

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Small-Scale Industry in the Soviet Union

Volume Author/Editor: Adam Kaufman

Volume Publisher: NBER

Volume ISBN: 0-87014-394-8

Volume URL: <http://www.nber.org/books/kauf62-1>

Publication Date: 1962

Chapter Title: The Nature of Statistics on Small-Scale Industry

Chapter Author: Adam Kaufman

Chapter URL: <http://www.nber.org/chapters/c5671>

Chapter pages in book: (p. 8 - 17)

CHAPTER 2

The Nature of Statistics on Small-Scale Industry

Prerevolutionary Data

No official statistical investigations of small-scale industry were carried out in prerevolutionary Russia. The only official statistics available before 1914 are for the "census" industry,¹ i.e., industrial enterprises subject to factory inspection. At the stage of development of Russian industry in prerevolutionary times, only a relatively small part of industry met the high "census" requirements. The rest, small-scale industry, thereby became "noncensus" industry, a large heterogeneous agglomeration of industrial enterprises, some technologically advanced and responsible for a great part of the industrial output of the country.

This "noncensus" industry was, however, the subject of private studies, of necessity on a limited local scale and mostly stressing the "peasant" or *kustar'* industry. In the twenty years preceding the revolution some two hundred investigations of the *kustar'* industry were made through the so-called local councils (*zemstva*), each covering in general only one province (*guberniia*) or an even smaller region. In 1871 a detailed description of the rural industry in the northern part

¹ The term "census" industry comes from the Russian word *tsenz* (qualification) and covers industrial enterprises that meet certain established standards. In the two industrial censuses carried out in Russia in 1900 and 1908, these standards were vaguely defined, and therefore the scope of the censuses was far from being uniform in all regions of the country (see A. T. Gozulov, *Istoriia otechestvennoi statistiki* [The History of Russian Statistics], Moscow, 1957, pp. 32-33). Only the first postrevolutionary industrial census, carried out in 1918, applied strictly defined standards. The census covered all industrial enterprises that were subject to the so-called *aktsiz* (indirect tax), all mining enterprises, and, among the remaining industrial enterprises, only those which employed sixteen or more workers with a prime mover or thirty or more workers without one.

Nature of Statistics

of Viatka Province was published, the first of a series of monographs describing the conditions of Russian agriculture and closely connected rural industries.

Although interesting in themselves and throwing light on many aspects of the peasant industry, these partial investigations do not provide sufficient data for an over-all picture of employment and output in the *kustar'* industry, nor do they assess the share of small-scale industry in total industrial output. In 1923 A. A. Rybnikov, an outstanding student of the prerevolutionary *kustar'* industry, tried to summarize and tabulate the findings of the many investigations carried out between 1884 and 1913.² In accordance with the general attitude of many Russian social scientists of the populist school (*narodniki*), who looked upon the *kustar'* industry as a corollary of Russian agriculture rather than as a part of the industrialization process, Rybnikov's main concern was to discover the influence of the *kustar'* industry on the general economic situation of the Russian peasantry.

The paucity of broad statistical investigations explains the gross discrepancies that are found in later attempts by Soviet statisticians to assess the size, importance, and share of small-scale industry. One such assessment bears the seal of officialdom: it was made in the middle 1920's by a special committee created by the Central Statistical Administration.

This committee set itself the following tasks: first, to find out the number of people engaged in the "noncensus," *kustar'*, and artisan industry in 1913, 1920, 1923, and 1923/24 and the number of weeks worked; secondly, to estimate the gross value of output per person engaged in different industries and, by multiplying these estimates by employment, to compute the aggregate gross and net value of output of small-scale industry for these years; and, thirdly, to ascertain the final uses of the products of small-scale industry and to establish the source of supply of the industrial raw materials used. Since relatively more information was available for 1913, the committee took 1913 as the pivotal year from which data for other years were derived. The number of persons engaged in small-scale industry on USSR territory in 1913 was established from partial studies available for different industries and regions, separately for the city and the countryside. For regions for which data were lacking, estimates were made from the ratio of people engaged in nonfarm activity (*promyshlenniki*) to the total population in the neighboring regions. Since no data were

² See A. A. Rybnikov, *Melkaia promyshlennost' Rossii* [Small-Scale Industry in Russia], Moscow, 1923, p. 109.

