The EBRD-EIB-WB Enterprise Surveys 2018-2020

A Report on methodology and observations
July 2020

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1 Background

The EBRD-EIB-WB Enterprise Surveys (ES) are a joint initiative of the European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB) and the World Bank Group (the World Bank). They are a successor to the Business Environment and Enterprise Performance Surveys (BEEPS). The survey was first undertaken on behalf of the EBRD and World Bank in 1999 – 2000, when it was administered to approximately 4,100 enterprises in 25 countries of Eastern Europe and Central Asia (including Turkey) to assess the environment for private enterprise and business development.

In the second round of BEEPS in 2002, the survey instrument was administered to almost 6,700 enterprises in 27 countries. In the third round of BEEPS, the survey included approximately 9,900 enterprises in 27 countries in 2005. In seven of the countries the survey included an additional sampling overlay of the manufacturing sector in addition to the main BEEPS sample. Furthermore, to set a benchmark for the transition countries, a survey of comparator countries was conducted in 2004-2005 in two rounds (Germany, Greece, Portugal, South Korea and Vietnam were covered in 2004 and Ireland and Spain in 2005).

In the fourth round of BEEPS in 2008-2009, the survey covered almost 12,000 enterprises in 29 countries (including Mongolia for the first time). The survey was restructured to improve cross-country comparability and to make it compatible with the Enterprise Surveys the Enterprise Analysis Unit of the World Bank has been implementing in other regions of the world since 2006. There were changes in the questionnaire and methodology.

The fifth round of BEEPS (BEEPS V) in 2011-2016 covered almost 16,600 enterprises in 32 countries, including 4,220 enterprises in 37 regions in Russia. It included an Innovation Module, covering product, process, organisational and marketing innovation, as well as management practices in manufacturing enterprises with at least 20 employees (50 employees in Russia). BEEPS V Russia was implemented in 2011-2012. BEEPS V Cyprus and Greece was implemented in 2016 and covered 683 enterprises were covered.

The Middle East and North Africa Enterprise Surveys (MENA ES) are a joint initiative of the European Bank for Reconstruction and Development (EBRD), the World Bank Group (the World Bank) and the European Investment Bank (EIB). The survey was undertaken on behalf of the EBRD, World Bank and EIB for the first time in 2012-2014, when it was administered to more than 6,500 enterprises in 9 countries in the MENA region to assess the environment for private enterprise and business development. As BEEPS V, it also included an Innovation Module.

The ES (sixth round of BEEPS) in 2018-2020 will cover almost 28,000 enterprises in 41 economies. It includes a Green Economy module, covering green management practices and green investments.

The objective of the survey is to obtain feedback from enterprises in EBRD countries of operation (and beyond) on their perception of the environment in which they operate as well as to help in building a panel of enterprise data that will make it possible to track changes in the business environment over time.

Through interviews with firms in the manufacturing and services sectors, ES captures business perceptions of the biggest obstacles to enterprise growth, the relative importance of various constraints to increasing employment and productivity, and the effects of a country's business environment on its international competitiveness. ES is used to create statistically significant business environment indicators that are comparable across countries.

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

The ES was implemented by various survey contractors, such as Ipsos MORI, Kantar, Yontem, AUC, ACT Global, Palestinian Central Bureau of Statistics in cooperation with local partners. For details, refer to Annex A.

ES has been supported by the EBRD Shareholder Special Fund.

2 ES Methodology

2.1 Survey universe, sample population and sampling frames

The whole population, or universe of the study, are commercial, service or industrial business establishments with at least 5 full-time employees in the non-agricultural economy. It comprises: all manufacturing sectors according to the group classification of ISIC Revision 3.1: (group D), construction sector (group F), services sector (groups G and H), and transport, storage, and communications sector (group I). Note that this definition excludes the following sectors: financial intermediation (group J), real estate and renting activities (group K, except sub-sector 72, IT, which was added to the population under study), and all public or utilities-sectors. Government departments including military, police, education, health and similar activities were excluded, as were those in primary industries including agriculture, mining, etc. There are no up to date and reliable statistics relating to this universe in the countries being surveyed in ES. Consequently, the universe size and characteristics have to be directly estimated from the survey results themselves. This requirement increases the emphasis that has to be placed on the quality of the sample frame, because the validity of the results is predominantly a function of coverage and age of the sampling frame.

The criteria used to evaluate the available sampling frame in descending priority were those of:

- Coverage
- Up to datedness
- Availability of detailed stratification variables
- Location identifiers- address, phone number, email
- Electronic format availability
- Contact name(s)

The sampling frames used for the surveys must consist of the lists of enterprises in each country that most optimally meet these requirements. The final selection was made by the contractors in collaboration with the EBRD and the World Bank. For most countries covered in ES two sampling frames were used; the exception are countries where ES was conducted for the first time (Italy, Malta, Portugal). The first sampling frame was often an official frame of establishments supplied by the national statistical office of the country and the second sampling frame consisted of establishments that participated in BEEPS V/MENA ES. In Armenia, a suitable sampling frame did not exist, so the the design returned to first principles, using a blocks enumeration methodology.

2.2 Specifications of the survey

2.2.1 Coverage of countries:

ES will be implemented in 41 economies (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, Estonia, Georgia, Greece, Hungary, Italy, Jordan, Kazakhstan, Kosovo, Kyrgyz Republic, Latvia, Lebanon, Lithuania, Malta, Moldova, Morocco, Mongolia, Montenegro, North Macedonia, Poland, Portugal, Romania, Russia, Serbia, Slovak Republic, Slovenia, Tajikistan, Tunisia, Turkey, Ukraine, Uzbekistan and West Bank and Gaza). It was not possible to implement ES in Turkmenistan.

2.2.2 Sampling structure

In all countries where a reliable sampling frame was available (except Armenia), the sample was selected using stratified random sampling, following the methodology explained in the Sampling Manual. Stratified random sampling was preferred over simple random sampling for several reasons:

- To obtain unbiased estimates for different subdivisions of the population with some known level of precision.
- To obtain unbiased estimates for the whole population. The whole population, or the universe of the study, is the non-agricultural economy. It comprises all manufacturing sectors according to the group classification of ISIC Revision 3.1 (group D), construction sector (group F), services sector (groups G and H), and transport, storage and communications sector (group I). Note that this definition excludes the following sectors: financial intermediation (group J), real estate and renting activities (group K, except sub sector 72, IT, which was added to the population under study), and all public or utilities sectors.
- To make sure that the final total sample includes establishments from all different sectors and that it is not concentrated in one or two of industries/sizes/regions.
- To exploit the benefits of stratified sampling where population estimates, in most cases, will be more precise than using a simple random sampling method (i.e., lower standard errors, all things being equal).
- Stratification may produce a smaller bound on the error of estimation than would be produced by a simple random sample of the same size. This result is particularly true if measurements within strata are homogeneous.
- The cost per observation in the survey may be reduced by stratification of the population elements into convenient groupings.

Due to a lack of reliable sampling frame blocks enumeration was used in Armenia. Detailed description can be found under country-specific information.

Three levels of stratification were used in all countries: industry, establishment size and region. The original sample designs with specific information of the industries and regions chosen are described in country-specific pages in Annex A.

In all countries, the sample was stratified along Manufacturing, Retail trade (sector 52) and Other services. In some of the countries, there were specific target numbers of interviews for more detailed sectors within these three groups.

Size stratification was defined following the standardized definition for the rollout: small (5-19 employees), medium (20-99 employees), and large (more than 99 employees).[1] For stratification purposes, the number of employees was defined on the basis of reported permanent full-time workers. This seems to be an appropriate definition of the labour force,

[1] The panel firms from BEEPS with less than 5 employees are included in the 5 to 19 strata.

since seasonal/casual/part-time employment is not a common practice, except in the sectors of construction and agriculture.

Details on the regional stratification can be found in country-specific information in Annex A.

Along the defined stratification guidelines, priority was given to completing interviews with establishments who participated in BEEPS V or MENA ES.

2.3 Sampling implementation

Given the stratified design, sampling frames containing a complete and updated list of establishments as well as information on all stratification variables (number of employees, industry, and region) are required to draw the sample. Great efforts were made to obtain the best source for these listings. However, the quality of sampling frames was not optimal and, therefore, some adjustments were needed to correct for the presence of ineligible units. These adjustments are reflected in the weights computation.

For most countries covered in ES two sampling frames were used. The first sampling frame was obtained from the official sources in the countries (details for each country can be found in country-specific information). The second sampling frame, supplied by the EBRD and the World Bank, consisted of enterprises interviewed in BEEPS V and MENA ES. The contractors was required to attempt to re-interview establishments responding to the BEEPS V and MENA ES surveys where they were within the selected geographical region and met eligibility criteria. That sample is referred to as the Panel.

The quality of the sampling frames was assessed at the onset of the project through calls. The sampling frames proved to be useful, though they all showed positive rates of non-eligibility, repetition, non-existent units, etc. These problems are typical of establishment surveys but given the impact these inaccuracies may have on the results, adjustments were needed when computing the appropriate weights for individual observations.

Table 1 depicts the targeted Number of completed interviews for ES, along with achieved total Number of completed interviews and Number of completed interviews with panel establishments. For countries where data has not been published yet, the cells are left blank.

Table 1: Targeted and achieved Number of completed interviews

Country	**Number of completed interviews**						**Completed in BEEPS V/MENA ES**	
	Target	***Completed***	*Panel*	*Manufacturing*	*Retail*	*Core*	***Completed***	***Panel***
Albania	360	377	152	146	77	154	360	120
Armenia	580						360	168
Azerbaijan	360	225	73	53	61	111	390	69
Belarus	600	600	158	328	123	149	360	121
Bosnia and Herzegovina	360	362	151	134	93	135	360	115
Bulgaria	720	772	91	428	138	206	293	70
Croatia	400	404	71	146	97	161	360	37
Czech Republic	480	502	56	291	62	149	254	18
Egypt*	3000	3075	2451	1992	103	980	2897	641
Estonia	360	360	63	135	82	143	273	73
Georgia	580	581	110	203	123	255	360	81
Greece	600	600	111	315	130	155	323	0
Hungary	840	805	87	481	138	186	310	63
Italy	760	760	0	461	127	172	0	0

Jordan	600	601	193	294	89	218	573	0
Kazakhstan	1440	1446	140	921	174	351	600	83
Kosovo	270	271	78	148	29	94	202	11
Kyrgyz Republic	360	360	137	144	94	122	270	44
Latvia	360	359	90	130	99	130	336	92
Lebanon	600	532	219	268	54	210	561	0
Lithuania	360	358	75	127	110	121	270	45
Malta	240	242	0	83	53	106	0	0
Moldova	360	360	142	134	113	113	360	183
Mongolia	360	360	172	121	88	151	360	131
Montenegro	150	150	71	65	32	53	150	54
Morocco	600	661	138	303	116	242	407	0
North Macedonia	360	360	118	133	112	115	360	179
Poland	1320	1369	194	1000	111	258	542	17
Portugal	1050	1062	0	775	121	166	0	0
Republic of Cyprus	360	360	173	121	92	147	360	0
Romania	960						540	97
Russia	1320	1323	497	889	152	282	4220	128
Serbia	360	361	145	127	104	130	360	120
Slovak Republic	480	429	36	192	103	134	268	12
Slovenia	400	410	79	177	74	158	270	95
Spain	1050						0	0
Tajikistan	360	352	115	160	73	119	359	35
Tunisia	600						592	0
Turkey	1680	1663	609	1063	217	383	1344	137
Ukraine	1320	1337	168	942	118	277	1002	192
Uzbekistan	1200	1239	170	841	126	272	390	140
West Bank and Gaza	360	365	182	128	111	126	434	0
TOTAL	**27830**	**25752**	**7515**	**14399**	**3919**	**7434**	**20418**	**3327**

* World Bank's Egypt Enterprise Survey 2016 was used for panel.

3 Fieldwork

3.1 Questionnaires and translations

Two main questionnaires were used for the survey – manufacturing and services – depending on the respondent's industry. In addition, two green economy modules were used – manufacturing and services. A screener questionnaire was also used during the recruitment phase.

The questionnaires were translated into local languages (Table 2).

Table 2: Questionnaire languages used in each country

Country	Languages
Albania	Albanian
Armenia	Armenian
Azerbaijan	Azerbaijani
Belarus	Belarusian
Bosnia and Herzegovina	Bosnian
Bulgaria	Bulgarian
Croatia	Croatian

Country	Languages
Czech Republic	Czech
Egypt	Arabic
Estonia	Estonia, Russian
Georgia	Georgian
Greece	Greek
Hungary	Hungarian
Italy	Italian
Jordan	Arabic
Kazakhstan	Kazakh, Russian
Kosovo	Kosovan
Kyrgyz Republic	Kyrgyz, Russian
Latvia	Latvian, Russian
Lebanon	Arabic
Lithuania	Lithuanian
Malta	Maltese
Moldova	Romanian
Mongolia	Mongolian
Montenegro	Montenegrin
Morocco	Arabic, French
North Macedonia	Macedonian
Poland	Polish
Portugal	Portuguese
Republic of Cyprus	Greek, Turkish
Romania	Romanian
Serbia	Serbian
Slovak Republic	Slovak
Slovenia	Slovenian
Tajikistan	Tajik, Russian
Tunisia	Arabic, French
Turkey	Turkish
Ukraine	Ukrainian, Russian
Uzbekistan	Uzbek, Russian
West Bank and Gaza	Arabic

The translation process progressed as follows:

1. When the questionnaire and showcards were finalised, they were sent to the national agencies for translation.
2. The questionnaire was translated by a suitably qualified and experienced executive within each local agency into the national offical languages.
3. The questionnaire was back translated into English by independent linguists from Language Connect, an independent translation agency.
4. The back translations were compared to the master English questionnaire by the Ipsos MORI team and a list of differences was sent to the local agency.
5. The local agencies amended the questionnaires.
6. The consultants' teams checked the changes had been made.
7. After the pilot, further changes were made to the questionnaire by the local agencies
8. The national agencies sent the final national questionnaires and showcards to the contractors, and they were proof-read by a translation agency.
9. The questionnaires and showcards were sent to the EBRD and WB for their approval.

10. The EBRD and WB provided final comments on the translations before the translations were finalised by the local agencies
11. Final national questionnaires were sent to the EBRD and WB for their records.

In addition, Country Profiles were also translated by the local agencies and proof-read by the translation agency. The Country Profiles were used during or after fieldwork, as an incentive for the interviewees.

3.2 CAPI scripting and testing

Once the translations had been approved, CAPI script was set up and thoroughly tested by each country manager. To test the script, the country manager checked the question wording and the routing was correct and made sure that logic checks had been built into the script where appropriate. WB and EBRD teams also checked CAPI script.

3.3 Mode of completion

The survey was carried out face to face in home. Questionnaires were administered using Computer Assisted Personal Interviewing (CAPI), with the exception of Belarus, where Pen and Paper Interviewing (PAPI) was used.

3.4 Training

Training briefings were either centralised, bringing together country managers of the local agencies participating in training, or conducted on a country-specific basis, depending on the contractor and timing of the survey.

Each country manager was required to attend a 4 day 'train the trainers' briefing to ensure that they were suitably well informed to train their agency field force and to manage the project. Breifings took place in Amman, Athens, Baku, Beirut, Belgrade, Bucharest, Budapest, Cairo, Chisinau, Istanbul, Kyiv, Lisbon, Madrid, Minsk, Prague, Ramallah, Rome, Tbilisi, Tunis, and Yerevan. Each training session lasted 4 days and was delivered by representatives from the EBRD and WB teams, and main contractor. The training covered:

- ES management team introduction;
- Introduction of the ES by the World Bank/EBRD representative, on behalf of the World Bank, EBRD and EIB;
- Universe and sample for ES
- Sampling frames and selected samples:
    - Listings and quality control
    - Sample management and fieldwork progress report
    - Response rate: Follow up – methods to ensure a good response rate
- The questionnaires implementation:
    - Key concepts
    - Questionnaire manual
    - Mock interviewing with the manufacturing questionnaire
    - Innovation module and eligibility
    - Multiple choice test
    - Questionnaire proofreading
- Supervisors and interviewer training
- ES pilot survey
- Data entry and quality control
- CAPI script testing and mock interviews
- An open question and answer session.

This training ensured that project managers were well-prepared to train their own field force. Importantly, it also ensured that the content of the training in each country was the same.

For the supervisors and interviewer training, contractors provided the training materials to the survey and fieldwork managers, covering the different training components such as:

- Written training. Each supervisor and interviewer received a questionnaire manual that had to be read carefully before the training. In addition, supervisors and interviewers received detailed interviewer instructions, in order to fully understand the survey methodology and objectives.
- Theoretical training. Once the supervisors and interviewers had reviewed the questionnaire manual and interviewer instructions, the survey manager in each country thoroughly explained the study's metholodology and reviewed the whole instrument, question by question, to ensure its correct comprehension, explain key concepts, unification of criteria, and answer any questions.
- Comprehension test. After the training, supervisors and interviewers completed a multiple-choice test to assess their understanding of the survey methodology and questionnaire.

Additional interviewer briefings –over the phone or in person – were also organised whenever needed and according to any particular requirements of the survey.

For further details on the training on a country by country basis, please refer to the appendices.

3.5 Piloting

Before the survey was launched, a pilot was conducted in all countries included in the ES. Interviews were conducted by local interviewers who provided feedback to their country managers.

The main purpose of the pilot was to check that the translation was correct, the routing was correct, and that the questions were appropriate for the local environment. Also, these interviews were timed to ascertain the length of the questionnaire. All five questionnaires – core, manufacturing and services, and core/service and manufacturing innovation – were tested.

After the pilot was completed, a pilot report was sent to the World Bank and EBRD outlining the key findings and recommended changes to the questionnaire. A conference call was organised between the EBRD and the World Bank and Ipsos MORI to check the pilot results and agree on the final questionnaires to be used for fieldwork.

Any modification to the questionnaire and instructions were approved by the World Bank and EBRD task managers before the survey was implemented. Prior to the launch of the main survey, the World Bank and EBRD task managers gave their explicit approval of the survey instrument.

4 Survey and item non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.

Survey non-response was addressed by maximising efforts to contact establishments that were initially selected for interviews. Survey non-response did occur, but substitutions were made in order to potentially achieve strata-specific goals.

Details on rejection rates, eligibility rates, and item non-response are available at the strata level. This report summarized these numbers to alert researchers to these issues when using the data and when making inferences. Item non-response, selection bias and faulty sampling frames are not unique to ES. All Enterprise Surveys suffer from these shortcomings, but in very few cases they have been made explicit.

5 ES Database

5.1 Database structure

The structure of the data base reflects the fact that 2 different versions of the survey instrument were used for all registered establishments. Questionnaires have common questions (*core* module) and respectfully additional manufacturing- and services-specific questions. The eligible manufacturing industries have been surveyed using the ***Manufacturing*** questionnaire (includes the *core* module, plus manufacturing specific questions). Retail firms have been interviewed using the ***Services*** questionnaire (includes the *core* module plus retail specific questions) and the residual eligible services have been covered using the ***Services*** questionnaire (includes the *core* module). Each variation of the questionnaire is identified by the index variable, *a0*.

All variables are named using, first, the letter of each section and, second, the number of the variable within the section, i.e. *a1* denotes section *A*, question *1* (some exceptions apply due to comparability reasons). Variable names preceded by the prefix prefix *"*BM" or "BMG" indicate questions specific to countries in Europe and Central Asia 2018/2020 and Middle East and North Africa 2019/2020, therefore, they may not be found in the implementation of the rollout in other countries. "BMG" indicates Green Module variables. All other suffixed variables are global and are present in all country surveys over the world. 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.

There are two establishment identifiers, *idstd* and *id*. The first is a global unique identifier. The second is a country unique identifier. The variables *a2* (sampling region), *a6a* (sampling establishment's size), and *a4a* (sampling sector) contain the establishment's classification into the strata chosen for each country using information from the sample frame. The strata were defined according to the guidelines described above. For panel firms, the dataset includes the id from the previous round of the survey, *id_beepsv*.

There are three levels of stratification: industry, size and region. Different combinations of these variables generate the strata cells for each industry/region/size combination. A distinction should be made between the variable a4a and d1a2 (industry expressed as ISIC rev. 3.1 code). The former gives the establishment's classification into one of the chosen industry-strata based on the sample frame, whereas the latter gives the establishment's actual industry classification (four-digit code) based on the main activity at the time of the survey.

All of the following variables contain information from the sampling frame. They may not coincide with the reality of individual establishments as sample frames may contain inaccurate or outdated information. The variables containing the sample frame information are included in the data set for researchers who may want to further investigate statistical features of the survey and the effect of the survey design on their results.
-*a2* is the variable describing sampling regions
-*a6a*: coded using the same standard for small, medium, and large establishments as defined above.
-*a4a*: coded following the stratification by sector as defined above.

The surveys were implemented following a two-stage procedure. Typically, first a screener questionnaire is applied over the phone to determine eligibility and to make appointments. Then a face-to-face interview takes place with the Manager/Owner/Director of each establishment. However, sometimes the phone numbers were unavailable in the sample frame, and thus the enumerators applied the screeners in person. Interviews were conducted using Computer-assisted personal interviewing (CAPI) in all countries except Belarus, where PAPI was used. The variables a4b and a6c contain the industry and size of the establishment from the screener questionnaire.

Note that there are variables for size (*l1*, *l6* and *l8*) that reflect more accurately the reality of each establishment. Advanced users are advised to use these variables for analytical purposes. Variables *l1* (number of permanent full-time workers at the end of the last complete fiscal year), *l6* (number of full-time seasonal workers employed during last complete fiscal year) and *l8* (average length of employment of full-time temporary employees during last complete fiscal year) were designed to obtain a more accurate measure of employment accounting for permanent and temporary employment. Special efforts were made to make sure that this information was not missing for most establishments.

The firms interviewed had several fiscal years. Most firms had January to December 2018 as their last complete fiscal year. Variables a20m (starting month of last complete fiscal year) and a20y (last complete fiscal year) can be used to obtain the last complete fiscal year for each firm.

There are additional variables for location (*a3x*), industry (*d1a2*) and size (*l1*, *l6* and *l8*) that reflect more accurately the reality of each establishment:

- Variable *a3x* indicates the actual location of the establishment. There may be divergencies between the location in the sampling frame and the actual location, as the establishment may be listed in one place but the actual physical location is in another place.

- Variable *d1a2* indicates the actual ISIC code of the main output of the establishment as answered by the respondent. This is probably the most accurate variable to classify establishments by activity.
- Variables *l1*, *l6* and *l8* were designed to obtain a more accurate measure of employment accounting for permanent and temporary employment. Special efforts were made to make sure that this information was not missing for most establishments.
- Variable *a17x* gives interviewer comments, including problems that occurred during an interview and extraordinary circumstances which could influence results. Please note that sometimes this variable is removed due to privacy issues.

Note that certain variables (including *a3x*, actual location of the establishment) have been removed from the public version of the dataset for confidentiality reasons.

For questions pertaining to monetary amounts, the unit is as shown in Table 3 below.

Table 3: Questionnaire languages used in each country

Country	Local Currency Unit (LCU)
Albania	Albanian Lek (ALL)
Armenia	Armenian Dram (AMD)
Azerbaijan	Azerbaijani Manat (AZN)
Belarus	Belarusian Ruble (BYR)
Bosnia and Herzegovina	Bosnia and Herz. Convertible Marka (BAM)
Bulgaria	Bulgarian Lev (BGN)
Croatia	Croatian Kuna (HRK)
Czech Republic	Czech Koruna (CZK)
Egypt	Egyptian Pound (EGP)
Estonia	Euro (EUR)
Georgia	Georgian Lari (GEL)
Greece	Euro (EUR)
Hungary	Hungarian Forint (HUF)
Italy	Euro (EUR)
Jordan	Jordanian Dinar (JOD)
Kazakhstan	Kazakhstani Tenge (KZT)
Kosovo	Euro (EUR)
Kyrgyz Republic	Kyrgyzstani Som (KGS)
Latvia	Euro (EUR)
Lebanon	Lebanese Pound (LBP)
Lithuania	Euro (EUR)
Malta	Euro (EUR)
Moldova	Moldovan Leu (MDL)
Mongolia	Mongolian Tugrik (MNT)
Montenegro	Euro (EUR)
Morocco	Moroccan Dirham (MAD)
North Macedonia	Macedonian Denar (MKD)
Poland	Polish Zloty (PLN)
Portugal	Euro (EUR)
Republic of Cyprus	Euro (EUR) in Rep. of Cyprus, Turkish Lira in the Turkish Cypriot Community
Romania	Romanian Leu (RON)
Russia	Russian Ruble (RUB)
Serbia	Serbian Dinar (RSD)
Slovak Republic	Euro (EUR)
Slovenia	Euro (EUR)
Tajikistan	Tajikistani Somoni (TJS)
Tunisia	Tunisian Dinar (TND)
Turkey	Turkish Lira (TRY)
Ukraine	Ukrainian Hryvnia (UAH)

Uzbekistan	Uzbekistani Som (UZS
West Bank and Gaza	Israeli New Shekel (ILS)

5.2 Weights

Since the sampling design was stratified and employed differential sampling, individual observations should be properly weighted when making inferences about the population. Under stratified random sampling, unweighted estimates are biased unless sample sizes are proportional to the size of each stratum. With stratification the probability of selection of each unit is, in general, not the same. Consequently, individual observations must be weighted by the inverse of their probability of selection (probability weights or *pw* in Stata.)[2]

Special care was given to the correct computation of the weights. It was imperative to accurately adjust the totals within each region/industry/size stratum to account for the presence of ineligible units (the firm discontinued businesses or was unattainable, education or government establishments, no reply after having called in different days of the week and in different business hours, no tone in the phone line, answering machine, fax line[3], wrong address or moved away and could not get the new references). The information required for the adjustment was collected in the first stage of the implementation: the screening process. Using this information, each stratum cell of the universe was scaled down by the observed proportion of ineligible units within the cell. Once an accurate estimate of the universe cell (projections) was available, weights were computed using the number of completed interviews.

Due to non-response rates, some stratification cells were collapsed for the purposes of weighting, to preserve the representativeness of the sample.

For some units it was impossible to determine eligibility because the contact was not successfully completed. Consequently, different assumptions as to their eligibility result in different universe cells' adjustments and in different sampling weights. Three sets of assumptions were considered:

1. *Strict assumption*: Eligible establishments are only those for which it was possible to directly determine eligibility. The resulting weights are included in the variable *wstrict*.
2. *Median assumption*: Eligible establishments are those for which it was possible to directly determine eligibility and those that rejected the screener questionnaire or an answering machine or fax was the only response. The resulting weights are included in the variable *wmedian*.
3. *Weak assumption*: In addition to the establishments included in the first two points, all establishments for which it was not possible to finalize a contact are assumed to be eligible. This includes establishments with dead or out of service phone lines, establishments that never answered the phone, and establishments with incorrect addresses for which it was impossible to find a new address. The resulting weights are included in the variable *wweak*. Note that under the weak assumption only observed non-eligible units are excluded from universe projections.

Table 4 summarizes the eligibility criteria for each of the above three assumptions.

Within each of these assumptions regarding eligibility a pair of weight sets was calculated. Once an accurate estimate of the universe cell projection was made, weights for the

[2] This is equivalent to the weighted average of the estimates for each stratum, with weights equal to the population shares of each stratum.

[3] For the surveys that implemented a screener over the phone.

probability of selection were computed using the number of completed interviews for each cell.

Note that for the purpose of the weights computations all panel firms were considered to be part of the current universe, although technically they are not randomly selected.

Table 4: Eligibility criteria

Status Code	Eligibility Criteria		
	Strict	Weak	Median
1. Eligible establishment (Correct name and address)	1	1	1
2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1	1	1
3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1	1	1
4. Eligible establishment (Wrong address - the firm/establishment has changed address and the address could be found)	1	1	1
16. Panel firm - now less than five employees	1	1	1
5. The establishment has less than 5 permanent full time employees	0	0	0
6. The firm discontinued businesses	0	0	0
7. Not a business: Private household	0	0	0
8. Ineligible activity: education, agriculture, finances, governments…	0	0	0
91. No reply (after having called in different days of the week and in different business hours)	0	1	0
92. Line out of order	0	1	0
93. No tone	0	1	0
10. Answering machine	0	1	1
11. Fax line – data line	0	1	1
12. Wrong address/ moved away and could not get the new references	0	1	0
13. Refuses to answer the screener	0	1	1
14. In process *(the establishment is being called/ is being contacted – previous to ask the screener)*	0	0	0
151. Out of target – outside the covered regions, firm moved abroad	0	0	0
152. Out of target – firm moved abroad	0	0	0

Strict eligibility = (Sum of the numbers with codes 1,2,3,4,&16) / Total
Weak eligibility = (Sum of the numbers with codes 1,2,3,4,16,91,92,93,10,11,12,&13) / Total
Median eligibility = (Sum of the numbers with codes 1,2,3,4,16,10,11, & 13) / Total

5.2.1 Appropriate use of the weights

As discussed above, under stratified random sampling weights should be used when making inferences about the population. Any estimate or indicator that aims at describing some feature of the population should take into account that individual observations may not represent equal shares of the population.

However, there is some discussion as to the use of weights in regressions (see Deaton, 1997, p.67; Lohr, 1999, chapter 11, Cochran, 1977, p. 150). There is not strong large sample econometric argument in favour of using weighted estimation for a common population coefficient if the underlying model varies per stratum (stratum-specific coefficient): both simple OLS and weighted OLS are inconsistent under regular conditions. However, weighted OLS has the advantage of providing an estimate that is independent of the sample design. This latter point may be quite relevant for the ES as in most cases the objective is not only to obtain

model-unbiased estimates but also design-unbiased estimates (see also Cochran, 1977, p. 200 who favours the use of weighted OLS for a common population coefficient).[4]

For a more general approach, if the regressions are descriptive of the population then weights should be used. The estimated model can be thought of as the relationship that would be expected if the whole population were observed.[5] If the models are developed as structural relationships or behavioural models that may vary for different parts of the population, then there is no reason to use weights.

6 Bibliography

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5. Schaeffer, Richard L., William Mendenhall and Lyman Ott. Elementary Survey Sampling, 5th edition. Duxbury Press, 1996.

[4] Note that weighted OLS in Stata using the command regress with the option of weights will estimate wrong standard errors. Using the Stata survey specific commands svy will provide appropriate standard errors.

[5] The use of weights in most model-assisted estimations using survey data is strongly recommended by the statisticians specialised on survey methodology of the JPSM of the University of Michigan and the University of Maryland.

Annex A Country-specific information on BEEPS survey

A.1 Albania

A.1.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Albania 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Statistical Business Register (INSTAT) was used, dated as of December 2017. The establishments in the listing are all registered with the National Registration Center, NRC (Qendra Kombëtare për Regjistrim, QKR). Note that INSTAT provided a subset of the full listing, this subset was selected randomly following the ES methodology. The ES team used this subset for the standard sampling procedures.

Regional stratification was done across three regions: Northern Albania comprising Dibër, Durrës, Kukës, Lezhë, Shkodër (NUTS3 codes AL011-AL015), Central Albania comprising Tirana and Elbasan (Al021, AL022), and Southern Albania comprising Berat, Fier, Gjirokastër, Korçë, and Vlorë (AL031-AL033).

Regions (official administrative counties)	Grouping used for stratification purposes in BEEPS VI
Dibër	Northern Albania
Durrës	
Kukës	
Lezhë	
Shkodër	
Tirana	Central Albania
Elbasan	
Berat	Southern Albania
Fier	
Gjirokastër	
Korçë	
Vlorë	

Albania ES sample frame (Fresh and Panel combined)

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	108	210	278	**962**
	Medium (20-99)	83	41	135	
	Large (100 or more)	81	3	23	
Central Albania	Small (5-19)	255	396	446	**1883**
	Medium (20-99)	260	103	218	
	Large (100 or more)	92	23	90	
Southern Albania	Small (5-19)	198	180	218	**941**
	Medium (20-99)	154	37	90	
	Large (100 or more)	37	5	22	
Total		**1268**	**998**	**1520**	**3786**

Source: BEEPS V and Statistical Business register 2017 (INSTAT)

Albania Panel sample frame

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	4	13	10	**41**

	Medium (20-99)	4	4	1	
	Large (100 or more)	3	1	1	
Central Albania	Small (5-19)	46	86	85	**276**
	Medium (20-99)	23	10	12	
	Large (100 or more)	7	3	4	
Southern Albania	Small (5-19)	11	10	9	**43**
	Medium (20-99)	8	1	1	
	Large (100 or more)	2	0	1	
Total		**108**	**128**	**124**	**360**

Source: BEEPS V.

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	3	3	11	**80**
	Medium (20-99)	3	19	4	
	Large (100 or more)	20	1	16	
Central Albania	Small (5-19)	3	3	7	**33**
	Medium (20-99)	3	3	3	
	Large (100 or more)	3	5	3	
Southern Albania	Small (5-19)	3	3	9	**77**
	Medium (20-99)	3	19	3	
	Large (100 or more)	20	2	15	
Total		**61**	**58**	**71**	**190**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	3	11	9	**35**
	Medium (20-99)	3	3	1	
	Large (100 or more)	3	1	1	
Central Albania	Small (5-19)	11	20	20	**97**
	Medium (20-99)	15	9	10	
	Large (100 or more)	6	3	3	
Southern Albania	Small (5-19)	9	9	8	**38**
	Medium (20-99)	7	1	1	
	Large (100 or more)	2	0	1	
Total		**59**	**57**	**54**	**170**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 12.7% (82 out of 644 establishments).[6]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

[6] Based on out of target and ineligible contacts.

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	6	10	21	**120**
	Medium (20-99)	9	23	7	
	Large (100 or more)	25	3	16	
Central Albania	Small (5-19)	15	25	30	**133**
	Medium (20-99)	18	11	12	
	Large (100 or more)	7	9	6	
Southern Albania	Small (5-19)	13	13	23	**124**
	Medium (20-99)	12	22	3	
	Large (100 or more)	22	3	13	
Total		**127**	**119**	**131**	**377**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	2	7	6	**25**
	Medium (20-99)	4	1	1	
	Large (100 or more)	2	1	1	
Central Albania	Small (5-19)	11	22	22	**91**
	Medium (20-99)	13	8	8	
	Large (100 or more)	3	2	2	
Southern Albania	Small (5-19)	10	8	9	**36**
	Medium (20-99)	7	1	0	
	Large (100 or more)	1	0	0	
Total		**53**	**50**	**49**	**152**

A.1.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
381	**Eligible**	1. Eligible establishment (Correct name and address)	353
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	11
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	9
		4. Eligible establishment (Moved and traced)	3
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	5
127	**Screener refusal**	13. Refuses to answer the screener	127
71	**Ineligible**	5. The establishment has less than 5 permanent full time employees	7
		616. The firm discontinued businesses - (Establishment went bankrupt)	46
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	0
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	2
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	3
		621. The firm discontinued businesses - (Other)	3
		71. Ineligible legal status: not a business, but private household	1
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	1

		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	8
11	Out of Target	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	4
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	1
		156. Duplicated firm within the sample	3
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	3
54	Unobtainable	91. No reply after having called in different days of the week and in different business hours	1
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	53
644	Total contacted		

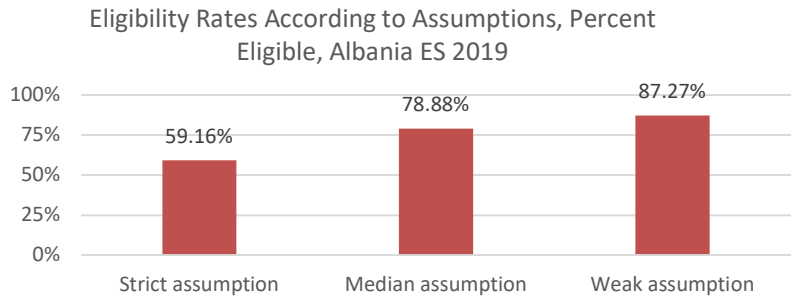
Response Outcomes: Albania ES 2019

Target and totals	Sample target	360
	Sample target completion rate	104.7%
	Total contacts available in frame	3786
	Total contacts issued	753
	Total contacts contacted	644
Screening phase	Screening in process	0
	Eligibles	381
	Screener refusal	127
	Ineligible + out of target	82
	Unobtainable	54
Interview phase (only if eligible)	Complete interviews without extra module	3
	Complete interviews with extra module	374
	Eligible in process + incomplete interviews	0
	Interview refusal	4
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	19.7%
	Ineligible + out of target rate	12.7%
	Unobtainable rate	8.4%
	Interview conversion rate	58.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.6%

A.1.3. Universe estimates

Universe estimates for the number of establishments in each cell in Albania were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Albania were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	256	197	816	**1654**
	Medium (20-99)	130	23	156	
	Large (100 or more)	56	3	16	
Central Albania	Small (5-19)	441	384	1967	**3580**
	Medium (20-99)	172	50	435	
	Large (100 or more)	56	9	66	
Southern Albania	Small (5-19)	278	210	864	**1681**
	Medium (20-99)	109	22	151	
	Large (100 or more)	31	3	13	
		1528	**901**	**4485**	**6914**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	329	253	994	**2055**
	Medium (20-99)	168	24	191	
	Large (100 or more)	78	3	16	
Central Albania	Small (5-19)	622	540	2627	**4879**
	Medium (20-99)	244	70	582	
	Large (100 or more)	85	13	96	
Southern Albania	Small (5-19)	337	253	992	**1973**
	Medium (20-99)	132	26	173	
	Large (100 or more)	40	3	16	
Total		**2035**	**1185**	**5687**	**8908**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Northern Albania	Small (5-19)	353	280	1109	**2245**
	Medium (20-99)	174	26	206	
	Large (100 or more)	78	3	17	
Central Albania	Small (5-19)	683	614	3008	**5490**
	Medium (20-99)	259	77	645	
	Large (100 or more)	87	14	103	
Southern Albania	Small (5-19)	377	293	1155	**2255**

	Medium (20-99)	143	29	196	
	Large (100 or more)	42	3	17	
Total		**2195**	**1339**	**6457**	**9990**

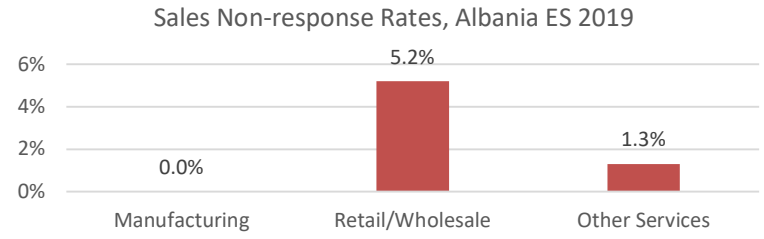
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.1.4. Non-response

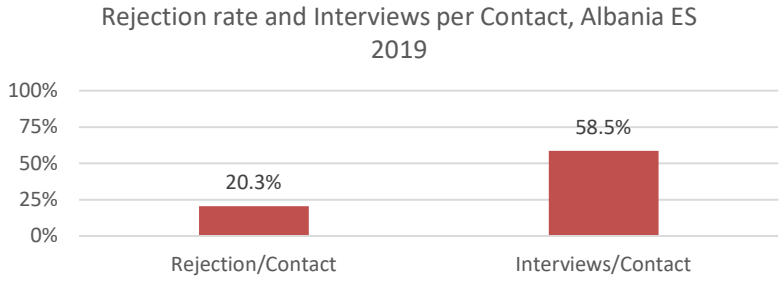
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.59.[7] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.20.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling

[7] The estimate is based on the total no. of firms contacted including ineligible establishments.

frames are not unique to Albania. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.1.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local agency	Name: Ipsos Albania Region: Republic of Albania Membership of international organization: Esomar Activities since: 2005
Enumerators involved	Enumerators: 16 (all enumerators did both enumerator and recruiter role; local team used F2F screeneing approach) Recruiters: 16
Other staff involved	Fieldwork Coordinators: 2 supervisors Editing: 1 Data Entry: 0 Data Processing: Ipsos was responsible for all data processing

Sampling frame

Characteristic of sample frame used	Electronic data base
Source	National statistical office, Instat
Year of publication	July 2018
Comments on the quality of the sample frame	Sample frame was quite outdated, no tax office registered numbers.

Sample

Comments/problems on sectors and regions selected in the sample	On regions: Interviewing in the Tirana district was particularly difficult as it had more soft and hard refusals, hard-to-find businesses, changed names, bankrupt businesses.
Comments on the response rate	The response rate was the lowest in the Tirana region.
Comments on the sample design	A few panel firms had different industry sector in comparison to previous wave.

Fieldwork

Date of fieldwork	13 December 2018 to 27 May 2019
Country	Albania
Number of completed interviews	376
Problems found during fieldwork	The sample frame was outdated. A lot of businesses were without phone numbers in the sample or names were written wrongly. No email addresses were included. Having a tax office ID in the sample would have made our job easier, because we could look for additional contact information via National Business Center website.
Other observations	No

Questionnaires

Problems for the understanding of questions (write question number)	D.2, N.3, N.2e1, N.7
Problems found in the navigability of questionnaires (for example, skip patterns)	No

Comments on questionnaire length	About 40% of respondents complained about the excessive length of the interview.
Suggestions or other comments on the questionnaires	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country situation

General aspects of economic, political or social situation of the country that could affect the results of the survey	Towards the end of February 2019, the country entered a phase of political instability that lasted until the end of June 2019. Local elections were held on June 30. That allowed us to have less projects as usual and focus more on BEEPS. In general, large and medium sized firms tend to be suspicious of research such as this. There is a fear that we might come in disguise from the tax offices or that we would share their data with them, so in quite a few cases the number of employees given during the interview may be lower than in reality.
Relevant country events that occurred during fieldwork	Due to political instability and mass emigration, the businesses complained a lot about corruption.
Other aspects	No

A.2 Armenia

A.2.1. Sampling structure and implementation

A.2.2. Status codes

A.2.3. Universe estimates

A.2.4. Non-response

A.3 Azerbaijan

A.3.1. Sampling structure and implementation

ACT Global, the main contractor, in collaboration with ACT-Azerbaijan implemented the Azerbaijan 2019 ES. The sample frame consisted of listings of firms from two sources: For panel firms, the list of 390 firms from the Azerbaijan 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments compiled by ACT-Azerbaijan was used.

Regional stratification for the Azerbaijan ES was done across three regions: Baku & Absheron, Center (Aran, Daglig-Shirvan, Quba-Khachmaz, Lankaran) and West (Ganja-Qazakh, Shaki-Zaqatala).

Regions (official economic regions)	**Grouping used for stratification purposes in BEEPS VI**
Baku & Apsheronski	Baku & Absheron
Aranski	Central

Gorno-Shirvanski (Daghlig Shirvan)	
Lenkoranski	
Kuba-Khachmazski (Guba-Khachmaz)	
Giandja-Kazakhski (Ganja-Gazakh)	West
Sheki-Zakatalski (Shaki-Zaqatala)	
Autonomous Republic of Nakhchivan	Not covered – landlocked exclave
Nagorno Karabakh	Not covered – disputed region
Kalbajar-Lachin	Not covered – controlled by Nagorno Karabakh

Azerbaijan ES Sample Frame (Fresh and Panel)

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	138	392	649	**2341**
	Medium (20-99)	97	116	333	
	Large (100 or more)	52	39	182	
	Size Unknown	39	115	189	
Center	Small (5-19)	16	30	32	**160**
	Medium (20-99)	20	6	35	
	Large (100 or more)	5	2	10	
	Size Unknown	0	0	4	
West	Small (5-19)	8	13	18	**87**
	Medium (20-99)	10	5	17	
	Large (100 or more)	4	0	6	
	Size Unknown	1	1	4	
		390	**719**	**1479**	**2588**

Source: World Bank and Yellow Pages Azerbaijan

Azerbaijan Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	25	47	34	**226**
	Medium (20-99)	30	17	46	
	Large (100 or more)	8	9	10	
Center	Small (5-19)	15	29	23	**103**
	Medium (20-99)	19	5	9	
	Large (100 or more)	3	0	0	
West	Small (5-19)	8	13	14	**61**
	Medium (20-99)	10	4	7	
	Large (100 or more)	3	0	2	
		121	**124**	**145**	**390**

Source: BEEPS V.

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	5	13	15	**128**
	Medium (20-99)	11	15	9	
	Large (100 or more)	15	15	15	
	Size Unknown	5	5	5	

Center	Small (5-19)	1	1	5	**31**
	Medium (20-99)	1	1	5	
	Large (100 or more)	2	2	9	
	Size Unknown	0	0	4	
West	Small (5-19)	0	0	4	**21**
	Medium (20-99)	0	1	5	
	Large (100 or more)	1	0	4	
	Size Unknown	1	1	4	
		42	**54**	**84**	**180**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	12	12	3	**90**
	Medium (20-99)	12	12	12	
	Large (100 or more)	8	9	10	
	Size Unknown	0	0	0	
Center	Small (5-19)	12	12	2	**49**
	Medium (20-99)	12	5	3	
	Large (100 or more)	3	0	0	
	Size Unknown	0	0	0	
West	Small (5-19)	6	12	2	**41**
	Medium (20-99)	10	4	2	
	Large (100 or more)	3	0	2	
	Size Unknown	0	0	0	
		78	**66**	**36**	**180**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 36.9% (547 out of 1484 establishments).[8]

For the Azerbaijan 2019 ES, because of shutdowns due to the COVID-19 outbreak, the sample target was reduced.

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	10	31	42	**183**
	Medium (20-99)	19	19	18	
	Large (100 or more)	5	9	10	
	Medium and Large, and Unknown	10	5	5	
Center	Small (5-19)	3	3	4	**22**
	Medium (20-99)	3	1	0	
	Large (100 or more)	2	1	0	
	Medium and Large, and Unknown	0	0	5	
West	Small (5-19)	0	0	4	**21**
	Medium (20-99)	5	0	0	
	Large (100 or more)	2	0	0	
	Medium and Large, and Unknown	0	0	1	
	Small, Medium, and Unknown	0	4	0	

[8] Based on out of target and ineligible contacts.

	Medium and Large (20+)	0	0	1	
	Small and Unknown	4	0	0	
		63	**73**	**90**	**226**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	3	14	10	**41**
	Medium (20-99)	3	1	7	
	Large (100 or more)	1	1	1	
Center	Small (5-19)	3	3	1	**12**
	Medium (20-99)	3	0	0	
	Large (100 or more)	1	0	0	
	Medium and Large, and Unknown	0	0	1	
West	Small (5-19)	0	0	4	**20**
	Medium (20-99)	5	0	0	
	Large (100 or more)	2	0	0	
	Small, Medium, and Unknown	0	4	0	
	Medium and Large (20+)	0	0	1	
	Small and Unknown	4	0	0	
		25	**23**	**25**	**73**

A.3.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
295	**Eligible**	1. Eligible establishment (Correct name and address)	294
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
488	**Screener refusal**	13. Refuses to answer the screener	488
501	**Ineligible**	5. The establishment has less than 5 permanent full time employees	45
		616. The firm discontinued businesses - (Establishment went bankrupt)	53
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	6
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	2
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	1
		621. The firm discontinued businesses - (Other)	4
		71. Ineligible legal status: not a business, but private household	3
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	78
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	309
46	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	1
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0

		155. Out of target - establishment was not in operation for the entirety of last fiscal year	4
		156. Duplicated firm within the sample	34
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	7
154	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	94
		92. Line out of order	1
		93. No tone	1
		94. Phone number does not exist	45
		10. Answering machine	5
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	8
1484	**Total contacted**		

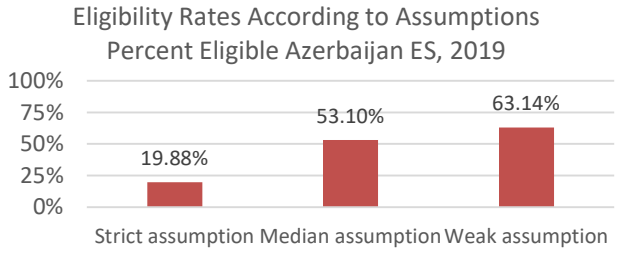
Response Outcomes: Azerbaijan ES 2019

Target and totals	Sample target	258
	Sample target completion rate	87.6%
	Total contacts available in frame	2588
	Total contacts issued	1488
	Total contacts contacted	1484
Screening phase	Screening in process	0
	Eligibles	295
	Screener refusal	488
	Ineligible + out of target	547
	Unobtainable	154
Interview phase (only if eligible)	Complete interviews without extra module	3
	Complete interviews with extra module	223
	Eligible in process + incomplete interviews	0
	Interview refusal	69
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	32.9%
	Ineligible + out of target rate	36.9%
	Unobtainable rate	10.4%
	Interview conversion rate	15.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	4.6%

A.3.3. Universe estimates

Universe estimates for the number of establishments in each cell in Azerbaijan were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Azerbaijan were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	138	392	649	**2341**
	Medium (20-99)	97	116	333	
	Large (100 or more)	52	39	182	
	Medium and Large, and Unknown	39	115	189	
Center	Small (5-19)	15	28	32	**156**
	Medium (20-99)	19	6	0	
	Large (100 or more)	5	2	0	
	Medium and Large, and Unknown	0	0	49	
West	Small (5-19)	0	0	17	**82**
	Medium (20-99)	9	0	0	
	Large (100 or more)	4	0	0	
	Medium and Large, and Unknown	0	0	4	
	Small, Medium, and Unknown	0	18	0	
	Medium and Large (20+)	0	0	22	
	Small and Unknown	8	0	0	
		387	**716**	**1477**	**2579**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	138	392	649	**2341**
	Medium (20-99)	97	116	333	
	Large (100 or more)	52	39	182	
	Medium and Large, and Unknown	39	115	189	
Center	Small (5-19)	15	28	32	**156**
	Medium (20-99)	19	6	0	
	Large (100 or more)	5	2	0	
	Medium and Large, and Unknown	0	0	49	
West	Small (5-19)	0	0	17	**82**
	Medium (20-99)	9	0	0	
	Large (100 or more)	4	0	0	
	Medium and Large, and Unknown	0	0	4	
	Small, Medium, and Unknown	0	18	0	
	Medium and Large (20+)	0	0	22	
	Small and Unknown	8	0	0	
		387	**716**	**1477**	**2579**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Baku and Absheron	Small (5-19)	138	392	649	**2341**
	Medium (20-99)	97	116	333	
	Large (100 or more)	52	39	182	
	Medium and Large, and Unknown	39	115	189	
Center	Small (5-19)	15	28	32	**156**
	Medium (20-99)	19	6	0	
	Large (100 or more)	5	2	0	
	Medium and Large, and Unknown	0	0	49	
West	Small (5-19)	0	0	17	**82**

	Medium (20-99)	9	0	0	
	Large (100 or more)	4	0	0	
	Medium and Large, and Unknown	0	0	4	
	Small, Medium, and Unknown	0	18	0	
	Medium and Large (20+)	0	0	22	
	Small and Unknown	8	0	0	
		387	**716**	**1477**	**2579**

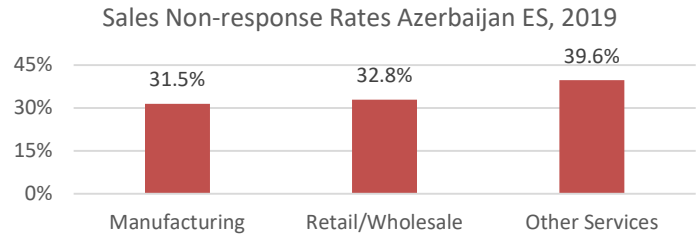
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.3.4. Non-response

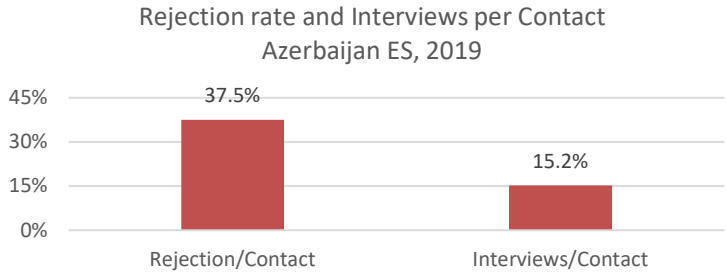
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.15.[9] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.38.



[9] The estimate is based on the total no. of firms contacted including ineligible establishments.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Azerbaijan. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.4 Belarus

A.4.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Belarus 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of both establishments and firms from Komlev-Info was used (as of June of 2018). The establishments and firms in the listing are all registered as businesses with the State Registry.

Regional stratification for the Belarus ES was done across seven regions: Minsk, Minskaya, Gomelskaya, Mogilevskaya, Brestskaya, Grodnenskaya, and Vitebskaya. For the purposes of achieving the thresholds for representativeness, the ES indicators are calculated with some regions combined. In particular, Brestskaya and Grodnenskaya are combined, and so are Gomelskaya and Mogilevskaya.

Regions (official economic regions)	Grouping used for stratification purposes in BEEPS VI
Minsk	Minsk
Brestskaya	Brestskaya
Gomelskaya	Gomelskaya
Grodenskaya	Grodenskaya
Mogilevskaya	Mogilevskaya
Minskaya	Minskaya
Vitebskaya	Vitebskaya

Belarus ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	54	110	1228	970	5258	**10819**
	Medium (20-99)	37	76	565	229	1580	
	Large (100 or more)	28	17	223	55	389	
Minskaya	Small (5-19)	25	18	433	377	1280	**3406**
	Medium (20-99)	60	30	277	55	415	
	Large (100 or more)	123	12	153	7	141	
Gomelskaya	Small (5-19)	9	11	264	399	807	**2311**
	Medium (20-99)	28	15	129	77	264	
	Large (100 or more)	57	13	118	11	109	
Mogilevskaya	Small (5-19)	8	18	207	276	629	**1752**
	Medium (20-99)	27	17	109	48	202	
	Large (100 or more)	51	10	82	9	59	
Brestskaya	Small (5-19)	14	41	305	405	1072	**2866**
	Medium (20-99)	39	81	166	70	315	
	Large (100 or more)	77	26	120	10	125	
Grodnenskaya	Small (5-19)	18	42	287	398	824	**2439**
	Medium (20-99)	41	41	141	72	300	
	Large (100 or more)	71	13	116	10	65	
Vitebskaya	Small (5-19)	8	21	198	336	682	**2002**
	Medium (20-99)	27	26	147	73	228	
	Large (100 or more)	58	18	82	12	86	
Total		**860**	**656**	**5350**	**3899**	**14830**	**25595**

Source: World Bank and Komlev-Info

Belarus Sample Frame (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	0	2	11	18	28	**109**
	Medium (20-99)	0	1	11	7	19	

	Large (100 or more)	1	1	3	3	4	
Minskaya	Small (5-19)	0	0	4	11	8	**43**
	Medium (20-99)	1	0	4	3	1	
	Large (100 or more)	2	0	4	1	4	
Gomelskaya	Small (5-19)	0	1	6	10	5	**43**
	Medium (20-99)	0	0	3	3	3	
	Large (100 or more)	1	1	3	4	3	
Mogilevskaya	Small (5-19)	1	0	4	9	5	**36**
	Medium (20-99)	0	0	4	3	3	
	Large (100 or more)	1	0	3	2	1	
Brestskaya	Small (5-19)	0	0	3	12	13	**48**
	Medium (20-99)	0	2	4	2	3	
	Large (100 or more)	2	2	0	3	2	
Grodnenskaya	Small (5-19)	0	0	5	11	11	**48**
	Medium (20-99)	1	0	4	3	5	
	Large (100 or more)	1	1	2	3	1	
Vitebskaya	Small (5-19)	0	0	3	10	4	**33**
	Medium (20-99)	0	1	4	4	0	
	Large (100 or more)	0	0	4	0	3	
Total		**11**	**12**	**89**	**122**	**126**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	2	2	9	8	13	**65**
	Medium (20-99)	2	2	3	2	9	

	Large (100 or more)	3	4	2	2	2	
Minskaya	Small (5-19)	6	7	6	4	11	**91**
	Medium (20-99)	9	10	5	5	2	
	Large (100 or more)	12	5	4	3	2	
Gomelskaya	Small (5-19)	2	2	2	2	2	**30**
	Medium (20-99)	2	2	2	2	2	
	Large (100 or more)	2	2	2	2	2	
Mogilevskaya	Small (5-19)	2	3	2	2	2	**48**
	Medium (20-99)	6	6	4	2	2	
	Large (100 or more)	7	4	2	2	2	
Brestskaya	Small (5-19)	2	2	2	2	3	**38**
	Medium (20-99)	3	4	2	2	2	
	Large (100 or more)	4	4	2	2	2	
Grodnenskaya	Small (5-19)	2	2	2	2	2	**40**
	Medium (20-99)	3	4	2	2	2	
	Large (100 or more)	6	5	2	2	2	
Vitebskaya	Small (5-19)	4	9	4	6	5	**98**
	Medium (20-99)	12	11	5	7	2	
	Large (100 or more)	13	8	5	5	2	
Total		**104**	**98**	**69**	**66**	**73**	**410**

Original Sample Design (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total

Minsk	Small (5-19)	0	2	8	7	12	**55**
	Medium (20-99)	0	1	3	2	12	
	Large (100 or more)	1	1	2	2	2	
Minskaya	Small (5-19)	0	0	2	7	6	**29**
	Medium (20-99)	1	0	2	2	1	
	Large (100 or more)	2	0	3	1	2	
Gomelskaya	Small (5-19)	0	1	2	2	2	**21**
	Medium (20-99)	0	0	2	2	2	
	Large (100 or more)	1	1	2	2	2	
Mogilevskaya	Small (5-19)	1	0	2	3	2	**21**
	Medium (20-99)	0	0	3	2	2	
	Large (100 or more)	1	0	2	2	1	
Brestskaya	Small (5-19)	0	0	2	2	2	**22**
	Medium (20-99)	0	2	2	2	2	
	Large (100 or more)	2	2	0	2	2	
Grodnenskaya	Small (5-19)	0	0	2	2	2	**20**
	Medium (20-99)	1	0	2	2	2	
	Large (100 or more)	1	1	2	2	1	
Vitebskaya	Small (5-19)	0	0	2	6	3	**22**
	Medium (20-99)	0	1	3	2	0	
	Large (100 or more)	0	0	3	0	2	
Total		**11**	**12**	**51**	**54**	**62**	**190**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 10.4% (155 out of 1491 establishments).[10]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

[10] Based on out of target and ineligible contacts

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	2	2	14	16	23	**122**
	Medium (20-99)	4	5	9	5	18	
	Large (100 or more)	5	6	4	5	4	
Minskaya	Small (5-19)	6	7	9	8	17	**118**
	Medium (20-99)	11	10	8	6	3	
	Large (100 or more)	12	5	8	4	4	
Gomelskaya	Small (5-19)	2	2	4	6	4	**52**
	Medium (20-99)	2	3	3	2	3	
	Large (100 or more)	5	5	4	3	4	
Mogilevskaya	Small (5-19)	2	3	5	7	5	**69**
	Medium (20-99)	6	6	7	4	3	
	Large (100 or more)	7	4	5	2	3	
Brestskaya	Small (5-19)	2	2	4	7	8	**61**
	Medium (20-99)	4	6	4	2	2	
	Large (100 or more)	6	6	2	2	4	
Grodnenskaya	Small (5-19)	2	2	4	6	5	**60**
	Medium (20-99)	4	4	3	3	4	
	Large (100 or more)	7	6	2	5	3	
Vitebskaya	Small (5-19)	4	9	6	12	8	**118**
	Medium (20-99)	11	12	7	9	2	
	Large (100 or more)	10	10	8	6	4	
Total		**114**	**115**	**120**	**120**	**131**	**600**

Achieved Interviews (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	0	0	5	6	10	**43**
	Medium (20-99)	0	0	6	2	9	
	Large (100 or more)	0	1	2	0	2	
Minskaya	Small (5-19)	0	0	3	4	7	**26**
	Medium (20-99)	1	0	3	1	1	
	Large (100 or more)	1	0	2	1	2	

Gomelskaya	Small (5-19)	0	0	2	4	2	**16**
	Medium (20-99)	0	0	1	0	1	
	Large (100 or more)	0	1	2	1	2	
Mogilevskaya	Small (5-19)	0	0	3	5	3	**14**
	Medium (20-99)	0	0	1	1	0	
	Large (100 or more)	0	0	0	0	1	
Brestskaya	Small (5-19)	0	0	2	5	5	**20**
	Medium (20-99)	0	2	2	0	0	
	Large (100 or more)	1	1	0	0	2	
Grodnenskaya	Small (5-19)	0	0	2	4	3	**18**
	Medium (20-99)	1	0	1	1	2	
	Large (100 or more)	0	1	0	2	1	
Vitebskaya	Small (5-19)	0	0	2	6	3	**21**
	Medium (20-99)	0	1	2	2	0	
	Large (100 or more)	0	0	3	0	2	
Total		**4**	**7**	**44**	**45**	**58**	**158**

A.4.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
609	**Eligible**	1. Eligible establishment (Correct name and address)	552
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	5
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	7
		4. Eligible establishment (Moved and traced)	39
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	6
657	**Screener refusal**	13. Refuses to answer the screener	657
142	**Ineligible**	5. The establishment has less than 5 permanent full time employees	6
		616. The firm discontinued businesses - (Establishment went bankrupt)	22
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	5
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	9
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	35
		621. The firm discontinued businesses - (Other)	2
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	8
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	55
13	**Out of Target**	151. Out of target - outside the covered regions	1
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	6
		156. Duplicated firm within the sample	1
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	5
70	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	50
		92. Line out of order	1
		93. No tone	1
		94. Phone number does not exist	6
		10. Answering machine	1
		11. Fax line- data line	10
		12. Wrong address/ moved away and could not get the new references	1
1491	**Total contacted**		

Response Outcomes: Belarus ES 2018

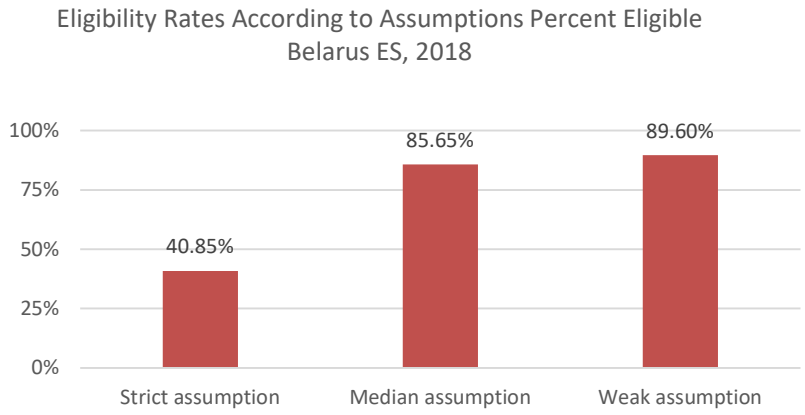
Target and totals	Sample target	600
	Sample target completion rate	100.0%
	Total contacts available in frame	25595
	Total contacts issued	1723

	Total contacts contacted	1491
Screening phase	Screening in process	0
	Eligibles	609
	Screener refusal	657
	Ineligible + out of target	155
	Unobtainable	70
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	600
	Eligible in process + incomplete interviews	0
	Interview refusal	9
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	44.1%
	Ineligible + out of target rate	10.4%
	Unobtainable rate	4.7%
	Interview conversion rate	40.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.6%

A.4.3. Universe estimates

Universe estimates for the number of establishments in each cell in Belarus were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Belarus were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	54	110	1228	970	5258	**11067**
	Medium (20-99)	37	76	565	333	1678	
	Large (100 or more)	28	17	223	101	389	
Minskaya	Small (5-19)	25	29	433	377	1280	**3437**
	Medium (20-99)	60	34	277	66	415	
	Large (100 or more)	123	12	153	12	141	
Gomelskaya	Small (5-19)	9	15	264	399	807	**2395**
	Medium (20-99)	28	15	156	94	277	
	Large (100 or more)	57	13	118	34	109	
Mogilevskaya	Small (5-19)	49	18	461	276	921	**3433**
	Medium (20-99)	83	36	454	133	634	
	Large (100 or more)	52	10	156	37	113	
Brestskaya	Small (5-19)	18	42	305	405	1072	**3004**
	Medium (20-99)	39	112	201	121	316	
	Large (100 or more)	77	26	120	25	125	
Grodnenskaya	Small (5-19)	18	42	287	398	824	**2490**
	Medium (20-99)	41	49	146	94	300	
	Large (100 or more)	71	13	116	26	65	
Vitebskaya	Small (5-19)	13	23	198	336	682	**2079**
	Medium (20-99)	27	29	186	83	230	
	Large (100 or more)	58	18	82	28	86	
Total		**967**	**739**	**6129**	**4348**	**15722**	**27905**

Median Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Minsk	Small (5-19)	54	110	1228	970	5258	**11067**
	Medium (20-99)	37	76	565	333	1678	
	Large (100 or more)	28	17	223	101	389	

Minskaya	Small (5-19)	25	29	433	377	1280	**3437**
	Medium (20-99)	60	34	277	66	415	
	Large (100 or more)	123	12	153	12	141	
Gomelskaya	Small (5-19)	9	15	264	399	807	**2395**
	Medium (20-99)	28	15	156	94	277	
	Large (100 or more)	57	13	118	34	109	
Mogilevskaya	Small (5-19)	49	18	461	276	921	**3433**
	Medium (20-99)	83	36	454	133	634	
	Large (100 or more)	52	10	156	37	113	
Brestskaya	Small (5-19)	18	42	305	405	1072	**3004**
	Medium (20-99)	39	112	201	121	316	
	Large (100 or more)	77	26	120	25	125	
Grodnenskaya	Small (5-19)	18	42	287	398	824	**2490**
	Medium (20-99)	41	49	146	94	300	
	Large (100 or more)	71	13	116	26	65	
Vitebskaya	Small (5-19)	13	23	198	336	682	**2079**
	Medium (20-99)	27	29	186	83	230	
	Large (100 or more)	58	18	82	28	86	
Total		**967**	**739**	**6129**	**4348**	**15722**	**27905**

Weak Universe Estimates – Fresh:

		Food	**Garments**	**Other Manufacturing**	**Retail**	**Other Services**	**Grand Total**
Minsk	Small (5-19)	54	110	1228	970	5258	**11067**
	Medium (20-99)	37	76	565	333	1678	
	Large (100 or more)	28	17	223	101	389	
Minskaya	Small (5-19)	25	29	433	377	1280	**3437**
	Medium (20-99)	60	34	277	66	415	
	Large (100 or more)	123	12	153	12	141	
Gomelskaya	Small (5-19)	9	15	264	399	807	**2395**
	Medium (20-99)	28	15	156	94	277	
	Large (100 or more)	57	13	118	34	109	
Mogilevskaya	Small (5-19)	49	18	461	276	921	**3433**

	Medium (20-99)	83	36	454	133	634	
	Large (100 or more)	52	10	156	37	113	
Brestskaya	Small (5-19)	18	42	305	405	1072	**3004**
	Medium (20-99)	39	112	201	121	316	
	Large (100 or more)	77	26	120	25	125	
Grodnenskaya	Small (5-19)	18	42	287	398	824	**2490**
	Medium (20-99)	41	49	146	94	300	
	Large (100 or more)	71	13	116	26	65	
Vitebskaya	Small (5-19)	13	23	198	336	682	**2079**
	Medium (20-99)	27	29	186	83	230	
	Large (100 or more)	58	18	82	28	86	
Total		**967**	**739**	**6129**	**4348**	**15722**	**27905**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

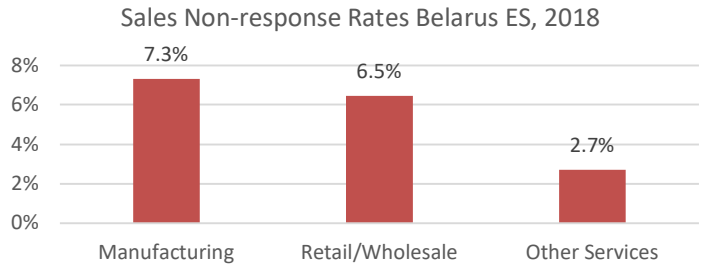
A.4.4. Non-Response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

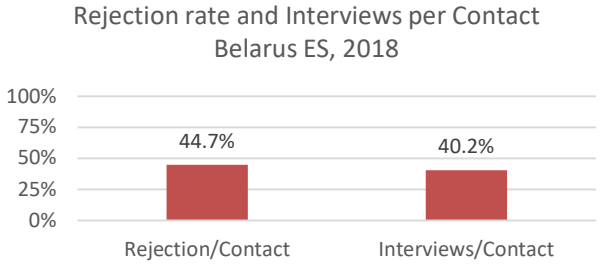
Item non-response was addressed by two strategies:

c) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).

d) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.40.[11] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.45.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Belarus. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[11] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.4.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Center for Sociological and Political Research of Belarusian State University (CSPR BSU) Region: Republic of Belarus Membership of international organizations: Center for Sociological and Political Research of Belarusian State University is an associate partner of the Foundation European Values Systems Study Group, Tilburg, the Netherlands; Professor David Rotman, director of CSPR BSU is a Principal Investigator for the World Values Survey (WVS) program in Belarus, and a member of the Scientific Advisory Committee of WVS; CSPR BSU is a national collaborator of the Comparative Study of Electoral Systems (CSES) program; CSPR BSU is a national partner of the 'Eurasia Barometer' a non-commercial non-governmental international social survey organization headquartered at the Institute for Comparative Survey Research, Vienna, Austria. Activities since: 1996
Enumerators involved:	Enumerators: 56 Recruiters: 14. Four most experienced employees of the CSPR BSU simultaneously performed the functions of recruiter and interviewer. (Please clarify if there where any enumerators doing part of the recruitment)
Other staff involved:	Fieldwork Coordinators: 11 regional supervisors Editing: 1 Data Entry: 5 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	Komlev-Info
Year:	June 2018
Comments on the quality of sample frame:	The quality of the sample frame was generally good although it did contain some out of date information, including businesses that were no longer in operation and the number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: There are no large cities in Minsk region, where privately-owned enterprises are concentrated, as a rule. This feature is due to the fact that the city of Minsk city is singled out as a separate territorial-administrative unit in Belarus. This aspect distinguishes Minsk region from all the others. This created additional logistical difficulties during the field work. The Minsk region occupies a fairly large area and settlements are quite distant from each other. Public transport allows travel to these settlements only one or two times a day. This made it difficult to agree on the timing of interviews with the respondents.
Comments on the response rate:	As one can see from the available data, almost half of the heads of enterprises that were asked to participate in the study gave their consent and were interviewed. This is a good response rate for the Republic of Belarus.

Comments on the sample design:	The subgroups 'Food' and 'Garments' were included for the first time in the manufacturing sector the sample frame that was used in BEEPS wave VI in Belarus. This created certain difficulties for recruiting. Private limited companies and foreign joint-ventures are more common among these companies. It was often the case that several managers had to agree to participation before and interview could be arranged. The activities of all the enterprises in Food subgroup are regulated by sanitary and hygiene standards, which entail a number of inspections carried out regularly by the government agencies. It seems that this means CEOs of such enterprises were less inclined to participated.
Other comments:	No

Fieldwork

Date of Fieldwork	16 October 2018 to 26 April 2019
Country	Belarus
Number of interviews	600
Problems found during fieldwork:	Sample frame was not fully up to date (see above). The interview length meant that many business executives were reluctant to take part and recruiters had to work hard to convince them to participate. Some managers indicated that they were not allowed to participate in surveys concerning the activities of the enterprise, citing the terms of the contract, which included the clause - a trade secret.
Other observations:	The general attitude of the respondents to the survey was quite positive. Even refusals were mostly polite and tactful.

Questionnaires

Problems for the understanding of questions (indicate question number)	D.2, N.3, N.2e1, N.7
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	About 30% of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	No
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	During the fieldwork period a fairly calm general political and economic situation was observed in the Republic of Belarus. In the World Bank's 'Doing Business 2019 rating' Belarus has the 37th position among 190 countries. Belarus has risen to 38th place in the UN ranking in the level of e-government development (United Nations E-Government Survey 2018). The country moved up 11 positions compared with the 2016 results. The ranking includes 193 countries. According to the report of the United Nations Children's Fund, Belarus has entered the top 10 countries in the world with the

	lowest infant mortality rate, with a mortality rate of 1 out of 667 babies.
Relevant country events occurred during fieldwork:	In October 2018, over 160 delegates from 40 countries gathered at a high-level international conference on combating terrorism in the digital age. It was held under the auspices of the OSCE. At the end of October and early November 2018, a meeting of the Main Group of the Munich Security Conference was held in Minsk. The President of the Republic of Belarus A.G. Lukashenko invited the European elites and businesses to cooperate more closely with Belarus, and offered to make Eastern Europe a cross-border belt of stability and cooperation. The Global Entrepreneurship Week was held in Belarus from 12 November to 18 November 18, 2018. It was attended by businessmen, investors, aspiring businessmen, international experts, representatives of ministries and departments of Belarus. From 18 to 24 March 2019 the Union of Legal Entities "The Republican Confederation of Entrepreneurship" together with the Ministry of Economy, the Department for Entrepreneurship, the Belarusian Foundation for Financial Support for Entrepreneurship and regional business associations held the IV Week of Belarusian Entrepreneurship. This event was held for the fourth year successively, becoming a traditional and significant event in the economic and social life of Belarus.
Other aspects:	No

A.5 Bosnia and Herzegovina

A.5.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Bosnia and Herzegovina 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments was provided by LRC BIS – Business Intelligence System. The establishments in the listing are all registered through court registration with the Municipal Court.

Regional stratification was done across five regions: Bosna Region; Hercegovina Region; Sarajevo Region; Republika Srpska; Distrikt Brcko. For the purposes of achieving the thresholds for representativeness, the ES indicators are calculated with some regions combined. In particular, Bosna and Hercegovina regions are combined, as well as Republika Srpska and Distrikt Brcko.

Regions (official)	**Grouping used for stratification purposes in BEEPS VI**
Bihac region	Bosna region
Tuzla region	
Srednja Bosna region	
Hercegovina region	Hercegovina region (Herzegovina-Neretva, West Herzegovina)
Sarajevo region	Sarajevo region
Sjever Republika Srpska	Republika Srpska
Istok Republika Srpska	
Distrikt Brcko	Distrikt Brcko

Bosnia and Herzegovina ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	**Retail**	**Other Services**	**Grand Total**
Bosna Region	Small (5-19)	621	483	1025	**3131**
	Medium (20-99)	340	115	363	

	Large (100 or more)	132	14	38	
Hercegovina Region	Small (5-19)	209	169	439	**1135**
	Medium (20-99)	75	40	150	
	Large (100 or more)	16	4	33	
Sarajevo Region	Small (5-19)	142	159	733	**1490**
	Medium (20-99)	76	55	225	
	Large (100 or more)	27	24	49	
Republika Srpska	Small (5-19)	515	309	928	**2582**
	Medium (20-99)	275	75	312	
	Large (100 or more)	94	20	54	
Distrikt Brcko	Size unknown	219	948	982	**2149**
		2741	**2415**	**5331**	**10487**

Source: World Bank and LRC BIS – Business Intelligence System

Bosnia and Herzegovina Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	19	19	22	**103**
	Medium (20-99)	14	9	9	
	Large (100 or more)	6	3	2	
Hercegovina Region	Small (5-19)	9	10	7	**41**
	Medium (20-99)	4	5	2	
	Large (100 or more)	2	1	1	
Sarajevo Region	Small (5-19)	6	9	11	**55**
	Medium (20-99)	5	10	5	
	Large (100 or more)	2	4	3	
Republika Srpska	Small (5-19)	19	20	25	**114**
	Medium (20-99)	17	8	10	
	Large (100 or more)	5	6	4	
Distrikt Brcko	Size unknown	9	16	22	**47**
Total		**117**	**120**	**123**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	4	3	7	**32**
	Medium (20-99)	3	3	3	
	Large (100 or more)	3	3	3	
Hercegovina Region	Small (5-19)	3	3	3	**26**
	Medium (20-99)	3	3	3	
	Large (100 or more)	4	1	3	
Sarajevo Region	Small (5-19)	3	4	8	**76**
	Medium (20-99)	14	12	8	
	Large (100 or more)	8	6	13	
Republika Srpska	Small (5-19)	4	3	6	**31**
	Medium (20-99)	3	3	3	
	Large (100 or more)	3	3	3	
Distrikt Brcko	Size unknown	3	6	6	**15**
Total		**58**	**53**	**69**	**180**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	5	5	5	**38**
	Medium (20-99)	8	4	2	
	Large (100 or more)	5	2	2	
Hercegovina Region	Small (5-19)	4	5	2	**24**
	Medium (20-99)	3	4	2	
	Large (100 or more)	2	1	1	
Sarajevo Region	Small (5-19)	5	7	9	**44**
	Medium (20-99)	4	8	4	
	Large (100 or more)	2	3	2	
Republika Srpska	Small (5-19)	6	4	7	**49**
	Medium (20-99)	12	6	2	
	Large (100 or more)	4	5	3	
Distrikt Brcko	Size unknown	2	13	10	**25**
Total		**62**	**67**	**51**	**180**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 15.9% (147 out of 927 establishments).[12]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	9	12	12	**78**
	Medium (20-99)	10	11	5	
	Large (100 or more)	10	4	5	
Hercegovina Region	Small (5-19)	8	8	6	**49**
	Medium (20-99)	6	0	3	
	Large (100 or more)	6	0	4	
	Medium and Large (20+)	0	8	0	
Sarajevo Region	Small (5-19)	7	11	14	**113**
	Medium (20-99)	17	21	11	
	Large (100 or more)	10	6	16	
Republika Srpska	Small (5-19)	12	9	18	**89**
	Medium (20-99)	12	9	8	
	Large (100 or more)	10	6	5	
Distrikt Brcko	All sizes	4	10	19	**33**
Total		**121**	**115**	**126**	**362**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	5	8	5	**37**
	Medium (20-99)	6	5	2	
	Large (100 or more)	2	2	2	
	Small (5-19)	5	5	3	**22**

[12] Based on out of target and ineligible contacts.

