

The Bangladesh 2022 World Bank Enterprise Survey Implementation Report

I. Introduction

This document provides information on the World Bank Enterprise Surveys (WBES) implemented in Bangladesh between March 2022 and October 2022 (baseline data collection) and between June and September 2023 (follow-up data collection). The WBES collect both objective data based on firms' day-to-day experiences, and perceptions of enterprises regarding the business environment in which they operate. The WBES currently cover over 200,000 firms in 155 countries with a total of 340 surveys since 2006. The WBES are also used to build a panel of enterprise data that will make it possible to track changes in the business environment over time.¹

This report describes the sampling design of the survey, the data set structure as well as additional information that may be useful when using the data, such as information on survey non-response and the appropriate use of the sampling weights.

II. Sampling Structure

The WBES use stratified random sampling, where the population of establishments is first separated into non-overlapping groups, called strata, and then respondents are selected through simple random sampling from each stratum. The detailed methodology is provided in the Sampling Note.² Stratified random sampling has several advantages over simple random sampling. In particular, it:

- produces unbiased estimates of the whole population or universe of inference, as well as at the levels of stratification
- ensures representativeness by including observations in all of those categories
- produces more precise estimates for a given sample size or budget allocation, and
- may reduce implementation costs by splitting the population into convenient subdivisions.

The WBES typically use three levels of stratification: industry classification, establishment size, and subnational region (used in combination). Starting in 2022, the WBES bases the industry classification on ISIC Rev. 4 (with earlier surveys using ISIC Rev. 3.1).³ For regional coverage within a country, the WBES has national coverage.

¹ A “panel interview” refers to an interview with a business that was also interviewed in the previous WBES.

² The Sampling Note is available at:

https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/methodology/Sampling_Note-Consolidated-2-16-22.pdf. For further methodological background see, Richard L. Scheaffer; Mendenhall, W.; Lyman, R., “Elementary Survey Sampling”, Fifth Edition, 1996.

³ The WBES universe includes: all manufacturing (ISIC 4.0 codes 10-32), services (ISIC 4.0 codes 33, 41-43, 45-47, 49-56, 58, 61, 62, 69-75, 79, 95). Details on sectoral coverage and the WBES universe of inference can be found in the *Enterprise Surveys Manual and Guide* (p. 4).

II.1 Stratification Categories

The Bangladesh 2022 WBES uses the following stratification categories:

- **Industry: 7 categories:**
 - Within manufacturing: Food, Textiles, Garments, and Other Manufacturing
 - Within services: Retail, Hotels, and Other Services
- **Size: 3 categories:** Small (5 to 19 employees), Medium (20 to 99 employees), and Large (100 or more employees)
- **Region: 7 categories:** Dhaka MA, Greater Dhaka⁴, Chattogram, Cox's Bazar, Rajshahi, Khulna, Sylhet, Barishal

Industry strata for the manufacturing sector were selected by their contribution to total value added, to employment and to total number of establishments, using UNIDO INSTAT 4, available as of summer 2021. The manufacturing sectors stratified separately represent 75%, 76% and 69% of total value added, employment, and number of establishments, respectively, with the rest of sectors grouped into a residual, "Other Manufacturing", stratum. By number of establishments, the manufacturing sectors stratified separately represent 52% of the whole ES universe.

The strata for the services sector were selected by contribution to total number of establishments, using the Business Directory 2019. The sectors stratified separately represent 25% of the total number of establishments in the services sector, and 8% of the whole ES universe.

Region strata of the Bangladesh 2022 WBES were selected by counterparts from the International Finance Corporations (IFC). Cox's Bazar is stratified separately from Chattogram as a request from the Poverty and Equity (SAR) GP.

II.2 Universe

The universe of inference includes all formal (i.e., registered) private sector businesses (with at least 1% private ownership) and with at least five employees. In terms of sectoral criteria, all manufacturing businesses (ISIC Rev 4. codes 10-33) are eligible; for services businesses, those corresponding to the ISIC Rev 4 codes 41-43, 45-47, 49-53, 55-56, 58, 61-62, 69-75, 79, and 95 are included in the Enterprise Surveys. Cooperatives and collectives are excluded from the Enterprise Surveys. All eligible establishments must be registered with the registration agency. In the case of Bangladesh, an establishment is defined as registered if it is registered with National Board of Revenue (NBR). The universe table is the total number of eligible establishments, and the table is partitioned by the stratification groups (industry classification, establishment size, and subnational region) in a country.

For the Bangladesh 2022 WBES, the universe table, shown in Table 1 below, was obtained from the Business Directory 2019 conducted by the Bangladesh Bureau of Statistics. The Business

⁴ Greater Dhaka includes Gazipur, Manikganj, Munshiganj, Narayanganj, Narsingdi, and Kishoreganj.

