

The Russia 2019 Enterprise Surveys Data Set

I. Introduction

This document provides additional information on the data collected in Russia between January and July 2019. The survey was part of a joint project of the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB) and the World Bank Group (WBG). The objective of the Enterprise Survey is to gain an understanding of what firms experience in the private sector.

As part of its strategic goal of building a climate for investment, job creation, and sustainable growth, the World Bank has promoted improving the business environment as a key strategy for development, which has led to a systematic effort in collecting enterprise data across countries. The Enterprise Surveys (ES) are an ongoing World Bank project in collecting both objective data based on firms' experiences and enterprises' perception of the environment in which they operate.

The ES currently cover over 180,000 firms in 150 countries, of which 142 have been surveyed following the standard methodology. This allows for better comparisons across countries and across time. Data are used to create statistically significant business environment indicators that are comparable across countries. The ES are also used to build a panel of enterprise data that will make it possible to track changes in the business environment over time and allow, for example, impact assessments of reforms.

This 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 the weights.

II. Sampling Structure

The sample for 2019 Russia ES was selected using stratified random sampling, following the methodology explained in the *Sampling Note*¹. Stratified random sampling² was preferred over simple random sampling for several reasons³:

a. To obtain unbiased estimates for different subdivisions of the population with some known level of precision.

b. To obtain unbiased estimates for the whole population. The whole population, or 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-

¹ The complete text can be found at http://www.enterprisesurveys.org/~media/GIAWB/EnterpriseSurveys/Documents/Methodology/Sampling_Note.pdf

² A stratified random sample is one obtained by separating the population elements into non-overlapping groups, called strata, and then selecting a simple random sample from each stratum. (Richard L. Scheaffer; Mendenhall, W.; Lyman, R., "Elementary Survey Sampling", Fifth Edition).

³ Cochran, W., 1977, pp. 89; Lohr, Sharon, 1999, pp. 95

sector 72, IT, which was added to the population under study), and all public or utilities-sectors.

c. 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.

d. 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, other things being equal.)

e. 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.

f. The cost per observation in the survey may be reduced by stratification of the population elements into convenient groupings.

Three levels of stratification were used in this country: industry, establishment size, and region. The original sample design with specific information of the industries and regions chosen is described in Appendix C.

Industry stratification was designed in the way that follows: the universe was stratified into six manufacturing industries and two services industries- Food and Beverages (ISIC Rev. 3.1 code 15), Garments (ISIC code 18), Non- Metallic Mineral Products (ISIC code 26), Fabricated Metal Products (ISIC code 28), Machinery & Equipment (ISIC code 29), Other Manufacturing (ISIC codes 16-17, 19-25, 27, 30-37), Retail (ISIC code 52) and Other Services (ISIC codes 45, 50, 51, 55, 60-64, and 72).

For the Russia ES, size stratification was defined as follows: small (5 to 19 employees), medium (20 to 99 employees), and large (100 or more employees).

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.

III. Sampling implementation

Given the stratified design, sample 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.

Ipsos, the main contractor, in collaboration with Ipsos-Russian Federation implemented the Russia 2019 ES.

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.

Table 1: 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 Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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)

Table 2: Russia Sample Frame (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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.

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)⁴.

⁴ 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):

Table 3: 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 Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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	
North-West Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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

Table 4: Achieved Interviews (Panel)

		Food	Garments	Non Metallic Mineral Products	Fabricated Metal Products	Machinery and Equipment	Other Manufacturing	Retail	Other Services	Grand Total
Central Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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	
Ural Federal District	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 Federal District	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

IV. Data Base 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 Russia and other countries in Europe and Central Asia 2018/2019 and Middle East and North Africa 2019, therefore, they may not be found in the implementation of the rollout in other countries. 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 2 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.

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 2-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 Russia. 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.

For questions pertaining to monetary amounts, the unit is the Russian ruble.

V. 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 below. The estimates were the multiple of the relative eligible proportions.