Small-Scale Industry in the Soviet Union

available for employment in small-scale industries processing agricultural products (flour milling, oil processing, etc.) in 1913, it was assumed that the number of enterprises and people engaged in the food industry in 1913 was the same as in 1920, for which census data were available (for information on the 1920 data, see the next section).

Published in *Balance of the USSR National Economy in 1923/24*,³ these data are the only official statistics available for study of prerevolutionary small-scale industry. They form the basis of our estimates presented in the next chapter.

Data for the Pre-Plan Period

THE INDUSTRIAL CENSUS OF 1920⁴

In contrast to the industrial census taken two years earlier, the 1920 census did not cover the "census" industry alone, but all manufacturing and mining enterprises (including industrial fisheries and railroad repair shops) that met any one of the following requirements: (a) production at a special working place, (b) use of a mechanical motor, or (c) employment of hired workers. By this definition, only self-employed artisans working at home were excluded from this census.

Because of the unstable political situation in the country, the territorial coverage of the census was not complete. It was carried out in forty-nine provinces of Central Russia, four provinces of the Northern Caucasus and Don Region, six provinces of Western Siberia, seven provinces of the Kirghiz Republic, six regions of the Turkestan Republic, and nine provinces of the Ukraine.

The principal shortcoming of this census was that it was conducted by an inexperienced and unskilled staff. This affected not only the collecting of data, but also the processing and analyzing of the accumulated data which took a long time and was far from satisfactory. Nevertheless, this first attempt to take a census of total industry gave an approximate measure of the share of the "noncensus" industry in the total. And this share was considerable: "noncensus" industry in 1920 accounted for more than 93 per cent of all covered enterprises and for more than 45 per cent of all covered employment. This prob-

³ *Balans narodnogo khoziaistva SSSR na 1923/24 god*, *Trudy TsSU*, vol. 29, Moscow, 1926.

⁴ Preliminary data from this census were published in *Trudy Tsentral'nogo Statisticheskogo Upravleniia* [Works of the Central Statistical Administration], Moscow, vol. 3, pt. 1, and more detailed findings broken down by provinces in *ibid.*, pts. 2-14.

Nature of Statistics

ably also holds true for 1913, since few changes occurred in the structure of industry between 1913 and 1927/28.

THE CENSUS OF 1923⁵

The next census, taken in March 1923 on the territory of the Soviet Union excluding Georgia, was basically a demographic and not an industrial census, although it contained questions on economic status. It encompassed all settlements that had a population of over 2,000 in 1920, settlements near railroad centers, and summer resorts, all of which covered only about a quarter of small-scale industry. It formed part of the basis for the assessment of the Soviet economy in 1923/24,⁶ which also contained estimates for rural small-scale industry in 1923/24 and the official compendium of data for 1913 referred to above.

The 1923 census classified the urban population into the following groups: workers, domestic servants, employees, professional workers, employers and self-employed, family members helping in family enterprises outside the household, and all others. However, no clear distinction was drawn for the self-employed among industry, transportation, and trade. The census provided annual average employment data for 1922 and employment figures for December 1922 and March 1923.

THE PARTIAL INDUSTRIAL CENSUS OF 1925

This census, taken in 1925, covered the year 1924/25.⁷ For rural areas, it was based in part on detailed investigation of a sample of 3.5 per cent of eligible enterprises and in part on a less detailed questionnaire for all registered enterprises filled out by local administrative agencies. For urban areas, the census covered all taxable enterprises. It is estimated that the general questionnaire covered 89.3 per cent of all eligible enterprises. Omissions were largest in the non-Russian borderlands (Central Asia, Yakutsk, etc.). Because of the inefficient method of collecting data, the results of this census were not entirely satisfactory.⁸

⁵ *Vsesoiuznaia gorodskaiia perepis' 1923 goda* [The All-Union Urban Census of 1923], *Trudy TsSU*, vol. 20, pt. I, issues 1 and 2, Moscow, 1926.

⁶ Published in *Balans narodnogo khoziaistvo 1923/24*.

⁷ Published as *Melkaia i kustarno-remeslennaia promyshlennost' Soiuza SSR v 1925 godu* [Small-Scale, Cottage, and Handicraft Industry of the USSR in 1925], *Trudy TsSU*, vol. 33, pt. 1-2, Moscow, 1926-28.