Directory 2019 is the complete count of all establishments located within the geographical boundaries of the country. The sub-set corresponding to the standard ES universe was used.

As discussed in Section III.6 in more detail, for calculation of sampling weights, the universe was constructed from the sampling frame.

II.3 Sampling Frame

The WBES requires the most complete and up-to-date Sampling Frame, the list of eligible establishments with information on industry classification, size, address and other contact information that will be used to randomly select the sample. In countries where a previous round of the WBES exists, the Sampling Frame also includes the Panel Sampling Frame, which provides information about all the establishments that participated in the previous round of the WBES in the country.

The Sampling Frame for the Bangladesh 2022 WBES was constructed from the following sources (see Table 2). The Panel Sampling Frame was constructed using information on all the establishments that participated in the Bangladesh 2013 WBES. The Fresh Sampling Frame, i.e., list of establishments that are in the WBES universe and that have not participated in the Bangladesh 2013 WBES, was obtained from the Business Directory 2019. However, the contact information of this set of establishments was mostly not updated. Additional efforts were made by Org-Quest Research Ltd. to update this information. As there are various sources, additional effort was also made to avoid duplicates as much as possible.

For every WBES, necessary measures are taken to ensure the quality of the frame; however, the sample frames are not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc. Given the impact that non-eligible units included in the sample universe may have on the results, eligibility adjustments may be needed when computing the appropriate sampling weights for individual observations (if and only if the weights are computed the sampling frame that is also the universe). Table 4 reports response outcomes.

II.4 Sample Design

The WBES sample design, i.e., target number of interviews in each combination of stratification categories (cells), is generated using the two primary criteria: 1) minimize the difference from the purely proportional sample within each cell; and 2) achieve a sufficient sample size by stratification category to allow for estimates of a given level of precision.⁵ Additional information on the criteria for determining the sample size by stratification category is given in the *Sampling Note*, and additional information on the sample design is given in the *Enterprise*

⁵ Additional constraints are also considered in the design stage. These are generally practical and include, for example, having a sufficient number of available contacts in the sample.

Surveys Manual and Guide.⁶ The original survey design for the Bangladesh 2022 WBES is given in Table 3.

III. Data Collection

The detailed information on the WBES methodology and data collection is provided in the Enterprise Surveys Manual and Guide. The interviews for the Bangladesh 2022 WBES were conducted between March 2022 and October 2022. The interviews were conducted in Bengali. For monetary variables, the currency was Bangladeshi Taka. About thirty variables were collected through follow-up phone surveys, conducted between June 2023 and September 2023; these variables have the suffix _BR. Although there was an attempt to re-contact all the establishments that participated in the baseline surveys to collect the variables needed for the B-ready report, attrition occurred in the follow-up surveys: 875 were successfully recontacted (88% realization rate); 69 refused to participate, and 54 were unobtainable.

III.1 Questionnaire

The standard WBES questionnaire covers several topics regarding the business environment and business performance. These topics include general firm characteristics, infrastructure, sales and supplies, management practices, competition, innovation, capacity, land and permits, finance, business-government relations, exposure to bribery, labor, and performance. Information about the general structure of the questionnaire is available in the *Enterprise Surveys Manual and Guide*.

The baseline questionnaire implemented in the Bangladesh 2022 WBES included additional questions covering contractual disputes, COVID-19, green economy, materials and inputs, relationship with suppliers, e-payments, government support, attitudes towards taxes, training costs, and childcare support. These questions were selected in collaboration with the local team members of the local International Finance Corporations (IFC), Foreign, Commonwealth and Development Office (FCDO), and World Bank (WB).

The follow-up questionnaire included new questions that are asked for the Business Ready (B-READY) project.

III.2 Contractor

The fieldwork for the Bangladesh 2022 WBES was implemented by Org-Quest Research Limited. The selection for the implementing agency followed the standard World Bank procurement practices that are described in more detail in the *Enterprise Surveys Manual and Guide*.

⁶ The *Enterprise Surveys Manual and Guide* is available at:
<https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/methodology/Enterprise-Surveys-Manual-and-Guide.pdf>

III.3 Sampling and screening

Samples are drawn by the Enterprise Surveys team in batches, following the stratification and sample design. The contractor conducted a thorough screening process before scheduling the ES interviews. Results of the screening are provided using the eligibility and status codes as listed in Table 4. In cases of unit non-response (either a refusal or an inability to obtain an interview after exhaustive attempts), the contractor proceeded with the contact that appeared next in the list drawn in the respective cell. The process of sampling and screening is described in more detail in the *Enterprise Surveys Manual and Guide*.