Hercegovina Region	Medium (20-99)	3	0	0	
	Large (100 or more)	1	0	1	
	Medium and Large (20+)	0	4	0	
Sarajevo Region	Small (5-19)	4	3	6	**24**
	Medium (20-99)	1	5	2	
	Large (100 or more)	1	0	2	
Republika Srpska	Small (5-19)	8	6	12	**48**
	Medium (20-99)	9	3	5	
	Large (100 or more)	1	2	2	
Distrikt Brcko	All sizes	2	5	13	**20**
Total		**48**	**48**	**55**	**151**

A.5.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
424	**Eligible**	1. Eligible establishment (Correct name and address)	399
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	10
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	11
298	**Screener refusal**	13. Refuses to answer the screener	298
147	**Ineligible**	5. The establishment has less than 5 permanent full time employees	16
		616. The firm discontinued businesses - (Establishment went bankrupt)	8
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	1
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	4
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	34
		621. The firm discontinued businesses - (Other)	71
		71. Ineligible legal status: not a business, but private household	2
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	1
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	12
0	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
58	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	54
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0

		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	4
927	**Total contacted**		

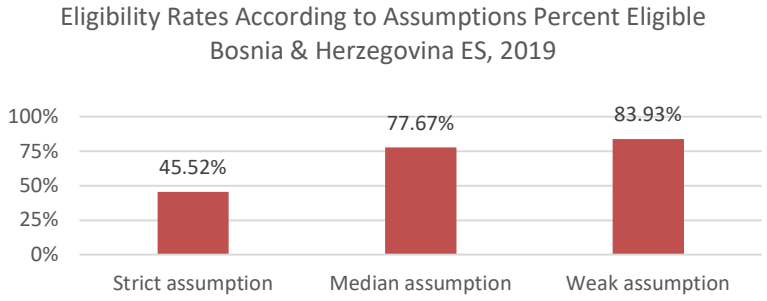
Response Outcomes: Bosnia and Herzegovina ES 2019

Target and totals	Sample target	360
	Sample target completion rate	100.6 %
	Total contacts available in frame	10487
	Total contacts issued	1041
	Total contacts contacted	927
Screening phase	Screening in process	0
	Eligibles	422
	Screener refusal	298
	Ineligible + out of target	149
	Unobtainable	58
Interview phase (only if eligible)	Complete interviews without extra module	22
	Complete interviews with extra module	340
	Eligible in process + incomplete interviews	0
	Interview refusal	60
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	32.1%
	Ineligible + out of target rate	16.1%
	Unobtainable rate	6.3%
	Interview conversion rate	39.1%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	6.5%

A.5.3. Universe estimates

Universe estimates for the number of establishments in each cell in Bosnia and Herzegovina were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Bosnia and Herzegovina were produced for the strict, weak and median eligibility

definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	350	238	541	**1661**
	Medium (20-99)	191	57	191	
	Large (100 or more)	68	6	18	
Hercegovina Region	Small (5-19)	100	71	197	**508**
	Medium (20-99)	36	0	67	
	Large (100 or more)	7	0	13	
	Medium and Large (20+)	0	18	0	
Sarajevo Region	Small (5-19)	76	75	370	**749**
	Medium (20-99)	41	27	113	
	Large (100 or more)	13	10	23	
Republika Srpska	Small (5-19)	273	144	462	**1293**
	Medium (20-99)	146	35	155	
	Large (100 or more)	45	8	24	
Distrikt Brcko	All sizes	18	68	75	**161**
Total		**1364**	**757**	**2251**	**4373**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	561	402	866	**2849**
	Medium (20-99)	365	113	364	
	Large (100 or more)	130	13	35	
Hercegovina Region	Small (5-19)	169	126	333	**909**
	Medium (20-99)	72	0	135	
	Large (100 or more)	14	0	27	
	Medium and Large (20+)	0	33	0	
Sarajevo Region	Small (5-19)	122	125	587	**1267**
	Medium (20-99)	77	52	214	
	Large (100 or more)	25	21	44	
Republika Srpska	Small (5-19)	462	255	779	**2334**
	Medium (20-99)	293	74	311	
	Large (100 or more)	92	18	49	
Distrikt Brcko	All sizes	37	148	156	**342**
Total		**2420**	**1380**	**3901**	**7701**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Bosna Region	Small (5-19)	638	451	940	**3117**
	Medium (20-99)	393	121	374	
	Large (100 or more)	149	14	38	
Hercegovina Region	Small (5-19)	208	153	390	**1080**
	Medium (20-99)	84	0	150	
	Large (100 or more)	17	0	32	
	Medium and Large (20+)	0	44	0	
Sarajevo Region	Small (5-19)	131	133	604	**1302**
	Medium (20-99)	79	52	208	
	Large (100 or more)	27	22	45	
Republika Srpska	Small (5-19)	522	284	839	**2530**
	Medium (20-99)	313	78	317	

	Large (100 or more)	104	20	53	
Distrikt Brcko	All sizes	38	149	152	**339**
Total		**2704**	**1522**	**4144**	**8368**

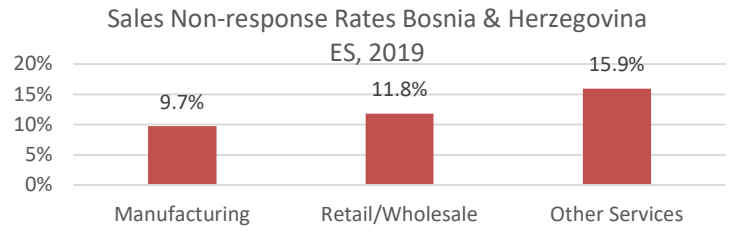
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.5.4. Non-response

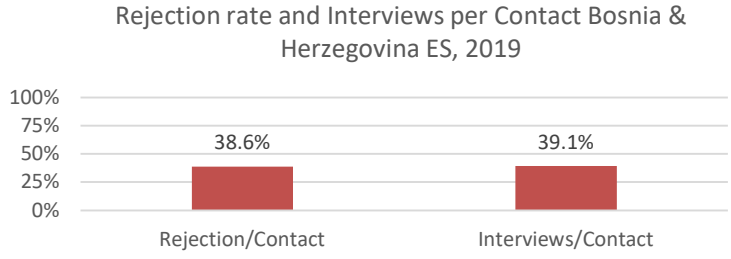
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.39.[13] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.39.



[13] The estimate is based on the total no. of firms contacted including ineligible establishments.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Bosnia and Herzegovina. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.5.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Bosnia and Herzegovina Region: Bosnia and Herzegovina Membership of international organizations: Esomar Activities since: 2002
Enumerators involved:	Enumerators: 27 Recruiters: 2
Other staff involved:	Fieldwork Coordinators: 6 regional supervisors Editing: 0 Data Entry: N/A Data Processing: Ipsos was responsible for all data processing

Sampling frame

Characteristic of sample frame used:	Electronic data base
Source:	Database of all balance sheets of all companies in BiH, provider: LRC BIS – Business Intelligence System (http://www.lrcbh.com)
Year:	June 2018
Comments on the quality of sample frame:	The quality of the sample frame was generally good, although it did contain some out-of-date information, including businesses that were no longer in operation and the number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	The most difficult recruiting region was Brcko District because it is mostly an open market with small businesses closing quickly for unknown reasons. There were many non-existent numbers and addresses where we couldn't find the listed businesses.
Comments on the response rate:	As one can see from the available data, almost half of the heads of enterprises that were asked to participate in the study gave their consent and were interviewed. This is a good response rate for Bosnia and Herzegovina.
Comments on the sample design:	No comments.
Other comments:	No other comments.

Fieldwork

Date of Fieldwork	3 January, 2019 to 13 September, 2019.
Country	Bosnia and Herzegovina
Number of interviews	364
Problems found during fieldwork:	Problems that were encountered were to do with outdated sample frame which meant that many businesses were without phone numbers, names written incorrectly and did not contain emails. The interview length meant that many business executives were

	reluctant to take part and recruiters had to work hard to convince them to participate. Some respondents refused to answer to some questions in section N, section K, section L by deciding not to open business reports and provide answers based on their estimations.
Other observations:	The general attitude of the respondents to the survey was quite positive. Even refusals were mostly polite and tactful.

Questionnaires

Problems for the understanding of questions (indicate question number)	D.2, N.3, N.2e1, N.7, C8, C17
Problems found in the navigability of –questionnaires (for example, skip patterns).	Some respondents fear data misuse, so they refuse to provide accurate information. Finance questions are sensitive and 10-15% of respondents refused to answer.
Comments on questionnaires length:	About 20-30% of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	Since General elections in October 2018 till the end of project, the government was not established. The country is in a deep political and economic crisis, but nothing affected the fieldwork.
Relevant country events occurred during fieldwork:	The event that affected fieldwork in Brcko District is the fire at Arizona Market, where most of the sample companies are located.
Other aspects:	No

A.6 Bulgaria

A.6.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 293 firms from the Bulgaria 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from the Bulgaria National Statistics Institute 2016 was used.

Regional stratification for the Bulgaria ES was done across six regions: Severozapaden, Severen Tsentralen, Severoiztochen, Yugoiztochen, Yugozapaden and Yuzhen Tsentralen.

NUTS-2 regions	**NUTS-3 regions**	**Grouping to be used for stratification purposes in BEEPS VI**
Vidin Province	Severozapaden (Northwestern)	Severozapaden
Montana Province		
Vratsa Province		

Pleven Province		
Lovech Province		
Veliko Tarnovo Province	Severen Tsentralen (Northern Central)	Severen Tsentralen
Gabrovo Province		
Ruse Province		
Razgrad Province		
Silistra Province		
Varna Province	Severoiztochen (Northeastern)	Severoiztochen
Dobrich Province		
Shumen Province		
Targovishte Province		
Burgas Province	Yugoiztochen (Southeastern)	Yugoiztochen
Sliven Province		
Yambol Province		
Stara Zagora Province		
Sofia City	Yugozapaden (Southwestern)	Yugozapaden
Sofia Province		
Blagoevgrad Province		
Pemik Province		
Kyustendil Province		
Plovdiv Province	Yuzhen Tsentralen (Southern Central)	Yuzhen Tsentralen
Haskovo Province		
Pazardzhik Province		
Smolyan Province		
Kardzhali Province		

Bulgaria ES Sample Frame (Fresh and Panel)

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	195	25	463	899	1453	**3945**
	Medium (20-99)	80	17	280	112	283	
	Large (100 or more)	21	10	78	6	23	
Severen Tsentralen	Small (5-19)	219	41	657	970	1925	**5110**
	Medium (20-99)	110	31	374	126	435	
	Large (100 or more)	30	15	113	12	52	
Severoiztochen	Small (5-19)	220	20	606	1277	2705	**6384**
	Medium (20-99)	91	14	297	253	712	
	Large (100 or more)	19	0	59	22	89	
Yugoiztochen	Small (5-19)	273	30	686	1389	3219	**7160**
	Medium (20-99)	119	34	286	190	723	
	Large (100 or more)	28	14	68	18	83	
Yugozapaden	Small (5-19)	461	74	1800	3356	8929	**19183**
	Medium (20-99)	176	43	862	530	2266	
	Large (100 or more)	44	10	199	72	361	
Yuzhen Tsentralen	Small (5-19)	385	80	1639	1800	3864	**10172**
	Medium (20-99)	210	49	724	217	823	
	Large (100 or more)	45	21	200	24	91	
		2726	**528**	**9391**	**11273**	**28036**	**51954**

Source: World Bank and Bulgaria National Statistics Institute 2016

Bulgaria Sample Frame (Panel)

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	1	1	6	4	6	**31**
	Medium (20-99)	0	0	3	3	0	

	Large (100 or more)	0	1	4	1	1	
Severen Tsentralen	Small (5-19)	0	1	4	8	7	**33**
	Medium (20-99)	0	1	5	2	2	
	Large (100 or more)	0	0	2	0	1	
Severoiztochen	Small (5-19)	0	2	6	6	9	**42**
	Medium (20-99)	0	1	5	2	4	
	Large (100 or more)	1	0	1	2	3	
Yugoiztochen	Small (5-19)	3	0	4	8	9	**39**
	Medium (20-99)	2	0	4	2	2	
	Large (100 or more)	0	1	1	1	2	
Yugozapaden	Small (5-19)	1	3	9	13	30	**91**
	Medium (20-99)	2	0	6	3	14	
	Large (100 or more)	1	0	3	1	5	
Yuzhen Tsentralen	Small (5-19)	0	1	10	12	10	**57**
	Medium (20-99)	1	1	6	2	6	
	Large (100 or more)	0	1	4	1	2	
		12	**14**	**83**	**71**	**113**	**293**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	7	6	3	6	3	**95**
	Medium (20-99)	19	4	3	10	3	
	Large (100 or more)	5	3	15	2	6	
Severen Tsentralen	Small (5-19)	3	10	3	3	4	**92**
	Medium (20-99)	14	8	3	4	3	
	Large (100 or more)	8	4	11	3	11	
Severoiztochen	Small (5-19)	3	5	3	4	6	**86**
	Medium (20-99)	14	4	3	7	3	
	Large (100 or more)	5	0	12	6	11	
Yugoiztochen	Small (5-19)	3	8	3	3	7	**89**
	Medium (20-99)	11	9	3	3	3	
	Large (100 or more)	7	4	11	5	9	
Yugozapaden	Small (5-19)	3	3	4	7	18	**71**
	Medium (20-99)	3	3	3	3	5	
	Large (100 or more)	7	3	3	3	3	
Yuzhen Tsentralen	Small (5-19)	3	16	4	4	8	**87**
	Medium (20-99)	3	12	3	3	3	
	Large (100 or more)	11	5	3	6	3	
		129	**107**	**93**	**82**	**109**	**520**

Original Sample Design (Panel)

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	1	1	5	3	5	**25**
	Medium (20-99)	0	0	2	2	0	
	Large (100 or more)	0	1	3	1	1	
	Small (5-19)	0	1	3	6	6	**28**

Severen Tsentralen	Medium (20-99)	0	1	4	2	2	
	Large (100 or more)	0	0	2	0	1	
Severoiztochen	Small (5-19)	0	2	4	5	7	**34**
	Medium (20-99)	0	1	4	2	3	
	Large (100 or more)	1	0	1	2	2	
Yugoiztochen	Small (5-19)	2	0	2	6	7	**31**
	Medium (20-99)	2	0	3	2	2	
	Large (100 or more)	0	1	1	1	2	
Yugozapaden	Small (5-19)	1	2	2	10	18	**49**
	Medium (20-99)	2	0	2	2	2	
	Large (100 or more)	1	0	2	1	4	
Yuzhen Tsentralen	Small (5-19)	0	1	2	10	5	**33**
	Medium (20-99)	1	1	2	2	2	
	Large (100 or more)	0	1	3	1	2	
		11	**13**	**47**	**58**	**71**	**200**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 5.2% (358 out of 6881 establishments)14.

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	10	2	13	23	18	**140**
	Medium (20-99)	10	4	4	14	10	
	Large (100 or more)	5	4	17	1	5	
Severen Tsentralen	Small (5-19)	6	5	8	21	3	**94**
	Medium (20-99)	5	2	11	0	8	
	Large (100 or more)	4	4	7	0	6	
	Medium and Large (20+)	0	0	0	4	0	
Severoiztochen	Small (5-19)	4	5	7	7	20	**123**
	Medium (20-99)	14	2	8	10	6	
	Large (100 or more)	5	0	15	5	15	
Yugoiztochen	Small (5-19)	9	6	27	18	12	**173**
	Medium (20-99)	14	10	7	8	14	
	Large (100 or more)	7	5	15	6	15	
Yugozapaden	Small (5-19)	15	0	34	5	0	**99**
	Medium (20-99)	5	0	11	0	0	
	Large (100 or more)	2	0	8	0	6	
	Medium and Large (20+)	0	0	0	3	0	
	Small, Medium and Large (5+)	0	1	0	0	0	
	Small and Medium (5-99)	0	0	0	0	9	

[14] Based on out of target and ineligible contacts

Yuzhen Tsentralen	Small (5-19)	3	16	6	13	23	
	Medium (20-99)	13	12	5	6	9	**143**
	Large (100 or more)	10	2	11	6	8	
		141	**80**	**214**	**150**	**187**	**772**

Achieved Interviews (Panel)

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	1	0	6	1	3	**17**
	Medium (20-99)	0	0	1	2	0	
	Large (100 or more)	0	0	1	1	1	
Severen Tsentralen	Small (5-19)	0	1	1	3	1	**8**
	Medium (20-99)	0	0	1	0	0	
	Medium and Large (20+)	0	0	0	1	0	
Severoiztochen	Small (5-19)	0	1	3	3	5	**21**
	Medium (20-99)	0	0	3	2	2	
	Large (100 or more)	1	0	0	0	1	
Yugoiztochen	Small (5-19)	1	0	1	6	5	**20**
	Medium (20-99)	1	0	1	0	2	
	Large (100 or more)	0	1	0	0	2	
Yugozapaden	Medium (20-99)	1	0	0	0	0	**4**
	Medium and Large (20+)	0	0	0	1	0	
	Small and Medium (5-99)	0	0	0	0	2	
Yuzhen Tsentralen	Small (5-19)	0	1	2	6	5	**21**
	Medium (20-99)	1	1	2	1	1	
	Large (100 or more)	0	0	1	0	0	
		6	**5**	**23**	**27**	**30**	**91**

A.6.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
1497	**Eligible**	1. Eligible establishment (Correct name and address)	1458
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	7
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	6
		4. Eligible establishment (Moved and traced)	23
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	3
4645	**Screener refusal**	13. Refuses to answer the screener	4645
271	**Ineligible**	5. The establishment has less than 5 permanent full time employees	14
		616. The firm discontinued businesses - (Establishment went bankrupt)	57
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	10
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	26

		620. The firm discontinued businesses - (It was impossible to determine for what reason)	48
		621. The firm discontinued businesses - (Other)	16
		71. Ineligible legal status: not a business, but private household	11
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	49
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	40
87	**Out of Target**	151. Out of target - outside the covered regions	44
		152. Out of target - moved abroad	4
		153. Out of target - Not registered with Statistical Authority	9
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	2
		156. Duplicated firm within the sample	25
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	3
381	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	180
		92. Line out of order	15
		93. No tone	33
		94. Phone number does not exist	90
		10. Answering machine	37
		11. Fax line- data line	4
		12. Wrong address/ moved away and could not get the new references	22
6881	**Total contacted**		

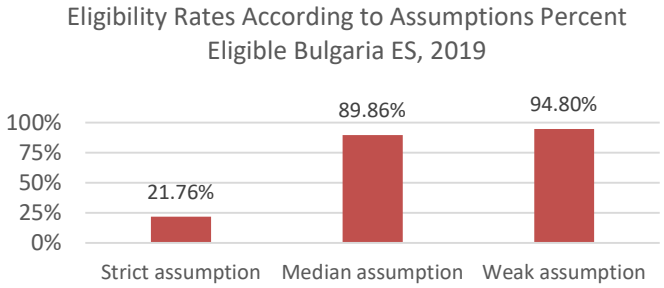
Response Outcomes: Bulgaria ES 2019

Target and totals	Sample target	720
	Sample target completion rate	107.2%
	Total contacts available in frame	8671
	Total contacts issued	6988
	Total contacts contacted	6881
Screening phase	Screening in process	0
	Eligibles	1497
	Screener refusal	4645
	Ineligible + out of target	358
	Unobtainable	381
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	772
	Eligible in process + incomplete interviews	0
	Interview refusal	725
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	67.5%
	Ineligible + out of target rate	5.2%
	Unobtainable rate	5.5%
	Interview conversion rate	11.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	10.5%

A.6.3. Universe estimates

Universe estimates for the number of establishments in each cell in Bulgaria were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Bulgaria were produced for the strict, weak and median eligibility definitions. Tables below shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	46	7	120	153	330	**920**
	Medium (20-99)	23	6	90	24	80	
	Large (100 or more)	5	4	22	1	7	
Severen Tsentralen	Small (5-19)	23	5	70	69	181	**498**
	Medium (20-99)	13	5	50	0	51	
	Large (100 or more)	4	4	13	0	6	
	Medium and Large (20+)	0	0	0	4	0	
Severoiztochen	Small (5-19)	71	8	215	298	841	**2021**
	Medium (20-99)	36	7	131	73	275	
	Large (100 or more)	7	0	23	6	31	
Yugoiztochen	Small (5-19)	100	16	277	368	1139	**2585**
	Medium (20-99)	54	19	144	63	318	
	Large (100 or more)	12	7	30	6	32	
Yugozapaden	Small (5-19)	68	0	296	362	0	**1936**
	Medium (20-99)	32	0	176	0	0	
	Large (100 or more)	8	0	36	0	60	
	Medium and Large (20+)	0	0	0	12	0	
	Small, Medium and Large (5+)	0	10	0	0	0	
	Small and Medium (5-99)	0	0	0	0	876	
Yuzhen Tsentralen	Small (5-19)	175	44	822	593	1698	**4672**
	Medium (20-99)	118	33	451	89	449	
	Large (100 or more)	23	13	111	9	44	
		818	**188**	**3080**	**2129**	**6418**	**12632**

Median Universe Estimates – Fresh:

		Food	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Severozapaden	Small (5-19)	163	21	379	721	1217	**3318**

	Medium (20-99)	72	15	248	97	257	
	Large (100 or more)	19	9	70	5	24	
Severen Tsentralen	Small (5-19)	205	38	562	814	1687	**4524**
	Medium (20-99)	106	29	346	0	413	
	Large (100 or more)	29	14	107	0	50	
	Medium and Large (20+)	0	0	0	125	0	
Severoiztochen	Small (5-19)	184	16	497	1027	2273	**5398**
	Medium (20-99)	83	12	264	220	648	
	Large (100 or more)	18	0	53	20	82	
Yugoiztochen	Small (5-19)	247	32	607	1205	2918	**6528**
	Medium (20-99)	116	33	274	178	709	
	Large (100 or more)	29	14	66	17	83	
Yugozapaden	Small (5-19)	404	0	1543	2821	0	**17142**
	Medium (20-99)	167	0	800	0	0	
	Large (100 or more)	44	0	188	0	365	
	Medium and Large (20+)	0	0	0	562	0	
	Small, Medium and Large (5+)	0	126	0	0	0	
	Small and Medium (5-99)	0	0	0	0	10123	
Yuzhen Tsentralen	Small (5-19)	355	72	1481	1595	3576	**9459**
	Medium (20-99)	210	48	708	208	824	
	Large (100 or more)	46	21	199	23	93	
		2497	**499**	**8393**	**9640**	**25340**	**46369**

Weak Universe Estimates – Fresh:

		Food	**Machinery and Equipment**	**Other Manufacturing**	**Retail**	**Other Services**	**Grand Total**
Severozapaden	Small (5-19)	177	23	412	807	1311	**3566**
	Medium (20-99)	74	15	255	103	261	
	Large (100 or more)	19	9	70	6	24	
Severen Tsentralen	Small (5-19)	225	41	618	921	1837	**4902**
	Medium (20-99)	110	29	360	0	425	
	Large (100 or more)	29	14	107	0	50	
	Medium and Large (20+)	0	0	0	133	0	
Severoiztochen	Small (5-19)	201	18	543	1157	2461	**5822**
	Medium (20-99)	85	13	273	235	663	
	Large (100 or more)	18	0	53	20	82	
Yugoiztochen	Small (5-19)	258	33	636	1300	3026	**6748**
	Medium (20-99)	115	32	271	182	696	
	Large (100 or more)	28	13	64	17	79	
Yugozapaden	Small (5-19)	442	0	1692	3186	0	**18830**
	Medium (20-99)	173	0	830	0	0	
	Large (100 or more)	45	0	189	0	364	
	Medium and Large (20+)	0	0	0	598	0	
	Small, Medium and Large (5+)	0	135	0	0	0	
	Small and Medium (5-99)	0	0	0	0	11177	
Yuzhen Tsentralen	Small (5-19)	378	76	1579	1751	3776	**9946**
	Medium (20-99)	211	48	714	216	824	
	Large (100 or more)	45	20	195	24	90	
		2632	**519**	**8862**	**10656**	**27146**	**49814**

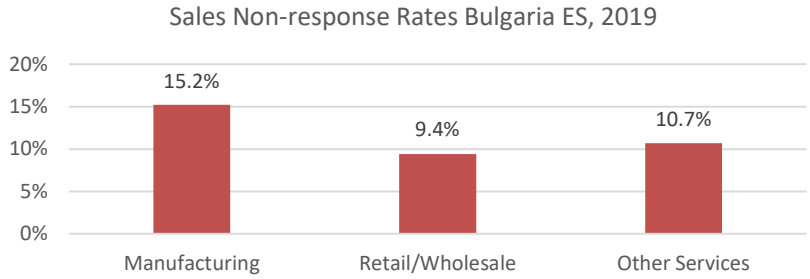
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.6.4. Non-Response

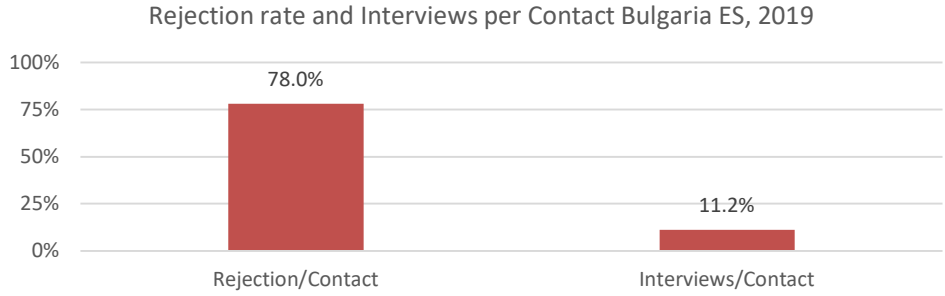
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.11.[15] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.78.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Bulgaria. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.7 Croatia

A.7.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Croatia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Dunn & Bradstreet was used.

[15] The estimate is based on the total no. of firms contacted including ineligible establishments.

Regional stratification for the Croatia ES was done across two regions: Kontinentalna Hrvatska and Jadranska Hrvatska.

Counties (official NUTS-3 regions)	Grouping used for stratification purposes in BEEPS VI
Grad Zagreb	Kontinentalna Hrvatska (Continental Croatia)
Zagrebacka	
Krapinsko-zagorska	
Varazdinska	
Koprivnicko-krizevacka	
Medimurska	
Bjelovarsko-bilogorska	
Viroviticko-podravska	
Pozesko-slavonska	
Brodsko-posavska	
Osjecko-baranjska	
Vukovarsko-srijemska	
Karlovacka	
Sisacko-moslavacka	
Primorsko-goranska	Jadranska Hrvatska (Adriatic Croatia)
Licko-senjska	
Istarska	
Zadarska	
Sibeninsko-kninska	
Splitsko-dalmatinska	
Dubrovacko-neretvanska	

Croatia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	662	842	567	**4368**
	Medium (20-99)	711	377	527	
	Large (100 or more)	321	96	265	
Jadranska Hrvatska	Small (5-19)	178	508	452	**2350**
	Medium (20-99)	429	130	439	
	Large (100 or more)	64	29	121	
Total		**2365**	**1982**	**2371**	**6718**

Source: World Bank and Dunn & Bradstreet

Croatia ES Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	42	42	47	**233**
	Medium (20-99)	31	17	27	
	Large (100 or more)	12	10	5	
Jadranska Hrvatska	Small (5-19)	18	28	32	**127**
	Medium (20-99)	9	10	19	
	Large (100 or more)	5	5	1	
Total		**117**	**112**	**131**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna	Small (5-19)	11	20	14	**127**

Hrvatska	Medium (20-99)	16	4	5	
	Large (100 or more)	20	20	17	
Jadranska Hrvatska	Small (5-19)	3	6	8	**83**
	Medium (20-99)	18	3	8	
	Large (100 or more)	12	20	5	
Total		**80**	**73**	**57**	**210**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	20	20	12	**126**
	Medium (20-99)	18	14	20	
	Large (100 or more)	10	8	4	
Jadranska Hrvatska	Small (5-19)	5	18	13	**64**
	Medium (20-99)	3	3	13	
	Large (100 or more)	4	4	1	
Total		**60**	**67**	**63**	**190**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 18.1% (650 out of 3593 establishments).[16]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	35	32	26	**247**
	Medium (20-99)	35	21	19	
	Large (100 or more)	29	21	29	
Jadranska Hrvatska	Small (5-19)	11	28	22	**157**
	Medium (20-99)	24	15	19	
	Large (100 or more)	18	5	15	
Total		**152**	**122**	**130**	**404**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	13	8	12	**49**
	Medium (20-99)	7	0	4	
	Large (100 or more)	3	2	0	
Jadranska Hrvatska	Small (5-19)	2	2	8	**22**
	Medium (20-99)	0	2	4	
	Large (100 or more)	2	2	0	
Total		**27**	**16**	**28**	**71**

A.7.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
515	**Eligible**	1. Eligible establishment (Correct name and address)	490

[16] Based on out of target and ineligible contacts.

		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	5
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	9
		4. Eligible establishment (Moved and traced)	7
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	4
2180	**Screener refusal**	13. Refuses to answer the screener	2180
337	**Ineligible**	5. The establishment has less than 5 permanent full time employees	61
		616. The firm discontinued businesses - (Establishment went bankrupt)	58
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	12
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	132
		621. The firm discontinued businesses - (Other)	12
		71. Ineligible legal status: not a business, but private household	5
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	5
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	52
313	**Out of Target**	151. Out of target - outside the covered regions	1
		152. Out of target - moved abroad	1
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	68
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	243
248	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	48
		92. Line out of order	22
		93. No tone	10
		94. Phone number does not exist	132
		10. Answering machine	8
		11. Fax line- data line	17
		12. Wrong address/ moved away and could not get the new references	11
3593	**Total contacted**		

Response Outcomes: Croatia ES 2019

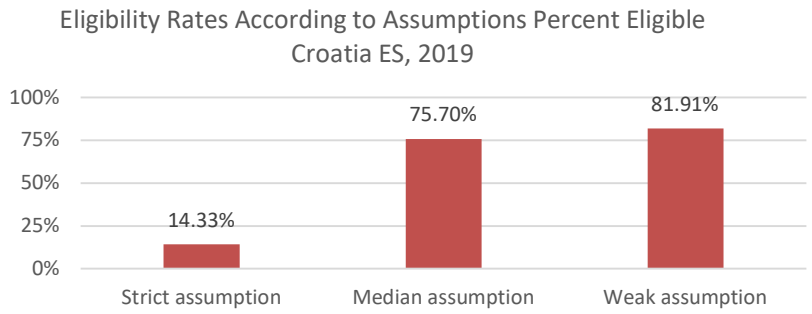
Target and totals	Sample target	400
	Sample target completion rate	101.0%
	Total contacts available in frame	6718
	Total contacts issued	4175

	Total contacts contacted	3593
Screening phase	Screening in process	0
	Eligibles	515
	Screener refusal	2180
	Ineligible + out of target	650
	Unobtainable	248
Interview phase (only if eligible)	Complete interviews without extra module	64
	Complete interviews with extra module	340
	Eligible in process + incomplete interviews	0
	Interview refusal	111
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	60.7%
	Ineligible + out of target rate	18.1%
	Unobtainable rate	6.9%
	Interview conversion rate	11.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	3.1%

A.7.3. Universe estimates

Universe estimates for the number of establishments in each cell in Croatia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Croatia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	267	609	196	**1612**
	Medium (20-99)	136	172	56	
	Large (100 or more)	72	48	56	
Jadranska Hrvatska	Small (5-19)	117	357	169	**921**
	Medium (20-99)	57	101	48	
	Large (100 or more)	18	27	27	
Total		**667**	**1314**	**552**	**2533**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	1636	4198	1375	**10337**
	Medium (20-99)	833	1195	387	
	Large (100 or more)	268	203	242	
Jadranska Hrvatska	Small (5-19)	645	2206	1056	**5404**
	Medium (20-99)	318	626	298	
	Large (100 or more)	49	103	102	
Total		**3749**	**8532**	**3461**	**15741**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Kontinentalna Hrvatska	Small (5-19)	1792	4616	1483	**11297**
	Medium (20-99)	920	1324	421	
	Large (100 or more)	279	212	248	
Jadranska Hrvatska	Small (5-19)	714	2451	1151	**5966**
	Medium (20-99)	354	702	328	
	Large (100 or more)	51	109	106	
Total		**4111**	**9414**	**3737**	**17263**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.7.4. Non-response

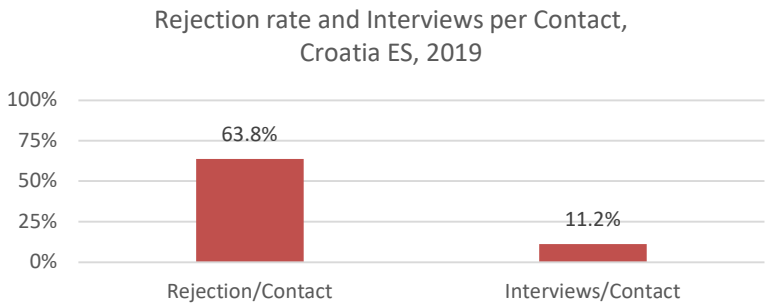
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. For this survey there were zero non-responses for the sales variable, d2. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.

As the following graph shows, the number of interviews per contacted establishments was 0.11.[17] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.64.

[17] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Croatia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.8 Czech Republic

A.8.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 254 firms from the Czech Republic 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Dun and Bradstreet was used.

Regional stratification for the Czech Republic ES was done across four regions: Central comprising Prague (CZ01) and Central Bohemia (CZ02); South comprising Jihozápad (CZ03) and Jihovýchod (CZ06); North comprising Severozápad (CZ04) and Severovýchod (CZ05) and East comprising Moravskoslezsko (CZ08) and Střední Morava (CZ07)).

NUTS-3	**NUTS-2**	**Grouping to be used for stratification purposes in BEEPS VI**
Prague	Prague (CZ01)	Central
Central Bohemian Region	Střední Čechy (Central Bohemia) (CZ02)	
South Bohemian Region	Jihozápad (CZ03)	South
Plzeň Region		
Vysočina Region	Jihovýchod (CZ06)	
South Moravian Region		
Karlovy Vary Region	Severozápad (CZ04)	North
Ústí nad Labem Region		
Liberec Region	Severovýchod (CZ05)	
Hradec Králové Region		
Pardubice Region		
Moravian-Silesian Region	Moravskoslezsko (CZ08)	East
Olomouc Region	Střední Morava (CZ07)	
Zlín Region		

Czech Republic ES Sample Frame (Fresh and Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	332	664	213	1908	2495	8776	**18460**
	Medium (20-99)	162	219	120	707	271	1681	
	Large (100 or more)	62	62	62	272	107	347	
South	Small (5-19)	475	954	246	2281	2551	7114	**17721**
	Medium (20-99)	191	373	181	949	245	1191	
	Large (100 or more)	80	131	124	402	60	173	
North	Small (5-19)	343	929	216	2030	2166	6589	**16013**
	Medium (20-99)	159	314	179	882	244	1076	
	Large (100 or more)	58	88	77	439	40	184	
East	Small (5-19)	356	808	159	1702	1808	4890	**12628**
	Medium (20-99)	131	330	167	648	153	768	
	Large (100 or more)	62	111	62	328	26	119	
		2411	**4983**	**1806**	**12548**	**10166**	**32908**	**64822**

Source: World Bank and Dun & Bradstreet

Czech Republic Sample Frame (Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	0	0	0	8	10	19	**70**
	Medium (20-99)	2	1	2	8	1	9	
	Large (100 or more)	0	0	1	2	5	2	
South	Small (5-19)	2	1	2	5	2	7	**41**
	Medium (20-99)	1	2	0	6	2	3	
	Large (100 or more)	0	3	2	1	0	2	
North	Small (5-19)	1	4	2	9	11	14	**65**
	Medium (20-99)	1	1	3	4	4	3	
	Large (100 or more)	0	1	0	5	0	2	
East	Small (5-19)	2	3	2	7	14	11	**78**
	Medium (20-99)	0	2	3	9	8	10	
	Large (100 or more)	0	0	3	2	0	2	
		9	**18**	**20**	**66**	**57**	**84**	**254**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	9	7	6	3	14	25	**157**
	Medium (20-99)	13	9	11	3	6	3	
	Large (100 or more)	8	6	6	11	14	3	
South	Small (5-19)	6	5	4	3	10	10	**132**
	Medium (20-99)	13	9	13	3	3	3	
	Large (100 or more)	6	12	13	12	4	3	
North	Small (5-19)	8	6	4	3	7	16	**138**
	Medium (20-99)	14	10	12	3	4	3	
	Large (100 or more)	7	12	10	11	5	3	
East	Small (5-19)	10	10	5	5	8	25	**173**
	Medium (20-99)	15	10	11	3	3	3	
	Large (100 or more)	12	19	13	12	6	3	

		121	**115**	**108**	**72**	**84**	**100**	**600**

Original Sample Design (Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	0	0	0	6	8	15	**54**
	Medium (20-99)	2	1	2	6	1	4	
	Large (100 or more)	0	0	1	2	4	2	
South	Small (5-19)	2	1	2	4	2	6	**36**
	Medium (20-99)	1	2	0	5	2	2	
	Large (100 or more)	0	2	2	1	0	2	
North	Small (5-19)	1	3	2	7	9	11	**52**
	Medium (20-99)	1	1	2	3	3	2	
	Large (100 or more)	0	1	0	4	0	2	
East	Small (5-19)	2	2	2	6	11	9	**58**
	Medium (20-99)	0	2	2	7	6	3	
	Large (100 or more)	0	0	2	2	0	2	
		9	**15**	**17**	**53**	**46**	**60**	**200**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 19.1% (3274 out of 17144 establishments).[18]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	10	4	4	6	18	0	**116**
	Medium (20-99)	3	6	5	2	3	0	
	Large (100 or more)	2	2	3	8	4	3	
	Small and Medium (5-99)	0	0	0	0	0	33	
South	Small (5-19)	6	3	4	3	3	17	**90**
	Medium (20-99)	0	8	5	5	0	7	
	Large (100 or more)	0	5	3	11	0	1	
	Medium and Large (20+)	5	0	0	0	4	0	
North	Small (5-19)	7	9	7	8	12	27	**150**
	Medium (20-99)	13	12	13	2	0	7	
	Large (100 or more)	1	4	4	15	0	3	
	Medium and Large (20+)	0	0	0	0	6	0	
East	Small (5-19)	3	10	2	7	10	26	**146**
	Medium (20-99)	9	7	13	4	4	9	
	Large (100 or more)	5	9	10	12	1	5	
		64	**79**	**73**	**83**	**65**	**138**	**502**

Achieved Interviews (Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total

[18] Based on out of target and ineligible contacts.

Central	Small (5-19)	0	0	0	2	2	0	**11**
	Medium (20-99)	1	0	0	0	0	0	
	Large (100 or more)	0	0	0	1	1	0	
	Small and Medium (5-99)	0	0	0	0	0	4	
South	Small (5-19)	2	0	0	0	0	1	**7**
	Medium (20-99)	0	0	0	1	0	1	
	Large (100 or more)	0	1	1	0	0	0	
North	Small (5-19)	1	2	1	3	2	6	**22**
	Medium (20-99)	0	0	1	0	0	1	
	Large (100 or more)	0	1	0	2	0	0	
	Medium and Large (20+)	0	0	0	0	2	0	
East	Small (5-19)	0	1	0	3	1	2	**16**
	Medium (20-99)	0	1	1	2	1	2	
	Large (100 or more)	0	0	2	0	0	0	
		4	**6**	**6**	**14**	**9**	**17**	**56**

A.8.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
1271	**Eligible**	1. Eligible establishment (Correct name and address)	1235
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	4
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	6
		4. Eligible establishment (Moved and traced)	20
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	6
9475	**Screener refusal**	13. Refuses to answer the screener	9475
2907	**Ineligible**	5. The establishment has less than 5 permanent full time employees	1996
		616. The firm discontinued businesses - (Establishment went bankrupt)	62
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	53
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	27
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	194
		621. The firm discontinued businesses - (Other)	131
		71. Ineligible legal status: not a business, but private household	78
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	318
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	48
367	**Out of Target**	151. Out of target - outside the covered regions	8
		152. Out of target - moved abroad	3
		153. Out of target - Not registered with Statistical Authority	26
		154. Out of target - establishment is HQ without production or sales of goods or services	9
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	31
		156. Duplicated firm within the sample	134
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	156

3124	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	1829
		92. Line out of order	18
		93. No tone	8
		94. Phone number does not exist	957
		10. Answering machine	27
		11. Fax line- data line	3
		12. Wrong address/ moved away and could not get the new references	282
17144	**Total contacted**		

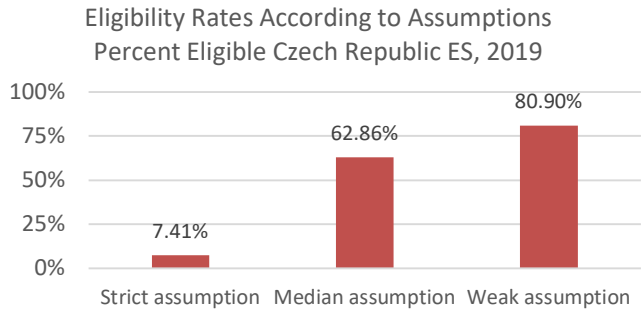
Response Outcomes: Czech Republic ES 2019:

Target and totals	Sample target	480
	Sample target completion rate	104.6%
	Total contacts available in frame	20308
	Total contacts issued	17242
	Total contacts contacted	17144
Screening phase	Screening in process	0
	Eligibles	1271
	Screener refusal	9475
	Ineligible + out of target	3274
	Unobtainable	3124
Interview phase (only if eligible)	Complete interviews without extra module	15
	Complete interviews with extra module	487
	Eligible in process + incomplete interviews	8
	Interview refusal	757
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	55.3%
	Ineligible + out of target rate	19.1%
	Unobtainable rate	18.2%
	Interview conversion rate	2.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	4.4%

A.8.3. Universe estimates

Universe estimates for the number of establishments in each cell in Czech Republic were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Czech Republic were produced for the strict, weak and median eligibility definitions. Tables below

shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	20	39	13	86	68	0	**879**
	Medium (20-99)	13	19	14	54	19	0	
	Large (100 or more)	7	7	7	29	6	35	
	Small and Medium (5-99)	0	0	0	0	0	443	
South	Small (5-19)	21	50	14	107	59	342	**999**
	Medium (20-99)	0	34	21	73	0	138	
	Large (100 or more)	0	17	23	50	0	21	
	Medium and Large (20+)	17	0	0	0	13	0	
North	Small (5-19)	29	81	21	153	83	551	**1575**
	Medium (20-99)	22	53	35	126	0	225	
	Large (100 or more)	10	19	20	87	0	30	
	Medium and Large (20+)	0	0	0	0	29	0	
East	Small (5-19)	50	103	24	173	88	563	**1692**
	Medium (20-99)	29	66	40	122	28	221	
	Large (100 or more)	17	31	27	77	4	30	
		235	**518**	**259**	**1137**	**397**	**2597**	**5144**

Median Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	282	482	139	1165	1648	0	**17116**
	Medium (20-99)	117	145	89	446	278	0	
	Large (100 or more)	39	33	32	160	58	292	
	Small and Medium (5-99)	0	0	0	0	0	11710	
South	Small (5-19)	235	475	112	1112	1091	5439	**11330**
	Medium (20-99)	0	198	107	464	0	1346	
	Large (100 or more)	0	66	76	212	0	135	
	Medium and Large (20+)	115	0	0	0	147	0	
North	Small (5-19)	271	645	142	1328	1290	7278	**14863**
	Medium (20-99)	123	259	145	670	0	1818	
	Large (100 or more)	37	63	55	305	0	160	
	Medium and Large (20+)	0	0	0	0	275	0	
East	Small (5-19)	508	897	177	1646	1490	8183	**17348**
	Medium (20-99)	182	353	183	708	294	1963	
	Large (100 or more)	68	111	83	298	26	178	
		1976	**3727**	**1341**	**8516**	**6596**	**38501**	**60658**

Weak Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	381	673	184	1598	2318	0	**21778**
	Medium (20-99)	146	186	109	564	360	0	
	Large (100 or more)	50	44	40	209	77	366	
	Small and Medium (5-99)	0	0	0	0	0	14472	
South	Small (5-19)	298	622	140	1432	1439	6732	**14007**
	Medium (20-99)	0	238	123	550	0	1533	
	Large (100 or more)	0	82	90	260	0	158	

	Medium and Large (20+)	134	0	0	0	177	0	
North	Small (5-19)	363	892	186	1808	1798	9523	**19399**
	Medium (20-99)	152	330	176	839	0	2190	
	Large (100 or more)	47	82	69	394	0	199	
	Medium and Large (20+)	0	0	0	0	351	0	
East	Small (5-19)	688	1253	235	2263	2099	10820	**22919**
	Medium (20-99)	227	455	223	896	381	2389	
	Large (100 or more)	88	148	105	390	35	223	
		2574	**5004**	**1681**	**11203**	**9035**	**48606**	**78103**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

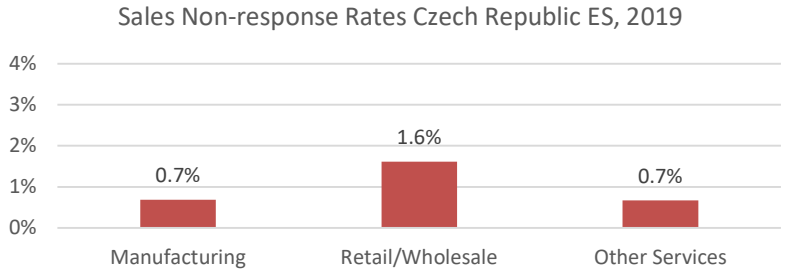
A.8.4. Non-Response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

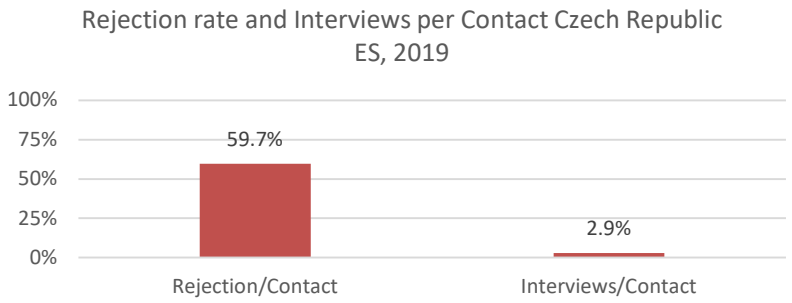
a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).

b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.03.[19] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.59.

[19] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Czech Republic. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.9 Egypt

A.9.1. Sampling structure and implementation

The sample frame, shown in the accompanying Implementation Report Excel file (sheet "Egypt ES Sample Frame") consisted of listings of firms from several sources. For panel firms, the list of 1814 firms from the Egypt 2016 ES was used and for fresh firms (i.e., firms not covered in 2016), firm data from Central Agency for Public Mobilization and Statistics (CAPMAS) and the 2013 Egypt Business census was used.

Regional stratification was done across six regions: Greater Cairo, West Delta, Suez region, Middle and East Delta, Northern Upper Egypt and Southern Upper Egypt.

Egypt Regional Units	**Grouping to be used for stratification purposes in BEEPS VI**
Greater Cairo Regional Unit	Greater Cairo
Alexandria Regional Unit	West Delta
Suez Canal Regional Unit	Suez region
Asyut Regional Unit	Middle and East Delta
Delta Regional Unit	
North Upper Egypt Regional Unit	Northern Upper Egypt
South Upper Egypt Regional Unit	Southern Upper Egypt

Egypt ES Sample Frame (Fresh and Panel Combined)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	561	230	110	53	49	73	143	69	200	60	68	1805	908	183	**7081**
	Medium (20-99)	111	119	30	39	56	109	64	54	72	26	146	579	242	117	
	Large (100 or more)	85	54	6	52	48	61	50	81	46	12	67	129	54	60	
West Delta	Small (5-19)	271	65	32	17	17	27	34	17	68	27	30	478	285	138	**2258**
	Medium (20-99)	39	43	12	23	32	68	30	13	22	9	14	103	59	60	
	Large (100 or more)	31	33	2	22	22	8	17	10	19	8	12	28	7	6	
Suez Region	Small (5-19)	122	6	3	4	6	13	6	3	14	11	9	118	132	96	**712**
	Medium (20-99)	18	4	1	2	2	4	4	2	4	0	7	20	12	15	
	Large (100 or more)	11	29	1	10	3	1	3	4	1	0	3	2	4	2	
Middle and East Delta	Small (5-19)	512	145	10	45	39	56	106	42	105	32	17	473	258	157	**2915**
	Medium (20-99)	103	75	6	26	43	139	29	25	32	11	21	80	16	20	
	Large (100 or more)	42	72	3	18	28	8	32	30	27	6	3	14	2	7	
Northern Upper Egypt	Small (5-19)	370	6	3	12	17	25	24	6	28	7	5	223	181	38	**1288**
	Medium (20-99)	59	6	5	9	9	33	10	9	8	2	7	34	17	18	
	Large (100 or more)	18	10	3	10	14	15	7	15	5	3	8	5	1	3	
Southern Upper Egypt	Small (5-19)	187	5	0	5	10	25	13	5	28	2	1	161	249	34	**896**
	Medium (20-99)	36	0	0	4	8	7	6	3	4	0	4	16	33	9	
	Large (100 or more)	18	2	0	1	0	1	0	1	5	0	1	4	7	1	
Frontier	Small (5-19)	143	2	0	0	0	22	4	1	19	0	2	125	242	23	**788**
	Medium (20-99)	21	1	0	0	1	2	0	0	0	0	4	14	58	4	
	Large (100 or more)	4	0	0	0	0	0	0	0	0	0	4	3	88	1	
		2762	**907**	**227**	**352**	**404**	**697**	**582**	**390**	**707**	**216**	**433**	**4414**	**2855**	**992**	**15938**

Source:World Bank, Central Agency for Public Mobilization and Statistics (CAPMAS) and 2013 Egypt Business Census

Egypt ES Sample Frame (Panel)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	21	10	14	5	3	4	10	1	7	0	21	52	53	10	**650**
	Medium (20-99)	12	11	13	3	12	8	10	2	10	3	41	44	38	29	
	Large (100 or more)	16	16	2	16	14	21	11	12	11	4	22	17	18	23	
West Delta	Small (5-19)	2	6	21	4	7	6	8	2	10	0	8	20	15	2	**287**
	Medium (20-99)	5	10	5	5	14	3	7	3	5	0	2	5	11	8	
	Large (100 or more)	8	10	2	11	12	4	12	7	13	5	6	1	1	1	
Suez Region	Small (5-19)	9	0	3	2	1	10	2	2	4	1	3	10	4	10	**120**
	Medium (20-99)	6	3	0	0	0	2	3	0	1	0	1	4	0	1	
	Large (100 or more)	6	15	1	6	1	1	3	2	1	0	1	0	0	1	
Middle and East Delta	Small (5-19)	16	6	4	7	9	10	15	5	10	1	5	28	8	6	**313**
	Medium (20-99)	11	8	4	5	12	14	4	7	8	1	2	7	2	1	
	Large (100 or more)	9	18	3	5	13	5	15	9	14	2	0	2	2	0	
Northern Upper Egypt	Small (5-19)	13	2	2	7	8	12	5	0	4	1	0	17	6	5	**238**
	Medium (20-99)	13	5	5	7	9	6	6	6	4	2	0	3	2	2	
	Large (100 or more)	6	8	3	10	12	12	7	15	5	3	1	1	0	3	
Southern Upper Egypt	Small (5-19)	6	2	0	3	8	13	5	2	5	0	0	9	13	1	**127**
	Medium (20-99)	16	0	0	3	7	6	2	2	2	0	0	0	7	0	
	Large (100 or more)	9	0	0	0	0	1	0	1	2	0	0	1	1	0	
Frontier	Small (5-19)	15	0	0	0	0	11	0	0	6	0	1	11	12	1	**79**
	Medium (20-99)	15	1	0	0	0	0	0	0	0	0	1	0	2	0	
	Large (100 or more)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
		217	**131**	**82**	**99**	**142**	**149**	**125**	**78**	**122**	**23**	**115**	**232**	**195**	**104**	**1814**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design (Fresh+Panel)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	94	34	43	15	11	13	29	16	40	16	24	121	100	26	**996**
	Medium (20-99)	8	8	22	15	15	21	11	18	10	10	34	57	20	17	
	Large (100 or more)	4	8	4	17	13	13	9	20	8	6	23	5	4	14	
West Delta	Small (5-19)	53	7	24	10	8	5	9	10	11	11	19	46	23	20	**448**
	Medium (20-99)	4	7	9	11	11	14	6	9	5	5	8	4	4	10	
	Large (100 or more)	4	6	2	11	9	4	8	9	7	6	10	3	3	3	
Suez Region	Small (5-19)	18	2	5	9	6	7	5	8	4	7	7	12	19	17	**240**
	Medium (20-99)	4	4	1	7	7	3	4	6	3	2	6	4	2	4	
	Large (100 or more)	4	6	2	9	6	3	4	9	3	1	3	2	2	3	
Middle and East Delta	Small (5-19)	103	47	6	20	20	11	37	20	30	16	12	48	7	22	**640**
	Medium (20-99)	9	20	5	11	17	31	12	12	9	5	11	4	3	4	
	Large (100 or more)	4	12	4	8	12	5	10	12	9	3	2	3	2	2	
Northern Upper Egypt	Small (5-19)	74	3	3	9	8	8	6	1	4	3	2	11	5	6	**276**
	Medium (20-99)	4	4	6	8	7	5	5	7	4	2	2	4	3	3	
	Large (100 or more)	4	4	4	7	8	7	6	10	4	4	4	3	0	4	
Southern Upper Egypt	Small (5-19)	35	3	0	5	9	9	10	4	8	1	1	11	27	12	**200**
	Medium (20-99)	4	0	0	4	8	5	4	3	3	0	2	2	4	5	
	Large (100 or more)	4	1	0	1	0	2	0	2	3	0	1	3	3	1	
Frontier	Small (5-19)	47	1	0	2	3	13	4	3	14	2	2	24	24	5	**200**
	Medium (20-99)	16	2	0	1	1	1	1	1	1	0	5	8	6	2	
	Large (100 or more)	5	1	0	0	1	0	0	0	0	0	2	1	1	0	
		502	**180**	**140**	**180**	**180**	**180**	**180**	**180**	**180**	**100**	**180**	**376**	**262**	**180**	**3000**

Original Sample Design (Fresh)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	83	29	36	12	9	11	24	15	36	16	13	95	73	21	**684**
	Medium (20-99)	2	2	15	13	9	17	6	17	5	8	13	35	2	2	
	Large (100 or more)	2	2	3	9	6	2	3	14	2	4	12	2	2	2	
West Delta	Small (5-19)	52	4	13	8	4	2	5	9	6	11	15	36	15	19	**306**
	Medium (20-99)	2	2	6	8	4	12	2	7	2	5	7	2	2	6	
	Large (100 or more)	2	2	1	5	3	2	2	5	2	3	7	2	2	2	
Suez Region	Small (5-19)	13	2	3	8	5	2	4	7	2	6	5	7	17	12	**177**
	Medium (20-99)	2	2	1	7	7	2	2	6	2	2	5	2	2	3	
	Large (100 or more)	2	2	1	6	5	2	2	8	2	1	2	2	2	2	
Middle and East Delta	Small (5-19)	95	44	4	16	15	6	29	17	25	15	9	34	3	19	**479**
	Medium (20-99)	3	16	3	8	11	24	10	8	5	4	10	2	2	3	
	Large (100 or more)	2	3	2	5	5	2	2	7	2	2	2	2	1	2	
Northern Upper Egypt	Small (5-19)	67	2	2	5	4	2	3	1	2	2	2	2	2	3	**158**
	Medium (20-99)	2	2	3	4	2	2	2	4	2	1	2	2	2	2	
	Large (100 or more)	2	2	2	2	2	2	2	2	2	2	3	2	0	2	
Southern Upper Egypt	Small (5-19)	32	2	0	3	5	2	7	3	5	1	1	6	20	11	**140**
	Medium (20-99)	2	0	0	2	4	2	3	2	2	0	2	2	2	5	
	Large (100 or more)	2	1	0	1	0	1	0	1	2	0	1	2	2	1	
Frontier	Small (5-19)	39	1	0	2	3	7	4	3	11	2	1	18	18	4	**156**
	Medium (20-99)	8	1	0	1	1	1	1	1	1	0	4	8	5	2	
	Large (100 or more)	3	1	0	0	1	0	0	0	0	0	2	1	1	0	
		417	**122**	**95**	**125**	**105**	**103**	**113**	**137**	**118**	**85**	**118**	**264**	**175**	**123**	**2100**

Original Sample Design (Panel)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	11	5	7	3	2	2	5	1	4	0	11	26	27	5	**312**
	Medium (20-99)	6	6	7	2	6	4	5	1	5	2	21	22	18	15	
	Large (100 or more)	2	6	1	8	7	11	6	6	6	2	11	3	2	12	
West Delta	Small (5-19)	1	3	11	2	4	3	4	1	5	0	4	10	8	1	**142**
	Medium (20-99)	2	5	3	3	7	2	4	2	3	0	1	2	2	4	
	Large (100 or more)	2	4	1	6	6	2	6	4	5	3	3	1	1	1	
Suez Region	Small (5-19)	5	0	2	1	1	5	1	1	2	1	2	5	2	5	**63**
	Medium (20-99)	2	2	0	0	0	1	2	0	1	0	1	2	0	1	
	Large (100 or more)	2	4	1	3	1	1	2	1	1	0	1	0	0	1	
Middle and East Delta	Small (5-19)	8	3	2	4	5	5	8	3	5	1	3	14	4	3	**161**
	Medium (20-99)	6	4	2	3	6	7	2	4	4	1	1	2	1	1	
	Large (100 or more)	2	9	2	3	7	3	8	5	7	1	0	1	1	0	
Northern Upper Egypt	Small (5-19)	7	1	1	4	4	6	3	0	2	1	0	9	3	3	**118**
	Medium (20-99)	2	2	3	4	5	3	3	3	2	1	0	2	1	1	
	Large (100 or more)	2	2	2	5	6	5	4	8	2	2	1	1	0	2	
Southern Upper Egypt	Small (5-19)	3	1	0	2	4	7	3	1	3	0	0	5	7	1	**60**
	Medium (20-99)	2	0	0	2	4	3	1	1	1	0	0	0	2	0	
	Large (100 or more)	2	0	0	0	0	1	0	1	1	0	0	1	1	0	
Frontier	Small (5-19)	8	0	0	0	0	6	0	0	3	0	1	6	6	1	**44**
	Medium (20-99)	8	1	0	0	0	0	0	0	0	0	1	0	1	0	
	Large (100 or more)	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		85	**58**	**45**	**55**	**75**	**77**	**67**	**43**	**62**	**15**	**62**	**112**	**87**	**57**	**900**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 9.3% (377 out of 3643 establishments).[20]

[20] Based on out of target and ineligible contacts.

Breaking down by industry and size, the sample targets were achieved.

Achieved Interviews (Fresh and Panel Combined)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	113	36	43	16	12	16	31	16	43	19	25	144	108	27	**1101**
	Medium (20-99)	14	8	21	15	17	24	15	19	14	12	36	64	20	17	
	Large (100 or more)	4	10	5	17	15	13	10	21	8	8	23	4	4	14	
West Delta	Small (5-19)	67	7	22	10	10	7	12	11	15	15	20	56	25	21	**505**
	Medium (20-99)	4	7	11	11	13	18	8	9	5	7	10	4	4	11	
	Large (100 or more)	4	6	1	11	10	4	8	8	9	7	9	2	3	3	
Suez Region	Small (5-19)	21	2	2	4	5	7	5	3	4	0	7	12	20	18	**195**
	Medium (20-99)	4	3	1	2	2	4	3	2	3	0	6	4	2	5	
	Large (100 or more)	4	6	1	6	3	1	2	4	1	0	2	2	2	2	
	Small and Medium (5-99)	0	0	0	0	0	0	0	0	0	8	0	0	0	0	
Middle and East Delta	Small (5-19)	116	49	8	20	23	16	39	28	35	19	12	58	22	25	**759**
	Medium (20-99)	16	21	5	14	19	36	16	15	13	9	12	5	4	6	
	Large (100 or more)	4	12	2	11	13	5	10	15	9	5	2	4	2	4	
Northern Upper Egypt	Small (5-19)	88	4	3	6	9	8	7	6	5	6	5	15	11	8	**306**
	Medium (20-99)	4	2	4	6	7	6	5	7	4	2	5	4	4	5	
	Large (100 or more)	4	4	3	5	8	7	4	8	2	2	6	3	1	3	
Southern Upper Egypt	Small (5-19)	39	4	0	5	8	9	9	5	8	2	1	11	28	13	**209**
	Medium (20-99)	4	0	0	4	7	4	0	3	4	0	4	2	4	5	
	Large (100 or more)	4	0	0	1	0	1	0	1	4	0	1	3	3	1	
	Medium and Large (20)	0	2	0	0	0	0	5	0	0	0	0	0	0	0	
		514	**183**	**132**	**164**	**181**	**186**	**189**	**181**	**186**	**121**	**186**	**397**	**267**	**188**	**3075**

Achieved Interviews (Panel)

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	16	6	7	3	2	2	7	1	3	0	12	45	33	6	**368**
	Medium (20-99)	10	6	7	2	6	6	7	2	7	2	23	26	18	15	
	Large (100 or more)	2	6	1	8	9	11	7	7	6	3	11	3	2	12	
West Delta	Small (5-19)	2	3	12	2	6	4	4	2	8	0	4	14	10	2	**167**
	Medium (20-99)	2	5	4	3	8	2	5	2	3	0	2	2	2	5	
	Large (100 or more)	2	4	1	6	7	2	6	5	6	4	4	0	1	1	
Suez Region	Small (5-19)	6	0	2	2	1	5	2	2	2	0	2	5	2	6	**69**
	Medium (20-99)	2	2	0	0	0	2	2	0	1	0	1	2	0	1	
	Large (100 or more)	2	4	1	3	1	1	2	2	1	0	0	0	0	1	
	Small and Medium (5-99)	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
Middle and East Delta	Small (5-19)	14	4	3	4	7	8	10	4	8	1	3	20	7	4	**211**
	Medium (20-99)	8	4	3	4	8	10	3	5	7	1	2	3	2	1	
	Large (100 or more)	2	9	2	2	8	3	8	6	7	2	0	2	2	0	
Northern Upper Egypt	Small (5-19)	9	2	2	4	5	6	4	0	2	1	0	13	4	3	**140**
	Medium (20-99)	2	2	4	4	7	4	3	5	2	2	0	2	2	2	
	Large (100 or more)	2	2	3	5	7	5	4	8	2	2	0	1	0	3	
Southern Upper Egypt	Small (5-19)	5	2	0	3	6	7	3	2	3	0	0	5	7	1	**74**
	Medium (20-99)	2	0	0	3	6	3	0	2	2	0	0	0	2	0	
	Large (100 or more)	2	0	0	0	0	1	0	1	2	0	0	1	1	0	
	Medium and Large (20)	0	0	0	0	0	0	2	0	0	0	0	0	0	0	
		90	**61**	**52**	**58**	**94**	**82**	**79**	**56**	**72**	**19**	**64**	**144**	**95**	**63**	**1029**

A.9.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
3075	**Eligible**	1. Eligible establishment (Correct name and address)	2855
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	110
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	57
		4. Eligible establishment (Moved and traced)	48
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	5

33	**Screener refusal**	13. Refuses to answer the screener	33
246	**Ineligible**	5. The establishment has less than 5 permanent full time employees	1
		616. The firm discontinued businesses - (Establishment went bankrupt)	14
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	22
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	2
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	36
		621. The firm discontinued businesses - (Other)	79
		71. Ineligible legal status: not a business, but private household	45
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	2
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	45
91	**Out of Target**	151. Out of target - outside the covered regions	5
		152. Out of target - moved abroad	5
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	1
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	1
		156. Duplicated firm within the sample	79
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
198	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	15
		92. Line out of order	3
		93. No tone	6
		94. Phone number does not exist	7
		10. Answering machine	2
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	165

3643	**Total contacted**

Response Outcomes: Egypt ES 2019:

Target and totals	Sample target	3066
	Sample target completion rate	100.3%
	Total contacts available in frame	15938
	Total contacts issued	10870
	Total contacts contacted	3643

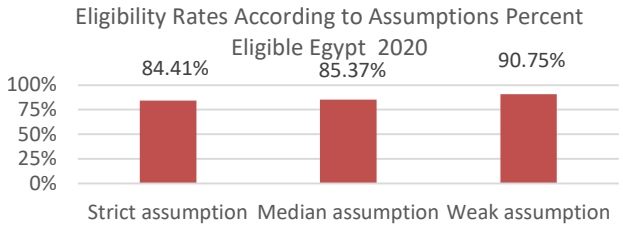
Screening phase	Screening in process	0
	Eligibles	3075
	Screener refusal	33
	Ineligible + out of target	337
	Unobtainable	198
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	3075
	Eligible in process + incomplete interviews	0
	Interview refusal	0

Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	0.9%
	Ineligible + out of target rate	9.3%
	Unobtainable rate	5.4%
	Interview conversion rate	84.4%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.0%

A.9.3. Universe estimates

Universe estimates for the number of establishments in each cell in Egypt were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Egypt were produced for the strict, weak and median eligibility definitions. Tables below shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	856	326	191	67	49	129	209	73	335	87	51	1755	859	174	
	Medium (20-99)	179	137	52	63	81	187	79	88	112	40	106	539	209	89	
	Large (100 or more)	119	67	6	80	64	89	65	108	56	16	49	112	36	37	**8025**
West Delta	Small (5-19)	548	119	45	26	28	54	58	31	120	53	24	460	271	136	
	Medium (20-99)	74	89	17	38	50	133	42	22	40	18	12	98	48	52	
	Large (100 or more)	58	58	3	36	33	11	23	15	31	9	13	27	6	5	**3033**
Suez Region	Small (5-19)	238	9	3	8	9	15	10	5	19	0	7	108	129	86	
	Medium (20-99)	28	5	1	3	4	4	8	4	6	0	6	16	12	14	
	Large (100 or more)	15	39	1	12	4	2	6	11	1	0	2	2	4	2	
	Small and Medium (5-99)	0	0	0	0	0	0	0	0	0	20	0	0	0	0	**878**
Middle and East Delta	Small (5-19)	1255	425	26	112	115	114	275	161	270	90	14	516	253	153	
	Medium (20-99)	219	226	16	71	92	266	98	66	107	31	19	74	15	19	
	Large (100 or more)	107	160	5	44	52	28	57	64	60	14	3	14	3	7	**5714**
Northern Upper Egypt	Small (5-19)	715	10	3	21	27	42	41	13	51	14	5	207	175	33	
	Medium (20-99)	114	8	6	16	11	63	12	11	11	4	7	31	15	16	
	Large (100 or more)	24	11	3	12	18	18	9	18	5	7	7	4	1	4	**1824**
Southern Upper Egypt	Small (5-19)	371	12	0	8	13	41	19	11	55	4	1	152	237	33	
	Medium (20-99)	53	0	0	6	10	7	0	5	6	0	4	16	27	9	
	Large (100 or more)	27	0	0	2	0	3	0	1	6	0	1	3	6	1	
	Medium and Large (20)	0	3	0	0	0	0	8	0	0	0	0	0	0	0	**1160**
		4999	**1703**	**378**	**624**	**663**	**1206**	**1019**	**707**	**1290**	**407**	**331**	**4133**	**2304**	**870**	**20635**

Median Universe Estimates – Fresh:

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total
Greater Cairo	Small (5-19)	856	326	191	67	49	129	209	73	335	87	51	1755	859	174	
	Medium (20-99)	178	137	52	63	81	187	79	88	112	40	106	539	208	88	
	Large (100 or more)	119	67	6	80	64	89	65	108	56	16	49	112	36	37	**8024**
West Delta	Small (5-19)	548	119	45	26	28	54	58	31	120	53	24	460	271	136	
	Medium (20-99)	74	89	17	38	50	133	42	22	40	18	12	98	48	52	
	Large (100 or more)	58	58	3	36	33	11	23	15	31	9	13	27	6	5	**3033**
Suez Region	Small (5-19)	238	9	3	8	9	15	10	5	19	0	7	108	129	86	
	Medium (20-99)	28	5	1	3	4	4	8	4	6	0	6	16	12	14	
	Large (100 or more)	15	39	1	12	4	2	6	11	1	0	2	2	4	2	
	Small and Medium (5-99)	0	0	0	0	0	0	0	0	0	20	0	0	0	0	**878**
Middle and East Delta	Small (5-19)	1255	425	26	112	115	114	275	161	270	90	14	516	253	153	
	Medium (20-99)	219	226	16	71	92	266	98	66	107	31	19	74	15	19	
	Large (100 or more)	107	160	5	44	52	28	57	64	60	14	3	14	3	7	**5714**
Northern Upper Egypt	Small (5-19)	715	10	3	21	27	42	41	13	51	14	5	207	175	33	
	Medium (20-99)	114	8	6	16	11	63	12	11	11	4	7	31	15	16	
	Large (100 or more)	24	11	3	12	18	18	9	18	5	7	7	4	1	4	**1824**
Southern Upper Egypt	Small (5-19)	371	12	0	8	13	41	19	11	55	4	1	152	237	33	
	Medium (20-99)	53	0	0	6	10	7	0	5	6	0	4	16	27	9	
	Large (100 or more)	27	0	0	2	0	3	0	1	6	0	1	3	6	1	
	Medium and Large (20)	0	3	0	0	0	0	8	0	0	0	0	0	0	0	**1160**
		4999	**1703**	**378**	**624**	**663**	**1206**	**1019**	**707**	**1290**	**407**	**330**	**4133**	**2304**	**870**	**20633**

Weak Universe Estimates – Fresh:

		Food	Textiles & Garments	Leather Products	Chemicals & Chemical Products	Petroleum products, Plastics & Rubber	Non-Metallic Mineral Products	Basic Metals & Metal Products	Machinery & Equipment, Electronics & Vehicles	Wood products, Furniture, Paper & Publishing	Other Manufacturing	Construction	Services of Motor Vehicles/ Wholesale/ Retail	Hospitality & Tourism	Other Services	Grand Total

Greater Cairo	Small (5-19)	856	326	191	67	49	129	209	73	335	87	51	1755	859	174	
	Medium (20-99)	178	137	52	63	81	187	79	88	112	40	106	539	208	88	
	Large (100 or more)	119	67	6	80	64	89	65	108	56	16	49	112	36	37	**8024**
West Delta	Small (5-19)	548	119	45	26	28	54	58	31	120	53	24	460	271	136	
	Medium (20-99)	74	89	17	38	50	133	42	22	40	18	12	98	48	52	
	Large (100 or more)	58	58	3	36	33	11	23	15	31	9	13	27	6	5	**3033**
Suez Region	Small (5-19)	238	9	3	8	9	15	10	5	19	0	7	108	129	86	
	Medium (20-99)	28	5	1	3	4	4	8	4	6	0	6	16	12	14	
	Large (100 or more)	15	39	1	12	4	2	6	11	1	0	2	2	4	2	
	Small and Medium (5-99)	0	0	0	0	0	0	0	0	0	20	0	0	0	0	**878**
Middle and East Delta	Small (5-19)	1255	425	26	112	115	114	275	161	270	90	14	516	253	153	
	Medium (20-99)	219	226	16	71	92	266	98	66	107	31	19	74	15	19	
	Large (100 or more)	107	160	5	44	52	28	57	64	60	14	3	14	3	7	**5714**
Northern Upper Egypt	Small (5-19)	715	10	3	21	27	42	41	13	51	14	5	207	175	33	
	Medium (20-99)	114	8	6	16	11	63	12	11	11	4	7	31	15	16	
	Large (100 or more)	24	11	3	12	18	18	9	18	5	7	7	4	1	4	**1824**
Southern Upper Egypt	Small (5-19)	371	12	0	8	13	41	19	11	55	4	1	152	237	33	
	Medium (20-99)	53	0	0	6	10	7	0	5	6	0	4	16	27	9	
	Large (100 or more)	27	0	0	2	0	3	0	1	6	0	1	3	6	1	
	Medium and Large (20)	0	3	0	0	0	0	8	0	0	0	0	0	0	0	**1160**
		4999	**1703**	**378**	**624**	**663**	**1206**	**1019**	**707**	**1290**	**407**	**330**	**4133**	**2304**	**870**	**20633**

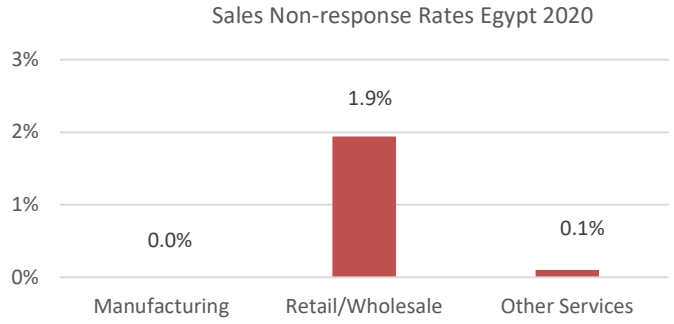
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.9.4. Non-Response

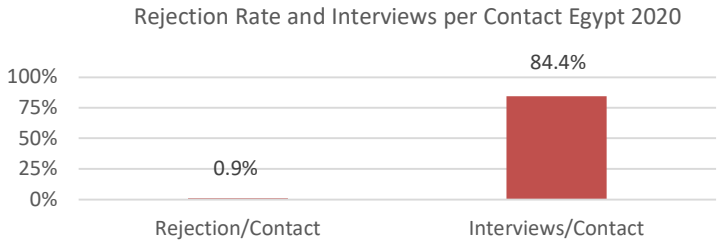
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.84.[21] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.01.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Egypt. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[21] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.10 Estonia

A.10.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 273 firms from the Estonia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Credit Info was used.

Regional stratification for the Estonia ES was done across three regions: Põhja-Eesti, Lääne-Eesti/Kesk-Eesti ja Kirde-Eesti and Lõuna-Eesti.

Counties	Grouping used for stratification purposes in BEEPS VI
Tallinn	Põhja-Eesti
Harjumaa	
Hiiumaa	Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti
Läänemaa	
Pärnumaa	
Saaremaa	
Järvamaa	
Lääne-Virumaa	
Raplamaa	
Ida-Virumaa	
Jõgevamaa	Lõuna-Eesti
Põlvamaa	
Tartumaa	
Valgamaa	
Viljandimaa	
Võrumaa	

Estonia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	138	245	464	**1522**
	Medium (20-99)	149	90	191	
	Large (100 or more)	85	47	113	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	135	219	465	**1384**
	Medium (20-99)	237	38	205	
	Large (100 or more)	65	9	11	
Lõuna-Eesti	Small (5-19)	170	135	440	**1249**
	Medium (20-99)	201	27	198	
	Large (100 or more)	52	15	11	
Total		**1232**	**825**	**2098**	**4155**

Source: World Bank and Credit Info

Estonia ES Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	18	25	24	**104**
	Medium (20-99)	9	4	11	
	Large (100 or more)	3	4	6	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	15	28	25	**102**
	Medium (20-99)	10	6	7	
	Large (100 or more)	7	3	1	
Lõuna-Eesti	Small (5-19)	10	12	20	**67**
	Medium (20-99)	7	4	10	
	Large (100 or more)	3	1	0	
Total		**82**	**87**	**104**	**273**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	4	3	15	**81**
	Medium (20-99)	3	13	4	
	Large (100 or more)	15	14	10	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	3	4	7	**59**
	Medium (20-99)	10	11	4	
	Large (100 or more)	15	2	3	
Lõuna-Eesti	Small (5-19)	3	10	6	**70**
	Medium (20-99)	14	8	5	
	Large (100 or more)	15	5	4	
Total		**82**	**70**	**58**	**210**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	2	8	7	**39**
	Medium (20-99)	4	3	5	
	Large (100 or more)	2	3	5	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	3	15	15	**61**
	Medium (20-99)	8	5	6	
	Large (100 or more)	6	2	1	
Lõuna-Eesti	Small (5-19)	5	10	15	**50**
	Medium (20-99)	6	3	8	
	Large (100 or more)	2	1	0	
Total		**38**	**50**	**62**	**150**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 10.9% (314 out of 2877 establishments)[22].

