

The Angola 2024 World Bank Enterprise Survey Implementation Report

I. Introduction

This document provides information on the World Bank Enterprise Surveys (WBES) implemented in Angola between May 2024 and March 2025. 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.

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 Angola 2024 WBES uses the following stratification categories:

- **Industry: 5 categories:**
 - Within manufacturing: Food, Other manufacturing
 - Within services: Retail, Hotels, and Other Services
- **Size: 4 categories:** Small (5 to 19 employees), Medium (20 to 99 employees), Large (100 or more employees), and size unknown
- **Region: 4 categories:**
 - Greater Luanda includes Luanda and Bengo;
 - North includes Cabinda, Malanje, Uige, Zaire and Cuanza Norte;
 - Central includes Benguela, Huambo, Cuanza Sul, and Bie;
 - South-East-West includes Cuando Cubando, Moxico, Cunene, Huila, Namibe, Lunda Norte, and Lunda Sul.

Industry strata for the manufacturing sector were selected by their contribution to total employment and to total number of establishments, using REMPE 2019 data.

Region strata of the Angola 2024 WBES were selected based on administrative divisions, with some provinces 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. In Angola, registration is determined by holding a Tax Identification Number (Número de Identificação Fiscal, NIF) issued by the General Tax Administration (Administração Geral Tributária - AGT). 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 Angola 2024 WBES, the universe table, shown in Table 1 below, was obtained from the 2019 Business Census (Recenseamento de Empresas de Angola - REMPE-2019), that was conducted by the National Statistics Institute (Instituto Nacional de Estatística, INE) between 2019 and 2020. The Business Census is the complete count of all establishments located within the geographical boundaries of the country.

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.⁴

The Sampling Frame for the Angola 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 Angola 2010 WBES. The Fresh Sampling Frame, i.e., list of establishments that are in the WBES universe and that have not participated in the Angola 2010 WBES, for the manufacturing sector (ISIC 4.0 codes 10-33), was obtained mainly 2019 Business Census (Recenseamento de Empresas de Angola - REMPE-2019), that was conducted by the National Statistics Institute (Instituto Nacional de Estatística, INE) between 2019 and 2020.

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.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 Surveys Manual and Guide*.⁶ The original survey design for the Angola 2024 WBES is given in Table 3.

⁴ In 2010, a total of 360 establishments were interviewed; however, contact information was only obtained for 183 of them. As a result, 177 establishments were excluded.

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.

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. 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 Angola 2024 WBES were conducted between May 2024 and March 2025. The interviews were conducted in Portuguese. For monetary variables, the currency was Angolan Kwanza (AOA).

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 Angola 2024 WBES was implemented by Africa Scope, the main contractor, in collaboration with Keyresearch Angola. 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:

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

which can be rewritten as follows:

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

Table 5 provides these measures for the Angola 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 Angola 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
Weak	1,2,3,4,10,11,13,91,92,93,94,12

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.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).
- 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 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.⁸

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, though the Angola 2024 WBES did not manage to interview panel establishments. 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

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.

⁸ 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.

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	Instituto Nacional de Estatística (INE)
Source of Sampling Frame	Instituto Nacional de Estatística (INE)
Levels of Universe Table and Sampling Frame	Universe Table: Firm-level Sampling Frame: Firm-level
Registration agency	Administração Geral Tributária (AGT)
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+), and size unknown
Stratification regions	Greater Luanda includes Luanda and Bengo;. North includes Cabinda, Malanje, Uige, Zaire and Cuanza Norte; Central includes Benguela, Huambo, Cuanza Sul, and Bie; South-East-West includes Cuando Cubando, Moxico, Cunene, Huila, Namibe, Lunda Norte, and Lunda Sul.
Contractor	Africa Scope in collaboration with Keyresearch Angola
Fieldwork dates	May 2024 – March 2025
Interview languages	Portuguese
Survey software	Survey Solutions
Currency for nominal variables	Angolan Kwanza (AOA)
Reference fiscal year	2023 (431 obs.)
VAT Applicable	Yes
Additional definitions	“Consumption Tax” was referred to as Value Added Tax (Imposto sobre o Valor Acrescentado, IVA). “Occupancy Permit” was referred to as “Pedido de vistoria às instalações comerciais”. For the capital city (a3b) and for the main business city (a3c), Luanda was entered.
Sample Size	Total: 430 Fresh: 430 Panel:0
Survey response rates	Yield: 5.5% Response rate: 44.1% Frame quality: 12.4%
Item response rates	d2: 97.9% n2a: 99.3% 11: 98.6% all TFP vars.: 64.9%
Additional topics covered in the questionnaire	
Additional surveys available (if any)	