III.4 Survey response

In all surveys, including the WBES, some respondents choose not to participate. The Enterprise Analysis team and the contractor take all necessary measures to boost participation, through various methods of recruitment. The proper management of the screening process and sample replacement ensures that the resulting sample remains random.

The main measure of survey participation is the yield, which is the ratio of the total number of achieved interviews to the total number of contacted establishments. There are two main elements that boost yields. First is the survey participation rate, measured as the share of establishments that participated among those that can be assumed to have been eligible. The second element is the quality of frame. If only a small fraction of the contacted establishments is actually eligible to participate in the survey, then the sampling frame is far from ideal. This quality is measured by the ratio of the total number of establishments that can be assumed to be eligible for the WBES with the total number of contacted establishments in the frame. In other words:

$$Yield = Survey\ response\ rate * Rate\ of\ quality\ of\ the\ frame$$

which can be rewritten as follows:

$$\frac{Total\ interviewed}{Total\ contacted} = \frac{Total\ interviewed}{Assumed\ eligible} * \frac{Assumed\ eligible}{Total\ contacted}$$

Table 5 provides these measures for the Bangladesh 2022 WBES and across its stratification levels.

III.5 Achieved Sample

Tables 6 and 7 provide count of the WBES interviews collected for each stratification cell, i.e., broken down by industry, establishment size, and region. Table 6 reports full sample, while Table 7 shows counts of only panel interviews.

III.6 Sampling Weights

Since the WBES uses stratified random sampling, individual observations should be properly weighted when making inferences about the population, since unweighted estimates are biased unless sample sizes are proportional to the size of each stratum. For each WBES, special care is given to correctly compute sampling weights. Whenever the Universe is used to draw the sample (i.e., Sampling Frame is the same as the Universe) it is imperative to accurately adjust the

universe within each stratum to account for the presence of ineligible establishments (e.g., the firm discontinued businesses, or is deemed ineligible due to its business activity or having fewer than five employees). Proper treatment of panel establishments is also crucial. Details about how the WBES sampling weights are calculated are given in the *Sampling Note*.

Three versions of sampling weights are calculated, depending on the assumptions that determine eligibility of establishments to be counted towards the WBES universe. These assumptions are called weak, medium, and strong; and are defined as given in the table below. Prevalence of each of these outcomes for the Bangladesh 2022 WBES is given in Table 4. All indicators and analysis conducted by the Enterprise Surveys team use the sampling weights based on the median assumption. Tables 8-10 report estimated universe based on the respective assumption.

Assumption	Eligibility codes for inclusion in the WBES universe
Strict	1,2,3,4,16
Median	1,2,3,4,16,10,11,13
Weak	1,2,3,4,16,10,11,13,91,92,93,94,12

For descriptions of each eligibility code, see Table 4.

Note that for the Bangladesh 2022 WBES, the sampling weights were calculated using universe that is constructed from the frame, allowing the application of adjustments as described above.

Two different sets of weights are presented in the dataset. The standard weights discussed above apply to the standard Enterprise Survey questions that were administered in the baseline survey to all respondents. The second set of weights are denoted with the suffix `_BR` and they apply to the questions asked in the follow-up surveys, i.e., to all the variables denoted with the suffix `_BR`. Both sets of weights are scaled such that they are nationally representative of the businesses operating in the country. This implies that all variables with the suffix `_BR` must be used with the weights with suffix `_BR` whereas variables without the suffix must use the weights without suffix when making inferences to the population.

III.7 Item response rates

Item response rate must be differentiated from survey response rates. The latter refers to participation in the survey itself (see Section III.4) whereas the former refers to the absence of responses to specific survey questions.⁷ The WBES, as any survey, suffer from item non-response; and different strategies are used by the data collection team to address this. In particular:

- For sensitive questions, such as on corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a separate response category from don't know (-9).

⁷ The WBES questionnaire is organized so that there is always some entry in the database when the question was posed. An empty entry means that the question was not asked to the corresponding respondent, typically, due to skip patterns, or lack of applicability of that question in general.

- Establishments with incomplete information were re-contacted to fill gaps.

Table 11 provides item response rates for several key variables, broken down across the stratification levels.

III.8 Database Structure

The WBES datafiles are organized in ways that reflect the corresponding questionnaire. The variables that are standard across countries have the first letter in their name correspond to the questionnaire section where the variable belongs in the questionnaire, i.e., *a1* denotes section A. The variables that are country or region specific are generally named using a prefix in capital letters. These country-specific variables are generally not available beyond the specific country or region where they were implemented. For the baseline Bangladesh 2022 WBES, these variables use prefixes BGD, SAR, BMG, and COV. For the follow-up survey, all variables have the suffix *_BR*. All variables are numeric with the exception of those variables with an “x” at the end of their names. The suffix “x” denotes that the variable is alpha-numeric.