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	10	16	30	**115**
	Medium (20-99)	10	7	13	
	Large (100 or more)	12	5	12	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	6	30	26	**129**
	Medium (20-99)	24	7	22	
	Large (100 or more)	10	3	1	
Lõuna-Eesti	Small (5-19)	9	13	23	**116**
	Medium (20-99)	38	4	18	
	Large (100 or more)	7	3	1	
Total		**126**	**88**	**146**	**360**

[22] Based on out of target and ineligible contacts

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	5	4	3	**21**
	Medium (20-99)	2	1	3	
	Large (100 or more)	0	1	2	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	2	7	8	**26**
	Medium (20-99)	2	4	0	
	Large (100 or more)	2	1	0	
Lõuna-Eesti	Small (5-19)	4	1	5	**16**
	Medium (20-99)	3	2	0	
	Large (100 or more)	0	1	0	
Total		**20**	**22**	**21**	**63**

A.10.2. Status Codes

32	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	32
966	**Eligible**	1. Eligible establishment (Correct name and address)	922
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	2
		4. Eligible establishment (Moved and traced)	33
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	8
1311	**Screener refusal**	13. Refuses to answer the screener	1311
110	**Ineligible**	5. The establishment has less than 5 permanent full time employees	80
		616. The firm discontinued businesses - (Establishment went bankrupt)	6
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	1
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	3
		621. The firm discontinued businesses - (Other)	4
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	16
204	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	1
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	42
		156. Duplicated firm within the sample	123
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	38
254	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	159

		92. Line out of order	38
		93. No tone	0
		94. Phone number does not exist	1
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	56
2877	**Total contacted**		

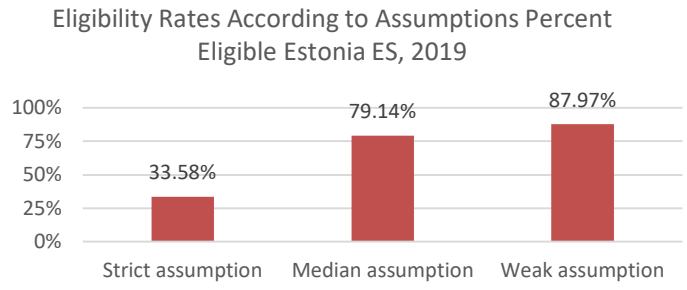
Response Outcomes: Estonia ES 2019:

Target and totals	Sample target	360
	Sample target completion rate	100.0%
	Total contacts available in frame	4155
	Total contacts issued	3218
	Total contacts contacted	2877
Screening phase	Screening in process	32
	Eligibles	966
	Screener refusal	1311
	Ineligible + out of target	314
	Unobtainable	254
Interview phase (only if eligible)	Complete interviews without extra module	1
	Complete interviews with extra module	359
	Eligible in process + incomplete interviews	0
	Interview refusal	606
Percent breakdown (relative to total contacted)	Screening in process rate	1.1%
	Screener refusal rate	45.6%
	Ineligible + out of target rate	10.9%
	Unobtainable rate	8.8%
	Interview conversion rate	12.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	21.1%

A.10.3. Universe estimates

Universe estimates for the number of establishments in each cell in Estonia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Estonia were produced for the strict, weak and median eligibility definitions. Tables below

show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Universe

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	860	514	3410	**6336**
	Medium (20-99)	415	113	756	
	Large (100 or more)	91	47	130	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	443	247	1419	**2722**
	Medium (20-99)	252	40	231	
	Large (100 or more)	65	9	16	
Lõuna-Eesti	Small (5-19)	361	162	1162	**2224**
	Medium (20-99)	210	27	223	
	Large (100 or more)	52	15	12	
		2749	**1174**	**7359**	**11282**

Note: The sampling frame used and the universe are from separate sources

Universe Estimates

		Manufacturing	Retail	Other Services	Grand Total
Põhja-Eesti	Small (5-19)	860	514	3410	**6336**
	Medium (20-99)	415	113	756	
	Large (100 or more)	91	47	130	
Lääne-Eesti, Kesk-Eesti ja Kirde-Eesti	Small (5-19)	443	247	1419	**2722**
	Medium (20-99)	252	40	231	
	Large (100 or more)	65	9	16	
Lõuna-Eesti	Small (5-19)	361	162	1162	**2224**
	Medium (20-99)	210	27	223	
	Large (100 or more)	52	15	12	
		2749	**1174**	**7359**	**11282**

Note: Adjustments for strict, median and weak assumptions were not applied to universe estimates because the universe and the frame were from separate sources hence scenarios that apply to the frame cannot be assumed in the universe

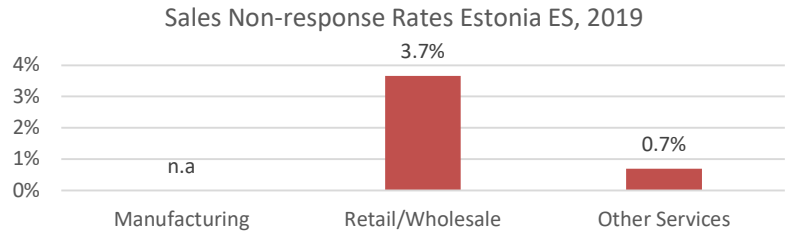
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.10.4. Non-Response

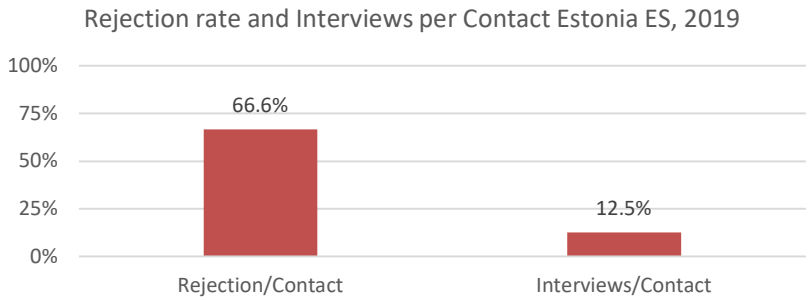
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.13.[23] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.67.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Estonia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.11 Georgia

A.11.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Georgia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from GeoStat was used.

Regional stratification was done across five regions: Tbilisi; East; Adjara; Guria, Samegrelo, Zemo Svaneti; and Center.

Regions of Georgia	Grouping to be used for stratification purposes in BEEPS VI
Tbilisi	Tbilisi
Kakheti	East
Kvemo Kartli	
Adjara	Adjara
Samegrelo-Zemo Svaneti	Guria, Samegrelo, Zemo Svaneti
Guria	

[23] The estimate is based on the total no. of firms contacted including ineligible establishments.

Imereti	Center
Shida Kartli	
Samtskhe-Javakheti	
Mtskheta-Mtianeti	
Racha-Lechkhumi and Kvemo Svaneti	
Abkhazia	Not covered

Georgia ES Sample Frame (Fresh and Panel Combined)

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	190	527	953	159	3390	**7084**
	Medium (20-99)	93	176	205	50	1007	
	Large (100 or more)	36	32	81	11	174	
East	Small (5-19)	120	96	249	21	396	**1099**
	Medium (20-99)	36	41	24	8	66	
	Large (100 or more)	14	11	6	2	9	
Adjara	Small (5-19)	61	95	244	84	671	**1468**
	Medium (20-99)	17	22	26	16	183	
	Large (100 or more)	2	8	2	11	26	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	91	37	116	20	322	**722**
	Medium (20-99)	24	11	10	6	62	
	Large (100 or more)	4	3	0	1	15	
Center	Small (5-19)	150	158	361	87	733	**1849**
	Medium (20-99)	47	57	43	21	140	
	Large (100 or more)	17	13	3	7	12	
		902	**1287**	**2323**	**504**	**7206**	**12222**

Source: World Bank and GeoStat

Georgia Sample Frame (Panel)

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	4	10	37	0	32	**137**
	Medium (20-99)	6	8	11	2	16	
	Large (100 or more)	3	3	2	0	3	
East	Small (5-19)	6	8	20	1	8	**67**
	Medium (20-99)	2	4	5	0	6	
	Large (100 or more)	1	4	1	0	1	
Adjara	Small (5-19)	1	2	13	5	9	**41**
	Medium (20-99)	2	0	1	1	4	
	Large (100 or more)	1	0	0	0	2	

Guria, Samegrelo, Zemo Svaneti	Small (5-19)	3	2	12	1	5	**30**
	Medium (20-99)	4	2	0	0	1	
	Large (100 or more)	0	0	0	0	0	
Center	Small (5-19)	6	6	30	3	13	**85**
	Medium (20-99)	5	6	4	0	6	
	Large (100 or more)	1	4	1	0	0	
		45	**59**	**137**	**13**	**106**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	2	8	4	11	21	**101**
	Medium (20-99)	2	2	2	3	2	
	Large (100 or more)	10	9	20	3	2	
East	Small (5-19)	13	5	2	6	2	**62**
	Medium (20-99)	10	7	2	2	2	
	Large (100 or more)	4	2	2	1	2	
Adjara	Small (5-19)	13	11	2	21	2	**78**
	Medium (20-99)	5	7	2	5	2	
	Large (100 or more)	0	2	1	3	2	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	2	2	2	5	2	**27**
	Medium (20-99)	2	2	2	2	2	
	Large (100 or more)	1	1	0	0	2	
Center	Small (5-19)	8	4	2	17	2	**61**
	Medium (20-99)	3	2	2	6	2	
	Large (100 or more)	5	3	1	2	2	
		80	**67**	**46**	**87**	**49**	**329**

Original Sample Design (Panel)

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	3	6	10	0	10	**74**
	Medium (20-99)	5	7	10	2	10	
	Large (100 or more)	3	3	2	0	3	
East	Small (5-19)	4	8	10	1	7	**53**
	Medium (20-99)	2	4	5	0	5	
	Large (100 or more)	1	4	1	0	1	
Adjara	Small (5-19)	1	2	10	5	8	**37**
	Medium (20-99)	2	0	1	1	4	
	Large (100 or more)	1	0	0	0	2	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	3	2	10	1	5	**28**
	Medium (20-99)	4	2	0	0	1	
	Large (100 or more)	0	0	0	0	0	
Center	Small (5-19)	5	6	10	3	10	**59**
	Medium (20-99)	5	5	4	0	5	
	Large (100 or more)	1	4	1	0	0	
		40	**53**	**74**	**13**	**71**	**251**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 22.2% (665 out of 2991 establishments).[24]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	3	12	17	17	36	**180**
	Medium (20-99)	16	13	9	12	12	
	Large (100 or more)	5	4	10	1	13	

[24] Based on out of target and ineligible contacts.

East	Small (5-19)	26	14	18	5	7	**109**
	Medium (20-99)	7	10	5	0	0	
	Large (100 or more)	4	4	1	0	0	
	Medium and Large (20+)	0	0	0	4	4	
Adjara	Small (5-19)	12	18	19	17	7	**117**
	Medium (20-99)	5	6	7	4	12	
	Large (100 or more)	1	4	1	1	3	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	12	4	5	2	5	**55**
	Medium (20-99)	7	2	6	1	2	
	Large (100 or more)	2	2	0	1	4	
Center	Small (5-19)	9	8	15	23	11	**120**
	Medium (20-99)	11	10	4	9	6	
	Large (100 or more)	2	6	1	2	3	
		122	**117**	**118**	**99**	**125**	**581**

Achieved Interviews (Panel)

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	1	1	7	0	13	38
	Medium (20-99)	1	4	4	1	3	
	Large (100 or more)	1	1	0	0	1	
East	Small (5-19)	2	1	4	1	3	18
	Medium (20-99)	0	0	1	0	0	
	Large (100 or more)	1	3	0	0	0	
	Medium and Large (20+)	0	0	0	0	2	
Adjara	Small (5-19)	0	0	5	2	2	12
	Medium (20-99)	0	0	0	0	2	
	Large (100 or more)	1	0	0	0	0	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	0	1	3	1	2	8
	Medium (20-99)	1	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	
Center	Small (5-19)	2	3	11	0	5	34
	Medium (20-99)	1	4	2	0	3	

	Large (100 or more)	0	3	0	0	0	
		11	**21**	**37**	**5**	**36**	**110**

A.11.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
651	**Eligible**	1. Eligible establishment (Correct name and address)	647
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	4
911	**Screener refusal**	13. Refuses to answer the screener	911
621	**Ineligible**	5. The establishment has less than 5 permanent full time employees	85
		616. The firm discontinued businesses - (Establishment went bankrupt)	6
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	13
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	19
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	218
		621. The firm discontinued businesses - (Other)	97
		71. Ineligible legal status: not a business, but private household	111
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	27
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	45
44	**Out of Target**	151. Out of target - outside the covered regions	1
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	3
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	15
		156. Duplicated firm within the sample	24
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	1
764	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	599
		92. Line out of order	39
		93. No tone	6
		94. Phone number does not exist	35
		10. Answering machine	3
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	82
2991	**Total contacted**		

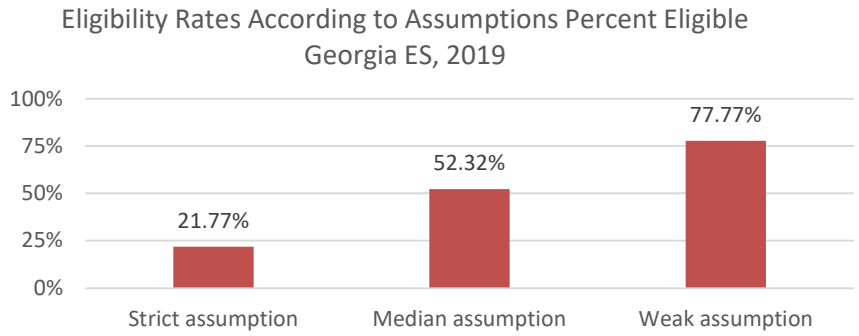
Response Outcomes: Georgia ES 2019:

Target and totals	Sample target	580
	Sample target completion rate	100.2%
	Total contacts available in frame	12222
	Total contacts issued	3357
	Total contacts contacted	2991
Screening phase	Screening in process	0
	Eligibles	651
	Screener refusal	911
	Ineligible + out of target	665
	Unobtainable	764
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	581
	Eligible in process + incomplete interviews	0
	Interview refusal	66
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	30.5%
	Ineligible + out of target rate	22.2%
	Unobtainable rate	25.5%
	Interview conversion rate	19.4%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	2.2%

A.11.3. Universe estimates

Universe estimates for the number of establishments in each cell in Georgia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Georgia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	28	78	141	24	327	**873**
	Medium (20-99)	18	35	42	12	130	
	Large (100 or more)	5	4	11	2	16	
East	Small (5-19)	29	24	61	5	64	**245**
	Medium (20-99)	12	14	8	0	0	
	Large (100 or more)	4	4	1	0	0	
	Medium and Large (20+)	0	0	0	4	15	
Adjara	Small (5-19)	14	23	58	20	104	**295**
	Medium (20-99)	5	7	8	5	38	
	Large (100 or more)	1	4	1	2	4	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	24	10	30	5	55	**167**
	Medium (20-99)	8	4	6	2	14	
	Large (100 or more)	2	2	0	1	4	
Center	Small (5-19)	39	42	95	23	126	**436**
	Medium (20-99)	17	21	15	9	32	
	Large (100 or more)	4	6	1	2	3	
		211	**277**	**479**	**117**	**932**	**2016**

Median Universe Estimates – Fresh:

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	78	231	422	68	1366	**3286**
	Medium (20-99)	54	110	129	30	576	
	Large (100 or more)	24	22	57	7	111	
East	Small (5-19)	55	47	123	10	178	**558**
	Medium (20-99)	23	28	17	0	0	
	Large (100 or more)	10	9	5	0	0	
	Medium and Large (20+)	0	0	0	7	47	

Adjara	Small (5-19)	24	39	102	34	254	**627**
	Medium (20-99)	9	13	15	9	98	
	Large (100 or more)	1	5	1	7	16	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	38	16	52	9	131	**329**
	Medium (20-99)	14	7	6	4	36	
	Large (100 or more)	3	2	0	1	10	
Center	Small (5-19)	70	79	182	42	336	**958**
	Medium (20-99)	31	41	31	15	91	
	Large (100 or more)	13	10	2	5	9	
		448	**660**	**1144**	**249**	**3258**	**5759**

Weak Universe Estimates – Fresh:

		Food	Other Manufacturing	Retail	Hotels and Restaurants	Other Services	Grand Total
Tbilisi	Small (5-19)	136	385	709	106	2482	**5496**
	Medium (20-99)	81	156	186	40	898	
	Large (100 or more)	34	30	78	9	165	
East	Small (5-19)	89	72	190	14	298	**869**
	Medium (20-99)	32	37	22	0	0	
	Large (100 or more)	13	11	6	0	0	
	Medium and Large (20+)	0	0	0	9	75	
Adjara	Small (5-19)	41	64	169	52	457	**1042**
	Medium (20-99)	14	18	22	12	152	
	Large (100 or more)	2	7	2	9	23	
Guria, Samegrelo, Zemo Svaneti	Small (5-19)	65	27	85	13	233	**543**
	Medium (20-99)	21	10	9	5	55	
	Large (100 or more)	4	3	0	1	14	
Center	Small (5-19)	112	120	279	60	558	**1462**
	Medium (20-99)	43	53	40	18	130	
	Large (100 or more)	16	13	3	6	12	
		701	**1006**	**1800**	**355**	**5550**	**9412**

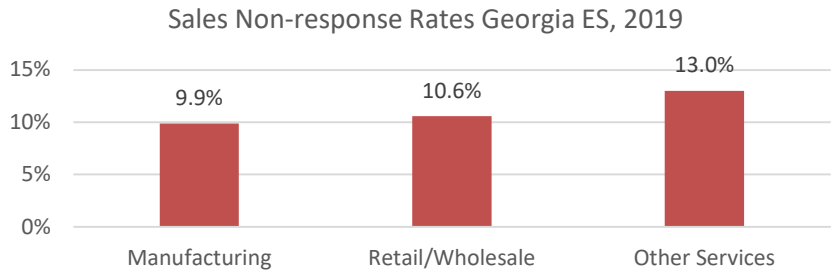
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.11.4. Non-Response

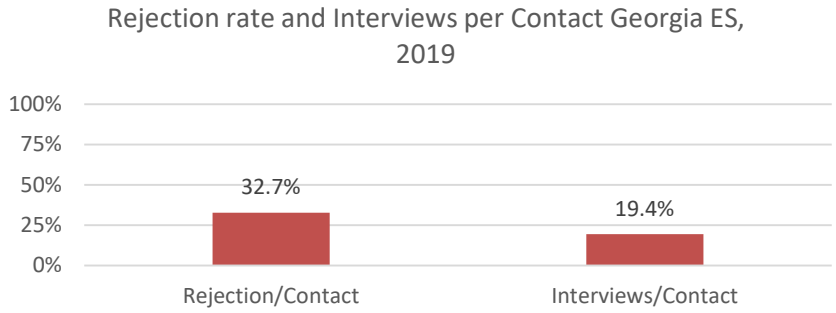
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.20.[25] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.32.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the

[25] The estimate is based on the total no. of firms contacted including ineligible establishments.

data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Georgia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.12 Greece

A.12.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 323 firms from the 2016 EBRD survey was used; for fresh firms (i.e., firms not covered in 2016), establishment-level firm data from ERGANI was used.

Regional stratification for the Greece ES was done across four regions: Northern Greece, Central Greece, Attica, and Aegean Islands, Crete.

NUTS 1	Grouping to be used for stratification purposes in BEEPS VI
North Greece	North Greece
Central Greece	Central Greece
Attica	Attica
Aegean Islands, Crete	Aegean Islands, Crete

Greece ES Sample Frame (Fresh and Panel Combined)

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	929	183	1220	2238	7088	**14217**
	Medium (20-99)	235	54	363	499	1193	
	Large (100 or more)	63	5	49	20	78	
Central Greece	Small (5-19)	715	153	601	1669	5479	**10429**
	Medium (20-99)	195	47	217	447	760	
	Large (100 or more)	33	8	61	9	35	
Attica	Small (5-19)	951	270	1799	4160	12667	**25134**
	Medium (20-99)	205	79	572	896	3019	
	Large (100 or more)	39	10	94	86	287	
Aegean Island, Crete	Small (5-19)	323	51	196	1038	3959	**6640**
	Medium (20-99)	69	4	42	221	614	
	Large (100 or more)	7	0	3	7	106	
Total		**3764**	**864**	**5217**	**11290**	**35285**	**56420**

Source: European Bank for Reconstruction and Development, World Bank and ERGANI

Greece ES Sample Frame (Panel)

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	1	3	18	13	19	**75**
	Medium (20-99)	4	1	5	2	4	
	Large (100 or more)	1	1	0	1	2	
Central Greece	Small (5-19)	4	3	6	14	11	**58**
	Medium (20-99)	3	3	4	4	5	
	Large (100 or more)	0	0	0	1	0	
Attica	Small (5-19)	3	2	17	33	37	**153**

	Medium (20-99)	2	6	9	12	21	
	Large (100 or more)	0	0	3	4	4	
Aegean Island, Crete	Small (5-19)	1	1	2	11	10	**37**
	Medium (20-99)	2	0	1	2	4	
	Large (100 or more)	1	0	1	1	0	
		22	**20**	**66**	**98**	**117**	**323**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	7	25	3	4	11	**114**
	Medium (20-99)	7	11	6	3	3	
	Large (100 or more)	12	1	10	4	7	
Central Greece	Small (5-19)	9	25	3	3	8	**119**
	Medium (20-99)	13	9	11	5	3	
	Large (100 or more)	7	2	12	2	7	
Attica	Small (5-19)	3	7	3	6	19	**110**
	Medium (20-99)	3	11	3	3	5	
	Large (100 or more)	8	2	18	16	3	
Aegean Island, Crete	Small (5-19)	20	10	15	11	6	**127**
	Medium (20-99)	13	1	8	17	3	
	Large (100 or more)	1	0	0	1	21	
		103	**104**	**92**	**75**	**96**	**470**

Original Sample Design (Panel)

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	1	2	6	9	2	**36**
	Medium (20-99)	2	1	4	2	2	
	Large (100 or more)	1	1	0	1	2	
Central Greece	Small (5-19)	3	2	5	7	2	**31**
	Medium (20-99)	2	2	3	2	2	
	Large (100 or more)	0	0	0	1	0	
Attica	Small (5-19)	2	2	2	8	6	**40**
	Medium (20-99)	2	5	2	2	2	
	Large (100 or more)	0	0	2	3	2	
Aegean Island, Crete	Small (5-19)	1	1	2	7	2	**23**
	Medium (20-99)	2	0	1	2	2	
	Large (100 or more)	1	0	1	1	0	
Total		**17**	**16**	**28**	**45**	**24**	**130**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual

observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 4.9% (100 out of 2058 establishments).[26]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	7	27	13	6	15	**150**
	Medium (20-99)	10	12	7	8	3	
	Large (100 or more)	14	3	10	7	8	
Central Greece	Small (5-19)	10	27	8	11	10	**150**
	Medium (20-99)	15	11	14	7	5	
	Large (100 or more)	10	2	12	1	7	
Attica	Small (5-19)	5	9	5	14	27	**150**
	Medium (20-99)	3	15	5	11	7	
	Large (100 or more)	8	2	19	16	4	
Aegean Island, Crete	Small (5-19)	21	11	17	18	8	**150**
	Medium (20-99)	15	1	9	18	5	
	Large (100 or more)	2	0	1	3	21	
Total		**120**	**120**	**120**	**120**	**120**	**600**

Achieved Interviews (Panel)

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	0	2	10	2	4	**23**
	Medium (20-99)	1	0	1	0	0	
	Large (100 or more)	0	1	0	1	1	
Central Greece	Small (5-19)	1	2	5	8	2	**29**
	Medium (20-99)	2	2	3	2	2	
	Large (100 or more)	0	0	0	0	0	
Attica	Small (5-19)	2	2	2	8	8	**40**
	Medium (20-99)	0	4	2	8	2	
	Large (100 or more)	0	0	1	0	1	
Aegean Island, Crete	Small (5-19)	1	1	2	7	2	**19**
	Medium (20-99)	1	0	1	1	2	
	Large (100 or more)	0	0	1	0	0	
Total		**8**	**14**	**28**	**37**	**24**	**111**

A.12.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
961	**Eligible**	1. Eligible establishment (Correct name and address)	954
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0

[26] Based on out of target and ineligible contacts.

		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	5
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	2
974	**Screener refusal**	13. Refuses to answer the screener	974
58	**Ineligible**	5. The establishment has less than 5 permanent full time employees	0
		616. The firm discontinued businesses - (Establishment went bankrupt)	1
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	1
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	11
		621. The firm discontinued businesses - (Other)	12
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	31
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	2
42	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	20
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	10
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	12
23	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	7
		92. Line out of order	5
		93. No tone	0
		94. Phone number does not exist	5
		10. Answering machine	3
		11. Fax line- data line	2
		12. Wrong address/ moved away and could not get the new references	1
2058	**Total contacted**		

Response Outcomes: Greece ES 2019

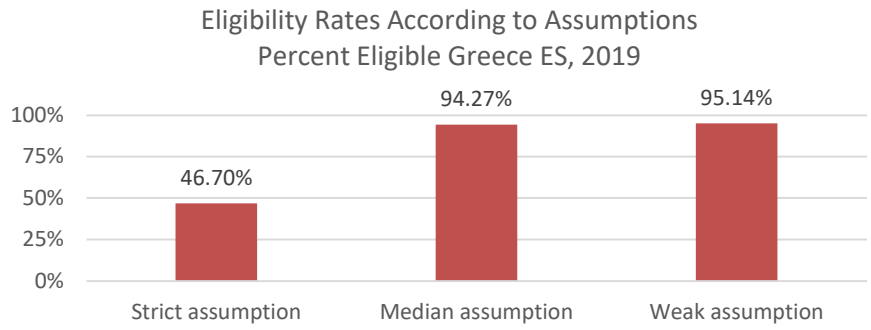
Target and totals	Sample target	600
	Sample target completion rate	100.0%
	Total contacts available in frame	56420
	Total contacts issued	2558
	Total contacts contacted	2058
	Screening in process	0

Screening phase	Eligibles	961
	Screener refusal	974
	Ineligible + out of target	100
	Unobtainable	23
Interview phase (only if eligible)	Complete interviews without extra module	28
	Complete interviews with extra module	572
	Eligible in process + incomplete interviews	0
	Interview refusal	354
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	47.3%
	Ineligible + out of target rate	4.9%
	Unobtainable rate	1.1%
	Interview conversion rate	29.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	17.2%

A.12.3. Universe estimates

Universe estimates for the number of establishments in each cell in Greece were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Greece were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	428	102	552	1126	2402	**5745**
	Medium (20-99)	116	33	179	273	439	
	Large (100 or more)	31	3	24	10	28	
Central Greece	Small (5-19)	287	74	239	732	1624	**3674**
	Medium (20-99)	84	24	93	213	244	
	Large (100 or more)	14	4	26	4	11	

Attica	Small (5-19)	354	122	661	1688	3469	**1935**
	Medium (20-99)	82	36	227	393	895	
	Large (100 or more)	16	5	36	36	83	
Aegean Island, Crete	Small (5-19)	112	21	67	390	1007	**19535**
	Medium (20-99)	25	2	15	90	169	
	Large (100 or more)	2	0	1	3	29	
Total		**1551**	**425**	**2120**	**4960**	**10401**	**19458**

Median Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	892	181	1179	2117	6705	**13403**
	Medium (20-99)	213	51	337	454	1082	
	Large (100 or more)	57	4	46	17	69	
Central Greece	Small (5-19)	670	148	572	1544	5085	**9633**
	Medium (20-99)	174	42	196	396	674	
	Large (100 or more)	30	8	56	7	31	
Attica	Small (5-19)	932	276	1788	4018	12259	**24169**
	Medium (20-99)	192	72	542	825	2791	
	Large (100 or more)	37	10	87	76	263	
Aegean Island, Crete	Small (5-19)	300	49	185	948	3633	**6058**
	Medium (20-99)	60	4	37	194	538	
	Large (100 or more)	5	0	6	5	93	
		3561	**844**	**5032**	**10601**	**33224**	**53262**

Weak Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Other Manufacturing	Retail	Other Services	Grand Total
North Greece	Small (5-19)	904	183	1186	2122	6794	**13533**
	Medium (20-99)	215	51	338	453	1093	
	Large (100 or more)	57	4	46	17	69	
Central Greece	Small (5-19)	682	150	578	1555	5176	**9771**
	Medium (20-99)	176	42	198	398	684	
	Large (100 or more)	30	8	56	7	31	
Attica	Small (5-19)	947	279	1805	4038	12453	**24463**
	Medium (20-99)	194	73	545	827	2827	
	Large (100 or more)	37	10	87	76	264	
Aegean Island, Crete	Small (5-19)	307	50	187	959	3715	**6179**
	Medium (20-99)	61	4	38	196	549	
	Large (100 or more)	5	0	9	5	94	
		3615	**853**	**5074**	**10654**	**33750**	**53946**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.12.4. Non-Response

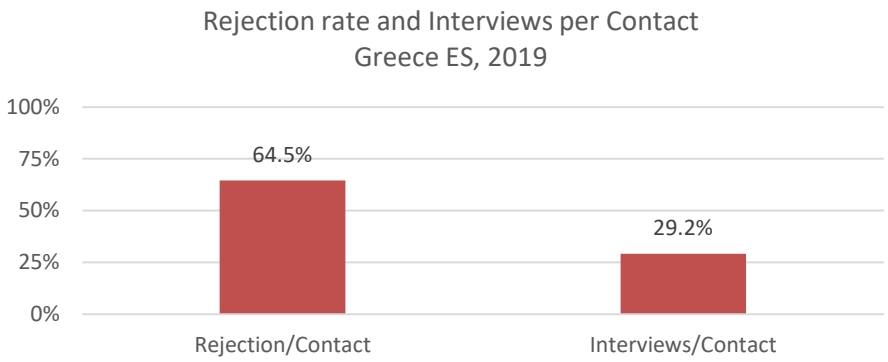
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer

some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. For this survey there were zero non-responses for the sales variable, *d2*. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.

As the following graph shows, the number of interviews per contacted establishments was 0.29.[27] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.65.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Greece. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.13 Hungary

A.13.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 310 firms from the Hungary 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Dunn & Bradstreet was used.

Regional stratification for the Hungary ES was done across seven regions: Central Hungary (Közép-Magyarország), Central Transdanubia (Közép-Dunántúl), Northern Great Plain (Észak-Alföld),

[27] The estimate is based on the total no. of firms contacted including ineligible establishments.

Northern Hungary (Észak-Magyarország), Southern Great Plain (Dél-Alföld), Southern Transdanubia (Dél-Dunántúl) and Western Transdanubia (Nyugat-Dunántúl).

NUTS1	NUTS2	NUTS3	Grouping used for stratification purposes in BEEPS VI
Central Hungary (Közép-Magyarország)	Budapest	Budapest	Central Hungary (Közép-Magyarország)
	Pest	Pest	
Transdanubia (Dunántúl)	Central Transdanubia (Közép-Dunántúl)	Fejér	Central Transdanubia (Közép-Dunántúl)
		Komárom-Esztergom	
		Komárom-Esztergom	
	Western Transdanubia (Nyugat-Dunántúl)	Győr-Moson-Sopron	Western Transdanubia (Nyugat-Dunántúl)
		Vas	
		Zala	
	Southern Transdanubia (Dél-Dunántúl)	Baranya	Southern Transdanubia (Dél-Dunántúl)
		Somogy	
		Tolna	
Great Plain and North (Alföld és Észak)	Northern Hungary (Észak-Magyarország)	Borsod-Abaúj-Zemplén	Northern Hungary (Észak-Magyarország)
		Heves	
		Nógrád	
	Northern Great Plain (Észak-Alföld)	Hajdú-Bihar	Northern Great Plain (Észak-Alföld)
		Jász-Nagykun-Szolnok	
		Szabolcs-Szatmár-Bereg	
	Southern Great Plain (Dél-Alföld)	Bács-Kiskun	Southern Great Plain (Dél-Alföld)
		Békés	
		Csongrád-Csanád	

Hungary ES Sample Frame (Fresh and Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	475	545	149	1477	3793	12318	**24352**
	Medium (20-99)	192	260	60	608	449	3133	
	Large (100 or more)	57	37	17	187	94	501	
Central Transdanubia	Small (5-19)	123	264	47	368	689	2098	**4760**
	Medium (20-99)	52	127	27	160	94	472	
	Large (100 or more)	17	30	15	136	6	35	
Western Transdanubia	Small (5-19)	110	179	39	376	712	2094	**4637**
	Medium (20-99)	42	83	22	221	100	431	
	Large (100 or more)	17	22	18	99	8	64	
Southern Transdanubia	Small (5-19)	124	153	34	260	539	1460	**3355**
	Medium (20-99)	54	63	15	151	57	330	
	Large (100 or more)	14	20	5	50	7	19	
Northern Hungary	Small (5-19)	149	148	41	245	619	1460	**3489**
	Medium (20-99)	59	110	17	108	49	318	
	Large (100 or more)	13	31	9	74	9	30	
Northern Great Plain	Small (5-19)	162	174	42	354	861	2296	**5173**
	Medium (20-99)	114	123	18	190	117	506	
	Large (100 or more)	29	26	9	86	15	51	
Southern Great Plain	Small (5-19)	240	197	67	415	991	2446	**5726**
	Medium (20-99)	117	93	33	223	119	572	
	Large (100 or more)	43	14	11	95	8	42	

		2203	2699	695	5883	9336	30676	51492

Source: World Bank and Dunn & Bradstreet

Hungary Sample Frame (Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	3	2	5	11	29	27	**136**
	Medium (20-99)	1	4	2	5	11	12	
	Large (100 or more)	2	1	0	2	8	11	
Central Transdanubia	Small (5-19)	0	0	0	5	9	5	**28**
	Medium (20-99)	0	0	0	2	0	0	
	Large (100 or more)	0	0	0	3	2	2	
Western Transdanubia	Small (5-19)	1	1	1	1	7	9	**36**
	Medium (20-99)	1	0	0	3	0	4	
	Large (100 or more)	1	0	0	4	1	2	
Southern Transdanubia	Small (5-19)	2	0	0	0	5	5	**21**
	Medium (20-99)	0	0	0	2	2	1	
	Large (100 or more)	0	0	0	2	1	1	
Northern Hungary	Small (5-19)	1	2	0	2	4	4	**23**
	Medium (20-99)	0	0	0	2	2	1	
	Large (100 or more)	0	0	0	1	1	3	
Northern Great Plain	Small (5-19)	1	2	0	2	4	5	**29**
	Medium (20-99)	2	1	1	3	1	2	
	Large (100 or more)	3	0	0	1	1	0	
Southern Great Plain	Small (5-19)	1	1	0	4	15	9	**37**
	Medium (20-99)	0	0	0	0	3	0	
	Large (100 or more)	1	0	0	0	1	2	
		20	**14**	**9**	**55**	**107**	**105**	**310**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	3	3	3	3	7	21	**79**
	Medium (20-99)	3	3	3	3	3	6	
	Large (100 or more)	3	3	3	3	3	3	
Central Transdanubia	Small (5-19)	3	5	12	3	3	10	**101**
	Medium (20-99)	7	8	7	3	4	3	
	Large (100 or more)	4	8	4	8	2	7	
Western Transdanubia	Small (5-19)	3	3	10	3	3	7	**91**
	Medium (20-99)	7	7	6	3	5	3	
	Large (100 or more)	4	6	5	7	2	7	
Southern Transdanubia	Small (5-19)	5	7	9	3	6	4	**102**
	Medium (20-99)	12	11	4	3	6	3	
	Large (100 or more)	4	5	1	12	2	5	
	Small (5-19)	5	3	11	3	7	3	**100**

Northern Hungary	Medium (20-99)	10	10	4	3	4	3	
	Large (100 or more)	3	8	2	11	2	8	
Northern Great Plain	Small (5-19)	3	3	10	3	7	12	**97**
	Medium (20-99)	5	5	5	3	3	3	
	Large (100 or more)	8	7	2	7	4	7	
Southern Great Plain	Small (5-19)	3	3	11	3	7	11	**100**
	Medium (20-99)	6	6	9	3	3	3	
	Large (100 or more)	11	4	3	7	2	5	
		112	**118**	**124**	**97**	**85**	**134**	**670**

Original Sample Design (Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	2	2	2	2	2	11	**41**
	Medium (20-99)	1	2	2	2	2	2	
	Large (100 or more)	2	1	0	2	2	2	
Central Transdanubia	Small (5-19)	0	0	0	2	6	3	**19**
	Medium (20-99)	0	0	0	2	0	0	
	Large (100 or more)	0	0	0	2	2	2	
Western Transdanubia	Small (5-19)	1	1	1	1	6	7	**29**
	Medium (20-99)	1	0	0	2	0	2	
	Large (100 or more)	1	0	0	3	1	2	
Southern Transdanubia	Small (5-19)	2	0	0	0	4	3	**18**
	Medium (20-99)	0	0	0	2	2	1	
	Large (100 or more)	0	0	0	2	1	1	
Northern Hungary	Small (5-19)	1	2	0	2	3	3	**20**
	Medium (20-99)	0	0	0	2	2	1	
	Large (100 or more)	0	0	0	1	1	2	
Northern Great Plain	Small (5-19)	1	2	0	2	2	3	**23**
	Medium (20-99)	2	1	1	2	1	2	
	Large (100 or more)	2	0	0	1	1	0	
Southern Great Plain	Small (5-19)	1	1	0	2	4	6	20
	Medium (20-99)	0	0	0	0	2	0	
	Large (100 or more)	1	0	0	0	1	2	
		18	**12**	**6**	**34**	**45**	**55**	**170**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 8.0% (617 out of 7697 establishments).[28]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	6	9	7	5	10	40	**111**
	Medium (20-99)	3	3	2	3	4	7	

[28] Based on out of target and ineligible contacts.

	Large (100 or more)	3	2	1	2	3	1	
Central Transdanubia	Small (5-19)	5	5	11	5	7	14	**122**
	Medium (20-99)	11	9	8	5	5	3	
	Large (100 or more)	2	8	3	12	3	6	
Western Transdanubia	Small (5-19)	5	9	7	7	13	17	
	Medium (20-99)	0	9	5	9	5	2	**111**
	Large (100 or more)	0	2	4	5	3	5	
	Medium and Large (20+)	4	0	0	0	0	0	
Southern Transdanubia	Small (5-19)	17	11	10	5	14	6	
	Medium (20-99)	10	11	0	5	9	5	**140**
	Large (100 or more)	4	6	0	12	2	6	
	Medium and Large (20+)	0	0	7	0	0	0	
Northern Hungary	Small (5-19)	12	6	7	10	18	5	
	Medium (20-99)	0	8	0	10	0	3	**93**
	Large (100 or more)	0	1	0	3	0	2	
	Medium and Large (20+)	1	0	3	0	4	0	
Northern Great Plain	Small (5-19)	5	13	6	3	12	24	
	Medium (20-99)	3	15	0	8	7	4	**117**
	Large (100 or more)	2	1	0	7	1	3	
	Medium and Large (20+)	0	0	3	0	0	0	
Southern Great Plain	Small (5-19)	8	7	9	5	6	17	**111**
	Medium (20-99)	10	11	8	3	4	2	
	Large (100 or more)	4	4	2	4	1	6	
		115	**150**	**103**	**128**	**131**	**178**	**805**

Achieved Interviews (Panel)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	0	0	1	1	2	12	**26**
	Medium (20-99)	0	1	1	1	3	1	
	Large (100 or more)	1	0	0	0	1	1	
Central Transdanubia	Small (5-19)	0	0	0	2	3	5	**13**
	Medium (20-99)	0	0	0	1	0	0	
	Large (100 or more)	0	0	0	2	0	0	
Western Transdanubia	Small (5-19)	0	1	0	1	3	7	**12**
	Medium (20-99)	0	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	
Southern Transdanubia	Small (5-19)	1	0	0	0	4	2	**12**
	Medium (20-99)	0	0	0	1	2	0	
	Large (100 or more)	0	0	0	2	0	0	
Northern Hungary	Small (5-19)	1	0	0	2	0	2	**7**
	Medium (20-99)	0	0	0	0	0	1	
	Large (100 or more)	0	0	0	0	1	0	
Northern Great Plain	Small (5-19)	0	0	0	0	1	2	**6**
	Medium (20-99)	0	1	0	2	0	0	
	Large (100 or more)	0	0	0	0	0	0	
Southern Great Plain	Small (5-19)	0	1	0	1	1	5	**11**
	Medium (20-99)	0	0	0	0	0	0	

	Large (100 or more)	0	0	0	0	1	2	
		3	**4**	**2**	**16**	**22**	**40**	**87**

A.13.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
808	**Eligible**	1. Eligible establishment (Correct name and address)	808
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
5187	**Screener refusal**	13. Refuses to answer the screener	5187
506	**Ineligible**	5. The establishment has less than 5 permanent full time employees	0
		616. The firm discontinued businesses - (Establishment went bankrupt)	37
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	8
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	17
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	82
		621. The firm discontinued businesses - (Other)	41
		71. Ineligible legal status: not a business, but private household	22
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	4
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	295
111	**Out of Target**	151. Out of target - outside the covered regions	83
		152. Out of target - moved abroad	11
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	2
		156. Duplicated firm within the sample	15
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
1085	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	1034
		92. Line out of order	6
		93. No tone	1
		94. Phone number does not exist	2
		10. Answering machine	7
		11. Fax line- data line	0

		12. Wrong address/ moved away and could not get the new references	35
7697	**Total contacted**		

Response Outcomes: Hungary ES 2019

Target and totals	Sample target	840
	Sample target completion rate	95.8%
	Total contacts available in frame	10184
	Total contacts issued	7697
	Total contacts contacted	7697

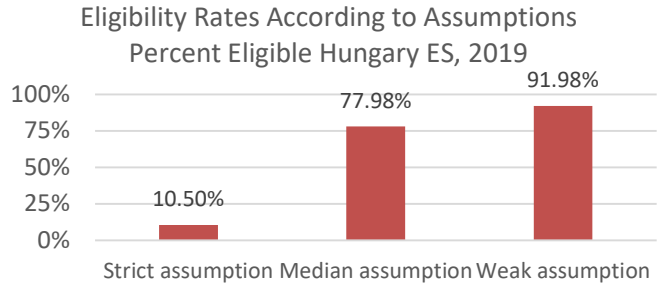
Screening phase	Screening in process	0
	Eligibles	808
	Screener refusal	5187
	Ineligible + out of target	617
	Unobtainable	1085
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	805
	Eligible in process + incomplete interviews	0
	Interview refusal	3

Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	67.4%
	Ineligible + out of target rate	8.0%
	Unobtainable rate	14.1%
	Interview conversion rate	10.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.0%

A.13.3. Universe estimates

Universe estimates for the number of establishments in each cell in Hungary were produced for the strict, weak and median eligibility definitions described 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Hungary were produced for the strict, weak and median eligibility definitions. Tables below shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	24	31	14	60	164	360	**885**
	Medium (20-99)	10	16	6	26	21	97	
	Large (100 or more)	3	2	2	8	4	36	
Central Transdanubia	Small (5-19)	25	62	18	62	123	254	**758**
	Medium (20-99)	11	32	11	29	18	61	
	Large (100 or more)	4	8	6	25	3	6	
Western Transdanubia	Small (5-19)	9	17	7	26	53	105	**307**
	Medium (20-99)	0	9	5	16	8	23	
	Large (100 or more)	0	2	4	7	3	5	
	Medium and Large (20+)	5	0	0	0	0	0	
Southern Transdanubia	Small (5-19)	35	50	18	60	133	244	**734**
	Medium (20-99)	16	22	0	37	15	59	
	Large (100 or more)	4	7	0	13	2	6	
	Medium and Large (20+)	0	0	12	0	0	0	
Northern Hungary	Small (5-19)	12	14	7	17	45	71	**230**
	Medium (20-99)	0	11	0	10	0	17	
	Large (100 or more)	0	3	0	5	0	2	
	Medium and Large (20+)	6	0	4	0	5	0	
Northern Great Plain	Small (5-19)	15	19	7	27	70	126	**369**
	Medium (20-99)	11	15	0	15	10	30	
	Large (100 or more)	3	3	0	7	1	3	
	Medium and Large (20+)	0	0	5	0	0	0	
Southern Great Plain	Small (5-19)	28	26	15	40	101	168	**519**
	Medium (20-99)	15	13	8	23	13	42	
	Large (100 or more)	5	4	3	10	1	6	
		244	**367**	**152**	**524**	**793**	**1721**	**3801**

Median Universe Estimates – Fresh:

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Hungary	Small (5-19)	345	406	112	1088	2879	8981	**17763**
	Medium (20-99)	133	185	43	428	326	2184	
	Large (100 or more)	38	25	12	126	65	387	
Central Transdanubia	Small (5-19)	118	260	47	358	691	2022	**4577**
	Medium (20-99)	48	119	26	149	90	435	
	Large (100 or more)	15	27	14	121	6	31	
Western Transdanubia	Small (5-19)	100	167	37	348	679	1918	**4236**
	Medium (20-99)	0	74	20	196	91	377	
	Large (100 or more)	0	19	16	84	7	53	
	Medium and Large (20+)	51	0	0	0	0	0	
Southern Transdanubia	Small (5-19)	118	149	34	251	536	1394	**3201**
	Medium (20-99)	49	59	0	139	54	301	
	Large (100 or more)	12	18	0	44	6	17	

	Medium and Large (20+)	0	0	19	0	0	0	
Northern Hungary	Small (5-19)	114	116	33	191	497	1125	
	Medium (20-99)	0	83	0	80	0	234	**2684**
	Large (100 or more)	0	22	0	53	0	21	
	Medium and Large (20+)	52	0	20	0	44	0	
Northern Great Plain	Small (5-19)	108	119	29	240	601	1539	
	Medium (20-99)	73	80	0	123	78	324	**3461**
	Large (100 or more)	18	16	0	53	10	31	
	Medium and Large (20+)	0	0	18	0	0	0	
Southern Great Plain	Small (5-19)	178	150	52	313	771	1827	**4272**
	Medium (20-99)	83	68	24	161	88	409	
	Large (100 or more)	29	10	8	65	6	29	
		1682	**2172**	**561**	**4612**	**7526**	**23642**	**40195**

Weak Universe Estimates – Fresh:

		Food	**Fabricated Metal Products**	**Machinery and Equipment**	**Other Manufacturing**	**Retail**	**Other Services**	**Grand Total**
Central Hungary	Small (5-19)	428	495	140	1321	3423	10964	**21802**
	Medium (20-99)	174	237	56	546	407	2801	
	Large (100 or more)	52	34	16	169	86	452	
Central Transdanubia	Small (5-19)	120	260	48	357	674	2025	**4631**
	Medium (20-99)	51	126	28	156	92	458	
	Large (100 or more)	17	30	15	133	7	34	
Western Transdanubia	Small (5-19)	107	175	39	363	693	2011	
	Medium (20-99)	0	82	22	214	98	416	**4487**
	Large (100 or more)	0	22	18	97	8	62	
	Medium and Large (20+)	59	0	0	0	0	0	
Southern Transdanubia	Small (5-19)	120	149	34	249	520	1390	
	Medium (20-99)	52	61	0	145	55	316	**3218**
	Large (100 or more)	14	20	0	48	7	19	
	Medium and Large (20+)	0	0	21	0	0	0	
Northern Hungary	Small (5-19)	139	139	40	227	579	1346	
	Medium (20-99)	0	104	0	101	0	294	**3246**
	Large (100 or more)	0	29	0	69	0	28	
	Medium and Large (20+)	69	0	26	0	56	0	
Northern Great Plain	Small (5-19)	135	145	36	292	716	1882	
	Medium (20-99)	95	103	0	157	98	417	
	Large (100 or more)	24	22	0	72	13	42	**4272**
	Medium and Large (20+)	0	0	24	0	0	0	
Southern Great Plain	Small (5-19)	220	182	64	377	908	2209	**5212**
	Medium (20-99)	108	86	32	203	109	519	
	Large (100 or more)	40	13	11	87	7	38	
		2024	**2514**	**669**	**5383**	**8556**	**27724**	**46869**

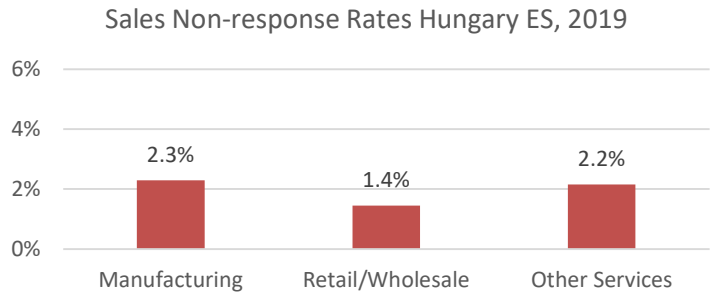
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.13.4. Non-Response

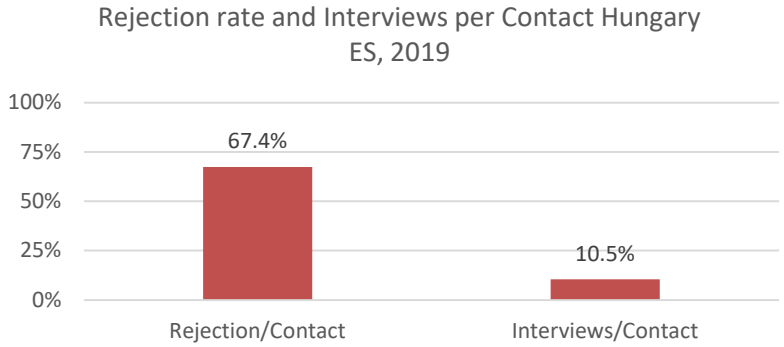
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.11.[29] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.67.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames

[29] The estimate is based on the total no. of firms contacted including ineligible establishments.

are not unique to Hungary. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.14 Italy

A.14.1. Sampling structure and implementation

The sample frame consisted of a listing of establishments from Dun & Bradstreet. For establishments that were part of a multi-establishment firm and did not have establishment-level information on size, size information of the immediate headquarters was used to impute size bands as follows:

- If the immediate headquarters was small, the establishment was classified as small.
- If the immediate headquarters was medium or large, the establishment was classified as medium.

Regional stratification for the Italy ES was done across the five NUTS1 regions: Northwest, Northeast, Center, South and Islands.

NUTS-2 regions	**NUTS-1 regions**	**Grouping to be used for stratification purposes in BEEPS VI**
Piemonte	Northwest Italy	Northwest
Valle d'Aosta		
Liguria		
Lombardia		
Trentoni-Alto-Adige/Sudtirol	Northeast Italy	Northeast
Veneto		
Friuli-Venezia Giulia		
Emilia-Romagna		
Toscana	Central Italy	Central
Umbria		
Marche		
Lazio		
Abruzzo	South Italy	South
Molise		
Campania		
Puglia		
Basilicata		
Calabria		
Sicilia	Insular Italy	Islands
Sardegna		

Italy ES Sample Frame (Fresh)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Northwest	Small (5-19)	60	180	100	360	240	660	**3117**
	Medium (20-99)	80	140	160	100	60	120	
	Large (100 or more)	150	220	267	80	80	60	
Northeast	Small (5-19)	60	120	80	320	160	580	**2834**
	Medium (20-99)	100	140	180	100	60	100	
	Large (100 or more)	141	173	280	80	100	60	
Center	Small (5-19)	80	80	80	340	260	480	**2617**
	Medium (20-99)	160	180	220	100	80	80	
	Large (100 or more)	36	60	40	160	121	60	
South	Small (5-19)	160	120	120	140	260	380	**2657**
	Medium (20-99)	220	240	280	100	100	60	
	Large (100 or more)	94	52	21	166	84	60	
Islands	Small (5-19)	280	240	211	120	280	180	**2717**
	Medium (20-99)	400	200	80	220	280	60	
	Large (100 or more)	14	16	6	27	43	60	
		2035	**2161**	**2125**	**2413**	**2208**	**3000**	**13942**

Source: Dun & Bradstreet

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Northwest	Small (5-19)	3	9	5	18	12	33	**160**
	Medium (20-99)	4	7	8	5	3	6	
	Large (100 or more)	11	11	14	4	4	3	
Northeast	Small (5-19)	3	6	4	16	8	29	**150**
	Medium (20-99)	5	7	9	5	3	5	

	Large (100 or more)	12	12	14	4	5	3	
Center	Small (5-19)	4	4	4	17	13	24	**150**
	Medium (20-99)	8	9	11	5	4	4	
	Large (100 or more)	7	7	9	8	9	3	
South	Small (5-19)	8	6	6	7	13	19	**150**
	Medium (20-99)	11	12	14	5	5	3	
	Large (100 or more)	9	7	3	11	8	3	
Islands	Small (5-19)	14	12	14	6	14	9	**150**
	Medium (20-99)	20	10	4	11	14	3	
	Large (100 or more)	1	1	1	8	5	3	
		120	**120**	**120**	**130**	**120**	**150**	**760**

The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 4.5% (205 out of 4520 establishments).[30]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh)

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Northwest	Small (5-19)	3	9	5	18	12	33	**162**
	Medium (20-99)	4	7	8	5	3	6	
	Large (100 or more)	11	11	15	5	4	3	
Northeast	Small (5-19)	3	6	4	16	7	30	**150**
	Medium (20-99)	5	7	9	5	3	5	
	Large (100 or more)	12	12	14	4	5	3	
Center	Small (5-19)	4	4	4	17	13	24	**150**
	Medium (20-99)	8	9	13	5	4	4	
	Large (100 or more)	7	7	7	8	9	3	
South	Small (5-19)	8	6	6	7	13	17	**148**
	Medium (20-99)	11	12	14	5	5	3	

[30] Based on out of target and ineligible contacts.

	Large (100 or more)	9	7	3	11	8	3	
Islands	Small (5-19)	14	12	14	6	14	9	**150**
	Medium (20-99)	20	10	0	11	14	3	
	Large (100 or more)	1	1	0	8	5	3	
	Medium and Large (20+)	0	0	5	0	0	0	
		120	**120**	**121**	**131**	**119**	**149**	**760**

A.14.2. Status codes

61	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	61
771	**Eligible**	1. Eligible establishment (Correct name and address)	766
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	3
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	2
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
1270	**Screener refusal**	13. Refuses to answer the screener	1270
169	**Ineligible**	5. The establishment has less than 5 permanent full time employees	13
		616. The firm discontinued businesses - (Establishment went bankrupt)	0
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	0
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	4
		621. The firm discontinued businesses - (Other)	3
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	148
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	1
36	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	4
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	1
		156. Duplicated firm within the sample	8
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	23
2213	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	854
		92. Line out of order	30
		93. No tone	224
		94. Phone number does not exist	1083
		10. Answering machine	4
		11. Fax line- data line	15
		12. Wrong address/ moved away and could not get the new references	3
4520	**Total contacted**		

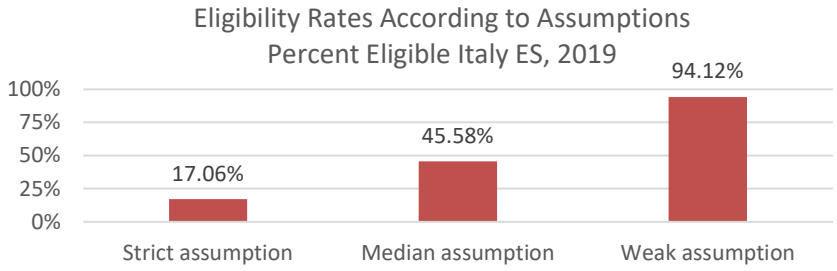
Response Outcomes: Italy ES 2019

Target and totals	Sample target	760
	Sample target completion rate	100.0%
	Total contacts available in frame	13942
	Total contacts issued	5135
	Total contacts contacted	4520
Screening phase	Screening in process	61
	Eligibles	771
	Screener refusal	1270
	Ineligible + out of target	205
	Unobtainable	2213
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	760
	Eligible in process + incomplete interviews	0
	Interview refusal	11
Percent breakdown (relative to total contacted)	Screening in process rate	1.3%
	Screener refusal rate	28.1%
	Ineligible + out of target rate	4.5%
	Unobtainable rate	49.0%
	Interview conversion rate	16.8%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.2%

A.14.3. Universe estimates

Universe figures for the number of establishments in each cell in Italy were obtained from Istat's 2015 ASIA registry (Registro statistico delle imprese attive).

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Weights for the probability of selection were computed using the number of completed interviews for each cell.

For this survey, because the source of the sample was different than the source of universe figures, eligibility adjustments were not made, and wstrict, wmedian and wweak coincide.

Universe

		Food	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Northwest	Small (5-19)	2767	6986	3780	15783	11668	46900	**111381**
	Medium (20-99)	732	1854	1712	5491	2019	8484	
	Large (100 or more)	161	163	336	1149	329	1067	
Northeast	Small (5-19)	2785	5093	3312	14089	9528	41105	**95615**
	Medium (20-99)	839	1581	1581	4966	1693	6712	
	Large (100 or more)	174	141	373	861	150	632	
Center	Small (5-19)	2256	2249	899	12763	9782	34137	**74797**
	Medium (20-99)	345	534	369	3134	1512	5356	
	Large (100 or more)	46	44	57	483	151	680	
South	Small (5-19)	2623	1466	509	6467	9017	27185	**55932**
	Medium (20-99)	545	375	174	1699	845	4211	
	Large (100 or more)	61	44	18	252	55	386	
Islands	Small (5-19)	1270	417	97	1629	4664	11795	**22900**
	Medium (20-99)	178	69	29	332	496	1653	
	Large (100 or more)	9	6	7	50	34	165	
		14791	**21022**	**13253**	**69148**	**51943**	**190468**	**360625**

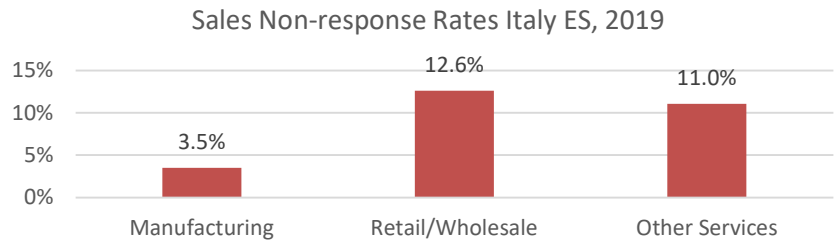
Note: The sampling frame used and the universe are from separate sources.

A.14.4. Non-response

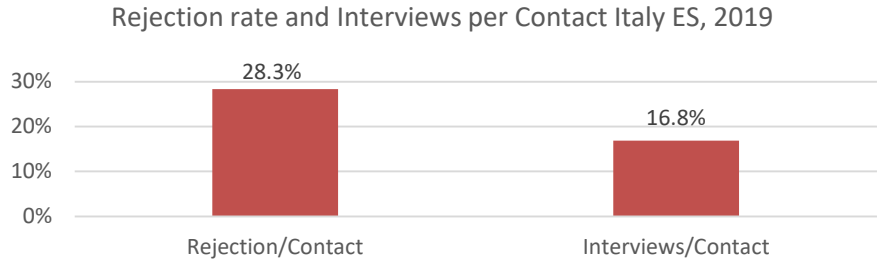
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.17.[31] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.28.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Italy. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[31] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.15 Jordan

A.15.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 573 firms from the Jordan 2013 ES was used and for fresh firms (i.e., firms not covered in 2013), lists of firms from the local Chambers of Commerce were compiled and used.

Regional stratification was done across five regions: Amman, Irbid, Zarqa, North and Central (Ajloun, Balqa, Jarash, Madaba, Mafraq) and South (Aqaba, Karak, Ma'an, Tafilah).

Governorates of Jordan	Grouping used for stratification purposes in BEEPS VI
Irbid	Irbid
Ajloun	North and Central
Jerash	
Mafraq	
Balqa	
Madaba	
Zarqa	Zarqa
Amman	Amman
Karak	South
Tafilah	
Ma'an	
Aqaba	

Jordan ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	91	24	370	1178	2147	**9267**
	Medium (20-99)	221	64	737	2513	641	
	Large (100 or more)	50	19	86	671	455	
Irbid	Small (5-19)	164	6	154	41	52	**1042**
	Medium (20-99)	78	60	148	42	27	
	Large (100 or more)	10	53	23	7	177	
Zarqa	Small (5-19)	127	61	334	88	308	**1657**
	Medium (20-99)	65	9	76	47	188	
	Large (100 or more)	14	20	23	0	297	
North and Central	Small (5-19)	9	0	10	30	76	**458**
	Medium (20-99)	14	0	27	5	14	
	Large (100 or more)	1	12	5	1	254	
South	Small (5-19)	95	30	88	37	340	**831**
	Medium (20-99)	3	1	5	3	28	
	Large (100 or more)	0	2	1	0	198	
		942	**361**	**2087**	**4663**	**5202**	**132255**

Source: World Bank and Jordan Chambers of Commerce

Jordan Sample Frame (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	16	11	37	26	34	**302**
	Medium (20-99)	15	12	35	13	36	
	Large (100 or more)	11	5	28	11	12	
Irbid	Small (5-19)	3	0	10	18	7	**95**

	Medium (20-99)	11	3	8	5	6	
	Large (100 or more)	0	19	5	0	0	
Zarqa	Small (5-19)	7	6	10	11	11	**92**
	Medium (20-99)	9	1	6	2	2	
	Large (100 or more)	7	9	11	0	0	
North and Central	Small (5-19)	4	0	7	5	5	**36**
	Medium (20-99)	3	0	3	2	0	
	Large (100 or more)	1	0	5	1	0	
South	Small (5-19)	1	0	13	11	13	**48**
	Medium (20-99)	0	0	3	1	5	
	Large (100 or more)	0	0	0	0	1	
		88	**66**	**181**	**106**	**132**	**573**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Full)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	2	2	2	6	11	**78**
	Medium (20-99)	2	2	4	30	4	
	Large (100 or more)	2	2	2	4	3	
Irbid	Small (5-19)	2	2	2	2	2	**62**
	Medium (20-99)	6	13	2	2	2	
	Large (100 or more)	5	15	3	2	2	
Zarqa	Small (5-19)	4	2	2	2	2	**55**
	Medium (20-99)	15	4	2	2	2	
	Large (100 or more)	4	6	6	0	2	
North and Central	Small (5-19)	3	0	2	10	2	**72**
	Medium (20-99)	6	0	12	2	3	
	Large (100 or more)	0	6	0	0	26	
South	Small (5-19)	30	15	5	2	2	**83**
	Medium (20-99)	2	1	1	1	2	
	Large (100 or more)	0	1	1	0	20	
		83	**71**	**46**	**65**	**85**	**350**

Original Sample Design (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	3	2	6	4	7	**62**
	Medium (20-99)	3	2	6	10	6	
	Large (100 or more)	2	1	5	3	2	
Irbid	Small (5-19)	2	0	8	8	1	**58**
	Medium (20-99)	8	2	6	4	1	
	Large (100 or more)	0	14	4	0	0	
Zarqa	Small (5-19)	5	5	8	8	2	**65**
	Medium (20-99)	7	1	5	2	2	
	Large (100 or more)	5	7	8	0	0	
	Small (5-19)	3	0	5	4	4	**28**

North and Central	Medium (20-99)	2	0	2	2	0	
	Large (100 or more)	1	0	4	1	0	
South	Small (5-19)	1	0	10	8	10	**37**
	Medium (20-99)	0	0	2	1	4	
	Large (100 or more)	0	0	0	0	1	
		42	**34**	**79**	**55**	**40**	**250**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 11.6% (507 out of 4357 establishments)[32].

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Archieved Interviews (Fresh and Panel Combined)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	7	8	14	20	24	**229**
	Medium (20-99)	10	27	18	50	10	
	Large (100 or more)	10	4	12	9	6	
Irbid	Small (5-19)	10	2	11	13	6	**104**
	Medium (20-99)	0	21	13	0	1	
	Large (100 or more)	0	7	2	0	3	
	Medium and Large (20+)	13	0	0	2	0	
Zarqa	Small (5-19)	12	2	10	8	19	**103**
	Medium (20-99)	8	0	0	6	8	
	Large (100 or more)	1	0	0	0	6	
	Medium and Large (20+)	0	4	19	0	0	
North and Central	Small (5-19)	0	0	3	3	8	**49**
	Medium (20-99)	0	0	1	0	0	
	Large (100 or more)	0	1	3	0	0	
	Medium and Large (20+)	0	0	0	1	24	
	Small, Medium and Large (5+)	5	0	0	0	0	
South	Small (5-19)	0	0	11	8	34	**116**
	Medium (20-99)	0	0	0	1	1	
	Large (100 or more)	0	0	0	0	43	
	Small and Medium (5-99)	14	0	0	0	0	
	Medium and Large (20+)	0	0	2	0	0	
	Small, Medium and Large (5+)	0	2	0	0	0	
		90	**78**	**119**	**121**	**193**	**601**

Archieved Interviews (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	2	5	12	8	10	**101**
	Medium (20-99)	5	9	11	9	6	

[32] Based on out of target and ineligible contacts.

	Large (100 or more)	6	1	10	4	3	
Irbid	Small (5-19)	2	0	4	10	1	**28**
	Medium (20-99)	0	1	3	0	0	
	Large (100 or more)	0	3	1	0	0	
	Medium and Large (20+)	3	0	0	0	0	
Zarqa	Small (5-19)	3	2	6	5	5	**29**
	Medium (20-99)	1	0	0	1	1	
	Large (100 or more)	1	0	0	0	0	
	Medium and Large (20+)	0	3	1	0	0	
North and Central	Small (5-19)	0	0	1	2	0	**10**
	Large (100 or more)	0	0	3	0	0	
	Small, Medium and Large (5+)	4	0	0	0	0	
South	Small (5-19)	0	0	5	7	8	**25**
	Medium (20-99)	0	0	0	1	1	
	Small and Medium (5-99)	1	0	0	0	0	
	Medium and Large (20+)	0	0	2	0	0	
		28	**24**	**59**	**47**	**35**	**193**

A.15.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
1552	**Eligible**	1. Eligible establishment (Correct name and address)	1546
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	2
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	2
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	1
764	**Screener refusal**	13. Refuses to answer the screener	764
417	**Ineligible**	5. The establishment has less than 5 permanent full time employees	202
		616. The firm discontinued businesses - (Establishment went bankrupt)	0
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	0
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	1
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	41
		621. The firm discontinued businesses - (Other)	103
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	70
90	**Out of Target**	151. Out of target - outside the covered regions	22
		152. Out of target - moved abroad	0

		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	68
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
1534	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	315
		92. Line out of order	604
		93. No tone	3
		94. Phone number does not exist	611
		10. Answering machine	0
		11. Fax line- data line	1
		12. Wrong address/ moved away and could not get the new references	0
4357	**Total contacted**		

Response Outcomes: Jordan ES 2019

Target and totals	Sample target	600
	Sample target completion rate	100.2%
	Total contacts available in frame	13255
	Total contacts issued	4357
	Total contacts contacted	4357

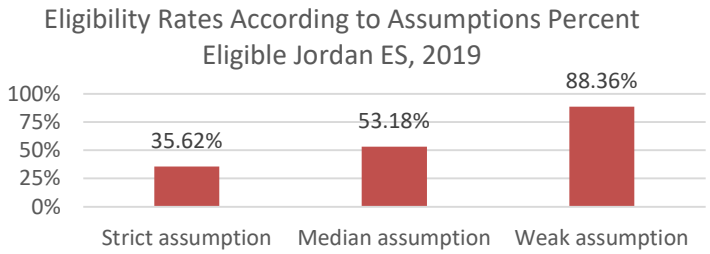
Screening phase	Screening in process	0
	Eligibles	1552
	Screener refusal	764
	Ineligible + out of target	507
	Unobtainable	1534
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	601
	Eligible in process + incomplete interviews	0
	Interview refusal	945

Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	17.5%
	Ineligible + out of target rate	11.6%
	Unobtainable rate	35.2%
	Interview conversion rate	13.8%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	21.7%

A.15.3. Universe estimates

Universe estimates for the number of establishments in each cell in Jordan were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Jordan were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	39	10	122	767	1088	**5705**
	Medium (20-99)	116	33	296	1998	397	
	Large (100 or more)	25	8	34	505	267	
Irbid	Small (5-19)	27	2	21	13	10	**193**
	Medium (20-99)	0	21	23	0	6	
	Large (100 or more)	0	8	3	0	39	
	Medium and Large (20+)	13	0	0	7	0	
Zarqa	Small (5-19)	20	29	39	22	54	**318**
	Medium (20-99)	12	0	0	13	40	
	Large (100 or more)	7	0	0	0	60	
	Medium and Large (20+)	0	4	19	0	0	
North and Central	Small (5-19)	0	0	3	5	10	**57**
	Medium (20-99)	0	0	3	0	0	
	Large (100 or more)	0	1	4	0	0	
	Medium and Large (20+)	0	0	0	1	24	
	Small, Medium and Large (5+)	5	0	0	0	0	
South	Small (5-19)	0	0	14	12	85	**202**
	Medium (20-99)	0	0	0	1	13	
	Large (100 or more)	0	0	0	0	57	
	Small and Medium (5-99)	14	0	0	0	0	
	Medium and Large (20+)	0	0	3	0	0	
	Small, Medium and Large (5+)	0	2	0	0	0	
		277	**119**	**583**	**3344**	**2151**	**6475**

Median Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	55	11	213	1027	1692	**8124**
	Medium (20-99)	162	36	511	2638	609	
	Large (100 or more)	34	8	56	663	407	
Irbid	Small (5-19)	38	2	35	14	16	**277**
	Medium (20-99)	0	21	40	0	10	
	Large (100 or more)	0	9	6	0	61	

	Medium and Large (20+)	14	0	0	11	0	
Zarqa	Small (5-19)	35	43	87	35	110	**587**
	Medium (20-99)	21	0	0	22	80	
	Large (100 or more)	10	0	0	0	120	
	Medium and Large (20+)	0	4	19	0	0	
North and Central	Small (5-19)	0	0	3	13	29	**140**
	Medium (20-99)	0	0	9	0	0	
	Large (100 or more)	0	3	5	0	0	
	Medium and Large (20+)	0	0	0	2	72	
	Small, Medium and Large (5+)	5	0	0	0	0	
South	Small (5-19)	0	0	23	15	122	**282**
	Medium (20-99)	0	0	0	2	20	
	Large (100 or more)	0	0	0	0	80	
	Small and Medium (5-99)	14	0	0	0	0	
	Medium and Large (20+)	0	0	4	0	0	
	Small, Medium and Large (5+)	0	2	0	0	0	
		390	**139**	**1011**	**4442**	**3428**	**9410**

Weak Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Amman	Small (5-19)	84	23	350	1142	2027	**9172**
	Medium (20-99)	219	68	743	2599	646	
	Large (100 or more)	48	18	84	675	446	
Irbid	Small (5-19)	138	5	132	36	45	**904**
	Medium (20-99)	0	54	136	0	25	
	Large (100 or more)	0	46	21	0	158	
	Medium and Large (20+)	69	0	0	40	0	
Zarqa	Small (5-19)	100	56	268	72	247	**1356**
	Medium (20-99)	55	0	0	41	161	
	Large (100 or more)	13	0	0	0	247	
	Medium and Large (20+)	0	21	74	0	0	
North and Central	Small (5-19)	0	0	8	24	60	**345**
	Medium (20-99)	0	0	23	0	0	
	Large (100 or more)	0	10	5	0	0	
	Medium and Large (20+)	0	0	0	5	197	
	Small, Medium and Large (5+)	14	0	0	0	0	
South	Small (5-19)	0	0	64	28	249	**593**
	Medium (20-99)	0	0	0	3	26	
	Large (100 or more)	0	0	0	0	150	
	Small and Medium (5-99)	50	0	0	0	0	
	Medium and Large (20+)	0	0	6	0	0	
	Small, Medium and Large (5+)	0	17	0	0	0	
		790	**319**	**1913**	**4665**	**4683**	**12370**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.15.4. Non-Response

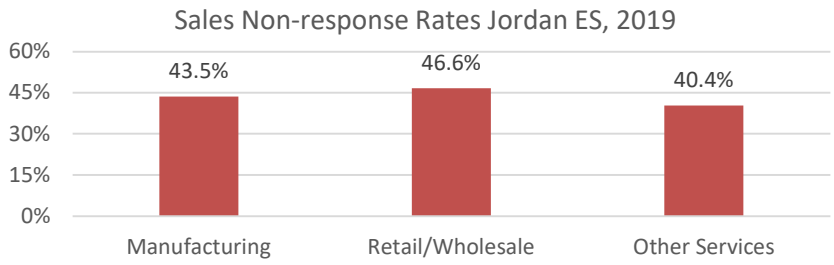
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer

some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

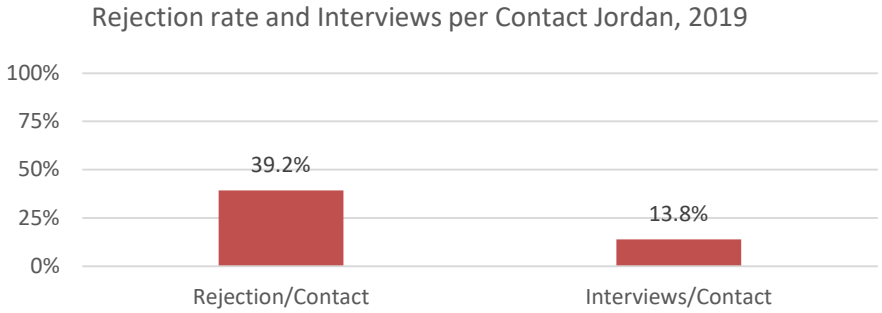
Item non-response was addressed by two strategies:

c) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).

d) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.14.[33] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.39.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Jordan. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[33] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.16 Kazakhstan

A.16.1. Sampling structure and implementation

The sample frame consisted of listings of establishments from two sources: for panel firms, the list of 600 firms from the Kazakhstan 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from the National Committee on Statistics, was used. The establishments in the listing are all registered as businesses with the Public Registration Center.

Regional stratification for the Kazakhstan ES was done across eleven regions: Akmola Region; Aktobe Region; Almaty; Almaty Region; Nur-Sultan; Atyrau Region; Mangystau and West Kazakhstan; East Kazakhstan; Karaganda Region; Kostanay, North Kazakhstan, Pavlodar and Kyzylorda Region, South Kazakhstan, Jambyl.

