

CENSUS OF MANUFACTURES: 1931

INSTRUCTIONS FOR PREPARING REPORTS

GENERAL EXPLANATIONS

1. **Scope of the census.**—The biennial Census of Manufactures for 1931 is based on a canvass of manufacturing establishments which were in operation during any part of that year. The following instructions are intended as a guide in the preparation of the reports, but they are necessarily incomplete and must be supplemented by special instructions as questions arise in the course of the canvass.

2. **Points for particular attention.**—The final purpose of the census is the publication of statistics which shall present complete and accurate figures on manufacturing operations during the past year. Particular attention is called to the following points:

(a) The time required for the compilation of the data and consequently the timeliness with which the statistics can be published depend directly on the promptness with which the schedules are filled out and returned. As soon as the canvass is completed for an industry, summary figures for that industry will be prepared. This can not be done, however, until every important manufacturing establishment credited to that industry has been accounted for. The same statements apply to statistics for States, counties, and cities, as the failure of even one important manufacturer to report promptly will necessarily delay the publication of the figures for the State, the county, and the city in which his plant is located.

(b) A canvass of this kind entails a great deal of correspondence. A large part of this is unavoidable, but much of the correspondence in the past has been necessitated by incorrect and incomplete returns. It will greatly facilitate the work if those filling out schedules and those appointed by this bureau to collect reports will see that every inquiry is answered and that the figures are free from gross inconsistencies or errors.

(c) Some of the objections which in the past have been raised by those requested to make returns for the census of manufactures have been based on misunderstanding of the purpose of the census. The reports are for statistical purposes only, and they are not used in any manner whatever in connection with assessment or taxation, regulation of immigration, or any other

strictly governmental purpose. The reports are not checked with those received by any other governmental agency, nor is any person or organization other than the sworn employees of the Bureau of the Census allowed to examine them. Moreover, the reports could not be used to ascertain whether an individual establishment was operated at a profit, as the items of expenditure called for under Inquiry 6 (wages, cost of materials, etc.) do not cover the total expenses of the establishment. Salaries and such items as advertising, taxes, insurance, etc., not being of primary value for census purposes, are not called for.

WHAT CONSTITUTES A FACTORY—ESTABLISHMENTS NOT TO BE CANVASSED

3. **Census confined to factories.**—The census of manufactures is confined to manufacturing establishments conducted under the so-called factory system as distinguished from the neighborhood, hand, and building industries. No precise definition of a factory, for census purposes, can be given, but the following instructions relative to the omission of certain classes of establishments will show the general line of division. In a case where there is reasonable doubt as to whether an establishment should be canvassed or omitted, a report should be obtained, and the reason given under "Remarks."

4. **Small establishments and idle establishments.**—Do not report any establishment whose annual output was valued at less than \$5,000. With this exception, all manufacturing establishments which began operations or did any work within the census year ended December 31, 1931, must be reported, whether they were or were not in operation at the time of the canvass or at the end of the year. New establishments which were started within the year and which for that reason did not manufacture products in excess of \$5,000 in value should be reported if they are capable, under normal conditions, of an annual output of \$5,000 or more (See paragraph 16 for the exception in regard to plants in the lumber industry.)

No report should be obtained for an establishment which was closed or idle during the *whole* of the census year, nor for an establishment which was abandoned or dismantled prior to January 1, 1931. Where such establishments have been listed, specific notations should be made on the lists, explaining why reports were not obtained.

5. **Change of ownership.**—The ownership of some of the establishments canvassed may have changed within the year. If the present owner or operator can furnish data for the operations of the establishment during the entire period, they should be obtained from him. If this is done a statement to that effect should be made under "Remarks," giving the present name and address of the predecessor and the business now engaged in, if any. If data for the entire year can not be obtained from the present owner, the report for the other portion of the year should be obtained from the former owner. If he can not be found, the present owner should be asked to give such information as he

possesses regarding the general character of the business under the former owner and its volume compared with what he himself did, and this information should be reported under "Remarks," on the schedule.

6. Manufacturing carried on in educational, eleemosynary, and penal institutions must not be reported. If, however, a private manufacturing concern has all or a portion of its work done by convict labor, the amount *paid* for such labor must be reported under Inquiry 6 as explained in paragraph 67. The convicts doing the work should not be reported as wage earners, however.

7. Building trades.—Establishments (or individuals) engaged in the various building industries must not be reported. This applies particularly to activities like the following:

- Architectural designing and drafting.
- Bridge building.
- Building and construction work.
- Carpentry.
- Electric wiring and construction work.
- Excavating, well digging, etc.
- Masonry, brick and stone construction, and contracting.
- Moving or razing buildings.
- Painting—house, theatrical-scene, automobile, etc.
- Paper hanging.
- Paving and laying artificial stone, concrete, etc.
- Plastering and stucco work.
- Plumbing, gas fitting, steam fitting, etc.
- Roofing—*laying* roofing of any character.
- Railroad construction.
- Stage carpentering.

Establishments engaged in manufacturing materials and supplies used in building, however, are to be included.—For example: Planing mills making supplies for builders; brick manufacturers; marble and stone cutting establishments, operated separately or in connection with quarries; manufacturers of paving materials, paints, plumbing supplies, and electrical apparatus and appliances; shops where roofing, cornices, etc., are manufactured; and coppersmithing and sheet-iron-work establishments, should be reported. (See par. 39.)

If building materials are manufactured by an establishment which is also engaged in the construction of buildings, bridges, etc., a report should be made, but should relate only to the manufacturing or shopwork part of the business.