The WBES datafiles contain two establishment identifiers, *idstd* and *id*. The former is a global unique identifier of each establishment, while the latter is unique identifier within each survey. The variable *idstd* can be used to match the WBES establishment one-to-one across databases. The variables *wweak*, *wmedian*, and *wstrong* corresponding to sampling weights based on, respectively, weak, median, and strong assumptions about eligibility (see Section III.6). The variable *strata* corresponds to the stratum of each observation.

Additionally, the WBES datafiles contain many standard variables. The variable *d1a2_v4* denotes the main activity of the establishment, as obtained during the WBES interview, coded in the four-digit ISIC Rev. 4. Users should note that this activity may differ from the industry classification given in the Sampling Frame, *a4a*. Users are generally advised to use industry categories based on the realized information in *d1a2_v4*. Additional sampling information is contained in variables *a2* (region) and *a6a* (size). The variable *panel* identifies panel establishments, i.e., those that participated in the Bangladesh 2013 WBES. The combination of *a4a*, *a2*, *a6a*, and *panel* forms stratum of each establishment, which is contained in variable *strata*.

The last complete fiscal year for each establishment is contained in variables *a20m* (last month of last complete fiscal year) and *a20y* (last complete fiscal year).

Note that when an entry in the WBES database is empty, this means that the question was not asked to the corresponding respondent. This happens when the question is deemed inapplicable, due to skip patterns or other reasons. In cases when the question was posed, some entry is provided, including don't know, which is an example of item non-response.

IV. Useful Links

The users of the WBES data may find the following links useful:

- *Sampling Note* is available at:
https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/methodology/Sampling_Note-Consolidated-2-16-22.pdf
- The *Enterprise Surveys Manual and Guide* is available at:
<https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/methodology/Enterprise-Surveys-Manual-and-Guide.pdf>
- The WBES global questionnaires are available at:
<https://www.enterprisesurveys.org/en/methodology>
- The projects that are currently being implemented by the Enterprise Surveys team are available at: <https://www.enterprisesurveys.org/en/methodology/current-projects>
- The list of all WBES databases and detailed information about each is available here:
<https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/methodology/DataDetails.xls>
- The description of the WBES indicators is available at:
<https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/Indicator-Description.pdf>

Fact Sheet

Source of Universe Table	Business Directory 2019, Bangladesh Bureau of Statistics
Source of Sampling Frame	Business Directory 2019, Bangladesh Bureau of Statistics
Stratification sectors	Manufacturing of: Food, Textiles, Garments, Other Manufacturing; Retail, Hotels, and Other Services
Stratification sizes	Small (5 to 19 employees), Medium (20 to 99 employees), Large (100 and more)
Stratification regions	Dhaka MA, Greater Dhaka, Chattogram, Cox's Bazar, Rajshahi, Khulna, Sylhet, Barishal
Contractor	Org-Quest Research Limited
Fieldwork dates	March 2022 – October 2022
Interview languages	Bengali
Survey software	SurveyCTO
Currency for nominal variables	Bangladeshi Taka
Reference fiscal year	2021 and 2022
Sample Size	Total: 1000 Fresh: 787 Panel: 213
Survey response rates	Yield: 34.6% Response rate: 71.0% Frame quality: 48.7%
Item response rates	d2: 97.3% n2a: 99.4% 11: 96.2% all TFP variables: 90.4%
Additional topics covered in the questionnaire	contractual disputes, COVID-19, green economy, materials and inputs, relationship with suppliers, e-payments, government support, attitudes towards taxes, training costs, and childcare support
Additional surveys available (if any)	Informal Sector Enterprise Survey

Tables

Table 1: Bangladesh 2022 WBES Universe

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	167	97	872	1024	352	119	1717	7,054
Dhaka City	Medium (20-99)	64	125	621	430	116	36	567	
Dhaka City	Large (100+)	18	52	466	116	20	5	70	
Greater Dhaka	Small (5-19)	220	1333	331	230	108	14	311	5,315
Greater Dhaka	Medium (20-99)	189	766	360	268	33	5	108	
Greater Dhaka	Large (100+)	39	206	593	185	3	1	12	
Chattogram	Small (5-19)	139	9	28	177	57	18	419	1,846
Chattogram	Medium (20-99)	132	31	46	147	22	5	134	
Chattogram	Large (100+)	29	39	255	121	10	5	23	
Cox's Bazar	Small (5-19)	69	0	0	31	25	25	35	259
Cox's Bazar	Medium (20-99)	4	0	0	5	0	47	14	
Cox's Bazar	Large (100+)	0	0	0	0	0	4	0	
Rajshahi	Small (5-19)	762	241	11	154	52	24	179	1,959
Rajshahi	Medium (20-99)	191	41	8	97	9	19	102	
Rajshahi	Large (100+)	19	10	5	25	0	0	10	
Khulna	Small (5-19)	240	44	1	84	129	20	241	1,103
Khulna	Medium (20-99)	96	36	3	51	17	4	54	
Khulna	Large (100+)	41	7	0	25	3	1	6	
Sylhet	Small (5-19)	64	9	0	23	50	32	76	419
Sylhet	Medium (20-99)	29	4	0	37	20	19	29	
Sylhet	Large (100+)	20	2	0	3	1	0	1	
Barishal	Small (5-19)	27	3	0	7	14	10	45	147
Barishal	Medium (20-99)	5	3	0	6	3	3	13	
Barishal	Large (100+)	1	0	0	2	2	0	3	
		2,565	3,058	3,600	3,248	1,046	416	4,169	18,102