Regions of Kazakhstan	**Grouping to be used for stratification purposes in BEEPS VI**
Akmola Region	Akmola Region
Aktobe Region	Aktobe Region
Almaty	Almaty
Almaty Region	Almaty Region
Atyrau Region	Atyrau Region
East Kazakhstan Region	East Kazakhstan
Pavlodar Region	Kostanay, North Kazakhstan, Pavlodar
Kostanay Region	
North Kazakhstan Region	
Mangystau Region	Mangystau and West Kazakhstan
West Kazakhstan Region	
Nur-Sultan	Nur-Sultan
Karaganda Region	Karaganda Region
Kyzylorda Region	Kyzylorda Region, South Kazakhstan, Jambyl
South Kazakhstan Region	
Symkent	
Jambyl Region	
Baikonur	Not covered

Kazakhstan ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	292	43	127	126	43	745	1702	10083	**14692**
	Medium (20-99)	104	14	22	22	19	101	120	789	
	Large (100 or more)	40	1	17	7	11	52	44	168	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	321	53	227	91	25	775	1885	11176	**16278**
	Medium (20-99)	88	11	60	19	8	152	129	946	
	Large (100 or more)	26	7	29	5	1	56	36	152	
Akmola Region	Small (5-19)	123	10	70	17	5	193	429	2576	**3919**
	Medium (20-99)	45	3	20	1	6	32	31	272	
	Large (100 or more)	8	0	4	1	4	19	6	44	
Aktobe Region	Small (5-19)	59	12	61	36	9	235	702	5288	**6959**
	Medium (20-99)	20	3	20	7	4	32	40	307	
	Large (100 or more)	11	0	13	1	1	17	16	65	
Almaty	Small (5-19)	344	149	265	251	76	1760	4934	25692	**37449**
	Medium (20-99)	65	31	41	45	9	275	321	2572	
	Large (100 or more)	41	1	18	10	2	56	85	406	
Almaty Region	Small (5-19)	153	22	152	55	13	288	748	3301	**5597**
	Medium (20-99)	61	6	47	19	4	62	52	455	
	Large (100 or more)	27	4	7	7	1	29	7	77	
Nur-Sultan	Small (5-19)	163	60	254	128	29	781	3457	18650	**25902**
	Medium (20-99)	25	14	38	29	4	95	158	1722	
	Large (100 or more)	8	0	10	4	1	15	36	221	
Atyrau Region	Small (5-19)	34	10	21	19	7	122	574	3158	**4583**
	Medium (20-99)	6	3	8	2	3	28	27	438	
	Large (100 or more)	0	0	3	1	1	7	12	99	
Mangystau and West Kazakhstan	Small (5-19)	92	22	88	51	19	346	906	6763	**9243**
	Medium (20-99)	29	4	24	7	6	59	72	561	
	Large (100 or more)	11	1	13	2	7	22	19	119	
East Kazakhstan	Small (5-19)	139	26	61	54	21	359	950	4437	**6998**
	Medium (20-99)	54	5	15	15	8	82	64	503	

	Large (100 or more)	23	2	11	8	5	35	16	105	
Karaganda Region	Small (5-19)	182	57	164	140	34	722	900	8663	**11889**
	Medium (20-99)	38	11	21	27	11	97	62	541	
	Large (100 or more)	17	2	9	4	6	53	23	105	
		2649	**587**	**1940**	**1211**	**403**	**7702**	**18563**	**110454**	**143509**

Source: World Bank and the National Committee on Statistics

Kazakhstan Sample Frame (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	2	1	0	2	2	4	19	16	**96**
	Medium (20-99)	4	1	0	0	5	2	13	15	
	Large (100 or more)	3	0	1	0	1	1	3	1	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	6	1	3	0	0	6	30	36	**141**
	Medium (20-99)	5	1	1	0	1	4	12	19	
	Large (100 or more)	1	0	3	1	0	1	8	2	
Akmola Region	Small (5-19)	0	0	2	0	0	2	4	3	**28**
	Medium (20-99)	1	1	0	0	1	1	4	7	
	Large (100 or more)	0	0	0	0	1	0	0	1	
Aktobe Region	Small (5-19)	0	0	0	1	0	5	7	10	**52**
	Medium (20-99)	1	1	1	1	2	1	7	5	
	Large (100 or more)	2	0	3	0	1	1	3	0	
Almaty	Small (5-19)	1	0	1	1	1	6	6	11	**54**
	Medium (20-99)	0	2	0	1	0	4	8	6	
	Large (100 or more)	0	0	1	1	0	0	3	1	
Almaty Region	Small (5-19)	1	0	0	0	0	1	1	3	**9**
	Medium (20-99)	0	0	1	1	0	0	1	0	
Nur-Sultan	Small (5-19)	0	0	1	0	0	0	7	9	**40**
	Medium (20-99)	0	1	0	0	0	3	1	11	
	Large (100 or more)	1	0	0	0	0	1	2	3	
Atyrau Region	Small (5-19)	0	0	1	0	0	2	0	6	**13**
	Medium (20-99)	0	0	0	0	1	0	0	2	

	Large (100 or more)	0	0	0	0	0	0	0	1	
Mangystau and West Kazakhstan	Small (5-19)	1	0	0	0	0	0	6	7	**29**
	Medium (20-99)	1	0	1	0	0	2	4	3	
	Large (100 or more)	0	0	1	0	1	0	1	1	
East Kazakhstan	Small (5-19)	0	0	1	0	0	5	12	16	**71**
	Medium (20-99)	2	0	0	1	3	8	9	6	
	Large (100 or more)	1	0	1	3	0	1	0	2	
Karaganda Region	Small (5-19)	2	1	2	1	1	8	11	8	**67**
	Medium (20-99)	1	0	3	0	0	3	7	9	
	Large (100 or more)	1	0	2	0	1	3	2	1	
		37	**10**	**30**	**14**	**22**	**75**	**191**	**221**	**600**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Akmola Region	Small (5-19)	10	3	14	5	2	2	2	2	**97**
	Medium (20-99)	13	1	6	0	2	6	2	2	
	Large (100 or more)	2	0	1	0	1	6	2	13	
Aktobe Region	Small (5-19)	3	4	9	11	3	2	2	2	**84**
	Medium (20-99)	6	1	6	2	1	2	2	2	
	Large (100 or more)	3	0	3	0	0	5	4	11	
Almaty	Small (5-19)	2	21	2	10	10	2	2	5	**131**
	Medium (20-99)	2	9	8	13	3	2	2	2	
	Large (100 or more)	12	0	5	3	1	11	2	2	
Almaty Region	Small (5-19)	2	7	2	17	4	2	2	2	**112**
	Medium (20-99)	18	2	14	5	1	2	2	2	
	Large (100 or more)	8	1	2	2	0	9	2	4	
Nur-Sultan	Small (5-19)	2	18	2	29	9	2	2	4	**129**

	Medium (20-99)	8	4	11	9	1	2	2	2	
	Large (100 or more)	2	0	3	1	0	4	10	2	
Atyrau Region	Small (5-19)	10	3	6	6	2	29	2	2	**148**
	Medium (20-99)	2	1	2	1	1	8	8	29	
	Large (100 or more)	0	0	1	0	0	2	4	29	
Mangystau and West Kazakhstan	Small (5-19)	2	7	6	15	6	2	2	2	**98**
	Medium (20-99)	8	1	7	2	2	2	2	2	
	Large (100 or more)	3	0	4	1	2	7	5	8	
East Kazakhstan	Small (5-19)	2	8	2	12	6	2	2	2	**88**
	Medium (20-99)	4	2	5	4	2	2	2	2	
	Large (100 or more)	7	1	3	2	2	10	2	2	
Karaganda Region	Small (5-19)	2	17	2	6	7	2	2	2	**89**
	Medium (20-99)	2	3	4	8	3	2	2	2	
	Large (100 or more)	5	1	2	1	2	8	2	2	
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	2	13	2	3	3	2	2	2	**85**
	Medium (20-99)	2	4	3	7	4	2	2	2	
	Large (100 or more)	11	0	5	2	3	5	2	2	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	2	13	2	3	5	2	2	2	**79**
	Medium (20-99)	2	3	2	6	2	2	2	2	
	Large (100 or more)	8	2	8	1	0	4	2	2	
		167	**150**	**154**	**187**	**90**	**152**	**87**	**153**	**1140**

Original Sample Design (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Akmola Region	Small (5-19)	0	0	2	0	0	2	3	2	**23**
	Medium (20-99)	1	1	0	0	1	1	3	5	
	Large (100 or more)	0	0	0	0	1	0	0	1	
Aktobe Region	Small (5-19)	0	0	0	1	0	4	5	2	**36**
	Medium (20-99)	1	1	1	1	2	1	5	4	
	Large (100 or more)	2	0	2	0	1	1	2	0	
Almaty	Small (5-19)	1	0	1	1	1	2	2	5	**29**

	Medium (20-99)	0	2	0	1	0	3	3	2	
	Large (100 or more)	0	0	1	1	0	0	2	1	
Almaty Region	Small (5-19)	1	0	0	0	0	1	1	2	**8**
	Medium (20-99)	0	0	1	1	0	0	1	0	
	Large (100 or more)	0	0	0	0	0	0	0	0	
Nur-Sultan	Small (5-19)	0	0	1	0	0	0	5	7	**31**
	Medium (20-99)	0	1	0	0	0	2	1	8	
	Large (100 or more)	1	0	0	0	0	1	2	2	
Atyrau Region	Small (5-19)	0	0	1	0	0	2	0	5	**12**
	Medium (20-99)	0	0	0	0	1	0	0	2	
	Large (100 or more)	0	0	0	0	0	0	0	1	
Mangystau and West Kazakhstan	Small (5-19)	1	0	0	0	0	0	5	3	**22**
	Medium (20-99)	1	0	1	0	0	2	3	2	
	Large (100 or more)	0	0	1	0	1	0	1	1	
East Kazakhstan	Small (5-19)	0	0	1	0	0	2	2	2	**32**
	Medium (20-99)	2	0	0	1	2	6	5	2	
	Large (100 or more)	1	0	1	2	0	1	0	2	
Karaganda Region	Small (5-19)	2	1	2	1	1	2	2	2	**31**
	Medium (20-99)	1	0	2	0	0	2	2	2	
	Large (100 or more)	1	0	2	0	1	2	2	1	
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	2	1	0	2	2	2	2	2	**35**
	Medium (20-99)	3	1	0	0	4	2	2	2	
	Large (100 or more)	2	0	1	0	1	1	2	1	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	5	1	2	0	0	2	2	2	**41**
	Medium (20-99)	4	1	1	0	1	3	2	2	
	Large (100 or more)	1	0	2	1	0	1	6	2	
		33	**10**	**26**	**13**	**20**	**48**	**73**	**77**	**300**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 40.5% (4674 out of 11530 establishments)[34].

[34] Based on out of target and ineligible contacts

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	11	4	9	8	6	5	4	9	**120**
	Medium (20-99)	6	0	2	3	1	13	6	5	
	Large (100 or more)	2	0	1	3	1	7	5	6	
	Medium and Large (20+)	0	3	0	0	0	0	0	0	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	6	10	6	5	10	4	17	8	**167**
	Medium (20-99)	14	0	15	6	0	3	4	12	
	Large (100 or more)	3	0	9	1	0	19	7	2	
	Medium and Large (20+)	0	4	0	0	2	0	0	0	
Akmola Region	Small (5-19)	0	2	5	0	0	24	14	31	**117**
	Medium (20-99)	0	1	2	0	0	2	0	26	
	Large (100 or more)	0	0	1	0	0	1	0	2	
	Medium and Large (20+)	0	0	0	0	0	0	2	0	
	Small, Medium and Large (5+)	2	0	0	1	1	0	0	0	
Aktobe Region	Small (5-19)	5	4	9	13	2	6	7	5	**120**
	Medium (20-99)	7	1	1	0	2	5	8	6	
	Large (100 or more)	6	0	6	0	1	6	6	11	
	Medium and Large (20+)	0	0	0	3	0	0	0	0	
Almaty	Small (5-19)	14	19	11	20	12	10	4	18	**168**
	Medium (20-99)	0	0	7	7	3	6	3	2	
	Large (100 or more)	0	0	1	1	1	3	2	2	
	Medium and Large (20+)	20	2	0	0	0	0	0	0	
Almaty Region	Small (5-19)	18	0	11	4	0	14	3	2	**118**
	Medium (20-99)	6	0	7	6	0	19	2	2	
	Large (100 or more)	3	0	1	2	0	6	2	5	
	Small, Medium and Large (5+)	0	3	0	0	2	0	0	0	
Nur-Sultan	Small (5-19)	11	4	14	19	0	12	3	34	**159**

	Medium (20-99)	0	3	6	0	0	15	2	4	
	Large (100 or more)	0	0	1	0	0	3	5	10	
	Medium and Large (20+)	6	0	0	6	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	1	0	0	0	
Atyrau Region	Small (5-19)	3	0	4	3	0	8	9	33	**118**
	Medium (20-99)	1	0	2	0	0	3	3	29	
	Large (100 or more)	0	0	1	0	0	1	4	11	
	Medium and Large (20+)	0	0	0	1	0	0	0	0	
	Small, Medium and Large (5+)	0	1	0	0	1	0	0	0	
Mangystau and West Kazakhstan	Small (5-19)	7	3	9	14	4	9	8	6	**119**
	Medium (20-99)	0	0	1	1	0	11	4	7	
	Large (100 or more)	0	0	1	1	0	1	4	15	
	Medium and Large (20+)	11	1	0	0	1	0	0	0	
East Kazakhstan	Small (5-19)	10	0	10	13	3	3	6	6	**119**
	Medium (20-99)	13	0	4	4	2	8	7	4	
	Large (100 or more)	4	0	2	4	1	2	2	4	
	Small, Medium and Large (5+)	0	7	0	0	0	0	0	0	
Karaganda Region	Small (5-19)	11	2	16	16	0	4	6	5	**121**
	Medium (20-99)	17	0	0	0	0	10	5	2	
	Large (100 or more)	3	0	0	0	0	1	5	5	
	Medium and Large (20+)	0	2	3	3	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	5	0	0	0	
		220	**76**	**178**	**168**	**62**	**244**	**169**	**329**	**1446**

Achieved Interviews (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	1	0	0	0	0	0	2	4	**15**
	Medium (20-99)	0	0	0	0	1	1	2	1	
	Large (100 or more)	0	0	0	0	0	1	2	0	
Kyzylorda Region, South	Small (5-19)	4	0	3	0	0	2	8	4	**47**
	Medium (20-99)	2	0	1	0	0	1	2	9	

Kazakhstan, Jambyl	Large (100 or more)	1	0	2	1	0	1	5	0	
	Medium and Large (20+)	0	1	0	0	0	0	0	0	
Akmola Region	Small (5-19)	0	0	0	0	0	0	0	1	**3**
	Medium (20-99)	0	0	0	0	0	1	0	0	
	Medium and Large (20+)	0	0	0	0	0	0	1	0	
Aktobe Region	Small (5-19)	0	0	0	1	0	1	3	3	**20**
	Medium (20-99)	0	0	0	0	0	0	4	0	
	Large (100 or more)	1	0	2	0	1	0	3	0	
	Medium and Large (20+)	0	0	0	1	0	0	0	0	
Almaty	Small (5-19)	0	0	0	0	1	0	2	0	**4**
	Medium (20-99)	0	0	0	0	0	0	1	0	
Almaty Region	Medium (20-99)	0	0	0	1	0	0	0	0	**1**
Nur-Sultan	Small (5-19)	0	0	0	0	0	0	1	4	**9**
	Medium (20-99)	0	1	0	0	0	0	0	2	
	Large (100 or more)	0	0	0	0	0	0	1	0	
Atyrau Region	Small (5-19)	0	0	1	0	0	1	0	6	**10**
	Medium (20-99)	0	0	0	0	0	0	0	1	
	Small, Medium and Large (5+)	0	0	0	0	1	0	0	0	
Mangystau and West Kazakhstan	Small (5-19)	0	0	0	0	0	0	4	3	**11**
	Medium (20-99)	0	0	0	0	0	1	1	0	
	Large (100 or more)	0	0	0	0	0	0	1	1	
East Kazakhstan	Small (5-19)	0	0	0	0	0	0	3	3	**15**
	Medium (20-99)	0	0	0	0	0	3	2	1	
	Large (100 or more)	0	0	0	2	0	1	0	0	
Karaganda Region	Small (5-19)	0	0	0	0	0	1	2	0	**5**
	Medium (20-99)	0	0	0	0	0	0	1	0	
	Medium and Large (20+)	0	0	1	0	0	0	0	0	
		9	**2**	**10**	**6**	**4**	**15**	**51**	**43**	**140**

A.16.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
2695	**Eligible**	1. Eligible establishment (Correct name and address)	2461
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	39
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	40
		4. Eligible establishment (Moved and traced)	147
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	8
2917	**Screener refusal**	13. Refuses to answer the screener	2917
3810	**Ineligible**	5. The establishment has less than 5 permanent full time employees	718
		616. The firm discontinued businesses - (Establishment went bankrupt)	131
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	128
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	95
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	1468
		621. The firm discontinued businesses - (Other)	929
		71. Ineligible legal status: not a business, but private household	78
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	49
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	214
864	**Out of Target**	151. Out of target - outside the covered regions	127
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	11
		154. Out of target - establishment is HQ without production or sales of goods or services	6
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	636
		156. Duplicated firm within the sample	7
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	77
1244	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	184
		92. Line out of order	2
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	1058
11530	**Total contacted**		

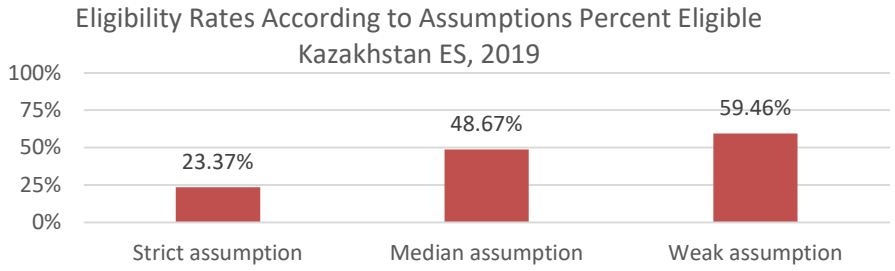
Response Outcomes: Kazakhstan ES 2019

Target and totals	Sample target	1440
	Sample target completion rate	100.4%
	Total contacts available in frame	143509
	Total contacts issued	11779
	Total contacts contacted	11530
Screening phase	Screening in process	0
	Eligibles	2695
	Screener refusal	2917
	Ineligible + out of target	4674
	Unobtainable	1244
Interview phase (only if eligible)	Complete interviews without extra module	35
	Complete interviews with extra module	1411
	Eligible in process + incomplete interviews	0
	Interview refusal	1249
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	25.3%
	Ineligible + out of target rate	40.5%
	Unobtainable rate	10.8%
	Interview conversion rate	12.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	10.8%

A.16.3. Universe estimates

Universe estimates for the number of establishments in each cell in Kazakhstan were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

Universe estimates for the number of establishments in each cell in Kazakhstan were produced for the strict, weak and median eligibility definitions described below. The estimates were the multiple of the relative eligible proportions.



Universe estimates for the number of establishments in each industry-region-size cell in Kazakhstan were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	50	7	22	24	8	133	298	1092	**1945**
	Medium (20-99)	27	0	6	6	3	27	31	128	
	Large (100 or more)	11	0	5	3	3	15	12	29	
	Medium and Large (20+)	0	5	0	0	0	0	0	0	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	102	16	72	32	10	257	613	2248	**3998**
	Medium (20-99)	42	0	29	10	0	75	63	285	
	Large (100 or more)	13	0	15	1	0	30	20	49	
	Medium and Large (20+)	0	10	0	0	6	0	0	0	
Akmola Region	Small (5-19)	0	2	10	0	0	29	63	236	461
	Medium (20-99)	0	1	4	0	0	7	0	37	
	Large (100 or more)	0	0	1	0	0	5	0	7	
	Medium and Large (20+)	0	0	0	0	0	0	10	0	
	Small, Medium and Large (5+)	40	0	0	5	4	0	0	0	
Aktobe Region	Small (5-19)	25	5	26	17	4	104	306	1425	**2190**
	Medium (20-99)	13	2	13	0	3	21	26	124	
	Large (100 or more)	8	0	9	0	1	12	11	28	
	Medium and Large (20+)	0	0	0	7	0	0	0	0	
Almaty	Small (5-19)	61	26	47	50	15	328	900	2901	**5124**
	Medium (20-99)	0	0	11	13	3	77	88	434	
	Large (100 or more)	0	0	5	3	1	17	25	74	
	Medium and Large (20+)	35	10	0	0	0	0	0	0	
Almaty Region	Small (5-19)	25	0	25	10	0	49	124	339	**753**
	Medium (20-99)	15	0	11	6	0	19	13	70	
	Large (100 or more)	7	0	2	2	0	8	2	13	
	Small, Medium and Large (5+)	0	8	0	0	5	0	0	0	
Nur-Sultan	Small (5-19)	36	13	56	31	0	179	775	2586	**4247**
	Medium (20-99)	0	4	12	0	0	32	53	357	
	Large (100 or more)	0	0	4	0	0	6	13	50	

	Medium and Large (20+)	13	0	0	15	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	13	0	0	0	
Atyrau Region	Small (5-19)	5	0	4	3	0	19	87	295	**518**
	Medium (20-99)	1	0	2	0	0	6	6	61	
	Large (100 or more)	0	0	1	0	0	2	4	15	
	Medium and Large (20+)	0	0	0	1	0	0	0	0	
	Small, Medium and Large (5+)	0	3	0	0	2	0	0	0	
Mangystau and West Kazakhstan	Small (5-19)	16	4	15	14	4	62	160	738	**1204**
	Medium (20-99)	0	0	6	2	0	16	19	92	
	Large (100 or more)	0	0	4	1	0	6	5	21	
	Medium and Large (20+)	13	2	0	0	5	0	0	0	
East Kazakhstan	Small (5-19)	42	0	19	18	7	114	296	856	**1707**
	Medium (20-99)	25	0	7	8	4	39	30	145	
	Large (100 or more)	11	0	5	4	3	18	8	33	
	Small, Medium and Large (5+)	0	15	0	0	0	0	0	0	
Karaganda Region	Small (5-19)	54	16	49	46	0	224	273	1628	**2679**
	Medium (20-99)	17	0	0	0	0	45	28	152	
	Large (100 or more)	8	0	0	0	0	27	11	32	
	Medium and Large (20+)	0	7	16	19	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	26	0	0	0	
		713	**156**	**512**	**353**	**129**	**2008**	**4376**	**16580**	**24827**

Median Universe Estimates – Fresh:

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	98	16	42	51	14	280	559	2751	**4479**
	Medium (20-99)	49	0	10	13	8	54	56	304	
	Large (100 or more)	21	0	9	4	6	31	23	73	
	Medium and Large (20+)	0	9	0	0	0	0	0	0	
Kyzylorda Region, South	Small (5-19)	168	30	119	58	13	455	968	4766	**7748**
	Medium (20-99)	65	0	44	17	0	126	93	569	
	Large (100 or more)	21	0	24	2	0	52	29	103	

Kazakhstan, Jambyl	Medium and Large (20+)	0	18	0	0	8	0	0	0	
Akmola Region	Small (5-19)	0	4	29	0	0	88	172	857	**1496**
	Medium (20-99)	0	2	11	0	0	21	0	128	
	Large (100 or more)	0	0	3	0	0	14	0	23	
	Medium and Large (20+)	0	0	0	0	0	0	26	0	
	Small, Medium and Large (5+)	98	0	0	13	8	0	0	0	
Aktobe Region	Small (5-19)	39	9	40	29	6	175	457	2858	**4090**
	Medium (20-99)	19	3	19	0	4	34	37	234	
	Large (100 or more)	12	0	14	0	1	20	16	56	
	Medium and Large (20+)	0	0	0	11	0	0	0	0	
Almaty	Small (5-19)	170	81	131	150	37	979	2397	10371	**16808**
	Medium (20-99)	0	0	29	38	6	216	220	1464	
	Large (100 or more)	0	0	14	9	2	49	65	260	
	Medium and Large (20+)	90	30	0	0	0	0	0	0	
Almaty Region	Small (5-19)	79	0	78	34	0	166	378	1385	**2726**
	Medium (20-99)	44	0	34	17	0	51	37	269	
	Large (100 or more)	22	0	6	7	0	27	6	51	
	Small, Medium and Large (5+)	0	25	0	0	13	0	0	0	
Nur-Sultan	Small (5-19)	56	23	87	53	0	302	1170	5242	**7961**
	Medium (20-99)	0	7	18	0	0	52	75	683	
	Large (100 or more)	0	0	5	0	0	9	19	98	
	Medium and Large (20+)	20	0	0	24	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	16	0	0	0	
Atyrau Region	Small (5-19)	8	0	5	5	0	31	129	589	**953**
	Medium (20-99)	2	0	3	0	0	10	9	115	
	Large (100 or more)	0	0	1	0	0	3	4	29	
	Medium and Large (20+)	0	0	0	1	0	0	0	0	
	Small, Medium and Large (5+)	0	4	0	0	4	0	0	0	
	Small (5-19)	38	10	37	26	8	162	371	2302	**3467**

Mangystau and West Kazakhstan	Medium (20-99)	0	0	14	5	0	39	42	269	
	Large (100 or more)	0	0	9	2	0	16	12	64	
	Medium and Large (20+)	29	4	0	0	9	0	0	0	
East Kazakhstan	Small (5-19)	58	0	26	27	9	169	392	1519	**2738**
	Medium (20-99)	32	0	9	11	5	55	37	243	
	Large (100 or more)	15	0	7	6	3	26	10	57	
	Small, Medium and Large (5+)	0	21	0	0	0	0	0	0	
Karaganda Region	Small (5-19)	97	33	88	90	0	434	472	3776	**5748**
	Medium (20-99)	29	0	0	0	0	82	46	333	
	Large (100 or more)	14	0	0	0	0	50	19	72	
	Medium and Large (20+)	0	13	28	35	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	37	0	0	0	
		1392	**343**	**991**	**738**	**216**	**4278**	**8345**	**41911**	**58216**

Weak Universe Estimates – Fresh:

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kostanay, North Kazakhstan, Pavlodar	Small (5-19)	154	27	65	77	23	409	872	4772	**7435**
	Medium (20-99)	74	0	15	18	10	75	83	506	
	Large (100 or more)	30	0	12	6	8	40	32	111	
	Medium and Large (20+)	0	14	0	0	0	0	0	0	
Kyzylorda Region, South Kazakhstan, Jambyl	Small (5-19)	196	39	133	64	16	493	1119	6123	**9533**
	Medium (20-99)	73	0	48	18	0	131	104	703	
	Large (100 or more)	22	0	24	3	0	50	31	117	
	Medium and Large (20+)	0	20	0	0	9	0	0	0	
Akmola Region	Small (5-19)	0	6	31	0	0	93	193	1067	**1763**
	Medium (20-99)	0	2	12	0	0	21	0	153	
	Large (100 or more)	0	0	2	0	0	13	0	26	
	Medium and Large (20+)	0	0	0	0	0	0	25	0	
	Small, Medium and Large (5+)	99	0	0	12	9	0	0	0	

Aktobe Region	Small (5-19)	45	11	45	32	7	188	524	3647	**5047**
	Medium (20-99)	21	4	20	0	4	35	41	287	
	Large (100 or more)	12	0	13	0	1	19	17	63	
	Medium and Large (20+)	0	0	0	11	0	0	0	0	
Almaty	Small (5-19)	204	106	152	172	47	1090	2850	13701	**21321**
	Medium (20-99)	0	0	32	42	7	231	251	1860	
	Large (100 or more)	0	0	14	10	2	49	69	303	
	Medium and Large (20+)	95	34	0	0	0	0	0	0	
Almaty Region	Small (5-19)	88	0	84	36	0	172	416	1696	**3156**
	Medium (20-99)	47	0	35	17	0	50	39	317	
	Large (100 or more)	22	0	5	6	0	24	5	55	
	Small, Medium and Large (5+)	0	27	0	0	13	0	0	0	
Nur-Sultan	Small (5-19)	65	29	98	59	0	324	1340	6672	**9791**
	Medium (20-99)	0	9	20	0	0	54	83	836	
	Large (100 or more)	0	0	5	0	0	9	20	111	
	Medium and Large (20+)	20	0	0	23	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	17	0	0	0	
Atyrau Region	Small (5-19)	16	0	9	10	0	59	258	1311	**2042**
	Medium (20-99)	4	0	5	0	0	18	16	247	
	Large (100 or more)	0	0	2	0	0	5	8	58	
	Medium and Large (20+)	0	0	0	2	0	0	0	0	
	Small, Medium and Large (5+)	0	9	0	0	6	0	0	0	
Mangystau and West Kazakhstan	Small (5-19)	44	13	40	28	9	172	419	2889	**4196**
	Medium (20-99)	0	0	15	5	0	40	45	325	
	Large (100 or more)	0	0	8	2	0	15	12	71	
	Medium and Large (20+)	29	4	0	0	10	0	0	0	
East Kazakhstan	Small (5-19)	69	0	29	31	11	185	455	1964	**3364**
	Medium (20-99)	36	0	10	12	6	57	42	302	
	Large (100 or more)	16	0	7	6	4	25	11	65	
	Small, Medium and Large (5+)	0	24	0	0	0	0	0	0	

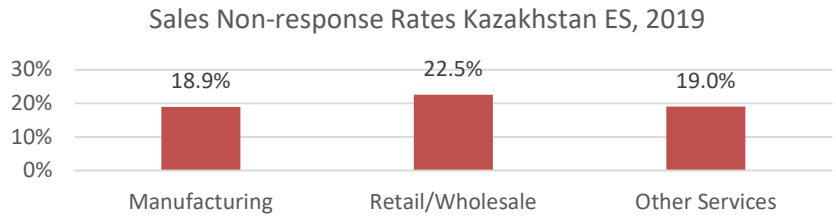
Karaganda Region	Small (5-19)	109	41	95	97	0	452	525	4667	**6813**
	Medium (20-99)	31	0	0	0	0	82	49	395	
	Large (100 or more)	14	0	0	0	0	46	19	79	
	Medium and Large (20+)	0	14	26	32	0	0	0	0	
	Small, Medium and Large (5+)	0	0	0	0	38	0	0	0	
		1633	**433**	**1113**	**830**	**255**	**4725**	**9972**	**55499**	**74460**

A.16.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.13.[35] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.36.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Kazakhstan. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.16.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos in Kazakhstan

[35] The estimate is based on the total no. of firms contacted including ineligible establishments.

	Region: Kazakhstan Membership of KAPIOR – Kazakhstan Association of professional researchers of public opinion and market. A non-profit organization whose mission is to develop and expand the market for research services and protect the rights and interests of its members. It unites legal entities from among the leading marketing and sociological organizations of the Republic of Kazakhstan, organizations interested in conducting professional research and effective use of their results. Membership of ESOMAR. Activities in Kazakhstan since: 2012
Enumerators involved:	Recruiters: 14 Interviewers: 52 Recruiters + Interviewers: 15
Other staff involved:	Fieldwork Coordinators: 22 regional supervisors Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	National Statistical Committee
Year:	January 2018
Comments on the quality of sample frame:	The sample frame was of poor quality, because the last update was quite a long time ago. It contains many enterprises that no longer exist, for which contact details were incorrect or that had moved or changed operations in some way. The number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: 3 regions included 2-3 geographically different and very distant from each other regions (Kostanay, North Kazakhstan, Pavlodar; Mangystau and West Kazakhstan; Kyzylorda Region, South Kazakhstan, Jambyl), which complicated compliance with the preference order and additional efforts had to be made to consolidate the work of these regions. In Atyrau and Kostanay+ there were many enterprises that were located far from the city, in remote settlements where there was no regular transport. Public transport allows you to travel to these localities only once or twice a day. This created additional logistical difficulties during field work and made it difficult to agree on the timing of interviews with respondents. Atyrau, Kostanay+ and Mangystau+ are very specific regions, with a special mentality, it is very difficult to contact representatives of these regions.
Comments on the response rate:	Response rate for Kazakhstan is 26%. This is a good response rate considering the specifics of the target audience, as well as the specifics and duration of the interview.
Comments on the sample design:	To divide the regions in which several regions (Kostanay, North Kazakhstan, Pavlodar; Mangystau and West Kazakhstan; Kyzylorda Region, South Kazakhstan, Jambyl).
Other comments:	No

Fieldwork

Date of Fieldwork	10 January 2019 to 31 October 2019

Country	Kazakhstan
Number of interviews	1440
Problems found during fieldwork:	Sample frame was of poor quality, with rather outdated data. The interview length and low interest in participation meant that many business executives were reluctant to take part and recruiters had to work hard to convince them to participate. Many managers indicated that they were not allowed to participate in surveys concerning the activities of the enterprise, citing the terms of the contract, which included the clause - a trade secret.
Other observations:	The general attitude of the respondents to the survey was rather negative.

Questionnaires

Problems for the understanding of questions (indicate question number)	H1, H5
Not relevant Questions	BMGe 1
Questions that imply confidential information in the answer, causing anger and refusal to answer	D2, N2, N2e1, N7a, K11, K4b, BMK10
Comments on questionnaires length:	About 20-30% of respondents complained about the excessive length of the interview distracting them from their main duties.
Suggestions or other comments on the questionnaire:	Add the answer option REFUSE to all questions. Use a simpler vocabulary when formulating questions.

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/ region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	Kazakhstan's economy is the largest in Central Asia and the second in the post-Soviet space (after Russia). Since 1 January 2015, the Republic is a member of the Eurasian Economic Union and since 22 June 2015 a member of the World Trade Organization. Kazakhstan's membership in the OSCE, WTO, and the Eurasian economic Union (EEU). In Kazakhstan, there are 11 Special economic zones with different characteristics of activity and 22 Industrial zones. According to the statistics Committee of the Republic of Kazakhstan, there is a smooth annual increase in GDP. Even though Kazakhstan's economy is at a stage of moderate growth Kazakhstan's economy is not diversified and depends on the USD and oil prices.
Relevant country events occurred during fieldwork:	During the fieldwork period there was a turbulent political situation in the country. The country's President, who had been in power for more than 20 years, resigned. This was followed by early elections of the President of the Republic of Kazakhstan, the results of which people were dissatisfied

	with. All this has contributed to the growing concern among the population. After the elections, there was a wave of rallies, which continue periodically. Astana is renamed Nur-Sultan since 23 March 2019, that also caused discontent of the population (waste of money). On 24 June in Arys (45 000 population, 85 km from Shymkent) in the military unit with storage area of 15 hectares (89 storages) there was a fire on the territory of the military unit, and then there were explosions of ammunition. The explosions damaged about 85% of residential buildings, more than 20 houses burned down completely. The explosions shook the whole country and affected the course of life of all country. The business community was actively engaged in providing temporary accommodation and other assistance to the affected population, and in helping to restore houses in Arys.
Other aspects:	No

A.17 Kosovo

A.17.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 202 firms from the Kosovo 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of firms from Kosovo Business Registration Agency (KBRA), within Ministry of Trade and Industry, was used. The firms in the listing are all registered as businesses with the same agency.

Regional stratification for the Kosovo ES was done across seven regions: Gjakovës/Đakovički, Pejës/Pećki, Prizrenit/Prizrenski, Gjilanit/Gnjilanski, Mitrovicës/Kosovskomitrovački, Prishtinës/Prištinski and Ferizajit/Uroševački.

Districts of Kosovo	**Grouping to be used for stratification purposes in BEEPS VI**
District of Ferizaj	Ferizajit/Uroševački
District of Gjakova	Gjakovës/Đakovički
District of Gjilan	Gjilanit/Gnjilanski
District of Mitrovica	Mitrovicës/Kosovskomitrovački
District of Peja/Peć	Pejës/Pećki
District of Pristina	Prishtinës/Prištinski
District of Prizren	Prizrenit/Prizrenski

Kosovo ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	112	265	**410**
	Medium (20-99)	18	12	
	Large (100 or more)	2	1	
Pejës/Pećki	Small (5-19)	127	223	**383**
	Medium (20-99)	16	11	
	Large (100 or more)	4	2	
Prizrenit/Prizrenski	Small (5-19)	164	327	**557**
	Medium (20-99)	21	34	
	Large (100 or more)	7	4	

Gjilanit/Gnjilanski	Small (5-19)	118	260	**427**
	Medium (20-99)	23	19	
	Large (100 or more)	6	1	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	80	242	**361**
	Medium (20-99)	13	20	
	Large (100 or more)	3	3	
Prishtinës/Prištinski	Small (5-19)	299	1286	**1867**
	Medium (20-99)	51	190	
	Large (100 or more)	5	36	
Ferizajit/Uroševački	Small (5-19)	128	298	**486**
	Medium (20-99)	19	30	
	Large (100 or more)	7	4	
		1223	**3268**	**4491**

Source: World Bank and Kosovo Business Registration Agency (KBRA)

Kosovo Sample Frame (Panel)

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	6	9	**18**
	Medium (20-99)	3	0	
	Large (100 or more)	0	0	
Pejës/Pećki	Small (5-19)	3	6	**14**
	Medium (20-99)	2	3	
	Large (100 or more)	0	0	
Prizrenit/Prizrenski	Small (5-19)	5	9	**28**
	Medium (20-99)	5	7	
	Large (100 or more)	1	1	
Gjilanit/Gnjilanski	Small (5-19)	1	8	**21**
	Medium (20-99)	6	4	
	Large (100 or more)	2	0	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	2	10	**16**
	Medium (20-99)	2	1	
	Large (100 or more)	1	0	
Prishtinës/Prištinski	Small (5-19)	8	36	**84**
	Medium (20-99)	11	21	
	Large (100 or more)	1	7	
Ferizajit/Uroševački	Small (5-19)	6	7	**21**
	Medium (20-99)	6	2	
	Large (100 or more)	0	0	
		71	**131**	**202**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	9	3	**21**
	Medium (20-99)	4	3	
	Large (100 or more)	1	1	

Pejës/Pećki	Small (5-19)	10	3	**23**
	Medium (20-99)	4	3	
	Large (100 or more)	2	1	
Prizrenit/Prizrenski	Small (5-19)	10	7	**30**
	Medium (20-99)	5	3	
	Large (100 or more)	3	2	
Gjilanit/Gnjilanski	Small (5-19)	6	3	**18**
	Medium (20-99)	3	3	
	Large (100 or more)	2	1	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	8	3	**20**
	Medium (20-99)	3	3	
	Large (100 or more)	1	2	
Prishtinës/Prištinski	Small (5-19)	4	10	**32**
	Medium (20-99)	3	3	
	Large (100 or more)	2	10	
Ferizajit/Uroševački	Small (5-19)	3	3	**18**
	Medium (20-99)	3	3	
	Large (100 or more)	4	2	
		90	**72**	**162**

Original Sample Design (Panel)

		Manufacturing	**Services**	**Grand Total**
Gjakovës/Đakovički	Small (5-19)	4	7	**14**
	Medium (20-99)	3	0	
	Large (100 or more)	0	0	
Pejës/Pećki	Small (5-19)	3	4	**12**
	Medium (20-99)	2	3	
	Large (100 or more)	0	0	
Prizrenit/Prizrenski	Small (5-19)	4	7	**20**
	Medium (20-99)	4	3	
	Large (100 or more)	1	1	
Gjilanit/Gnjilanski	Small (5-19)	1	3	**12**
	Medium (20-99)	3	3	
	Large (100 or more)	2	0	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	2	4	**10**
	Medium (20-99)	2	1	
	Large (100 or more)	1	0	
Prishtinës/Prištinski	Small (5-19)	7	9	**28**
	Medium (20-99)	3	3	
	Large (100 or more)	1	5	
Ferizajit/Uroševački	Small (5-19)	4	3	**12**
	Medium (20-99)	3	2	
	Large (100 or more)	0	0	
		50	**58**	**108**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number

of sampled establishments contacted for the survey was 18.5% (252 out of 1364 establishments).[36]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	16	15	**42**
	Medium (20-99)	5	4	
	Large (100 or more)	1	1	
Pejës/Pećki	Small (5-19)	11	14	**34**
	Medium (20-99)	0	4	
	Large (100 or more)	0	1	
	Medium and Large (20+)	4	0	
Prizrenit/Prizrenski	Small (5-19)	12	7	**40**
	Medium (20-99)	7	0	
	Large (100 or more)	4	0	
	Medium and Large (20+)	0	10	
Gjilanit/Gnjilanski	Small (5-19)	10	7	**34**
	Medium (20-99)	10	0	
	Large (100 or more)	2	0	
	Medium and Large (20+)	0	5	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	7	6	**27**
	Medium (20-99)	5	7	
	Large (100 or more)	1	1	
Prishtinës/Prištinski	Small (5-19)	8	18	**59**
	Medium (20-99)	0	15	
	Large (100 or more)	0	6	
	Medium and Large (20+)	12	0	
Ferizajit/Uroševački	Small (5-19)	10	5	**35**
	Medium (20-99)	9	7	
	Large (100 or more)	2	2	
		136	**135**	**271**

Achieved Interviews (Panel)

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	3	4	**9**
	Medium (20-99)	2	0	
Pejës/Pećki	Small (5-19)	1	2	**6**
	Medium (20-99)	0	2	
	Medium and Large (20+)	1	0	
Prizrenit/Prizrenski	Small (5-19)	2	3	**10**
	Medium (20-99)	1	0	
	Large (100 or more)	1	0	
	Medium and Large (20+)	0	3	
Gjilanit/Gnjilanski	Small (5-19)	1	3	**13**

[36] Based on out of target and ineligible contacts.

	Medium (20-99)	4	0	
	Large (100 or more)	2	0	
	Medium and Large (20+)	0	3	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	0	4	**7**
	Medium (20-99)	1	1	
	Large (100 or more)	1	0	
Prishtinës/Prištinski	Small (5-19)	0	7	**21**
	Medium (20-99)	0	6	
	Large (100 or more)	0	1	
	Medium and Large (20+)	7	0	
Ferizajit/Uroševački	Small (5-19)	3	2	**12**
	Medium (20-99)	5	2	
		35	**43**	**78**

A.17.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
324	**Eligible**	1. Eligible establishment (Correct name and address)	312
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	3
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	5
		4. Eligible establishment (Moved and traced)	5
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
125	**Screener refusal**	13. Refuses to answer the screener	125
146	**Ineligible**	5. The establishment has less than 5 permanent full time employees	14
		616. The firm discontinued businesses - (Establishment went bankrupt)	46
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	3
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	1
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	27
		621. The firm discontinued businesses - (Other)	38
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	16
106	**Out of Target**	151. Out of target - outside the covered regions	82
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0

		156. Duplicated firm within the sample	24
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
663	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	84
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	579
1364	**Total contacted**		

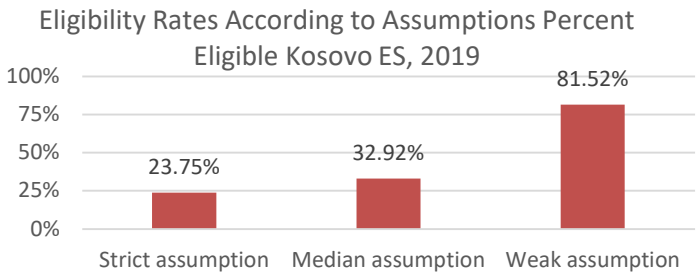
Response Outcomes: Kosovo ES 2019

Target and totals	Sample target	270
	Sample target completion rate	100.4%
	Total contacts available in frame	4491
	Total contacts issued	1364
	Total contacts contacted	1364
Screening phase	Screening in process	0
	Eligibles	324
	Screener refusal	125
	Ineligible + out of target	252
	Unobtainable	663
Interview phase (only if eligible)	Complete interviews without extra module	50
	Complete interviews with extra module	221
	Eligible in process + incomplete interviews	0
	Interview refusal	53
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	9.2%
	Ineligible + out of target rate	18.5%
	Unobtainable rate	48.6%
	Interview conversion rate	19.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	3.9%

A.17.3. Universe estimates

Universe estimates for the number of establishments in each cell in Kosovo were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Kosovo were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	32	64	**109**
	Medium (20-99)	8	4	
	Large (100 or more)	1	1	
Pejës/Pećki	Small (5-19)	22	32	**63**
	Medium (20-99)	0	4	
	Large (100 or more)	0	1	
	Medium and Large (20+)	4	0	
Prizrenit/Prizrenski	Small (5-19)	29	49	**99**
	Medium (20-99)	7	0	
	Large (100 or more)	4	0	
	Medium and Large (20+)	0	10	
Gjilanit/Gnjilanski	Small (5-19)	33	62	**114**
	Medium (20-99)	10	0	
	Large (100 or more)	2	0	
	Medium and Large (20+)	0	6	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	14	36	**64**
	Medium (20-99)	5	7	
	Large (100 or more)	1	1	
Prishtinës/Prištinski	Small (5-19)	36	131	**215**
	Medium (20-99)	0	29	
	Large (100 or more)	0	7	
	Medium and Large (20+)	12	0	
Ferizajit/Uroševački	Small (5-19)	28	56	**106**
	Medium (20-99)	9	8	
	Large (100 or more)	3	2	
		260	**511**	**771**

Median Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	36	79	**131**
	Medium (20-99)	8	5	
	Large (100 or more)	1	1	

Pejës/Pećki	Small (5-19)	29	47	**87**
	Medium (20-99)	0	4	
	Large (100 or more)	0	1	
	Medium and Large (20+)	6	0	
Prizrenit/Prizrenski	Small (5-19)	40	73	**136**
	Medium (20-99)	7	0	
	Large (100 or more)	4	0	
	Medium and Large (20+)	0	12	
Gjilanit/Gnjilanski	Small (5-19)	39	80	**141**
	Medium (20-99)	11	0	
	Large (100 or more)	2	0	
	Medium and Large (20+)	0	8	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	20	55	**89**
	Medium (20-99)	5	7	
	Large (100 or more)	1	1	
Prishtinës/Prištinski	Small (5-19)	57	229	**361**
	Medium (20-99)	0	47	
	Large (100 or more)	0	14	
	Medium and Large (20+)	15	0	
Ferizajit/Uroševački	Small (5-19)	38	83	**149**
	Medium (20-99)	10	12	
	Large (100 or more)	4	2	
		333	**761**	**1094**

Weak Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
Gjakovës/Đakovički	Small (5-19)	103	244	**375**
	Medium (20-99)	15	10	
	Large (100 or more)	2	1	
Pejës/Pećki	Small (5-19)	113	201	**342**
	Medium (20-99)	0	9	
	Large (100 or more)	0	2	
	Medium and Large (20+)	18	0	
Prizrenit/Prizrenski	Small (5-19)	132	264	**447**
	Medium (20-99)	15	0	
	Large (100 or more)	5	0	
	Medium and Large (20+)	0	30	
Gjilanit/Gnjilanski	Small (5-19)	82	183	**299**
	Medium (20-99)	15	0	
	Large (100 or more)	5	0	
	Medium and Large (20+)	0	14	
Mitrovicës/Kosovsko¬mitrovački	Small (5-19)	63	193	**284**
	Medium (20-99)	9	14	
	Large (100 or more)	2	2	
Prishtinës/Prištinski	Small (5-19)	244	1055	**1512**
	Medium (20-99)	0	141	
	Large (100 or more)	0	28	
	Medium and Large (20+)	45	0	
Ferizajit/Uroševački	Small (5-19)	96	226	**364**

	Medium (20-99)	13	21	
	Large (100 or more)	5	3	
		983	**2640**	**3624**

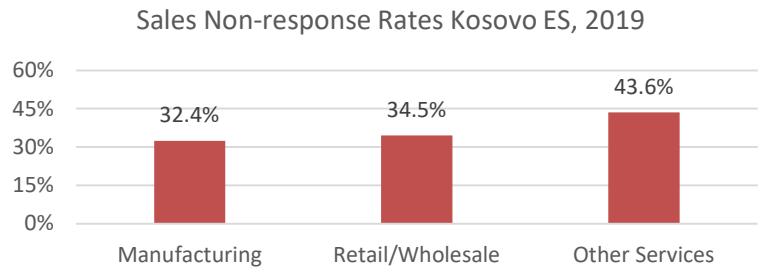
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.17.4. Non-response

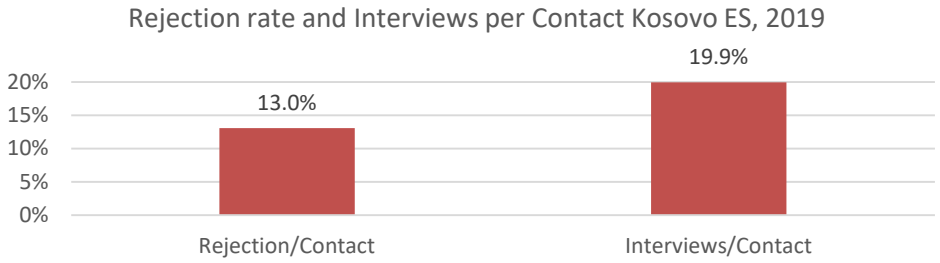
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.20.[37] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.13.



[37] The estimate is based on the total no. of firms contacted including ineligible establishments.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Kosovo. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.17.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Kosovo Region: Republic of Kosovo Ipsos Kosovo is registered as a Branch Office of Ipsos Macedonia and part of the Ipsos Adria gorup. It is a full-service fieldwork agency for market, media research and public opinion polls. Ipsos Adria based its activities on ESOMAR and ISI regulations and guidelines Ipsos Adria has a unique market positioning, specializing in a single business – survey-based research – through five specializations: Advertising research, Marketing research, Media research, Opinion and social research, Quality and customer satisfaction research. Ipsos Adria is the leading MR company in the region Activities since: 2006
Enumerators involved:	Enumerators: 14 Recruiters: 2
Other staff involved:	Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	Kosovo Business Registration Agency
Year:	June 2018
Comments on the quality of sample frame:	The quality of the sample frame was generally good although it did contain some out of date information, including businesses that were no longer in operation, wrong numbers and the number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: No comments
Comments on the response rate:	The response rate was not very good. Some companies refused to participate in the study because of the length of the interview, being too busy and also lack of interest.
Comments on the sample design:	Mostly the sample model worked well. Sampling problems are the ones already mentioned above, like the wrong numbers. But we did not make any changes to the sample.
Other comments:	No

Fieldwork

Date of Fieldwork	22 December 2018 to 11 October 2019
Country	The Republic of Kosovo

Number of interviews	270
Problems found during fieldwork:	The interview length meant that many business executives were reluctant to take part and recruiters had to work hard to convince them to participate. And some businesses let us wait too long, scheduling the interview week after week.
Other observations:	The general attitude of the respondents to the survey was quite positive. Even refusals were mostly polite and tactful.

Questionnaires

Problems for the understanding of questions (indicate question number)	D.2, n2i
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	Comments from interviewers about the length of questionnaires are that about 40% of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties and they don't have so much time, etc.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	During fieldwork the situation between Kosovo and Serbia was tense with Kosovo introducing a 100% customs duty on goos from Serbia. Economically it has been the tax that Kosovo has imposed on Serbia. Parliamentary elections in the Republic of Kosovo were also held.
Relevant country events occurred during fieldwork:	The eighteenth "Fair EXPOKOS 2019" fair was held in Pristina, which lasted about 3 days in which numerous businesses participated. Pristina International Fair 2019, organized by the Kosovo Chamber of Commerce in cooperation with the Government. Over 100 businesses were represented and promoted their products at the event.
Other aspects	No

A.18 Kyrgyz Republic

A.18.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 270 firms from the Kyrgyz Republic 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from the National Statistical Committee of the Kyrgyz Republic was used, dated as of April 2018. The establishments in the listing are all registered as businesses with the Ministry of Justice.

Regional stratification was done across three regions: Bishkek; Chui, Jalalabad, Issyk-Kul; and Talas, Naryn, Osh, Batken.

Official regions	Grouping used for stratification purposes in BEEPS VI
Bishkek city	Bishkek
Chui oblast	Chui, Jalalabad, Issyk-Kul
Jalalabad oblast	
Issyk – Kul oblast	
Osh oblast + Osh city	Talas, Naryn, Osh, Batken
Batken Oblasty	
Talas Oblasty	
Naryn Oblasty	

Kyrgyz Republic ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	168	109	606	**1193**
	Medium (20-99)	79	36	110	
	Large (100 or more)	31	12	42	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	144	28	115	**505**
	Medium (20-99)	104	7	55	
	Large (100 or more)	42	0	10	
Talas, Naryn, Osh, Batken	Small (5-19)	83	30	81	**302**
	Medium (20-99)	42	9	36	
	Large (100 or more)	13	0	8	
		706	**231**	**1063**	**2000**

Source: World Bank and National Statistical Committee of the Kyrgyz Republic

Kyrgyz Republic Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	12	12	23	**127**
	Medium (20-99)	20	12	24	
	Large (100 or more)	6	2	16	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	12	9	14	**96**
	Medium (20-99)	19	2	26	
	Large (100 or more)	8	0	6	
Talas, Naryn, Osh, Batken	Small (5-19)	8	6	5	**47**
	Medium (20-99)	8	2	14	
	Large (100 or more)	3	0	1	
		96	**45**	**129**	**270**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	3	27	20	**90**
	Medium (20-99)	3	10	3	
	Large (100 or more)	10	4	10	

Chui, Jalalabad, Issyk-Kul	Small (5-19)	11	8	3	**62**
	Medium (20-99)	18	2	4	
	Large (100 or more)	14	0	2	
Talas, Naryn, Osh, Batken	Small (5-19)	11	10	8	**61**
	Medium (20-99)	14	3	8	
	Large (100 or more)	4	0	3	
		88	**64**	**61**	**213**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	2	7	10	**50**
	Medium (20-99)	2	10	2	
	Large (100 or more)	5	2	10	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	9	8	7	**58**
	Medium (20-99)	10	2	10	
	Large (100 or more)	7	0	5	
Talas, Naryn, Osh, Batken	Small (5-19)	7	5	4	**39**
	Medium (20-99)	7	2	10	
	Large (100 or more)	3	0	1	
		52	**36**	**59**	**147**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 24.5% (197 out of 804 establishments).[38]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	11	33	32	**149**
	Medium (20-99)	11	16	13	
	Large (100 or more)	14	1	18	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	16	15	9	**112**
	Medium (20-99)	29	3	16	
	Large (100 or more)	16	0	8	
Talas, Naryn, Osh, Batken	Small (5-19)	16	18	11	**99**
	Medium (20-99)	23	4	15	
	Large (100 or more)	10	0	2	
		146	**90**	**124**	**360**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total

[38] Based on out of target and ineligible contacts.

Bishkek	Small (5-19)	7	6	10	**56**
	Medium (20-99)	5	6	10	
	Large (100 or more)	4	1	7	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	5	6	6	**51**
	Medium (20-99)	10	1	12	
	Large (100 or more)	5	0	6	
Talas, Naryn, Osh, Batken	Small (5-19)	5	4	1	**30**
	Medium (20-99)	8	0	10	
	Large (100 or more)	2	0	0	
		51	**24**	**62**	**137**

A.18.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
360	**Eligible**	1. Eligible establishment (Correct name and address)	330
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	24
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	5
223	**Screener refusal**	13. Refuses to answer the screener	223
186	**Ineligible**	5. The establishment has less than 5 permanent full time employees	10
		616. The firm discontinued businesses - (Establishment went bankrupt)	77
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	22
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	5
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	8
		621. The firm discontinued businesses - (Other)	24
		71. Ineligible legal status: not a business, but private household	18
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	8
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	14
11	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	4
		156. Duplicated firm within the sample	6
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	1

24	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	2
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	22
804	**Total contacted**		

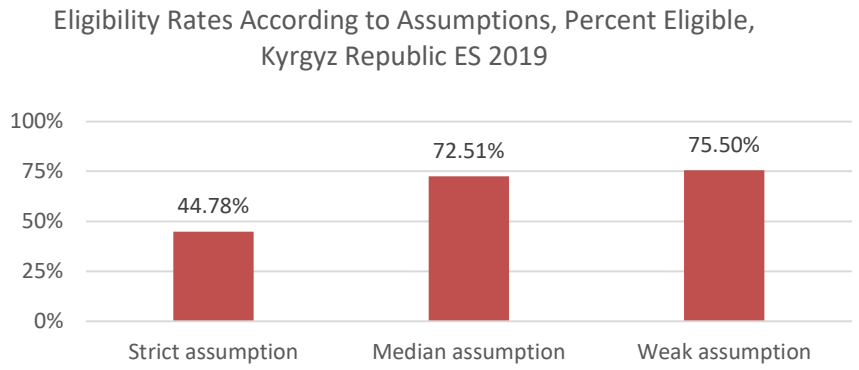
Response Outcomes: Kyrgyz Republic ES 2019

Target and totals	Sample target	360
	Sample target completion rate	100.0%
	Total contacts available in frame	2000
	Total contacts issued	910
	Total contacts contacted	804
Screening phase	Screening in process	0
	Eligibles	360
	Screener refusal	223
	Ineligible + out of target	197
	Unobtainable	24
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	360
	Eligible in process + incomplete interviews	0
	Interview refusal	0
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	27.7%
	Ineligible + out of target rate	24.5%
	Unobtainable rate	3.0%
	Interview conversion rate	44.8%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.0%

A.18.3. Universe Estimates

Universe estimates for the number of establishments in each cell in Kyrgyz Republic were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Kyrgyz Republic were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	64	34	174	**387**
	Medium (20-99)	30	16	32	
	Large (100 or more)	14	5	18	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	74	15	45	**241**
	Medium (20-99)	54	3	22	
	Large (100 or more)	21	0	8	
Talas, Naryn, Osh, Batken	Small (5-19)	49	18	36	**163**
	Medium (20-99)	25	4	17	
	Large (100 or more)	10	0	3	
		341	**95**	**356**	**792**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	119	77	403	**811**
	Medium (20-99)	54	25	71	
	Large (100 or more)	23	8	31	
Chui, Jalalabad, Issyk-Kul	Small (5-19)	107	21	80	**364**
	Medium (20-99)	74	5	37	
	Large (100 or more)	33	0	9	
Talas, Naryn, Osh, Batken	Small (5-19)	64	23	59	**226**
	Medium (20-99)	32	7	25	
	Large (100 or more)	11	0	6	
		517	**165**	**719**	**1401**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Bishkek	Small (5-19)	119	73	404	**817**
	Medium (20-99)	57	25	75	
	Large (100 or more)	24	9	32	

Chui, Jalalabad, Issyk-Kul	Small (5-19)	113	21	85	**394**
	Medium (20-99)	83	5	41	
	Large (100 or more)	36	0	9	
Talas, Naryn, Osh, Batken	Small (5-19)	72	25	66	**257**
	Medium (20-99)	38	7	30	
	Large (100 or more)	12	0	7	
		553	**165**	**749**	**1467**

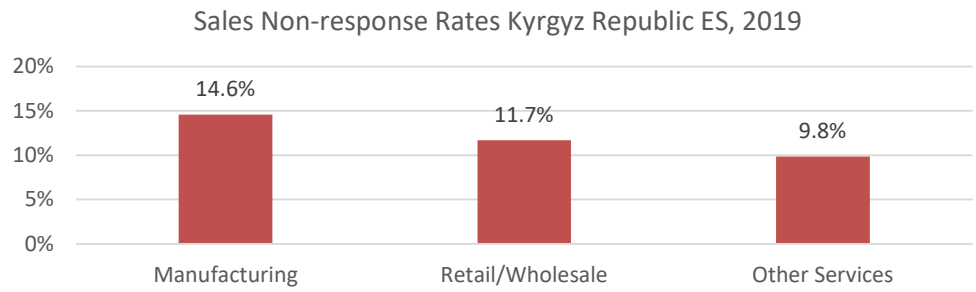
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.18.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

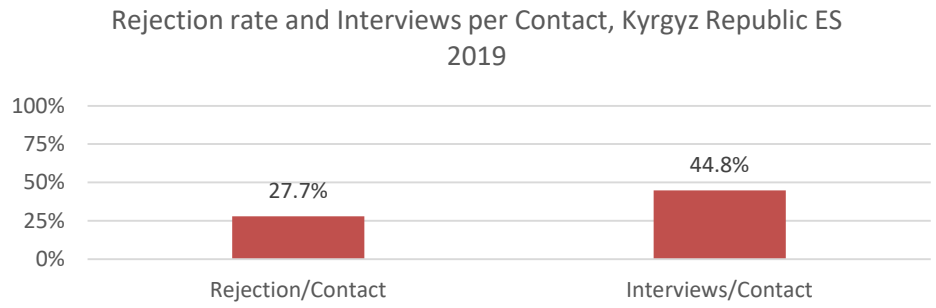
Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.45.[39] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.28.

[39] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Kyrgyz Republic. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.18.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: SIAR research and consulting LLC Region: Kyrgyz Republic Membership of international organizations: SIAR research and consulting LLC is a member of ESOMAR (European Society of Marketing Research Professionals), International Sociological Association, Bishkek Business Club and Kyrgyz National Monitoring and Evaluation Network. Activities since: 1998
Enumerators involved:	Enumerators: 24 Recruiters: 10 (also did work of enumerators)
Other staff involved:	Fieldwork Coordinators: 5 regional supervisors Editing: 1 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic database
Source:	National Statistical Committee of the Kyrgyz Republic
Year:	June 2018
Comments on the quality of sample frame:	The quality of the sample frame was generally satisfactory. However, the sample frame was not fully up-to-date i.e. contained incorrect and old contact information, closed and not operating enterprises, the number of employees was indicated incorrectly.

Sample

Comments/ problems for particular regions:	On regions: There were no major problems in arranging and conducting interviews in specific regions. However, enumerators faced

	difficulties with transportation. In particular, going to remote villages in the southern part of the country was challenging as public transportation is not available.
Comments on the response rate:	Overall, 804 enterprises were contacted, of which 28% refused to participate in the survey while 27% were found ineligible. Response rate for Kyrgyz Republic is statistically valid and considered as good one for Kyrgyz Republic.
Comments on the sample design:	The only comment for sample design for Kyrgyzstan is to take into consideration that large companies are usually joint stock companies and to participate in such a research project, permission and consent needs to be obtained from each stockowner. Not many of them give consent and permission, which makes it difficult to reach the needed number of large company participants in the survey.
Other comments:	No other comments.

Fieldwork

Date of Fieldwork	11 December 2018 to 5 July 2019
Country	Kyrgyz Republic
Number of interviews	360
Problems found during fieldwork:	As described above, the sample frame was not fully up-to-date i.e. it contained incorrect and old contact information, closed and not operating enterprises, the number of employees was indicated incorrectly. According to respondents and potential respondents, the main interview was considered too long which made it hard for recruiters to convince executives to take part. Some of the enterprises, especially joint stock companies, refused to participate or give information on finances due to company privacy policies (see above). Some managers also indicated that they were not allowed to participate in surveys concerning the activities of the enterprise, citing the terms of their employment contract which included a clause on trade secrets.
Other observations:	Many executives expressed interest in future partnerships with EBRD, EIB and WBG.

Questionnaires

Problems for the understanding of questions (indicate question number)	No major problems occurred in comprehension of the questions.
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	About 40% of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	During the fieldwork period the general political and economic situation was fairly calm in the Kyrgyz Republic. In the World Bank's 'Doing Business 2019 rating' Kyrgyz Republic has the 70th position among 190 countries.
Relevant country events occurred during fieldwork:	The following events occurred during fieldwork which would have been noted in the business community: A statement announcing that Chinese businessmen would replace Dordoi's marketers was made at the meeting of the President with businessmen by the chairman of the Dordoi trade union. The State Service for Combating Economic Crimes (SESEC, Finpol) inspected the property of former Deputy Chairman of the State Customs Service Raiymbek Matraimov in Kyrgyzstan. A rise in gasoline and diesel fuel prices took place Kyrgyzstan. The rise in price was due to the growth of wholesale prices at Russian refineries. In Bishkek, a number of activists were rallying in Ala-Too Square. Protesters opposed the Chinese expansion in the Kyrgyz Republic and demanded a moratorium on the granting of Kyrgyz citizenship to Chinese representatives. The action gathered about 100 people. Prime Minister of the Kyrgyz Republic signed an order according to which under the legislative regulation in pursuance of the resolution of the Kyrgyz Republic "On the measures to ensure radiation safety of the population of the Kyrgyz Republic" it is prohibited to carry out works on the licensed areas provided for the purposes of geological study and development of radioactive elements (uranium). Actions of the Kazakh authorities to check cargoes from Kyrgyzstan were reported to cause significant damage to domestic entrepreneurs and reduce trade turnover.
Other aspects:	No

A.19 Latvia

A.19.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 336 firms from the Latvia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Business Register of CSB was used.

Regional stratification for the Latvia ES was done across three regions: Riga & Pieriga, Kurzeme & Zemgale and Vidzeme & Latgale.

Regions of Latvia	**Grouping to be used for stratification purposes in BEEPS VI**
Riga	Riga & Pieriga
Pieriga	
Kurzeme	Kurzeme & Zemgale
Zemgale	
Vidzeme	Vidzeme & Latgale

Latgale	

Latvia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	1308	1988	6463	12274
	Medium (20-99)	448	326	1424	
	Large (100 or more)	103	40	174	
Kurzeme & Zemgale	Small (5-19)	471	801	1504	3603
	Medium (20-99)	306	110	325	
	Large (100 or more)	56	7	23	
Vidzeme & Latgale	Small (5-19)	436	738	1230	3062
	Medium (20-99)	231	106	250	
	Large (100 or more)	47	5	19	
		3406	4121	11412	18939

Source: World Bank and Business Register of CSB

Latvia ES Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	36	39	46	**192**
	Medium (20-99)	23	13	16	
	Large (100 or more)	7	3	9	
Kurzeme & Zemgale	Small (5-19)	11	22	13	**73**
	Medium (20-99)	14	3	5	
	Large (100 or more)	3	1	1	
Vidzeme & Latgale	Small (5-19)	15	17	18	**71**
	Medium (20-99)	4	5	4	
	Large (100 or more)	4	1	3	
		117	**104**	**115**	**336**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	4	4	13	**73**
	Medium (20-99)	4	4	4	
	Large (100 or more)	14	10	16	
Kurzeme & Zemgale	Small (5-19)	4	4	4	**62**
	Medium (20-99)	4	20	4	
	Large (100 or more)	14	2	6	
Vidzeme & Latgale	Small (5-19)	4	4	4	**65**
	Medium (20-99)	7	21	7	
	Large (100 or more)	12	1	5	
		67	**70**	**63**	**200**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-9)	4	4	6	**47**
	Medium (10-49)	4	4	10	

	Large (100 or more)	6	2	7	
Kurzeme & Zemgale	Small (5-9)	9	18	10	**58**
	Medium (10-49)	11	2	4	
	Large (100 or more)	2	1	1	
Vidzeme & Latgale	Small (5-9)	11	14	14	**55**
	Medium (10-49)	3	4	3	
	Large (100 or more)	3	1	2	
		53	**50**	**57**	**160**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 17.3% (426 out of 2462 establishments)[40].

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	11	11	20	**122**
	Medium (20-99)	10	10	8	
	Large (100 or more)	20	5	27	
Kurzeme & Zemgale	Small (5-19)	12	23	12	**120**
	Medium (20-99)	17	25	16	
	Large (100 or more)	8	4	3	
Vidzeme & Latgale	Small (5-19)	13	21	15	**117**
	Medium (20-99)	18	18	17	
	Large (100 or more)	10	2	3	
		119	**119**	**121**	**359**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	4	6	9	**43**
	Medium (20-99)	6	5	4	
	Large (100 or more)	4	1	4	
Kurzeme & Zemgale	Small (5-19)	2	3	3	**19**
	Medium (20-99)	4	3	3	
	Large (100 or more)	0	1	0	
Vidzeme & Latgale	Small (5-19)	6	7	5	**28**
	Medium (20-99)	2	4	1	
	Large (100 or more)	1	1	1	
		29	**31**	**30**	**90**

A.19.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
448	**Eligible**	1. Eligible establishment (Correct name and address)	433

[40] Based on out of target and ineligible contacts

		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	3
		4. Eligible establishment (Moved and traced)	6
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	6
1400	**Screener refusal**	13. Refuses to answer the screener	1400
340	**Ineligible**	5. The establishment has less than 5 permanent full time employees	29
		616. The firm discontinued businesses - (Establishment went bankrupt)	48
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	6
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	16
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	102
		621. The firm discontinued businesses - (Other)	24
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	108
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	7
86	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	1
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	4
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	6
		156. Duplicated firm within the sample	24
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	51
188	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	136
		92. Line out of order	2
		93. No tone	1
		94. Phone number does not exist	36
		10. Answering machine	1
		11. Fax line- data line	1
		12. Wrong address/ moved away and could not get the new references	11
2462	**Total contacted**		

Response Outcomes: Latvia ES 2019

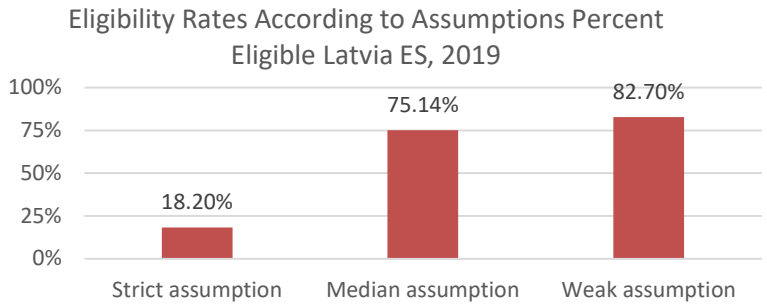
Target and totals	Sample target	360
	Sample target completion rate	99.7%
	Total contacts available in frame	3106
	Total contacts issued	2588

	Total contacts contacted	2462
Screening phase	Screening in process	0
	Eligibles	448
	Screener refusal	1400
	Ineligible + out of target	426
	Unobtainable	188
Interview phase (only if eligible)	Complete interviews without extra module	1
	Complete interviews with extra module	358
	Eligible in process + incomplete interviews	29
	Interview refusal	58
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	56.9%
	Ineligible + out of target rate	17.3%
	Unobtainable rate	7.6%
	Interview conversion rate	14.6%
	Eligible in process + incomplete interviews rate	1.2%
	Interview refusal rate	2.4%

A.19.3. Universe estimates

Universe estimates for the number of establishments in each cell in Latvia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Latvia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	160	167	571	**1311**
	Medium (20-99)	95	47	217	
	Large (100 or more)	21	5	27	
Kurzeme & Zemgale	Small (5-19)	69	80	158	**490**
	Medium (20-99)	77	25	59	
	Large (100 or more)	13	4	4	
Vidzeme & Latgale	Small (5-19)	65	75	132	**413**

	Medium (20-99)	59	19	46	
	Large (100 or more)	11	2	3	
		571	**426**	**1217**	**2214**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	942	1598	4112	**8564**
	Medium (20-99)	365	296	1025	
	Large (100 or more)	77	33	115	
Kurzeme & Zemgale	Small (5-19)	344	653	971	**2624**
	Medium (20-99)	253	102	237	
	Large (100 or more)	43	6	15	
Vidzeme & Latgale	Small (5-19)	315	595	784	**2212**
	Medium (20-99)	189	97	180	
	Large (100 or more)	35	4	13	
		2563	**3384**	**7453**	**13400**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Riga & Pieriga	Small (5-19)	1097	1733	4793	**9731**
	Medium (20-99)	407	308	1144	
	Large (100 or more)	86	35	128	
Kurzeme & Zemgale	Small (5-19)	398	704	1125	**2946**
	Medium (20-99)	280	105	263	
	Large (100 or more)	47	6	17	
Vidzeme & Latgale	Small (5-19)	360	634	899	**2453**
	Medium (20-99)	207	99	198	
	Large (100 or more)	39	4	14	
		2922	**3628**	**8581**	**15131**

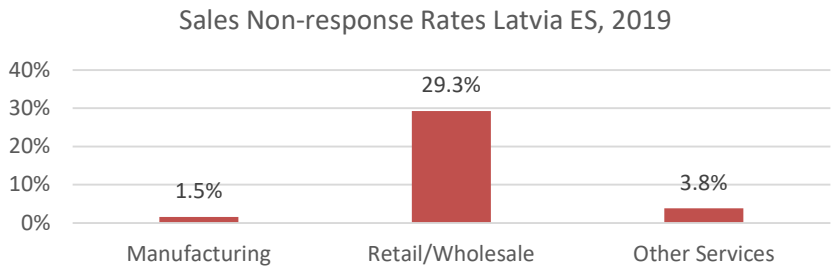
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.19.4. Non-Response

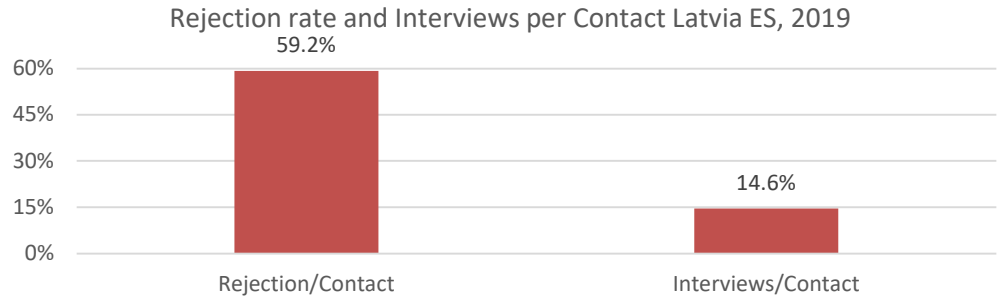
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.15.[41] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.59.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Latvia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.20 Lebanon

A.20.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 561 firms from the Lebanon 2013 ES was used and for fresh firms (i.e., firms not covered in 2013), lists of firms from the local Chambers of Commerce were compiled and used.

Regional stratification was done across five regions: Beirut, Bekaa Valley & North Lebanon, Mount Lebanon, Nabatieh and South Lebanon.

Governorates of Lebanon	Grouping used for stratification purposes in BEEPS VI
Beirut	Beirut
Bekaa	Bekaa Valley & North Lebanon

[41] The estimate is based on the total no. of firms contacted including ineligible establishments.

North Lebanon	
Mount Lebanon	Mount Lebanon
Nabatiyeh	Nabatieh
South Lebanon	South Lebanon
Akkar	Not covered
Baalbeck-Hermel	Not covered

Lebanon ES Sample Frame (Fresh and Panel Combined)

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	16	63	588	362	**1680**
	Medium (20-99)	17	41	233	226	
	Large (100 or more)	3	18	48	63	
	Unknown	0	0	2	0	
Bekaa Valley & North Lebanon	Small (5-19)	22	38	172	69	**812**
	Medium (20-99)	33	30	62	44	
	Large (100 or more)	5	6	8	2	
	Unknown	0	16	304	1	
Mount Lebanon	Small (5-19)	34	275	1310	546	**3690**
	Medium (20-99)	47	216	654	257	
	Large (100 or more)	22	52	102	104	
	Unknown	0	13	55	3	
Nabatieh	Small (5-19)	7	8	22	15	**1302**
	Medium (20-99)	3	3	5	3	
	Large (100 or more)	1	0	2	0	
	Unknown	0	139	1090	4	
South Lebanon	Small (5-19)	9	14	76	28	**2502**
	Medium (20-99)	8	14	22	10	
	Large (100 or more)	0	2	11	7	
	Unknown	0	346	1937	18	
		227	**1294**	**6703**	**1762**	**9986**

Source: World Bank and Lebanon Chambers of Commerce.

Lebanon Sample Frame (Panel)

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	4	16	20	12	**123**
	Medium (20-99)	6	12	21	9	
	Large (100 or more)	2	7	7	7	
Bekaa Valley & North Lebanon	Small (5-19)	14	17	31	12	**162**
	Medium (20-99)	18	18	22	17	
	Large (100 or more)	3	3	6	1	
Mount Lebanon	Small (5-19)	3	15	20	17	**139**
	Medium (20-99)	7	14	14	7	
	Large (100 or more)	11	18	9	4	
Nabatieh	Small (5-19)	4	6	12	5	**39**
	Medium (20-99)	3	3	3	1	
	Large (100 or more)	1	0	1	0	
South Lebanon	Small (5-19)	7	10	27	12	**98**
	Medium (20-99)	6	9	13	4	
	Large (100 or more)	0	2	7	1	
		89	**150**	**213**	**109**	**561**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	6	2	6	4	**66**
	Medium (20-99)	6	1	3	6	
	Large (100 or more)	1	6	7	17	
	Unknown	0	0	1	0	
Bekaa Valley & North Lebanon	Small (5-19)	4	1	2	1	**39**
	Medium (20-99)	8	1	1	1	
	Large (100 or more)	1	2	1	1	
	Unknown	0	2	12	1	
Mount Lebanon	Small (5-19)	9	5	26	6	**92**
	Medium (20-99)	14	4	7	3	
	Large (100 or more)	6	1	1	7	
	Unknown	0	1	1	1	
Nabatieh	Small (5-19)	2	1	4	5	**76**
	Medium (20-99)	0	0	1	1	
	Large (100 or more)	0	0	1	0	
	Unknown	0	29	30	2	
South Lebanon	Small (5-19)	1	1	1	1	**77**
	Medium (20-99)	1	3	1	3	
	Large (100 or more)	0	0	2	3	
	Unknown	0	23	30	7	
		59	**83**	**138**	**70**	**350**

Original Sample Design (Panel)

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	3	1	9	8	**54**
	Medium (20-99)	5	1	1	7	
	Large (100 or more)	2	6	5	6	
	Unknown	0	0	0	0	
Bekaa Valley & North Lebanon	Small (5-19)	11	2	1	6	**71**
	Medium (20-99)	14	10	4	13	
	Large (100 or more)	2	2	5	1	
	Unknown	0	0	0	0	
Mount Lebanon	Small (5-19)	2	1	16	1	**51**
	Medium (20-99)	6	1	5	1	
	Large (100 or more)	9	5	1	3	
	Unknown	0	0	0	0	
Nabatieh	Small (5-19)	3	5	10	4	**31**
	Medium (20-99)	2	2	2	1	
	Large (100 or more)	1	0	1	0	
	Unknown	0	0	0	0	
South Lebanon	Small (5-19)	6	2	1	5	**43**
	Medium (20-99)	5	7	5	3	
	Large (100 or more)	0	2	6	1	

	Unknown	0	0	0	0	
		71	**47**	**72**	**60**	**250**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 11.8% (188 out of 1597 establishments).[42]

For the Lebanon 2019 ES, the survey was plagued by political turmoil, strikes, riots, and road closures (particularly in and around Beirut) from September 2019 to March 2020; further, fieldwork ended because of shutdowns due to the COVID-19 outbreak.

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	4	7	0	0	**80**
	Medium (20-99)	3	5	10	7	
	Large (100 or more)	1	5	8	10	
	Small and Unknown	0	0	9	11	
Bekaa Valley & North Lebanon	Small (5-19)	11	8	12	7	**127**
	Medium (20-99)	23	10	10	17	
	Large (100 or more)	2	2	6	2	
	Unknown	0	3	13	1	
Mount Lebanon	Small (5-19)	11	12	30	11	**138**
	Medium (20-99)	16	11	12	5	
	Large (100 or more)	5	8	1	13	
	Unknown	0	1	1	1	
Nabatieh	Small (5-19)	2	0	10	0	**78**
	Medium (20-99)	0	0	1	2	
	Large (100 or more)	0	0	2	0	
	Unknown	0	25	25	0	
	Medium and Large (20+)	1	0	0	0	
	Small and Medium (5-99)	0	4	0	0	
	Small and Unknown	0	0	0	6	
South Lebanon	Small (5-19)	4	4	6	8	**109**
	Medium (20-99)	0	8	8	8	
	Large (100 or more)	0	2	5	1	
	Unknown	0	23	25	3	
	Medium and Large (20+)	4	0	0	0	
		83	**115**	**169**	**110**	**532**

Achieved Interviews (Panel)

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	2	5	0	0	**40**
	Medium (20-99)	3	4	7	1	

[42] Based on out of target and ineligible contacts.