8. Custom work on wearing apparel.—Reports are not required for establishments doing strictly custom work, that is, work to the order of the individual buyer, on wearing apparel of any kind. This applies to the following classes of establishments, among others:

- Boot and shoe custom and repair shops.
- Custom tailoring shops, or the manufacture of clothing by persons in their own living quarters.
- Dressmaking establishments.
- Cleaning and pressing establishments. (Reports are obtained for establishments engaged in dyeing and cleaning.)
- Fur stores making and repairing garments for individual customers.
- Millinery establishments.

Establishments engaged in manufacturing the same classes of articles for the general trade should be reported.—For example: Boot and shoe factories and establishments manufacturing ready-made clothing, fur goods for the trade, and millinery goods for the trade, should be reported. Certain industries, the boot-and-shoe and the ready-made-clothing industries being examples, comprise two types of establishments, those that cut out the stock and also manufacture and those that cut out the stock and have all or a part of the manufacturing done on contract. Reports must be obtained for both types of establishments. Shops or factories where the work done is entirely on material owned by others must be reported, but reports must not be made for manufactures of wearing apparel having goods made for them but *not* supplying the materials. Dye works, bleacheries, and print works engaged in dyeing, bleaching, or finishing fabrics must be reported.

The phrase "the general trade," as used in these instructions, refers to those who buy goods for resale, whether at wholesale or at retail, as distinguished from establishments making articles for the personal use of the individual customer.

9. **Retail stores.**—Retail stores and other establishments which incidentally manufacture small quantities of goods which they sell must not be reported. (See pars. 25, 31, and 45.) This applies, among others, to the following classes of establishments:

Cigar stores.	Hair-work establishments.
Confectionery stores.	Hairdressing establishments, etc.
Drug stores.	Jewelry stores.
Furniture stores.	Opticians.

Establishments making these same classes of products for the general trade must be reported.—In particular, some chain-store organizations are large manufacturers of the goods which they retail or sell to other dealers, and these should be reported, care being taken to confine the report to manufacturing operations only. (The bleaching and dyeing of sponges, done by a few large druggists, should be reported.)

10. **Miscellaneous hand trades.**—Reports should not be obtained for work done in homes, such, for instance, as dressmaking, the knitting of socks or garments, and the making of rag carpets, although reports are required for such work when done in factories.

The small hand trades, engaged chiefly in repair work or work to the individual order, should not be reported. This applies, among others, to those doing the following classes of work:

- Automobile repairing.
- Bicycle repairing.
- Blacksmithing and wheelwright work.
- Blue printing.
- Harness making.
- Hectograph or "multigraph" work.
- Jewelry engraving.
- Locksmithing and gunsmithing.
- Photography.
- Picture framing.
- Furniture repairing and upholstering.
- Rag-carpet making, in homes and not in factories.

Sewing-machine repairing.
 Taxidermy.
 Typewriter repairing.
 Tinsmithing. (For tinshops, see par. 39.)
 Undertaking.
 Vulcanizing.

Establishments engaged in these or similar industries, which manufacture goods for the general trade, must be reported.—Thus, boiler works, foundries, and machine shops must be reported, also harness and saddlery factories making goods for the general trade, manufacturers of mirror and picture frames for the general trade, and tinshops where goods are made in considerable quantities. Reports for tinshops should *not* include any data for construction and installation outside the shop. When engraving is done by lithographing or printing establishments, data for this work must be included in the figures for their total business; diesinking and plate printing must be reported.

11. Specially omitted industries.—The following industries, although sometimes referred to as manufacturing industries, are not so considered by the Census Bureau, and no reports should be made for them :

Costumers making costumes for rent only.
 Cotton cleaners and rehandlers.
 Cotton compressors.
 Cotton ginners.
 Dentists.
 Electric light and power stations. (These stations are not treated as manufacturing establishments.)
 Fisheries. (The canning and preserving of fish and oysters, however, must be reported. See par. 28.)
 Florists and floral designers.
 Distributors of purchased gas (unless the company also manufactures gas).
 Hand laundries. (Power laundries must be reported. See par. 32.)
 Hay and straw balers.
 Ice harvesters. (The manufacture of ice must be reported.)
 Junk shops.
 Kindling-wood producers (hand or power).
 Map mounters.
 Packers and shippers of fresh fruits and vegetables. (See par. 28.)
 Professional services.
 Rectifiers and blenders of liquors.
 Retail butchers.
 Hide salters.
 Tobacco stemmers and rehandlers.

MANUFACTURING ON FARMS

12. Distinction between farm and factory products.—The manufacture of butter, cheese, cider, vinegar, and other products may be carried on either on farms or in factories. In the former case the products will be classed as agricultural and no report is required, but in the latter they will be classed with those reported under the head of manufactures. However, when manufacturing of this character is conducted on a farm where, in addition to the crops of the farm in question, materials purchased from others are also used, a report must be made. *Factories canning fruits and vegetables, etc., for the trade must be reported, even though operated in connection with a farm or a ranch.*

The pulling and the scouring of wool done in establishments expressly devoted to such work should be reported. Such work done in slaughtering establishments and in tanneries should be covered by the reports for these establishments.

13. Sugar, molasses, sirup, sorghum.—A mill for the manufacture of sugar, molasses, sirup, or sorghum located on a farm is not a "factory" if it confines its operations to the treatment of cane grown on the farm on which located. If, however, a mill located on a farm treats cane grown on other farms, a report should be made. (Reports are required for *all* mills located on plantations in Louisiana engaged in the production of cane sugar and molasses, although only the cane grown on the plantation is treated.)

QUARRYING OR MINING AND MANUFACTURES

14. Only manufacturing to be reported.—In the collection of data relative to the following products, namely, basalt (trap rock), granite, graphite, gypsum and gypsum products, lime, limestone and dolomite, marble, mica, millstones and chasers, sandstone, slate, and talc and soapstone, the Census Bureau will obtain reports covering such manufacturing processes as the surfacing and polishing of marble and granite, the burning of lime, the grinding of limestone, etc. Such reports will, as a rule, cover only the manufacturing processes, and will not include data for the quarrying of the stone. The collection of data in this manner is necessary for the purpose of comparisons with previous censuses. (See pars. 37 and 38.)

