ENTERPRISE SURVEYS   **WORLD BANK GROUP**

The Georgia 2023 World Bank Enterprise Survey
Implementation Report

I. Introduction

This document provides information on the World Bank Enterprise Surveys (WBES) implemented in Georgia between April 2023 and September 2023. 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 are also used to build a panel of enterprise data that makes 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.

II.1 Stratification Categories

The Georgia 2023 WBES uses the following stratification categories:

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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 10-32), 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).

- **Industry: 5 categories**:
  - Within manufacturing: Food (ISIC Rev. 4.0 code 10), and Other Manufacturing (ISIC codes 11-32)
  - Within services: Retail (ISIC code 47), Hotels (ISIC code 55), and Other Services (ISIC codes 33, 41-46, 49-53, 56, 58, 61, 62, 69-75, 79, 95).
- **Size: 3 categories**: Small (5 to 19 employees), Medium (20 to 99 employees), Large (100 or more employees)
- **Region: 4 categories**:
  - Tbilisi
  - East: covering Kakheti and Kvemo Kartli
  - Center: covering Mtskheta-Mtianeti, Shida Kartli, Samtskhe-Javakheti, Imereti, Racha-Lechkhumi, and Kvemo Svaneti
  - North and West: covering Adjara, Guria, Samegrelo, and Zemo Svaneti.

Industry strata for the manufacturing sector were selected by their contribution to value added, to employment and to total number of establishments, using UNIDO INSTAT 4, available as of spring 2023. The food manufacturing represents 17%, 28% and 32% of total value added, employment, and number of establishments, respectively, within the manufacturing sector, with the rest of the sectors grouped into a residual, "Other Manufacturing", stratum. By number of establishments, the manufacturing sectors stratified separately represent 18% of the whole ES universe.

The strata for the services sector were selected by contribution to gross output using information from the National Statistics Office of Georgia (GeoStat), available as of spring 2023. The ISIC code 47 stratified separately represents 13% of the gross output in 2021.

Region strata of the Georgia 2023 WBES were selected based on administrative divisions, with territories 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 10-32) are eligible; for services businesses, those corresponding to the ISIC Rev 4 codes 33, 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 Georgia, registration was from the National Agency of Public Registry. 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 Georgia 2023 WBES, the universe table, shown in Table 1 below, was obtained from the National Statistics Office of Georgia (GeoStat) in November 2022.

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 Georgia 2023 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 Georgia 2019 WBES.

The Fresh Sampling Frame, i.e., list of establishments that are in the WBES universe and that have not participated in the Georgia 2019 WBES, was obtained from the National Statistics Office of Georgia (GeoStat) in November 2022.

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.[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 Georgia 2023 WBES is given in Table 3.

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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

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 Georgia 2023 WBES were conducted between April 2023 and September 2023. The interviews were conducted in Georgian. For monetary variables, the currency was Georgian Lari (GEL).

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 questionnaire implemented in the Georgia 2022 WBES included additional questions tailored for the Business Ready report covering infrastructure, trade, government regulations, finance, labor, and other topics.

III.2 Contractor

The fieldwork for the Georgia 2023 WBES was implemented by ACT-Georgia. 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 Georgia 2023 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*.

For the Georgia 2023 WBES, the following strata were combined due to lack of completed interviews in the corresponding subset of strata: medium and large firms were combined in: (i) East, Retail; (ii) East, Other Services; (iii) Center, Hotels; and (iv) North and West, Retail.

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 Georgia 2023 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.

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:

- 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. ACT-Georgia reported that a number of respondents were irritated and refused to answer questions on sales and costs; in one case completely stopping the interview. However, the item response rates were high overall, with respondents listening to the questions with interest and actively participated in the survey.

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 Georgia-specific options used in variable *b1* are stored in variable named *b1_GEO*.

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

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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.

[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.

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 Georgia 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.

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	National Statistics Office of Georgia (GeoStat), obtained in November 2022
Source of Sampling Frame	National Statistics Office of Georgia (GeoStat), obtained in November 2022, and 2019 World Bank Enterprise Survey
Stratification sectors	Food Manufacturing; Other manufacturing; Retail, Hotels, and Other Services
Stratification sizes	Small (5 to 19 employees), Medium (20 to 99 employees), Large (100+ employees)
Stratification regions	Tbilisi; East (covering Kakheti and Kvemo Kartli); Center (covering Mtskheta-Mtianeti, Shida Kartli, Samtskhe-Javakheti, Imereti, Racha-Lechkhumi, and Kvemo Svaneti); North and West (covering Adjara, Guria, Samegrelo, and Zemo Svaneti)
Contractor	ACT-Georgia
Fieldwork dates	April 2023 – September 2023
Interview languages	Georgian
Survey software	Survey Solutions
Currency for nominal variables	Georgian Lari (GEL)
Reference fiscal year	2023 (592 obs.)
Sample Size	Total: 592; Fresh: 353 Panel: 239
Survey response rates	Yield: 25.5% Response rate: 47.3% Frame quality: 54%
Item response rates	d2: 95.1% n2a: 87% 11: 100.0% all TFP vars.: 62.6%
Additional topics covered in the questionnaire	Questions related to the Business Ready deport