Tables

Table 1: Angola 2024 WBES Universe

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	208	312	2349	173	1919	7,041
Greater Luanda	Medium (20-99)	76	162	334	64	688	
Greater Luanda	Large (100-199)	12	73	65	7	200	
Greater Luanda	Unknown	7	15	218	13	146	
North	Small (5-19)	33	79	409	61	271	1,249
North	Medium (20-99)	5	17	36	19	57	
North	Large (100-199)	2	8	8	4	9	
North	Unknown	11	11	165	2	42	
Central	Small (5-19)	79	147	759	82	668	2,353
Central	Medium (20-99)	39	35	93	35	147	
Central	Large (100-199)	2	14	11	8	18	
Central	Unknown	12	6	131	3	64	
South-East-West	Small (5-19)	72	97	596	70	453	1,820
South-East-West	Medium (20-99)	17	14	59	30	98	
South-East-West	Large (100-199)	4	4	3	1	21	
South-East-West	Unknown	8	10	204	4	55	
		587	1,004	5,440	576	4,856	12,463

Source: Instituto Nacional de Estatística (INE) (Establishment-level)

Table 2: Angola 2024 WBES Sample Frame

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	208	312	2349	173	1919	7,041
Greater Luanda	Medium (20-99)	76	162	334	64	688	
Greater Luanda	Large (100 or more)	12	73	65	7	200	
Greater Luanda	Unknown	7	15	218	13	146	
North	Small (5-19)	33	79	409	61	271	1,249
North	Medium (20-99)	5	17	36	19	57	
North	Large (100 or more)	2	8	8	4	9	
North	Unknown	11	11	165	2	42	
Central	Small (5-19)	79	147	759	82	668	2,353
Central	Medium (20-99)	39	35	93	35	147	
Central	Large (100 or more)	2	14	11	8	18	
Central	Unknown	12	6	131	3	64	
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South-East-West	Medium (20-99)	17	14	59	30	98	
South-East-West	Large (100 or more)	4	4	3	1	21	
South-East-West	Unknown	8	10	204	4	55	
		587	1,004	5,440	576	4,856	12,463

Source: Instituto Nacional de Estatística (INE) (Establishment-level)

Table 3: Original Survey Design

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	14	24	8	51	8	232
Greater Luanda	Medium (20-99)	15	13	13	3	14	
Greater Luanda	Large (100-199)	11	17	14	2	10	
Greater Luanda	Unknown	3	2	4	2	4	
North	Small (5-19)	12	4	10	11	4	120
North	Medium (20-99)	4	7	15	2	12	
North	Large (100-199)	3	3	5	2	5	
North	Unknown	5	5	4	1	6	
Central	Small (5-19)	8	8	4	16	8	120
Central	Medium (20-99)	11	8	8	3	6	
Central	Large (100-199)	5	6	7	3	8	
Central	Unknown	2	2	2	2	3	
South-East-West	Small (5-19)	8	7	5	17	8	128
South-East-West	Medium (20-99)	11	8	15	2	10	
South-East-West	Large (100-199)	3	2	2	1	11	
South-East-West	Unknown	5	4	4	2	3	
		120	120	120	120	120	600

Table 4: Response Outcomes

		Totals	Rates relative to total contacted
Overall	Contacts available in frame	12,463	
	Issued	7,853	
Screening phase	Contacted	7,853	
	Eligibles	529	6.7%
	Screeners refusals	103	1.3%
	Assumed eligibles	976	12.4%
	Ineligible + out of target	242	3.1%
	Unobtainables	5,808	74.0%
Interview phase (only if eligible)	Interview refusals	19	0.2%
	Complete interviews	430	5.5%

Table 5: Survey Yield Rates

		Yield	Survey response rate	Frame quality
Size	Small (5-19)	6.1%	48.0%	12.6%
	Medium (20-99)	5.8%	41.3%	14.0%
	Large (100+)	6.8%	30.5%	22.2%
	Unknown	2.2%	45.5%	4.9%
Region	Greater Luanda	4.5%	30.4%	14.9%
	North	5.9%	53.2%	11.1%
	Central	7.5%	64.9%	11.5%
	South-East-West	4.8%	47.8%	10.1%
Sector	Food	5.5%	33.0%	16.5%
	Other Manufacturing	9.6%	45.7%	20.9%
	Retail	4.0%	45.5%	8.9%
	Hotel	12.2%	39.1%	31.1%
	Other Services	4.1%	50.0%	8.2%
Overall	Angola 2024	5.5%	44.1%	12.4%

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

Table 6: Achieved Total Sample

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	5	30	10	21	11	137
Greater Luanda	Medium (20-99)	7	8	13	3	9	
Greater Luanda	Large (100 or more)	1	3	8	2	3	
Greater Luanda	Unknown	1	1	1	0	0	
North	Small (5-19)	0	5	20	3	16	74
North	Medium (20-99)	0	4	7	1	8	
North	Large (100 or more)	1	0	1	1	0	
North	Unknown	1	0	1	0	5	
Central	Small (5-19)	6	21	22	18	11	131
Central	Medium (20-99)	3	6	7	6	9	
Central	Large (100 or more)	0	2	1	2	5	
Central	Unknown	1	0	6	0	5	
South-East-West	Small (5-19)	4	10	24	11	8	88
South-East-West	Medium (20-99)	1	5	7	2	11	
South-East-West	Large (100 or more)	1	0	0	0	1	
South-East-West	Unknown	0	1	2	0	0	
		32	96	130	70	102	430