THE LUMBER INDUSTRY

15. Reports for sawmills (E. S. and W. S.).—Reports for the "Lumber and Timber Products" industry will be obtained by the Forest Service in the following States:

Arizona.	Montana.	South Dakota.
California.	Nevada.	Utah.
Colorado.	New Mexico.	Washington.
Idaho.	Oregon.	Wyoming.

The Census Bureau is not to collect reports for this industry, therefore, in any of the above-named States, unless in special cases. In reporting establishments engaged in the merchant or contract sawing of lumber or in the manufacture of other products from logs or bolts, or those engaged in getting out saw logs or other timber products, the special schedule for "Logs, Lumber, and Other Timber Products" (Form 311) must be used. Among the products to be reported as "Lumber and Timber Products" are logs or bolts, ties, telegraph and telephone poles, tanbark, lumber, lath, shingles, cooperage stock, and veneers. Two schedules have been prepared for this industry in order to provide for the difference in the kinds of wood found in the Eastern and in the Western States (E. S. and W. S. respectively). The special "W. S." 311 is to be used for the above-named 12 Western States, but for all other States the special "E. S." must be used.

16. Custom mills and other small mills.—Small sawmills sawing lumber strictly on a toll or custom basis should not be re-

ported. Sawmills sawing for the trade on contract, however, should be reported if the output during the season amounted to 200 M feet of lumber or the equivalent.

Reports are not required for mills cutting less than 200 M feet of lumber, or 2,000 M shingles, or 1,000 M lath or the equivalent (using as conversion factors 10 shingles to 1 foot b. m. and 5 laths to 1 foot b. m.) during the year. If, however, an establishment was engaged in remanufacturing, or manufactured products besides lumber, lath, and shingles, and the total value of the products exceeded \$5,000, a report should be prepared on the "Logs, Lumber, and Other Timber Products" schedule.

17. Planing mills not connected with sawmills.—Reports must be prepared on the special schedule "Planing-mill Products (made in planing mills not connected with sawmills)" for all planing mills not operated in conjunction with sawmills, including those in the 12 Western States listed in paragraph 15.

18. Boxes and baskets made from veneers.—Manufacturers of boxes, baskets, and hampers from veneers produced in their own establishments should report on the special schedule for "Wooden Boxes, Crates, and Baskets, and Reed, Rattan, and Willow Ware, Not Including Furniture," Form 301. Manufacturers of veneers for sale as such should report on the special schedule for "Logs, Lumber, and Other Timber Products," Form 311.

19. Cooperage.—Manufacturers of cooperage from stock (staves, heading, and hoops) made in their own mills should report on the special schedule for "Cooperage," Form 306. Manufacturers of cooperage stock for sale as such should report on the special schedule for "Logs, Lumber, and Other Timber Products," Form 311.

20. Pulpwood consumed in 1931.—The card schedule, Form 381, which formerly was used for reporting the consumption of pulpwood and the production of wood pulp, has been discontinued except for intercensal or even-numbered years. The data are called for on the special schedule for "Pulp (Wood and Other Fiber)," Form 410, and separate detailed reports should be prepared on this form for all pulp mills regardless of whether the pulp mills are operated independently or in conjunction with paper mills. Likewise separate detailed reports are required on Form 407 for all paper mills. (See instructions with schedule.)

21. Turpentine and rosin.—Reports are not to be obtained for this seasonal industry before the close of the crop year, March 31, 1932, except when the agents are specially instructed to obtain them. The operation of stills for the production of turpentine and rosin is frequently associated with the gathering of crude gum and the care of turpentine forests, and in such cases a combined report covering the gathering of the crude gum and the operation of the still should be made. The report may also cover the care of the forest, unless the books permit an accurate separation of the data for the two branches.

SPECIAL CASES

In addition to the industries already referred to for which reports should not be made, attention is called to the following

special cases, in which reports should or should not be obtained according to the particular conditions under which the establishments are operated.

22. Awnings, tents, and sails.—Some establishments engaged in the manufacture of awnings also erect or install them, while some manufacturers of tents derive income from the rental of tents. Reports for both classes of establishments should pertain to manufacturing operations only.

23. Bakeries.—Establishments engaged primarily in baking come within the scope of the census if the annual value of bakery products amounts to \$5,000 or more. Restaurants and cafés doing their own baking, even though some bakery products are sold at retail, are not to be canvassed, but a central bakery operated to supply bakery products to a chain of restaurants or stores should be reported.

24. Bottling.—Bottling should not be reported unless it is done by establishments in which the liquors, mineral waters, soda waters, sirups, tinctures, beverages, etc., are manufactured. In such cases the reports should cover both the manufacturing and the bottling processes.

25. Confectionery.—Establishments engaged primarily in the manufacture of confectionery should be reported if the annual value of confectionery made amounts to \$5,000 or more. The incidental manufacture of confectionery by mercantile establishments should be reported only when the annual value of such confectionery is \$20,000 or more.

26. Custom flour and feed mills.—Custom flour and feed mills are not to be reported for the census of manufactures. Reports should be obtained, however, for mills whose work is only in part on a custom basis and which grind flour, feed, etc., on a merchant basis to a value of \$5,000 or more per annum.

27. Dyeing and cleaning establishments.—Establishments engaged in dyeing and cleaning garments, curtains, etc., should be reported, but pressing and tailor shops do not come within the scope of the census, even though they operate one or two power machines.

28. Fruits and oysters, packing and shipping.—In some localities the packing and shipping of fruit is conducted on a factory basis. For example, plants in which dried fruit is dipped in hot water or placed in sulphur fumes, or in which raisins are seeded and subjected to other processes, must be reported.