Tables

Table 1: Georgia 2023 WBES Universe

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	209	670	1074	183	3699	**8,814**
Tbilisi	Medium (20-99)	73	226	248	70	1035	
Tbilisi	Large (100+)	24	41	75	19	194	
East	Small (5-19)	65	145	276	20	468	
East	Medium (20-99)	11	56	20	8	78	**2,164**
East	Large (100+)	3	19	3	1	5	
Center	Small (5-19)	171	222	424	63	825	
Center	Medium (20-99)	28	61	39	15	112	
Center	Large (100+)	7	22	2	4	15	**2,381**
North and West	Small (5-19)	143	161	428	80	1096	
North and West	Medium (20-99)	31	39	37	23	234	
North and West	Large (100+)	4	12	5	12	26	
		769	**1,674**	**2,631**	**498**	**7,787**	**13,359**

Source*: National Statistics Office of Georgia (GeoStat), obtained in November 2022*

Table 2: Georgia 2023 WBES Sample Frame (Fresh and Panel Combined)

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	214	680	1091	195	3727	**9,052**
Tbilisi	Medium (20-99)	80	244	257	84	1056	
Tbilisi	Large (100+)	30	48	87	19	210	
East	Small (5-19)	74	157	297	23	479	
East	Medium (20-99)	17	72	24	13	89	**2,316**
East	Large (100+)	3	23	4	1	7	
Center	Small (5-19)	175	233	438	77	838	
Center	Medium (20-99)	39	68	43	29	123	
Center	Large (100+)	9	29	2	6	20	**2,569**
North and West	Small (5-19)	157	177	453	98	1109	
North and West	Medium (20-99)	46	48	48	30	254	
North and West	Large (100+)	8	17	7	15	36	
		852	**1,796**	**2,751**	**590**	**7,948**	**13,937**

Source*: National Statistics Office of Georgia (GeoStat), obtained in November 2022*

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

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	5	10	15	7	42	**232**
Tbilisi	Medium (20-99)	5	5	5	5	13	
Tbilisi	Large (100+)	8	6	11	8	5	
East	Small (5-19)	28	14	22	11	7	
East	Medium (20-99)	9	17	10	8	5	**188**
East	Large (100+)	1	12	2	1	3	
Center	Small (5-19)	7	13	18	20	11	
Center	Medium (20-99)	13	8	7	h	5	
Center	Large (100+)	5	15	1	4	5	**180**
North and West	Small (5-19)	16	5	20	19	14	
North and West	Medium (20-99)	17	5	5	11	5	
North and West	Large (100+)	6	10	4	8	5	
		120	120	120	120	120	600

Table 4: Response Outcomes

		Totals	Rates relative to total contacted
Overall	Contacts available in frame	13,937	
	Issued	2,377	
	Contacted	2,318	
Screening phase	Eligibles	648	28.0%
	Screener refusals	461	19.9%
	Assumed eligibles	1,251	54.0%
	Ineligible + out of target	373	16.1%
	Unobtainables	833	35.9%
Interview phase	Interview refusals	56	2.4%
(only if eligible)	Complete interviews	592	25.5%

Table 5: Survey Yield Rates

	Stratification	Yield	Survey response rate	Frame quality
Panel	Fresh	19.5%	39.0%	50.1%
	Panel	46.7%	69.1%	67.6%
Size	Small (5-19)	22.7%	48.0%	47.3%
	Medium (20-99)	31.4%	50.1%	62.6%
	Large (100+)	26.5%	42.0%	63.1%
Region	Tbilisi	21.6%	40.1%	53.8%
	East	30.2%	49.2%	61.5%
	Center	32.0%	57.9%	55.3%
	North and West	24.8%	51.6%	48.0%
Sector	Food	30.5%	53.4%	57.0%
	Other Manufacturing	32.0%	52.6%	60.9%
	Retail	22.5%	41.7%	54.1%
	Hotels	30.0%	54.0%	55.5%
	Other Services	19.5%	40.7%	48.0%
Overall	Georgia 2023	25.5%	47.3%	54.0%

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

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

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	10	15	21	9	43	**283**
Tbilisi	Medium (20-99)	8	15	5	9	14	
Tbilisi	Large (100+)	5	17	21	8	15	
East	Small (5-19)	19	14	13	7	15	
East	Medium (20-99)	9	11	7	5	7	**159**
East	Large (100+)	1	5	1	1	1	
Center	Small (5-19)	14	7	10	20	13	
Center	Medium (20-99)	17	7	4	13	6	
Center	Large (100+)	3	6	1	1	6	**150**
North and West	Small (5-19)	14	13	17	14	12	
North and West	Medium (20-99)	12	7	6	10	7	
North and West	Large (100+)	5	5	2	4	5	
		117	122	108	101	144	592