Table 7: Weak Universe Estimates

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	147	217	1831	115	1143	4,539
Greater Luanda	Medium (20-99)	35	73	170	28	268	
Greater Luanda	Large (100 or more)	7	42	42	0	0	
Greater Luanda	Unknown	5	11	183	0	0	
Greater Luanda	Large (100+) or Unknown	0	0	0	13	208	
North	Small (5-19)	0	0	840	78	565	2,223
North	Medium (20-99)	0	0	67	22	81	
North	Large (100 or more)	0	0	10	0	0	
North	Unknown	0	0	156	0	0	
North	Large (100+) or Unknown	0	0	0	11	70	
North	All Sizes	129	195	0	0	0	
Central	Small (5-19)	33	79	456	58	231	1,192
Central	Medium (20-99)	3	11	26	12	32	
Central	Large (100 or more)	0	0	7	0	6	
North	Unknown	0	0	198	0	39	
Central	Large (100+) or Unknown	13	19	0	6	0	1,793
Central	Small (5-19)	73	96	665	67	386	
Central	Medium (20-99)	11	9	43	0	55	
Central	Large (100+) or Unknown	12	14	233	0	65	
Central	Medium, or Large (20+) or Unknown	0	0	0	25	0	
		470	766	4,929	433	3,149	9,747

Table 8: Median Universe Estimates

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	147	217	1831	115	1143	4,539
Greater Luanda	Medium (20-99)	35	73	170	28	268	
Greater Luanda	Large (100 or more)	7	42	42	0	0	
Greater Luanda	Unknown	5	11	183	0	0	
Greater Luanda	Large (100+) or Unknown	0	0	0	13	208	
North	Small (5-19)	0	0	840	78	565	2,223
North	Medium (20-99)	0	0	67	22	81	
North	Large (100 or more)	0	0	10	0	0	
North	Unknown	0	0	156	0	0	
North	Large (100+) or Unknown	0	0	0	11	70	
North	All Sizes	129	195	0	0	0	
Central	Small (5-19)	33	79	456	58	231	1,192
Central	Medium (20-99)	3	11	26	12	32	
Central	Large (100 or more)	0	0	7	0	6	
North	Unknown	0	0	198	0	39	
Central	Large (100+) or Unknown	13	19	0	6	0	1,793
Central	Small (5-19)	73	96	665	67	386	
Central	Medium (20-99)	11	9	43	0	55	
Central	Large (100+) or Unknown	12	14	233	0	65	
Central	Medium, or Large (20+) or Unknown	0	0	0	25	0	
		470	766	4,929	433	3,149	9,747

Table 9: Strict Universe Estimates

		Food	Other Manufacturing	Retail	Hotel	Other Services	Grand Total
Greater Luanda	Small (5-19)	17	39	119	30	104	436
Greater Luanda	Medium (20-99)	7	18	15	10	34	
Greater Luanda	Large (100 or more)	2	15	8	0	0	
Greater Luanda	Unknown	1	1	4	0	0	
Greater Luanda	Large (100+) or Unknown	0	0	0	2	9	
North	Small (5-19)	0	0	44	16	41	182
North	Medium (20-99)	0	0	7	6	8	
North	Large (100 or more)	0	0	1	0	0	
North	Unknown	0	0	3	0	0	
North	Large (100+) or Unknown	0	0	0	1	5	
North	All Sizes	15	35	0	0	0	
Central	Small (5-19)	6	21	27	18	19	138
Central	Medium (20-99)	3	6	7	6	9	
Central	Large (100 or more)	0	0	1	0	5	
Central	Unknown	0	0	6	0	5	
Central	Large (100+) or Unknown	1	2	0	2	0	134
South-East-West	Small (5-19)	6	12	30	12	25	
South-East-West	Medium (20-99)	1	5	7	0	11	
South-East-West	Large (100+) or Unknown	1	1	5	0	2	
	Medium, or Large (20+) or						
South-East-West	Unknown	0	0	0	9	0	
		61	155	284	114	277	890

Table 10: Item Response Rates

		d2	11	n2a	all TFP variables
Size	Small (5-19)	97.8%	99.6%	99.1%	58.5%
	Medium (20-99)	97.6%	98.8%	97.6%	68.8%
	Large (100+)	100.0%	100.0%	100.0%	100.0%
Region	Greater Luanda	96.6%	98.0%	96.6%	72.4%
	North	100.0%	100.0%	100.0%	77.8%
	Central	97.7%	100.0%	99.2%	58.6%
	South-East-West	98.7%	100.0%	100.0%	50.0%
Sector	Manufacturing	96.8%	98.9%	97.8%	64.9%
	Retail	99.1%	100.0%	99.1%	N/A
	Hotels	96.5%	100.0%	100.0%	N/A
	Other Services	98.2%	98.8%	98.2%	N/A
Overall	Angola 2024	97.9%	99.3%	98.6%	64.9%

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).