The packing of oysters in hermetically sealed cans should be reported. The packing of oysters in unsealed cans or in other containers where they are not subjected to any preservative process should not be reported.

29. Gas, manufactured.—Reports should be obtained for establishments engaged in the manufacture of gas for lighting, heating, etc., but establishments which merely distribute gas purchased and do not manufacture any gas should not be reported.

30. Ice.—The manufacture of ice for sale by cold-storage plants must be reported. If the cold-storage business is incidental to the manufacture of ice, the report must cover the operations of the entire establishment, but if the manufacture of ice for sale is

incidental to the other business, obtain a separate report for the manufacture of ice.

31. Ice cream.—Reports are required for establishments engaged primarily in the manufacture of ice cream if the annual value of ice cream made amounts to \$5,000 or more. The incidental manufacture of ice cream by mercantile establishments should be reported only when the annual value of such ice cream is \$20,000 or more.

32. Laundries.—Reports are required for power laundries but not for so-called hand laundries, even though some power equipment may be used.

33. Milk dairies and separating stations.—Dairies should not be reported, although they may manufacture butter or cheese from surplus milk and cream. Butter and cheese factories, however, must be reported although they may sell some milk and cream. No reports are required for milk-separating stations.

34. Poultry killing and dressing.—The killing and dressing of poultry on a wholesale basis comes within the scope of the census and must be reported, but the killing and dressing of poultry by meat markets and other retail establishments should not be reported. Reports for establishments in this industry should not include data for jobbing and merchandising.

35. Printing and publishing.—Establishments engaged in printing alone, in publishing alone, or in both these lines of work must be reported. Care must be taken that printing done for others (commercial printing) is not confused with publishing. Commercial printers are not to report under sections A, B, or C (Inquiry 7) of the schedule unless they also publish. Reports are not required from authors.

An establishment which publishes two or more newspapers or periodicals from the same office and under the same ownership should prepare only one report. It is not necessary nor desirable to fill out separate schedules for different publications of the same establishment.

36. Railroad repair shops.—Railroad repair shops, for which reports are required, are in the nature of machine shops, and are operated for the purpose of maintaining the rolling stock in good condition. The value of the work done is approximately the same as its cost. In some of these shops some construction work is done on locomotives and cars, and the report should cover such work. Roundhouses incidentally making minor repairs are not to be reported.

37. Stone crushing.—Establishments operating stone crushers for the production of crushed stone are not to be reported.

38. Stone cutting and finishing.—Do not report monument and tombstone dealers who purchase *finished* stones and polish and letter them in connection with erecting them in cemeteries. Establishments which purchase rough stones which they cut and finish should be reported. When such establishments are reported in connection with quarries, the reports should not include data for quarrying operations, but the cost of materials given should include the cost of the rough stone laid down at the yard, this item being chiefly the cost of labor involved in quarrying and

handling. The data for wage earners and wages should pertain only to those employed in cutting and finishing the rough stones after they are delivered at the yard.

39. Tinsmiths.—Establishments engaged primarily in the manufacture of tinware, gutters, ventilators, etc., for sale, should be reported if the annual value of such products amounts to \$5,000 or more. No reports are required for tinsmiths engaged chiefly in outside work, such as the erection of gutters, ventilators, etc., and the laying of metal roofing, unless they manufacture for sale in their shops products to the value of \$20,000 or more per annum.

WHAT CONSTITUTES AN ESTABLISHMENT—DIVIDED ESTABLISHMENTS

40. Definition of establishment.—The term "establishment," as a unit of enumeration for this census, designates, with the exceptions noted, one or more factories, mills, or plants owned or controlled by one individual, partnership, corporation, or other management, located in the same town or city, for which one set of books of account is kept.

41. Separate sets of books.—When the owner operates two or more plants in the same town or city and maintains a separate set of books for each they should be treated as separate establishments; but if one set of books only is kept, they may be treated as one establishment.

42. Separation of industries.—It is necessary to publish separately the statistics for the different industries as defined by the Census Bureau. Therefore, when two or more distinct industries are carried on under the same ownership, with only a single set of books, separate reports for the different industries must be prepared, when practicable, in the manner described in paragraph 79.

43. Separation of localities.—It is necessary to compile separate statistics for States, for counties, and for cities having 10,000 or more inhabitants. Therefore if the same owner operates plants in different States, those in each State must be reported separately, even though the States may be adjacent and only one set of books kept. Furthermore, plants in different counties must be reported separately, and one or more plants located inside the present corporate boundaries of a city of 10,000 inhabitants or more must be reported separately from those outside the city, even though all the plants are operated as a single establishment. If estimates are necessary to make the complete reports for the separate plants, they must be carefully prepared in consultation with the person who supplies the information, and marked "Estimate."

44. "Central Office" establishments.—In many cases corporations own two or more plants which are controlled through a general office located sometimes in the city in which one of the plants is located and sometimes in a different city. A corporation may own a single plant and operate such plant from a general office located in a different city. For office purposes corporations of these two classes are designated "Central Office."

Plants owned or controlled by "Central Office" corporations are indicated on the list of establishments by the words "Central Office," which appear after the name of the establishment, with the name of the city in which the office is located. If the general office is located in the city being canvassed, the reports for all plants owned or controlled by that corporation should be obtained there, but if the general office is located elsewhere no effort should be made to obtain a report from the plant in the city being canvassed unless special instructions to that effect are received.

45. Establishments engaged in manufacturing in conjunction with mercantile or other business.—A considerable number of establishments will be found which are engaged in manufacturing and at the same time in some nonmanufacturing branch of business or industry, with possibly only a single set of books covering the combined business. An example is the manufacturing done by general stores or other mercantile establishments.