Table 7: Achieved Panel Sample

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	1	6	8	6	4	**95**
Tbilisi	Medium (20-99)	5	12	2	6	3	
Tbilisi	Large (100+)	2	3	6	0	6	
East	Small (5-19)	3	5	8	2	7	
East	Medium (20-99)	5	8	3	3	3	**68**
East	Large (100+)	0	2	1	0	1	
Center	Small (5-19)	1	3	4	9	2	
Center	Medium (20-99)	6	4	1	10	2	
Center	Large (100+)	2	4	0	1	3	**76**
North and West	Small (5-19)	7	9	12	8	0	
North and West	Medium (20-99)	9	4	2	2	3	
North and West	Large (100+)	2	2	2	2	2	
		43	**62**	**49**	**49**	**36**	**239**

Table 8: Weak Universe Estimates

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	182	580	980	156	3579	**8187**
Tbilisi	Medium (20-99)	64	198	229	61	1014	
Tbilisi	Large (100+)	21	35	68	16	186	
East	Small (5-19)	51	113	228	15	409	
East	Medium (20-99)	9	44	0	6	0	**1705**
East	Large (100+)	2	15	0	1	0	
East	Medium and Large (20+)	0	0	17	0	65	
Center	Small (5-19)	128	164	331	46	683	
Center	Medium (20-99)	22	46	31	0	94	
Center	Large (100+)	5	16	2	0	12	**1993**
Center	Medium and Large (20+)	0	0	0	14	0	
North and West	Small (5-19)	113	126	354	62	961	
North and West	Medium (20-99)	25	31	0	18	208	
North and West	Large (100+)	5	9	0	9	23	
North and West	Medium and Large (20+)	0	0	31	0	0	**31**
		628	**1378**	**2270**	**405**	**7233**	**11915**

Table 9: Median Universe Estimates

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	101	336	476	82	1471	**4138**
Tbilisi	Medium (20-99)	48	155	150	43	562	
Tbilisi	Large (100+)	16	28	46	12	106	
East	Small (5-19)	38	88	147	11	224	
East	Medium (20-99)	9	46	0	6	0	**1033**
East	Large (100+)	2	16	0	1	0	
East	Medium and Large (20+)	0	0	13	0	43	
Center	Small (5-19)	83	113	190	29	332	
Center	Medium (20-99)	20	42	24	0	62	
Center	Large (100+)	5	15	1	0	8	**910**
Center	Medium and Large (20+)	0	0	0	14	0	
North and West	Small (5-19)	58	68	159	30	364	
North and West	Medium (20-99)	18	22	0	12	106	
North and West	Large (100+)	5	7	0	6	12	
North and West	Medium and Large (20+)	0	0	17	0	0	**17**
		402	**935**	**1223**	**246**	**3291**	**6098**

Table 10: Strict Universe Estimates

		Food	Other Manufacturing	Retail	Hotels	Other Services	Grand Total
Tbilisi	Small (5-19)	46	136	158	34	585	**1624**
Tbilisi	Medium (20-99)	20	58	46	16	205	
Tbilisi	Large (100+)	7	17	21	8	39	
East	Small (5-19)	20	41	57	7	103	
East	Medium (20-99)	9	20	0	5	0	**575**
East	Large (100+)	1	7	0	1	0	
East	Medium and Large (20+)	0	0	8	0	17	
Center	Small (5-19)	55	66	91	20	191	
Center	Medium (20-99)	17	23	11	0	32	
Center	Large (100+)	3	8	1	0	6	**473**
Center	Medium and Large (20+)	0	0	0	14	0	
North and West	Small (5-19)	34	35	67	16	185	
North and West	Medium (20-99)	14	11	0	10	49	
North and West	Large (100+)	5	5	0	4	6	
North and West	Medium and Large (20+)	0	0	8	0	0	**8**
		231	**427**	**467**	**135**	**1419**	**2679**

Table 11: Item Response Rates

	Screener/Interview	d2	l1	n2a	all TFP variables
Panel	Fresh	93.8%	100.0%	85.6%	57.9%
	Panel	97.1%	100.0%	89.1%	68.8%
Size	Small (5-19)	95.2%	100.0%	88.5%	60.5%
	Medium (20-99)	94.3%	100.0%	86.3%	66.7%
	Large (100+)	96.4%	100.0%	84.7%	56.8%
Region	Tbilisi	91.7%	100.0%	76.9%	39.4%
	East	97.2%	100.0%	94.5%	79.2%
	Center	97.6%	100.0%	92.0%	70.0%
	North and West	96.9%	100.0%	93.8%	70.8%
Sector	Food	98.0%	100.0%	87.1%	63.4%
	Other Manufacturing	96.7%	100.0%	86.9%	62.5%
	Retail	95.7%	100.0%	88.8%	0.0%
	Hotels	94.9%	100.0%	88.9%	0.0%
	Other Services	91.6%	100.0%	84.4%	0.0%
Overall	Georgia 2023	95.1%	100.0%	87.0%	62.6%

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).