Source: Business Directory 2019, Bangladesh Bureau of Statistics

Table 2: Bangladesh 2022 WBES Sample Frame (Fresh and Panel Combined)

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	167	97	872	1024	352	119	1717	7054
Dhaka City	Medium (20-99)	64	125	621	430	116	36	567	
Dhaka City	Large (100+)	18	52	466	116	20	5	70	
Greater Dhaka	Small (5-19)	220	1333	331	230	108	14	311	5315
Greater Dhaka	Medium (20-99)	189	766	360	268	33	5	108	
Greater Dhaka	Large (100+)	39	206	593	185	3	1	12	
Chattogram	Small (5-19)	139	9	28	177	57	18	419	1846
Chattogram	Medium (20-99)	132	31	46	147	22	5	134	
Chattogram	Large (100+)	29	39	255	121	10	5	23	
Cox's Bazar	Small (5-19)	69	0	0	31	25	25	35	259
Cox's Bazar	Medium (20-99)	4	0	0	5	0	47	14	
Cox's Bazar	Large (100+)	0	0	0	0	0	4	0	
Rajshahi	Small (5-19)	762	241	11	154	52	24	179	1959
Rajshahi	Medium (20-99)	191	41	8	97	9	19	102	
Rajshahi	Large (100+)	19	10	5	25	0	0	10	
Khulna	Small (5-19)	240	44	1	84	129	20	241	1103
Khulna	Medium (20-99)	96	36	3	51	17	4	54	
Khulna	Large (100+)	41	7	0	25	3	1	6	
Sylhet	Small (5-19)	64	9	0	23	50	32	76	419
Sylhet	Medium (20-99)	29	4	0	37	20	19	29	
Sylhet	Large (100+)	20	2	0	3	1	0	1	
Barishal	Small (5-19)	27	3	0	7	14	10	45	147
Barishal	Medium (20-99)	5	3	0	6	3	3	13	
Barishal	Large (100+)	1	0	0	2	2	0	3	
		2,565	3,058	3,600	3,248	1,046	416	4,169	18,102

Source: Business Directory 2019, Bangladesh Bureau of Statistics

Table 3: Original Survey Design (Fresh and Panel Combined)

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	6	3	20	27	10	5	65	253
Dhaka City	Medium (20-99)	4	5	23	13	7	3	20	
Dhaka City	Large (100+)	4	4	17	5	4	4	4	
Greater Dhaka	Small (5-19)	6	44	7	7	4	3	9	186
Greater Dhaka	Medium (20-99)	5	31	9	8	3	2	3	
Greater Dhaka	Large (100+)	4	6	24	6	2	1	2	
Chattogram	Small (5-19)	5	2	3	6	4	3	10	120
Chattogram	Medium (20-99)	6	3	4	7	12	3	7	
Chattogram	Large (100+)	4	4	16	8	7	3	3	
Cox's Bazar	Small (5-19)	2	0	0	2	11	11	2	77
Cox's Bazar	Medium (20-99)	3	0	0	3	0	31	9	
Cox's Bazar	Large (100+)	0	0	0	0	0	3	0	
Rajshahi	Small (5-19)	24	6	3	6	4	3	6	120
Rajshahi	Medium (20-99)	12	4	3	6	6	13	7	
Rajshahi	Large (100+)	4	3	3	4	0	0	3	
Khulna	Small (5-19)	7	2	1	4	5	3	7	105
Khulna	Medium (20-99)	10	7	2	8	10	3	8	
Khulna	Large (100+)	9	4	0	8	2	1	4	
Sylhet	Small (5-19)	3	2	0	4	3	3	2	88
Sylhet	Medium (20-99)	9	3	0	9	13	13	9	
Sylhet	Large (100+)	10	1	0	2	1	0	1	
Barishal	Small (5-19)	2	2	0	2	9	7	3	51
Barishal	Medium (20-99)	3	2	0	4	2	2	8	
Barishal	Large (100+)	1	0	0	1	1	0	2	
		143	138	135	150	120	120	194	1,000