	Large (100 or more)	1	2	2	4	
	Small and Unknown	0	0	4	5	
Bekaa Valley & North Lebanon	Small (5-19)	5	6	10	6	**80**
	Medium (20-99)	14	9	9	13	
	Large (100 or more)	2	0	5	1	
Mount Lebanon	Small (5-19)	0	7	5	2	**41**
	Medium (20-99)	3	6	5	2	
	Large (100 or more)	2	7	1	1	
Nabatieh	Small (5-19)	0	0	6	0	**15**
	Medium (20-99)	0	0	0	1	
	Large (100 or more)	0	0	1	0	
	Medium and Large (20+)	1	0	0	0	
	Small and Medium (5-99)	0	3	0	0	
	Small and Unknown	0	0	0	3	
South Lebanon	Small (5-19)	2	3	5	7	**43**
	Medium (20-99)	0	6	7	4	
	Large (100 or more)	0	2	3	0	
	Medium and Large (20+)	4	0	0	0	
		35	**58**	**67**	**50**	**219**

A.20.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	**0**
540	**Eligible**	1. Eligible establishment (Correct name and address)	**494**
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	**4**
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	**9**
		4. Eligible establishment (Moved and traced)	**14**
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	**19**
450	**Screener refusal**	13. Refuses to answer the screener	**450**
133	**Ineligible**	5. The establishment has less than 5 permanent full time employees	**36**
		616. The firm discontinued businesses - (Establishment went bankrupt)	**46**
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	**0**
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	**1**
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	**1**
		621. The firm discontinued businesses - (Other)	**38**
		71. Ineligible legal status: not a business, but private household	**1**
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	**1**
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	**9**
55	**Out of Target**	151. Out of target - outside the covered regions	**7**

		152. Out of target - moved abroad	**0**
		153. Out of target - Not registered with Statistical Authority	**0**
		154. Out of target - establishment is HQ without production or sales of goods or services	**0**
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	**0**
		156. Duplicated firm within the sample	**45**
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	**3**
419	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	**123**
		92. Line out of order	**75**
		93. No tone	**7**
		94. Phone number does not exist	**187**
		10. Answering machine	**0**
		11. Fax line- data line	**0**
		12. Wrong address/ moved away and could not get the new references	**27**
1597	**Total contacted**		

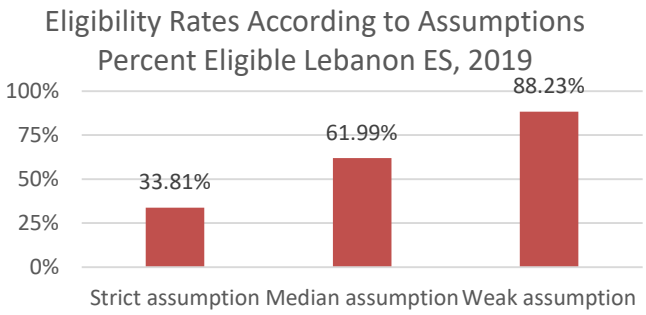
Response Outcomes: Lebanon ES 2019

Target and totals	Sample target	533
	Sample target completion rate	99.8%
	Total contacts available in frame	9986
	Total contacts issued	2387
	Total contacts contacted	1597
Screening phase	Screening in process	0
	Eligibles	540
	Screener refusal	450
	Ineligible + out of target	188
	Unobtainable	419
Interview phase (only if eligible)	Complete interviews without extra module	21
	Complete interviews with extra module	511
	Eligible in process + incomplete interviews	0
	Interview refusal	7
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	28.2%
	Ineligible + out of target rate	11.8%
	Unobtainable rate	26.2%
	Interview conversion rate	33.3%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.4%

A.20.3. Universe estimates

Universe estimates for the number of establishments in each cell in Lebanon were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Lebanon were produced for the strict, weak and median eligibility definitions. Tables below shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	4	75	0	0	**502**
	Medium (20-99)	4	61	106	59	
	Large (100 or more)	2	5	11	11	
	Small and Unknown	0	0	86	76	
Bekaa Valley & North Lebanon	Small (5-19)	14	27	56	30	**301**
	Medium (20-99)	23	23	20	20	
	Large (100 or more)	2	2	6	2	
	Unknown	0	8	67	1	
Mount Lebanon	Small (5-19)	23	284	512	176	**1771**
	Medium (20-99)	23	188	320	111	
	Large (100 or more)	5	34	31	50	
	Unknown	0	2	9	3	
Nabatieh	Small (5-19)	3	0	10	0	**252**
	Medium (20-99)	0	0	2	2	
	Large (100 or more)	0	0	2	0	
	Unknown	0	33	189	0	
	Medium and Large (20+)	1	0	0	0	
	Small and Medium (5-99)	0	5	0	0	
	Small and Unknown	0	0	0	6	
South Lebanon	Small (5-19)	7	11	50	20	**622**
	Medium (20-99)	0	8	12	8	
	Large (100 or more)	0	2	6	1	
	Unknown	0	74	415	3	
	Medium and Large (20+)	5	0	0	0	
		115	**843**	**1910**	**579**	**3447**

Median Universe Estimates – Fresh:

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	8	113	0	0	**1245**
	Medium (20-99)	8	61	141	138	
	Large (100 or more)	3	17	37	46	

	Small and Unknown	0	0	484	189	
Bekaa Valley & North Lebanon	Small (5-19)	16	41	141	30	**442**
	Medium (20-99)	23	23	20	23	
	Large (100 or more)	2	2	7	2	
	Unknown	0	8	103	1	
Mount Lebanon	Small (5-19)	45	455	983	392	**3326**
	Medium (20-99)	67	263	594	250	
	Large (100 or more)	11	68	58	92	
	Unknown	0	6	37	6	
Nabatieh	Small (5-19)	4	0	12	0	**437**
	Medium (20-99)	0	0	3	2	
	Large (100 or more)	0	0	2	0	
	Unknown	0	44	356	0	
	Medium and Large (20+)	2	0	0	0	
	Small and Medium (5-99)	0	5	0	0	
	Small and Unknown	0	0	0	7	
South Lebanon	Small (5-19)	7	11	50	20	**893**
	Medium (20-99)	0	9	12	8	
	Large (100 or more)	0	2	6	4	
	Unknown	0	123	631	4	
	Medium and Large (20+)	6	0	0	0	
		203	**1250**	**3676**	**1214**	**6343**

Weak Universe Estimates – Fresh:

		Food	Other Manufacturing	Wholesale and Retail	Other Services	Grand Total
Beirut	Small (5-19)	13	113	0	0	**1570**
	Medium (20-99)	11	61	212	197	
	Large (100 or more)	4	17	41	49	
	Small and Unknown	0	0	535	315	
Bekaa Valley & North Lebanon	Small (5-19)	16	41	141	30	**607**
	Medium (20-99)	23	23	20	29	
	Large (100 or more)	3	2	7	2	
	Unknown	0	11	258	1	
Mount Lebanon	Small (5-19)	62	455	1208	509	**3819**
	Medium (20-99)	68	300	640	250	
	Large (100 or more)	11	68	81	100	
	Unknown	0	11	46	9	
Nabatieh	Small (5-19)	4	0	14	0	**1073**
	Medium (20-99)	0	0	3	2	
	Large (100 or more)	0	0	2	0	
	Unknown	0	107	922	0	
	Medium and Large (20+)	3	0	0	0	
	Small and Medium (5-99)	0	5	0	0	
	Small and Unknown	0	0	0	11	
South Lebanon	Small (5-19)	7	11	50	20	**1820**
	Medium (20-99)	0	9	12	8	
	Large (100 or more)	0	2	6	4	
	Unknown	0	255	1416	11	
	Medium and Large (20+)	8	0	0	0	
		236	**1492**	**5614**	**1548**	**8889**

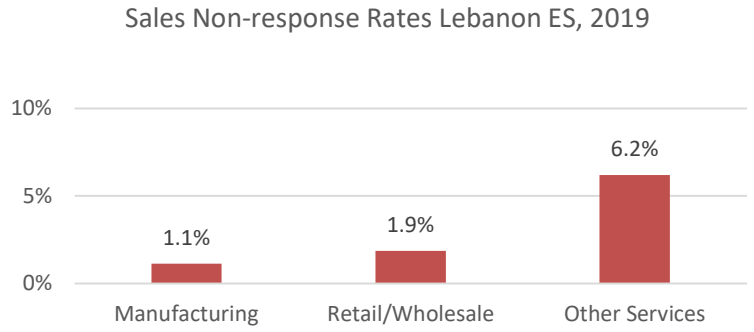
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.20.4. Non-Response

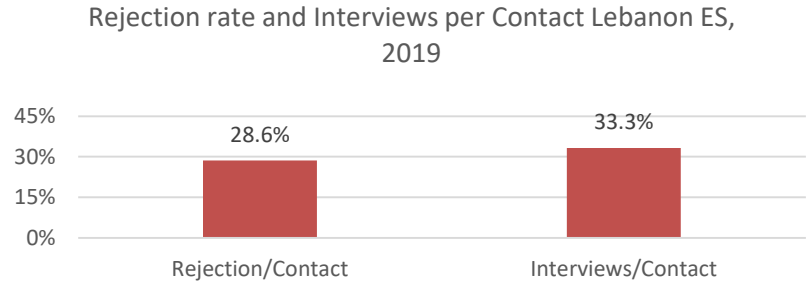
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.33.[43] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.29.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames

[43] The estimate is based on the total no. of firms contacted including ineligible establishments.

are not unique to Lebanon. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.21 Lithuania

A.21.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 270 firms from the Lithuania 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of firms from JSC - Creditreform Lietuva was used.

Regional stratification for the Lithuania ES was done across three regions: Vilnius county, Kaunus & Klaipeda counties and the Rest of the Country comprising Marijampolė County, Panevėžys County, Šiauliai County, Tauragė County, Telšiai County and Utena County.

NUTS Regions of Lithuania	Grouping to be used for stratification purposes in BEEPS VI
Vilnius County	Vilnius
Kaunas County	Kaunus & Klaipeda
Klaipėda County	
Marijampolė County	Rest of the country
Panevėžys County	
Šiauliai County	
Tauragė County	
Telšiai County	
Utena County	
Alytus County	

Lithuania ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	779	726	4364	**8027**
	Medium (20-99)	386	152	1260	
	Large (100 or more)	107	53	200	
Kaunus & Klaipeda	Small (5-19)	926	791	3847	**7619**
	Medium (20-99)	491	134	1077	
	Large (100 or more)	168	28	157	
Rest of the Country	Small (5-19)	872	924	3009	**6560**
	Medium (20-99)	468	151	857	
	Large (100 or more)	168	29	82	
		4365	**2988**	**14853**	**22206**

Source: World Bank and JSC - Creditreform Lietuva

Lithuania ES Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	13	18	25	**88**
	Medium (20-99)	7	6	8	
	Large (100 or more)	4	4	3	
Kaunus & Klaipeda	Small (5-19)	11	11	12	**67**
	Medium (20-99)	14	3	8	
	Large (100 or more)	5	2	1	

Rest of the Country	Small (5-19)	20	23	22	**115**
	Medium (20-99)	14	10	13	
	Large (100 or more)	10	1	2	
		98	**78**	**94**	**270**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	5	5	24	**87**
	Medium (20-99)	9	8	6	
	Large (100 or more)	13	14	3	
Kaunus & Klaipeda	Small (5-19)	6	6	22	**81**
	Medium (20-99)	5	11	6	
	Large (100 or more)	13	9	3	
Rest of the Country	Small (5-19)	5	9	18	**67**
	Medium (20-99)	4	5	5	
	Large (100 or more)	8	10	3	
		68	**77**	**90**	**235**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	2	5	2	**33**
	Medium (20-99)	5	5	6	
	Large (100 or more)	3	3	2	
Kaunus & Klaipeda	Small (5-19)	4	7	2	**39**
	Medium (20-99)	11	2	6	
	Large (100 or more)	4	2	1	
Rest of the Country	Small (5-19)	4	10	2	**53**
	Medium (20-99)	11	8	7	
	Large (100 or more)	8	1	2	
		52	**43**	**30**	**125**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 6.9% (128 out of 1868 establishments).[44]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Archieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	9	14	29	**111**

[44] Based on out of target and ineligible contacts.

	Medium (20-99)	12	15	8	
	Large (100 or more)	10	4	10	
Kaunus & Klaipeda	Small (5-19)	11	10	26	**128**
	Medium (20-99)	12	18	11	
	Large (100 or more)	29	4	7	
Rest of the Country	Small (5-19)	10	21	21	**119**
	Medium (20-99)	10	18	9	
	Large (100 or more)	23	3	4	
		126	**107**	**125**	**358**

Archieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	4	4	2	**13**
	Medium (20-99)	1	1	1	
Kaunus & Klaipeda	Small (5-19)	5	2	4	**25**
	Medium (20-99)	3	2	3	
	Large (100 or more)	4	1	1	
Rest of the Country	Small (5-19)	6	11	6	**37**
	Medium (20-99)	6	3	3	
	Large (100 or more)	2	0	0	
		31	**24**	**20**	**75**

A.21.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
717	**Eligible**	1. Eligible establishment (Correct name and address)	716
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
939	**Screener refusal**	13. Refuses to answer the screener	939
74	**Ineligible**	5. The establishment has less than 5 permanent full time employees	2
		616. The firm discontinued businesses - (Establishment went bankrupt)	28
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	4
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	4
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	15
		621. The firm discontinued businesses - (Other)	17
		71. Ineligible legal status: not a business, but private household	1
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0

		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	3
54	Out of Target	151. Out of target - outside the covered regions	25
		152. Out of target - moved abroad	1
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	6
		156. Duplicated firm within the sample	22
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
84	Unobtainable	91. No reply after having called in different days of the week and in different business hours	39
		92. Line out of order	9
		93. No tone	9
		94. Phone number does not exist	22
		10. Answering machine	1
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	4
1868	Total contacted		

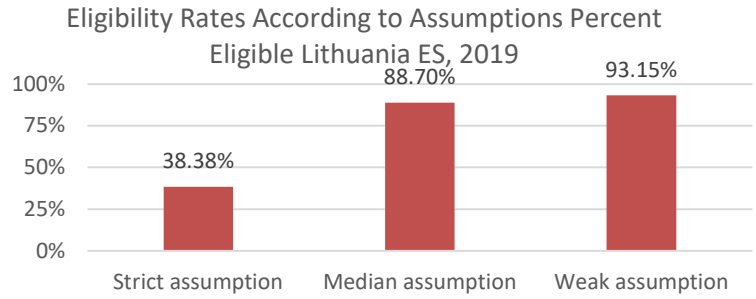
Response Outcomes: Lithuania ES 2019

Target and totals	Sample target	360
	Sample target completion rate	99.4%
	Total contacts available in frame	5902
	Total contacts issued	2237
	Total contacts contacted	1868
Screening phase	Screening in process	0
	Eligibles	717
	Screener refusal	939
	Ineligible + out of target	128
	Unobtainable	84
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	358
	Eligible in process + incomplete interviews	0
	Interview refusal	359
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	50.3%
	Ineligible + out of target rate	6.9%
	Unobtainable rate	4.5%
	Interview conversion rate	19.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	19.2%

A.21.3. Universe estimates

Universe estimates for the number of establishments in each cell in Lithuania were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Lithuania were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe estimate Based on Sampling Weights

Strict Universe Estimates – Fresh

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	274	280	1423	**2809**
	Medium (20-99)	154	68	477	
	Large (100 or more)	45	20	67	
Kaunus & Klaipeda	Small (5-19)	410	429	1597	**3478**
	Medium (20-99)	260	99	513	
	Large (100 or more)	87	18	67	
Rest of the Country	Small (5-19)	404	601	1375	**3379**
	Medium (20-99)	265	131	448	
	Large (100 or more)	94	17	43	
		1993	**1663**	**6010**	**9666**

Median Universe Estimates – Fresh

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	812	918	4357	**8171**
	Medium (20-99)	377	184	1212	
	Large (100 or more)	103	50	158	
Kaunus & Klaipeda	Small (5-19)	885	1025	3568	**7381**
	Medium (20-99)	465	197	950	
	Large (100 or more)	144	32	115	
Rest of the Country	Small (5-19)	895	1472	3149	**7387**
	Medium (20-99)	487	267	850	
	Large (100 or more)	159	32	76	
		4327	**4177**	**14435**	**22939**

Weak Universe Estimates – Fresh

		Manufacturing	Retail	Other Services	Grand Total
Vilnius	Small (5-19)	846	945	4574	**8489**
	Medium (20-99)	381	184	1233	
	Large (100 or more)	108	52	166	
	Small (5-19)	993	1137	4037	**8256**

Kaunus & Klaipeda	Medium (20-99)	506	211	1042	
	Large (100 or more)	162	36	131	
Rest of the Country	Small (5-19)	944	1534	3347	**7751**
	Medium (20-99)	498	270	876	
	Large (100 or more)	169	33	81	
		4606	**4402**	**15488**	**24496**

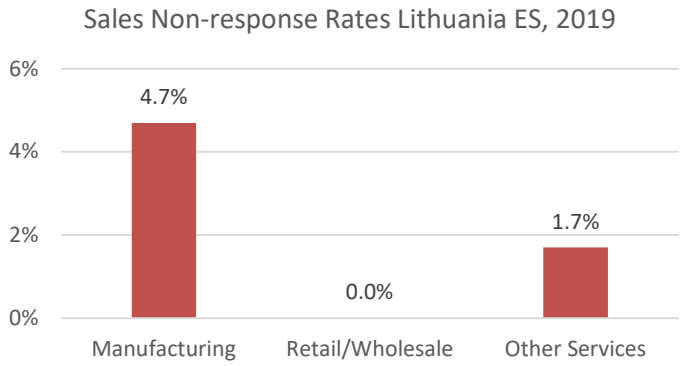
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.21.4. Non-Response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

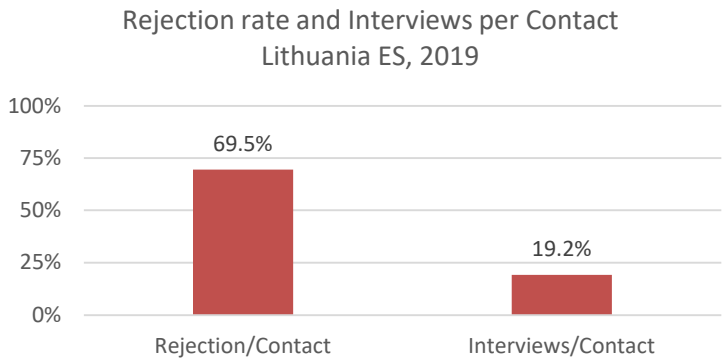
Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.19.[45] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.70.

[45] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Lithuania. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.22 Malta

A.22.1. Sampling structure and implementation

The sample frame consisted of listings of firms from Misco Malta internal list enriched with information from Business Registrar.

There was no regional stratification in the Malta ES 2019.

Malta ES Sample Frame

		Manufacturing	Services	Grand Total
Malta	Small (5-9)	129	1069	**2765**
	Medium (10-49)	190	849	
	Large (50-249)	66	290	
	Very Large (250 or more)	14	158	
		399	**2366**	**2765**

Source: Misco Malta

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design
Original Sample Design (Fresh)

		Manufacturing	Services	Grand Total
Malta	Small (5-9)	44	39	**240**
	Medium (10-49)	48	29	
	Large (50-249)	23	27	
	Very Large (250 or more)	5	25	
		120	**120**	**240**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual

observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 28.6% (524 out of 1829 establishments).[46]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews

		Manufacturing	Services	Grand Total
Malta	Small (5-9)	13	50	**244**
	Medium (10-49)	56	58	
	Large (50-249)	13	41	
	Very Large (250 or more)	5	8	
		87	**158**	**244**

A.22.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
248	**Eligible**	1. Eligible establishment (Correct name and address)	246
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	2
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
490	**Screener refusal**	13. Refuses to answer the screener	490
222	**Ineligible**	5. The establishment has less than 5 permanent full time employees	157
		616. The firm discontinued businesses - (Establishment went bankrupt)	0
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	2
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	7
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	7
		621. The firm discontinued businesses - (Other)	38
		71. Ineligible legal status: not a business, but private household	2
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	2
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	7
302	**Out of Target**	151. Out of target - outside the covered regions	122
		152. Out of target - moved abroad	1
		153. Out of target - Not registered with Statistical Authority	1
		154. Out of target - establishment is HQ without production or sales of goods or services	41
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	15

[46] Based on out of target and ineligible contacts.

		156. Duplicated firm within the sample	94
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	28
567	Unobtainable	91. No reply after having called in different days of the week and in different business hours	157
		92. Line out of order	1
		93. No tone	5
		94. Phone number does not exist	228
		10. Answering machine	6
		11. Fax line- data line	15
		12. Wrong address/ moved away and could not get the new references	155
1829	Total contacted		

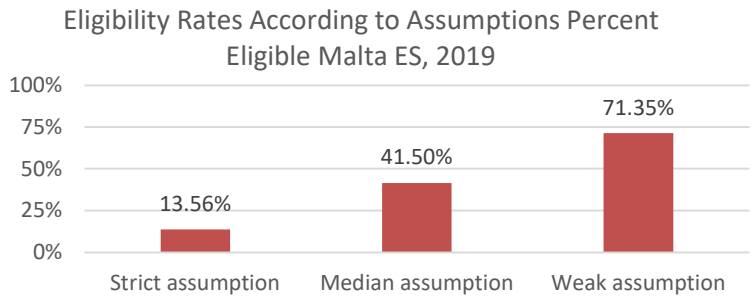
Response Outcomes: Malta ES 2019

Target and totals	Sample target	240
	Sample target completion rate	101.7%
	Total contacts available in frame	2765
	Total contacts issued	1829
	Total contacts contacted	1829
Screening phase	Screening in process	0
	Eligibles	248
	Screener refusal	490
	Ineligible + out of target	524
	Unobtainable	567
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	244
	Eligible in process + incomplete interviews	0
	Interview refusal	4
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	26.8%
	Ineligible + out of target rate	28.6%
	Unobtainable rate	31.0%
	Interview conversion rate	13.3%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.2%

A.22.3. Universe estimates

Universe estimates for the number of establishments in each cell in Malta were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Malta were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
Malta	Small (5-9)	19	75	**373**
	Medium (10-49)	65	140	
	Large (50-249)	17	41	
	Very Large (250 or more)	5	11	
		106	**267**	**373**

Median Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
Malta	Small (5-9)	59	331	**1137**
	Medium (10-49)	135	409	
	Large (50-249)	41	123	
	Very Large (250 or more)	5	35	
		240	**898**	**1137**

Weak Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
Malta	Small (5-9)	98	702	**1986**
	Medium (10-49)	174	672	
	Large (50-249)	53	203	
	Very Large (250 or more)	8	76	
		333	**1653**	**1986**

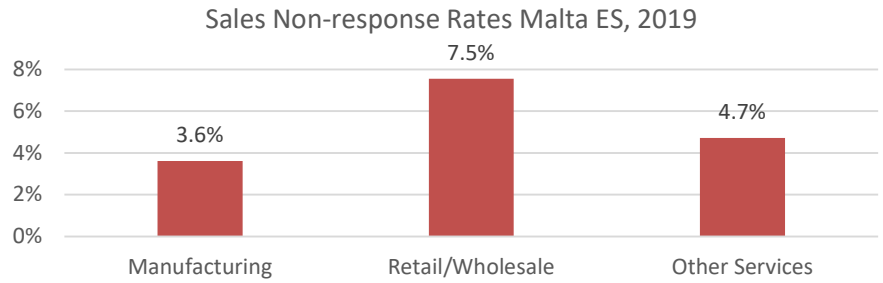
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.22.4. Non-response

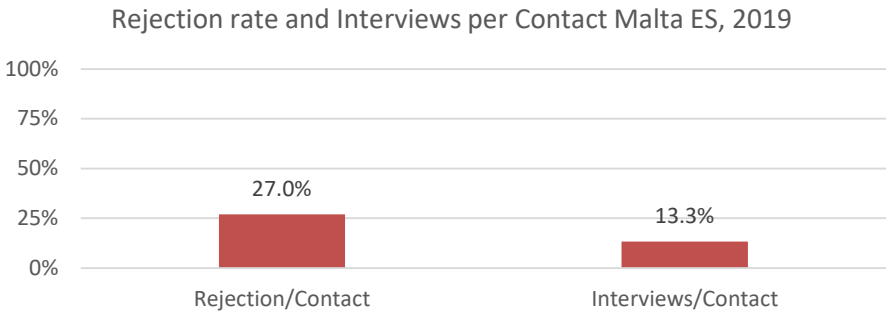
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.13.[47] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.27.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Malta. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[47] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.23 Moldova

A.23.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Moldova 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of firms from the National Bureau of Statistics of the Republic of Moldova was used.

Regional stratification was done across three regions: North, Center and South.

Grouping used for stratification purposes in BEEPS VI (municipalities in brackets)
North (municipality Balti, raionuls Briceni, Donduseni, Drochia, Edinet, Falesti, Floresti, Glodeni, Rezina, Riscani, Singerei, Ocnita, Soroca, Soldanesti)
Center (municipality Chisinau, raionuls Anenii Noi, Causeni, Calarasi, Criuleni, Hincesti, Ialoveni, Leova, Nisporeni, Orhei, Straseni, Ungheni, Telenesti)
South (republica Gaugazia, municipality Comrat, raionuls Cahul, Cantemir, Cimislia, Taraclia, Bender, Tiraspol, raionuls Basarabeasca, Dubasari, Stefan Voda)

Moldova ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	175	448	610	**1626**
	Medium (20-99)	84	76	159	
	Large (100 or more)	48	5	21	
Center	Small (5-19)	858	1300	3568	**7602**
	Medium (20-99)	388	218	931	
	Large (100 or more)	142	51	146	
South	Small (5-19)	115	265	285	**861**
	Medium (20-99)	59	47	62	
	Large (100 or more)	18	2	8	
		1887	**2412**	**5790**	**10089**

Source: World Bank and National Bureau of Statistics of the Republic of Moldova

Moldova Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	11	17	20	**78**
	Medium (20-99)	6	9	10	
	Large (100 or more)	4	1	0	
Center	Small (5-19)	32	53	34	**211**
	Medium (20-99)	24	14	28	
	Large (100 or more)	11	7	8	
South	Small (5-19)	11	24	11	**71**
	Medium (20-99)	5	8	9	
	Large (100 or more)	2	0	1	
		106	**133**	**121**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total

North	Small (5-19)	2	3	5	**59**
	Medium (20-99)	6	6	2	
	Large (100 or more)	22	2	11	
Center	Small (5-19)	6	9	24	**68**
	Medium (20-99)	3	2	7	
	Large (100 or more)	6	9	2	
South	Small (5-19)	2	2	2	**53**
	Medium (20-99)	14	15	5	
	Large (100 or more)	8	1	4	
		69	**49**	**62**	**180**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	4	11	8	**44**
	Medium (20-99)	4	7	6	
	Large (100 or more)	3	1	0	
Center	Small (5-19)	12	20	13	**89**
	Medium (20-99)	9	6	11	
	Large (100 or more)	7	5	6	
South	Small (5-19)	6	15	6	**47**
	Medium (20-99)	4	6	7	
	Large (100 or more)	2	0	1	
		51	**71**	**58**	**180**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 15.4% (136 out of 882 establishments).[48]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	5	7	14	**103**
	Medium (20-99)	19	14	12	
	Large (100 or more)	21	1	10	
Center	Small (5-19)	14	33	37	**157**
	Medium (20-99)	11	11	20	
	Large (100 or more)	11	13	7	
South	Small (5-19)	7	21	7	**100**
	Medium (20-99)	20	0	7	
	Large (100 or more)	12	0	6	
	Medium and Large (20+)	0	20	0	
		120	**120**	**120**	**360**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	3	1	7	**23**
	Medium (20-99)	3	3	5	

[48] Based on out of target and ineligible contacts.

	Large (100 or more)	1	0	0	
Center	Small (5-19)	7	25	13	**82**
	Medium (20-99)	6	5	12	
	Large (100 or more)	5	4	5	
South	Small (5-19)	5	12	5	**37**
	Medium (20-99)	5	0	4	
	Large (100 or more)	2	0	0	
	Medium and Large (20+)	0	4	0	
		37	**54**	**51**	**142**

A.23.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
360	**Eligible**	1. Eligible establishment (Correct name and address)	336
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	1
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	23
202	**Screener refusal**	13. Refuses to answer the screener	202
131	**Ineligible**	5. The establishment has less than 5 permanent full time employees	8
		616. The firm discontinued businesses - (Establishment went bankrupt)	77
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	1
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	1
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	1
		621. The firm discontinued businesses - (Other)	0
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	31
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	12
6	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	5
		156. Duplicated firm within the sample	1
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
189	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	100
		92. Line out of order	19
		93. No tone	8

		94. Phone number does not exist	39
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	23
888	**Total contacted**		

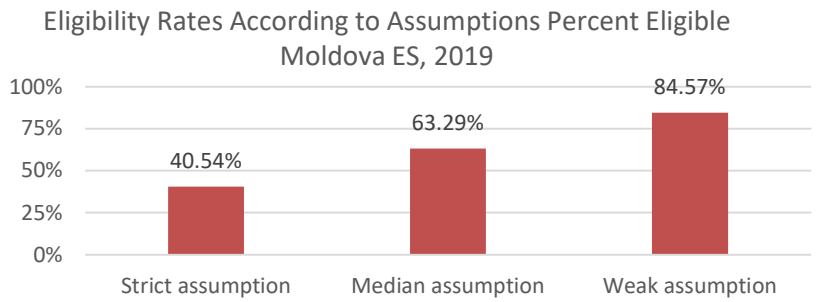
Response Outcomes: Moldova ES 2019

Target and totals	Sample target	360
	Sample target completion rate	100.0%
	Total contacts available in frame	10089
	Total contacts issued	1054
	Total contacts contacted	888
Screening phase	Screening in process	0
	Eligibles	360
	Screener refusal	202
	Ineligible + out of target	137
	Unobtainable	189
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	360
	Eligible in process + incomplete interviews	0
	Interview refusal	0
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	22.7%
	Ineligible + out of target rate	15.4%
	Unobtainable rate	21.3%
	Interview conversion rate	40.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.0%

A.23.3. Universe estimates

Universe estimates for the number of establishments in each cell in Moldova were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Moldova were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	70	132	233	**606**
	Medium (20-99)	38	25	69	
	Large (100 or more)	26	2	11	
Center	Small (5-19)	319	353	1258	**2690**
	Medium (20-99)	163	67	372	
	Large (100 or more)	71	19	69	
South	Small (5-19)	56	94	132	**386**
	Medium (20-99)	33	0	32	
	Large (100 or more)	12	0	6	
	Medium and Large (20+)	0	20	0	
		789	**711**	**2181**	**3682**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	109	233	350	**939**
	Medium (20-99)	54	41	94	
	Large (100 or more)	39	3	16	
Center	Small (5-19)	608	768	2331	**5046**
	Medium (20-99)	284	133	628	
	Large (100 or more)	131	39	124	
South	Small (5-19)	79	151	180	**543**
	Medium (20-99)	42	0	40	
	Large (100 or more)	16	0	7	
	Medium and Large (20+)	0	29	0	
		1362	**1396**	**3770**	**6529**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	163	356	540	**1428**
	Medium (20-99)	82	63	148	
	Large (100 or more)	50	4	21	
Center	Small (5-19)	784	1012	3094	**6617**
	Medium (20-99)	372	178	847	
	Large (100 or more)	145	44	141	
South	Small (5-19)	98	192	230	**677**
	Medium (20-99)	53	0	52	
	Large (100 or more)	17	0	7	
	Medium and Large (20+)	0	29	0	
		1764	**1878**	**5080**	**8722**

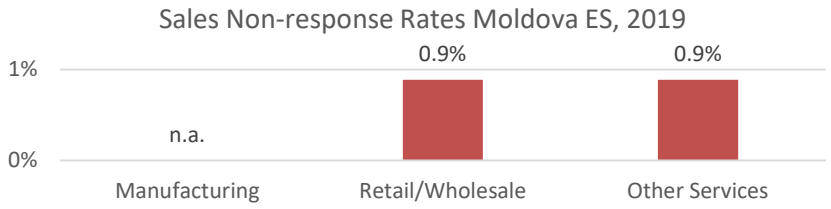
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.23.4. Non-response

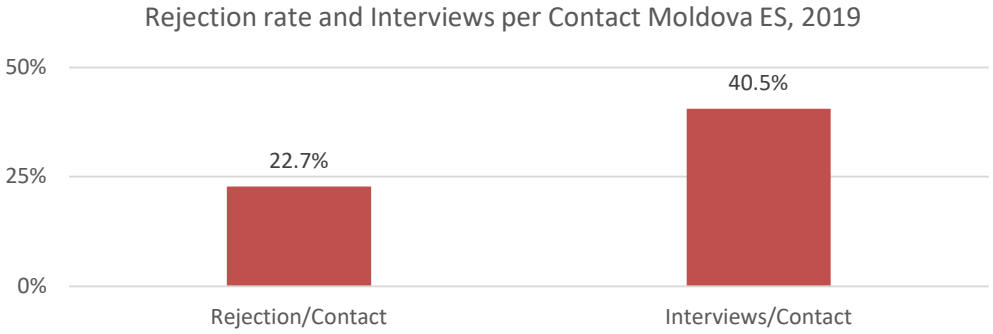
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.41.[49] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.23.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Moldova. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[49] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.24 Mongolia

A.24.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the Mongolia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from the Business Register of the National Statistical Office of Mongolia was used, dated the first quarter of 2018. The establishments in the listing are all registered as businesses with the State Registration Office, under the General Department of State Taxation.

Regional stratification for the Mongolia ES was done across five regions:

- Central Mongolia – comprising Darkhan-Uul, Dornogovi, Dundgovi, Govisümber, Ömnögovi, Selenge, and Töv
- Ulaanbaatar
- East Mongolia – comprising Dornod, Khentii, Sükhbaatar
- Khangai – comprising Arkhangai, Bayankhongor, Bulgan, Khövsgöl, Orkhon, Övörkhangai
- West Mongolia. – comprising Bayan-Ölgii, Govi-Altai, Khovd, Uvs, Zavkhan

For the purposes of achieving representativeness of the sample, the ES indicators are calculated with some regions combined. Specifically, Central and East Mongolia are combined into one region called East Mongolia, so are Khangai and West Mongolia to form West Mongolia.

Regions	Grouping used for stratification purposes in BEEPS VI (aimags in brackets)
Central (incl. Ulaanbaatar)	**Central Mongolia** (Darkhan-Uul, Dornogovi, Dundgovi, Govisümber, Ömnögovi, Selenge, and Töv)
	Ulaanbaatar
East	**East Mongolia** (Dornod, Khentii, Sükhbaatar)
Khangai	**Khangai** (Arkhangai, Bayankhongor, Bulgan, Khövsgöl, Orkhon, Övörkhangai)
West	**West Mongolia** (Bayan-Ölgii, Govi-Altai, Khovd, Uvs, Zavkhan)

Mongolia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	123	158	110	**561**
	Medium (20-99)	37	15	104	
	Large (100 or more)	6	0	8	
Ulaanbaatar	Small (5-19)	122	132	444	**1659**
	Medium (20-99)	245	136	149	
	Large (100 or more)	79	44	308	
East Mongolia	Small (5-19)	51	54	79	**243**
	Medium (20-99)	13	7	36	
	Large (100 or more)	1	0	2	
Khangai	Small (5-19)	184	147	103	**593**
	Medium (20-99)	36	15	91	
	Large (100 or more)	5	1	11	
West Mongolia	Small (5-19)	177	99	183	**585**
	Medium (20-99)	21	9	87	
	Large (100 or more)	2	0	7	
		1102	**817**	**1722**	**3641**

Source: World Bank and Business Register of Mongolia

Mongolia Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	6	12	10	**53**
	Medium (20-99)	7	5	11	
	Large (100 or more)	1	0	1	
Ulaanbaatar	Small (5-19)	24	41	26	**201**
	Medium (20-99)	29	18	32	
	Large (100 or more)	9	4	18	
East Mongolia	Small (5-19)	2	12	1	**23**
	Medium (20-99)	3	0	4	
	Large (100 or more)	1	0	0	
Khangai	Small (5-19)	8	10	5	**47**
	Medium (20-99)	9	6	8	
	Large (100 or more)	0	0	1	
West Mongolia	Small (5-19)	8	9	9	**36**
	Medium (20-99)	3	1	5	
	Large (100 or more)	0	0	1	
		110	**118**	**132**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	3	3	3	**40**
	Medium (20-99)	11	7	3	
	Large (100 or more)	5	0	5	
Ulaanbaatar	Small (5-19)	3	3	11	**63**
	Medium (20-99)	3	3	3	
	Large (100 or more)	13	13	11	
East Mongolia	Small (5-19)	3	3	3	**19**
	Medium (20-99)	3	3	3	
	Large (100 or more)	0	0	1	
Khangai	Small (5-19)	3	3	3	**32**
	Medium (20-99)	3	6	3	
	Large (100 or more)	3	1	7	
West Mongolia	Small (5-19)	3	3	3	**26**
	Medium (20-99)	4	5	3	
	Large (100 or more)	1	0	4	
		61	**53**	**66**	**180**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	5	10	8	**44**
	Medium (20-99)	6	4	9	
	Large (100 or more)	1	0	1	
Ulaanbaatar	Small (5-19)	2	4	13	**69**
	Medium (20-99)	8	13	6	
	Large (100 or more)	7	3	13	
East Mongolia	Small (5-19)	2	2	1	**10**
	Medium (20-99)	2	0	2	

	Large (100 or more)	1	0	0	
Khangai	Small (5-19)	5	8	2	**34**
	Medium (20-99)	7	5	6	
	Large (100 or more)	0	0	1	
West Mongolia	Small (5-19)	6	7	2	**23**
	Medium (20-99)	2	1	4	
	Large (100 or more)	0	0	1	
		54	**57**	**69**	**180**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 25.5% (181 out of 709 establishments).[50]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	8	18	10	**81**
	Medium (20-99)	17	11	11	
	Large (100 or more)	3	0	3	
Ulaanbaatar	Small (5-19)	6	7	25	**133**
	Medium (20-99)	12	14	9	
	Large (100 or more)	22	16	22	
East Mongolia	Small (5-19)	5	6	4	**30**
	Medium (20-99)	5	3	5	
	Large (100 or more)	1	0	1	
Khangai	Small (5-19)	10	11	8	**65**
	Medium (20-99)	7	0	8	
	Large (100 or more)	3	0	8	
	Medium and Large (20+)	0	10	0	
West Mongolia	Small (5-19)	10	8	9	**51**
	Medium (20-99)	6	6	7	
	Large (100 or more)	1	0	4	
		116	**110**	**134**	**360**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	5	9	7	**40**
	Medium (20-99)	6	4	8	
	Large (100 or more)	0	0	1	
Ulaanbaatar	Small (5-19)	3	4	13	**67**
	Medium (20-99)	8	11	6	
	Large (100 or more)	9	3	10	
East Mongolia	Small (5-19)	2	3	1	**11**
	Medium (20-99)	2	0	2	
	Large (100 or more)	1	0	0	
Khangai	Small (5-19)	5	5	5	**29**
	Medium (20-99)	4	0	5	

[50] Based on out of target and ineligible contacts.

	Large (100 or more)	0	0	1	
	Medium and Large (20+)	0	4	0	
West Mongolia	Small (5-19)	6	5	6	**25**
	Medium (20-99)	2	1	4	
	Large (100 or more)	0	0	1	
		53	**49**	**70**	**172**

A.24.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
376	**Eligible**	1. Eligible establishment (Correct name and address)	332
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	6
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	5
		4. Eligible establishment (Moved and traced)	27
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	6
101	**Screener refusal**	13. Refuses to answer the screener	101
166	**Ineligible**	5. The establishment has less than 5 permanent full time employees	18
		616. The firm discontinued businesses - (Establishment went bankrupt)	51
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	5
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	7
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	10
		621. The firm discontinued businesses - (Other)	9
		71. Ineligible legal status: not a business, but private household	38
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	17
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	11
15	**Out of Target**	151. Out of target - outside the covered regions	1
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	8
		156. Duplicated firm within the sample	2
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	4
51	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	10
		92. Line out of order	0
		93. No tone	0

		94. Phone number does not exist	1
		10. Answering machine	1
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	39
709	**Total contacted**		

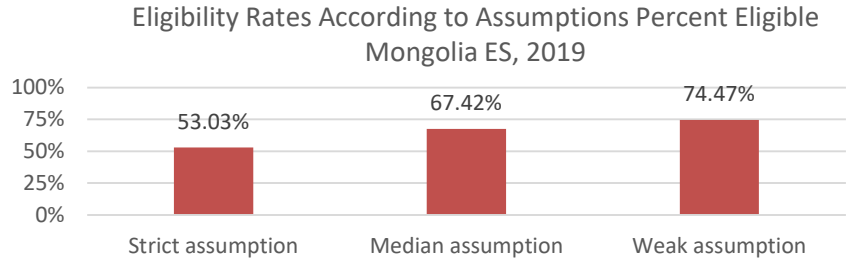
Response Outcomes: Mongolia ES 2019

Target and totals	Sample target	360
	Sample target completion rate	100.0%
	Total contacts available in frame	3641
	Total contacts issued	856
	Total contacts contacted	709
Screening phase	Screening in process	0
	Eligibles	376
	Screener refusal	101
	Ineligible + out of target	181
	Unobtainable	51
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	360
	Eligible in process + incomplete interviews	0
	Interview refusal	13
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	14.2%
	Ineligible + out of target rate	25.5%
	Unobtainable rate	7.2%
	Interview conversion rate	50.8%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	1.8%

A.24.3. Universe estimates

Universe estimates for the number of establishments in each cell in Mongolia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Mongolia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	66	65	170	**405**
	Medium (20-99)	21	11	66	
	Large (100 or more)	3	0	3	
Ulaanbaatar	Small (5-19)	219	124	990	**2251**
	Medium (20-99)	113	59	593	
	Large (100 or more)	30	16	107	
East Mongolia	Small (5-19)	20	18	39	**110**
	Medium (20-99)	8	4	19	
	Large (100 or more)	1	0	1	
Khangai	Small (5-19)	96	68	181	**461**
	Medium (20-99)	25	0	66	
	Large (100 or more)	3	0	8	
	Medium and Large (20+)	0	14	0	
West Mongolia	Small (5-19)	66	35	94	**266**
	Medium (20-99)	11	6	49	
	Large (100 or more)	1	0	4	
		683	**419**	**2391**	**3494**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	65	67	177	**402**
	Medium (20-99)	18	11	56	
	Large (100 or more)	3	0	5	
Ulaanbaatar	Small (5-19)	382	226	1811	**3902**
	Medium (20-99)	161	87	882	
	Large (100 or more)	65	36	251	
East Mongolia	Small (5-19)	22	21	45	**118**
	Medium (20-99)	7	4	18	
	Large (100 or more)	1	0	1	
Khangai	Small (5-19)	118	87	233	**560**
	Medium (20-99)	25	0	69	
	Large (100 or more)	4	0	10	
	Medium and Large (20+)	0	15	0	
West Mongolia	Small (5-19)	73	41	109	**291**
	Medium (20-99)	10	6	47	
	Large (100 or more)	1	0	4	
		956	**600**	**3718**	**5274**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Central Mongolia	Small (5-19)	82	87	223	**499**
	Medium (20-99)	20	11	66	
	Large (100 or more)	4	0	5	
Ulaanbaatar	Small (5-19)	447	271	2122	**4465**
	Medium (20-99)	177	98	970	
	Large (100 or more)	69	39	271	
East Mongolia	Small (5-19)	23	23	49	**127**
	Medium (20-99)	7	4	18	

	Large (100 or more)	1	0	1	
Khangai	Small (5-19)	133	100	263	**626**
	Medium (20-99)	26	0	73	
	Large (100 or more)	5	0	10	
	Medium and Large (20+)	0	15	0	
West Mongolia	Small (5-19)	81	46	121	**319**
	Medium (20-99)	11	6	48	
	Large (100 or more)	1	0	4	
		1088	**701**	**4247**	**6035**

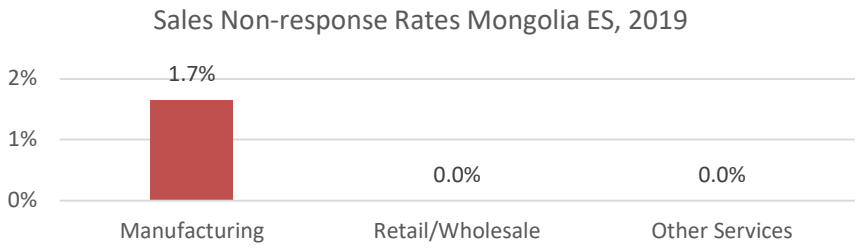
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.24.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

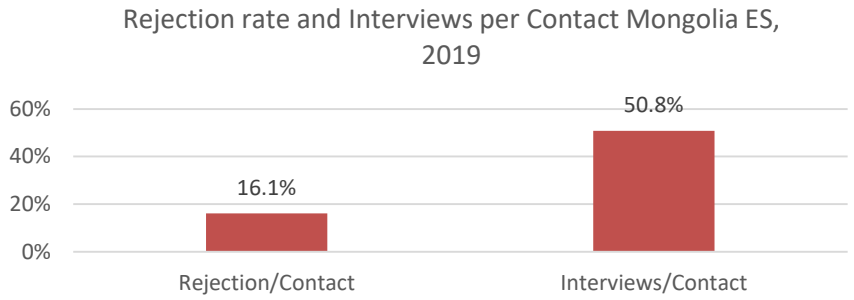
Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.51.[51] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.16.

[51] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Mongolia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.24.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: SIAR Research and Consultancy (in collaboration with Operative Research Center - SIAR's supplier for fieldwork in Mongolia) Region: Mongolia Membership of international organizations: Group 789 Association of regional research companies, member of ESOMAR (Russia) Activities since: 2000
Enumerators involved:	Enumerators: 24 Recruiters: 10
Other staff involved:	Fieldwork Coordinators: 8 regional supervisors Editing: 1 Data Entry: 3 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic database
Source:	NSO Mongolia
Year:	2018
Comments on the quality of sample frame:	The quality of the sample frame was generally good although it did contain some out of date information, including businesses that were no longer in operation and the number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: There were no particular problems to do with regions.
Comments on the response rate:	Response rate was good for Mongolia, almost half of the heads of enterprises that were asked to participate in the study gave their consent and were interviewed.
Comments on the sample design:	No comments and problems

Other comments:	No

Fieldwork

Date of Fieldwork	10 November 2018 to 03 June 2019
Country	Mongolia
Number of interviews	360
Problems found during fieldwork:	Many small panel companies had moved, changed names and addresses, or became non-existing. In many cases, because of wrong contact information in the sample, the staff needed to go to the address, and encounter that the enterprises in question no longer existed. This situation was challenging and time-consuming.
Other observations:	Respondents were always asking about their benefits from participation in the survey. They wanted to see immediate profits.

Questionnaires

Problems for the understanding of questions (indicate question number)	D.2, N.3, N.2e1, N.7
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	About 80% of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	Due to slow Internet speed in Mongolia, especially in rural areas, the difficulties with submission-filled questionnaires in programs were common.
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	Mongolia is a peaceful country, free of political unrest and violence. Nevertheless, during the survey period, the media focused on grand corruption case where many members of the Parliament were accused of inappropriate loan dissemination of the Fund for Development of Small and Medium enterprises. This stirred anger among general public. The respondents expressed negative emotions towards two leading political parties and their misbehavior.
Relevant country events occurred during fieldwork:	Above
Other aspects:	No

A.25 Montenegro

A.25.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 150 firms from the Montenegro 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments and firms from the Department of Public Revenues was used, dated December 2018. The establishments in the listing are all registered as businesses with the Central Registry.

Regional stratification for the Montenegro ES was done across three regions: North Montenegro comprising Bijelo Polje, Mojkovac, Pljevlja, Plužine, Šavnik, Žabljak; Center and South Montenegro comprising Andrijevica, Berane, Cetinje, Danilovgrad, Gusinje, Kolašin, Nikšić, Petnjica, Plav, Podgorica, Rožaje; and Coastal Montenegro comprising Bar, Budva, Herceg Novi, Kotor, Tivat, Ulcinj. For the purposes of achieving representative samples, the ES indicators are calculated with all of the regions combined.

Grouping used for stratification purposes in BEEPS VI (municipalities in brackets)
North Montenegro: Bijelo Polje, Mojkovac, Pljevlja, Plužine, Šavnik, Žabljak
Center and South Montenegro: Andrijevica, Berane, Cetinje, Danilovgrad, Gusinje, Kolašin, Nikšić, Petnjica, Plav, Podgorica, Rožaje
Coastal Montenegro: Bar, Budva, Herceg Novi, Kotor, Tivat, Ulcinj

Montenegro ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	51	131	**215**
	Medium (20-99)	11	17	
	Large (100 or more)	4	1	
Center and South Montenegro	Small (5-19)	190	899	**1428**
	Medium (20-99)	49	227	
	Large (100 or more)	10	53	
Coastal Montenegro	Small (5-19)	88	761	**1015**
	Medium (20-99)	10	133	
	Large (100 or more)	1	22	
		414	**2244**	**2658**

Source: World Bank and Department of Public Revenues

Montenegro Sample Frame (Panel)

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	9	8	**26**
	Medium (20-99)	4	5	
	Large (100 or more)	0	0	
Center and South Montenegro	Small (5-19)	16	31	**72**
	Medium (20-99)	5	10	
	Large (100 or more)	3	7	
Coastal Montenegro	Small (5-19)	8	27	**52**
	Medium (20-99)	3	8	
	Large (100 or more)	1	5	
		49	**101**	**150**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	2	2	**13**
	Medium (20-99)	4	2	
	Large (100 or more)	2	1	
Center and South Montenegro	Small (5-19)	9	5	**40**
	Medium (20-99)	10	2	
	Large (100 or more)	4	10	
Coastal Montenegro	Small (5-19)	2	4	**22**
	Medium (20-99)	4	2	
	Large (100 or more)	0	10	
		37	**38**	**75**

Original Sample Design (Panel)

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	5	2	**12**
	Medium (20-99)	3	2	
	Large (100 or more)	0	0	
Center and South Montenegro	Small (5-19)	10	10	**40**
	Medium (20-99)	4	8	
	Large (100 or more)	2	6	
Coastal Montenegro	Small (5-19)	6	8	**23**
	Medium (20-99)	2	2	
	Large (100 or more)	1	4	
		33	**42**	**75**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 9% (26 out of 289 establishments).[52]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	4	4	**23**
	Medium (20-99)	6	6	
	Large (100 or more)	2	1	
Center and South Montenegro	Small (5-19)	19	16	**79**
	Medium (20-99)	14	6	
	Large (100 or more)	8	16	
Coastal Montenegro	Small (5-19)	8	15	**48**
	Medium (20-99)	7	6	
	Large (100 or more)	1	11	

[52] Based on out of target and ineligible contacts.

		69	**81**	**150**

Achieved Interviews (Panel)

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	2	2	**10**
	Medium (20-99)	2	4	
	Large (100 or more)	0	0	
Center and South Montenegro	Small (5-19)	10	11	**35**
	Medium (20-99)	4	4	
	Large (100 or more)	2	4	
Coastal Montenegro	Small (5-19)	6	11	**26**
	Medium (20-99)	2	4	
	Large (100 or more)	1	2	
		29	**42**	**71**

A.25.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
155	**Eligible**	1. Eligible establishment (Correct name and address)	133
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	9
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	12
108	**Screener refusal**	13. Refuses to answer the screener	108
26	**Ineligible**	5. The establishment has less than 5 permanent full time employees	1
		616. The firm discontinued businesses - (Establishment went bankrupt)	9
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	2
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	6
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	4
		621. The firm discontinued businesses - (Other)	0
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	4
0	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	0

		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
0	Unobtainable	91. No reply after having called in different days of the week and in different business hours	0
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	0
289	Total contacted		

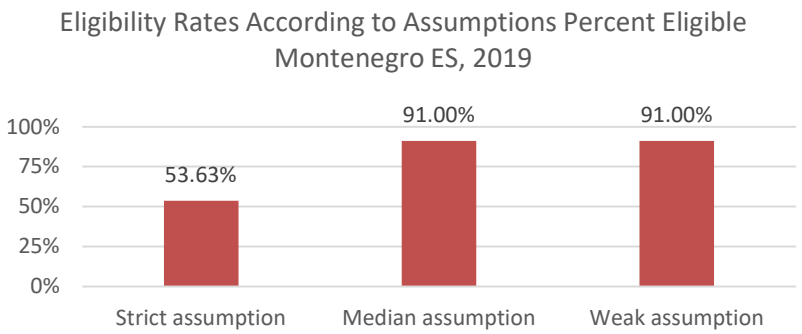
Response Outcomes: Montenegro ES 2019

Target and totals	Sample target	150
	Sample target completion rate	100.0%
	Total contacts available in frame	2658
	Total contacts issued	344
	Total contacts contacted	289
Screening phase	Screening in process	0
	Eligibles	155
	Screener refusal	108
	Ineligible + out of target	26
	Unobtainable	0
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	150
	Eligible in process + incomplete interviews	0
	Interview refusal	5
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	37.4%
	Ineligible + out of target rate	9.0%
	Unobtainable rate	0.0%
	Interview conversion rate	51.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	1.7%

A.25.3. Universe estimates

Universe estimates for the number of establishments in each cell in Montenegro were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Montenegro were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	37	66	**132**
	Medium (20-99)	12	13	
	Large (100 or more)	3	1	
Center and South Montenegro	Small (5-19)	99	327	**623**
	Medium (20-99)	39	128	
	Large (100 or more)	8	22	
Coastal Montenegro	Small (5-19)	55	333	**500**
	Medium (20-99)	10	90	
	Large (100 or more)	1	11	
		263	**991**	**1254**

Median Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	52	131	**216**
	Medium (20-99)	11	17	
	Large (100 or more)	4	1	
Center and South Montenegro	Small (5-19)	182	840	**1336**
	Medium (20-99)	46	208	
	Large (100 or more)	9	49	
Coastal Montenegro	Small (5-19)	88	738	**985**
	Medium (20-99)	10	127	
	Large (100 or more)	1	21	
		404	**2132**	**2537**

Weak Universe Estimates – Fresh:

		Manufacturing	Services	Grand Total
North Montenegro	Small (5-19)	52	131	**216**
	Medium (20-99)	11	17	
	Large (100 or more)	4	1	
Center and South Montenegro	Small (5-19)	182	840	**1336**
	Medium (20-99)	46	208	
	Large (100 or more)	9	49	
Coastal Montenegro	Small (5-19)	88	738	**985**

	Medium (20-99)	10	127	
	Large (100 or more)	1	21	
		404	**2132**	**2537**

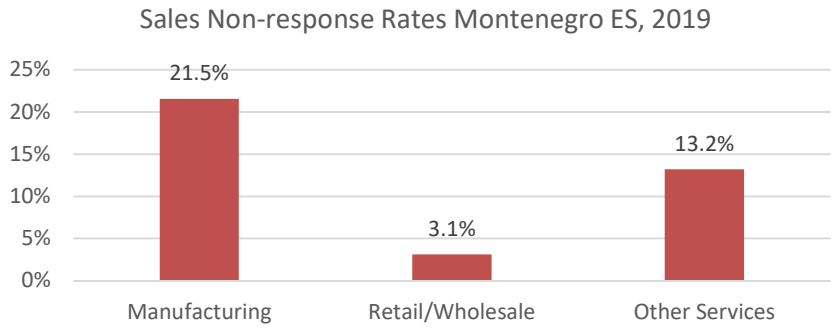
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.25.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

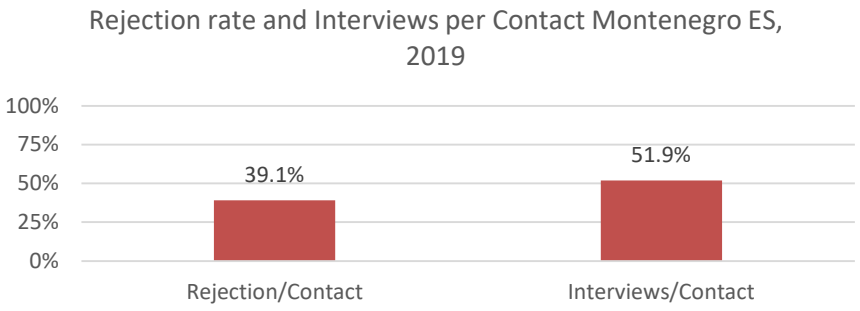
Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.52.[53] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.39.

[53] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Montenegro. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.25.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Montenegro Region: Montenegro Membership of international organization: Esomar Activities since: 2005
Enumerators involved:	Enumerators and Recruiters: 3. 3 recruiters and 9 enumerators
Other staff involved:	Fieldwork Coordinators: 2 supervisors Editing: 1 Data Entry: 0 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	Business Intelligence Consulting doo Podgorica
Year:	June 2018
Comments on the quality of sample frame:	The quality of the sample frame was generally good although it did contain some out of date information, including businesses that were no longer in operation and the number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	The most difficult region to work in was the Centre and South Montenegro where most soft and hard refusals were encountered. Many businesses were also hard to find as they had changed names or gone bankrupt.
Comments on the response rate:	We expected a higher response rate in the North Montenegro.
Comments on the sample design:	No comments.
Other comments:	No other comments.

Fieldwork

Date of Fieldwork	24 December 2018 to 10 July 2019
Country	Montenegro
Number of interviews	150
Problems found during fieldwork:	Problems that were encountered were to do with outdated sample frame which meant that many businesses were without phone numbers, names written wrongly and did not contain emails. The interview length meant that many business executives were reluctant to take part and recruiters had to work hard to convince them to participate. Some respondent refused to answer on some questions in N section by deciding not to open business reports and to provide answers based on their estimations.
Other observations:	The general attitude of the respondents to the survey was quite positive. Even refusals were mostly polite and tactful.

Questionnaires

Problems for the understanding of questions (indicate question number)	D.2, N.3, N.2e1, N.7
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	About 45% of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	During the fieldwork period the general political and economic situation was fairly calm in Montenegro.
Relevant country events occurred during fieldwork:	Apart from the protests that took place during February 2019, because of the political affair over corruption of government officials, there were no significant political and economic instabilities in the country. Generally, business executives are always afraid that the Tax Service is involved in some way or that we will share their information with them which may have influenced their responses, particularly when it comes to financial information.
Other aspects:	No

A.26 Morocco

A.26.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 407 firms from the Morocco 2013 ES was used and for fresh firms (i.e., firms not covered in 2013), lists of firms from the Morocco Census of firms (2017) was used.

Regional stratification was done across eight regions: Tanger-Tétouan-Al Hoceima, Oriental, Fès-Meknès, Béni Mellal-Khénifra and Drâa-Tafilalet, Rabat-Salé-Kénitra, Casablanca-Settat, Marrakech-Safi and Souss-Massa.

Regions of Morocco	**Grouping to be used for stratification purposes in BEEPS VI**
Tanger-Tetouan-Al Hoceima	Tanger-Tétouan-Al Hoceima
Oriental	Oriental
Fès-Meknès	Fès-Meknès
Béni Mellal-Khénifra	Béni Mellal-Khénifra and Drâa-Tafilalet
Drâa-Tafilalet	
Rabat-Salé-Kénitra	Rabat-Salé-Kénitra
Casablanca-Settat	Casablanca-Settat
Marrakesh-Safi	Marrakech-Safi
Souss-Massa	Souss-Massa
Guelmim-Oued Noun	
Laâyoune-Sakia El Hamra	
Dakhla-Oued Ed-Dahab	

Morocco ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	25	49	26	26	112	**887**
	Medium (20-99)	56	97	52	49	39	
	Large (100 or more)	28	145	152	4	27	
Oriental	Small (5-19)	97	0	87	232	60	**809**
	Medium (20-99)	45	1	96	19	95	
	Large (100 or more)	15	4	12	1	45	
Fès-Meknès	Small (5-19)	157	19	27	27	105	**897**
	Medium (20-99)	75	37	158	47	29	
	Large (100 or more)	21	82	41	4	68	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	81	0	64	281	63	**850**
	Medium (20-99)	30	1	20	26	239	
	Large (100 or more)	3	0	1	0	41	
Rabat-Salé-Kénitra	Small (5-19)	132	18	29	37	147	**1169**
	Medium (20-99)	80	21	165	79	63	
	Large (100 or more)	21	58	74	10	235	
Casablanca-Settat	Small (5-19)	27	26	75	64	453	**1577**
	Medium (20-99)	28	295	63	33	151	
	Large (100 or more)	79	171	40	25	47	
Marrakech-Safi	Small (5-19)	122	11	27	111	103	**881**
	Medium (20-99)	72	27	94	55	49	
	Large (100 or more)	30	10	22	2	146	
Souss-Massa	Small (5-19)	114	2	72	370	79	**1033**

	Medium (20-99)	51	3	58	59	69	
	Large (100 or more)	38	0	13	0	105	
		1427	**1077**	**1468**	**1561**	**2570**	**8103**

Source: World Bank and Morocco Census of firms (2017)

Morocco Sample Frame (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	1	0	2	2	5	**32**
	Medium (20-99)	3	1	4	0	3	
	Large (100 or more)	0	4	3	1	3	
Fès-Meknès	Small (5-19)	0	1	3	3	10	**43**
	Medium (20-99)	2	1	4	1	5	
	Large (100 or more)	1	6	4	0	2	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	0	0	1	0	3	**9**
	Medium (20-99)	0	0	2	1	2	
Rabat-Salé-Kénitra	Small (5-19)	2	0	5	1	7	**60**
	Medium (20-99)	0	2	6	3	15	
	Large (100 or more)	3	1	4	0	11	
Casablanca-Settat	Small (5-19)	3	2	15	4	42	**164**
	Medium (20-99)	4	6	15	9	21	
	Large (100 or more)	8	7	16	1	11	
Marrakech-Safi	Small (5-19)	0	0	3	4	8	**53**
	Medium (20-99)	4	4	3	2	13	
	Large (100 or more)	5	1	4	0	2	
Souss-Massa	Small (5-19)	1	1	1	3	8	**46**
	Medium (20-99)	3	1	3	1	9	
	Large (100 or more)	9	0	2	0	4	
		49	**38**	**100**	**36**	**184**	**407**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Full)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	2	8	2	2	9	**120**
	Medium (20-99)	9	16	4	8	3	
	Large (100 or more)	5	24	25	1	2	
Oriental	Small (5-19)	16	0	13	35	5	**120**
	Medium (20-99)	8	1	16	3	8	
	Large (100 or more)	3	1	2	1	8	
Fès-Meknès	Small (5-19)	16	3	2	2	8	**120**
	Medium (20-99)	12	6	26	8	2	
	Large (100 or more)	3	13	6	1	12	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	14	0	11	48	5	**120**
	Medium (20-99)	5	1	3	4	20	
	Large (100 or more)	1	0	1	0	7	
Rabat-Salé-Kénitra	Small (5-19)	11	3	2	3	12	**140**
	Medium (20-99)	14	3	26	13	4	

	Large (100 or more)	3	10	12	2	22	
Casablanca-Settat	Small (5-19)	2	2	5	5	35	**140**
	Medium (20-99)	2	31	4	2	11	
	Large (100 or more)	6	28	2	2	3	
Marrakech-Safi	Small (5-19)	20	2	2	9	8	**120**
	Medium (20-99)	12	4	16	9	3	
	Large (100 or more)	4	2	3	1	25	
Souss-Massa	Small (5-19)	19	1	6	31	6	**120**
	Medium (20-99)	8	1	9	10	5	
	Large (100 or more)	5	0	2	0	17	
		200	**160**	**200**	**200**	**240**	**1000**

Original Sample Design (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	1	0	1	0	3	**19**
	Medium (20-99)	2	0	2	0	2	
	Large (100 or more)	0	3	3	1	1	
Oriental	Small (5-19)	0	0	0	0	0	**0**
	Medium (20-99)	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	
Fès-Meknès	Small (5-19)	0	1	1	1	3	**24**
	Medium (20-99)	2	1	3	1	1	
	Large (100 or more)	1	5	3	0	1	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	0	0	1	0	2	**6**
	Medium (20-99)	0	0	1	1	1	
	Large (100 or more)	0	0	0	0	0	
Rabat-Salé-Kénitra	Small (5-19)	2	0	1	1	5	**32**
	Medium (20-99)	0	1	6	3	2	
	Large (100 or more)	1	1	4	0	5	
Casablanca-Settat	Small (5-19)	1	1	4	2	18	**58**
	Medium (20-99)	1	6	3	1	7	
	Large (100 or more)	4	7	1	1	1	
Marrakech-Safi	Small (5-19)	0	0	1	4	4	**26**
	Medium (20-99)	3	2	2	2	1	
	Large (100 or more)	3	1	2	0	1	
Souss-Massa	Small (5-19)	1	1	1	3	3	**23**
	Medium (20-99)	3	1	2	1	1	
	Large (100 or more)	4	0	1	0	1	
		29	**31**	**43**	**22**	**63**	**188**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 1.3% (33 out of 2617 establishments).[54]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

[54] Based on out of target and ineligible contacts.

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	2	9	2	3	11	**145**
	Medium (20-99)	9	17	8	8	4	
	Large (100 or more)	5	28	32	3	4	
Oriental	Small (5-19)	16	0	16	37	5	**127**
	Medium (20-99)	8	1	15	3	9	
	Large (100 or more)	3	1	3	1	9	
Fès-Meknès	Small (5-19)	14	3	2	3	9	**133**
	Medium (20-99)	12	6	27	12	2	
	Large (100 or more)	6	14	9	1	13	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	14	0	11	49	5	**122**
	Medium (20-99)	5	1	3	4	21	
	Large (100 or more)	1	0	1	0	7	
Rabat-Salé-Kénitra	Small (5-19)	11	5	2	4	14	**152**
	Medium (20-99)	14	3	26	15	4	
	Large (100 or more)	3	12	12	2	25	
Casablanca-Settat	Small (5-19)	2	2	4	6	48	**161**
	Medium (20-99)	2	32	5	2	15	
	Large (100 or more)	6	28	3	3	3	
Marrakech-Safi	Small (5-19)	21	2	2	11	8	**131**
	Medium (20-99)	12	4	19	10	3	
	Large (100 or more)	5	3	4	1	26	
Souss-Massa	Small (5-19)	21	1	6	31	6	**125**
	Medium (20-99)	9	1	9	10	5	
	Large (100 or more)	5	0	3	0	18	
		206	**173**	**224**	**219**	**274**	**1096**

Achieved Interviews (Panel)

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	1	0	1	2	4	**24**
	Medium (20-99)	3	0	4	0	1	
	Large (100 or more)	0	1	3	1	3	
Fès-Meknès	Small (5-19)	0	0	1	2	5	**19**
	Medium (20-99)	0	0	3	1	2	
	Large (100 or more)	0	1	3	0	1	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	0	0	1	0	3	**8**
	Medium (20-99)	0	0	1	1	2	
Rabat-Salé-Kénitra	Small (5-19)	0	0	1	0	2	**19**
	Medium (20-99)	0	0	2	0	1	
	Large (100 or more)	1	1	2	0	9	
Casablanca-Settat	Small (5-19)	0	1	3	0	11	**32**
	Medium (20-99)	0	3	1	0	8	
	Large (100 or more)	3	0	2	0	0	
Marrakech-Safi	Small (5-19)	0	0	2	4	4	**24**
	Medium (20-99)	3	2	2	0	1	
	Large (100 or more)	2	1	2	0	1	
Souss-Massa	Small (5-19)	0	0	0	3	2	**13**
	Medium (20-99)	2	0	2	0	0	
	Large (100 or more)	2	0	1	0	1	
		17	**10**	**37**	**14**	**61**	**139**

A.26.2. Status Codes

1	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	1
1096	**Eligible**	1. Eligible establishment (Correct name and address)	1096
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
1097	**Screener refusal**	13. Refuses to answer the screener	1097
33	**Ineligible**	5. The establishment has less than 5 permanent full time employees	0
		616. The firm discontinued businesses - (Establishment went bankrupt)	8
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	0
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	1
		621. The firm discontinued businesses - (Other)	9
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	15
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	0
0	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
390	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	196
		92. Line out of order	5
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	189
2617	**Total contacted**		

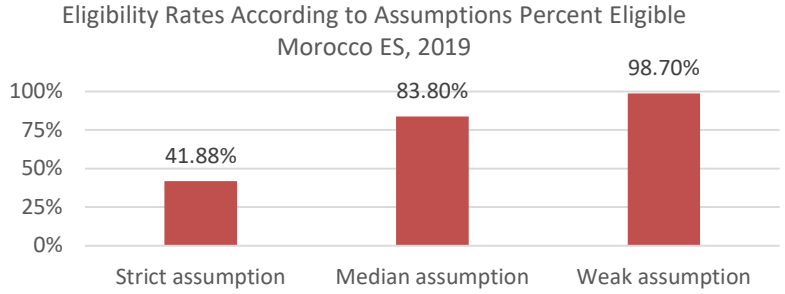
Response Outcomes: Morocco ES 2019

Target and totals	Sample target	1000
	Sample target completion rate	109.6%
	Total contacts available in frame	8103
	Total contacts issued	2968
	Total contacts contacted	2617
Screening phase	Screening in process	1
	Eligibles	1096
	Screener refusal	1097
	Ineligible + out of target	33
	Unobtainable	390
Interview phase (only if eligible)	Complete interviews without extra module	
	Complete interviews with extra module	1096
	Eligible in process + incomplete interviews	0
	Interview refusal	0
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	41.9%
	Ineligible + out of target rate	1.3%
	Unobtainable rate	14.9%
	Interview conversion rate	41.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.0%

A.26.3. Universe estimates

Universe estimates for the number of establishments in each cell in Morocco were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Morocco were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	76	23	118	182	1222	**2361**
	Medium (20-99)	23	47	116	20	329	
	Large (100 or more)	12	76	69	3	44	

Oriental	Small (5-19)	31	0	30	78	571	**940**
	Medium (20-99)	15	1	35	7	141	
	Large (100 or more)	5	2	5	1	18	
Fès-Meknès	Small (5-19)	56	8	108	159	1080	**1932**
	Medium (20-99)	28	17	63	18	296	
	Large (100 or more)	8	41	18	2	31	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	25	0	21	92	577	**896**
	Medium (20-99)	10	1	7	9	135	
	Large (100 or more)	1	0	1	0	16	
Rabat-Salé-Kénitra	Small (5-19)	70	9	112	311	1726	**3090**
	Medium (20-99)	33	11	72	34	518	
	Large (100 or more)	9	31	34	5	117	
Casablanca-Settat	Small (5-19)	244	160	854	828	6586	**12714**
	Medium (20-99)	102	183	640	122	2149	
	Large (100 or more)	43	114	236	20	431	
Marrakech-Safi	Small (5-19)	43	5	74	173	1119	**1927**
	Medium (20-99)	27	12	37	22	320	
	Large (100 or more)	12	5	10	1	66	
Souss-Massa	Small (5-19)	38	1	52	145	756	**1343**
	Medium (20-99)	18	1	22	22	223	
	Large (100 or more)	14	0	5	0	45	
		945	**748**	**2740**	**2253**	**18517**	**25204**

Median Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	168	40	243	381	2425	**4646**
	Medium (20-99)	47	79	230	41	626	
	Large (100 or more)	25	123	133	3	81	
Oriental	Small (5-19)	79	0	71	189	1307	**2156**
	Medium (20-99)	37	1	79	16	310	
	Large (100 or more)	13	3	10	1	39	
Fès-Meknès	Small (5-19)	129	15	234	350	2255	**3969**
	Medium (20-99)	63	30	131	39	536	
	Large (100 or more)	18	69	35	3	60	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	68	0	53	238	1406	**2186**
	Medium (20-99)	25	1	17	22	316	
	Large (100 or more)	3	0	1	0	37	
Rabat-Salé-Kénitra	Small (5-19)	151	15	227	638	3351	**5989**
	Medium (20-99)	68	17	139	66	965	
	Large (100 or more)	18	50	65	9	211	
Casablanca-Settat	Small (5-19)	428	222	1401	1381	10394	**19943**
	Medium (20-99)	173	244	1009	195	3256	
	Large (100 or more)	70	147	360	32	634	
Marrakech-Safi	Small (5-19)	96	8	134	366	2245	**3842**
	Medium (20-99)	58	21	75	44	617	
	Large (100 or more)	25	8	19	2	124	
Souss-Massa	Small (5-19)	92	2	118	332	1633	**2912**
	Medium (20-99)	42	2	47	48	462	
	Large (100 or more)	32	0	11	0	91	
		1928	**1097**	**4842**	**4394**	**33381**	**45642**

Weak Universe Estimates – Fresh:

		Food	Garments	Other Manufacturing	Retail	Other Services	Grand Total
Tanger-Tétouan-Al Hoceima	Small (5-19)	198	48	295	459	2868	**5492**
	Medium (20-99)	55	95	276	49	731	
	Large (100 or more)	29	142	153	4	91	
Oriental	Small (5-19)	94	0	86	229	1556	**2565**
	Medium (20-99)	44	1	95	19	365	
	Large (100 or more)	15	4	12	1	45	
Fès-Meknès	Small (5-19)	155	19	288	427	2700	**4744**
	Medium (20-99)	74	36	159	47	625	
	Large (100 or more)	21	81	41	4	68	
Béni Mellal-Khénifra and Drâa-Tafilalet	Small (5-19)	79	0	64	283	1644	**2557**
	Medium (20-99)	29	1	20	26	365	
	Large (100 or more)	3	0	1	0	41	
Rabat-Salé-Kénitra	Small (5-19)	178	18	274	767	3948	**7047**
	Medium (20-99)	79	21	165	79	1122	
	Large (100 or more)	21	57	74	10	236	
Casablanca-Settat	Small (5-19)	485	258	1629	1598	11796	**22618**
	Medium (20-99)	193	279	1157	222	3646	
	Large (100 or more)	75	162	398	35	684	
Marrakech-Safi	Small (5-19)	119	11	157	460	2767	**4716**
	Medium (20-99)	70	26	93	54	751	
	Large (100 or more)	29	10	22	2	145	
Souss-Massa	Small (5-19)	110	2	145	407	1964	**3498**
	Medium (20-99)	49	3	57	58	549	
	Large (100 or more)	37	0	13	0	104	
		2242	**1272**	**5675**	**5240**	**38807**	**53236**

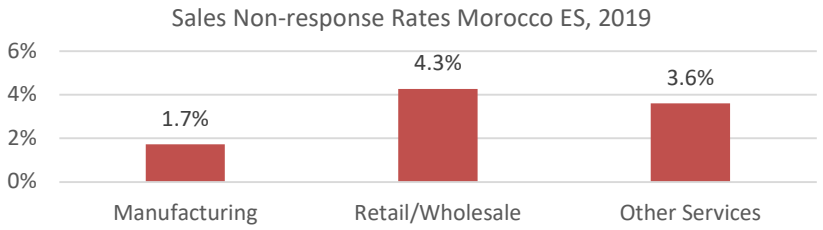
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.26.4. Non-Response

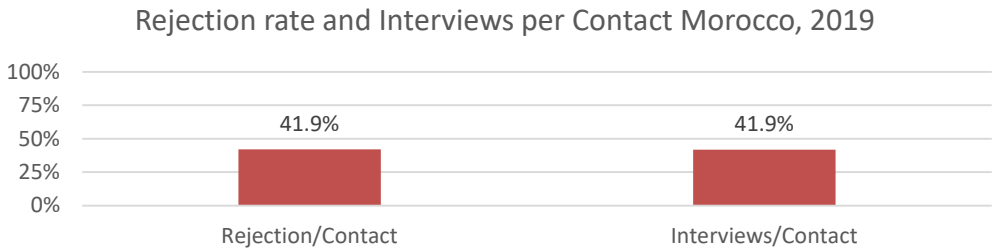
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.42.[55] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.42.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Morocco. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.27 North Macedonia

A.27.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 360 firms from the North Macedonia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from the Central Register of the Republic of North Macedonia (CRM) was used. The establishments in the listing are all registered with the same agency.

Regional stratification was done across three regions: Skopje; Eastern Macedonia comprising Northeastern, Eastern, Southeastern, and Vardar regions; and Western Macedonia comprising Polog, Soutwestern and Pelagonia regions.

NUTS-3 statistical regions	Grouping to be used for stratification purposes in BEEPS VI
Skopje	Skopje
Eastern	Eastern Macedonia
North Eastern	

[55] The estimate is based on the total no. of firms contacted including ineligible establishments.

South Eastern	
South Western	North-West & West Macedonia
Poloski	
Vardarski	South Macedonia
Pelagoniski	

North Macedonia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	508	560	2002	**4006**
	Medium (20-99)	179	103	518	
	Large (100 or more)	48	26	62	
Eastern Macedonia	Small (5-19)	577	589	1247	**3214**
	Medium (20-99)	356	62	240	
	Large (100 or more)	114	11	18	
Western Macedonia	Small (5-19)	506	713	1094	**2823**
	Medium (20-99)	185	72	179	
	Large (100 or more)	52	8	14	
		2525	**2144**	**5374**	**10043**

Source: World Bank and Central Register of the Republic of North Macedonia (CRM)

North Macedonia Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	27	23	37	**132**
	Medium (20-99)	13	6	19	
	Large (100 or more)	4	1	2	
Eastern Macedonia	Small (5-19)	19	25	24	**110**
	Medium (20-99)	21	3	10	
	Large (100 or more)	6	1	1	
Western Macedonia	Small (5-19)	23	33	35	**118**
	Medium (20-99)	9	5	8	
	Large (100 or more)	3	1	1	
		125	**98**	**137**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	3	3	11	**59**
	Medium (20-99)	2	8	3	
	Large (100 or more)	8	14	7	
Eastern Macedonia	Small (5-19)	3	3	7	**57**
	Medium (20-99)	3	13	2	
	Large (100 or more)	12	6	8	
Western Macedonia	Small (5-19)	3	4	6	**64**
	Medium (20-99)	5	15	3	
	Large (100 or more)	17	4	7	
		56	**70**	**54**	**180**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	4	12	12	**61**
	Medium (20-99)	10	5	12	
	Large (100 or more)	3	1	2	
Eastern Macedonia	Small (5-19)	10	12	12	**63**
	Medium (20-99)	12	2	8	
	Large (100 or more)	5	1	1	
Western Macedonia	Small (5-19)	11	12	12	**56**
	Medium (20-99)	7	4	6	
	Large (100 or more)	2	1	1	
		64	**50**	**66**	**180**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 7.2% (96 out of 1339 establishments)[56].

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	9	9	30	**121**
	Medium (20-99)	7	16	14	
	Large (100 or more)	16	7	13	
Eastern Macedonia	Small (5-19)	12	18	14	**123**
	Medium (20-99)	13	18	8	
	Large (100 or more)	23	7	10	
Western Macedonia	Small (5-19)	14	18	18	**116**
	Medium (20-99)	12	23	8	
	Large (100 or more)	16	2	5	
		122	**118**	**120**	**360**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	6	3	11	**35**
	Medium (20-99)	5	2	6	
	Large (100 or more)	2	0	0	
Eastern Macedonia	Small (5-19)	6	12	7	**38**
	Medium (20-99)	7	1	3	
	Large (100 or more)	1	1	0	
Western Macedonia	Small (5-19)	10	9	12	**45**
	Medium (20-99)	4	3	5	
	Large (100 or more)	1	0	1	
		42	**31**	**45**	**118**

A.27.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0

[56] Based on out of target and ineligible contacts.