For some establishments where contact was not successfully completed during the screening process (because the firm has moved, and it is not possible to locate the new location, for example), it is not possible to directly determine eligibility. Thus, different assumptions about the eligibility of establishments result in different adjustments to the universe cells and thus different sampling weights.

Three sets of assumptions on establishment eligibility are used to construct sample adjustments using the status code information.

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*.

$$\text{Strict eligibility} = (\text{Sum of the firms with codes } 1,2,3,4,\&16) / \text{Total}$$

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*.

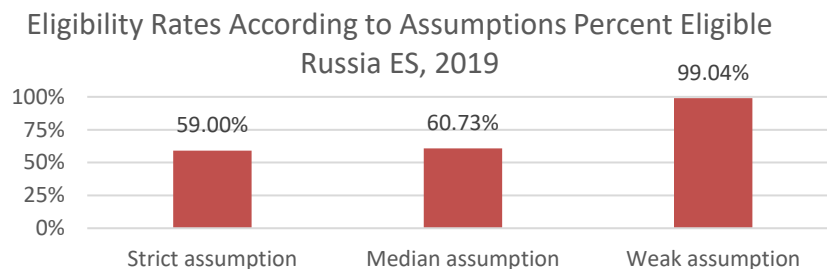
$$\text{Median eligibility} = (\text{Sum of the firms with codes } 1,2,3,4,16,10,11, \& 13) / \text{Total}$$

Weak assumption: in addition to the establishments included in points a and b, all establishments for which it was not possible to contact or that refused the screening questionnaire are assumed eligible. This definition includes as eligible 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. Under the weak assumption only observed non-eligible units are excluded from universe projections. The resulting weights are included in the variable *wweak*.

$$\text{Weak eligibility} = (\text{Sum of the firms with codes, 1,2,3,4,16,10,11,13,91,92,93,94,12}) / \text{Total}$$

The indicators computed for the ES website use the median weights. 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. Appendix B shows the universe estimates of the numbers of registered establishments that fit the criteria of the ES.

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.

VI. 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.)⁵

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 line⁶, 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.

⁵ This is equivalent to the weighted average of the estimates for each stratum, with weights equal to the population shares of each stratum.

⁶ For the surveys that implemented a screener over the phone.

Due to non-response rates, some stratification cells were collapsed for the purposes of weighting, to preserve the representativeness of the sample. The following cells have been transformed: (i) medium and large firms are treated as one cell in South for Garments, in North-West for Garments; in Siberia for Garments; in Volga for Garments; in Far East for Non-Metallic Mineral Products; in Far East for Fabricated Metal Products; in Far East for Machinery & Equipment; (ii) medium and small firms are treated as one cell in Far East for Garments.

VII. Appropriate use of the weights

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, pp.67; Lohr, 1999, chapter 11, Cochran, 1953, pp.150). There is not strong large-sample econometric argument in favor 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 have 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, pp 200 who favors the used of weighted OLS for a common population coefficient.)⁷

From 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.⁸ If the models are developed as structural relationships or behavioral models that may vary for different parts of the population, then, there is no reason to use weights.

VIII. 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.

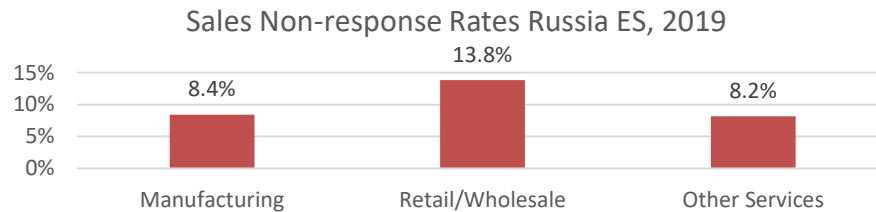
Item non-response was addressed by two strategies:

- 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).