Table 4: Response Outcomes

		Totals	Rates relative to total contacted
Overall	Contacts available in frame	18,102	
	Issued	14,778	
	Contacted	2,888	
Screening phase	Eligibles	1,000	34.6%
	Screener refusals	406	14.1%
	Assumed eligibles	1,406	48.7%
	Ineligible + out of target	362	12.5%
	Unobtainables	1,120	38.8%
Interview phase	Interview refusals	0	0.0%
(only if eligible)	Complete interviews	998	34.6%

Table 5: Survey Yield Rates

		Yield	Survey response rate	Frame quality
Panel	Fresh	36.0%	70.4%	51.1%
	Panel	30.2%	73.2%	41.2%
Size	Small (5-19)	37.2%	78.5%	47.4%
	Medium (20-99)	36.1%	71.8%	50.3%
	Large (100+)	28.0%	57.1%	49.0%
Region	Dhaka City	28.0%	64.5%	43.5%
	Greater Dhaka	29.2%	75.8%	38.5%
	Chattogram	26.5%	56.4%	47.0%
	Cox's Bazar	41.4%	79.8%	51.8%
	Rajshahi	58.2%	80.1%	72.6%
	Khulna	55.0%	78.4%	70.2%
	Sylhet	43.1%	77.7%	55.4%
	Barishal	43.2%	77.3%	55.9%
	Food	48.4%	80.6%	60.0%
	Textiles	32.6%	77.2%	42.2%
Sector	Wearing apparel	23.3%	59.2%	39.4%
	Other manufacturing	35.4%	77.7%	45.6%
	Retail	34.9%	67.6%	51.6%
	Hotels	46.5%	69.6%	66.8%
	Other Services	33.8%	68.6%	49.3%
	Overall Bangladesh 2022	34.6%	71.0%	48.7%

Notes: the rates are calculated as defined in Section III.4

Table 6: Achieved Total Sample (Fresh and Panel Combined)

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	5	3	21	27	10	5	62	251
Dhaka City	Medium (20-99)	4	4	20	11	9	10	18	
Dhaka City	Large (100+)	4	4	19	5	5	1	4	
Greater Dhaka	Small (5-19)	5	44	7	5	4	3	7	185
Greater Dhaka	Medium (20-99)	4	30	8	8	5	3	3	
Greater Dhaka	Large (100+)	2	6	29	8	1	1	2	
Chattogram	Small (5-19)	6	2	3	6	6	9	12	119
Chattogram	Medium (20-99)	5	3	4	5	6	2	4	
Chattogram	Large (100+)	7	5	17	8	3	1	5	
Cox's Bazar	Small (5-19)	15	0	0	10	3	9	11	79
Cox's Bazar	Medium (20-99)	0	0	0	4	0	21	6	
Rajshahi	Small (5-19)	24	7	5	6	4	4	5	121
Rajshahi	Medium (20-99)	9	4	4	4	5	4	5	
Rajshahi	Large (100+)	7	6	1	10	0	0	7	
Khulna	Small (5-19)	7	2	0	4	13	11	7	105
Khulna	Medium (20-99)	8	5	0	6	6	2	5	
Khulna	Large (100+)	14	1	0	10	2	1	1	
Sylhet	Small (5-19)	3	2	0	2	15	15	2	87
Sylhet	Medium (20-99)	8	0	0	8	10	10	7	
Sylhet	Large (100+)	1	1	0	2	1	0	0	
Barishal	Small (5-19)	9	0	0	4	9	7	9	51
Barishal	Medium (20-99)	2	0	0	3	2	0	4	
Barishal	Large (100+)	1	0	0	1	0	0	0	
		150	129	138	157	119	119	186	998

Table 7: Achieved Panel Sample

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	2	1	2	5	2	2	20	67
Dhaka City	Medium (20-99)	2	1	2	2	6	2	2	
Dhaka City	Large (100+)	2	2	6	2	2	0	2	
Greater Dhaka	Small (5-19)	0	8	0	0	1	1	0	34
Greater Dhaka	Medium (20-99)	0	11	0	2	1	0	0	
Greater Dhaka	Large (100+)	0	0	7	3	0	0	0	
Chattogram	Small (5-19)	2	0	1	2	2	0	2	32
Chattogram	Medium (20-99)	2	1	2	2	2	0	1	
Chattogram	Large (100+)	3	2	2	5	0	0	1	
Rajshahi	Small (5-19)	3	2	1	2	2	1	2	36
Rajshahi	Medium (20-99)	3	2	2	2	2	1	2	
Rajshahi	Large (100+)	2	1	0	4	0	0	2	
Khulna	Small (5-19)	2	0	0	2	2	2	2	34
Khulna	Medium (20-99)	2	2	0	4	4	0	3	
Khulna	Large (100+)	7	0	0	2	0	0	0	
Sylhet	Small (5-19)	1	0	0	0	0	1	0	10
Sylhet	Medium (20-99)	2	0	0	6	0	0	0	
		35	33	25	45	26	10	39	213