399	Eligible	1. Eligible establishment (Correct name and address)	380
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	4
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	3
		4. Eligible establishment (Moved and traced)	7
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	5
566	Screener refusal	13. Refuses to answer the screener	556
93	Ineligible	5. The establishment has less than 5 permanent full time employees	16
		616. The firm discontinued businesses - (Establishment went bankrupt)	23
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	4
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	2
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	13
		621. The firm discontinued businesses - (Other)	24
		71. Ineligible legal status: not a business, but private household	8
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	3
3	Out of Target	151. Out of target - outside the covered regions	2
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	1
278	Unobtainable	91. No reply after having called in different days of the week and in different business hours	40
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	238
1339	Total contacted		

Response Outcomes: North Macedonia ES 2019:

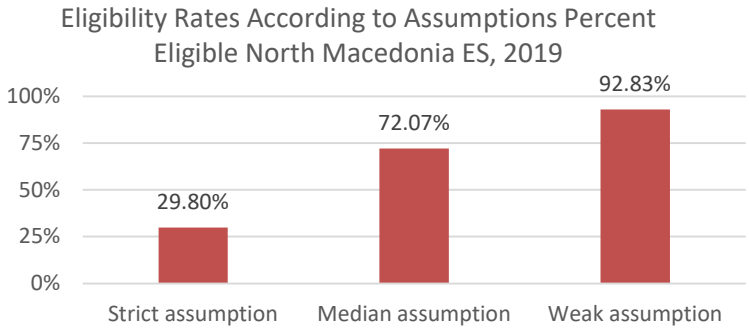
Target and totals	Sample target	360
	Sample target completion rate	100.0%

	Total contacts available in frame	10043
	Total contacts issued	1427
	Total contacts contacted	1339
Screening phase	Screening in process	0
	Eligibles	399
	Screener refusal	566
	Ineligible + out of target	96
	Unobtainable	278
Interview phase (only if eligible)	Complete interviews without extra module	6
	Complete interviews with extra module	354
	Eligible in process + incomplete interviews	0
	Interview refusal	39
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	42.3%
	Ineligible + out of target rate	7.2%
	Unobtainable rate	20.8%
	Interview conversion rate	26.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	2.9%

A.27.3. Universe estimates

Universe estimates for the number of establishments in each cell in North Macedonia were produced for the strict, weak and median eligibility definitionsin section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in North Macedonia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	99	86	309	**699**
	Medium (20-99)	45	20	102	
	Large (100 or more)	16	7	14	
Eastern Macedonia	Small (5-19)	185	148	315	**961**

	Medium (20-99)	145	20	77	
	Large (100 or more)	54	7	10	
Western Macedonia	Small (5-19)	144	159	245	**719**
	Medium (20-99)	67	23	51	
	Large (100 or more)	22	3	5	
		777	**472**	**1130**	**2379**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	329	359	1195	**2537**
	Medium (20-99)	130	74	347	
	Large (100 or more)	38	20	45	
Eastern Macedonia	Small (5-19)	408	412	812	**2261**
	Medium (20-99)	283	49	176	
	Large (100 or more)	98	9	14	
Western Macedonia	Small (5-19)	350	488	697	**1923**
	Medium (20-99)	144	55	128	
	Large (100 or more)	44	7	11	
		1824	**1473**	**3425**	**6721**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Skopje	Small (5-19)	475	507	1850	**3741**
	Medium (20-99)	176	98	503	
	Large (100 or more)	47	25	60	
Eastern Macedonia	Small (5-19)	548	541	1169	**3052**
	Medium (20-99)	355	60	237	
	Large (100 or more)	114	11	18	
Western Macedonia	Small (5-19)	462	630	987	**2563**
	Medium (20-99)	178	67	170	
	Large (100 or more)	50	7	13	
		2405	**1945**	**5007**	**9356**

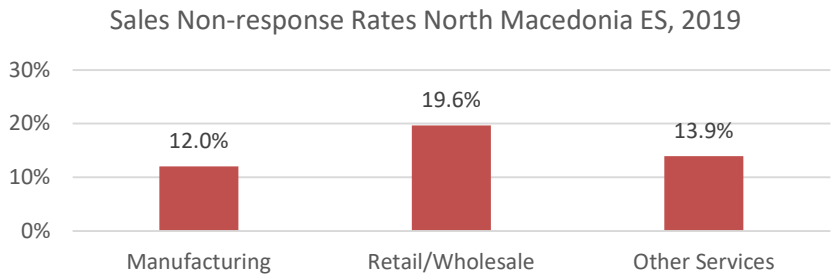
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.27.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.27.[57] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.45.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to North Macedonia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.27.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Skopje Region: Republic of North Macedonia Ipsos North Macedonia experts follow the highest professional ESOMAR and ISI standards, concerning survey design, sampling, data collection, processing and analysis. Ipsos North Macedonia conducts all types of opinion polls and marketing and media research projects (on the average more than 70 sample surveys yearly) as well as all kinds of qualitative projects and focus group discussions. Activities since: 2000
Enumerators involved:	Enumerators: 30 Recruiters: 4 Three of the recruiters were involved in field implementation.
Other staff involved:	Fieldwork Coordinators: 6 regional supervisors

[57] The estimate is based on the total no. of firms contacted including ineligible establishments.

	Screening: 2 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	Central Register of the Republic of North Macedonia (CRM)
Year:	July 2018
Comments on the quality of sample frame:	The data was not updated and it contain establishments that were declared bankrupt or no longer existed. The number of employees and main sector were inaccurate. Lack of any contact information or company addresses.

Sample

Comments/ problems for particular regions:	On regions: There were no large problems with different regions. For region of Skopje it was more difficult to find and schedule appointment compared to other two regions.
Comments on the response rate:	The response rate was lower than expected for North Macedonia. Decreased interest for participation in the study by enterprises, caused by the turbulent political and economic developments, was unexpected. 40% of screening refusal rate was difficult to overcome especially for panel companies which were limited leading to re-contact of companies that had already refused participation.
Comments on the sample design:	No problems with the sample design.
Other comments:	Many of the respondents shared with us that they would like to receive a summary of the results in the form of a Country Profile.

Fieldwork

Date of Fieldwork	11 December 2018 to 15 October 2019.
Country	Republic of North Macedonia
Number of interviews	360
Problems found during fieldwork:	Sample frame was not fully up to date. Sample frame was without any contact details. The length of the questionnaire and the need to answer the financial questions led to a number of potential respondents refusing to participate.
Other observations:	In general, it was difficult to find companies to participate in the research, otherwise the companies that participated had a positive feedback.

Questionnaires

Problems for the understanding of questions (indicate question number)	H6x, H7x, F1, D2, N3
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	About 40% of respondents had difficulty with completing the questionnaire without distractions or breaks duo to excessive length of the interview. For the small companies it was difficult to answer the Green Economy module questions due to lack of awareness and working staff for the whole sector.

Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/ region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	During the fieldwork period turbulent political and economic changes were observed in the North Macedonia. At the beginning of 2019 constitutional changes started, regarding the introduction of bilingualism which led to negative public reactions. On 30 September 2018 a referendum about name changes was implemented. In the following period there were tumultuous reactions among the public as well as in the political ranks. 2019 was marked as the year of changes of personal documentation for both private and legal entities. Republic of North Macedonia becomes the new official name of the country. NATO Members Start Ratification of NATO Agreement for Republic of North Macedonia. Introduction of minimum wage law. Net salary increase by 5.6% compared to 2017 and the introduction of a fixed minimum wage. Prolonging the date of negotiations with the EU for membership of Macedonia in the European Union. Opening of the "Racketeer" case and questioning the credibility of the Special Prosecutor's Office, responsible for convicting a large number of politicians and businessmen.
Relevant country events occurred during fieldwork:	Protests to improve working conditions and pay raises for heavy and light industry employees. The project for Energy efficiency was started with 21 firms. The positive results as well as the benefits of investing in energy efficiency have been reflected by imposing another 250 firms on investment in Energy efficiency.
Other aspects:	No

A.28 Poland

A.28.1. Sampling structure and implementation

The sample frame consisted of listings of establishments from two sources: for panel firms, the list of 542 firms from the Poland 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Bisnode, was used. The establishments in the listing are all registered with the National Court Register.

Regional stratification for the Poland ES was done across six regions: Center (NUTS region PL1), South (PL2), East (PL3), Northwest (PL4), Southwest (PL5), North (PL6).

NUTS-2 regions	Grouping to be used for stratification purposes in BEEPS VI (NUTS-1 regions)
Lodzkie	Central

Mazowieckie	
Malopolskie	Southern
Slaskie	
Lubelskie	Eastern
Podkarpackie	
Podlaskie	
Swietokrzyskie	
Lubuskie	North-western
Wielkopolskie	
Zachodniopomorskie	
Dolnoslaskie	South-western
Opolskie	
Kujawsko-Pomorskie	Northern
Pomorskie	
Warminsko-Mazurskie	

Poland ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Rubber and Plastics Products	Fabricated Metal Products	Machinery and Equipment	Furniture	Other Manufacturing	Retail	Other Services	Grand Total
Central Region	Small (5-19)	280	300	201	245	203	223	509	1437	4088	**13764**
	Medium (20-99)	235	241	182	161	147	104	519	555	2109	
	Large (100 or more)	200	57	92	107	44	22	438	210	855	
Southern Region	Small (5-19)	182	201	122	183	123	161	452	1312	3579	**11548**
	Medium (20-99)	210	104	102	180	102	67	481	487	1865	
	Large (100 or more)	129	22	94	151	66	23	462	141	547	
Eastern Region	Small (5-19)	201	200	141	160	120	161	342	969	1924	**7370**
	Medium (20-99)	161	64	110	101	75	61	273	312	974	
	Large (100 or more)	110	25	48	88	46	22	271	108	303	
Northwestern Region	Small (5-19)	161	160	100	162	101	141	389	1073	2778	**9593**
	Medium (20-99)	207	114	101	158	101	101	452	405	1437	
	Large (100 or more)	173	24	82	124	58	96	404	107	384	
Southwestern Region	Small (5-19)	221	150	161	181	151	141	208	633	1615	**5969**
	Medium (20-99)	120	50	87	140	68	60	243	191	737	
	Large (100 or more)	39	10	51	86	39	32	261	48	246	
Northern Region	Small (5-19)	181	180	120	182	121	142	318	850	2161	**8043**
	Medium (20-99)	146	85	121	121	116	122	381	305	1206	
	Large (100 or more)	125	24	73	125	53	71	274	76	364	
		3081	**2011**	**1988**	**2655**	**1734**	**1750**	**6677**	**9219**	**27172**	**56287**

Source: World Bank and Bisnode

Poland Sample Frame (Panel)

		Food	Garments	Rubber and Plastics Products	Fabricated Metal Products	Machinery and Equipment	Furniture	Other Manufacturing	Retail	Other Services	Grand Total
Central Region	Small (5-19)	0	0	1	5	3	3	9	25	42	**150**
	Medium (20-99)	3	1	2	1	0	1	8	8	18	

	Large (100 or more)	1	1	2	2	2	0	4	4	4	
Southern Region	Small (5-19)	2	1	2	3	3	1	4	21	27	**108**
	Medium (20-99)	0	1	2	2	2	0	3	7	13	
	Large (100 or more)	0	0	1	2	2	0	3	4	2	
Eastern Region	Small (5-19)	1	0	1	0	0	1	4	14	12	**71**
	Medium (20-99)	1	1	3	1	0	0	4	6	11	
	Large (100 or more)	0	0	0	0	1	0	4	4	2	
Northwestern Region	Small (5-19)	1	0	0	2	1	1	8	16	22	**89**
	Medium (20-99)	2	2	1	2	1	1	7	4	11	
	Large (100 or more)	1	0	1	0	1	0	2	1	1	
Southwestern Region	Small (5-19)	1	0	1	1	0	0	7	7	5	**42**
	Medium (20-99)	2	0	0	0	2	1	1	0	3	
	Large (100 or more)	2	1	0	1	0	0	2	0	5	
Northern Region	Small (5-19)	1	0	0	2	1	2	6	18	11	**82**
	Medium (20-99)	2	0	1	1	0	2	5	5	11	
	Large (100 or more)	1	1	0	0	0	1	4	4	3	
		21	**9**	**18**	**25**	**19**	**14**	**85**	**148**	**203**	**542**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	**Garments**	**Rubber and Plastics Products**	**Fabricated Metal Products**	**Machinery and Equipment**	**Furniture**	**Other Manufacturing**	**Retail**	**Other Services**	**Grand Total**
Central Region	Small (5-19)	18	8	6	8	10	18	10	25	**216**	18
	Medium (20-99)	18	6	5	9	9	2	2	2		18
	Large (100 or more)	5	9	7	4	2	2	2	2		5
Southern Region	Small (5-19)	14	5	6	6	8	19	9	25	**171**	14
	Medium (20-99)	6	4	2	5	7	2	2	2		6
	Large (100 or more)	2	8	5	6	2	2	2	2		2

Eastern Region	Small (5-19)	6	8	9	10	11	10	7	17	**170**	6
	Medium (20-99)	4	6	5	8	6	2	2	2		4
	Large (100 or more)	2	5	9	5	2	2	2	2		2
Northwestern Region	Small (5-19)	6	6	6	6	8	10	8	23	**161**	6
	Medium (20-99)	8	4	2	6	6	2	2	2		8
	Large (100 or more)	2	8	6	6	10	2	2	2		2
Southwestern Region	Small (5-19)	4	11	11	12	14	6	5	14	**171**	4
	Medium (20-99)	3	9	10	7	6	2	2	2		3
	Large (100 or more)	1	5	9	4	3	2	2	2		1
Northern Region	Small (5-19)	5	8	7	8	9	8	6	17	**161**	5
	Medium (20-99)	5	6	4	8	7	2	2	2		5
	Large (100 or more)	2	7	8	5	7	2	2	2		2
		111	**123**	**117**	**123**	**127**	**95**	**69**	**145**	**1050**	**111**

Original Sample Design (Panel)

		Food	**Garments**	**Rubber and Plastics Products**	**Fabricated Metal Poducts**	**Machinery and Equipment**	**Furniture**	**Other Manufacturing**	**Retail**	**Other Services**	**Grand Total**
Central Region	Small (5-19)	0	0	1	4	2	2	7	16	20	**84**
	Medium (20-99)	2	1	2	1	0	1	6	2	2	
	Large (100 or more)	1	1	2	2	2	0	3	2	2	
Southern Region	Small (5-19)	2	1	2	2	2	1	3	8	4	**49**
	Medium (20-99)	0	1	2	2	2	0	2	2	2	
	Large (100 or more)	0	0	1	2	2	0	2	2	2	
Eastern Region	Small (5-19)	1	0	1	0	0	1	3	2	2	**30**
	Medium (20-99)	1	1	2	1	0	0	3	2	2	
	Large (100 or more)	0	0	0	0	1	0	3	2	2	
Northwestern Region	Small (5-19)	1	0	0	2	1	1	6	2	2	**39**
	Medium (20-99)	2	2	1	2	1	1	4	2	2	
	Large (100 or more)	1	0	1	0	1	0	2	1	1	
Southwestern Region	Small (5-19)	1	0	1	1	0	0	6	2	2	**29**
	Medium (20-99)	2	0	0	0	2	1	1	0	2	

	Large (100 or more)	2	1	0	1	0	0	2	0	2	
Northern Region	Small (5-19)	1	0	0	2	1	2	5	2	2	**39**
	Medium (20-99)	2	0	1	1	0	2	4	2	2	
	Large (100 or more)	1	1	0	0	0	1	3	2	2	
		20	**9**	**17**	**23**	**17**	**13**	**65**	**51**	**55**	**270**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 9.9% (460 out of 4669 establishments).[58]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Garments	Rubber and Plastics Products	Fabricated Metal Products	Machinery and Equipment	Furniture	Other Manufacturing	Retail	Other Services	Grand Total
Central Region	Small (5-19)	16	12	10	11	9	12	30	24	48	**306**
	Medium (20-99)	11	11	9	8	9	9	5	4	4	
	Large (100 or more)	12	6	10	8	11	8	2	4	3	
Southern Region	Small (5-19)	7	19	9	8	8	9	21	18	37	**229**
	Medium (20-99)	7	9	6	4	6	7	4	4	5	
	Large (100 or more)	8	2	8	3	5	3	3	4	5	
Eastern Region	Small (5-19)	11	7	7	9	8	11	16	11	21	**204**
	Medium (20-99)	9	6	7	6	7	8	5	4	6	
	Large (100 or more)	9	4	6	6	7	3	3	5	2	
Northwestern Region	Small (5-19)	10	6	7	8	6	10	19	14	28	**206**
	Medium (20-99)	7	8	7	4	5	6	6	4	4	
	Large (100 or more)	8	4	4	5	7	7	4	4	4	
Southwestern Region	Small (5-19)	13	7	7	15	11	10	13	7	17	**219**
	Medium (20-99)	11	7	9	10	11	8	3	2	4	

[58] Based on out of target and ineligible contacts.

	Large (100 or more)	7	2	7	10	9	8	5	2	4	
Northern Region	Small (5-19)	10	6	9	10	7	8	15	9	21	**205**
	Medium (20-99)	8	7	6	6	8	8	4	5	5	
	Large (100 or more)	8	5	7	6	7	8	4	4	4	
		172	**128**	**135**	**137**	**141**	**143**	**162**	**129**	**222**	**1369**

Achieved Interviews (Panel)

		Food	Garments	Rubber and Plastics Products	Fabricated Metal Products	Machinery and Equipment	Furniture	Other Manufacturing	Retail	Other Services	Grand Total
Central Region	Small (5-19)	0	0	1	1	1	1	6	13	21	**59**
	Medium (20-99)	2	1	0	0	0	1	2	2	2	
	Large (100 or more)	0	0	0	0	1	0	1	2	1	
Southern Region	Small (5-19)	0	1	2	2	2	1	2	8	8	**44**
	Medium (20-99)	0	1	2	2	1	0	2	2	3	
	Large (100 or more)	0	0	0	0	0	0	1	2	2	
Eastern Region	Small (5-19)	1	0	0	0	0	1	2	4	3	**25**
	Medium (20-99)	0	1	1	0	0	0	3	2	4	
	Large (100 or more)	0	0	0	0	0	0	1	2	0	
Northwestern Region	Small (5-19)	1	0	0	0	0	0	2	6	6	**29**
	Medium (20-99)	0	1	1	0	0	1	4	2	2	
	Large (100 or more)	1	0	0	0	0	0	0	1	1	
Southwestern Region	Small (5-19)	0	0	0	0	0	0	4	2	2	**16**
	Medium (20-99)	0	0	0	0	2	1	0	0	1	
	Large (100 or more)	0	0	0	1	0	0	1	0	2	
Northern Region	Small (5-19)	0	0	0	0	1	0	1	2	3	**21**
	Medium (20-99)	0	0	0	1	0	0	2	3	2	
	Large (100 or more)	0	1	0	0	0	0	1	2	2	
		5	**6**	**7**	**7**	**8**	**6**	**35**	**55**	**65**	**194**

A.28.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
2314	**Eligible**	1. Eligible establishment (Correct name and address)	2204
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	30
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	18
		4. Eligible establishment (Moved and traced)	58
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	4
1716	**Screener refusal**	13. Refuses to answer the screener	1716
442	**Ineligible**	5. The establishment has less than 5 permanent full time employees	150
		616. The firm discontinued businesses - (Establishment went bankrupt)	27
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	16
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	5
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	61
		621. The firm discontinued businesses - (Other)	35
		71. Ineligible legal status: not a business, but private household	27
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	63
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	58
18	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	1
		153. Out of target - Not registered with Statistical Authority	2
		154. Out of target - establishment is HQ without production or sales of goods or services	1
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	1
		156. Duplicated firm within the sample	3
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	10
179	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	14
		92. Line out of order	8
		93. No tone	38
		94. Phone number does not exist	19
		10. Answering machine	1
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	99
4669	**Total contacted**		

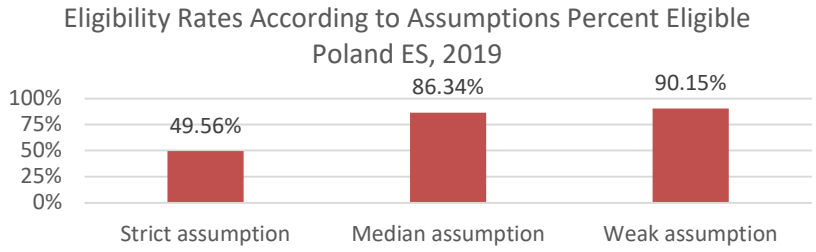
Response Outcomes: Poland ES 2019

Target and totals	Sample target	1320
	Sample target completion rate	103.7%
	Total contacts available in frame	56287
	Total contacts issued	4921
	Total contacts contacted	4669
Screening phase	Screening in process	0
	Eligibles	2314
	Screener refusal	1716
	Ineligible + out of target	460
	Unobtainable	179
Interview phase (only if eligible)	Complete interviews without extra module	93
	Complete interviews with extra module	1276
	Eligible in process + incomplete interviews	12
	Interview refusal	926
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	36.8%
	Ineligible + out of target rate	9.9%
	Unobtainable rate	3.8%
	Interview conversion rate	29.3%
	Eligible in process + incomplete interviews rate	0.3%
	Interview refusal rate	19.8%

A.28.3. Universe estimates

Universe estimates for the number of establishments in each cell in Poland were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Poland were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Universe

		Food	Garments	Rubber and Plastics Products	Fabricated Metal Products	Machinery and Equipment	Furniture	Other Manufacturing	Retail	Other Services	Grand Total
Central Region	Small (5-19)	5226	6494	2360	6147	1331	3471	46761	88694	287797	**477708**
	Medium (20-99)	1291	959	474	653	229	232	4054	3046	14070	
	Large (100 or more)	348	129	134	138	63	45	962	486	2114	
Southern Region	Small (5-19)	4521	2928	2095	7882	1274	3445	46084	79138	234463	**408123**
	Medium (20-99)	1163	316	464	991	290	231	4047	2684	12365	
	Large (100 or more)	257	60	123	264	107	39	1027	329	1536	
Eastern Region	Small (5-19)	3136	1757	995	4625	617	2434	30032	58639	150283	**266384**
	Medium (20-99)	784	223	197	464	149	144	2112	1703	5886	
	Large (100 or more)	191	54	79	142	71	39	579	251	798	
Northwestern Region	Small (5-19)	3825	2548	1676	6973	946	3452	38776	65455	202025	**347175**
	Medium (20-99)	1139	392	409	865	229	462	3274	2264	9323	
	Large (100 or more)	308	90	124	182	73	161	797	328	1079	
Southwestern Region	Small (5-19)	2017	1197	867	3647	543	1464	22418	40389	117049	**200195**
	Medium (20-99)	431	156	180	436	143	123	1698	1065	4763	
	Large (100 or more)	69	27	67	122	61	43	502	135	583	
Northern Region	Small (5-19)	2706	1529	1285	6685	854	2550	30266	50967	152121	**265551**
	Medium (20-99)	798	255	318	668	218	338	2643	1682	7135	
	Large (100 or more)	226	71	104	182	70	118	635	225	902	
		28436	**19185**	**11951**	**41066**	**7268**	**18791**	**236667**	**39748 0**	**1204292**	**1965136**

Note: The sampling frame used and the universe are from separate sources.

Universe Estimates

		Food	Garments	Rubber and Plastics Products	Fabricated Metal Products	Machinery and Equipment	Furniture	Other Manufacturing	Retail	Other Services	Grand Total
Central Region	Small (5-19)	5226	6494	2360	6147	1331	3471	46761	88694	287797	**477708**

	Medium (20-99)	1291	959	474	653	229	232	4054	3046	14070	
	Large (100 or more)	348	129	134	138	63	45	962	486	2114	
Southern Region	Small (5-19)	4521	2928	2095	7882	1274	3445	46084	79138	234463	**408123**
	Medium (20-99)	1163	316	464	991	290	231	4047	2684	12365	
	Large (100 or more)	257	60	123	264	107	39	1027	329	1536	
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	Medium (20-99)	784	223	197	464	149	144	2112	1703	5886	
	Large (100 or more)	191	54	79	142	71	39	579	251	798	
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	Medium (20-99)	1139	392	409	865	229	462	3274	2264	9323	
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Northern Region	Small (5-19)	2706	1529	1285	6685	854	2550	30266	50967	152121	**265551**
	Medium (20-99)	798	255	318	668	218	338	2643	1682	7135	
	Large (100 or more)	226	71	104	182	70	118	635	225	902	
		28436	**19185**	**11951**	**41066**	**7268**	**18791**	**236667**	**397480**	**1204292**	**1965136**

Note: Adjustments for strict, median and weak assumptions were not applied to universe estimates because the universe and the frame were from separate sources hence scenarios that apply to the frame cannot be assumed in the universe

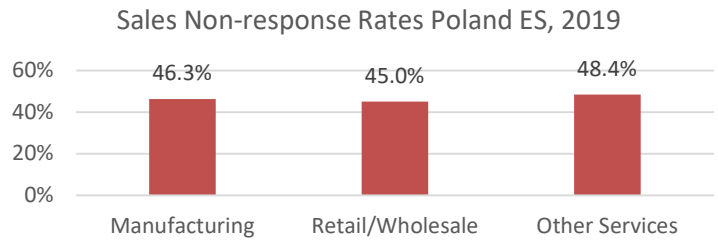
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.28.4. Non-Response

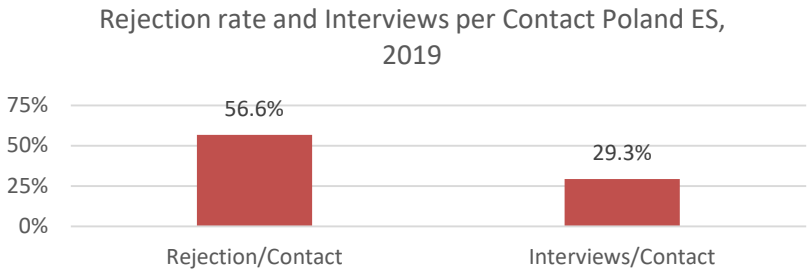
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.29.[59] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.57.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Poland. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[59] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.28.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Sp. z o.o. Region: Poland Member of OFBOR (Organisation of Opinion and Market Research Companies). OFBOR is an association of employers, with only certified research providers as its members. Each year, Ipsos undergoes the OFBOR audit within its Interviewing Quality Control Programme (PKJPA). Ipsos is certified for all types of research conducted, incl. CAPI.
Enumerators involved:	Enumerators/recruiters: 128 Recruiters (on initial project phase): 14.
Other staff involved:	Fieldwork Coordinators: 16 Supervisors: 4 Quality Control: 2 back checkers

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	Bisnode
Year:	June 2018
Comments on the quality of sample frame:	Among the enterprise databases available in Poland, Ipsos uses Bisnode most frequently. According to the statistics of the Central Statistical Office of Poland (GUS), there are over 4 million registered business entities in Poland, and this number includes entities that have suspended or ceased their business but relevant information about this fact did not reach GUS. The Bisnode database has about 3 million enterprises and this number is much closer to the number of active businesses operating in Poland. The Bisnode database is updated on an ongoing basis. While this does not preclude erroneous database records, their share is relatively low, amounting to approx. 10%. Most discrepancies concern the contact details, which are usually provided at the time of registration, but companies later forget to update their details.

Sample

Comments/ problems for particular regions:	The basic organisational unit of the Ipsos interviewer network in Poland is NUTS2 (division into voivodships, i.e. provinces), their number being 16. Each of them has at least one Ipsos coordinator who is in charge of a group of interviewers. The BEEPS VI sample was divided into regions according to NUTS1, with two to four Ipsos coordinators operating within them at the voivodship level. There were differences in the performance of various coordinators. This was especially true for the North-Western and South-Western regions. In that situation, better performing coordinators supported coordinators from the neighbouring voivodships with their resources (interviewers). The Western and North-Eastern provinces are relatively poorly urbanised and the distances between the localities of interviewers and some locations in the sample exceeded 100 km. This entailed very high travel costs. A decision was made to allocate more contacts to interviewers than originally established in the sampling preferences. Even if some companies with a lower order of preference had to be rejected later when an interview with a higher preference was carried

	out, this procedure was cost-effective and positively influenced the fieldwork progress.
Comments on the response rate:	Comparing the response rate in BEEPS VI with other enterprise surveys conducted by Ipsos in Poland, it is exceptionally good. In Ipsos Poland's opinion, this was due to several reasons, primarily the decision to assign the best interviewing workforce to the project and maintain a high level of mobilisation throughout the entire fieldwork process. Other significant factors included the non-commercial purpose of the survey and the possibility to invoke the clients: WBG and EBRD, which was generally perceived positively and, at worst, neutrally. The long fieldwork period was the third key factor, as it allowed multiple recruitment attempts to finally find a time when an associate of the company was able to find enough time to respond.
Comments on the sample design:	In the case of "Garments", the share of this industry in the sample was disproportionately large versus the number of these enterprises represented in the database. A small surplus of companies, especially with regard to large enterprises, was a major impediment when interviewing this part of the sample.
Other comments:	No

Fieldwork

Date of Fieldwork	12 December 2018 to 13 December 2019
Country	Poland
Number of interviews	1320
Problems found during fieldwork:	BEEPS VI places very high demands on the interviewing network, which revealed differences in performance that are not normally noticed in standard surveys. As a result, additional attention had to be paid to coordinators who had problems with implementing their part of the sample, and additional human resources had to be allocated to ensure support.
Other observations:	A point to consider: it might be advisable to abandon or simplify very detailed questions on certain financial issues in the future. For example, the question about the proportion of working capital originating from different sources and the one about the value of purchases of different assets turned out to be very difficult for the respondents, who often refused to provide detailed answers.

Questionnaires

Problems for the understanding of questions (indicate question number)	I2, N.2e1, N.7
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	The information provided to potential respondents about the expected duration of the interview (approx. 1 hour) was a factor that resulted in many refusals to participate. On the other hand, if the interviewers understated the duration of the interview, the respondents became very irritated when the interview lasted longer. It is recommended that the interviewers should provide the real duration of the interview in terms of a time band.
Suggestions or other comments on the questionnaire:	None

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	None

Country/ region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	
Relevant country events occurred during fieldwork:	The parliamentary elections held in October 2019 ensured the continued rule of the coalition led by the Law and Justice party (PiS).
Other aspects:	No

A.29 Portugal

A.29.1. Sampling structure and implementation

The sample frame consisted of listings of establishments from Dun and Bradstreet and BvD.

Regional stratification for the Portugal ES was done across seven regions: North, Algarve, Center, Lisbon Metropolitan Area, Alentejo, Autonomous Region of the Azores and Autonomous Region of Madeira. For the purposes of achieving the thresholds for representativeness, the ES indicators are calculated with some regions combined. In particular, Autonomous Region of the Azores and Autonomous Region of Madeira are combined.

NUTSII Regions of Portugal	**Grouping to be used for stratification purposes in BEEPS VI**
North	North
Centre	Centre
Lisbon Metropolitan Area	Lisbon Metropolitan Area
Alentejo	Alentejo
Algarve	Algarve
Autonomous Region of the Azores	Autonomous Region of the Azores
Autonomous Region of Madeira	Autonomous Region of Madeira

Portugal ES Sample Frame

		Food	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	1045	1444	924	272	3534	5132	13198	**34540**
	Medium (20-99)	346	891	316	146	1722	1145	3655	
	Large (100 or more)	42	102	43	24	290	51	218	
Algarve	Small (5-19)	121	6	42	11	121	1016	2506	**4989**
	Medium (20-99)	33	0	6	2	24	248	796	
	Large (100 or more)	0	0	0	0	0	6	51	
Center	Small (5-19)	944	82	749	240	1386	3673	9057	**21453**
	Medium (20-99)	320	62	327	127	758	777	2513	
	Large (100 or more)	54	27	31	18	167	19	122	
Lisbon Metropolitan Area	Small (5-19)	363	46	235	156	591	4249	9890	**21507**
	Medium (20-99)	213	13	63	66	275	1062	3729	
	Large (100 or more)	33	1	9	6	68	88	351	
Alentejo	Small (5-19)	293	7	65	37	167	948	1992	**4658**
	Medium (20-99)	150	3	17	11	107	192	598	
	Large (100 or more)	14	0	1	0	29	1	26	
Autonomous Region of the Azores and Autonomous Region of Madeira	Small (5-19)	172	4	73	18	135	1056	2183	**5114**
	Medium (20-99)	88	0	17	3	36	316	909	
	Large (100 or more)	17	0	2	0	2	16	67	
		4248	**2688**	**2920**	**1137**	**9412**	**19995**	**51861**	**92261**

Source: Dun & Bradstreet and BvD

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design (Fresh)

		Food	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	5	26	9	14	6	9	25	**262**

	Medium (20-99)	5	27	10	21	5	5	6	
	Large (100 or more)	6	31	13	7	22	5	5	
Algarve	Small (5-19)	19	2	13	3	32	17	5	**150**
	Medium (20-99)	10	0	2	1	7	17	5	
	Large (100 or more)	0	0	0	0	0	2	15	
Center	Small (5-19)	5	10	7	14	5	6	13	**188**
	Medium (20-99)	5	18	10	21	5	5	5	
	Large (100 or more)	7	8	9	5	20	5	5	
Lisbon Metropolitan Area	Small (5-19)	5	10	5	12	5	7	15	**150**
	Medium (20-99)	5	4	6	20	5	5	6	
	Large (100 or more)	6	0	3	2	19	5	5	
Alentejo	Small (5-19)	8	2	20	11	19	5	5	**150**
	Medium (20-99)	14	1	5	3	26	5	5	
	Large (100 or more)	4	0	0	0	9	0	8	
Autonomous Region of the Azores and Autonomous Region of Madeira	Small (5-19)	12	1	22	5	23	8	5	**150**
	Medium (20-99)	19	0	5	1	11	9	5	
	Large (100 or more)	5	0	1	0	1	5	12	
		140	**140**	**140**	**140**	**220**	**120**	**150**	**1050**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 2.9% (124 out of 4342 establishments).[60]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Archieved Interviews

		Food	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	5	26	9	14	6	9	25	**243**
	Medium (20-99)	5	33	12	24	5	5	6	
	Large (100 or more)	6	24	9	1	12	2	5	

[60] Based on out of target and ineligible contacts.

Algarve	Small (5-19)	19	2	13	0	33	17	5	**145**
	Medium (20-99)	10	0	2	0	6	17	5	
	Large (100 or more)	0	0	0	0	0	2	11	
	Small and Medium (5-99)	0	0	0	3	0	0	0	
Center	Small (5-19)	6	10	10	14	6	7	16	**207**
	Medium (20-99)	7	19	10	22	5	7	5	
	Large (100 or more)	7	8	9	6	20	6	7	
Lisbon Metropolitan Area	Small (5-19)	5	10	5	13	5	9	15	**152**
	Medium (20-99)	5	0	8	20	6	5	6	
	Large (100 or more)	3	0	3	2	16	9	4	
	Medium and Large (20+)	0	3	0	0	0	0	0	
Alentejo	Small (5-19)	10	2	21	12	26	6	5	**166**
	Medium (20-99)	16	1	0	3	28	0	5	
	Large (100 or more)	4	0	0	0	9	0	8	
	Medium and Large (20+)	0	0	5	0	0	5	0	
Autonomous Region of the Azores	Small (5-19)	9	0	11	1	12	5	2	**73**
	Medium (20-99)	11	0	1	0	5	4	2	
	Large (100 or more)	3	0	1	0	1	1	4	
Autonomous Region of Madeira	Small (5-19)	4	1	8	4	7	6	9	**76**
	Medium (20-99)	6	0	0	1	0	2	3	
	Large (100 or more)	4	0	0	0	0	3	3	
	Medium and Large (20+)	0	0	6	0	9	0	0	
		145	**139**	**143**	**140**	**217**	**127**	**151**	**1062**

A.29.2. Status Codes

144	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	144
1064	**Eligible**	1. Eligible establishment (Correct name and address)	1064
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
968	**Screener refusal**	13. Refuses to answer the screener	968
69	**Ineligible**	5. The establishment has less than 5 permanent full time employees	21
		616. The firm discontinued businesses - (Establishment went bankrupt)	19
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	2
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	5
		621. The firm discontinued businesses - (Other)	8
		71. Ineligible legal status: not a business, but private household	4
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	8
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	2
55	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	1
		154. Out of target - establishment is HQ without production or sales of goods or services	8
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	31
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	15
2042	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	1275
		92. Line out of order	38
		93. No tone	4
		94. Phone number does not exist	687
		10. Answering machine	18
		11. Fax line- data line	10
		12. Wrong address/ moved away and could not get the new references	10
4342	**Total contacted**		

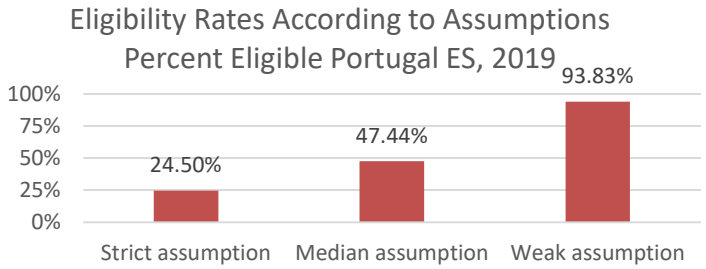
Response Outcomes: Portugal ES 2019

Target and totals	Sample target	1050
	Sample target completion rate	101.1%
	Total contacts available in frame	13818
	Total contacts issued	5003
	Total contacts contacted	4342
Screening phase	Screening in process	144
	Eligibles	1064
	Screener refusal	968
	Ineligible + out of target	124
	Unobtainable	2042
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	1062
	Eligible in process + incomplete interviews	2
	Interview refusal	0
Percent breakdown (relative to total contacted)	Screening in process rate	3.3%
	Screener refusal rate	22.3%
	Ineligible + out of target rate	2.9%
	Unobtainable rate	47.0%
	Interview conversion rate	24.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	0.0%

A.29.3. Universe estimates

Universe estimates for the number of establishments in each cell in Portugal were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Portugal were produced for the strict, weak and median eligibility definitions. Table shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Food	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	232	336	241	59	624	847	2642	**7166**
	Medium (20-99)	93	251	100	39	363	229	922	
	Large (100 or more)	10	26	12	6	63	9	60	
Algarve	Small (5-19)	24	2	13	0	33	150	430	**897**
	Medium (20-99)	10	0	2	0	6	44	166	
	Large (100 or more)	0	0	0	0	0	2	11	
	Small and Medium (5-99)	0	0	0	3	0	0	0	
Center	Small (5-19)	226	21	211	57	305	654	1883	**4737**
	Medium (20-99)	93	19	112	36	201	168	639	
	Large (100 or more)	14	8	10	6	39	6	31	
Lisbon Metropolitan Area	Small (5-19)	77	10	58	32	114	667	1807	**4072**
	Medium (20-99)	55	0	19	20	66	202	826	
	Large (100 or more)	8	0	3	2	16	15	70	
	Medium and Large (20+)	0	5	0	0	0	0	0	
Alentejo	Small (5-19)	87	2	23	12	47	209	510	**1269**
	Medium (20-99)	54	1	0	4	36	0	187	
	Large (100 or more)	5	0	0	0	9	0	8	
	Medium and Large (20+)	0	0	10	0	0	66	0	
Autonomous Region of the Azores	Small (5-19)	15	0	11	1	14	53	155	**347**
	Medium (20-99)	11	0	2	0	5	9	60	
	Large (100 or more)	3	0	1	0	1	2	5	
Autonomous Region of Madeira	Small (5-19)	36	1	15	4	25	151	346	**881**
	Medium (20-99)	18	0	0	1	0	62	188	
	Large (100 or more)	4	0	0	0	0	3	11	
	Medium and Large (20+)	0	0	6	0	9	0	0	
		1075	**682**	**849**	**283**	**1976**	**3549**	**10956**	**19370**

Median Universe Estimates – Fresh:

		Food	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	618	746	575	142	1519	2253	6736	**16885**
	Medium (20-99)	195	438	187	73	693	478	1843	
	Large (100 or more)	23	49	25	12	130	21	130	
Algarve	Small (5-19)	51	2	19	0	44	318	874	**1694**
	Medium (20-99)	13	0	3	0	8	74	264	
	Large (100 or more)	0	0	0	0	0	2	17	
	Small and Medium (5-99)	0	0	0	5	0	0	0	
Center	Small (5-19)	485	37	405	109	598	1401	3865	**9109**
	Medium (20-99)	156	26	168	55	308	282	1029	
	Large (100 or more)	26	11	16	8	65	7	54	
Lisbon Metropolitan Area	Small (5-19)	198	22	135	75	269	1719	4461	**9425**
	Medium (20-99)	110	0	34	30	121	408	1598	
	Large (100 or more)	17	0	5	3	30	33	147	
	Medium and Large (20+)	0	8	0	0	0	0	0	
Alentejo	Small (5-19)	185	4	43	21	92	445	1040	**2442**
	Medium (20-99)	90	2	0	6	55	0	298	
	Large (100 or more)	8	0	0	0	14	0	14	
	Medium and Large (20+)	0	0	15	0	0	110	0	
Autonomous Region of the Azores	Small (5-19)	28	0	13	1	24	102	285	**592**
	Medium (20-99)	14	0	2	0	5	14	86	
	Large (100 or more)	4	0	1	0	1	2	8	
Autonomous Region of Madeira	Small (5-19)	92	2	34	9	60	387	851	**2023**
	Medium (20-99)	37	0	0	2	0	125	362	
	Large (100 or more)	5	0	0	0	0	4	24	
	Medium and Large (20+)	0	0	11	0	16	0	0	
		2359	**1347**	**1689**	**551**	**4051**	**8186**	**23986**	**42169**

Weak Universe Estimates – Fresh:

		Food	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
North	Small (5-19)	1024	1444	925	267	2751	5028	13713	**33760**
	Medium (20-99)	330	868	308	139	1285	1093	3844	
	Large (100 or more)	38	95	40	22	236	47	265	
Algarve	Small (5-19)	117	6	41	0	109	982	2459	**4828**
	Medium (20-99)	31	0	6	0	21	233	761	
	Large (100 or more)	0	0	0	0	0	5	47	
	Small and Medium (5-99)	0	0	0	11	0	0	0	
Center	Small (5-19)	881	78	714	224	1188	3429	8629	**19976**
	Medium (20-99)	291	58	304	116	627	707	2353	
	Large (100 or more)	47	24	28	16	128	17	120	
Lisbon Metropolitan Area	Small (5-19)	354	46	234	152	526	4139	9800	**20943**
	Medium (20-99)	202	0	61	63	243	1008	3598	
	Large (100 or more)	30	0	8	5	59	80	323	
	Medium and Large (20+)	0	12	0	0	0	0	0	
Alentejo	Small (5-19)	280	7	63	35	152	906	1932	**4427**
	Medium (20-99)	140	3	0	10	93	0	568	
	Large (100 or more)	12	0	0	0	23	0	25	
	Medium and Large (20+)	0	0	16	0	0	163	0	
Autonomous Region of the Azores	Small (5-19)	47	0	21	1	43	227	578	**1194**
	Medium (20-99)	24	0	4	0	9	31	178	
	Large (100 or more)	7	0	1	0	1	6	17	
Autonomous Region of Madeira	Small (5-19)	139	4	50	16	98	787	1578	**3774**
	Medium (20-99)	57	0	0	3	0	261	689	
	Large (100 or more)	8	0	0	0	0	9	44	
	Medium and Large (20+)	0	0	12	0	19	0	0	
		4058	**2644**	**2836**	**1080**	**7610**	**19156**	**51518**	**88902**

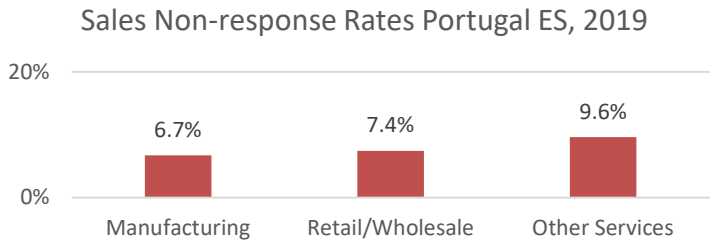
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.29.4. Non-Response

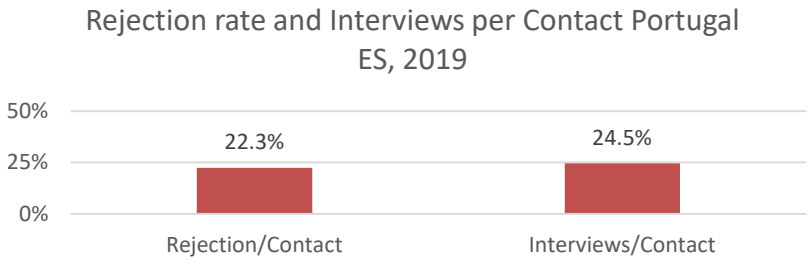
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.25.[61] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.22.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Portugal. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[61] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.30 Republic of Cyprus

A.30.1. Sampling structure and implementation

The sample frame consisted of listings of firms from three sources: For panel firms, the list of 360 firms from the 2016 EBRD survey was used; and for fresh firms (i.e., firms not covered in 2016), a listing of establishments from Business Register of Central Statistical office – 2015 was used in the Republic of Cyprus and a listing of establishments from Chamber of Commerce and Chamber of Industry was used in the Turkish Cypriot community.

The sample was stratified into Republic of Cyprus and Turkish Cypriot community.

Republic of Cyprus ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	474	625	1199	**4352**
	Medium (10-49)	481	319	949	
	Large (50-249)	61	49	157	
	Very Large (250 or more)	6	11	21	
Turkish Cypriot Community	Small (5-19)	238	112	105	**738**
	Medium (20-99)	103	27	84	
	Large (100 or more)	18	8	43	
		1381	**1151**	**2558**	**5090**

Source: European Bank for Reconstruction and Development, World Bank, Business Registry, Central Statistical Office-2015, and TCC Chamber of Commerce and Chamber of Industry.

Republic of Cyprus Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	28	47	49	**240**
	Medium (10-49)	30	25	36	
	Large (50-249)	8	6	7	
	Very Large (250 or more)	1	0	3	
Turkish Cypriot Community	Small (5-19)	18	47	28	**120**
	Medium (20-99)	5	5	14	
	Large (100 or more)	0	0	3	
		90	**130**	**140**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	5	5	11	**117**
	Medium (10-49)	22	3	9	
	Large (50-249)	14	11	26	
	Very Large (250 or more)	1	3	7	
	Small (5-19)	2	12	9	**60**

Turkish Cypriot Community	Medium (20-99)	16	6	2	
	Large (100 or more)	5	2	6	
		65	**42**	**70**	**177**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	17	28	12	**123**
	Medium (10-49)	18	15	17	
	Large (50-249)	5	4	4	
	Very Large (250 or more)	1	0	2	
Turkish Cypriot Community	Small (5-19)	11	28	5	**60**
	Medium (20-99)	3	3	8	
	Large (100 or more)	0	0	2	
		55	**78**	**50**	**183**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 16.0% (89 out of 556 establishments) in the Republic of Cyprus and 24.1% (73 out of 303 establishments) in the Turish Cypriot community.[62]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	25	31	23	**240**
	Medium (10-49)	39	16	28	
	Large (50-249)	17	19	28	
	Very Large (250 or more)	3	3	8	
Turkish Cypriot Community	Small (5-19)	12	33	22	**120**
	Medium (20-99)	20	11	7	
	Large (100 or more)	5	2	8	
		121	**115**	**124**	**360**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	19	25	12	**112**
	Medium (10-49)	15	12	19	
	Large (50-249)	2	3	2	
	Very Large (250 or more)	1	0	2	
Turkish Cypriot Community	Small (5-19)	11	21	13	**61**
	Medium (20-99)	4	5	5	
	Large (100 or more)	0	0	2	
		52	**66**	**54**	**173**

[62] Based on out of target and ineligible contacts.

A.30.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
424	**Eligible**	1. Eligible establishment (Correct name and address)	351
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	12
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	5
		4. Eligible establishment (Moved and traced)	34
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	22
246	**Screener refusal**	13. Refuses to answer the screener	246
88	**Ineligible**	5. The establishment has less than 5 permanent full time employees	21
		616. The firm discontinued businesses - (Establishment went bankrupt)	18
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	1
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	8
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	27
		621. The firm discontinued businesses - (Other)	11
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	1
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	1
74	**Out of Target**	151. Out of target - outside the covered regions	19
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	1
		156. Duplicated firm within the sample	50
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	4
27	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	17
		92. Line out of order	2
		93. No tone	5
		94. Phone number does not exist	0
		10. Answering machine	1
		11. Fax line- data line	1
		12. Wrong address/ moved away and could not get the new references	1
859	**Total contacted**		

Response Outcomes: Republic of Cyprus ES 2019

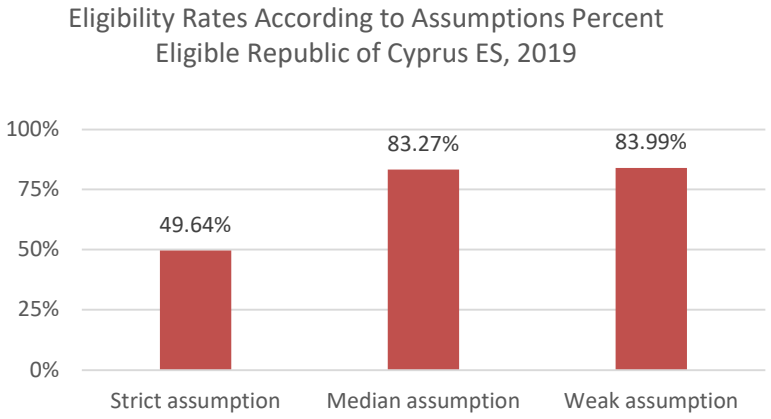
Target and totals	Sample target	360

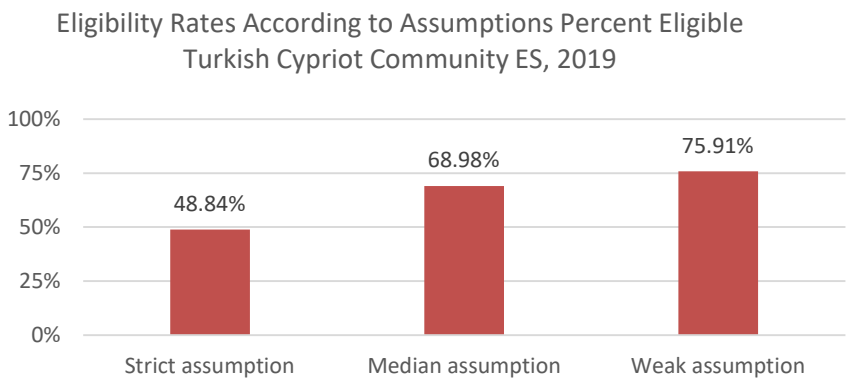
	Sample target completion rate	100.0%
	Total contacts available in frame	5090
	Total contacts issued	1259
	Total contacts contacted	859
Screening phase	Screening in process	0
	Eligibles	424
	Screener refusal	246
	Ineligible + out of target	162
	Unobtainable	27
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	360
	Eligible in process + incomplete interviews	0
	Interview refusal	32
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	28.6%
	Ineligible + out of target rate	18.9%
	Unobtainable rate	3.1%
	Interview conversion rate	41.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	3.7%

A.30.3. Universe estimates

Universe estimates for the number of establishments in each cell in Republic of Cyprus were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.





Universe estimates for the number of establishments in each industry-region-size cell in Republic of Cyprus were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	155	186	450	**1756**
	Medium (10-49)	207	124	468	
	Large (50-249)	27	19	94	
	Very Large (250 or more)	3	6	17	
Turkish Cypriot Community	Small (5-19)	99	85	302	**753**
	Medium (20-99)	78	54	98	
	Large (100 or more)	12	7	19	
		581	**481**	**1447**	**2509**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	365	431	1159	**3974**
	Medium (10-49)	419	248	1040	
	Large (50-249)	48	34	184	
	Very Large (250 or more)	5	10	32	
Turkish Cypriot Community	Small (5-19)	156	137	561	**1207**
	Medium (20-99)	91	64	133	
	Large (100 or more)	19	12	35	
		1102	**936**	**3144**	**5181**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Republic of Cyprus	Small (5-9)	368	436	1190	**4023**
	Medium (10-49)	416	246	1050	
	Large (50-249)	48	34	188	
	Very Large (250 or more)	5	10	32	
Turkish Cypriot Community	Small (5-19)	170	168	652	**1382**
	Medium (20-99)	96	77	152	
	Large (100 or more)	18	13	36	
		1121	**983**	**3300**	**5405**

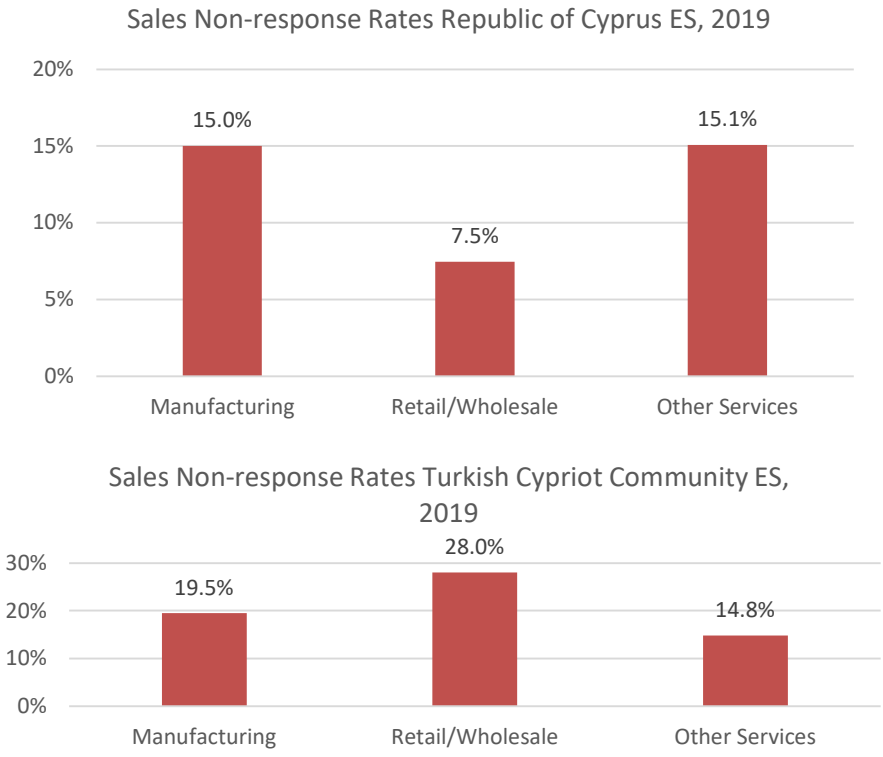
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.30.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

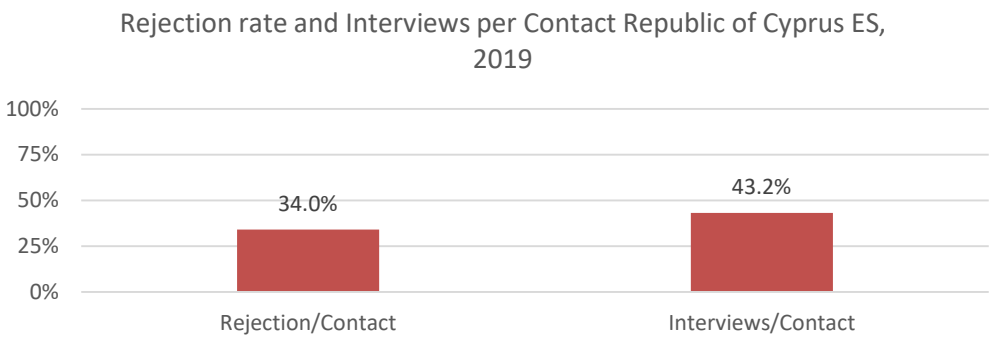
Item non-response was addressed by two strategies:

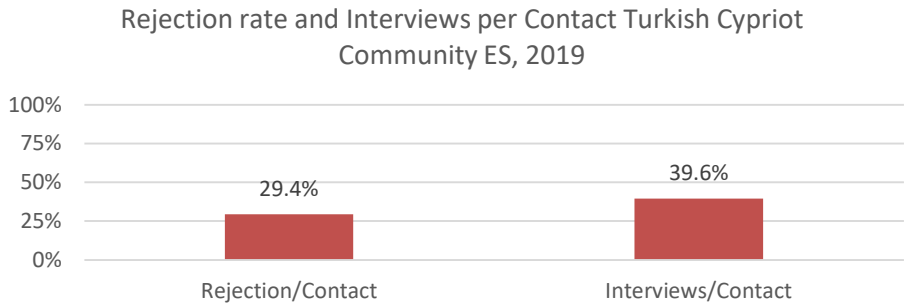
a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.43 in the Republic of Cyprus and 0.40 in the Turkish Cypriot community.[63] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.34 in the Republic of Cyprus and 0.29 in the Turkish Cypriot community.

[63] The estimate is based on the total no. of firms contacted including ineligible establishments.





Details on the rejection rate, eligibility rate, and item non-response are available at the level of strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Republic of Cyprus. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.31 Romania

A.31.1. Sampling structure and implementation

A.31.2. Status codes

A.31.3. Universe estimates

A.31.4. Non-response

A.32 Russia

A.32.1. Sampling structure and implementation

The sample frame consisted of listings of mix of firms and establishments from two sources: for panel firms, the list of 4220 firms from the Russia 2012 ES was used; and for fresh firms (i.e., firms not covered in 2012), a listing of establishments and firms from FIRA PRO/Federal State Statistics Service (Rosstat) was used. The establishments in the listing are all registered as businesses with the Federal Tax Service.

Regional stratification for the Russia ES was done across seven regions: Central Federal District, South (combining Southern Federal District and North-Caucasian Federal District), North-West

Federal District, Far Eastern Federal District, Siberian Federal District, Ural Federal District and Volga Federal District.

Federal Districts	**Grouping used for stratification purposes in BEEPS VI**
Central	Central Federal District
North Western	North-West Federal District
Southern	South Federal District
North Caucasian	
Volga	Volga Federal District
Ural	Ural Federal District
Siberian	Siberian Federal District
Far Eastern	Far Eastern Federal District

Russia ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	2567	1519	1980	3760	1860	18389	30234	150950	**251219**
	Medium (20-99)	560	91	369	424	360	2244	1772	26431	
	Large (100 or more)	382	10	108	107	115	812	401	5774	
South	Small (5-19)	1226	354	949	1219	524	4164	10308	40954	**66322**
	Medium (20-99)	233	6	116	100	74	384	451	3987	
	Large (100 or more)	110	3	31	25	10	135	69	890	
North-West	Small (5-19)	872	482	672	1965	702	6741	8722	57060	**88824**
	Medium (20-99)	172	20	110	226	118	806	490	7646	
	Large (100 or more)	93	2	42	37	44	269	100	1433	
Far Eastern	Small (5-19)	332	59	223	186	48	1157	4423	15367	**24298**
	Medium (20-99)	50	2	20	21	10	71	258	1702	
	Large (100 or more)	24	0	4	3	3	27	39	269	
Siberian	Small (5-19)	1586	524	935	1750	604	6533	13579	55625	**88886**
	Medium (20-99)	194	9	114	132	68	469	715	5013	
	Large (100 or more)	66	2	26	19	16	135	89	683	
Ural	Small (5-19)	607	253	833	1856	730	4780	6705	41244	**62689**
	Medium (20-99)	71	5	96	168	85	410	320	3697	
	Large (100 or more)	38	0	40	35	34	159	51	472	
Volga	Small (5-19)	1663	708	1433	2830	1014	10032	15139	72860	**117638**
	Medium (20-99)	302	27	259	268	173	1030	950	6952	
	Large (100 or more)	165	2	65	51	104	467	95	1049	
		11313	**4078**	**8425**	**15182**	**6696**	**59214**	**94910**	**500058**	**699876**

Source: World Bank and the Russian Federal State Statistics Service (Rosstat)

Russia Sample Frame (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total

Central	Small (5-19)	8	4	8	18	13	115	37	349	**1125**
	Medium (20-99)	7	8	8	17	22	104	16	224	
	Large (100 or more)	12	2	10	8	12	58	5	60	
South	Small (5-19)	5	2	4	7	5	27	53	133	**444**
	Medium (20-99)	3	1	6	11	6	45	13	72	
	Large (100 or more)	7	0	5	3	0	11	4	21	
North-West	Small (5-19)	2	0	1	1	6	18	39	154	**483**
	Medium (20-99)	11	4	3	9	8	39	16	110	
	Large (100 or more)	7	0	6	5	3	14	5	22	
Far Eastern	Small (5-19)	1	1	6	4	2	22	37	115	**335**
	Medium (20-99)	3	1	0	7	3	20	17	59	
	Large (100 or more)	8	0	3	1	2	4	3	16	
Siberian	Small (5-19)	4	3	4	4	3	74	59	233	**708**
	Medium (20-99)	13	2	8	13	8	60	25	128	
	Large (100 or more)	2	0	5	6	5	11	3	35	
Ural	Small (5-19)	1	0	2	3	5	15	16	64	**200**
	Medium (20-99)	1	0	1	2	1	24	8	27	
	Large (100 or more)	5	0	2	1	2	10	2	8	
Volga	Small (5-19)	6	5	8	12	11	72	63	364	**925**
	Medium (20-99)	12	4	12	12	6	65	27	155	
	Large (100 or more)	9	0	3	3	9	24	4	39	
		127	**37**	**105**	**147**	**132**	**832**	**452**	**2388**	**4220**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	3	13	3	3	3	3	4	20	**114**
	Medium (20-99)	3	17	3	3	3	3	3	3	

	Large (100 or more)	3	2	3	3	4	3	3	3	
South	Small (5-19)	3	14	3	3	3	3	3	5	**87**
	Medium (20-99)	3	1	3	3	3	3	3	3	
	Large (100 or more)	7	1	5	4	2	3	3	3	
North-West	Small (5-19)	3	15	3	3	3	3	3	6	**97**
	Medium (20-99)	3	3	3	3	3	3	3	3	
	Large (100 or more)	5	0	7	5	8	3	3	3	
Far Eastern	Small (5-19)	3	12	3	3	3	3	3	3	**71**
	Medium (20-99)	5	0	4	3	1	3	3	3	
	Large (100 or more)	3	0	0	0	0	4	6	3	
Siberian	Small (5-19)	3	12	3	3	3	3	3	6	**86**
	Medium (20-99)	3	1	3	3	3	3	3	3	
	Large (100 or more)	10	0	4	3	2	3	3	3	
Ural	Small (5-19)	3	20	3	3	3	3	3	5	**108**
	Medium (20-99)	3	1	5	3	6	3	3	3	
	Large (100 or more)	7	0	8	7	6	3	4	3	
Volga	Small (5-19)	3	11	3	3	3	3	3	8	**97**
	Medium (20-99)	3	5	3	3	3	3	3	3	
	Large (100 or more)	3	0	9	6	7	3	3	3	
		82	**128**	**81**	**70**	**72**	**64**	**68**	**95**	**660**

Original Sample Design (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	2	3	2	2	3	13	20	20	**166**
	Medium (20-99)	6	7	7	9	13	2	2	2	
	Large (100 or more)	10	2	9	7	10	9	4	2	
South	Small (5-19)	2	2	2	2	3	2	2	2	**73**
	Medium (20-99)	3	1	5	9	5	2	2	2	
	Large (100 or more)	6	0	4	3	0	9	3	2	
North-West	Small (5-19)	2	0	1	1	2	2	2	7	**85**

	Medium (20-99)	9	3	3	8	7	2	2	2	
	Large (100 or more)	6	0	5	4	3	8	4	2	
Far Eastern	Small (5-19)	1	1	5	3	2	2	3	2	**69**
	Medium (20-99)	3	1	0	6	3	5	9	2	
	Large (100 or more)	7	0	3	1	2	3	3	2	
Siberian	Small (5-19)	2	3	2	2	2	2	7	4	**94**
	Medium (20-99)	11	2	7	9	7	2	2	2	
	Large (100 or more)	2	0	4	5	4	8	3	2	
Ural	Small (5-19)	1	0	2	3	4	2	3	2	**52**
	Medium (20-99)	1	0	1	2	1	2	4	2	
	Large (100 or more)	4	0	2	1	2	9	2	2	
Volga	Small (5-19)	2	4	2	2	2	2	10	20	**121**
	Medium (20-99)	10	3	10	8	5	2	2	2	
	Large (100 or more)	8	0	3	3	8	8	3	2	
		98	**32**	**79**	**90**	**88**	**96**	**92**	**85**	**660**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 1.0% (50 out of 5195 establishments)[64].

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	5	14	5	14	6	16	12	49	**293**
	Medium (20-99)	3	19	4	9	5	10	9	18	
	Large (100 or more)	14	2	19	14	19	14	4	9	
South	Small (5-19)	5	14	3	5	5	5	5	12	**157**
	Medium (20-99)	6	0	9	5	9	12	9	5	
	Large (100 or more)	18	0	5	7	1	8	4	4	
	Medium and Large (20+)	0	1	0	0	0	0	0	0	

[64] Based on out of target and ineligible contacts

North-West	Small (5-19)	5	15	3	3	3	5	5	31	**184**
	Medium (20-99)	4	0	7	5	5	10	7	5	
	Large (100 or more)	16	0	12	10	14	5	3	5	
	Medium and Large (20+)	0	6	0	0	0	0	0	0	
Far Eastern	Small (5-19)	3	0	4	4	6	9	17	6	**137**
	Medium (20-99)	10	0	0	0	0	12	5	11	
	Large (100 or more)	6	0	0	0	0	4	6	8	
	Small and Medium (5-99)	0	17	0	0	0	0	0	0	
	Medium and Large (20+)	0	0	4	4	1	0	0	0	
Siberian	Small (5-19)	5	13	3	5	3	4	10	31	**180**
	Medium (20-99)	5	0	10	5	10	13	15	5	
	Large (100 or more)	14	0	5	6	3	6	3	5	
	Medium and Large (20+)	0	1	0	0	0	0	0	0	
Ural	Small (5-19)	3	20	3	4	3	5	6	11	**161**
	Medium (20-99)	3	1	8	4	8	12	9	5	
	Large (100 or more)	8	0	11	9	9	9	5	5	
Volga	Small (5-19)	3	11	4	8	6	5	13	33	**211**
	Medium (20-99)	8	0	9	9	5	8	9	2	
	Large (100 or more)	13	0	14	11	18	8	3	4	
	Medium and Large (20+)	0	7	0	0	0	0	0	0	
		157	**141**	**142**	**141**	**139**	**180**	**159**	**264**	**1323**

Achieved Interviews (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	2	1	2	11	3	13	8	25	**129**
	Medium (20-99)	0	1	1	6	0	7	6	15	
	Large (100 or more)	1	0	3	2	4	11	1	6	
South	Small (5-19)	2	0	0	2	2	2	2	7	**51**
	Medium (20-99)	1	0	2	2	1	9	6	2	
	Large (100 or more)	2	0	0	1	0	5	1	2	
North-West	Small (5-19)	2	0	0	0	0	2	2	25	**55**

	Medium (20-99)	1	0	0	2	2	7	4	2	
	Large (100 or more)	1	0	1	0	0	2	0	2	
Far Eastern	Small (5-19)	0	0	1	1	2	6	14	3	**54**
	Medium (20-99)	0	0	0	0	0	9	2	8	
	Large (100 or more)	2	0	0	0	0	0	0	5	
	Medium and Large (20+)	0	0	0	1	0	0	0	0	
Siberian	Small (5-19)	2	0	0	2	0	2	7	25	**76**
	Medium (20-99)	1	0	1	1	3	11	13	2	
	Large (100 or more)	0	0	0	2	1	1	0	2	
Siberian	Small (5-19)	0	0	0	1	0	2	3	6	**39**
	Medium (20-99)	0	0	0	0	0	9	6	2	
	Large (100 or more)	0	0	1	0	0	6	1	2	
Volga	Small (5-19)	0	1	1	5	3	2	10	25	**93**
	Medium (20-99)	5	0	6	6	2	5	5	1	
	Large (100 or more)	3	0	0	0	4	5	0	2	
	Medium and Large (20+)	0	2	0	0	0	0	0	0	
		25	**5**	**19**	**45**	**27**	**116**	**91**	**169**	**497**

A.32.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
3065	**Eligible**	1. Eligible establishment (Correct name and address)	3063
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	1
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
79	**Screener refusal**	13. Refuses to answer the screener	79
50	**Ineligible**	5. The establishment has less than 5 permanent full time employees	1
		616. The firm discontinued businesses - (Establishment went bankrupt)	8
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	8
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	4
		621. The firm discontinued businesses - (Other)	27
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	2
0	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
2001	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	950
		92. Line out of order	418
		93. No tone	11
		94. Phone number does not exist	1
		10. Answering machine	9
		11. Fax line- data line	2
		12. Wrong address/ moved away and could not get the new references	610
5195	**Total contacted**		

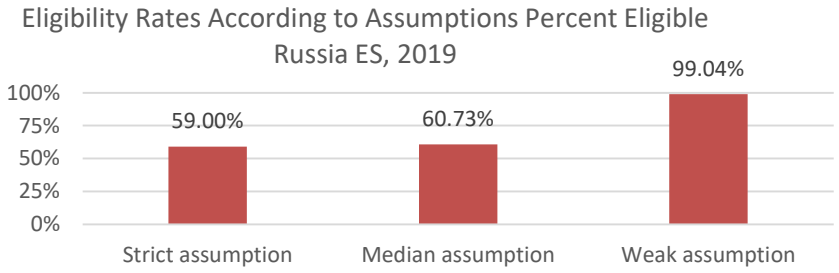
Response Outcomes: Russia ES 2019

Target and totals	Sample target	1320
	Sample target completion rate	100.2%
	Total contacts available in frame	699876
	Total contacts issued	5938
	Total contacts contacted	5195
Screening phase	Screening in process	0
	Eligibles	3065
	Screener refusal	79
	Ineligible + out of target	50
	Unobtainable	2001
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	1323
	Eligible in process + incomplete interviews	0
	Interview refusal	1741
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	1.5%
	Ineligible + out of target rate	1.0%
	Unobtainable rate	38.5%
	Interview conversion rate	25.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	33.5%

A.32.3. Universe estimates

Universe estimates for the number of establishments in each cell in Russia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Russia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	1415	797	1015	1994	972	9028	13019	68706	**117648**
	Medium (20-99)	334	52	205	244	204	1193	826	13029	
	Large (100 or more)	271	7	71	73	78	513	222	3379	
South	Small (5-19)	674	185	485	644	273	2037	4423	18576	**30739**
	Medium (20-99)	139	0	64	57	42	203	210	1959	
	Large (100 or more)	78	0	20	17	7	85	38	519	
	Medium and Large (20+)	0	5	0	0	0	0	0	0	
North-West	Small (5-19)	498	262	357	1079	380	3427	3889	26894	**43010**
	Medium (20-99)	106	0	63	134	69	444	237	3903	
	Large (100 or more)	68	0	29	26	31	176	57	868	
	Medium and Large (20+)	0	12	0	0	0	0	0	0	
Far Eastern	Small (5-19)	185	0	115	99	25	573	1920	7051	**11300**
	Medium (20-99)	30	0	0	0	0	38	121	846	
	Large (100 or more)	17	0	0	0	0	17	22	159	
	Small and Medium (5-99)	0	49	0	0	0	0	0	0	
	Medium and Large (20+)	0	0	13	13	7	0	0	0	
Siberian	Small (5-19)	917	288	503	974	331	3365	6134	26558	**43240**
	Medium (20-99)	122	0	66	80	40	262	350	2592	
	Large (100 or more)	49	0	18	14	11	89	52	419	
	Medium and Large (20+)	0	6	0	0	0	0	0	0	
Ural	Small (5-19)	281	111	358	825	320	1967	2420	15737	**24482**
	Medium (20-99)	36	2	45	81	40	183	125	1528	
	Large (100 or more)	23	0	22	20	19	84	24	232	
Volga	Small (5-19)	920	373	737	1506	532	4942	6541	33273	**55080**
	Medium (20-99)	181	0	144	154	98	549	445	3438	
	Large (100 or more)	117	0	43	35	71	296	53	616	
	Medium and Large (20+)	0	16	0	0	0	0	0	0	
		6459	**2165**	**4374**	**8069**	**3550**	**29471**	**41127**	**230282**	**325498**

Median Universe Estimates – Fresh:

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	1632	942	1149	2278	1109	10530	15327	82754	**139339**
	Medium (20-99)	370	59	222	267	223	1334	933	15044	
	Large (100 or more)	293	7	76	78	83	562	246	3823	
South	Small (5-19)	699	197	494	662	280	2138	4686	20134	**32814**
	Medium (20-99)	138	0	63	56	41	205	213	2035	
	Large (100 or more)	76	0	19	16	6	84	38	528	
	Medium and Large (20+)	0	5	0	0	0	0	0	0	
North-West	Small (5-19)	517	279	364	1111	391	3602	4126	29194	**45980**
	Medium (20-99)	106	0	62	133	68	447	241	4062	
	Large (100 or more)	67	0	27	25	30	174	57	885	
	Medium and Large (20+)	0	13	0	0	0	0	0	0	
Far Eastern	Small (5-19)	194	0	119	103	26	608	2059	7734	**12228**
	Medium (20-99)	30	0	0	0	0	39	125	889	
	Large (100 or more)	17	0	0	0	0	17	22	164	
	Small and Medium (5-99)	0	49	0	0	0	0	0	0	
	Medium and Large (20+)	0	0	13	13	7	0	0	0	
Siberian	Small (5-19)	951	307	512	1000	340	3531	6497	28779	**46193**
	Medium (20-99)	121	0	65	78	40	263	355	2693	
	Large (100 or more)	48	0	17	13	11	88	51	427	
	Medium and Large (20+)	0	6	0	0	0	0	0	0	
Ural	Small (5-19)	291	118	365	849	329	2067	2567	17079	**26192**
	Medium (20-99)	35	2	44	80	40	184	127	1589	
	Large (100 or more)	22	0	21	19	18	83	24	236	
Volga	Small (5-19)	954	396	750	1547	546	5184	6926	36048	**58740**
	Medium (20-99)	180	0	141	152	97	553	451	3571	
	Large (100 or more)	114	0	41	34	68	291	52	627	
	Medium and Large (20+)	0	16	0	0	0	0	0	0	
		6854	**2395**	**4564**	**8516**	**3753**	**31985**	**45123**	**258296**	**361486**

Weak Universe Estimates – Fresh:

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central	Small (5-19)	2550	1511	1956	3705	1840	18250	29618	150449	**249794**
	Medium (20-99)	559	91	366	420	358	2236	1743	26453	
	Large (100 or more)	380	10	107	106	114	808	394	5770	
South	Small (5-19)	1222	353	941	1205	520	4145	10129	40943	**66089**
	Medium (20-99)	233	0	115	99	74	384	445	4002	
	Large (100 or more)	110	0	31	25	10	135	68	892	
	Medium and Large (20+)	0	9	0	0	0	0	0	0	
North-West	Small (5-19)	851	471	652	1902	682	6573	8395	55874	**86791**
	Medium (20-99)	169	0	107	220	115	789	474	7518	
	Large (100 or more)	91	0	41	36	43	263	96	1407	
	Medium and Large (20+)	0	21	0	0	0	0	0	0	
Far Eastern	Small (5-19)	330	0	221	183	48	1150	4338	15333	**24162**
	Medium (20-99)	50	0	0	0	0	71	254	1705	
	Large (100 or more)	24	0	0	0	0	27	38	269	
	Small and Medium (5-99)	0	61	0	0	0	0	0	0	
	Medium and Large (20+)	0	0	24	24	13	0	0	0	
Siberian	Small (5-19)	1571	520	921	1719	596	6464	13262	55270	**88032**
	Medium (20-99)	193	0	113	130	67	466	701	5002	
	Large (100 or more)	66	0	26	19	16	134	87	680	
	Medium and Large (20+)	0	11	0	0	0	0	0	0	
Ural	Small (5-19)	604	252	825	1833	724	4756	6585	41209	**62473**
	Medium (20-99)	71	5	95	167	85	410	316	3709	
	Large (100 or more)	38	0	40	35	34	159	50	473	
Volga	Small (5-19)	1652	704	1416	2788	1003	9955	14829	72612	**116890**
	Medium (20-99)	301	0	257	265	172	1026	934	6957	
	Large (100 or more)	164	0	64	50	103	465	93	1048	
	Medium and Large (20+)	0	29	0	0	0	0	0	0	
		11228	**4050**	**8318**	**14930**	**6617**	**58663**	**92849**	**497576**	**694232**

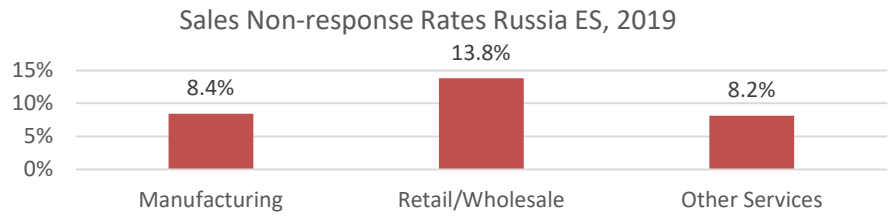
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.32.4. Non-response

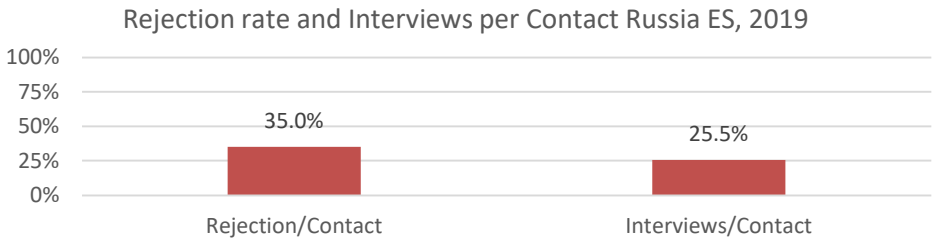
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.26.[65] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.35.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Russia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[65] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.32.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Region: Russia Ipsos LLC in Russia is ISO 20252:2012 and ISO 9001:2015 certified to comply to international standard for Social Opinion and Market Research. As the member of ESOMAR, we subscribe to the ICC/ESOMAR International Code On Market And Social Research and ensure compliance of every aspect of our work with the standards set by the Code. Ipsos in Russia is a member of the non-profit organization Association of Enterprises of the Goods and Services Industry for Children (AIDT), which unites the professional community in the development, production, sale of goods and services for children and families with children. Activities since: 1998
Enumerators involved:	Enumerators: 74 Recruiters: 30
Other staff involved:	Fieldwork Coordinators: 10 regional supervisors Editing: 1 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic database
Source:	FIRA
Year:	June 2018
Comments on the quality of sample frame:	The quality of the database was satisfactory, but it contained information on companies that had already closed, or the information was not accurate. We would like to note that for future projects it is necessary to add the column with company TIN number. This data helped to find more accurate contact information about the company, since the TIN is assigned to all registered companies in Russia by the Government. Also, in the Russian databases there is no gradation according to the number of company employees. Companies are divided by turnover, therefore, during the initial analysis of the databases it was difficult to isolate suitable companies for the survey.

