The Uzbekistan 2024 World Bank Enterprise Survey
Implementation Report

I. Introduction

This document provides information on the World Bank Enterprise Surveys (WBES) implemented in India between February 2024 and October 2024. 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 232,000 firms in 162 countries with a total of 385 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.

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[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 10-33), services (ISIC 4.0 codes 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 Uzbekistan 2024 WBES uses the following stratification categories:

- **Industry: 7 categories**:
  - Within manufacturing: Food, Textiles, Garments, and Other Manufacturing
  - Within services: Retail, Construction, and Other Services
- **Size: 3 categories**: Small (5 to 19 employees), Medium (20 to 99 employees), Large (100 or more employees)
- **Region: 6 categories**: Tashkent; Center (Jizzakh, Syrdarya and Tashkent regions); West (Republic of Karakalpakstan and Khorezm region); South (Kashkadarya and Surkhandarya regions); Central-East (Bukhara, Samarkand and Navoiy regions); and East (Fergana, Andijan and Namangan regions)

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. The manufacturing sectors stratified separately represent 27%, 41% and 43% 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 26% of the whole ES universe.

The strata for the services sector were selected by contribution to total number of establishments. The sectors stratified separately represent 47% of the total number of establishments in the services sector, and 35% of the whole ES universe.

Region strata of the Uzbekistan 2024 WBES were selected based on administrative divisions, with some regions grouped together to achieve minimum required precision of estimates at the level of each stratification region.

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, government services center (давлат хизматлари маркази). 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 Uzbekistan 2024 WBES, the universe table, shown in Table 1 below, was obtained from the Agency of statistics under the President of the Republic of Uzbekistan.

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 Uzbekistan 2024 WBES was constructed from the following sources (see counts of establishments in the frame in Table 2). The Panel Sampling Frame was constructed using information on all the establishments that participated in the Uzbekistan 2019 WBES. The Fresh Sampling Frame, i.e., list of establishments that are in the WBES universe and that have not participated in the Uzbekistan 2019 WBES, for the manufacturing sector (ISIC 4.0 codes 10-32), was obtained mainly from the Agency of statistics under the President of the Republic of Uzbekistan

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 universe equals the sampling frame (that is the weights project to universe totals by cell, coming from the sampling frame). 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.[4] 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 Surveys Manual and Guide*.[5] The original survey design for the Uzbekistan 2024 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 Uzbekistan 2024 WBES were conducted between February 2024 and October 2024. The interviews were conducted in the

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[4] 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.
[5] The *Enterprise Surveys Manual and Guide* is available at:
https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/methodology/Enterprise-Surveys-Manual-and-Guide.pdf

following languages: Uzbek and Russian. For monetary variables, the currency was Uzbekistani Som, and collected in thousands, millions, or billions.

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, trade, 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*.

III.2 Contractor

The fieldwork for the Uzbekistan 2024 WBES was implemented by M-Vector, in collaboration with ACT LTD. 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*.

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 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 Uzbekistan 2024 WBES and across its stratification levels.

III.5 Achieved Sample

Tables 6 and 7 provide counts 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 Uzbekistan 2024 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
Median	1,2,3,4,10,11,13,133
Weak	1,2,3,4,10,11,13,133,91,92,93,94,12

For descriptions of each eligibility code, see Table 4.

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.[6] 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:

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[6] 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.

- 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).

- 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*. 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 Uzbekistan-specific options used in variable *b1* are stored in variable named *b1_UZB*.

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.[7]

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 Uzbekistan 2019 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.

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[7] Note that the sampling weights may vary within *strata* for panel establishments due to the procedure used for projecting the universe from the previous round of the survey.