Table 8: Weak Universe Estimates

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	138	77	816	960	318	100	1589	6552
Dhaka City	Medium (20-99)	54	101	591	410	107	31	534	
Dhaka City	Large (100+)	16	44	460	115	19	4	68	
Greater Dhaka	Small (5-19)	173	1013	295	206	93	11	274	4454
Greater Dhaka	Medium (20-99)	151	592	327	244	29	4	97	
Greater Dhaka	Large (100+)	32	165	558	175	3	1	11	
Chattogram	Small (5-19)	115	7	26	167	52	15	390	1714
Chattogram	Medium (20-99)	111	25	44	141	20	4	127	
Chattogram	Large (100+)	25	33	253	120	10	4	23	
Cox's Bazar	Small (5-19)	0	0	0	28	22	20	31	225
Cox's Bazar	Medium (20-99)	0	0	0	5	0	0	13	
Cox's Bazar	Medium and Large (20+)	0	0	0	0	0	45	0	
Cox's Bazar	Small, Medium and Large (5+)	62	0	0	0	0	0	0	
Rajshahi	Small (5-19)	573	175	9	132	43	18	151	1540
Rajshahi	Medium (20-99)	146	30	7	84	8	15	88	
Rajshahi	Large (100+)	15	8	5	23	0	0	9	
Khulna	Small (5-19)	168	30	0	0	99	14	189	718
Khulna	Medium (20-99)	68	25	0	0	13	3	43	
Khulna	Large (100+)	30	5	0	21	2	1	5	
Sylhet	Small (5-19)	49	7	0	20	42	0	65	350
Sylhet	Medium (20-99)	23	0	0	33	17	0	0	
Sylhet	Large (100+)	16	0	0	3	1	0	0	
Sylhet	Medium and Large (20+)	0	5	0	0	0	0	28	
Sylhet	Small, Medium and Large (5+)	0	0	0	0	0	42	0	
Barishal	Small (5-19)	21	0	0	0	12	0	0	113
Barishal	Medium (20-99)	4	0	0	0	0	0	0	
Barishal	Large (100+)	1	0	0	2	0	0	0	
Barishal	Medium and Large (20+)	0	0	0	0	5	0	0	
Barishal	Small, Medium and Large (5+)	0	0	0	0	0	11	57	
		1992	2342	3392	2887	916	345	3792	15666

Table 9: Median Universe Estimates

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	91	38	339	484	165	71	775	3147
Dhaka City	Medium (20-99)	35	49	239	201	54	21	253	
Dhaka City	Large (100 or more)	10	22	193	58	10	3	34	
Greater Dhaka	Small (5-19)	99	432	106	89	42	7	115	1866
Greater Dhaka	Medium (20-99)	84	246	114	103	13	3	40	
Greater Dhaka	Large (100 or more)	19	71	202	77	1	1	5	
Chattogram	Small (5-19)	81	4	12	90	29	11	203	927
Chattogram	Medium (20-99)	77	13	19	74	11	3	64	
Chattogram	Large (100 or more)	18	18	114	66	5	3	12	
Cox's Bazar	Small (5-19)	0	0	0	16	13	16	17	171
Cox's Bazar	Medium (20-99)	0	0	0	4	0	0	7	
Cox's Bazar	Medium and Large (20+)	0	0	0	0	0	47	0	
Cox's Bazar	Small, Medium and Large (5+)	52	0	0	0	0	0	0	
Rajshahi	Small (5-19)	635	145	7	111	37	22	123	1484
Rajshahi	Medium (20-99)	158	24	5	69	7	17	70	
Rajshahi	Large (100 or more)	17	6	3	19	0	0	7	
Khulna	Small (5-19)	187	25	0	0	87	17	155	677
Khulna	Medium (20-99)	74	20	0	0	11	3	34	
Khulna	Large (100 or more)	34	4	0	18	2	1	4	
Sylhet	Small (5-19)	42	4	0	13	28	0	41	266
Sylhet	Medium (20-99)	19	0	0	21	11	0	0	
Sylhet	Large (100 or more)	14	0	0	2	1	0	0	
Sylhet	Medium and Large (20+)	0	4	0	0	0	0	23	
Sylhet	Small, Medium and Large (5+)	0	0	0	0	0	43	0	
Barishal	Small (5-19)	17	0	0	0	9	0	0	85
Barishal	Medium (20-99)	3	0	0	0	0	0	0	
Barishal	Large (100 or more)	1	0	0	1	0	0	0	
Barishal	Medium and Large (20+)	0	0	0	0	4	0	0	
Barishal	Small, Medium and Large (5+)	0	0	0	0	0	11	39	
		1765	1125	1352	1517	540	302	2022	8623

