, but only 25% of the workers buy food from them. This implies that workers need space where they can sit during breaks and enjoy their home-cooked meals. Thus, it is important to understand the specific needs of the workers in terms of using canteens in the factories. The canteens shall be designed to ensure greater emphasis on spaces for socialization rather than supply of food.



### 9.10 NON-RMG SOURCES OF INCOME

About 57% of the workers do not have any other sources of income, while 43% of the workers have reported that they have income from agricultural activities including poultry, livestock, and fisheries and 5% have income from businesses. Moreover, 65% of the workers have their spouse working in the RMG industry.

### 9.11 ACCESS TO FINANCIAL SERVICES

Nearly 67% of the workers have their own bank account. 31.7% of the workers also have accounts in an agent banking system. The agent/mobile banking system in Bangladesh provides regular banking services to their account holders through private agents who are generally located in convenient store. In addition, nearly 43% of the workers also have accounts with Bkash a mobile-based money transfer service. Nearly 62% of the workers regularly remit money to their home (to parents or the spouse), of them, 82% use mobile-based banking services and 15% still use person-to-person transfer of fund.



**67.2%**  
Bank Account



**42.6%**  
BKash



**3.1%**  
Nagad

### 9.12 LIVING STANDARDS

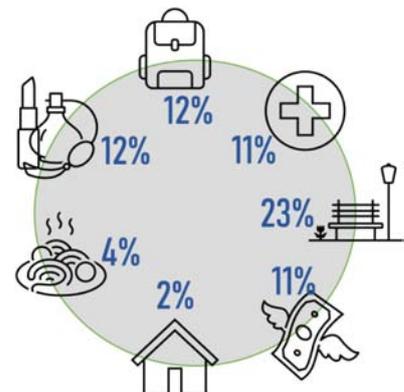
It has been observed that, on average, each family has more than 2 earning members. Their average income is between 23,000 to 37,000 taka per month. An individual worker earns in between 9,500 to 30,000 taka per month including overtime. On average, a worker works for 8.5 hours of overtime per week.

### 9.13 FOOD HABIT

The food habit survey data shows that RMG workers do have access to food items which are common to many Bangladeshis. On the question about which of the food items were included in their diet yesterday, data shows that rice is the main source of their starch, while wheat is part of the regular diet for 16% of the workers. Potato is consumed by 60% of the workers. Among the protein items, fish is the most common followed by eggs and chicken. Vegetables are among the staple items of their regular diets. Fruits are also regularly consumed by 41% of the workers.

### 9.14 FAMILY INCOME AND EXPENDITURE

In terms of cost of living and income, the survey result shows that there has been an annual increase in family income by 7% between 2014 to 2020, while overall cost of living has also risen by 7% during that period. This rise in cost of living is led by a higher rise in the cost of education, health, personal expenditure (like cosmetics and other items) and recreation. The rise in housing expenditure was only 2% and food expenditure was 4%. This indicates that changes in their family income enabled them to improve their lifestyle as they have been able to spend higher for non-food items. At the same time, their contribution towards their extended families (remitting money to parents or other family members) has also increased by 11%. On aggregate, workers of RMG sector sends 1,011 crore taka remittance per month to the rural economy. Overall, non-food and non-housing expenditure increased by 14% per annum for their families.



# Reference

BGMEA (2020). *BGMEA Sustainability Report 2020*. Bangladesh Garments Manufacturer and Exporter Association.

Retrieved from: <http://download.bgmea.com.bd/BGMEA%20Sustainability%20Report%202020.pdf>

BGMEA. (2019, 7 November). *Export Performance*. Bangladesh Garments Manufacturer and Exporter Association.

Retrieved from: [http://www.bgmea.com.bd/chart\\_test/total\\_product\\_export](http://www.bgmea.com.bd/chart_test/total_product_export)

Centre for Entrepreneurship Development (2020, November 6). *Mapped in Bangladesh (MiB)*. BRAC University.

Retrieved from: <https://mappedinbangladesh.org/>

Export Promotion Bureau. (2020, 10 October). *Statistics: Export Data*. Export Promotion Bureau. Government of the People's Republic of Bangladesh.

Retrieved from: [http://epb.gov.bd/site/view/epb\\_export\\_data/](http://epb.gov.bd/site/view/epb_export_data/)

Haque and Bari (2015). *Garments Workers in Bangladesh: Social Impact of the Garments Industry*. Asian Center for Development (ACD).

Retrieved from:

<http://acdonline.org/wp-content/uploads/2015/03/Garment-Worker-Survey-Summary-Report-2015.pdf>

Ministry of Finance (2020). *Bangladesh Economic Review: Statistical Appendices*. Government of the People's Republic of Bangladesh.

Retrieved from:

<https://mof.portal.gov.bd/site/page/28ba57f5-59ff-4426-970a-bf014242179e/Bangladesh-Economic-Review-2020>

Moazzem and Radia (2018). 'Data Universe' of Bangladesh's RMG Enterprises: Key Features and Limitations. CPD Working Paper 123. Centre for Policy Dialogue (CPD).