Sample:

Comments/ problems for particular regions:	There are a number of business environment surveys conducted in certain regions of Russia in recent years. In regions such as the Urals, Siberia, the Center, and North-West, B2B surveys are conducted more often, so it was easier to recruit respondents in these regions, they were more willing to participate. In the Far East, there were difficulties with Manufacturing companies. Factories are located in cities which are remote and difficult to reach. In addition, almost all manufacturing enterprises in this region had a very strict system for processing the invitation letters that were sent to potential respondents so it was difficult to reach the relevant managers in a timely manner. Companies

	involved in retail trade and other services are represented in this region, so it was easier to gain their participation.
Comments on the response rate:	43%of the business leaders who were invited to participate in the study agreed to participate in the study. This is a high response rate for Russia.
Comments on the sample design:	Among the industries that are hard to recruit, we can distinguish companies that are engaged in metallurgical production, the production of petroleum products, and chemicals. This is due to their secrecy and access control at enterprises.
Other comments:	No

Fieldwork

Date of Fieldwork	6 December 2018 to 26 July 2019
Country	Russia
Number of interviews	1320
Problems found during fieldwork:	High refusal rate Long interview length Reluctance of respondents to disclose financial information
Other observations:	The general attitude of the respondents to the survey was quite positive except disclosure of financial information

Questionnaires

Problems for the understanding of questions (indicate question number)	C7, C8a, C8b, BMt1, J2
Problems found in the navigability of –questionnaires (for example, skip patterns).	No problems.
Comments on questionnaires length:	About 70% of respondents complained about the excessive length of the interview.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/Region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	The political and economic situation was quite positive in Russia during the field period. According to the results of the first half of the year, the Ministry of Economic Development estimates the growth of Russia's GDP at 0.7%. Annual inflation in the Russian Federation as of July 15 fell to 4.5%. In the World Bank's 'Doing Business 2019 rating' Russia has the 31st position among 190 EMEA countries. During the field period there were no aspects that could affect the results of the survey.
Relevant country events occurred during fieldwork:	Russia is regularly used as a destination for large international economic forums that attract companies and investors from all over

	the world. Below are the biggest events that were held during fieldwork (but which did not have an impact on fieldwork): 1) Russian Investment Forum in Sochi (14-15th of February 2019) The Russian Investment Forum is a traditional platform for presenting the investment and economic potential of Russia. 2) Russian Business Week 2019 (11-15th of March 2019). The Russian Union of Industrialists and Entrepreneurs (RSPP) holds the annual Week of Russian Business - a key event at which proposals are formulated and discussed on relevant areas of government-business interaction 3) St. Petersburg International Economic Forum (6-9th of June 2019) This forum is a leading global platform for communication between representatives of the business community and discussion of key economic issues facing Russia, emerging markets and worldwide in general
Other aspects:	No

A.33 Serbia

A.33.1. Sampling structure and implementation

The sample frame consisted of listings of a mix of establishments and firms from two sources: for panel firms, the list of 360 firms from the Serbia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments and firms from the Statistical Office of the Business Registers Agency (SBRA) was used. The establishments and firms in the listing are all registered with the Business Registers Agency (SBRA).

Regional stratification was done across four regions: Belgrade, Šumadija and Western Serbia, Southern and Eastern Serbia, and Vojvodina. For the purposes of achieving the thresholds for representativeness, the ES indicators are calculated with some regions combined. In particular, Šumadija and Western Serbia, and Southern and Eastern Serbia are combined.

NUTS 2 regions	**Grouping to be used for stratification purposes in BEEPS VI**
Vojvodina	Vojvodina
Belgrade	Belgrade
Šumadija and Western Serbia	Šumadija and Western Serbia
Southern and Eastern Serbia	Southern and Eastern Serbia

Serbia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	**Retail**	**Other Services**	**Grand Total**
Belgrade	Small (5-19)	1040	448	3862	**7291**
	Medium (20-99)	418	115	1044	
	Large (100 or more)	102	55	207	
Šumadija and Western Serbia	Small (5-19)	1123	311	1709	**4357**
	Medium (20-99)	532	72	369	
	Large (100 or more)	174	8	59	
Southern and Eastern Serbia	Small (5-19)	524	229	1042	**2453**

	Medium (20-99)	255	45	210	
	Large (100 or more)	105	13	30	
Vojvodina	Small (5-19)	906	352	2119	**4722**
	Medium (20-99)	468	67	514	
	Large (100 or more)	188	23	85	
		5835	**1738**	**11250**	**18823**

Source: World Bank and Business Registers Agency (SBRA)

Serbia Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	20	15	19	**116**
	Medium (20-99)	7	13	19	
	Large (100 or more)	4	11	8	
Šumadija and Western Serbia	Small (5-19)	17	11	18	**78**
	Medium (20-99)	10	8	7	
	Large (100 or more)	4	2	1	
Southern and Eastern Serbia	Small (5-19)	12	13	16	**66**
	Medium (20-99)	5	9	5	
	Large (100 or more)	2	2	2	
Vojvodina	Small (5-19)	14	17	24	**100**
	Medium (20-99)	13	7	9	
	Large (100 or more)	6	8	2	
		114	**116**	**130**	**360**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	10	5	10	**58**
	Medium (20-99)	4	3	7	
	Large (100 or more)	7	9	3	
Šumadija and Western Serbia	Small (5-19)	4	3	8	**34**
	Medium (20-99)	3	3	3	
	Large (100 or more)	4	3	3	
Southern and Eastern Serbia	Small (5-19)	3	3	4	**30**
	Medium (20-99)	3	3	3	
	Large (100 or more)	3	5	3	
Vojvodina	Small (5-19)	6	4	10	**57**
	Medium (20-99)	4	9	3	
	Large (100 or more)	10	7	4	
		61	**57**	**61**	**179**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	6	8	10	**62**
	Medium (20-99)	6	9	9	
	Large (100 or more)	3	8	3	
Šumadija and Western Serbia	Small (5-19)	8	2	10	**36**

	Medium (20-99)	4	4	2	
	Large (100 or more)	3	2	1	
Southern and Eastern Serbia	Small (5-19)	2	2	2	**20**
	Medium (20-99)	2	4	2	
	Large (100 or more)	2	2	2	
Vojvodina	Small (5-19)	10	10	10	**63**
	Medium (20-99)	9	5	6	
	Large (100 or more)	4	7	2	
		59	**63**	**59**	**181**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 7.0% (69 out of 988 establishments).[66]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	19	7	24	**121**
	Medium (20-99)	8	12	13	
	Large (100 or more)	8	21	9	
Šumadija and Western Serbia	Small (5-19)	12	7	18	**74**
	Medium (20-99)	9	10	5	
	Large (100 or more)	8	2	3	
Southern and Eastern Serbia	Small (5-19)	6	6	6	**47**
	Medium (20-99)	5	6	5	
	Large (100 or more)	4	6	3	
Vojvodina	Small (5-19)	11	11	14	**119**
	Medium (20-99)	11	19	7	
	Large (100 or more)	23	7	16	
		124	**114**	**123**	**361**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	10	4	11	**54**
	Medium (20-99)	5	8	8	
	Large (100 or more)	1	5	2	
Šumadija and Western Serbia	Small (5-19)	8	4	10	**42**
	Medium (20-99)	6	7	2	
	Large (100 or more)	4	1	0	
Southern and Eastern Serbia	Small (5-19)	2	3	2	**14**
	Medium (20-99)	2	3	2	
	Large (100 or more)	0	0	0	
Vojvodina	Small (5-19)	6	5	6	**35**
	Medium (20-99)	6	3	4	
	Large (100 or more)	3	1	1	

[66] Based on out of target and ineligible contacts.

		53	44	48	145

A.33.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
404	**Eligible**	1. Eligible establishment (Correct name and address)	367
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	2
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	5
		4. Eligible establishment (Moved and traced)	15
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	15
438	**Screener refusal**	13. Refuses to answer the screener	438
67	**Ineligible**	5. The establishment has less than 5 permanent full time employees	6
		616. The firm discontinued businesses - (Establishment went bankrupt)	7
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	3
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	4
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	19
		621. The firm discontinued businesses - (Other)	17
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	0
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	11
2	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	2
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
77	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	45
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	32

988	Total contacted

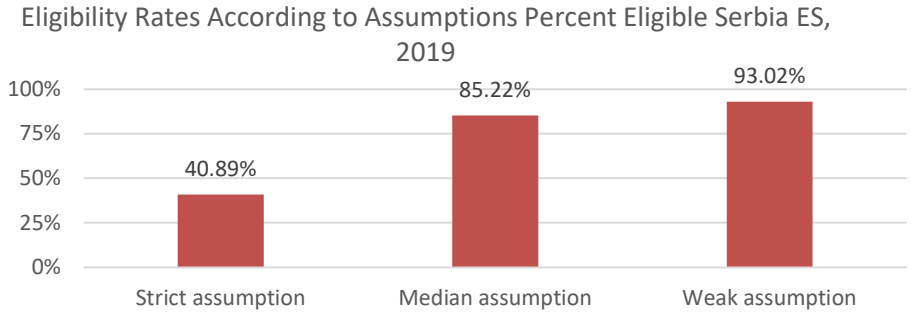
Response Outcomes: Serbia ES 2019

Target and totals	Sample target	360
	Sample target completion rate	100.3%
	Total contacts available in frame	18823
	Total contacts issued	1134
	Total contacts contacted	988
Screening phase	Screening in process	0
	Eligibles	404
	Screener refusal	438
	Ineligible + out of target	69
	Unobtainable	77
Interview phase (only if eligible)	Complete interviews without extra module	1
	Complete interviews with extra module	360
	Eligible in process + incomplete interviews	0
	Interview refusal	43
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	44.3%
	Ineligible + out of target rate	7.0%
	Unobtainable rate	7.8%
	Interview conversion rate	36.5%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	4.4%

A.33.3. Universe estimates

Universe estimates for the number of establishments in each cell in Serbia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Serbia were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	331	148	937	**2122**
	Medium (20-99)	179	51	340	
	Large (100 or more)	44	25	68	
Šumadija and Western Serbia	Small (5-19)	455	131	528	**1721**
	Medium (20-99)	289	41	153	
	Large (100 or more)	95	5	25	
Southern and Eastern Serbia	Small (5-19)	294	133	445	**1326**
	Medium (20-99)	192	35	120	
	Large (100 or more)	79	10	17	
Vojvodina	Small (5-19)	240	97	428	**1195**
	Medium (20-99)	166	25	139	
	Large (100 or more)	67	9	23	
		2432	**708**	**3226**	**6364**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	832	362	3018	**5945**
	Medium (20-99)	376	105	918	
	Large (100 or more)	95	52	187	
Šumadija and Western Serbia	Small (5-19)	949	266	1410	**3777**
	Medium (20-99)	506	69	343	
	Large (100 or more)	170	8	56	
Southern and Eastern Serbia	Small (5-19)	415	183	805	**1988**
	Medium (20-99)	227	40	183	
	Large (100 or more)	96	12	27	
Vojvodina	Small (5-19)	763	300	1743	**4075**
	Medium (20-99)	443	64	476	
	Large (100 or more)	183	23	81	
		5055	**1484**	**9247**	**15786**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Belgrade	Small (5-19)	973	430	3658	**6949**
	Medium (20-99)	402	113	1016	
	Large (100 or more)	99	55	203	
Šumadija and Western Serbia	Small (5-19)	1012	287	1559	**3991**
	Medium (20-99)	493	68	346	
	Large (100 or more)	162	8	56	
Southern and Eastern Serbia	Small (5-19)	467	209	941	**2225**
	Medium (20-99)	234	42	195	
	Large (100 or more)	97	12	28	
Vojvodina	Small (5-19)	863	344	2043	**4578**
	Medium (20-99)	458	67	509	
	Large (100 or more)	186	23	85	
		5445	**1660**	**10638**	**17743**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

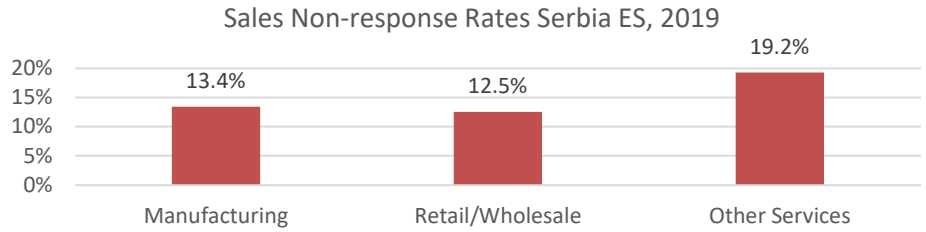
A.33.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

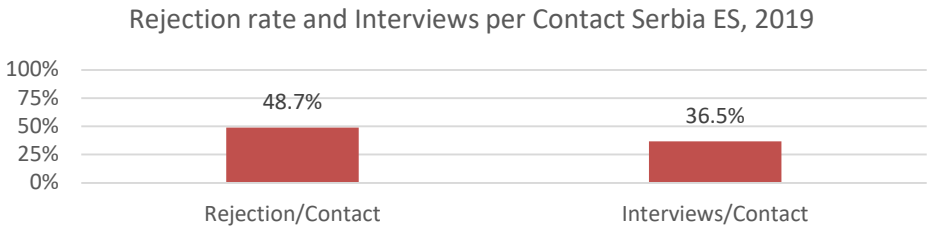
Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).

b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.37.[67] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.49.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Serbia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[67] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.33.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Region: Serbia Membership of international organizations: ESOMAR Activities since: 2005
Enumerators involved:	Enumerators only: 4 Recruiters only: 3 Recruiters and enumerators: 32
Other staff involved:	Fieldwork Coordinators: 8 regional supervisors Editing: 1 Data Entry: 0 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	Statistical Office of the Republic of Serbia
Year:	December 2017
Comments on the quality of sample frame:	The quality of the sample frame was generally good although it did contain some out of date information, including businesses that were no longer in operation and the number of employees was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: The most difficult regions to work in were Vojvodina and Belgrade, where most refusals were encountered. Many businesses were also hard to find as they had changed names or had gone bankrupt. In general, large companies were hardest to reach.
Comments on the response rate:	We expected a higher response rate in Vojvodina.
Comments on the sample design:	No comments.
Other comments:	No

Fieldwork

Date of Fieldwork	5 December 2018 to 30 September 2019
Country	Serbia
Number of interviews	360
Problems found during fieldwork:	Sample frame was not fully up to date (see above). There were problems with realization because of the position of respondents in the company and the length of the survey (senior management, mostly busy with business obligations and not having so much time to spend on research). For many prospective respondents, the topic of the research is sensitive, and additional assurances of anonymity were required to consent to the research.
Other observations:	The general attitude of the respondents to the survey was quite positive. Even refusals were mostly polite and tactful.

Questionnaires

Problems for the understanding of questions (indicate question number)	No significant problems were identified.
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	We can say that majority of respondents complained about the length of the interview or had comments on this.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	During the fieldwork period the general political and economic situation was fairly calm in Serbia. There were elections for President of the Republic, but they were held without any problems or post-election crisis.
Relevant country events occurred during fieldwork:	No
Other aspects:	No

A.34 Slovak Republic

A.34.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 268 firms from the Slovakia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from Albertina was used.

Regional stratification for the Slovakia ES was done across four regions: Bratislava Region, Western Slovakia (Západné Slovensko), Central Slovakia (Stredné Slovensko) and Eastern Slovakia (Východné Slovensko).

NUTS regions	**NUTS regions**	**Grouping used for stratification purposes in BEEPS VI**
Bratislava Region	Bratislava Region	Bratislava Region
Trnava Region	Western Slovakia (Západné Slovensko)	Western Slovakia (Západné Slovensko)
Trenčín Region		
Nitra Region		
Žilina Region	Central Slovakia (Stredné Slovensko)	Central Slovakia (Stredné Slovensko)
Banská Bystrica Region		
Prešov Region	Eastern Slovakia (Východné Slovensko)	Eastern Slovakia (Východné Slovensko)
Košice Region		

Slovakia ES Sample Frame (Fresh and Panel)

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	135	802	1138	3660	**8353**
	Medium (20-99)	60	344	237	1209	
	Large (100 or more)	21	187	111	449	
Western Slovakia (Západné Slovensko)	Small (5-19)	342	1548	1127	4256	**10466**
	Medium (20-99)	180	942	196	1062	
	Large (100 or more)	65	497	50	201	
Central Slovakia (Stredné Slovensko)	Small (5-19)	202	977	871	3095	**7290**
	Medium (20-99)	113	624	145	685	
	Large (100 or more)	41	352	54	131	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	205	931	1157	2975	**7396**
	Medium (20-99)	121	643	132	743	
	Large (100 or more)	43	278	31	137	
		1528	**8125**	**5249**	**18603**	**33505**

Source: World Bank and Albertina

Slovakia Sample Frame (Panel)

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	0	11	13	14	**69**
	Medium (20-99)	0	2	6	9	
	Large (100 or more)	0	6	2	6	
Western Slovakia (Západné Slovensko)	Small (5-19)	4	10	15	17	**84**
	Medium (20-99)	3	12	6	7	
	Large (100 or more)	0	6	3	1	
Central Slovakia (Stredné Slovensko)	Small (5-19)	1	6	10	12	**54**
	Medium (20-99)	2	7	5	4	
	Large (100 or more)	2	3	1	1	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	1	10	9	13	**61**
	Medium (20-99)	1	10	7	3	
	Large (100 or more)	2	2	1	2	
		16	**85**	**78**	**89**	**268**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design (Fresh)

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	11	3	3	4	**64**
	Medium (20-99)	6	3	3	3	
	Large (100 or more)	3	7	12	6	
Western Slovakia (Západné Slovensko)	Small (5-19)	7	3	3	8	**56**
	Medium (20-99)	6	3	3	3	
	Large (100 or more)	8	3	6	3	
Central Slovakia (Stredné Slovensko)	Small (5-19)	15	3	4	3	**75**
	Medium (20-99)	13	3	3	3	
	Large (100 or more)	5	11	6	6	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	14	3	7	3	**70**
	Medium (20-99)	13	3	3	3	

	Large (100 or more)	5	8	4	4	
		106	**53**	**57**	**49**	**265**

Original Sample Design (Panel)

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	0	9	10	11	**56**
	Medium (20-99)	0	2	5	7	
	Large (100 or more)	0	5	2	5	
Western Slovakia (Západné Slovensko)	Small (5-19)	3	8	12	14	**64**
	Medium (20-99)	2	7	5	5	
	Large (100 or more)	0	5	2	1	
Central Slovakia (Stredné Slovensko)	Small (5-19)	1	5	8	10	**45**
	Medium (20-99)	2	6	4	3	
	Large (100 or more)	2	2	1	1	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	1	8	7	10	**50**
	Medium (20-99)	1	8	6	2	
	Large (100 or more)	2	2	1	2	
		14	**67**	**63**	**71**	**215**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 11.1% (913 out of 8189 establishments).[68]

For the Slovakia 2019 ES, the fieldwork ended due to the COVID-19 outbreak and sample exhaustion. Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	2	22	26	19	**119**
	Medium (20-99)	0	7	8	9	
	Large (100 or more)	0	6	2	16	
	Medium and Large (20+)	2	0	0	0	
Western Slovakia (Západné Slovensko)	Small (5-19)	15	9	18	29	**120**
	Medium (20-99)	10	8	4	7	
	Large (100 or more)	4	10	1	5	
Central Slovakia (Stredné Slovensko)	Small (5-19)	20	5	25	14	**114**
	Medium (20-99)	5	6	3	6	
	Large (100 or more)	3	15	5	7	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	9	6	15	9	**76**
	Medium (20-99)	6	6	4	3	
	Large (100 or more)	3	10	2	3	
		79	**110**	**113**	**127**	**429**

[68] Based on out of target and ineligible contacts.

Achieved Interviews (Panel)

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	0	3	0	0	**4**
	Large (100 or more)	0	1	0	0	
Western Slovakia (Západné Slovensko)	Small (5-19)	0	2	1	5	**13**
	Medium (20-99)	0	1	0	3	
	Large (100 or more)	0	0	1	0	
Central Slovakia (Stredné Slovensko)	Small (5-19)	1	1	4	1	**12**
	Medium (20-99)	0	2	1	1	
	Large (100 or more)	0	0	0	1	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	0	1	1	2	**7**
	Medium (20-99)	0	2	1	0	
		1	**13**	**9**	**13**	**36**

A.34.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
530	**Eligible**	1. Eligible establishment (Correct name and address)	529
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
4245	**Screener refusal**	13. Refuses to answer the screener	4245
211	**Ineligible**	5. The establishment has less than 5 permanent full time employees	19
		616. The firm discontinued businesses - (Establishment went bankrupt)	82
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	5
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	4
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	7
		621. The firm discontinued businesses - (Other)	63
		71. Ineligible legal status: not a business, but private household	18
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	7
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	6
702	**Out of Target**	151. Out of target - outside the covered regions	1
		152. Out of target - moved abroad	10
		153. Out of target - Not registered with Statistical Authority	1
		154. Out of target - establishment is HQ without production or sales of goods or services	0

		155. Out of target - establishment was not in operation for the entirety of last fiscal year	2
		156. Duplicated firm within the sample	682
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	6
2501	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	1573
		92. Line out of order	100
		93. No tone	93
		94. Phone number does not exist	383
		10. Answering machine	295
		11. Fax line- data line	11
		12. Wrong address/ moved away and could not get the new references	46
8189	**Total contacted**		

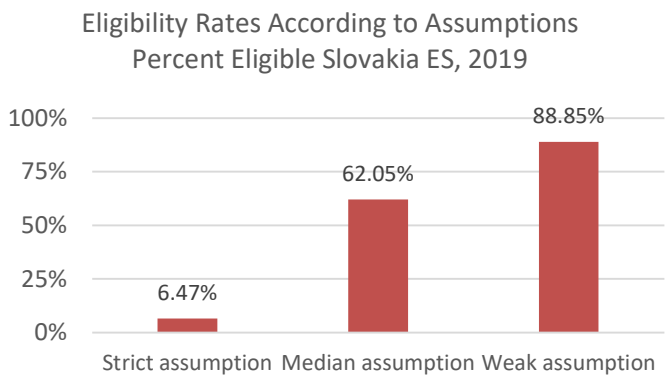
Response Outcomes: Slovakia ES 2019:

Target and totals	Sample target	429
	Sample target completion rate	100.0%
	Total contacts available in frame	33505
	Total contacts issued	8938
	Total contacts contacted	8189
Screening phase	Screening in process	0
	Eligibles	530
	Screener refusal	4245
	Ineligible + out of target	913
	Unobtainable	2501
Interview phase (only if eligible)	Complete interviews without extra module	3
	Complete interviews with extra module	426
	Eligible in process + incomplete interviews	0
	Interview refusal	101
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	51.8%
	Ineligible + out of target rate	11.1%
	Unobtainable rate	30.5%
	Interview conversion rate	5.2%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	1.2%

A.34.3. Universe estimates

Universe estimates for the number of establishments in each cell in Slovakia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Slovakia were produced for the strict, weak and median eligibility definitions. Tables below shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Strict Universe Estimates – Fresh:

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	8	26	54	235	**436**
	Medium (20-99)	0	8	8	58	
	Large (100 or more)	0	6	4	24	
	Medium and Large (20+)	3	0	0	0	
Western Slovakia (Západné Slovensko)	Small (5-19)	44	113	119	611	**1151**
	Medium (20-99)	17	51	15	113	
	Large (100 or more)	7	31	4	24	
Central Slovakia (Stredné Slovensko)	Small (5-19)	25	69	89	429	**782**
	Medium (20-99)	10	33	11	71	
	Large (100 or more)	4	21	5	15	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	12	31	56	194	**379**
	Medium (20-99)	6	16	5	36	
	Large (100 or more)	3	10	2	8	
		141	**415**	**372**	**1819**	**2748**

Median Universe Estimates – Fresh:

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	94	497	781	2600	**5477**
	Medium (20-99)	0	183	136	728	
	Large (100 or more)	0	94	62	261	
	Medium and Large (20+)	42	0	0	0	
Western Slovakia (Západné Slovensko)	Small (5-19)	223	919	733	2873	**6454**
	Medium (20-99)	99	473	107	608	
	Large (100 or more)	35	242	30	112	
Central Slovakia (Stredné Slovensko)	Small (5-19)	137	600	587	2160	**4663**
	Medium (20-99)	64	324	81	406	
	Large (100 or more)	22	178	30	75	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	144	591	814	2158	**4928**
	Medium (20-99)	72	346	75	459	
	Large (100 or more)	24	146	18	81	

		956	**4593**	**3454**	**12520**	**21522**

Weak Universe Estimates – Fresh:

		Food	Other Manufacturing	Retail	Other Services	Grand Total
Bratislava Region	Small (5-19)	119	734	1078	3612	**7797**
	Medium (20-99)	0	293	205	1099	
	Large (100 or more)	0	140	87	365	
	Medium and Large (20+)	65	0	0	0	
Western Slovakia (Západné Slovensko)	Small (5-19)	304	1451	1084	4271	**9868**
	Medium (20-99)	147	811	171	983	
	Large (100 or more)	49	386	44	168	
Central Slovakia (Stredné Slovensko)	Small (5-19)	178	904	828	3066	**6798**
	Medium (20-99)	91	531	124	626	
	Large (100 or more)	29	270	42	108	
Eastern Slovakia (Východné Slovensko)	Small (5-19)	180	853	1097	2928	**6862**
	Medium (20-99)	98	542	110	676	
	Large (100 or more)	30	213	24	111	
		1290	**7128**	**4894**	**18012**	**31325**

Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.34.4. Non-Response

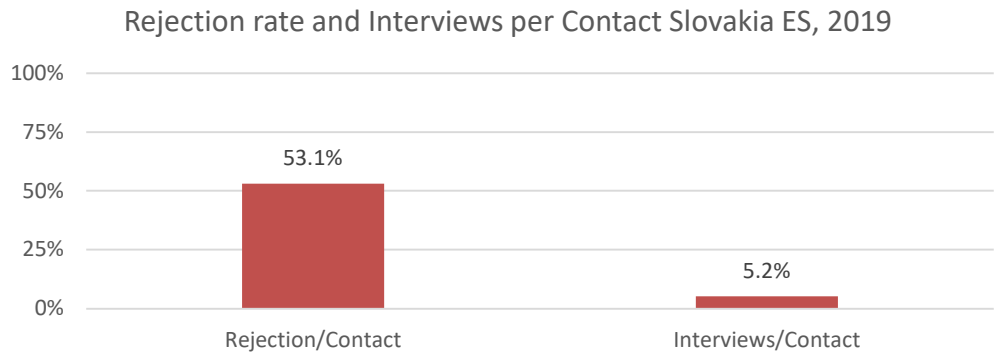
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. For this survey there were zero non-responses for the sales variable, d2. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.

As the following graph shows, the number of interviews per contacted establishments was 0.05.[69] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.53.

[69] The estimate is based on the total no. of firms contacted including ineligible establishments.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Slovakia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.35 Slovenia

A.35.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 270 firms from the Slovenia 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of firms from Bisnode was used. The firms in the listing are all registered at the electronic One-stop shop - E-vem.

Regional stratification was done across two regions: Eastern Slovenia (NUTS code SI03) and Western Slovenia (SI04).

NUTS-3 regions	Grouping (NUTS-2 regions)
Pomurska	Eastern Slovenija
Podravska	
Koroska	
Savinjska	
Zasavska	
Spodnjeposavska	
Jugovzhodna Slovenija	
Notranjsko-kraska	
Osrednjeslovenska	Western Slovenija
Gorenjska	
Goriska	
Obalno-kraska	

Slovenia ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	969	233	2025	**4264**
	Medium (20-99)	412	45	382	
	Large (100 or more)	147	9	42	

Western Slovenia	Small (5-19)	1299	341	3339	**6436**
	Medium (20-99)	396	71	714	
	Large (100 or more)	146	26	104	
		3369	**725**	**6606**	**10700**

Source: World Bank and Bisnode

Slovenia Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	23	19	37	**135**
	Medium (20-99)	13	17	10	
	Large (100 or more)	9	4	3	
Western Slovenia	Small (5-19)	24	20	30	**135**
	Medium (20-99)	10	16	11	
	Large (100 or more)	6	13	5	
		85	**89**	**96**	**270**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	8	16	15	**115**
	Medium (20-99)	25	8	4	
	Large (100 or more)	25	2	12	
Western Slovenia	Small (5-19)	7	3	22	**119**
	Medium (20-99)	15	17	4	
	Large (100 or more)	25	4	22	
		105	**50**	**79**	**234**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	5	14	23	**85**
	Medium (20-99)	10	14	7	
	Large (100 or more)	7	3	2	
Western Slovenia	Small (5-19)	3	16	23	**81**
	Medium (20-99)	5	13	3	
	Large (100 or more)	5	10	3	
		35	**70**	**61**	**166**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 3.5% (147 out of 4199 establishments).[70]

[70] Based on out of target and ineligible contacts.

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	31	25	33	**206**
	Medium (20-99)	37	10	40	
	Large (100 or more)	24	1	5	
Western Slovenia	Small (5-19)	17	27	46	**203**
	Medium (20-99)	39	10	31	
	Large (100 or more)	22	4	7	
		170	**77**	**162**	**409**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	6	6	10	**40**
	Medium (20-99)	2	7	3	
	Large (100 or more)	5	1	0	
Western Slovenia	Small (5-19)	6	4	9	**39**
	Medium (20-99)	5	5	2	
	Large (100 or more)	2	4	2	
		26	**27**	**26**	**79**

A.35.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
970	**Eligible**	1. Eligible establishment (Correct name and address)	944
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	1
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	16
		4. Eligible establishment (Moved and traced)	3
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	6
2596	**Screener refusal**	13. Refuses to answer the screener	2596
47	**Ineligible**	5. The establishment has less than 5 permanent full time employees	13
		616. The firm discontinued businesses - (Establishment went bankrupt)	8
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	0
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	2
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	3
		621. The firm discontinued businesses - (Other)	4
		71. Ineligible legal status: not a business, but private household	1

		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	3
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	13
100	Out of Target	151. Out of target - outside the covered regions	2
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	0
		154. Out of target - establishment is HQ without production or sales of goods or services	1
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	0
		156. Duplicated firm within the sample	97
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
486	Unobtainable	91. No reply after having called in different days of the week and in different business hours	331
		92. Line out of order	0
		93. No tone	11
		94. Phone number does not exist	10
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	134
4199	Total contacted		

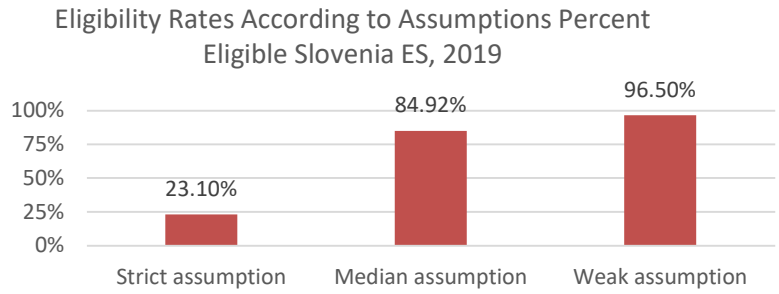
Response Outcomes: Slovenia ES 2019:

Target and totals	Sample target	400
	Sample target completion rate	102.3%
	Total contacts available in frame	10700
	Total contacts issued	4199
	Total contacts contacted	4199
Screening phase	Screening in process	0
	Eligibles	970
	Screener refusal	2596
	Ineligible + out of target	147
	Unobtainable	486
Interview phase (only if eligible)	Complete interviews without extra module	3
	Complete interviews with extra module	406
	Eligible in process + incomplete interviews	0
	Interview refusal	561
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	61.8%
	Ineligible + out of target rate	3.5%
	Unobtainable rate	11.6%
	Interview conversion rate	9.7%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	13.4%

A.35.3. Universe estimates

Universe estimates for the number of establishments in each cell in Slovenia were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Slovenia were produced for the strict, weak and median eligibility definitions. Table shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Universe

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	1402	361	2953	**6103**
	Medium (20-99)	540	52	506	
	Large (100 or more)	211	19	59	
Western Slovenia	Small (5-19)	1191	362	3579	**6520**
	Medium (20-99)	326	68	718	
	Large (100 or more)	126	41	109	
		3796	**903**	**7924**	**12623**

Note: The sampling frame used and the universe are from separate sources

Universe Estimates

		Manufacturing	Retail	Other Services	Grand Total
Eastern Slovenia	Small (5-19)	1402	361	2953	**6103**
	Medium (20-99)	540	52	506	
	Large (100 or more)	211	19	59	
Western Slovenia	Small (5-19)	1299	362	3579	**6721**
	Medium (20-99)	396	71	718	
	Large (100 or more)	146	41	109	
		3994	**906**	**7924**	**12824**

Note: Adjustments for strict, median and weak assumptions were not applied to universe estimates because the universe and the frame were from separate sources hence scenarios that apply to the frame cannot be assumed in the universe.

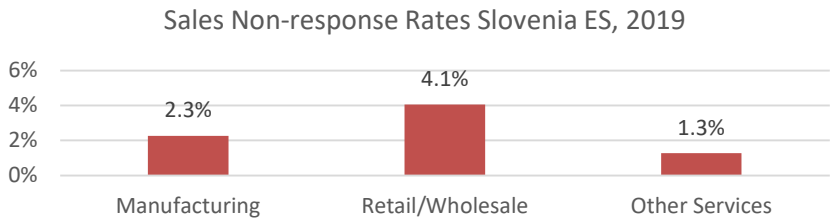
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.35.4. Non-Response

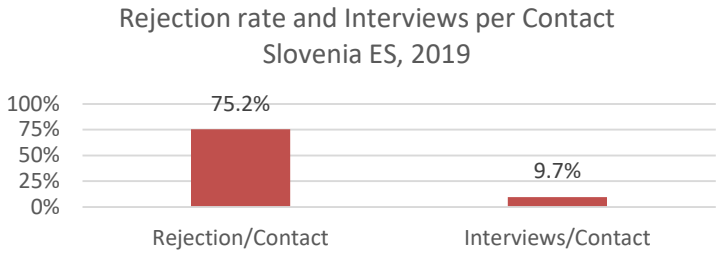
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.10.[71] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.75.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Slovenia. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[71] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.35.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Agency	Name: Ipsos Region: Slovenia One of the biggest research agencies in Slovenia, with the most comprehensive experience for social research, especially large F2F CAPI (or mixed mode) surveys with random probability sampling. Ipsos is a member of ESOMAR. Ipsos is a national partner of Study SuperBrands and National provider of Slovenian Online Audience Measurement Ipsos has also ISO standard 20252.
Recruiters involved:	Recruiters: 11. Interviewers: 35 Recruiters and Interviewers: 1
Other staff involved:	Data Processing: Ipsos was responsible for all data processing

Sample Frame*:*

Characteristic of sample frame used:	Electronic data base
Source:	Bisnode
Year:	July 2018
Comments on the quality of sample frame:	The sample frame was of reasonable quality. The main issues were telephone or email contact details which were incorrect or missing. The number of employees was also not always accurate. The sample contained some out of date information, including businesses that were no longer in operation and the number of employees was not always accurate or was missing.

Sample:

Comments/ problems for particular regions:	On regions: No problems regarding regions were detected.
Comments on the response rate:	The response rate was as expected. The sample for Slovenia was quite big. These wave 400 interviews had to be completed in comparison to previous wave, when 270 interviews were completed.
Comments on the sample design:	Slovenia needed the redesign of the sample. After redesign still some quotas were not able to be fulfilled. The most difficult sector to engage with/complete was the retail sector.
Other comments:	No

Fieldwork:

Date of Fieldwork	11 December 2018 to 25 November 2019
Country	Slovenia
Number of interviews	410
Problems found during fieldwork:	The sample frame had duplicated firms (panel vs. fresh). This was resolved in two ways. Firstly, local team conducted the second in-depth deduplication of sample during the fieldwork. Secondly, all duplicated firms were detected and only panel firms were interviewed. Weekly progress reports and database were updated in alignment with these actions The interview length meant that many business executives were reluctant to take part and recruiters had to work hard to convince them to participate.

	Some managers indicated that they were not allowed to participate in surveys concerning the activities of the enterprise, citing the terms of the contract, which included the clause - a trade secret.
Other observations:	The general attitude of the respondents to the survey was quite positive.

Questionnaires:

Problems for the understanding of questions (indicate question number)	No significant problems were identified.
Problems found in the navigability of – questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	Almost all respondents commented about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	The respondents comment it would be better to have an option for online interview.

Database

Data entry program chosen	iField
Comments on the data entry program	No
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	No significant aspects to be mentioned.
Relevant country events occurred during fieldwork:	In January mostly all companies have to provide the completed financial report to the AJPES so the fieldwork was slower. When recruiting they asked to be called after January. As Slovenia is small and there were a number of surveys in the field between March and May, by other survey companies, we were struggling with getting interviews with medium and large companies.
Other aspects:	No

A.36 Tajikistan

A.36.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 359 firms from the Tajikistan 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from the State Committee on Statistics of the Republic of Tajikistan was used. The establishments in the listing are all registered as businesses with the State Registry at the Ministry of Justice.

Regional stratification for the Tajikistan ES was done across four regions: Sughd, Dushanbe, Region of Republican Subordination, and Khatlon. For the purposes of achieving the thresholds

for representativeness, the ES indicators are calculated with some regions combined. In particular, Region of Republican Subordination and Khatlon are combined.

Official provinces	Grouping used for stratification purposes in BEEPS VI
Sughd	Sughd
RRP – Region of Republican Subordination	RRP – Region of Republican Subordination
	Dushanbe
Khatlon	Khatlon
Gorno-Badakhshan Autonomous Province	Not covered

Tajikistan ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	239	113	371	**1110**
	Medium (20-99)	160	25	142	
	Large (100 or more)	37	4	19	
Dushanbe	Small (5-19)	184	110	433	**1120**
	Medium (20-99)	93	40	179	
	Large (100 or more)	19	7	55	
Region of Republican Subordination	Small (5-19)	101	58	169	**487**
	Medium (20-99)	46	9	76	
	Large (100 or more)	9	2	17	
Khatlon	Small (5-19)	110	65	267	**651**
	Medium (20-99)	58	20	88	
	Large (100 or more)	22	6	15	
		1078	**459**	**1831**	**3368**

Source: World Bank and State Committee on Statistics of the Republic of Tajikistan

Tajikistan Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	27	23	10	**120**
	Medium (20-99)	14	13	20	
	Large (100 or more)	8	2	3	
Dushanbe	Small (5-19)	10	12	30	**112**
	Medium (20-99)	11	16	19	
	Large (100 or more)	5	4	5	
Region of Republican Subordination	Small (5-19)	12	14	5	**49**
	Medium (20-99)	4	4	4	
	Large (100 or more)	3	1	2	
Khatlon	Small (5-19)	12	11	16	**78**
	Medium (20-99)	13	10	12	
	Large (100 or more)	3	1	0	
		122	**111**	**126**	**359**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	8	4	13	**58**

	Medium (20-99)	6	5	5	
	Large (100 or more)	12	1	4	
Dushanbe	Small (5-19)	7	4	15	**57**
	Medium (20-99)	4	7	6	
	Large (100 or more)	6	1	7	
Region of Republican Subordination	Small (5-19)	4	4	6	**30**
	Medium (20-99)	3	2	3	
	Large (100 or more)	2	0	6	
Khatlon	Small (5-19)	4	3	9	**35**
	Medium (20-99)	2	2	3	
	Large (100 or more)	8	2	2	
		66	**35**	**79**	**180**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	7	17	5	**62**
	Medium (20-99)	11	10	2	
	Large (100 or more)	6	2	2	
Dushanbe	Small (5-19)	3	10	11	**63**
	Medium (20-99)	9	13	6	
	Large (100 or more)	4	3	4	
Region of Republican Subordination	Small (5-19)	3	11	2	**30**
	Medium (20-99)	3	3	3	
	Large (100 or more)	2	1	2	
Khatlon	Small (5-19)	2	6	2	**25**
	Medium (20-99)	2	8	2	
	Large (100 or more)	2	1	0	
		54	**85**	**41**	**180**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 15.9% (152 out of 955 establishments).[72]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	21	10	20	**123**
	Medium (20-99)	19	8	13	
	Large (100 or more)	25	3	4	
Dushanbe	Small (5-19)	10	20	21	**113**
	Medium (20-99)	10	19	14	
	Large (100 or more)	7	1	11	
Region of Republican Subordination	Small (5-19)	10	9	8	**49**
	Medium (20-99)	8	0	5	
	Large (100 or more)	3	0	4	
	Medium and Large (20+)	0	2	0	
Khatlon	Small (5-19)	6	6	15	**67**
	Medium (20-99)	8	7	6	

[72] Based on out of target and ineligible contacts.

	Large (100 or more)	12	4	3	
		139	**89**	**124**	**352**

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	12	5	4	**42**
	Medium (20-99)	5	3	6	
	Large (100 or more)	4	2	1	
Dushanbe	Small (5-19)	2	1	6	**26**
	Medium (20-99)	4	6	3	
	Large (100 or more)	1	1	2	
Region of Republican Subordination	Small (5-19)	6	3	2	**19**
	Medium (20-99)	3	0	2	
	Large (100 or more)	1	0	1	
	Medium and Large (20+)	0	1	0	
Khatlon	Small (5-19)	2	3	4	**28**
	Medium (20-99)	6	6	3	
	Large (100 or more)	3	1	0	
		49	**32**	**34**	**115**

A.36.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
372	**Eligible**	1. Eligible establishment (Correct name and address)	340
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	7
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	5
		4. Eligible establishment (Moved and traced)	14
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	6
347	**Screener refusal**	13. Refuses to answer the screener	347
167	**Ineligible**	5. The establishment has less than 5 permanent full time employees	10
		616. The firm discontinued businesses - (Establishment went bankrupt)	22
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	3
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	1
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	17
		621. The firm discontinued businesses - (Other)	23
		71. Ineligible legal status: not a business, but private household	10
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	10
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	71
6	**Out of Target**	151. Out of target - outside the covered regions	2
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	1

		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	2
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	1
63	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	4
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	59
955	**Total contacted**		

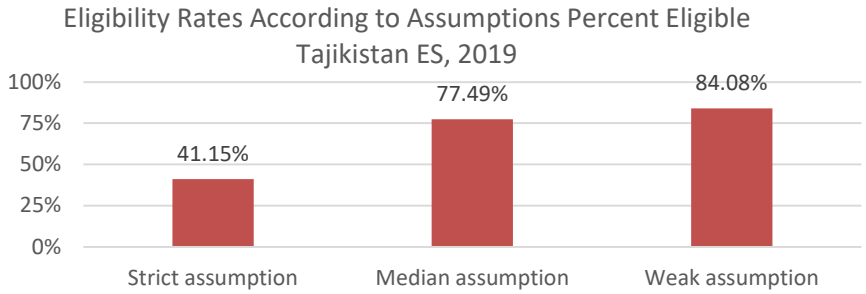
Response Outcomes: Tajikistan ES 2019

Target and totals	Sample target	360
	Sample target completion rate	97.8%
	Total contacts available in frame	3368
	Total contacts issued	992
	Total contacts contacted	955
Screening phase	Screening in process	0
	Eligibles	372
	Screener refusal	347
	Ineligible + out of target	173
	Unobtainable	63
Interview phase (only if eligible)	Complete interviews without extra module	16
	Complete interviews with extra module	336
	Eligible in process + incomplete interviews	0
	Interview refusal	20
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	36.3%
	Ineligible + out of target rate	18.1%
	Unobtainable rate	6.6%
	Interview conversion rate	36.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	2.1%

A.36.3. Universe estimates

Universe estimates for the number of establishments in each cell in Tajikistan were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Tajikistan were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	143	57	137	**575**
	Medium (20-99)	120	16	66	
	Large (100 or more)	26	3	7	
Dushanbe	Small (5-19)	75	38	109	**372**
	Medium (20-99)	48	20	56	
	Large (100 or more)	8	3	15	
Region of Republican Subordination	Small (5-19)	42	21	44	**167**
	Medium (20-99)	24	0	25	
	Large (100 or more)	4	0	5	
	Medium and Large (20+)	0	3	0	
Khatlon	Small (5-19)	58	29	87	**282**
	Medium (20-99)	38	11	36	
	Large (100 or more)	13	4	5	
		600	**205**	**591**	**1396**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	206	89	298	**910**
	Medium (20-99)	135	19	112	
	Large (100 or more)	31	4	15	
Dushanbe	Small (5-19)	139	77	306	**799**
	Medium (20-99)	69	28	124	
	Large (100 or more)	14	6	37	
Region of Republican Subordination	Small (5-19)	96	51	149	**439**
	Medium (20-99)	43	0	66	
	Large (100 or more)	8	0	14	
	Medium and Large (20+)	0	12	0	
Khatlon	Small (5-19)	100	54	226	**557**
	Medium (20-99)	52	16	73	
	Large (100 or more)	19	5	12	
		911	**361**	**1433**	**2705**

Weak Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
Sughd	Small (5-19)	231	107	330	**1006**

	Medium (20-99)	147	22	120	
	Large (100 or more)	31	4	14	
Dushanbe	Small (5-19)	161	94	349	**909**
	Medium (20-99)	77	33	137	
	Large (100 or more)	14	6	38	
Region of Republican Subordination	Small (5-19)	98	55	152	**445**
	Medium (20-99)	43	0	65	
	Large (100 or more)	7	0	13	
	Medium and Large (20+)	0	12	0	
Khatlon	Small (5-19)	110	63	246	**605**
	Medium (20-99)	55	19	77	
	Large (100 or more)	19	5	12	
		994	**420**	**1552**	**2966**

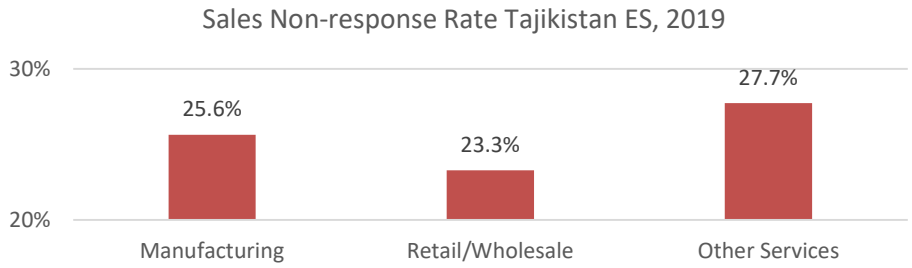
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.36.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.39.[73] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.38.

[73] The estimate is based on the total no. of firms contacted including ineligible establishments.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Tajikistan. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.36.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: SIAR Research and Consulting Group Region: Republic of Tajikistan SIAR Research and Consulting Group (SIAR), has grown from the SIAR Social and Marketing Research Center, which was established in 1993 in Baku, Azerbaijan, and is currently a leader of research market in Azerbaijan. Besides the Center, SIAR currently also includes SIAR Media (engaged in media and advertisement researches), SIAR Consulting (engaged in research-based consultancy), SIAR Healthcare (engaged in healthcare research), SIAR Tracking (tracking projects). In terms of geographical coverage, SIAR conducts researches within the whole territory of Azerbaijan, Georgia, Moldova as well as all five countries of the Central Asian region: Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan. Activities since: 1993
Enumerators involved:	Enumerators: 52 Recruiters: 8
Other staff involved:	Fieldwork Coordinators: 4 regional supervisors Editing: 1 Data Entry: 5 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	List of companies with relevant columns/variables
Source:	State Committee on Statistics of the Republic of Tajikistan
Year:	The sample frame was directly sent to WB and EBRD by the State Committee on Statistics of the Republic of Tajikistan, and thus we do not possess information on Year
Comments on the quality of sample frame:	The sample frame contained quite outdated data about a fairly large number of enterprises. Some enterprises were liquidated or moved. The sample frame contained quite a large number of wrong phone numbers and addresses. Information on the size of enterprise and its field of activity was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: In general, there were no problems in individual regions.
Comments on the response rate:	As can be seen, about 38% of contacted records refused to be interviewed. This is considered a good result for the Republic of Tajikistan, given that this indicator includes quite a large number of soft refusals too.
Comments on the sample design:	Overall, the sample design served well and made work easier. In order to distinguish the enterprises of the same name by field of activity, more detailed stratification industry would be useful.
Other comments:	No

Fieldwork

Date of Fieldwork	01 January to 28 August 2019
Country	The Republic of Tajikistan
Number of interviews	373
Problems found during fieldwork:	The sample frame contained quite outdated data about a fairly large number of enterprises. Information on the size of enterprise and its field of activity was not always accurate. Significant efforts were made to persuade businesses to conduct an interview, convincing that their answers are very important for research of business climate of country.
Other observations:	The general attitude of the respondents to the survey was quite positive.

Questionnaires

Problems for the understanding of questions (indicate question number)	J30, BMB.8, BMB.8, h1, BMGC.1, BMGE.1
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	Almost all respondents, despite positive attitude to the survey, complained about the length of the questionnaire.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	Overall, a calm economic and political situation was observed in the Republic of Tajikistan during the fieldwork.

Relevant country events occurred during fieldwork:	The massive sporting events were held in honor of the Day of the Armed Forces of Tajikistan. Competitions took place in the Republic on February 22 and 23. Central Asian DUst Conference (CADUC) was held on 8 - 12 April 2019 at the Academy of Sciences of the Republic of Tajikistan. Goal of the Central Asian DUst Conference is to bring scientists together and to gain more insight into the different aspects of Asian dust: its properties, its sources, its transport mechanisms and processes, its effects on humans and economies, and finally on its sinks. Dushanbe hosted the High-level Conference "International and Regional Cooperation on Countering Terrorism and Its Financing Through Illicit Drug Trafficking and Organized Crime". The Conference was convened by the Government of the Republic of Tajikistan in close cooperation with the United Nations, the European Union and the Organization for Security and Co-operation in Europe from 16 to 17 May, 2019 in Dushanbe. CTED participated in a two-day high-level conference on "International and Regional Co-operation on Countering Terrorism and Its Financing through Illicit Drug Trafficking and Organized Crime", held in Dushanbe on 16 and 17 May 2019. Conference on Interaction and Confidence-Building Measures in Asia (CICA) was held in Dushanbe on June 14-15. The Committee of Tourism Development under the Government of the Republic of Tajikistan host the 2019 International Tourism Forum and Exhibition of Tajikistan in the capital city of Dushanbe on 8-10 August 2019. Summer Festival 2019 was held on 17 August of 2019 in Dushanbe.
Other aspects:	No

A.37 Tunisia

A.37.1. Sampling structure and implementation

A.37.2. Status codes

A.37.3. Universe estimates

A.37.4. Non-response

A.38 Turkey

A.38.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 1344 firms from the Turkey 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of firms from the Turkish Statistical Institute (TUIK) was used, dated as of June 2018. The firms in the listing are all registered as businesses with the Trade Registry Office. Note that TUIK provided a subset of the full listing, this subset was selected randomly following the ES methodology. The ES team used this subset for the standard sampling procedures.

Regional stratification for the Turkey ES was done at the NUTS-1 level (12 regions), namely, Istanbul Region (TR1), West Marmara Region (TR2), East Marmara Region (TR4), Aegean Region (TR3), West Anatolia Region (TR5), Central Anatolia Region (TR7), Mediterranean Region (TR6), West Black Sea Region (TR8), East Black Sea Region (TR9), Northeast Anatolia Region (TRA), Central East Anatolia Region (TRB), Southeast Anatolia Region (TRC).

NUTS-3 provinces	**NUTS-2 regions**	**NUTS-1 regions**	**Grouping to be used for stratification purposes in BEEPS VI**
Istanbul	Istanbul	Istanbul Region (TR1)	Istanbul Region (TR1)
Tekirdag, Edirne, Kirklareli	Tekirdag	West Marmara Region (TR2)	West Marmara Region (TR2)
Baleksir, Canakkale	Balikesir		
Bursa, Eskisehir, Bilecik	Bursa	East Marmara Region (TR4)	East Marmara Region (TR4)
Kocaeli, Sakarya, Duzce, Bolu, Yalova	Kocaeli		
Izmir	Izmir	Aegean Region (TR3)	Aegean Region (TR3)
Aydin, Denizli, Mugla	Aydin		
Manisa, Afyon, Kutahya, Usak	Manisa		
Antalya, Isparta, Burdur	Antalya	Mediterranean Region (TR6)	Mediterranean Region (TR6)
Adana, Icel	Adana		
Hatay, Kahramanmaras, Osmaniye	Hatay		
Ankara	Ankara	West Anatolia Region (TR5)	West Anatolia Region (TR5)
Konya, Karaman	Konya		
Kirikkale, Aksaray, Nigde, Nevsehir, Kirsehir	Kirikkale	Central Anatolia Region (TR7)	Central Anatolia Region (TR7)
Kayseri, Sivas, Yozgat	Kayseri		
Zonguldak, Karabuk, Bartin	Zonguldak	West Black Sea Region (TR8)	West Black Sea Region (TR8)
Kastamonu, Cankiri, Sinop	Kastamonu		
Samsun, Tokat, Corum, Amasya	Samsun		
Trabzon, Ordu, Giresun, Rize, Artvin, Gumushane	Trabzon	East Black Sea Region (TR9)	East Black Sea Region (TR9)
Erzurum, Erzincan, Bayburt	Erzurum	Northeast Anatolia Region (TRA)	Northeast Anatolia Region (TRA
Agri, Kars, Igdir, Ardahan	Agri		
Malatya, Elazig, Bingol, Tunceli	Malatya	Central East Anatolia Region (TRB)	Central East Anatolia Region (TRB)
Van, Mus, Bitlis, Hakkari	Van		
Gaziantep, Adiyaman, Kilis	Gaziantep	Southeast Anatolia Region (TRC)	Southeast Anatolia Region (TRC)
Sanliurfa, Diyarbakir	Sanliurfa		
Mardin, Batman, Sirnak, Siirt	Mardin		

Turkey ES Sample Frame (Fresh and Panel Combined)

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	207	0	0	33	7	95	120	135	156	**1526**
	Medium (20-99)	31	0	0	4	0	32	300	120	265	
	Large (100 or more)	0	0	0	0	0	0	12	9	0	
Central East Anatolia	Small (5-19)	87	16	44	72	47	24	37	50	60	**1413**
	Medium (20-99)	97	8	33	13	9	129	180	170	169	
	Large (100 or more)	10	8	12	0	0	10	73	16	39	
Southeast Anatolia	Small (5-19)	43	74	92	76	60	47	37	39	51	**1500**
	Medium (20-99)	64	152	53	41	28	94	37	37	50	
	Large (100 or more)	25	146	48	4	0	35	62	33	72	
Istanbul	Small (5-19)	46	44	65	53	51	65	67	68	145	**1908**
	Medium (20-99)	43	51	137	45	36	87	39	38	46	
	Large (100 or more)	101	89	116	88	90	188	24	37	49	
West Marmara	Small (5-19)	37	88	71	275	131	24	24	37	36	**1455**
	Medium (20-99)	132	106	41	46	50	24	36	24	36	
	Large (100 or more)	29	39	21	7	7	72	12	12	38	
Aegean	Small (5-19)	45	40	41	43	102	66	42	56	63	**1772**
	Medium (20-99)	46	48	77	43	51	68	39	39	37	
	Large (100 or more)	85	129	101	61	59	240	50	51	50	
East Marmara	Small (5-19)	42	102	104	64	63	43	24	41	37	**1572**
	Medium (20-99)	65	102	51	37	110	49	37	24	24	
	Large (100 or more)	48	139	51	104	62	38	37	36	38	
West Anatolia	Small (5-19)	45	65	50	92	51	60	40	44	143	**1534**
	Medium (20-99)	39	27	96	50	38	57	38	38	39	
	Large (100 or more)	82	5	20	78	73	139	51	37	37	
Mediterranean	Small (5-19)	45	41	102	45	50	55	39	50	90	**1564**
	Medium (20-99)	45	97	115	103	24	56	37	37	39	
	Large (100 or more)	36	95	47	46	23	110	50	50	37	
Central Anatolia	Small (5-19)	51	51	46	64	95	75	64	91	50	**1284**
	Medium (20-99)	76	20	18	131	36	79	24	50	24	

	Large (100 or more)	15	17	5	11	3	94	32	27	35	
West Black Sea	Small (5-19)	90	26	53	76	120	45	50	90	25	**1346**
	Medium (20-99)	101	12	52	47	52	168	51	50	24	
	Large (100 or more)	16	0	55	5	0	56	29	25	28	
East Black Sea	Small (5-19)	75	16	36	123	33	64	24	50	60	**1329**
	Medium (20-99)	142	11	41	17	18	109	132	132	133	
	Large (100 or more)	20	1	11	0	0	0	49	12	20	
		2161	**1865**	**1905**	**1997**	**1579**	**2597**	**1999**	**1855**	**2245**	**18203**

Source: World Bank and TUIK

Turkey Sample Frame (Panel)

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	3	0	0	1	0	0	0	3	0	**13**
	Medium (20-99)	2	0	0	1	0	1	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	2	0	
Central East Anatolia	Small (5-19)	3	0	0	1	2	0	1	2	0	**28**
	Medium (20-99)	3	0	2	1	0	4	0	2	1	
	Large (100 or more)	1	3	0	0	0	1	0	1	0	
Southeast Anatolia	Small (5-19)	7	3	8	5	0	12	1	3	3	**101**
	Medium (20-99)	4	11	5	3	0	12	1	1	2	
	Large (100 or more)	3	7	2	1	0	2	2	3	0	
Istanbul	Small (5-19)	10	8	5	17	3	29	7	20	13	**280**
	Medium (20-99)	8	15	17	9	1	52	3	2	10	
	Large (100 or more)	7	5	10	6	0	21	0	1	1	
West Marmara	Small (5-19)	1	0	0	1	0	0	0	1	0	**3**
Aegean	Small (5-19)	9	4	5	7	6	30	6	20	15	**271**
	Medium (20-99)	11	12	17	8	3	32	3	3	1	
	Large (100 or more)	6	14	12	6	2	32	2	3	2	
East Marmara	Small (5-19)	6	7	8	4	3	7	0	5	1	**94**
	Medium (20-99)	5	8	3	1	2	13	2	0	0	
	Large (100 or more)	0	5	3	4	1	2	1	1	2	

West Anatolia	Small (5-19)	9	6	3	8	3	24	4	8	11	**169**
	Medium (20-99)	4	3	11	3	2	21	2	2	3	
	Large (100 or more)	6	5	12	3	1	10	3	1	1	
Mediterranean	Small (5-19)	9	5	7	9	2	19	3	14	6	**181**
	Medium (20-99)	9	8	9	10	0	20	1	1	3	
	Large (100 or more)	8	9	5	4	1	13	2	3	1	
Central Anatolia	Small (5-19)	4	3	1	4	3	4	4	7	2	**71**
	Medium (20-99)	5	3	0	6	0	7	0	2	0	
	Large (100 or more)	1	3	0	4	0	5	0	2	1	
West Black Sea	Small (5-19)	6	3	5	5	0	9	2	6	1	**102**
	Medium (20-99)	8	5	4	3	1	15	3	3	0	
	Large (100 or more)	2	0	8	2	0	8	1	2	0	
East Black Sea	Small (5-19)	5	1	0	2	0	4	0	2	0	**31**
	Medium (20-99)	2	1	1	2	0	3	0	0	1	
	Large (100 or more)	5	1	1	0	0	0	0	0	0	
		172	**158**	**164**	**141**	**36**	**412**	**54**	**126**	**81**	**1344**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Food	**Textiles**	**Garments**	**Fabricated Metal Products**	**Machinery and Equipment**	**Other Manufacturing**	**Construction**	**Retail**	**Other Services**	**Grand Total**
Northeast Anatolia	Small (5-19)	2	2	2	2	2	2	4	3	7	**69**
	Medium (20-99)	2	2	2	2	2	2	2	2	2	
	Large (100 or more)	2	2	2	2	9	2	2	2	2	
Central East Anatolia	Small (5-19)	2	9	7	27	13	2	2	2	4	**137**
	Medium (20-99)	11	11	4	5	5	2	2	2	3	
	Large (100 or more)	3	4	2	1	1	7	1	1	4	
Southeast Anatolia	Small (5-19)	2	2	2	2	2	2	2	2	3	**59**
	Medium (20-99)	2	2	2	2	2	2	2	2	2	

	Large (100 or more)	2	2	2	2	6	2	2	2	2	
Istanbul	Small (5-19)	2	2	2	2	2	2	2	2	2	**89**
	Medium (20-99)	2	2	2	2	11	2	2	2	2	
	Large (100 or more)	2	13	5	10	6	2	2	2	2	
West Marmara	Small (5-19)	2	2	2	2	2	2	2	2	2	**59**
	Medium (20-99)	2	2	2	2	3	2	2	2	2	
	Large (100 or more)	2	0	1	4	7	2	2	2	2	
Aegean	Small (5-19)	2	2	2	2	2	2	2	2	3	**59**
	Medium (20-99)	2	2	2	2	2	2	2	2	2	
	Large (100 or more)	2	4	4	2	2	2	2	2	2	
East Marmara	Small (5-19)	2	5	5	2	9	2	2	2	2	**83**
	Medium (20-99)	2	2	2	12	4	2	2	2	2	
	Large (100 or more)	1	1	1	1	0	9	3	3	3	
West Anatolia	Small (5-19)	2	2	2	2	12	2	2	2	2	**62**
	Medium (20-99)	2	1	2	2	5	2	2	2	2	
	Large (100 or more)	1	0	5	0	0	2	2	2	2	
Mediterranean	Small (5-19)	3	2	4	12	3	2	2	2	6	**113**
	Medium (20-99)	14	1	4	2	2	8	12	12	11	
	Large (100 or more)	2	0	1	0	0	0	5	1	2	
Central Anatolia	Small (5-19)	17	0	0	3	1	8	11	10	13	**129**
	Medium (20-99)	3	0	0	0	0	3	23	12	23	
	Large (100 or more)	0	0	0	0	0	0	1	1	0	
West Black Sea	Small (5-19)	6	2	4	7	5	2	3	2	5	**116**
	Medium (20-99)	9	1	3	1	1	9	16	11	12	
	Large (100 or more)	1	1	1	0	0	1	7	2	4	
East Black Sea	Small (5-19)	2	2	2	2	6	2	2	2	2	**70**
	Medium (20-99)	2	2	2	2	3	2	2	2	2	
	Large (100 or more)	2	14	5	0	0	2	2	2	2	
		117	**101**	**90**	**121**	**130**	**99**	**136**	**108**	**143**	**1045**

Original Sample Design (Panel)

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	1	1	4	1	2	1	1	1	1	**71**
	Medium (20-99)	1	1	8	1	1	1	1	1	1	
	Large (100 or more)	6	4	8	5	0	17	0	1	1	
Central East Anatolia	Small (5-19)	1	0	0	1	0	0	0	1	0	**3**
	Medium (20-99)	0	0	0	0	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	0	0	
Southeast Anatolia	Small (5-19)	1	1	1	1	5	1	1	1	1	**81**
	Medium (20-99)	1	3	1	1	2	1	1	1	1	
	Large (100 or more)	5	11	10	5	2	17	2	2	2	
Istanbul	Small (5-19)	1	6	6	3	2	1	0	1	1	**51**
	Medium (20-99)	1	6	2	1	2	1	1	0	0	
	Large (100 or more)	0	4	2	3	1	2	1	1	2	
West Marmara	Small (5-19)	1	5	2	6	2	1	1	1	8	**81**
	Medium (20-99)	1	2	9	2	2	1	1	1	1	
	Large (100 or more)	5	4	10	2	1	8	2	1	1	
Aegean	Small (5-19)	1	4	6	2	2	1	1	1	1	**81**
	Medium (20-99)	1	6	7	8	0	1	1	1	1	
	Large (100 or more)	6	7	4	3	1	10	2	2	1	
East Marmara	Small (5-19)	3	2	1	3	2	3	3	6	2	**57**
	Medium (20-99)	4	2	0	5	0	6	0	2	0	
	Large (100 or more)	1	2	0	3	0	4	0	2	1	
West Anatolia	Small (5-19)	5	2	4	4	0	4	2	5	1	**78**
	Medium (20-99)	6	4	3	2	1	12	2	2	0	
	Large (100 or more)	2	0	6	2	0	6	1	2	0	
Mediterranean	Small (5-19)	4	1	0	2	0	3	0	2	0	**27**
	Medium (20-99)	2	1	1	2	0	2	0	0	1	
	Large (100 or more)	4	1	1	0	0	0	0	0	0	
Central Anatolia	Small (5-19)	2	0	0	1	0	0	0	2	0	**11**
	Medium (20-99)	2	0	0	1	0	1	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	2	0	
West Black Sea	Small (5-19)	2	0	0	1	2	0	1	2	0	**24**

	Medium (20-99)	2	0	2	1	0	3	0	2	1	
	Large (100 or more)	1	2	0	0	0	1	0	1	0	
East Black Sea	Small (5-19)	5	2	6	4	0	1	1	2	2	**70**
	Medium (20-99)	3	9	4	2	0	8	1	1	2	
	Large (100 or more)	2	6	2	1	0	2	2	2	0	
		83	**99**	**110**	**79**	**30**	**120**	**29**	**52**	**33**	**635**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 1.4% (80 out of 5552 establishments).[74]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	19			3	1	8	11	12	13	**139**
	Medium (20-99)	5			1		4	23	12		
	Large (100 or more)							1	3		
	Medium and Large (20+)									23	
Central East Anatolia	Small (5-19)	8	2	4	7	6	2	3	4	5	**135**
	Medium (20-99)	11	1	5		1	12	16	12	13	
	Large (100 or more)	2	3	1			1	7	3	4	
	Medium and Large (20+)				2						
Southeast Anatolia	Small (5-19)	7	4	8	6	6	4	3	3	5	**138**
	Medium (20-99)	5	11	6	4	3	10	3	3	3	
	Large (100 or more)	3	21	6	1		3	3	5	2	
Istanbul	Small (5-19)	3	3	5	4	2	24	7	19	15	**150**
	Medium (20-99)	3	3	4	3	2	4	3	3	8	

[74] Based on out of target and ineligible contacts.

	Large (100 or more)	2	4	4	3	9	6	2	2	3	
West Marmara	Small (5-19)	2	9	7	28	13	2	2	3	3	**136**
	Medium (20-99)	11	11	4	5	5	2	2	2	3	
	Large (100 or more)	3	3	1	1	1	7	1	1	4	
Aegean	Small (5-19)	3	3	4	3	4	3	6	17	9	**145**
	Medium (20-99)	4	5	14	3	3	3	3	3	2	
	Large (100 or more)	4	11	6	6	7	8	4	4	3	
East Marmara	Small (5-19)	5	8	6	3	3	5	2	4	3	**134**
	Medium (20-99)	3	7	2	3	11	7	3	2	2	
	Large (100 or more)	2	15	9	12	8	2	3	2	2	
West Anatolia	Small (5-19)	8	7	4	6	3	8	5	4	5	**135**
	Medium (20-99)	4	4	5	2	4	6	4	3	4	
	Large (100 or more)	6	4	5	5	8	10	5	3	3	
Mediterranean	Small (5-19)	3	6	7	5	4	3	3	12	10	**139**
	Medium (20-99)	3	6	8	8	2	3	2	3	2	
	Large (100 or more)	7	11	7	5	3	9	2	4	1	
Central Anatolia	Small (5-19)	5	7	6	5	12	4	5	8	3	**136**
	Medium (20-99)	6	4	2	17		6	2	3	2	
	Large (100 or more)	2	3	1	5		13	3	4	4	
	Medium and Large (20+)					4					
West Black Sea	Small (5-19)	6	4	6	6	12	7	4	6	5	**138**
	Medium (20-99)	7	4	5	5		14	4	4	4	
	Large (100 or more)	2		12	1		6	2	4	2	
	Medium and Large (20+)					6					
East Black Sea	Small (5-19)	7			14	3	5	2	4	6	**131**
	Medium (20-99)	16	2	5	4	2	10	12	12	12	
	Large (100 or more)	5	1	2	0	0	0	5	1	2	
East Black Sea and Northeast Anatolia	Small (5-19)		3	4							**7**
		192	**190**	**175**	**186**	**148**	**221**	**167**	**194**	**190**	**1663**

Achieved Interviews (Panel)

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	2							2		**10**
	Medium (20-99)	2			1		1				
	Large (100 or more)								2		
Central East Anatolia	Small (5-19)	2				1			2		**20**
	Medium (20-99)	2		2			3		2	1	
	Large (100 or more)	1	2						1		
	Medium and Large (20+)				1						
Southeast Anatolia	Small (5-19)	5	2	6	4		2	1	2	2	**68**
	Medium (20-99)	3	9	4	2		8	1	1	1	
	Large (100 or more)	1	7	1	1		1	1	3		
Istanbul	Small (5-19)	1	1	3	2		22	3	16	8	**81**
	Medium (20-99)	1	1	2	1		2	1	1	6	
	Large (100 or more)		2	2	1		4			1	
West Marmara	Small (5-19)				1				1		**2**
Aegean	Small (5-19)	1	1	2	1	2	1	4	15	6	**86**
	Medium (20-99)	2	3	12	1	1	1	1	1		
	Large (100 or more)	2	9	4	4	1	6	2	2	1	
East Marmara	Small (5-19)	3	6	4	1	1	3		2	1	**41**
	Medium (20-99)	1	5		1		5	1			
	Large (100 or more)		2	1	2	1		1			
West Anatolia	Small (5-19)	6	5	2	4	1	6	3	2	3	**75**
	Medium (20-99)	2	2	3		1	4	2	1	2	
	Large (100 or more)	4	4	4	1		8	3	1	1	
Mediterranean	Small (5-19)	1	4	5	3	2	1	1	10	3	**77**
	Medium (20-99)	1	4	6	6		1		1		
	Large (100 or more)	5	7	3	3	1	7		2		
Central Anatolia	Small (5-19)	3	2	1	3	2	2	3	6	1	**51**
	Medium (20-99)	4	2		5		4		1		
	Large (100 or more)	1	2		3		4		1	1	

West Black Sea	Small (5-19)	4	2	4	4		5	1	4	1	**71**
	Medium (20-99)	5	3	3	3		12	2	2		
	Large (100 or more)	1		7	1		4		2		
	Medium and Large (20+)					1					
East Black Sea	Small (5-19)	4			2		3		2		**26**
	Medium (20-99)	2	1	1	2		2			1	
	Large (100 or more)	4	1	1							
East Black Sea and Northeast Anatolia	Small (5-19)		1								**1**
		76	**90**	**83**	**64**	**15**	**122**	**31**	**88**	**40**	**609**

A.38.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
1857	**Eligible**	1. Eligible establishment (Correct name and address)	1649
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	40
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	20
		4. Eligible establishment (Moved and traced)	148
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
381	**Screener refusal**	13. Refuses to answer the screener	381
78	**Ineligible**	5. The establishment has less than 5 permanent full time employees	2
		616. The firm discontinued businesses - (Establishment went bankrupt)	29
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	4
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	4
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	22
		621. The firm discontinued businesses - (Other)	5
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	2
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	10
7	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	2
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	5
		156. Duplicated firm within the sample	0
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
3229	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	1498
		92. Line out of order	5
		93. No tone	1
		94. Phone number does not exist	1725
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	0
5552	**Total contacted**		

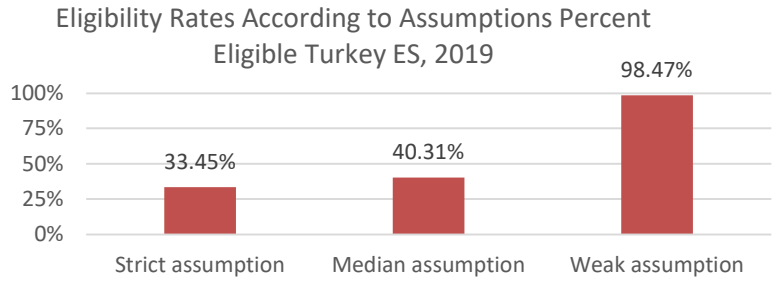
Response Outcomes: Turkey ES 2019

Target and totals	Sample target	1680
	Sample target completion rate	99.0%
	Total contacts available in frame	18203
	Total contacts issued	6024
	Total contacts contacted	5552
Screening phase	Screening in process	0
	Eligibles	1857
	Screener refusal	381
	Ineligible + out of target	85
	Unobtainable	3229
Interview phase (only if eligible)	Complete interviews without extra module	26
	Complete interviews with extra module	1637
	Eligible in process + incomplete interviews	61
	Interview refusal	47
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	6.9%
	Ineligible + out of target rate	1.5%
	Unobtainable rate	58.2%
	Interview conversion rate	30.0%
	Eligible in process + incomplete interviews rate	1.1%
	Interview refusal rate	0.8%

A.38.3. Universe estimates

Universe estimates for the number of establishments in each cell in Turkey were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Turkey were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	55	0	0	8	3	51	227	221	355	**1136**
	Medium (20-99)	8	0	0	1	0	9	93	33	0	
	Large (100 or more)	0	0	0	0	0	0	3	3	0	
	Medium and Large (20+)	0	0	0	0	0	0	0	0	65	
Central East Anatolia	Small (5-19)	92	5	14	22	15	127	566	387	622	**2507**
	Medium (20-99)	30	3	10	0	3	42	306	72	138	
	Large (100 or more)	3	3	4	0	0	3	22	5	10	
	Medium and Large (20+)	0	0	0	5	0	0	0	0	0	
Southeast Anatolia	Small (5-19)	258	93	125	115	44	511	1126	915	1969	**7185**
	Medium (20-99)	75	85	43	15	13	179	706	145	572	
	Large (100 or more)	9	51	17	1	0	13	56	12	38	
Istanbul	Small (5-19)	345	321	1430	577	298	2172	3207	2204	6595	**22809**
	Medium (20-99)	91	148	633	162	128	859	996	322	1542	
	Large (100 or more)	33	40	84	28	18	171	134	53	216	
West Marmara	Small (5-19)	191	22	19	70	37	270	801	650	1140	**3894**
	Medium (20-99)	50	26	18	12	15	81	177	85	167	
	Large (100 or more)	7	10	6	2	2	19	3	3	9	
Aegean	Small (5-19)	514	218	259	359	202	1319	2537	2210	4364	**15186**
	Medium (20-99)	161	134	157	96	95	496	672	266	792	
	Large (100 or more)	32	30	25	17	16	95	32	20	66	
East Marmara	Small (5-19)	394	276	242	447	196	1365	2101	1643	3421	**13278**
	Medium (20-99)	93	159	92	176	103	630	662	227	675	
	Large (100 or more)	19	39	14	29	19	147	43	15	50	
West Anatolia	Small (5-19)	182	25	74	329	224	959	2242	1085	2622	**10455**
	Medium (20-99)	82	6	28	112	113	331	880	174	620	
	Large (100 or more)	18	15	5	17	17	53	147	19	74	
Mediterranean	Small (5-19)	287	30	73	178	76	738	1480	1522	2964	**9479**
	Medium (20-99)	66	26	27	45	25	225	640	205	640	
	Large (100 or more)	9	20	10	10	5	27	46	16	88	
Central Anatolia	Small (5-19)	151	18	13	99	28	358	660	592	1054	**3877**
	Medium (20-99)	34	5	9	38	0	174	261	96	208	
	Large (100 or more)	4	4	1	5	0	27	10	7	8	

	Medium and Large (20+)	0	0	0	0	15	0	0	0	0	
West Black Sea	Small (5-19)	198	5	29	71	35	306	718	733	1056	**3912**
	Medium (20-99)	42	4	33	11	0	117	198	100	190	
	Large (100 or more)	4	0	14	1	0	13	7	6	6	
	Medium and Large (20+)	0	0	0	0	14	0	0	0	0	
East Black Sea	Small (5-19)	179	0	0	34	16	197	472	536	826	**2896**
	Medium (20-99)	45	4	15	5	6	38	227	82	180	
	Large (100 or more)	5	1	5	0	0	0	14	4	5	
East Black Sea and Northeast Anatolia	Small (5-19)	0	6	13	0	0	0	0	0	0	**19**
		3767	**1833**	**3543**	**3095**	**1782**	**12122**	**22475**	**14669**	**33348**	**96632**

Median Universe Estimates – Fresh:

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	53	0	0	8	3	52	218	225	343	**1111**
	Medium (20-99)	8	0	0	1	0	9	92	34	0	
	Large (100 or more)	0	0	0	0	0	0	4	3	0	
	Medium and Large (20+)	0	0	0	0	0	0	0	0	58	
Central East Anatolia	Small (5-19)	105	6	16	26	17	153	644	465	712	**2929**
	Medium (20-99)	35	3	11	0	3	52	357	89	162	
	Large (100 or more)	4	4	5	0	0	4	30	7	14	
	Medium and Large (20+)	0	0	0	5	0	0	0	0	0	
Southeast Anatolia	Small (5-19)	246	91	116	115	41	513	1072	921	1886	**7045**
	Medium (20-99)	74	85	41	15	13	184	690	150	562	
	Large (100 or more)	11	60	19	1	0	16	64	14	44	
Istanbul	Small (5-19)	474	454	1908	831	395	3144	4396	3194	9096	**32162**
	Medium (20-99)	129	215	867	239	174	1276	1401	480	2183	
	Large (100 or more)	54	68	135	48	29	298	222	93	359	
West Marmara	Small (5-19)	234	28	23	89	43	348	979	840	1402	**4886**
	Medium (20-99)	62	34	22	15	19	108	222	113	211	
	Large (100 or more)	10	15	8	3	3	29	5	5	13	
Aegean	Small (5-19)	570	248	279	417	217	1541	2807	2585	4859	**17292**
	Medium (20-99)	184	157	174	114	104	595	763	320	905	
	Large (100 or more)	43	41	32	23	21	134	43	28	88	

East Marmara	Small (5-19)	434	314	259	517	208	1586	2312	1911	3787	**15089**
	Medium (20-99)	106	186	101	209	112	751	748	271	768	
	Large (100 or more)	25	54	19	40	24	205	57	21	66	
West Anatolia	Small (5-19)	385	55	152	726	455	2130	4715	2414	5549	**22646**
	Medium (20-99)	178	13	59	254	235	754	1899	397	1348	
	Large (100 or more)	47	32	9	44	42	142	372	52	190	
Mediterranean	Small (5-19)	335	36	82	218	85	907	1723	1874	3473	**11369**
	Medium (20-99)	79	32	32	57	29	284	765	259	770	
	Large (100 or more)	11	29	14	14	7	39	65	24	124	
Central Anatolia	Small (5-19)	194	23	16	133	34	483	843	800	1355	**5106**
	Medium (20-99)	44	7	11	52	0	241	342	133	275	
	Large (100 or more)	6	7	2	5	0	43	16	11	13	
	Medium and Large (20+)	0	0	0	0	17	0	0	0	0	
West Black Sea	Small (5-19)	217	6	31	82	37	353	784	846	1160	**4388**
	Medium (20-99)	47	4	36	13	0	138	222	118	215	
	Large (100 or more)	6	0	17	1	0	17	9	8	8	
	Medium and Large (20+)	0	0	0	0	14	0	0	0	0	
East Black Sea	Small (5-19)	179	0	0	36	16	208	472	566	830	**2973**
	Medium (20-99)	46	4	15	5	6	41	233	89	185	
	Large (100 or more)	6	2	6	0	0	0	17	5	6	
East Black Sea and Northeast Anatolia	Small (5-19)	0	6	13	0	0	0	0	0	0	**20**
		4639	**2318**	**4531**	**4358**	**2402**	**16780**	**29600**	**19366**	**43021**	**127014**

Weak Universe Estimates – Fresh:

		Food	Textiles	Garments	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Construction	Retail	Other Services	Grand Total
Northeast Anatolia	Small (5-19)	209	0	0	32	12	181	840	851	1447	**4401**
	Medium (20-99)	30	0	0	3	0	31	348	127	0	
	Large (100 or more)	0	0	0	0	0	0	13	8	0	
	Medium and Large (20+)	0	0	0	0	0	0	0	0	271	
Central East Anatolia	Small (5-19)	291	16	42	72	45	373	1743	1239	2112	**8034**
	Medium (20-99)	96	9	30	0	9	125	949	233	472	
	Large (100 or more)	9	9	12	0	0	9	72	16	38	
	Medium and Large (20+)	0	0	0	15	0	0	0	0	0	

Southeast Anatolia	Small (5-19)	661	248	306	305	105	1215	2815	2381	5430	**18794**
	Medium (20-99)	195	229	105	39	32	429	1778	381	1590	
	Large (100 or more)	26	146	45	4	0	34	150	32	112	
Istanbul	Small (5-19)	1976	1924	7787	3418	1593	11543	17899	12798	40607	**132536**
	Medium (20-99)	526	895	3476	966	688	4602	5603	1887	9570	
	Large (100 or more)	201	256	493	176	105	976	806	333	1431	
West Marmara	Small (5-19)	720	87	68	272	130	945	2946	2488	4628	**14946**
	Medium (20-99)	189	105	66	46	55	287	657	330	684	
	Large (100 or more)	28	43	22	9	7	71	13	14	37	
Aegean	Small (5-19)	1762	782	845	1275	649	4202	8488	7693	16107	**52971**
	Medium (20-99)	557	486	517	343	306	1594	2266	935	2947	
	Large (100 or more)	118	116	87	64	55	326	115	75	260	
East Marmara	Small (5-19)	1252	920	733	1471	582	4032	6517	5301	11704	**42788**
	Medium (20-99)	299	535	281	583	308	1875	2071	738	2329	
	Large (100 or more)	64	140	47	101	61	466	142	52	183	
West Anatolia	Small (5-19)	761	111	295	1418	874	3716	9124	4596	11772	**44129**
	Medium (20-99)	346	26	112	487	443	1292	3608	742	2808	
	Large (100 or more)	82	42	13	77	72	222	644	88	359	
Mediterranean	Small (5-19)	1170	127	282	753	289	2794	5887	6301	13007	**39522**
	Medium (20-99)	271	113	107	193	98	859	2565	857	2832	
	Large (100 or more)	31	92	44	44	23	101	199	72	413	
Central Anatolia	Small (5-19)	543	67	44	367	92	1194	2309	2155	4070	**14110**
	Medium (20-99)	122	17	30	142	0	584	921	351	811	
	Large (100 or more)	15	18	5	11	0	93	38	26	34	
	Medium and Large (20+)	0	0	0	0	50	0	0	0	0	
West Black Sea	Small (5-19)	799	23	111	297	134	1140	2824	2999	4584	**15991**
	Medium (20-99)	169	7	126	47	0	440	787	412	833	
	Large (100 or more)	19	0	50	3	0	51	28	27	29	
	Medium and Large (20+)	0	0	0	0	55	0	0	0	0	
East Black Sea	Small (5-19)	610	0	0	121	52	624	1570	1855	3030	**10067**
	Medium (20-99)	153	13	48	18	19	120	761	285	664	
	Large (100 or more)	18	3	17	0	0	0	51	14	21	
East Black Sea and Northeast Anatolia	Small (5-19)	0	18	36	0	0	0	0	0	0	**54**
		14318	**7621**	**16284**	**13173**	**6941**	**46545**	**87542**	**58692**	**147228**	**398344**

A.38.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary.