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	Agency of statistics under the President of the Republic of Uzbekistan, as of July 1, 2023
Source of Sampling Frame	Agency of statistics under the President of the Republic of Uzbekistan, as of July 1, 2023
Levels of Universe Table and Sampling Frame	Universe Table: Establishment-level Sampling Frame: Establishment-level
Registration agency	Government services center (давлат хизматлари маркази (ДХМ))
Stratification sectors	Manufacturing of: Food, Textiles, Garments, Other manufacturing; Construction, Retail, and Other Services
Stratification sizes	Small (5 to 19 employees), Medium (20 to 99 employees), and Large (100 or more employees)
Stratification regions	Tashkent; Center (Jizzakh, Syrdarya and Tashkent regions); West (Republic of Karakalpakstan and Khorezm region); South (Kashkadarya and Surkhandarya regions); Central-East (Bukhara, Samarkand and Navoiy regions); and East (Fergana, Andijan and Namangan regions)
Contractor	M-Vector, in collaboration with ACT LTD
Fieldwork dates	February 2024 – October 2024
Interview languages	Uzbek and Russian
Survey software	SurveySolutions
Currency for nominal variables	Uzbekistani Som (collected in thousands, millions, or billions)
Reference fiscal year	*2023 (1,008 obs.)*
VAT Applicable	YES
Additional definitions	"Consumption Tax" was referred to as Қўшилган Қиймат Солиғи (ҚҚС). "Occupancy Permit" was referred to as "ишга туширишга/фойдаланишга рухсат далолатномаси"". For both the capital city (a3b) the main business city (a3c), Tashkent was entered.
Sample Size	Total: 1,008 Fresh: 550 Panel: 458
Survey response rates	Yield: 56% Response rate: 77% Frame quality: 72%
Item response rates	d2: 90.2% n2a: 84.2% l1: 97.4% all TFP vars.: 43.6%
Additional topics covered in the questionnaire	None

Additional surveys available (if any)	None

Tables

Table 1: Uzbekistan 2024 WBES Universe

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	443	173	206	2168	1732	1599	7253	**17,677**
Tashkent	Medium (20-99)	187	66	77	663	223	740	1561	
Tashkent	Large (100 or more)	37	23	22	144	50	112	198	
Center	Small (5-19)	304	97	112	1009	1176	952	2334	**7,914**
Center	Medium (20-99)	120	63	75	437	145	439	333	
Center	Large (100 or more)	25	47	49	119	7	53	18	
West	Small (5-19)	176	38	34	411	696	667	1262	**4,333**
West	Medium (20-99)	32	23	12	94	72	420	278	
West	Large (100 or more)	18	32	6	15	2	37	8	
South	Small (5-19)	108	40	31	375	810	888	1355	**4,650**
South	Medium (20-99)	15	17	11	76	62	544	200	
South	Large (100 or more)	10	36	7	12	5	34	14	
Central-East	Small (5-19)	355	116	119	996	1581	1327	2772	**9,181**
Central-East	Medium (20-99)	77	86	45	264	118	626	449	
Central-East	Large (100 or more)	24	60	19	58	7	62	20	
East	Small (5-19)	346	276	404	1322	1424	1183	2690	**10,292**
East	Medium (20-99)	68	127	216	397	243	774	491	
East	Large (100 or more)	22	85	58	79	5	62	20	
		2,367	**1,405**	**1,503**	**8,639**	**8,358**	**10,519**	**21,256**	**54,047**

Source: Agency of statistics under the President of the Republic of Uzbekistan (Establishment-level)

Table 2: Uzbekistan 2024 WBES Sample Frame (Fresh and Panel Combined)

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	451	178	212	2207	1749	1605	7284	**17882**
Tashkent	Medium (20-99)	191	71	81	692	227	742	1574	
Tashkent	Large (100 or more)	39	27	25	157	54	113	203	
Center	Small (5-19)	312	97	126	1044	1193	954	2351	**8125**
Center	Medium (20-99)	128	68	82	465	149	445	340	
Center	Large (100 or more)	30	51	62	134	10	57	27	
West	Small (5-19)	185	43	36	435	705	672	1267	**4446**
West	Medium (20-99)	38	26	12	114	76	422	280	
West	Large (100 or more)	21	39	6	21	2	37	9	
South	Small (5-19)	132	54	41	412	829	892	1371	**4898**
South	Medium (20-99)	24	26	12	112	76	550	207	
South	Large (100 or more)	16	53	9	15	8	41	18	
Central-East	Small (5-19)	368	124	127	1032	1595	1335	2792	**9387**
Central-East	Medium (20-99)	89	92	51	294	124	629	457	
Central-East	Large (100 or more)	28	64	23	68	8	63	24	
East	Small (5-19)	358	281	420	1358	1443	1190	2703	**10547**
East	Medium (20-99)	79	138	237	426	257	782	496	
East	Large (100 or more)	28	96	64	91	9	62	29	
		2,517	**1,528**	**1,626**	**9,077**	**8,514**	**10,591**	**21,432**	**55,285**