⁸ See D. V. Savinskii, *Kurs promyshlennoi statistiki* [Textbook on Industrial Statistics], Moscow, 1954.

Small-Scale Industry in the Soviet Union

THE CENSUS OF 1927⁹

All attempts to assess small-scale industry before 1926/27 yielded only partial results. Moreover, it was not until 1926/27 that Soviet industry had recovered sufficiently from the revolution and the Civil War to permit an evaluation of its size and importance. It should also be noted that the monetary structure did not become stable until after the monetary reform of May 1924.¹⁰

A census of small-scale industry was conducted by the Central Statistical Administration in 1927, covering the year 1926/27. Unfortunately the details of how the data were collected are not known. From A. Debiuk¹¹ we learn that sampling techniques were used, the findings being imputed to cover all industry. Comparative data on large-scale industry were taken from the annual industrial report (form B) of the Central Statistical Administration for 1926/27.

The 1926/27 census defines small-scale industry only negatively, i.e., as all enterprises not included in "census" industry. Some exceptions had, however, been made to this rule for certain industries as early as 1925. With such a definition, small-scale industry formed an extremely heterogeneous group, ranging from medium-size factories to self-employed home workers. In the peasant industry, it was especially hard for the census takers to distinguish between a peasant's household activities, which were not covered by the census, and his industrial activities as a *kustar'*, which were.

The 1926/27 census covered all industries except fishing and logging. Since about 75 to 80 per cent of small-scale industry was rural, a great variety of products was covered. More than a hundred trades (*promysly*) were counted, but not all of them were listed individually. They were instead lumped together in larger groupings for comparison with large-scale industry, and the breakdown by trades and products was not given in great detail. According to Debiuk,¹² the 1926/27 census provided more reliable data on small-scale industry and its role in the economy as a whole than any previous census. Although it was based on only a sample, this census can be compared with the

⁹ Published in *Statisticheskii spravochnik SSSR za 1928* [USSR Statistical Handbook for 1928], Moscow, 1929.

¹⁰ See N. Kovalevskii, *Problemy planovogo regulirovaniia narodnogo khoziaistva* [Problems of Planned Management of the National Economy], Moscow and Leningrad, 1928, p. 11.

¹¹ "Udel'nyi ves melkoi promyshlennosti Soiuzu SSR v obshchem promyshlennom proizvodstve" [The Share of Small-Scale Industry in Total Industrial Production in the USSR], *Statisticheskoe obozrenie* [Economic Survey], 1929, No. 2, pp. 28-32.

¹² *Ibid.*, p. 29.

Nature of Statistics

much more comprehensive one for 1928/29, which is discussed below. The main drawback of the 1926/27 census is that it gives information only on number of people employed and gross turnover (i.e., value of output at the shop, as opposed to the enterprise level); it does not report value of output, value added, number of weeks worked, and many other important data for small-scale industry.

Data for the Plan Period

THE CENSUS OF 1929¹³

This was the first general census of small-scale industry undertaken in either Russia or the Soviet Union. It was started in the European part of the USSR on December 15, 1929, and in the Asiatic part on January 15, 1930. Because of weather conditions, the census was postponed in certain regions until the summer months of 1930 (part of the Dagestan ASSR and all of the Yakutsk ASSR). Data for those regions, which probably accounted for only 0.1 to 0.2 per cent of the total value of industrial output, were omitted from the published statistics. Special census takers were sent to all the known enterprises in a given territory to register them on one of two forms, form 2 being more detailed than form 1. All state-owned, cooperative, and so-called private-capitalist enterprises (those with three or more hired wage earners) had to register on form 2. Of the remaining small-scale producers, a sample (covering from 25 to 100 per cent of various industries) was registered on form 2 and the rest filled out form 1. The census was to cover all brickyards, half the vegetable oil industry, and a quarter of the flour milling and grain-cracking industry.

The 1928/29 census covered all enterprises of the "noncensus" industry that had been in operation at least one week without interruption or two weeks with interruptions between October 1, 1928, and October 1, 1929.¹⁴ Even the smallest home shops with self-employed *kustari* were included. If one enterprise produced two different products by different production processes, then it was counted as two separate shops and had to fill out two separate forms.