In such cases, if the nonmanufacturing part of the business is incidental to the manufacturing operations and represents only an insignificant part of the total business, the report may, if necessary, cover the entire business. On the other hand, where the nonmanufacturing business is of considerable or of chief importance, a report confined entirely to the manufacturing operations should be prepared. This applies to factories operated by mercantile establishments, even though the entire output may be disposed of in stores under the same ownership. If it is necessary to use estimated figures, they should be carefully prepared and marked "Estimates." Data for materials produced by the establishment itself and used in its manufacturing operations may be included with "Cost of materials" either as their cost of production or as their market value at the point of consumption. When granite, marble, slate, limestone, or other minerals are quarried in connection with their manufacture into finished products at the quarry or mine, the item of cost used in the report should be the cost laid down at the manufacturing plant, and should include the cost of labor and other expenses involved in quarrying, mining, etc. Wage earners employed in extracting the materials from the earth should not be reported.

THE SCHEDULE

46. Schedules.—The schedules used at the census for 1931 consist of a General Schedule, special schedules (listed on pages 18 and 19), and one other form (described on page 19). The General Schedule, Form 100, must be used in obtaining reports for establishments classified in industries for which no special schedules have been provided.

The following sections explain in detail the census requirements in regard to Inquiries 1 to 6, which are common to all the schedules, and the "Products" inquiry on the General Schedule. These explanations, and the instructions on the schedules and on separate sheets accompanying the schedules, should be followed carefully in preparing reports.

INQUIRY 1.—DESCRIPTION OF PLANT

47. Name of plant.—Since separate reports are to be obtained for different establishments under the same management, the local name of the establishment should be given as well as that of the operator.

48. Name of owner or operator.—Give the name of the person, partnership, corporation, etc., *operating* the establishment, whether such operator owns the plant or not.

49. Location of plant or factory.—The exact location of the plant or plants covered by the report must be shown by the answers to this inquiry, and especially to the one "Is plant located within present corporate boundaries of city, town, or village?" Since separate statistics will be compiled for certain cities, it is of the utmost importance that precise information be given relative to location. When the establishment is on the boundary line, or when part of the plant is located in one civil division and part in another, full information on this subject must be given, with the location of the office, under "Remarks." If there are other unusual complications they should also be explained.

Inasmuch as some large cities embrace several cities, towns, or villages, it is essential that in cases of this kind the name of the place where the factory is located be given and also the name of the city of which the factory location is only a part. For example, answer to Inquiry 1 (*d* and *e*) shows the location of the factory to be in Hyde Park, Mass. (a part of the city of Boston); answer to Inquiry 1 *e*, therefore, should be "Boston (Hyde Park)."

50. Post-office address of the general office.—For the majority of the establishments this is the same as the *Location of the plant or factory*, but for many it is different, and inquiry should be made to ascertain the facts in each case.

INQUIRY 2.—CHARACTER OF INDUSTRY

51. Proper classification.—In cases where the product inquiry is not answered in sufficient detail the proper classification of the report may depend on the answers to Inquiry 2. For this reason care should be taken in naming the chief products in the order of their importance, and the information given in regard to the kinds of materials used should be as specific as possible.

When the establishment manufactures more than one distinct kind of products, or is engaged in any nonmanufacturing work, such as transportation, mining, etc., special care should be exercised to show in the answer to this inquiry all the lines of manufacturing work engaged in or the principal products made. If necessary, additional information may be given under "Remarks." In all cases the particular articles produced should be named *in the order of their importance*, in order that the establishment may be correctly classified.

52. Materials used.—A complete and correct answer to this inquiry, showing, in the order of their importance, the principal materials used, is essential to a clear understanding of the report by the examiners in the office, since their knowledge of the con-

ditions represented by the report is dependent on the completeness and accuracy of the data in the report. Manufacturers using a secret formula need not give it; they should clearly describe their products, however, under Inquiry 2 *a*.

INQUIRY 4.—TIME IN OPERATION AND HOURS OF LABOR

53. **Practice in the plant.**—The answers to the questions in this inquiry should represent the normal practice in the plant, and no attempt should be made to account for abnormal conditions or exceptions to the usual practice. For example, in reporting the normal number of hours per week for the individual wage earner, give a figure representing the number of hours for the typical plant operative and disregard the working hours of watchmen, janitors, etc.

54. **Inquiry 4 a. Number of days plant was operated during period covered.**—Show the entire number of days the establishment or any portion of it was in actual operation, whether full time, part time, or over-time—that is, if the establishment was operated on a given day for 1 hour or more, or by two or more shifts for the entire 24 hours, the answer in either case would be the same, namely, *1 day*. The full possible working time of an establishment, operating continuously, except on Sundays and holidays, is about 307 days, depending on the number of holidays.

55. **Inquiry 4 b. Normal number of hours per week for the individual wage earner.**—The number of hours worked "per week" is called for in order that the practice of the establishment relative to the working of only half a day or any other fraction of a day on Saturdays or under other circumstances may be brought out. If both a day shift and a night shift are maintained, report on the basis of the day shift.

INQUIRY 5.—WAGE EARNERS EMPLOYED, BY MONTHS

56. **"Wage earners" defined.**—The term "wage earners" is used to designate shop or factory hands, mechanics, laborers, and other workers engaged directly in the manufacturing operations, and also firemen, engineers, watchmen, and similar employees essential to the operation of the plant. *Although at prior censuses data for salaried officers and employees have been collected, no data for these should be included in the reports for 1931.* The classification of employees as wage earners is not based primarily on the unit of time which is the basis of compensation, but on the character of work done. Wage earners are not confined to those who receive day wages, although most wage earners are paid on a daily basis. It will doubtless be found, for example, that engineers and firemen in mills and pressmen in newspaper offices are employed by the week or by the month, but they should be classed as wage earners rather than as salaried employees. Timekeepers, messenger boys, and the like, whose work is closely related to that of persons ordinarily called clerks, stenographers, and salesmen, are classed as salaried employees and are therefore omitted. No data should be included for traveling salesmen, drivers on delivery wagons, and newsboys or carriers.