Table 10: Strict Universe Estimates

		Food	Textiles	Wearing apparel	Other manufacturing	Retail	Hotels	Other services	Grand Total
Dhaka City	Small (5-19)	74	30	206	378	113	51	521	2081
Dhaka City	Medium (20-99)	26	35	134	144	34	14	157	
Dhaka City	Large (100 or more)	6	13	86	34	5	2	17	
Greater Dhaka	Small (5-19)	95	405	77	83	34	6	93	1515
Greater Dhaka	Medium (20-99)	75	212	76	89	9	3	29	
Greater Dhaka	Large (100 or more)	13	49	108	53	1	1	3	
Chattogram	Small (5-19)	54	2	6	58	16	9	113	508
Chattogram	Medium (20-99)	47	8	9	44	6	2	33	
Chattogram	Large (100 or more)	9	8	42	31	3	1	5	
Cox's Bazar	Small (5-19)	0	0	0	15	11	14	14	150
Cox's Bazar	Medium (20-99)	0	0	0	4	0	0	6	
Cox's Bazar	Medium and Large (20+)	0	0	0	0	0	31	0	
Cox's Bazar	Small, Medium and Large (5+)	55	0	0	0	0	0	0	
Rajshahi	Small (5-19)	611	135	5	103	30	19	99	1336
Rajshahi	Medium (20-99)	139	21	4	59	6	14	51	
Rajshahi	Large (100 or more)	12	6	2	13	0	0	7	
Khulna	Small (5-19)	169	22	0	0	66	14	116	540
Khulna	Medium (20-99)	61	16	0	0	8	2	24	
Khulna	Large (100 or more)	23	3	0	12	2	1	2	
Sylhet	Small (5-19)	40	4	0	12	23	0	33	224
Sylhet	Medium (20-99)	16	0	0	18	10	0	0	
Sylhet	Large (100 or more)	10	0	0	2	1	0	0	
Sylhet	Medium and Large (20+)	0	3	0	0	0	0	14	
Sylhet	Small, Medium and Large (5+)	0	0	0	0	0	40	0	
Barishal	Small (5-19)	17	0	0	0	9	0	0	76
Barishal	Medium (20-99)	3	0	0	0	0	0	0	
Barishal	Large (100 or more)	1	0	0	1	0	0	0	
Barishal	Medium and Large (20+)	0	0	0	0	2	0	0	
Barishal	Small, Medium and Large (5+)	0	0	0	0	0	10	33	
		1555	971	756	1152	390	234	1370	6428

Table 11: Item Response Rates

	Screeners/Interview	d2	l1	n2a	all TFP variables
Panel	Fresh	96.8%	99.2%	96.1%	91.2%
	Panel	99.1%	100.0%	96.7%	87.9%
Size	Small (5-19)	98.5%	99.5%	97.3%	89.5%
	Medium (20-99)	97.0%	99.2%	95.4%	89.1%
	Large (100+)	95.5%	99.5%	95.5%	92.8%
Region	Dhaka MA	96.4%	98.4%	94.5%	91.8%
	Greater Dhaka	97.3%	100.0%	97.3%	88.9%
	Chattogram	96.6%	98.3%	97.5%	91.5%
	Cox's Bazar	100.0%	100.0%	100.0%	93.3%
	Rajshahi	99.2%	100.0%	98.3%	94.2%
	Khulna	100.0%	100.0%	97.1%	93.0%
	Sylhet	92.0%	100.0%	90.8%	73.3%
	Barishal	98.0%	100.0%	94.0%	87.5%
Sector	Food	97.5%	99.4%	95.6%	92.4%
	Textiles	96.1%	100.0%	96.1%	89.8%
	Garments	96.9%	100.0%	98.4%	94.5%
	Other manufacturing	98.5%	100.0%	97.7%	84.8%
	Retail	99.2%	99.2%	96.9%	0.0%
	Hotels	95.9%	100.0%	95.9%	0.0%
	Other services	97.0%	98.0%	94.1%	0.0%
Overall	Bangladesh 2022	97.3%	99.4%	96.2%	90.4%

Notes: the rates are calculated as follows. The number of responses with informative content in the respective variable (or combination of variables in the case of TFP) is divided by the same number plus the number of responses that are "don't know" (code -9) or refusal (code -8).