A special problem was presented by the enterprises that were included in the census although technically they belonged in large-scale

¹³ Published in three volumes entitled *Melkaia promyshlennost' SSSR po dannym vesoiuznoi perepisi 1929 goda* [Small-Scale Industry in the USSR According to Data from the All-Union Census of 1929], Moscow, 1932-33, vols. 1 and 2.

¹⁴ This last condition did not apply to brickyards, which were registered by the census even if they had been idle in the past year.

Small-Scale Industry in the Soviet Union

industry. Such enterprises were later removed from the census and the data on them were supposed to be handled separately. Nowhere in the census is there any mention of how many enterprises changed categories like this while the census was being taken. From another source¹⁵ we learn that 1500 enterprises changed from small- to large-scale industry in 1932. We gather from the preface to the 1928/29 census that this process had already started in that year.

Home production for household needs was not included in the census, except for flour milling, grain cracking, and vegetable oil production. Auxiliary enterprises on collective farms were covered by the census even when they supplied only the members of their collective farms. However, industrial enterprises attached to schools, prisons, and other institutions were included only if they produced for the market or outside customers. Traveling workers who worked in the houses of individual customers were not included. Migrant workers were registered at their place of employment, not at their place of origin.

All branches of manufacturing and mining were covered. In farming, all strictly agricultural activities—such as cultivation of fields, market gardening, viticulture, cattle breeding, silkworm culture, bee keeping, poultry raising, and logging—were excluded. Similarly, the following activities were excluded, even when they supplied more than household needs: hunting, fishing, timber cutting, picking of berries, nuts, mushrooms, etc. Processing of agricultural products was covered by the census only when done in a special industry, such as grain grinding, fruit and vegetable canning, cheese and butter processing, etc. In the case of butter and cheese, only production on special premises for that purpose was included. The census did not cover any trades connected with construction, transportation, communication, or eating places or services.

Despite the considerable bulk of information furnished by the 1928/29 census, it does not give a detailed breakdown of some sectors, such as the food industry. The following kinds of data are generally given:

1. Number of persons employed (wage earners specified).
2. Gross turnover.
3. Gross value of output.
4. Number of working weeks.
5. Value of raw material, auxiliary material, and fuel used.

¹⁵ *Narodnoe khoziaistvo SSSR* [USSR National Economy], 1932, No. 7-8, p. 24.

Nature of Statistics

6. Value added.

7. Value of fixed capital.

8. Breakdown of the above seven items into: (a) state enterprises, (b) cooperative enterprises, (c) private-capitalist enterprises (those with three or more hired workers), and (d) small private producers (*prostye tovaroproizvoditeli*).

9. Geographical distribution of small-scale industry.

10. Extent of territorial concentration of small-scale industry.

Items (1), (4), (8), (9), and (10) were covered by both forms 1 and 2, whereas the other items were covered by form 2 only. One of the characteristics of small-scale industry is the concentration of some specific trades in certain regions (*gnezdovost'*) where the peasant population specialized in producing a single product. Item (10) was designed to provide systematic statistics on this question.

From the viewpoint of completeness of information, elaboration of data, and adequacy of methods of collecting the data, the 1928/29 census is undoubtedly the most reliable of the published censuses of small-scale industry. It is the main source of information necessary for assessing the role of small-scale industry on the eve of the great industrialization drive, which so radically altered the structure and reduced the role of small-scale industry. Nevertheless, it should be recognized that this census was taken in a year hardly favorable to census-taking itself or to the fortunes of small-scale industry. Collectivization of agriculture was in full swing, and *kustari* and artisans were under strong pressure to join producer cooperatives. Many branches of the *kustar'* industry (blacksmithing, metal processing, baking, tanning, hemp processing, tailoring and dressmaking, cobbling, linen weaving, etc.) declined markedly between 1926/27 and 1928/29. At the same time, small-scale industry expanded in new areas, such as production of building materials, extraction of phosphates and peat, and repair and maintenance work.

The census omitted between 0.5 and 10 per cent of the enterprises in various industries, mainly the very smallest units—the self-employed home workers (*domashniki*). Omissions were relatively largest in the clothing industry, the leather and felt shoe industries, carpentry, brick-working and coopering.