57. Foremen and overseers.—In some industries it is difficult to preserve the distinction between foremen and overseers. Foremen and overseers who have charge of a few workmen, but with little additional responsibility or pay, and who at the same time perform work similar to that of other wage earners, are to be treated as wage earners.

58. Number on pay roll.—Make an entry for the week which included the 15th day of each month, showing the number of wage earners who received pay for work done within that week.

59. When estimates may be accepted.—In case pay rolls or other records are not available for a normal or representative day, a careful estimate should be taken in substitution for data from records, and the fact that the data are based on an estimate should be indicated on the margin of the schedule by the use of the word "Estimate." For establishments employing on an average less than 25 persons, although desirable, it is not imperative to consult the pay rolls or books to secure answers to these inquiries.

60. Wage earners employed indirectly.—In some cases wage earners who actually work for an establishment in the same building as others may not appear on its pay roll, being indirectly employed and paid through superintendents, heads of departments, foremen, and the like. Careful inquiry should be made to ascertain such conditions, and the number of persons so employed and their compensation should be estimated as nearly as possible and included, and the basis of the estimate noted on the schedule. On the other hand, answers to this inquiry should not include the data for employees of independent contractors with separate establishments who perform work under contract for the establishment reporting, although such contractors should be reported on separate schedules.

Do not include the number of persons working at their homes on piecework, a custom peculiar to glove making and a few other industries. (See par. 10.)

61. Convict labor.—The number of convicts working under contract, piece-price, or other system should not be included in the report. The amount paid for such service, however, should be included as explained in paragraph 67.

INQUIRY 6.—WAGES, COST OF MATERIALS, ETC.

62. Wages.—Show here the total amount paid during the period covered by the report to the wage earners reported above. *Do not include salaries paid to salaried officers and employees.*

If board or rent was furnished as part compensation of employees, its value should be included as wages.

Bonuses or percentages of profits when paid to wage earners should be included in the amount of wages. This does not include dividends paid on stock which wage earners may hold.

63. Definition of materials used.—The answer to this inquiry should give the total cost of all purchased materials of every description, whether raw or partly manufactured, used during the year, as either entering into the products or as consumed in

the process of manufacture, together with the cost of the containers in which the year's products were packed for sale and that of fuel and purchased electric energy consumed during the year. The cost of mill and factory supplies should not be included. Note that the inquiry does not ask for the cost of materials *purchased* during the year, and this figure might be entirely different. If the books do not show directly the cost of the materials actually consumed during the year, it may be computed by adding to the amount paid for materials purchased during the year any decrease in the inventory of materials on hand at the end of the year as compared with the beginning, or by deducting the increase in such inventory.

64. **Intermediate products manufactured during the year and used by same establishment** in its further operations must not be duplicated by being again reported in new form as material. An illustration of this may be found in the manufacture of textiles, where yarn may be made by the establishment reporting and consumed in further manufacture by the same establishment. Its cost will already have been reported in the raw material and labor connected with its manufacture and should not be duplicated. These instructions do not, however, apply to establishments manufacturing products classified in different industries, such as "Pulp (Wood and Other Fiber)" and "Paper," for which separate reports are required. (See pars. 42 and 65.)

65. **Interplant transfers.**—Where the products of one plant become materials for another plant operated under the same management and for which a separate report is required, they should be reported as products by the establishment producing them and as materials by the establishment acquiring them for further manufacture. The value assigned such materials by the factory using them should be the transfer value as shown on the books. If, however, no charge is made on the books, an estimate of the market value of the materials laid down at the plant consuming them should be made and reported as an "estimate." For example, an establishment may operate a wood-pulp mill and a paper mill, the latter using the pulp made by the former, transferred either at cost or at the market value or an arbitrary value. The figure actually charged on the books should be used if available, otherwise report the estimated market value of the pulp delivered at the paper mill.

66. **Cost of fuel and purchased electric energy.**—Include with the cost of materials the total cost of all coal, fuel oil, gasoline, gas, and other fuels, used during the year for generating power, for industrial heating and as materials in manufacturing processes. Include with the cost of fuel the total expenditure for purchased electric energy, whether for power, for industrial heating, or for other purposes. No data on quantities of fuel and energy consumed are called for at this census.

67. **Contract work.**—The schedules carry a separate inquiry (6 c) for "Cost of contract work." Report here only the total expenditure for work (including convict labor) done by or under the supervision of contractors or by persons working in their

homes, on the products reported under Inquiry 7. Do not include here any amounts already reported as wages, nor payments for contract work, such as construction, not done on your products.

INQUIRY 7.—PRODUCTS

68. Quantity and value.—The General Schedule for 1931 calls for the quantities and the values of the principal products, reported separately and in the order of their importance. Such information should be obtained where it is practicable to do so. The figures for total production should in all cases be taken from book records, but the records may not always show the quantities and the values of the separate items. In such cases careful estimates for the principal items will be accepted, but the fact that they are estimates should be noted on the schedule and the sum of the values should correspond to the total. It may not be practicable to specify a large number of the minor items, and in such cases these can be grouped together under "All other (specify)." No considerable portion of the value of products, however, should be reported under "All other."

69. Production, not sales.—Inquiry 7 calls for the value or the products *made* during the year, *not* the value of the products sold. The sales during the year may be considerably greater or considerably less than the manufactured output. Where the manufacturer has no records showing directly the year's production, but has records showing the sales, the production may be ascertained by adding to the sales the increase in the stock of finished goods on hand at the end of the year, as compared with the beginning of the year, or by deducting from the sales the decrease in such stocks. In other words, the sales account and the inventory would have to be consulted together in order to obtain data as to the year's production.