Source: Agency of statistics under the President of the Republic of Uzbekistan (Establishment-level)

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

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	6	6	6	23	12	9	41	**185**
Tashkent	Medium (20-99)	5	6	5	6	5	4	10	
Tashkent	Large (100 or more)	4	5	7	9	5	5	6	
Center	Small (5-19)	7	3	10	10	12	5	13	**180**
Center	Medium (20-99)	7	6	7	10	5	6	7	
Center	Large (100 or more)	10	9	16	11	5	13	8	
West	Small (5-19)	8	6	4	12	8	13	7	**170**
West	Medium (20-99)	10	8	4	13	5	19	4	
West	Large (100 or more)	8	14	2	8	1	12	4	
South	Small (5-19)	6	6	6	6	10	5	9	**135**
South	Medium (20-99)	8	8	4	6	6	6	6	
South	Large (100 or more)	6	12	4	5	4	7	5	
Central-East	Small (5-19)	9	6	7	6	10	8	17	**150**
Central-East	Medium (20-99)	9	6	6	6	6	5	6	
Central-East	Large (100 or more)	5	5	8	8	4	8	5	
East	Small (5-19)	7	6	11	9	13	7	14	**180**
East	Medium (20-99)	9	9	14	6	10	7	6	
East	Large (100 or more)	6	9	9	9	5	6	8	
		130	**130**	**130**	**163**	**126**	**145**	**176**	**1,000**

Table 4: Response Outcomes

		Totals	Rates relative to total contacted
Overall	Contacts available in frame	55,285	
	Issued	2,637	
	Contacted	1,796	
Screening phase	Eligibles	1,008	56.1%
	Screener refusals	290	16.1%
	Assumed eligibles	1,298	72.3%
	Ineligible + out of target	84	4.7%
	Unobtainables	414	23.1%
Interview phase	Interview refusals	0	0.0%
(only if eligible)	Complete interviews	1,008	56.1%

Table 5: Survey Yield Rates

	Stratification	Yield	Survey response rate	Frame quality
Panel	Fresh	55.8%	79.9%	69.8%
	Panel	56.5%	75.1%	75.3%
Size	Small (5-19)	53.4%	78.3%	68.3%
	Medium (20-99)	61.8%	77.9%	79.4%
	Large (100-199)	61.3%	66.2%	92.7%
	Very large (200+)	53.9%	58.0%	92.9%
Region	Tashkent	59.8%	98.4%	60.8%
	Center	60.9%	80.3%	75.8%
	West	51.2%	74.4%	68.8%
	South	53.5%	69.9%	76.6%
	Central-East	66.8%	87.9%	76.0%
	East	48.8%	63.4%	76.9%
Sector	Food	56.7%	77.6%	73.0%
	Textiles	56.6%	73.1%	77.4%
	Garments	52.6%	71.0%	74.1%
	Other Manufacturing	56.0%	82.4%	68.0%
	Retail	62.7%	81.5%	77.0%
	Construction	60.8%	79.3%	76.7%
	Other Services	50.9%	78.7%	64.7%
Overall	Uzbekistan 2024	56.1%	77.7%	72.3%