Small-Scale Industry in the Soviet Union

THE INDUSTRIAL REGISTRATION OF 1934¹⁶

A registration of all industrial enterprises, both large- and small-scale, was made at the beginning of 1934, the data to cover the year 1933. In urban areas the registration encompassed all operating industrial enterprises with prime movers, or without prime movers but with three or more workers; in rural areas, all enterprises with at least one worker—i.e., all enterprises except self-employed *kustari* and artisans.¹⁷ Enterprises with thirty or more workers without a prime mover, and those with sixteen or more workers with a prime mover, are classified as large-scale industry, along with the following special cases:¹⁸

1. All alcohol distilleries, vodka refineries, breweries, and yeast factories, regardless of prime mover or number of workers.
2. In the dairy products industry, the *raion* base enterprises (*raionnye bazovye upravleniia*), generally combinations of several productive units.
3. All power stations with a capacity over 15 kw.
4. All glass factories with generator ovens.
5. All printing shops with more than fifteen workers, with or without prime mover.
6. All flour mills with five or more grinding units.
7. All tanneries with more than ten tan vats or three tan drums.
8. All enterprises under the jurisdiction of Union Republic ministries, regardless of size.

The 1933 registration gives data on the following items for both large- and small-scale industry: (1) average number of workers (evidently the sum of workers at the end of each month divided by 12); (2) number of enterprises (except fishing and logging); (3) fixed capital (for large-scale industry only); and (4) gross value of output in fixed "1926/27" prices.¹⁹

¹⁶ Published as "Itogi registratsii promyshlennykh predpriatii SSSR v 1933" [Results of the Registration of USSR Industrial Enterprises in 1933] in *SSSR v tsifrakh* [The USSR in Figures], Moscow, 1935, and in *Plan*, 1935, No. 7.

¹⁷ From another source (P. Smilga, "Za organizatsionno-khoziaistvennoe ukreplenie promkoperatsii" [For the Organizational and Economic Strengthening of Producer Cooperatives], in *Plan*, 1936, No. 1, pp. 14-17), we learn that on January 1, 1935, there were 295,000 independent *kustari* (not covered by the 1935 census) in the city and 115,000 in the country.

¹⁸ See *Sotsialisticheskoe stroitel'stvo SSSR* [Socialist Construction in the USSR], Moscow, 1935, p. 13.

¹⁹ The value of output of independent *kustari* and artisans not covered by the 1933 registration is estimated by *TsUNKhU* at 100 million "1926/27" rubles, or 2.7 per cent of the total for covered small-scale industry. See I. Demirchoghlian,

Nature of Statistics

This registration was taken at a time when almost all Soviet industry was subject to comprehensive economic planning. The fact that most industrial enterprises were owned by the state or by co-operatives made it easier to avoid omissions. For the first time employment data were given for small-scale industry on an average annual basis. The coverage of the census, within the limits described above, appears to be complete. The greatest defect is the limited categories of data.

The 1933 industrial registration is the last published statistical document in which data for small-scale industry are given separately. Soviet sources mention that between 1932 and 1938 a census of the small-scale industry was carried out regularly every two years; after 1938, every year; and after 1954, twice every five years.²⁰ The findings of these censuses have, however, not been published.

Summary

As we have noted, the primary sources of data on small-scale industry are few in number and differ considerably from one another in the nature, scope, and reliability of statistics contained within them. It was not until the census covering 1926/27 that a systematic and comprehensive survey was made. Unfortunately, the data are limited to gross value of turnover and number of persons employed, both full- and part-time. The censuses for 1928/29 and 1933 contain much more useful and comprehensive information. It is worth noting that none of the primary sources contains data on output in physical terms. Although the questionnaire in the census for 1928/29 had a question on output, no trace of physical output statistics can be found in the three volumes of findings.

Despite the shortcomings and deficiencies of the basic data, they form a basis for studying the economic record of small-scale industry, as we shall see in the succeeding chapters. They must, however, be adjusted in many ways (described in the appendix to this report) and handled carefully. And, of course, all statistical measures must be viewed as orders of magnitude, with rather wide ranges of error. Conclusions so circumscribed remain nonetheless illuminating and meaningful.

"Nekotorye itogi perepisi promyshlennosti SSSR za 1933 god" [Some Results of the 1933 Industrial Census in the USSR], *Plan*, 1935, No. 8, pp. 9-13.

²⁰ See Gozulov, *Istoriia otechestvennoi statistiki*, p. 146.