70. Selling value at the works.—The value which should be reported for products is not the cost of their manufacture, but the selling value at the factory or works, which will be in excess of the sum of the cost items under Inquiry 6, since the census schedules contain no inquiries for salaries and for miscellaneous expenses, such as advertising, rent, interest, insurance, taxes, etc.

71. Freight and discounts.—Freight charges paid by the manufacturer on goods sold should not be included in the value of products reported, nor should this value include discounts from list prices, as it is the net value which is desired. Products furnished to others in payment of obligations or in fulfillment of agreements, as gas furnished to a municipality, for example, should be reported as products at their estimated value.

72. Selling departments.—A manufacturing establishment sometimes turns over its product to a selling department at a given value. The value of products shown in the report should be this factory value, and not the value received by the selling department. (See par. 70.)

73. Exceptions in certain industries.—The above general rules regarding the basis for the value of products are subject to some slight modification in a few industries, as indicated by the special schedules for those industries. In railroad repair shops, for instance, the work is not, as a rule, performed for others, nor are

the products made for sale, but for the use and benefit of the company itself. In this industry, therefore, the value of products will usually represent simply the cost of production. In reports for motion-picture establishments the amount given as the total of Inquiry 7 will in all cases, except those reporting laboratory work done for others, represent the total expense of producing the negative films. The value reported for manufactured gas should be the receipts, not the list price, and owing to the nature of the business, should represent the price of the gas delivered to the consumer.

74. Contract work for others.—Many establishments do work for other establishments which own the whole or a part of the materials used. The amount received for such contract work should always be shown separately under "Products" as the total receipts for such work during the year.

75. Custom and repair work.—Under this head report the total receipts (or the total charges, in case work was done on credit and bills were unpaid at close of year) for custom and repair work of all kinds done during the year.

CERTIFICATE

76. Period covered.—The dates given here should show specifically the period covered by the report. Wherever possible, the report should relate to the 12 months ended December 31, 1931. Where the business or fiscal year of the establishment does not correspond to the calendar year, the report may cover the complete business year most nearly corresponding to the calendar year 1931. For some seasonal industries, such as beet sugar, turpentine and rosin, and cottonseed oil, reports should relate to the "crop year" or "seasonal year" specified on the special schedules for such industries.

In the case of a new establishment which began operations within the year, the answer to this inquiry should show the period in operation. If the establishment was in existence throughout the year but operated during only a portion of the 12 months, that fact should be stated under "Remarks."

77. Signature required.—Each report should be signed by the person responsible for the information furnished, with his official title and address.

REMARKS

78. Explanation frequently required.—The instructions for several of the inquiries indicate the character of the information that should be given under "Remarks." This space, however, is reserved primarily for an explanation of unusual conditions connected with the inquiries or with the report as a whole. Such explanations should be so clear and explicit as to obviate the necessity of office correspondence with the establishment. Examination of the report, after answers have been made to all the inquiries, may reveal inconsistencies or omissions. If it is impossible to correct them, an explanation should be given. All reports are carefully examined in the office before the figures are tabulated, and explanations of inconsistencies are *indispensable* to a proper understanding of the figures.

These explanatory statements should be as brief and direct as possible, and at the same time they should cover all pertinent facts.

The space under "Remarks" must not be used for correspondence or statements not pertinent to the report.

SPECIAL SCHEDULES

79. Object of special schedules.—The special schedules listed below are designed to develop statistics peculiar to the different industries.

When two or more of the industries for which special schedules are provided are carried on by the same establishments and it is practicable to secure a complete separate report for each of these industries, this should be done. If this is impracticable, a complete report should be obtained on the special schedule which most nearly represents the principal business of the establishment, and the *products* of the other industry should be reported on whichever one of the other special schedules is used for the industry manufacturing such products. In this case the schedule carrying additional information as to products should bear the name and address of the company under Inquiry I, the same file number as the complete report, and a statement under "Remarks" to the effect that the report carries detailed information as to products not provided for in the schedule used in reporting the chief business of the establishment.

80. Industry classification numbers and schedule form numbers.—The following list shows the 1929 industry numbers as they appear on the index cards and on the lists of establishments, together with the form numbers of the schedules to be used in canvassing the respective industries:

INDUSTRY NUMBERS FOR 1929, AS THEY APPEAR ON THE INDEX CARDS AND LISTS OF ESTABLISHMENTS, WITH THE FORM NUMBERS OF THE SCHEDULES TO BE USED FOR 1931

1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.
101	101	119	119	205	100	223	208	241	201
102	102	120	120	206	100	224	224	242	100
103	103	121	121	207	207	225	100	243	213
104	104	122	116	208	208	226	208	244	244
105	105	123	123	209	100	227	100	245	245
106	116	124	124	210	210	228	230	246	246
107	103	125	125	211	208	229	230	247	100
108	112	126	126	212	100	230	230	248	248
109	109	127	127	213	213	231	100	249	207
110	110	128	128	214	214	232	232	250	100
111	103	129	129	215	215	233	214	251	100
112	112	130	130	216	216	234	234	252	207
113	113	131	131	217	216	235	235	253	207
114	116	132	105	218	100	236	214	301	301
115	115	201	201	219	219	237	201	302	302
116	116	202	201	220	207	238	100	303	301
117	117	203	100	221	100	239	239	304	301
118	118	204	100	222	100	240	100	305	305