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

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

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	6	6	5	20	14	10	38	**183**
Tashkent	Medium (20-99)	5	6	4	6	5	4	10	
Tashkent	Large (100 or more)	4	5	7	10	6	6	6	
Center	Small (5-19)	8	3	10	10	14	6	14	**184**
Center	Medium (20-99)	7	6	8	10	6	6	7	
Center	Large (100 or more)	9	9	15	9	5	14	8	
West	Small (5-19)	8	5	6	12	6	14	7	**174**
West	Medium (20-99)	9	8	6	13	6	20	4	
West	Large (100 or more)	8	15	3	8	0	12	4	
South	Small (5-19)	7	6	6	7	11	5	9	**137**
South	Medium (20-99)	8	8	5	6	6	7	6	
South	Large (100 or more)	6	15	4	4	3	5	3	
Central-East	Small (5-19)	10	6	7	6	10	8	17	**153**
Central-East	Medium (20-99)	9	6	6	6	6	5	6	
Central-East	Large (100 or more)	6	5	9	8	4	8	5	
East	Small (5-19)	7	4	8	9	13	5	21	**177**
East	Medium (20-99)	10	8	12	7	8	7	5	
East	Large (100 or more)	5	12	9	8	5	7	7	
		132	133	130	159	128	149	177	**1,008**

Table 7: Achieved Panel Sample

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	3	3	2	16	9	3	13	**87**
Tashkent	Medium (20-99)	2	3	1	3	2	1	7	
Tashkent	Large (100 or more)	1	2	2	7	3	1	3	
Center	Small (5-19)	3	0	7	7	9	1	9	**88**
Center	Medium (20-99)	4	3	4	7	2	3	4	
Center	Large (100 or more)	2	2	6	6	2	2	5	
West	Small (5-19)	4	2	1	9	3	3	3	**54**
West	Medium (20-99)	2	2	0	10	3	1	1	
West	Large (100 or more)	2	4	0	3	0	0	1	
South	Small (5-19)	3	3	3	4	7	2	6	**64**
South	Medium (20-99)	5	5	0	3	3	3	3	
South	Large (100 or more)	2	9	0	1	0	2	0	
Central-East	Small (5-19)	7	3	4	3	7	4	10	**78**
Central-East	Medium (20-99)	6	3	3	3	3	2	3	
Central-East	Large (100 or more)	3	2	3	5	1	1	2	
East	Small (5-19)	4	1	3	6	10	2	4	**87**
East	Medium (20-99)	7	5	9	4	5	4	2	
East	Large (100 or more)	2	5	3	5	2	0	4	
		62	**57**	**51**	**102**	**71**	**35**	**80**	**458**

Table 8: Weak Universe Estimates

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	440	173	198	2132	1718	1608	7161	**17494**
Tashkent	Medium (20-99)	185	66	74	650	221	742	1537	
Tashkent	Large (100 or more)	37	23	21	144	50	114	198	
Center	Small (5-19)	290	93	103	954	1121	921	2215	**7537**
Center	Medium (20-99)	114	60	69	412	138	423	315	
Center	Large (100 or more)	24	46	46	114	7	52	18	
West	Small (5-19)	174	38	33	403	689	669	1243	**4293**
West	Medium (20-99)	32	23	11	92	0	420	273	
West	Large (100 or more)	18	32	6	15	0	38	8	
West	Medium and Large (20+)	0	0	0	0	76	0	0	
South	Small (5-19)	105	39	29	361	787	875	1310	**4524**
South	Medium (20-99)	15	17	10	73	60	534	193	
South	Large (100 or more)	10	36	7	12	5	34	14	
Central-East	Small (5-19)	341	112	111	947	1517	1291	2647	**8807**
Central-East	Medium (20-99)	74	83	42	250	113	607	428	
Central-East	Large (100 or more)	23	59	18	56	7	61	19	
East	Small (5-19)	328	264	370	1242	1349	1137	2537	**9732**
East	Medium (20-99)	64	121	197	372	230	741	462	
East	Large (100 or more)	21	82	54	75	5	60	19	
		2298	**1369**	**1399**	**8304**	**8090**	**10329**	**20598**	**52387**