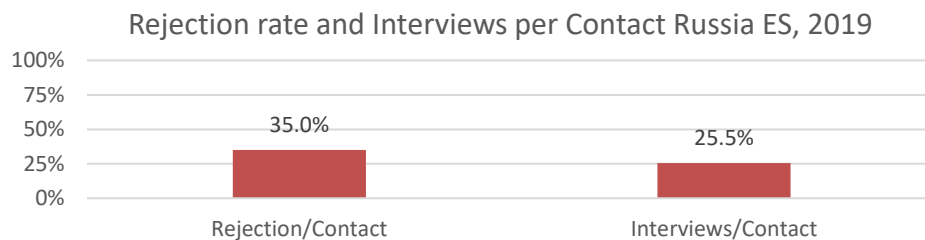
⁷ Note that weighted OLS in Stata using the command regress with the option of weights will estimate wrong standard errors. Using the Stata survey specific commands svy will provide appropriate standard errors.

⁸ The use weights in most model-assisted estimations using survey data is strongly recommended by the statisticians specialized on survey methodology of the JPSM of the University of Michigan and the University of Maryland.

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 0.26.⁹ 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 0.35.



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.

References:

Cochran, William G., *Sampling Techniques*, New York, New York: John Wiley & Sons, 1977.

Deaton, Angus, *The Analysis of Household Surveys*, Baltimore, Maryland: Johns Hopkins University Press, 1998.

Levy, Paul S. and Stanley Lemeshow, *Sampling of Populations: Methods and Applications*, New York, New York: John Wiley & Sons, 1999.

Lohr, Sharon L. *Sampling: Design and Techniques*, Boston, Massachusetts: Brookes/Cole, 1999.

Scheaffer, Richard L.; Mendenhall, W.; Lyman, R., *Elementary Survey Sampling*, Fifth Edition, 1996.

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

Appendix A

Status Codes Enterprise Survey (ES) :

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) 2. Eligible establishment (Different name but same address - the new firm/establishment bought the original firm/establishment) 3. Eligible establishment (Different name but same address - the firm/establishment changed its name) 4. Eligible establishment (Moved and traced) 16. Eligible establishment (Panel Firm - now less than five employees; this code applies only to panel firms.)	3063 1 1 0 0
79	Screener refusal	13. Refuses to answer the screener	79
50	Ineligible	5. The establishment has less than 5 permanent full time employees 616. The firm discontinued businesses - (Establishment went bankrupt) 618. The firm discontinued businesses - (Original establishment disappeared and is now a different firm) 619. The firm discontinued businesses - (Establishment was bought out by another firm) 620. The firm discontinued businesses - (It was impossible to determine for what reason) 621. The firm discontinued businesses - (Other) 71. Ineligible legal status: not a business, but private household 72. Ineligible legal status: cooperatives, non-profit organizations, etc. 8. Ineligible activity: Education, Agriculture, Finances, Government, etc.	1 8 8 0 4 27 0 0 2
0	Out of Target	151. Out of target - outside the covered regions 152. Out of target - moved abroad 153. Out of target - Not registered with Statistical Authority 154. Out of target - establishment is HQ without production or sales of goods or services 155. Out of target - establishment was not in operation for the entirety of last fiscal year 156. Duplicated firm within the sample 157. Out of target - location that is not HQ and does not have financial statements prepared separately	0 0 0 0 0 0 0
2001	Unobtainable	91. No reply after having called in different days of the week and in different business hours 92. Line out of order 93. No tone 94. Phone number does not exist 10. Answering machine 11. Fax line- data line 12. Wrong address/ moved away and could not get the new references	950 418 11 1 9 2 610
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%

Appendix B: 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 Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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 Federal District	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

Appendix C: 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 Federal District	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 (Southern Federal District and North-Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 federal district	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 Federal District	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 Federal District	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 (Southern Federal District and North- Caucasian Federal District)	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 Federal District	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 Federal District	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 Federal District	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 federal district	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 Federal District	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