INDUSTRY NUMBERS FOR 1929, AS THEY APPEAR ON THE INDEX CARDS AND LISTS OF ESTABLISHMENTS, ETC.—Continued

1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.	1929 In- dustry No.	1931 Form No.
306	306	612	100	1009	1016	1210	1210	1607	1607
307	307	613	613	1010	1010	1211	1211	1608	1608
308	308	614	614	1012	1021	1212	1212	1609	1609
309	309	615	100	1013	1013	1213	1213	1610	1610
310	320	616	616	1014	1014	1214	1213	1611	1611
311	311	617	617	1015	100	1215	1212	1612	160
312	312	618	100	1016	1016	1216	1212	1613	100
313	313	619	100	1017	1004	1217	1212	1614	100
314	314	620	100	1018	1018	1218	1212	1615	1615
315	315	621	100	1019	100	1219	1219	1616	100
316	1310	622	622	1020	1020	1220	1208	1617	100
317	317	623	623	1021	1021	1221	1202	1618	100
318	318	624	624	1101	1101	1222	1202	1619	230
319	319	625	100	1102	1102	1223	1202	1620	1620
320	320	626	626	1103	1103	1224	1210	1621	100
401	401	627	611	1104	1122	1301	1301	1622	100
402	401	628	611	1105	1103	1302	1302	1623	100
403	401	629	629	1106	602	1303	1303	1624	1624
404	401	630	100	1107	100	1304	1304	1625	100
405	401	631	631	1108	100	1305	1305	1626	1626
406	401	632	632	1109	1109	1306	1306	1627	1628
407	407	633	633	1110	1110	1307	1307	1628	1628
408	401	701	701	1111	100	1309	1309	1629	1628
410	410	702	100	1112	1112	1310	1310	1630	1628
411	401	703	703	1113	1113	1311	1302	1631	1631
501	508	704	100	1114	1114	1312	1312	1632	100
502	100	705	705	1115	100	1313	1313	1633	1634
503	100	801	801	1116	1103	1314	1302	1634	1634
504	608	802	801	1117	1101	1315	1312	1635	1319
505	608	803	801	1118	1118	1316	100	1636	1636
506	608	901	901	1119	1119	1318	1307	1637	100
507	608	902	100	1120	100	1319	1319	1638	1638
508	608	903	903	1121	1119	1401	1401	1639	1021
509	608	904	904	1122	1122	1402	1404	1640	1640
510	608	905	224	1123	1123	1403	1643	1641	100
511	100	906	906	1124	1124	1404	1404	1642	1642
512	608	907	907	1125	1103	1405	1405	1643	100
513	100	908	908	1126	1126	1406	1406	1644	1001
601	100	909	100	1127	1127	1407	1407	1645	100
602	602	910	100	1128	1102	1408	1408	1646	100
603	603	1001	1001	1201	1201	1409	1409	1647	1608
604	100	1002	1002	1202	1202	1410	1410	1648	1648
605	100	1003	100	1203	1208	1501	1501	1649	100
606	606	1004	1004	1204	100	1502	1501	1650	100
607	100	1005	1005	1205	100	1601	100	1651	100
608	608	1006	100	1206	100	1603	100	1676	1677
609	609	1007	1021	1207	1207	1604	1604	1677	1677
610	610	1008	1008	1208	1208	1605	1604		
611	611			1209	100	1606	1606		

¹ New industry number in 1931.

81. Supplemental and other schedules.—In addition to the special schedules for the Census of Manufactures enumerated in the preceding list, one other form has been prepared which will be in circulation during the canvass.

Forms for the annual Census of Farm Equipment are sent out by mail from the bureau and are to be returned by that method. The Farm Equipment schedule, Form 1376, is to be filled out in addition to a general or a special schedule for each establishment

manufacturing any of the following: Agricultural implements; engines under 20 horsepower; tractors; farm wagons and horse-drawn trucks; light spring wagons and buggies; barn and barnyard equipment; bee-keepers', dairymen's, and poultrymen's supplies; hand farm tools; lawn mowers; farm elevators; portable corncribs and grain bins; hand, windmill, and irrigation pumps and sprayers; windmills and windmill towers; and farm wood-sawing machines.

The value of products reported on this schedule need not balance with the total value reported on the other schedule. Any farm equipment not specifically called for on this schedule should be reported under "All other." Note that sales are to be reported.

MISCELLANEOUS INSTRUCTIONS

82. Registered mail.—All reports returned to the Bureau of the Census by any person appointed by the bureau to cooperate in the canvass should be sent by registered mail in the official return envelope furnished for that purpose, or under the official frank. Attention is called to section 14 of the census act on page 22 of this book of instructions, wherein it is provided that there shall be no restriction as to class or weight of official mail addressed to the Census Bureau. This provision has been incorporated into the postal regulations. See also "Registration of census matter," on page 23.

83. Requests for supplies.—Persons authorized by this bureau to cooperate in the canvass for the Census of Manufactures should, when requesting additional supplies, instructions, etc., address their communications to the Director of the Census, Washington, D. C., unless otherwise instructed. Inquiries and requisitions of any character should not be sent on or with schedules but in separate letters.

84. Lists of establishments.—Persons appointed to cooperate with the bureau will be supplied with lists of the manufacturing establishments within the areas which they are to canvass. As reports are received by the bureau the local representative will be notified, and he should check them off on the list. When the canvass is completed every name on a list should be accounted for, either by a notation such as "Schedule received" or by a careful but concise explanation of why a report was not secured. These lists are as complete as it is possible to make them, but it is probable that some establishments have been overlooked. Careful attention should be given to this point, and establishments which come within the scope of the census and which are not listed should be added to the lists.

In accounting for every name on the list, it is not sufficient to state that a plant was idle or that it was not a manufacturing establishment. If it was idle, give the date when operation ceased, and if it was not a manufacturing establishment state what line of business was carried on. It is necessary that these explanations be specific.

Where a change has taken place in the name or the location of a factory since the list was prepared, the list should be corrected to agree with the new conditions and a specific explanation of the change should be made.