Table 9: Median Universe Estimates

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	221	94	108	1224	1003	876	3167	**9029**
Tashkent	Medium (20-99)	107	41	47	431	149	467	786	
Tashkent	Large (100 or more)	19	13	12	83	30	63	89	
Center	Small (5-19)	227	79	88	853	1020	781	1526	**6307**
Center	Medium (20-99)	103	59	68	426	145	415	251	
Center	Large (100 or more)	19	39	40	103	6	45	14	
West	Small (5-19)	107	25	22	283	492	446	673	**2811**
West	Medium (20-99)	22	18	9	75	0	324	171	
West	Large (100 or more)	11	22	4	11	0	25	4	
West	Medium and Large (20+)	0	0	0	0	68	0	0	
South	Small (5-19)	83	34	25	327	725	752	914	**3826**
South	Medium (20-99)	13	16	10	76	64	531	156	
South	Large (100 or more)	8	31	6	11	5	30	10	
Central-East	Small (5-19)	223	79	79	709	1154	916	1526	**6117**
Central-East	Medium (20-99)	56	68	34	217	99	498	285	
Central-East	Large (100 or more)	15	42	13	42	5	44	11	
East	Small (5-19)	228	198	281	987	1091	857	1553	**7296**
East	Medium (20-99)	52	105	173	342	214	646	327	
East	Large (100 or more)	15	63	41	60	5	46	12	
		1530	**1025**	**1060**	**6261**	**6275**	**7761**	**11474**	**35386**

Table 10: Strict Universe Estimates

		Food	Textiles	Garments	Other Manufacturing	Retail	Construction	Other Services	Grand Total
Tashkent	Small (5-19)	223	95	109	1295	1161	920	3245	**9267**
Tashkent	Medium (20-99)	98	37	42	411	155	442	724	
Tashkent	Large (100 or more)	18	12	11	85	33	63	87	
Center	Small (5-19)	200	69	78	789	1031	717	1367	**5697**
Center	Medium (20-99)	82	47	54	354	132	343	202	
Center	Large (100 or more)	16	33	33	92	6	39	12	
West	Small (5-19)	80	19	16	220	418	344	507	**2121**
West	Medium (20-99)	15	12	6	52	0	225	116	
West	Large (100 or more)	8	15	3	8	0	19	4	
West	Medium and Large (20+)	0	0	0	0	34	0	0	
South	Small (5-19)	65	26	19	266	644	607	720	**3053**
South	Medium (20-99)	9	11	7	56	51	385	110	
South	Large (100 or more)	6	23	4	8	4	23	7	
Central-East	Small (5-19)	190	67	67	632	1125	811	1317	**5351**
Central-East	Medium (20-99)	43	52	26	174	87	397	221	
Central-East	Large (100 or more)	13	34	11	36	5	37	9	
East	Small (5-19)	162	141	199	736	890	635	1122	**5295**
East	Medium (20-99)	33	67	110	229	157	431	212	
East	Large (100 or more)	10	43	28	43	5	33	8	
		1271	**804**	**825**	**5486**	**5939**	**6469**	**9991**	**30785**

Table 11: Item Response Rates

	Screener/Interview	d2	l1	n2a	all TFP variables
Panel	Fresh	91.5%	98.5%	82.0%	45.3%
	Panel	88.6%	96.1%	86.9%	41.8%
Size	Small (5-19)	91.9%	97.2%	89.5%	47.1%
	Medium (20-99)	91.9%	97.8%	82.4%	41.8%
	Large (100+)	84.2%	97.3%	76.9%	42.0%
Region	Tashkent	77.5%	92.9%	76.9%	19.5%
	Center	87.6%	95.7%	70.3%	29.1%
	West	91.9%	99.4%	81.5%	9.5%
	South	97.1%	97.8%	94.2%	75.6%
	Central-East	92.9%	100.0%	92.2%	63.3%
	East	96.6%	99.4%	94.4%	69.4%
Sector	Food	93.3%	99.2%	88.2%	41.2%
	Textiles	88.8%	97.4%	82.8%	50.9%
	Garments	91.1%	99.2%	85.4%	47.2%
	Other Manufacturing	89.9%	95.5%	82.1%	37.8%
	Retail	91.2%	97.8%	91.2%	N/A
	Construction	88.6%	97.3%	79.2%	N/A
	Other Services	89.2%	96.8%	82.8%	N/A
Overall	Uzbekistan 2024	90.2%	97.4%	84.2%	43.6%

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).