Retrieved from:

<https://cpd.org.bd/wp-content/uploads/2019/01/CPD-Working-Paper-123-Data-Universe%E2%80%99-of-Bangladesh%E2%80%99s-RMG-Enterprises.pdf>

# Annex: Technical Note

## SAMPLING FRAME AND METHOD

The primary sampling units for the survey were the garments factories. These factories were selected randomly from each stratification based on the list of operational factories provided by BGMEA. A three-stage sampling process was followed to select the workers (respondents) for the survey. In the first stage, number of factories were determined based on location of factory (e.g., Dhaka and Chittagong etc.). In the second stage, factories were randomly chosen based on the types of the factories (e.g., Knit, Woven, Sweater or Other etc.). In the third stage, at least 7 workers from each factory were selected using a systematic random sampling process. In addition, a manager (production, operational or human resource – depending on the availability of the person during the survey) from each factory was interviewed with a structured questionnaire. A supplementary list of factories was prepared following the abovementioned randomization procedures to recall the replacements when a factory from the first list was not found or found non-operational.

## TECHNICAL NOTE (SAMPLING DESIGN)

The appropriate sample size for a population-based RMG workers survey is determined largely by three factors: (i) the estimated prevalence rate e.g., portion of female workers in the garments factory; (ii) the expected level of confidence in the results and (iii) the acceptable margin of error. For a survey design based on a simple random sample, the sample size required can be calculated according to the following formula

Equation 1: Sampling Equation

$$n = \frac{p * (1 - p) * z^2 * design\ effect}{e^2}$$

Here,

n= Sample size

p= 0.7 (proportion of the female workers in the garments factory)

1-p=0.3 (proportion of the male workers in the garments factory)

z=1.96 (Sample variant considering 95% confidence level)

e= 5% (margin of error)

Design effect=4.1

To determine the design effect (DE) for this study, we have used the value of DE estimated for the labor force survey by Hans and Silva (2005). However, Hans and Silva (2005) estimated average design effects for the urban and rural sub-domains were 4.1 and 4.0 respectively. As this survey is on the RMG workers and their managers who mainly stay at urban area or periphery - we considered the design effect of 4.1 for determining the final sample.

Using the abovementioned formula, the required sample size was 1270. Finally, we collected a total 1,279 responses from 160 RMG factories, which are active members of the BGMEA. Of which, 1,119 responses are from RMG workers and 160 responses from the respective factory managers. Roughly,

from each garment factory, 7 workers were randomly selected based on stratification of workers by grades and one manager from the respective factories.

## CLASSIFICATION OF BGMEA MEMBERS

Since the list of the BGMEA members forms the basis of the sampling frame for this study, the research team conducted a simple statistical analysis of the membership list based on location and type of industries. The BGMEA membership list classifies the industries broadly in four categories (i) Knit, (ii) Woven, (iii) Sweater and (iv) Others. The other category of factories is having production of knit and woven simultaneously. Table 39 summarizes the required sample distribution to follow after analyzing the BGMEA membership list. It shows that the largest group of factories belonged to woven factory (41.2%) followed by knitwear factories (26.0%) and the sweater factory (17.2%). Rest 15.6% factories are in the category of others.

Table 39: Number of factories by location and factory type

Factory Type	Chattogram	Dhaka	Gazipur	Narayanganj	Others	Total
Knit	105	379	394	208	44	1130
Woven	348	979	353	76	33	1789
Sweater	63	253	345	40	45	746
Others	204	273	141	40	19	677
<b>Total</b>	<b>720</b>	<b>1,884</b>	<b>1,233</b>	<b>364</b>	<b>141</b>	<b>4,342</b>

Source: Authors calculation from the BGMEA membership database

Location wise 43.39% of factories are in Dhaka (that includes both Dhaka city and Savar) followed by 28.40% in Gazipur, 16.58% in Chittagong, 8.38% in Narayanganj and rest 3.25% in other districts of the country (Table 40).

Table 40: Percentage distribution of factories by location and factory type

Factory Type	Chattogram	Dhaka	Gazipur	Narayanganj	Others	Total
Knit	9.3	33.5	34.9	18.4	3.9	100.0
Woven	19.5	54.7	19.7	4.3	1.8	100.0
Sweater	8.5	33.8	46.3	5.4	6.0	100.0
Other	30.1	40.3	20.9	5.9	2.8	100.0
<b>Total</b>	<b>16.6</b>	<b>43.4</b>	<b>28.4</b>	<b>8.4</b>	<b>3.2</b>	<b>100.0</b>

Source: Authors calculation from the BGMEA membership database

Among the seven grades, the highest number of workers are employed in Grade 4. Thus, according to distribution 312 workers' responses were needed to be collected from Grade 4 workers. Followed by this, the required sample size from grade 7 is found to be 284. The corresponding figures from grade 6, 5, 3, 2 and 1 are 232, 151, 100, 22 and 19 (Table 41).

Table 41: Sample number of workers by grade and factory type

Worker's Grade	Worker's distribution by factory type					Required sample size of workers
	All	Knit	Woven	Sweater	Other	
Grade 1	1.6	0.5	0.0	0.6	0.0	19
Grade 2	1.8	6.9	0.0	0.9	0.4	22
Grade 3	9.0	5.8	10.8	10.9	3.1	100
Grade 4	27.8	15.9	22.9	27.0	22.1	312
Grade 5	13.5	7.1	22.0	11.2	25.9	151
Grade 6	20.7	47.9	18.0	28.1	25.8	232
Grade 7	25.8	15.9	26.3	21.3	22.7	284

Source: Authors calculation from the BGMEA membership database



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