As the following graph shows, the number of interviews per contacted establishments was 0.30.[75] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.08.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Turkey. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.38.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Yöntem Research Region: Turkey Membership of international organizations: ESOMAR Listing member Activities since: 1988
Enumerators involved:	Enumerators:82 Recruiters: 69 As the sample frame contained many missing or wrong contact information, some of the enumerators went directly to the offices to arrange an appointment.
Other staff involved:	Fieldwork Coordinators

[75] The estimate is based on the total no. of firms contacted including ineligible establishments.

	Editing Data Entry: Data entry is done consecutively during the interview via CAPI system Data Processing

Sample Frame

Characteristic of sample frame used:	Sample frame is representative of Turkish establishment universe stratified by NUTS1 region, sector and size.
Source:	TURKSTAT
Year:	2017
Comments on the quality of sample frame:	Contact details for most of the firms in the sample; were not valid or even not available in the provided list. A desk research longer than the planned time and effort is conducted to obtain that contact information. However, for a large amount of sample, the address information was needed to be validated at its location. This enlengthened the project duration for getting in touch with the firms.

Sample

Comments/ problems for particular regions:	Some of the cities especially in the East side of Turkey are geographically far away from each other although they are classified in the same region in the sampling. Hence, completing the quota in these regions required some extraordinary time. Secondly, most of the small and medium companies in the east side of Turkey do not have even any website so extra desk researches – which is mentioned above- could not be applied for these companies if sample does not contain the contact details of these companies. For these companies, validation of the company's existence and location required going to the address.
Comments on the response rate:	Unlike previous waves of Enterprise Survey, it is observed that; Willingness to participate an interview has significantly decreased Even if the respondent accepted to participate, they hesitate to share information thinking that these are confidential However, due to sociological and political situations in Turkey this can be observed for our other studies in Turkey regardless of the topic.
Comments on the sample design:	The sample and quotas are designed based on geographical regions in which different cities are covered. However, in the NUTS1 classification, some cities in the same NUTS1 region are distant located. This was considered during the bidding and planning stage. However, the panel firms were not inline with this. As there were very limited panel firms, the sample provided in the same cells was limited. The enumerators went to the remote areas for arranging and conducting the interviews. However, in the cases where the quota is not reached and additional panel sample is obtained later, travelling to those remote locations again was both challenging and demotivating for the enumerators. Maybe, in the future rounds of this survey, at least the all panel firms may be provided from the very beginning of the survey.
Other comments:	During the fieldwork, the quotas had been revised by the approval of EBRD officials because of the insufficient sample list. That highlights the importance of the validation of the sample list provided.

Fieldwork

Date of Fieldwork	24th Sept 2018 – 3rd June 2019
Country	Turkey
Number of interviews	1668
Problems found during fieldwork:	Due to political and economic situation of the country, the business environment had a stress. All the businesses were struggling to survive in the world of uncertainties. Hence, arranging and appointment didn't mean much during the fieldwork and there were many last-minute cancellations.
Other observations:	

Questionnaires

Problems for the understanding of questions (indicate question number)	Profile of the entrepreneurs is very low in Turkey. Especially for small and medium sized companies the respondents are not good at understanding the questions. Even after a good explanation, some questions still do not mean anything for the respondents. However, for the large companies this was not a problem.
Problems found in the navigability of –questionnaires (for example, skip patterns).	No specific problems observed
Comments on questionnaires length:	The questionnaire was found to be very long to be answered within busy working hours. As it covers various aspects of business environment, sometimes more than one respondent was required and this definitely extended the duration of interview.
Suggestions or other comments on the questionnaire:	For the detailed questions like the leasing of building or land, a two-step question can be designed in a two different step, a yes/no question can be asked first to check the availability of any leased real estate, and then if the respondents say yes, then the second detailed question can be asked whether it is land or building and their percentages. This may decrease the confusion of low-profile entrepreneurs and the responses may be more reliable.

Database

Data entry program chosen	In house
Comments on the data entry program	As in-house built CAPI system has been used in the project, interviewers were all familiar with the system which they can practically use. However, the same reason, using in house CAPI system, lead a challenge in the scripting and data checking phases. Thanks to setting up a strict script controls at the very beginning of the project enables us to proceed smoothly.
Comments on the data cleaning	Response rates relatively increased via call backs especially for financial questions. The respondents hesitate to answer financial questions at the beginning of the questionnaires like annual sale question which relatively take part at the beginning of the questionnaire. As the interview is being continued they got used to the questionnaire, however this time as they got tired because of the long time they spent with us, they were not willing to answer N section. But when it comes to call backs, the respondent felt more relaxed and had already became familiar with us and questionnaire so they didn't hesitate that much to give the answers even on the phone.

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	Due to the economic crisis in Turkey, a considerable number of firms went bankrupt. Others who have not gone bankruptcy were struggling to survive. It affected our screening process negatively. As mentioned above, due to current political and social conjuncture of Turkey, it is observed that people became unwilling to declare some ideas and/or information for any kind of questionnaire even it is a B2B study.
Relevant country events occurred during fieldwork:	After project award Turkey has experienced 3 elections. And Istanbul, the finance capital of Turkey had even one more. This affected the screening and also responses of the respondents. Moreover, one-week Bayram holiday and Ramadan time coincide with fieldwork which did not negatively affect the project at all.
Other aspects:	

A.39 Ukraine

A.39.1. Sampling structure and implementation

The sample frame consisted of listings of establishments from two sources: for panel firms, the list of 831 firms from the Ukraine 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from UA-Region, was used. The establishments in the listing are all received the approval of Ministry of Internal Affairs to prepare a company seal.

Regional stratification for the Ukraine ES was done across eight regions: West, Sumska, Zaporizka; Vinnytska, Zhytomyrska; Dnipropetrovska, Kharkivska; Kirovohradska, Poltavska; Cherkaska, Chernihivska; Khersonska, Mykolaivska, Odeska; and Kyiv.

Regions of Ukraine	**Grouping used for stratification purposes in BEEPS VI**	**Grouping in the dataset**
Kiev Oblast	Kyiv	Kyiv
Kyiv		
Dnipropetrovsk Oblast	Dnipropetrovska, Kharkivska	East
Kharkiv Oblast		
Sumy Oblast	Sumska, Zaporizka	
Zaporizhia Oblast		
Kherson Oblast	Khersonska, Mykolaivska, Odeska	South
Mykolaiv Oblast		
Odessa Oblast		
Cherkasy Oblast	Cherkaska, Chernihivska	North
Chernihiv Oblast		
Kirovohrad Oblast	Kirovohradska, Poltavska	
Poltava Oblast		
Vinnytsia Oblast	Vinnytska, Zhytomyrska	
Zhytomyr Oblast		
Chernivtsi Oblast	West	West
Ivano-Frankivsk Oblast		
Khmelnytskyi Oblast		
Lviv Oblast		
Rivne Oblast		
Ternopil Oblast		
Volyn Oblast		

Zakarpattia Oblast		
Donetsk Oblast	Not covered	Not covered
Luhansk Oblast		

Ukraine ES Sample Frame (Fresh and Panel Combined)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	178	102	123	208	143	1367	736	8891	**17756**
	Medium (20-99)	136	52	89	112	95	637	290	3272	
	Large (100 or more)	118	12	49	25	32	220	125	744	
West	Small (5-19)	296	179	154	157	66	956	894	4421	**11066**
	Medium (20-99)	241	108	144	73	46	544	267	1607	
	Large (100 or more)	129	63	49	23	28	248	67	306	
Dnipropetrovska, Kharkivska	Small (5-19)	175	78	80	163	126	795	356	3979	**9094**
	Medium (20-99)	147	46	67	88	92	508	143	1445	
	Large (100 or more)	110	9	27	39	49	217	63	292	
Sumska, Zaporizka	Small (5-19)	84	17	34	51	65	303	224	1480	**3549**
	Medium (20-99)	56	16	33	37	56	170	84	541	
	Large (100 or more)	45	6	12	14	26	88	17	90	
Khersonska, Mykolaivska, Odeska	Small (5-19)	129	43	52	70	30	395	305	2523	**5406**
	Medium (20-99)	104	20	41	22	33	197	115	934	
	Large (100 or more)	63	8	15	11	22	65	27	182	
Cherkaska, Chernihivska	Small (5-19)	64	23	22	28	29	199	229	879	**2372**
	Medium (20-99)	75	27	30	18	20	111	84	312	
	Large (100 or more)	55	9	5	8	11	50	11	73	
Kirovohradska, Poltavska	Small (5-19)	79	24	37	36	30	230	182	1167	**2858**
	Medium (20-99)	63	38	20	22	37	114	58	454	
	Large (100 or more)	70	6	10	6	21	43	14	97	
Vinnytska, Zhytomyrska	Small (5-19)	90	22	103	43	33	272	286	1148	**3149**
	Medium (20-99)	73	23	47	23	32	160	65	463	
	Large (100 or more)	61	13	21	10	17	50	14	80	
		2641	**944**	**1264**	**1287**	**1139**	**7939**	**4656**	**35380**	**55250**

Source: World Bank and the UA-Region

Ukraine Sample Frame (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	12	16	10	2	13	24	18	26	**216**
	Medium (20-99)	9	8	10	2	9	6	12	9	
	Large (100 or more)	3	4	9	1	2	6	1	4	
West	Small (5-19)	10	31	14	4	11	3	12	15	**179**
	Medium (20-99)	9	10	7	1	3	9	4	9	
	Large (100 or more)	8	4	3	1	2	5	1	3	
Dnipropetrovska, Kharkivska	Small (5-19)	7	12	8	6	10	7	9	9	**130**
	Medium (20-99)	8	3	8	3	6	4	5	10	
	Large (100 or more)	4	0	2	1	3	4	0	1	
Sumska, Zaporizka	Small (5-19)	2	5	2	0	4	3	4	8	**64**
	Medium (20-99)	3	4	5	0	7	2	3	3	
	Large (100 or more)	3	0	2	1	1	0	1	1	
Khersonska, Mykolaivska, Odeska	Small (5-19)	7	13	3	0	1	7	8	10	**95**
	Medium (20-99)	9	2	10	0	3	5	4	0	
	Large (100 or more)	3	0	3	2	2	1	1	1	
Cherkaska, Chernihivska	Small (5-19)	1	4	1	0	3	2	3	5	**41**
	Medium (20-99)	2	4	3	0	1	2	1	1	
	Large (100 or more)	2	1	1	0	1	2	1	0	
Kirovohradska, Poltavska	Small (5-19)	4	0	2	1	3	5	2	2	**53**
	Medium (20-99)	5	5	3	1	5	3	2	2	
	Large (100 or more)	4	0	0	0	2	0	1	1	
Vinnytska, Zhytomyrska	Small (5-19)	1	4	8	1	0	2	3	3	**53**
	Medium (20-99)	4	1	2	0	4	2	4	4	
	Large (100 or more)	3	2	1	0	2	2	0	0	
		123	**133**	**117**	**27**	**98**	**106**	**100**	**127**	**831**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	6	10	6	9	6	26	6	30	**234**
	Medium (20-99)	8	10	9	10	8	10	6	9	
	Large (100 or more)	11	5	12	8	11	8	4	6	
West	Small (5-19)	8	12	7	8	6	15	7	26	**230**
	Medium (20-99)	10	11	9	9	5	10	6	6	
	Large (100 or more)	11	17	12	8	10	8	4	5	
Dnipropetrovska, Kharkivska	Small (5-19)	6	10	6	9	6	12	6	17	**196**
	Medium (20-99)	7	10	9	9	8	7	6	6	
	Large (100 or more)	11	3	10	12	11	8	3	4	
Sumska, Zaporizka	Small (5-19)	5	7	5	5	6	5	6	6	**137**
	Medium (20-99)	5	7	7	8	7	5	5	5	
	Large (100 or more)	9	2	5	5	9	5	4	4	
Khersonska, Mykolaivska, Odeska	Small (5-19)	6	9	5	6	4	6	6	8	**141**
	Medium (20-99)	7	7	8	7	5	6	6	3	
	Large (100 or more)	9	2	6	5	8	4	4	4	
Cherkaska, Chernihivska	Small (5-19)	4	7	4	6	5	5	5	6	**120**
	Medium (20-99)	5	10	6	5	5	5	4	4	
	Large (100 or more)	11	3	2	2	4	5	4	3	
Kirovohradska, Poltavska	Small (5-19)	6	7	5	5	5	6	5	5	**131**
	Medium (20-99)	6	10	5	7	7	5	5	5	
	Large (100 or more)	10	2	3	2	8	4	4	4	
Vinnytska, Zhytomyrska	Small (5-19)	4	6	6	5	3	5	5	5	**131**
	Medium (20-99)	6	8	6	7	6	5	6	6	
	Large (100 or more)	9	5	7	3	7	5	3	3	
		180	**180**	**160**	**160**	**160**	**180**	**120**	**180**	**1320**

Original Sample Design (Panel)

Original Sample Design (Fresh)		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total

Kyiv	Small (5-19)	3	7	3	2	3	15	3	15	**110**
	Medium (20-99)	5	6	6	2	5	5	3	3	
	Large (100 or more)	2	3	7	1	2	5	1	3	
West	Small (5-19)	5	9	4	3	3	2	4	12	**100**
	Medium (20-99)	7	8	6	1	2	7	3	3	
	Large (100 or more)	6	3	2	1	2	4	1	2	
Dnipropetrovska, Kharkivska	Small (5-19)	3	7	3	5	3	6	3	7	**77**
	Medium (20-99)	4	2	6	2	5	3	3	3	
	Large (100 or more)	3	0	2	1	2	3	0	1	
Sumska, Zaporizka	Small (5-19)	2	4	2	0	3	2	3	3	**46**
	Medium (20-99)	2	3	4	0	4	2	2	2	
	Large (100 or more)	2	0	2	1	1	0	1	1	
Khersonska, Mykolaivska, Odeska	Small (5-19)	3	6	2	0	1	3	3	3	**51**
	Medium (20-99)	4	2	5	0	2	3	3	0	
	Large (100 or more)	2	0	2	2	2	1	1	1	
Cherkaska, Chernihivska	Small (5-19)	1	3	1	0	2	2	2	3	**34**
	Medium (20-99)	2	3	2	0	1	2	1	1	
	Large (100 or more)	2	1	1	0	1	2	1	0	
Kirovohradska, Poltavska	Small (5-19)	3	0	2	1	2	3	2	2	**42**
	Medium (20-99)	3	4	2	1	4	2	2	2	
	Large (100 or more)	3	0	0	0	2	0	1	1	
Vinnytska, Zhytomyrska	Small (5-19)	1	3	3	1	0	2	2	2	**40**
	Medium (20-99)	3	1	2	0	3	2	3	3	
	Large (100 or more)	2	2	1	0	2	2	0	0	
		73	**77**	**70**	**24**	**57**	**78**	**48**	**73**	**500**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 10.9% (1640 out of 15018 establishments).[76]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

[76] Based on out of target and ineligible contacts.

Achieved Interviews (Fresh and Panel Combined)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	12	13	9	15	7	17	11	25	**242**
	Medium (20-99)	11	12	5	7	8	11	9	24	
	Large (100 or more)	11	2	7	2	6	9	6	3	
West	Small (5-19)	14	18	9	10	6	13	3	18	**228**
	Medium (20-99)	14	9	19	15	9	10	4	7	
	Large (100 or more)	9	10	4	2	5	10	7	3	
Dnipropetrovska, Kharkivska	Small (5-19)	15	4	7	13	4	14	4	24	**184**
	Medium (20-99)	8	4	2	4	4	22	5	19	
	Large (100 or more)	1	1	1	2	2	15	3	6	
Sumska, Zaporizka	Small (5-19)	3	5	5	7	7	5	5	11	**129**
	Medium (20-99)	6	7	7	6	8	2	4	3	
	Large (100 or more)	4	1	4	4	8	10	3	4	
Khersonska, Mykolaivska, Odeska	Small (5-19)	7	4	3	8	3	14	8	26	**149**
	Medium (20-99)	4	2	6	2	6	12	4	17	
	Large (100 or more)	4	1	2	2	3	4	1	6	
Cherkaska, Chernihivska	Small (5-19)	8	1	4	2	7	13	11	8	**127**
	Medium (20-99)	11	2	2	0	2	12	3	14	
	Large (100 or more)	5	1	2	0	1	5	2	10	
	Medium and Large (20+)	0	0	0	1	0	0	0	0	
Kirovohradska, Poltavska	Small (5-19)	5	7	5	7	5	6	3	5	**137**
	Medium (20-99)	5	14	9	9	8	3	5	2	
	Large (100 or more)	13	2	3	2	6	6	4	3	
Vinnytska, Zhytomyrska	Small (5-19)	3	5	7	7	6	3	4	5	**141**
	Medium (20-99)	6	9	11	8	8	4	6	5	
	Large (100 or more)	10	7	6	2	6	5	5	3	
		189	**141**	**139**	**137**	**135**	**225**	**120**	**251**	**1337**

Achieved Interviews (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	2	3	0	0	3	1	5	5	**33**
	Medium (20-99)	0	2	0	0	2	1	4	2	
	Large (100 or more)	0	1	2	0	0	0	0	0	
West	Small (5-19)	1	7	1	1	1	2	0	1	**24**
	Medium (20-99)	0	1	1	0	0	2	0	1	
	Large (100 or more)	0	2	0	0	1	2	0	0	
Dnipropetrovska, Kharkivska	Small (5-19)	0	1	1	1	0	1	0	1	**11**
	Medium (20-99)	3	0	0	0	1	0	0	1	
	Large (100 or more)	0	0	0	0	0	0	0	1	
Sumska, Zaporizka	Small (5-19)	0	1	2	0	3	2	2	1	**25**
	Medium (20-99)	0	3	4	0	4	0	1	0	
	Large (100 or more)	0	0	1	0	0	0	0	1	
Khersonska, Mykolaivska, Odeska	Small (5-19)	0	1	1	0	0	0	3	1	**12**
	Medium (20-99)	1	0	3	0	0	0	0	0	
	Large (100 or more)	0	0	0	1	0	0	1	0	
Cherkaska, Chernihivska	Small (5-19)	0	1	1	0	2	0	1	0	**10**
	Medium (20-99)	1	0	1	0	0	0	0	0	
	Large (100 or more)	1	0	1	0	0	0	1	0	
Kirovohradska, Poltavska	Small (5-19)	2	0	1	0	2	3	0	2	26
	Medium (20-99)	2	3	2	1	3	0	2	0	
	Large (100 or more)	2	0	0	0	0	0	1	0	
Vinnytska, Zhytomyrska	Small (5-19)	0	1	2	0	0	0	1	2	27
	Medium (20-99)	3	1	2	0	2	1	3	2	
	Large (100 or more)	2	2	0	0	1	2	0	0	
		20	**30**	**26**	**4**	**25**	**17**	**25**	**21**	**168**

A.39.2. Status Codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
4696	**Eligible**	1. Eligible establishment (Correct name and address)	4653
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	5
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	13
		4. Eligible establishment (Moved and traced)	23
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	2
2476	**Screener refusal**	13. Refuses to answer the screener	2476
1546	**Ineligible**	5. The establishment has less than 5 permanent full time employees	83
		616. The firm discontinued businesses - (Establishment went bankrupt)	14
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	43
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	9
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	749
		621. The firm discontinued businesses - (Other)	79
		71. Ineligible legal status: not a business, but private household	107
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	149
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	313
94	**Out of Target**	151. Out of target - outside the covered regions	12
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	3
		154. Out of target - establishment is HQ without production or sales of goods or services	8
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	30
		156. Duplicated firm within the sample	20
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	21
6206	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	2100
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	4106
15018	**Total contacted**		

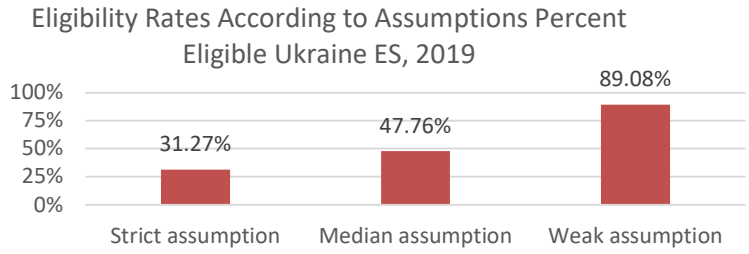
Response Outcomes: Ukraine ES 2019

Target and totals	Sample target	1320
	Sample target completion rate	101.3%
	Total contacts available in frame	55250
	Total contacts issued	15290
	Total contacts contacted	15018
Screening phase	Screening in process	0
	Eligibles	4696
	Screener refusal	2476
	Ineligible + out of target	1640
	Unobtainable	6206
Interview phase (only if eligible)	Complete interviews without extra module	2
	Complete interviews with extra module	1335
	Eligible in process + incomplete interviews	8
	Interview refusal	3351
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	16.5%
	Ineligible + out of target rate	10.9%
	Unobtainable rate	41.3%
	Interview conversion rate	8.9%
	Eligible in process + incomplete interviews rate	0.1%
	Interview refusal rate	22.3%

A.39.3. Universe estimates

Universe estimates for the number of establishments in each cell in Ukraine were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Ukraine were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Universe

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	207	91	115	228	137	1413	650	9713	**18047**
	Medium (20-99)	151	33	76	105	78	612	256	3039	
	Large (100 or more)	97	8	38	20	20	177	167	616	
West	Small (5-19)	200	75	146	132	67	808	508	3739	**8793**
	Medium (20-99)	196	75	112	76	38	478	148	1222	
	Large (100 or more)	101	54	44	19	21	220	67	247	
Dnipropetrovska, Kharkivska	Small (5-19)	175	61	105	209	141	877	274	4060	**8889**
	Medium (20-99)	132	36	66	88	109	472	129	1239	
	Large (100 or more)	106	7	21	36	36	190	67	253	
Sumska, Zaporizka	Small (5-19)	90	17	33	49	76	287	122	1365	**3036**
	Medium (20-99)	49	7	20	40	47	160	49	397	
	Large (100 or more)	28	2	8	10	26	66	24	64	
Khersonska, Mykolaivska, Odeska	Small (5-19)	124	20	46	70	32	372	212	2509	**5064**
	Medium (20-99)	118	13	27	24	32	150	82	887	
	Large (100 or more)	54	4	11	8	17	51	31	170	
Cherkaska, Chernihivska	Small (5-19)	54	19	26	29	21	171	139	760	**1896**
	Medium (20-99)	64	15	16	20	14	108	43	218	
	Large (100 or more)	43	7	5	6	11	48	8	51	
Kirovohradska, Poltavska	Small (5-19)	58	18	26	43	37	168	93	945	**2170**
	Medium (20-99)	53	14	17	19	29	83	34	335	
	Large (100 or more)	57	3	8	3	19	37	17	54	
Vinnytska, Zhytomyrska	Small (5-19)	70	15	74	41	26	197	109	819	**2192**
	Medium (20-99)	62	15	31	23	16	114	46	342	
	Large (100 or more)	50	11	15	7	14	42	6	47	
		2339	**620**	**1086**	**1305**	**1064**	**7301**	**3281**	**33091**	**50087**

Note: The sampling frame used and the universe are from separate sources

Universe Estimates

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Kyiv	Small (5-19)	207	102	123	228	143	1413	736	9713	**18730**
	Medium (20-99)	151	52	89	112	95	637	290	3272	
	Large (100 or more)	118	12	49	25	32	220	167	744	
West	Small (5-19)	296	179	154	157	67	956	894	4421	**11070**
	Medium (20-99)	241	108	144	76	46	544	267	1607	
	Large (100 or more)	129	63	49	23	28	248	67	306	
Dnipropetrovska, Kharkivska	Small (5-19)	175	78	105	209	141	877	356	4060	**9364**
	Medium (20-99)	147	46	67	88	109	508	143	1445	
	Large (100 or more)	110	9	27	39	49	217	67	292	
Sumska, Zaporizka	Small (5-19)	90	17	34	51	76	303	224	1480	**3576**
	Medium (20-99)	56	16	33	40	56	170	84	541	
	Large (100 or more)	45	6	12	14	26	88	24	90	
Khersonska, Mykolaivska, Odeska	Small (5-19)	129	43	52	70	32	395	305	2523	**5428**
	Medium (20-99)	118	20	41	24	33	197	115	934	
	Large (100 or more)	63	8	15	11	22	65	31	182	
Cherkaska, Chernihivska	Small (5-19)	64	23	26	29	29	199	229	879	**2379**
	Medium (20-99)	75	27	30	0	20	111	84	312	
	Large (100 or more)	55	9	5	0	11	50	11	73	
	Medium and Large (20+)	0	0	0	28	0	0	0	0	
Kirovohradska, Poltavska	Small (5-19)	79	24	37	43	37	230	182	1167	**2875**
	Medium (20-99)	63	38	20	22	37	114	58	454	
	Large (100 or more)	70	6	10	6	21	43	17	97	
Vinnytska, Zhytomyrska	Small (5-19)	90	22	103	43	33	272	286	1148	**3149**
	Medium (20-99)	73	23	47	23	32	160	65	463	
	Large (100 or more)	61	13	21	10	17	50	14	80	
		2705	**944**	**1293**	**1371**	**1192**	**8067**	**4716**	**36283**	**56571**

Note: Adjustments for strict, median and weak assumptions were not applied to universe estimates because the universe and the frame were from separate sources hence scenarios that apply to the frame cannot be assumed in the universe.

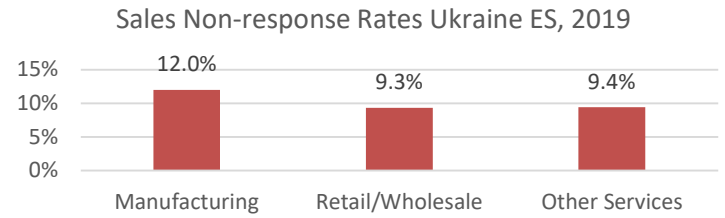
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.39.4. Non-Response

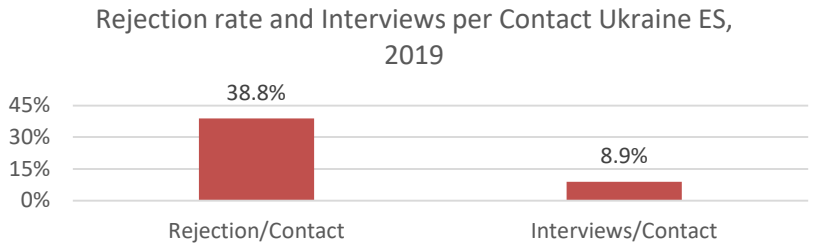
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.09.[77] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.39.



Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Ukraine. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

A.39.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: Ipsos Ukraine Region: Ukraine

[77] The estimate is based on the total no. of firms contacted including ineligible establishments.

	• As the member of ESOMAR, Ipsos subscribes to the ICC/ESOMAR International Code On Market And Social Research and ensures compliance of every aspect of our work with the standards set by the Code. • As a member of the Ukrainian Association of Marketing, Ipsos subscribes to the UAM standard of quality and its ethics code.
Enumerators involved:	Enumerators: 52 (some also done recruitment) Recruiters: 30.
Other staff involved:	Fieldwork Coordinators: 14 regional and central supervisors Editing: 1 Data Entry: 2-3 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	Electronic data base
Source:	UA-Region
Year:	May 2018
Comments on the quality of sample frame:	The quality of the sample frame was poor. A significant proportion of the contact information was inaccurate and the sample frame also included a lot of entities that are not operational. We tried to work with other sample frame sources, but they are either very expensive or have same bad quality.

Sample

Comments/ problems for particular regions:	In large cities the response rate was lower than in small ones, CATI recruitment works better. In small cities F2F recruitment is better.
Comments on the response rate:	Response rate is very low because senior managers and their secretaries do not to trust any type of surveys.
Comments on the sample design:	
Other comments:	No

Fieldwork

Date of Fieldwork	2 February 2019 to 26 December 2019
Country	Ukraine
Number of interviews	1344
Problems found during fieldwork:	• The sample frame contained a lot of incorrect contact information. CATI recruiters had to spend additional time searching for valid contact data in the internet. • The questionnaire is too long; senior managers are reluctant to spend this much time participating in a survey. • The questionnaire requires collection of a lot of sensitive information which not all respondents are willing to share. • Response rate is very low because senior managers and their secretaries do not to trust any type of surveys. In a small percentage of cases, letters with additional information sent by email was helpful.
Other observations:	

Questionnaires

Problems for the understanding of questions (indicate question number)	There were no issues with it. Manual with all questions was really helpful for this.

Problems found in the navigability of –questionnaires (for example, skip patterns).	
Comments on questionnaires length:	Almost all of respondents complained about the excessive length of the interview, which meant they were distracted from their main duties.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	N/A
Comments on the data cleaning	No

Country/ region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	• During the fieldwork period presidential (31 March and 21 April 2019) and parliamentary (21 July 2019) elections were held. Some respondents thought that our survey is connected to politics, that it why they refused to participate. • Occupation of part of West Ukraine and Crimea
Relevant country events occurred during fieldwork:	Same as above
Other aspects:	No

A.40 Uzbekistan

A.40.1. Sampling structure and implementation

The sample frame consisted of listings of establishments from two sources: for panel firms, the list of 390 firms from the Uzbekistan 2013 ES was used; and for fresh firms (i.e., firms not covered in 2013), a listing of establishments from State Committee of the Republic of Uzbekistan on Statistics, 3rd quarter of 2018, was used. The establishments in the listing are all registered as businesses with the local authority (khokimiyat) and obtain the certificate of state registration.

Regional stratification for the Uzbekistan ES was done across nine regions: Andijan Region, Fergana Region, Qashqadaryo Region, Samarqand Region, Tashkent Region, Tashkent, Karakalpakstan, Navoiy and Jizzakh Region, and Surxondaryo Region.

Provinces	**Grouping used for stratification purposes in BEEPS VI**
Andijan Region	Andijan Region
Fergana Region	Fergana Region
Qashqadaryo Region	Qashqadaryo Region
Samarqand Region	Samarqand Region
Tashkent Region	Tashkent Region
Tashkent	Tashkent
Karakalpakstan	Karakalpakstan
Navoiy Region	Navoiy and Jizzakh Region
Jizzakh Region	
Bukhara Region	Not covered
Surxondaryo Region	Surxondaryo Region
Sirdaryo Region	Not covered

Xorazm Region	Not covered
Namangan Region	Not covered

Uzbekistan ES Sample Frame (Fresh and Panel Combined)

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	109	91	170	29	106	313	306	1124	**2995**
	Medium (20-99)	21	38	66	7	32	75	62	333	
	Large (100 or more)	10	38	17	1	2	23	5	17	
Fergana Region	Small (5-19)	152	86	117	42	162	289	406	1151	**3229**
	Medium (20-99)	32	50	28	8	39	84	36	444	
	Large (100 or more)	11	32	5	0	14	13	7	21	
Qashqadaryo Region	Small (5-19)	79	15	15	7	65	61	300	890	**1944**
	Medium (20-99)	9	6	3	0	25	14	31	350	
	Large (100 or more)	8	17	5	0	2	3	5	34	
Samarqand Region	Small (5-19)	221	57	79	65	161	290	635	1400	**3627**
	Medium (20-99)	53	23	17	12	37	76	55	349	
	Large (100 or more)	16	32	8	0	7	14	2	18	
Tashkent Region	Small (5-19)	246	54	95	59	174	397	645	1433	**4103**
	Medium (20-99)	90	27	51	30	85	138	59	322	
	Large (100 or more)	31	23	37	0	18	36	7	46	
Tashkent	Small (5-19)	605	171	320	299	245	1678	1275	5868	**13320**
	Medium (20-99)	214	65	111	103	81	560	151	1238	
	Large (100 or more)	36	25	39	10	19	82	17	108	
Karakalpakstan	Small (5-19)	43	13	10	15	54	49	231	700	**1525**
	Medium (20-99)	14	5	4	1	27	25	32	253	
	Large (100 or more)	10	12	1	1	5	3	4	13	
Navoiy and Jizzakh Region	Small (5-19)	88	39	25	23	113	107	206	913	**2061**
	Medium (20-99)	10	16	8	6	32	37	46	317	
	Large (100 or more)	10	26	7	1	7	8	0	16	
Surxondaryo Region	Small (5-19)	63	15	13	6	67	56	217	759	**1592**
	Medium (20-99)	9	22	0	0	28	12	19	261	
	Large (100 or more)	7	12	1	0	0	1	4	20	
		2197	**1010**	**1252**	**725**	**1607**	**4444**	**4763**	**18398**	**34396**

Source: World Bank and the State Committee of the Republic of Uzbekistan on Statistics (3rd quarter of 2018)

Uzbekistan Sample Frame (Panel)

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	3	0	0	0	1	0	6	0	**48**
	Medium (20-99)	0	4	0	0	1	1	14	4	
	Large (100 or more)	4	3	0	0	0	3	2	2	
Fergana Region	Small (5-19)	2	0	0	0	0	0	3	5	**49**
	Medium (20-99)	1	2	0	0	2	2	7	11	
	Large (100 or more)	2	4	0	0	2	1	2	3	
Qashqadaryo Region	Small (5-19)	0	0	1	0	1	0	3	2	**33**
	Medium (20-99)	0	0	0	0	0	1	6	7	
	Large (100 or more)	2	3	1	0	0	0	1	5	
Samarqand Region	Small (5-19)	0	0	0	0	0	0	9	2	**37**
	Medium (20-99)	2	1	0	0	1	0	8	3	
	Large (100 or more)	3	2	0	0	0	1	1	4	
Tashkent Region	Small (5-19)	1	0	0	0	3	1	7	7	**64**
	Medium (20-99)	2	2	0	1	3	2	8	6	
	Large (100 or more)	1	0	1	0	1	5	3	10	
Tashkent	Small (5-19)	3	1	2	4	0	15	17	46	**158**
	Medium (20-99)	2	1	0	3	0	12	15	12	
	Large (100 or more)	0	0	1	0	0	8	10	6	
Surxondaryo Region	Small (5-19)	0	0	0	0	0	0	0	0	**1**
	Medium (20-99)	0	1	0	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	0	
		28	**24**	**6**	**8**	**15**	**52**	**122**	**135**	**390**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design
Original Sample Design (Fresh)

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	3	3	8	10	3	4	3	9	**94**
	Medium (20-99)	6	3	11	2	4	3	3	3	
	Large (100 or more)	2	3	3	0	1	3	1	3	
Fergana Region	Small (5-19)	3	3	6	14	3	3	3	7	**96**
	Medium (20-99)	5	5	10	3	3	3	3	3	
	Large (100 or more)	3	3	2	0	3	3	2	3	
Qashqadaryo Region	Small (5-19)	12	5	5	2	8	6	6	10	**95**
	Medium (20-99)	3	2	1	0	9	5	4	3	
	Large (100 or more)	2	5	1	0	1	1	1	3	
Samarqand Region	Small (5-19)	7	3	6	16	3	4	5	19	**118**
	Medium (20-99)	8	5	6	4	5	4	3	3	
	Large (100 or more)	3	3	3	0	2	3	0	3	
Tashkent Region	Small (5-19)	6	3	5	14	3	6	6	16	**126**
	Medium (20-99)	7	4	11	10	4	5	3	3	
	Large (100 or more)	3	3	4	0	3	3	1	3	
Tashkent	Small (5-19)	6	3	3	9	3	20	12	20	**132**
	Medium (20-99)	3	3	3	11	3	4	3	3	
	Large (100 or more)	3	3	3	3	3	3	2	3	
Karakalpakstan	Small (5-19)	13	5	4	5	11	8	8	7	**115**
	Medium (20-99)	5	2	1	0	9	9	10	3	
	Large (100 or more)	4	4	0	0	2	1	1	3	
Navoiy and Jizzakh Region	Small (5-19)	8	5	9	8	7	5	3	9	**115**
	Medium (20-99)	4	6	3	2	11	9	4	3	
	Large (100 or more)	4	5	2	0	2	3	0	3	
Surxondaryo Region	Small (5-19)	15	5	5	2	13	10	9	11	**114**
	Medium (20-99)	3	7	0	0	10	4	7	3	
	Large (100 or more)	2	4	0	0	0	0	1	3	
		143	**105**	**115**	**115**	**129**	**132**	**104**	**162**	**1005**

Original Sample Design (Panel)

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	2	0	0	0	1	0	3	0	**26**
	Medium (20-99)	0	2	0	0	1	1	6	2	
	Large (100 or more)	2	2	0	0	0	2	1	1	
Fergana Region	Small (5-19)	1	0	0	0	0	0	2	3	**24**
	Medium (20-99)	1	1	0	0	1	1	4	2	
	Large (100 or more)	1	2	0	0	1	1	1	2	
Qashqadaryo Region	Small (5-19)	0	0	1	0	1	0	2	1	**20**
	Medium (20-99)	0	0	0	0	0	1	3	4	
	Large (100 or more)	1	2	1	0	0	0	1	2	
Samarqand Region	Small (5-19)	0	0	0	0	0	0	5	1	**22**
	Medium (20-99)	1	1	0	0	1	0	4	2	
	Large (100 or more)	2	1	0	0	0	1	1	2	
Tashkent Region	Small (5-19)	1	0	0	0	2	1	4	4	**34**
	Medium (20-99)	1	1	0	1	2	1	4	2	
	Large (100 or more)	1	0	1	0	1	3	2	2	
Tashkent	Small (5-19)	2	1	1	2	0	8	9	20	**68**
	Medium (20-99)	1	1	0	2	0	6	2	6	
	Large (100 or more)	0	0	1	0	0	2	2	2	
Karakalpakstan	Small (5-19)	0	0	0	0	0	0	0	0	**0**
	Medium (20-99)	0	0	0	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	0	
Navoiy and Jizzakh Region	Small (5-19)	0	0	0	0	0	0	0	0	**0**
	Medium (20-99)	0	0	0	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	0	
Surxondaryo Region	Small (5-19)	0	0	0	0	0	0	0	0	**1**
	Medium (20-99)	0	1	0	0	0	0	0	0	
	Large (100 or more)	0	0	0	0	0	0	0	0	
		17	**15**	**5**	**5**	**11**	**28**	**56**	**58**	**195**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 7.4% (242 out of 3268 establishments).[78]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	5	3	10	11	3	4	6	13	**133**
	Medium (20-99)	9	7	13	0	7	2	11	3	
	Large (100 or more)	4	4	3	0	1	5	2	5	
	Medium and Large (20+)	0	0	0	2	0	0	0	0	
Fergana Region	Small (5-19)	4	2	7	13	3	4	6	11	**123**
	Medium (20-99)	7	6	10	4	4	5	6	7	
	Large (100 or more)	2	3	3	0	4	3	4	5	
Qashqadaryo Region	Small (5-19)	12	8	4	2	8	5	8	11	**115**
	Medium (20-99)	3	2	1	0	9	0	8	7	
	Large (100 or more)	4	9	3	0	1	0	3	7	
Samarqand Region	Small (5-19)	0	0	0	0	0	9	0	0	**144**
	Medium (20-99)	9	2	5	18	4	4	6	24	
	Large (100 or more)	10	7	6	2	7	5	0	1	
	Medium and Large (20+)	5	3	4	0	3	4	0	6	
Tashkent Region	Small (5-19)	0	0	0	0	0	0	12	0	**128**
	Medium (20-99)	6	2	5	12	4	8	11	16	
	Large (100 or more)	5	3	8	10	3	5	7	11	
Tashkent	Small (5-19)	4	3	6	0	3	8	4	11	**210**
	Medium (20-99)	8	3	5	13	3	29	19	38	
	Large (100 or more)	4	4	4	13	3	11	5	9	
Karakalpakstan	Small (5-19)	3	3	5	3	4	6	4	6	**142**

[78] Based on out of target and ineligible contacts.

	Medium (20-99)	11	5	2	0	11	11	8	7	
	Large (100 or more)	6	2	0	0	10	6	6	4	
	Medium and Large (20+)	4	5	0	0	3	1	1	3	
	Small, Medium and Large (5+)	0	0	2	0	0	0	0	0	
Navoiy and Jizzakh Region	Small (5-19)	0	0	0	5	0	0	0	0	**117**
	Medium (20-99)	8	3	8	13	8	4	3	8	
	Large (100 or more)	4	6	3	0	9	9	3	3	
	Medium and Large (20+)	4	4	5	0	2	2	0	3	
Surxondaryo Region	Small (5-19)	0	0	0	3	0	0	0	0	**122**
	Medium (20-99)	15	7	0	2	14	11	9	11	
	Large (100 or more)	3	10	0	0	11	0	7	2	
	Medium and Large (20+)	3	5	0	0	0	0	1	3	
	Small, Medium and Large (5+)	0	0	0	0	0	5	0	0	
		162	**121**	**122**	**126**	**142**	**166**	**160**	**235**	**1234**

Achieved Interviews (Panel)

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	2	0	0	0	1	0	2	0	**18**
	Medium (20-99)	0	2	0	0	1	0	6	0	
	Large (100 or more)	1	0	0	0	0	2	1	0	
Fergana Region	Small (5-19)	0	0	0	0	0	0	2	2	**22**
	Medium (20-99)	0	1	0	0	1	1	4	4	
	Large (100 or more)	0	1	0	0	1	1	2	2	
Qashqadaryo Region	Small (5-19)	0	0	1	0	0	0	1	0	**11**
	Medium (20-99)	0	0	0	0	0	0	1	2	
	Large (100 or more)	1	2	0	0	0	0	1	2	
Samarqand Region	Small (5-19)	0	0	0	0	0	0	2	1	**17**
	Medium (20-99)	1	0	0	0	1	0	0	0	
	Large (100 or more)	2	1	0	0	0	1	0	3	
	Medium and Large (20+)	0	0	0	0	0	0	5	0	
Tashkent Region	Small (5-19)	1	0	0	0	2	1	2	2	**37**
	Medium (20-99)	0	1	0	1	0	2	4	4	

	Large (100 or more)	1	0	1	0	1	5	2	7	
Tashkent	Small (5-19)	2	0	1	2	0	9	6	19	**65**
	Medium (20-99)	1	1	0	2	0	6	3	6	
	Large (100 or more)	0	0	1	0	0	2	2	2	
		12	**9**	**4**	**5**	**8**	**30**	**46**	**56**	**170**

A.40.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
1313	**Eligible**	1. Eligible establishment (Correct name and address)	1265
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	12
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	7
		4. Eligible establishment (Moved and traced)	22
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	7
1114	**Screener refusal**	13. Refuses to answer the screener	1114
241	**Ineligible**	5. The establishment has less than 5 permanent full time employees	30
		616. The firm discontinued businesses - (Establishment went bankrupt)	48
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	19
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	4
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	29
		621. The firm discontinued businesses - (Other)	29
		71. Ineligible legal status: not a business, but private household	51
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	10
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	21
14	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	1
		154. Out of target - establishment is HQ without production or sales of goods or services	1
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	10
		156. Duplicated firm within the sample	2
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0
586	**Unobtainable**	91. No reply after having called in different days of the week and in different business hours	4
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	582
3268	**Total contacted**		

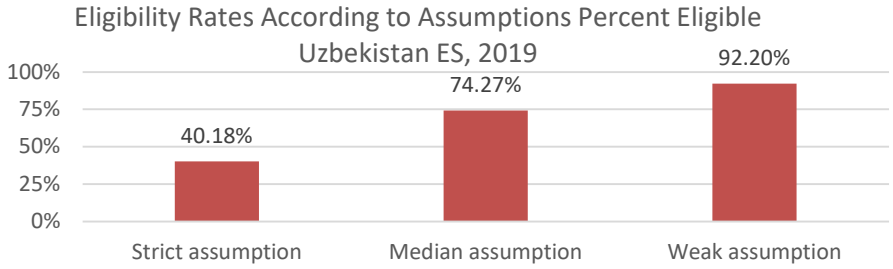
Response Outcomes: Uzbekistan ES 2019

Target and totals	Sample target	1200
	Sample target completion rate	103.3%
	Total contacts available in frame	34396
	Total contacts issued	3454
	Total contacts contacted	3268
Screening phase	Screening in process	0
	Eligibles	1313
	Screener refusal	1114
	Ineligible + out of target	255
	Unobtainable	586
Interview phase (only if eligible)	Complete interviews without extra module	36
	Complete interviews with extra module	1203
	Eligible in process + incomplete interviews	0
	Interview refusal	73
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	34.1%
	Ineligible + out of target rate	7.8%
	Unobtainable rate	17.9%
	Interview conversion rate	37.9%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	2.2%

A.40.3. Universe estimates

Universe estimates for the number of establishments in each cell in Uzbekistan were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in Uzbekistan were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights
Strict Universe Estimates – Fresh:

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	46	40	76	12	45	125	133	492	**1313**
	Medium (20-99)	9	17	31	0	14	31	28	152	
	Large (100 or more)	5	19	9	0	1	11	3	9	
	Medium and Large (20+)	0	0	0	6	0	0	0	0	
Fergana Region	Small (5-19)	61	35	50	17	65	109	166	475	**1334**
	Medium (20-99)	13	21	12	4	16	33	15	191	
	Large (100 or more)	5	15	3	0	6	6	4	10	
Qashqadaryo Region	Small (5-19)	35	8	7	3	29	25	136	407	**890**
	Medium (20-99)	4	3	1	0	12	0	15	167	
	Large (100 or more)	4	9	3	0	1	0	3	18	
Samarqand Region	Small (5-19)	0	0	0	0	0	12	0	0	**1345**
	Medium (20-99)	81	21	30	24	59	99	236	525	
	Large (100 or more)	20	9	7	5	14	27	0	136	
	Medium and Large (20+)	7	14	4	0	3	6	0	8	
Tashkent Region	Small (5-19)	0	0	0	0	0	0	35	0	**1348**
	Medium (20-99)	81	18	33	19	57	123	217	486	
	Large (100 or more)	31	10	18	10	29	44	21	114	
Tashkent	Small (5-19)	12	9	15	0	7	13	4	20	**4603**
	Medium (20-99)	207	60	116	102	84	538	444	2068	
	Large (100 or more)	76	24	42	37	29	187	55	455	
Karakalpakstan	Small (5-19)	14	10	16	4	8	30	7	44	**679**
	Medium (20-99)	15	5	4	0	19	16	82	250	
	Large (100 or more)	6	2	0	0	10	8	12	94	
	Medium and Large (20+)	4	5	0	0	3	1	2	5	
	Small, Medium and Large (5+)	0	0	3	0	0	0	0	0	
Navoiy and Jizzakh Region	Small (5-19)	0	0	0	7	0	0	0	0	**699**
	Medium (20-99)	28	13	8	13	36	32	67	302	
	Large (100 or more)	4	6	3	0	11	12	16	109	

	Medium and Large (20+)	4	10	5	0	3	3	0	6	
Surxondaryo Region	Small (5-19)	0	0	0	4	0	0	0	0	**690**
	Medium (20-99)	26	7	0	3	28	22	92	327	
	Large (100 or more)	4	10	0	0	12	0	8	117	
	Medium and Large (20+)	3	6	0	0	0	0	2	10	
	Small, Medium and Large (5+)	0	0	0	0	0	8	0	0	
		808	**407**	**497**	**269**	**600**	**1520**	**1802**	**6998**	**12901**

Median Universe Estimates – Fresh:

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	83	73	131	23	84	220	255	842	**2329**
	Medium (20-99)	17	33	55	0	27	57	56	269	
	Large (100 or more)	9	34	15	0	2	18	5	14	
	Medium and Large (20+)	0	0	0	8	0	0	0	0	
Fergana Region	Small (5-19)	126	76	98	36	139	221	368	938	**2738**
	Medium (20-99)	29	47	25	7	36	69	35	390	
	Large (100 or more)	10	32	5	0	13	11	7	19	
Qashqadaryo Region	Small (5-19)	65	13	13	6	55	46	270	720	**1629**
	Medium (20-99)	8	6	3	0	23	0	30	305	
	Large (100 or more)	7	17	5	0	2	0	5	31	
Samarqand Region	Small (5-19)	0	0	0	0	0	16	0	0	**2225**
	Medium (20-99)	134	37	49	41	101	162	421	834	
	Large (100 or more)	35	16	11	8	25	46	0	224	
	Medium and Large (20+)	11	23	6	0	5	9	0	12	
Tashkent Region	Small (5-19)	0	0	0	0	0	0	47	0	**2500**
	Medium (20-99)	152	35	59	38	111	226	434	868	
	Large (100 or more)	60	19	34	21	58	85	43	210	
Tashkent	Small (5-19)	21	17	26	0	13	23	6	32	**8729**
	Medium (20-99)	399	119	214	203	167	1019	917	3794	
	Large (100 or more)	152	49	80	75	59	366	117	862	
Karakalpakstan	Small (5-19)	27	20	29	8	14	56	14	78	**1426**

	Medium (20-99)	33	10	8	0	43	34	192	524	
	Large (100 or more)	12	4	0	0	23	19	29	204	
	Medium and Large (20+)	9	11	0	0	4	2	4	11	
	Small, Medium and Large (5+)	0	0	5	0	0	0	0	0	
Navoiy and Jizzakh Region	Small (5-19)	0	0	0	14	0	0	0	0	**1566**
	Medium (20-99)	65	31	19	18	86	73	166	663	
	Large (100 or more)	8	13	6	0	26	27	40	248	
	Medium and Large (20+)	8	23	6	0	6	6	0	13	
Surxondaryo Region	Small (5-19)	0	0	0	7	0	0	0	0	**1213**
	Medium (20-99)	47	12	0	5	52	39	177	556	
	Large (100 or more)	7	19	0	0	23	0	17	206	
	Medium and Large (20+)	6	11	0	0	0	0	4	16	
	Small, Medium and Large (5+)	0	0	0	0	0	11	0	0	
		1542	**798**	**901**	**516**	**1198**	**2861**	**3656**	**12883**	**24355**

Weak Universe Estimates – Fresh:

		Food	Textiles	Garments	Rubber and Plastics Products	Non Metallic Mineral Products	Other Manufacturing	Retail	Other Services	Grand Total
Andijan Region	Small (5-19)	103	83	149	27	99	299	285	1035	**2791**
	Medium (20-99)	21	36	60	0	31	74	59	316	
	Large (100 or more)	10	36	16	0	2	23	5	16	
	Medium and Large (20+)	0	0	0	8	0	0	0	0	
Fergana Region	Small (5-19)	138	75	99	37	145	264	363	1016	**2889**
	Medium (20-99)	30	45	24	7	36	79	33	403	
	Large (100 or more)	10	29	4	0	13	12	7	19	
Qashqadaryo Region	Small (5-19)	73	13	13	6	59	56	271	794	**1742**
	Medium (20-99)	9	5	3	0	23	0	29	322	
	Large (100 or more)	8	16	4	0	2	0	5	32	
Samarqand Region	Small (5-19)	0	0	0	0	0	16	0	0	**3030**
	Medium (20-99)	190	47	63	54	136	250	536	1167	
	Large (100 or more)	47	19	14	10	32	68	0	299	
	Medium and Large (20+)	14	27	7	0	6	13	0	16	

Tashkent Region	Small (5-19)	0	0	0	0	0	0	50	0	**3798**
	Medium (20-99)	240	50	86	56	166	389	618	1356	
	Large (100 or more)	90	26	47	29	84	139	58	314	
Tashkent	Small (5-19)	32	22	35	0	18	37	8	45	**12369**
	Medium (20-99)	577	156	282	276	229	1608	1194	5426	
	Large (100 or more)	210	61	101	98	78	552	146	1178	
Karakalpakstan	Small (5-19)	36	24	36	10	19	82	17	104	**1669**
	Medium (20-99)	39	11	8	0	48	45	205	615	
	Large (100 or more)	13	4	0	0	25	23	29	229	
	Medium and Large (20+)	9	11	0	0	5	3	4	12	
	Small, Medium and Large (5+)	0	0	4	0	0	0	0	0	
Navoiy and Jizzakh Region	Small (5-19)	0	0	0	13	0	0	0	0	**1861**
	Medium (20-99)	81	34	21	20	101	98	185	810	
	Large (100 or more)	9	14	7	0	30	35	43	290	
	Medium and Large (20+)	10	24	6	0	7	8	0	15	
Surxondaryo Region	Small (5-19)	0	0	0	6	0	0	0	0	**1504**
	Medium (20-99)	61	14	0	6	63	54	206	711	
	Large (100 or more)	9	21	0	0	27	0	19	252	
	Medium and Large (20+)	7	12	0	0	0	0	4	20	
	Small, Medium and Large (5+)	0	0	0	0	0	13	0	0	
		2074	**918**	**1089**	**663**	**1481**	**4241**	**4376**	**16810**	**31652**

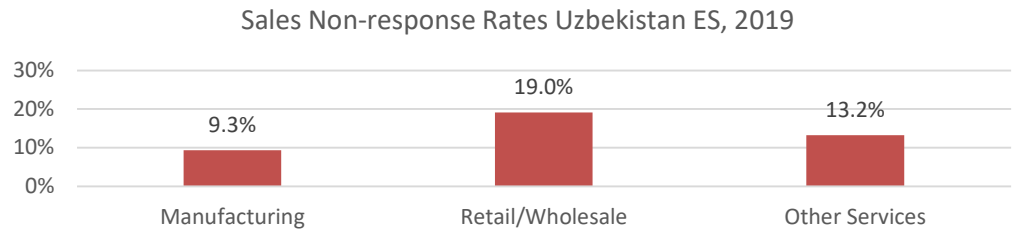
Once an accurate estimate of the universe cell projection was made, weights for the probability of selection were computed using the number of completed interviews for each cell.

A.40.4. Non-response

Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.38.[79] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.36.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to Uzbekistan. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.

[79] The estimate is based on the total no. of firms contacted including ineligible establishments.

A.40.5. Local agency team involved in the study and its comments on the implementation

Local agency team involved in the survey

Local Agency	Name: SIAR Research and Consulting Group Region: Republic of Uzbekistan SIAR Research and Consulting Group (SIAR), has grown from the SIAR Social and Marketing Research Center, which was established in 1993 in Baku, Azerbaijan, and is currently a leader of research market in Azerbaijan. Besides the Center, SIAR currently also includes SIAR Media (engaged in media and advertisement researches), SIAR Consulting (engaged in research-based consultancy), SIAR Healthcare (engaged in healthcare research), SIAR Tracking (tracking projects). In terms of geographical coverage, SIAR conducts researches within the whole territory of Azerbaijan, Georgia, Moldova as well as all five countries of the Central Asian region: Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan. Activities since: 1993
Enumerators involved:	Enumerators: 57 Recruiters: 9
Other staff involved:	Fieldwork Coordinators: 9 regional supervisors Editing: 1 Data Entry: 5 Data Processing: Ipsos was responsible for all data processing

Sample Frame

Characteristic of sample frame used:	List of companies with relevant columns/variables
Source:	The State Committee of the Republic of Uzbekistan
Year:	2018
Comments on the quality of sample frame:	The sample frame contained quite outdated data for a fairly large number of enterprises. Many enterprises were liquidated or moved, company names in some cases were incomplete. The sample contained quite a larger number of wrong phone numbers, numbers without city code and addresses. Information on the size of enterprise and its field of activity was not always accurate.

Sample

Comments/ problems for particular regions:	On regions: In general, there were no problems in individual regions. It should be noted that fieldwork was significantly complicated by the large distances between enterprises in the Tashkent region. When a recruiter made an appointment with three companies in the same city for one interviewer per day, most often, when interviewer arrived at the enterprise at the scheduled time, the management was absent and the interview was postponed. On average, the interviewer was able to conduct no more than one interview per day due to the large distances between enterprises in the Tashkent region, which deviated from the target we planned.
Comments on the response rate:	As can be seen, approximately 34% of enterprises contacted in the sample frame refused to be interviewed. This is considered a good result for the Republic of Uzbekistan.

Comments on the sample design:	Overall, the sample design served well and made work easier. The real activities of enterprises often did not coincide with the indicated stratification sector in the sample design.
Other comments:	No

Fieldwork

Date of Fieldwork	01 February to 31 August 2019
Country	The Republic of Uzbekistan
Number of interviews	1254
Problems found during fieldwork:	The sample frame contained quite outdated data about a fairly large number of enterprises. Information on the size of enterprise and its field of activity was not always accurate. Significant efforts were made to persuade businesses to conduct an interview, convincing that their answers are very important for research of business climate of country.
Other observations:	The general attitude of the respondents to the survey was quite positive.

Questionnaires

Problems for the understanding of questions (indicate question number)	K.7
Problems found in the navigability of –questionnaires (for example, skip patterns).	No significant problems were identified.
Comments on questionnaires length:	Often respondents, despite positive attitude to the survey, complained about the length of the questionnaire, which led to additional visits on other days.
Suggestions or other comments on the questionnaire:	No

Database

Data entry program chosen	iField
Comments on the data entry program	No
Comments on the data cleaning	No

Country/region situation

General aspects of economic, political or social situation of the country/region that could affect the results of the survey:	Overall, a calm economic and political situation was observed in the Republic of Uzbekistan during the fieldwork. It should be noted that taxes and other mandatory payments have changed a lot from January 2019. Starting from January 1, 2019, only legal entities with an annual turnover (revenue) not exceeding 1 billion soms at the end of 2018 will be able to pay a single tax payment. In 2018, the criteria for paying a single tax payment was the number of employees and the implementation of a certain type of activity. The size of the annual turnover (revenue) for the possibility of paying a single tax payment was not taken into account.
Relevant country events occurred during fieldwork:	Uzbekistan took 64th place in the Paying Taxes 2019 tax rating, which is conducted by PwC in cooperation with the World Bank. According to the study, the total tax rate of Uzbekistan is 32.1 percent, which represents the proportion of taxes and contributions to the company's profits.

	Regional Radiocommunication Seminar 2019 for CIS and neighbouring countries was held on 10-14 Jun 2019. International Conference with speakers from Russia, Ukraine, Kazakhstan, Uzbekistan for pharmaceutical business, creating opportunity for searching partners on the distribution and promotion of pharmaceutical products was held in Uzbekistan on 14 March 2019. Central Asia Climate Change Conference 2019, organized by the Climate Adaptation and Mitigation Program for Aral Sea Basin, the World Bank and partners was held in Tashkent on 3-4 April 2019. Uzbekistan International Oil & Gas Exhibition & Conference. The OGU exhibition is a unique event among oil and gas industry forums. The event offers a high-level business platform for presenting the latest achievements and developments for international oil and gas companies, and is the central meeting place to network with suppliers and producers. The event was held on 15 - 17 May 2019 in Tashkent.
Other aspects:	It is important to note that the changes in tax laws in the country could have an impact on survey. As it was mentioned above, the tax was introduced for enterprises, annual turnover of which exceeded 1 billion soms. Some companies began to close and to divide into small firms in order to avoid paying tax. Also, enterprises changed locations due to the increase in rents.

A.41 West Bank and Gaza

A.41.1. Sampling structure and implementation

The sample frame consisted of listings of firms from two sources: For panel firms, the list of 434 firms from the West Bank and Gaza 2013 ES was used and for fresh firms (i.e., firms not covered in 2013), the PCBS database was used.
Regional stratification was defined in two (the West Bank / Gaza) regions (city and the surrounding business area) throughout the West Bank and Gaza.

Districts	Grouping to be used for stratification purposes in BEEPS VI
The West Bank (including East Jerusalem)	The West Bank
Gaza Strip	Gaza

West Bank and Gaza ES Sample Frame (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	95	83	84	**489**
	Medium (20-99)	48	34	49	
	Large (100 or more)	46	9	41	
Gaza Strip	Small (5-19)	46	44	44	**272**
	Medium (20-99)	35	51	30	
	Large (100 or more)	7	3	12	
		277	**224**	**260**	**761**

Source: World Bank and PCBS

West Bank and Gaza ES Sample Frame (Panel)

		Manufacturing	Retail	Other Services	Grand Total

West Bank	Small (5-19)	69	65	71	**295**
	Medium (20-99)	25	10	36	
	Large (100 or more)	13	0	6	
Gaza Strip	Small (5-19)	26	31	30	**139**
	Medium (20-99)	23	6	19	
	Large (100 or more)	2	0	2	
		158	**112**	**164**	**434**

Necessary measures were taken to ensure the quality of the frame; however, the sample frame was not immune to the typical problems found in establishment surveys: positive rates of non-eligibility, repetition, non-existent units, etc.

Original Sample Design

Original Sample Design (Fresh)

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	32	34	28	**210**
	Medium (20-99)	18	18	18	
	Large (100 or more)	27	8	27	
Gaza Strip	Small (5-19)	20	25	21	**150**
	Medium (20-99)	17	33	16	
	Large (100 or more)	6	2	10	
		120	**120**	**120**	**360**

Original Sample Design (Panel)

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	15	15	15	**98**
	Medium (20-99)	15	8	15	
	Large (100 or more)	10	0	5	
Gaza Strip	Small (5-19)	15	15	15	**83**
	Medium (20-99)	15	5	14	
	Large (100 or more)	2	0	2	
		72	**43**	**66**	**181**

Given the impact that non-eligible units included in the sample universe may have on the results, adjustments may be needed when computing the appropriate weights for individual observations. The percentage of confirmed non-eligible units as a proportion of the total number of sampled establishments contacted for the survey was 18.6% (90 out of 481 establishments).[80]

Breaking down by industry and size, the following sample targets were achieved (based on the sampling information):

Achieved Interviews (Fresh and Panel Combined)

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	32	25	31	**205**
	Medium (20-99)	19	18	18	
	Large (100 or more)	26	7	29	
Gaza Strip	Small (5-19)	26	26	23	**160**
	Medium (20-99)	19	34	16	
	Large (100 or more)	6	1	9	
		128	**111**	**126**	**365**

[80] Based on out of target and ineligible contacts.

Achieved Interviews (Panel)

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	14	17	27	**88**
	Medium (20-99)	7	4	13	
	Large (100 or more)	4	0	2	
Gaza Strip	Small (5-19)	16	23	19	**94**
	Medium (20-99)	17	2	14	
	Large (100 or more)	2	0	1	
		60	**46**	**76**	**182**

A.41.2. Status codes

0	**Screening in process**	14. In process (the establishment is being called/ is being contacted - previous to ask the screener)	0
366	**Eligible**	1. Eligible establishment (Correct name and address)	366
		2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment)	0
		3. Eligible establishment (Different name but same address - the firm/establishment changed its name)	0
		4. Eligible establishment (Moved and traced)	0
		16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	0
25	**Screener refusal**	13. Refuses to answer the screener	25
75	**Ineligible**	5. The establishment has less than 5 permanent full time employees	11
		616. The firm discontinued businesses - (Establishment went bankrupt)	0
		618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm)	1
		619. The firm discontinued businesses - (Establishment was bought out by another firm)	0
		620. The firm discontinued businesses - (It was impossible to determine for what reason)	0
		621. The firm discontinued businesses - (Other)	59
		71. Ineligible legal status: not a business, but private household	0
		72. Ineligible legal status: cooperatives, non-profit organizations, etc.	2
		8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	2
15	**Out of Target**	151. Out of target - outside the covered regions	0
		152. Out of target - moved abroad	0
		153. Out of target - Not registered with Statistical Authority	5
		154. Out of target - establishment is HQ without production or sales of goods or services	0
		155. Out of target - establishment was not in operation for the entirety of last fiscal year	1
		156. Duplicated firm within the sample	9
		157. Out of target - location that is not HQ and does not have financial statements prepared separately	0

0	Unobtainable	91. No reply after having called in different days of the week and in different business hours	0
		92. Line out of order	0
		93. No tone	0
		94. Phone number does not exist	0
		10. Answering machine	0
		11. Fax line- data line	0
		12. Wrong address/ moved away and could not get the new references	0
481	Total contacted		

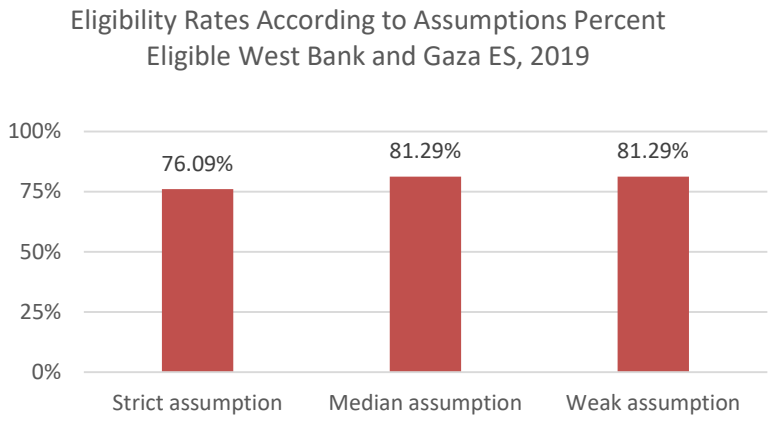
Response Outcomes: West Bank and Gaza ES 2019

Target and totals	Sample target	360
	Sample target completion rate	101.4%
	Total contacts available in frame	761
	Total contacts issued	595
	Total contacts contacted	483
Screening phase	Screening in process	0
	Eligibles	366
	Screener refusal	25
	Ineligible + out of target	90
	Unobtainable	0
Interview phase (only if eligible)	Complete interviews without extra module	0
	Complete interviews with extra module	365
	Eligible in process + incomplete interviews	0
	Interview refusal	25
Percent breakdown (relative to total contacted)	Screening in process rate	0.0%
	Screener refusal rate	5.2%
	Ineligible + out of target rate	18.6%
	Unobtainable rate	0.0%
	Interview conversion rate	75.6%
	Eligible in process + incomplete interviews rate	0.0%
	Interview refusal rate	5.2%

A.41.3. Universe estimates

Universe estimates for the number of establishments in each cell in West Bank and Gaza were produced for the strict, weak and median eligibility definitions described in section 5.2. The estimates were the multiple of the relative eligible proportions.

The following graph shows the different eligibility rates calculated for firms in the sample frame under each set of assumptions.



Universe estimates for the number of establishments in each industry-region-size cell in West Bank and Gaza were produced for the strict, weak and median eligibility definitions. Tables below show the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

Universe Estimate Based on Sampling Weights

Strict Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	2122	1225	1666	**5811**
	Medium (20-99)	339	97	287	
	Large (100 or more)	35	8	30	
Gaza Strip	Small (5-19)	581	571	689	**2103**
	Medium (20-99)	91	48	105	
	Large (100 or more)	6	2	9	
		3175	**1952**	**2787**	**7914**

Median Universe Estimates – Fresh:

		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	2207	1243	1623	**5929**
	Medium (20-99)	376	105	299	
	Large (100 or more)	38	8	30	
Gaza Strip	Small (5-19)	618	593	687	**2184**
	Medium (20-99)	103	53	112	
	Large (100 or more)	6	2	9	
		3348	**2004**	**2761**	**8113**

Weak Universe Estimates – Fresh:

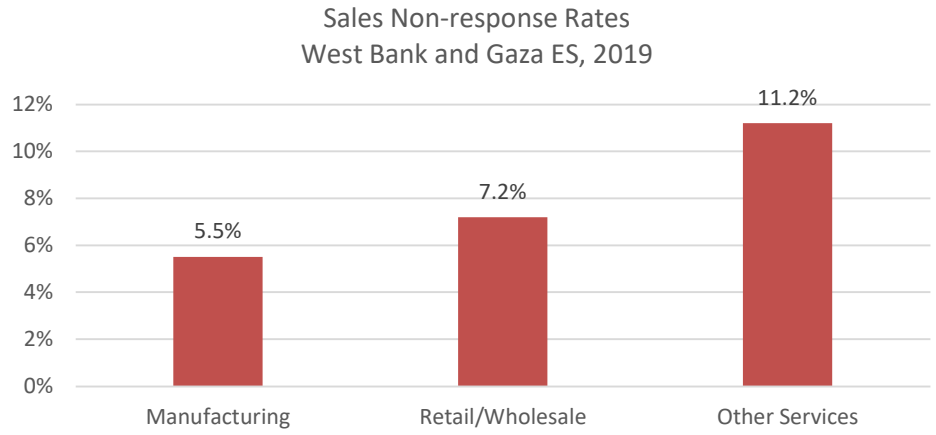
		Manufacturing	Retail	Other Services	Grand Total
West Bank	Small (5-19)	2207	1243	1623	**5929**
	Medium (20-99)	376	105	299	
	Large (100 or more)	38	8	30	
Gaza Strip	Small (5-19)	618	593	687	**2184**
	Medium (20-99)	103	53	112	
	Large (100 or more)	6	2	9	
		3348	**2004**	**2761**	**8113**

A.41.4. Non-response

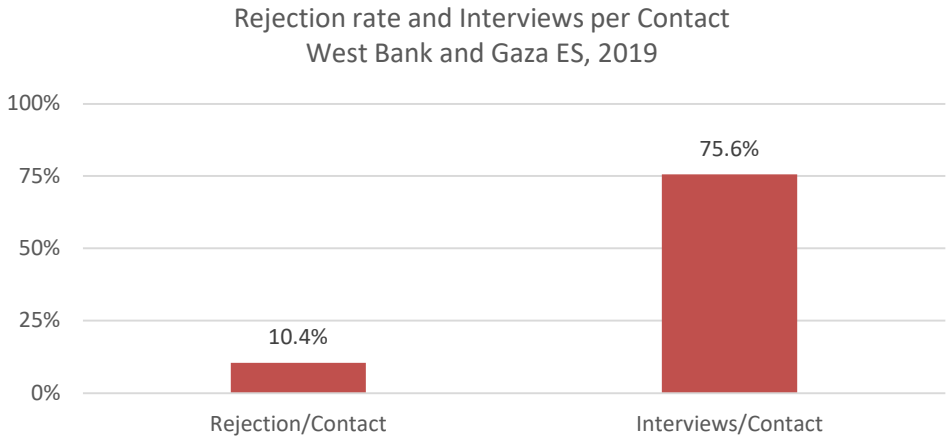
Survey non-response must be differentiated from item non-response. The former refers to refusals to participate in the survey altogether whereas the latter refers to the refusals to answer some specific questions. Enterprise Surveys suffer from both problems and different strategies were used to address these issues.

Item non-response was addressed by two strategies:

a) For sensitive questions that may generate negative reactions from the respondent, such as corruption or tax evasion, enumerators were instructed to collect the refusal to respond (-8) as a different option from don't know (-9).
b) Establishments with incomplete information were re-contacted in order to complete this information, whenever necessary. However, there were clear cases of low response. The following graph shows non-response rates for the sales variable, d2, by sector. Please, note that for this specific question, refusals were not separately identified from "Don't know" responses.



As the following graph shows, the number of interviews per contacted establishments was 0.76.[81] This number is the result of two factors: explicit refusals to participate in the survey, as reflected by the rate of rejection (which includes rejections of the screener and the main survey) and the quality of the sample frame, as represented by the presence of ineligible units. The share of rejections per contact was 0.10.



[81] The estimate is based on the total no. of firms contacted including ineligible establishments.

Details on the rejection rate, eligibility rate, and item non-response are available at the level strata. This report summarizes these numbers to alert researchers of these issues when using the data and when making inferences. Item non-response, selection bias, and faulty sampling frames are not unique to West Bank and Gaza. All enterprise surveys suffer from these shortcomings, but in very few cases they have been made explicit.