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Volume Title: Commodity Flow and Capital Formation, Volume 1

Volume Author/Editor: Simon Kuznets

Volume Publisher: NBER

Volume ISBN: 0-87014-033-7

Volume URL: <http://www.nber.org/books/kuzn38-1>

Publication Date: 1938

Chapter Title: Part I: Classification of Manufactured Commodities

Chapter Author: Simon Kuznets

Chapter URL: <http://www.nber.org/chapters/c4742>

Chapter pages in book: (p. 11 - 118)

## PART I

# CLASSIFICATION OF MANUFACTURED COMMODITIES

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PART I  
CLASSIFICATION OF MANUFACTURED  
COMMODITIES

PREFACE

1 THE CLASSIFICATION OF MANUFACTURED COMMODITIES

THE first task in the procedure by which the most important elements in gross and net capital formation were measured was to segregate finished commodities from unfinished, with a view to a subsequent segregation of durable commodities from among currently produced finished goods. The exhaustive source of primary information on the output of finished commodities in this country is the Biennial Census of Manufactures. It is the only census that reveals, at frequent intervals, the flow of commodities, and that reports many commodity items. In addition to segregating finished commodities from unfinished, the classification of the Census of Manufactures commodity information in conformity with the eventual aims of our study, suggested in the Introduction, provides for a third category, servicing and repairs of durable goods, some of which are reported in the Census of Manufactures. Moreover, construction materials are segregated from other unfinished commodities, since one set of estimates of total construction developed in a subsequent part of our study rests upon the value of construction materials consumed. Thus, our primary classification of commodities reported in the Census of Manufactures contains four classes: finished, construction materials, other unfinished, and servicing. But this classification cannot be applied directly to all Census data, in the sense that every commodity item in the Census can be unequivocally set in one of our four divisions. Some commodity items are partly finished, partly unfinished; others are partly construction materials, partly other unfinished; still others may combine all three. These mixed groups require further analysis for allocation among the constituent classes. For this reason, the basic classification of manufactured prod-

ucts in Table I-1 provides for a fifth class, mixed commodity items.

Finished commodities are in turn classified into several minor groups, largely for practical reasons. It would be impossible to retain in the subsequent statistical analysis the hundreds of commodity items distinguished in the Census of Manufactures. At the same time, valuable detail would be lost if those numerous commodity items were forthwith combined into the four major divisions that our analysis eventually uses: perishable, semi-durable, consumers' durable, and producers' durable. Therefore, it seemed advisable to classify the finished commodities into a fair number of minor commodity groups, some fifty, and to retain this classification in the subsequent analysis as long as the available data made this possible. Note A to Table I-1 lists the minor groups; the number in the table itself indicates the minor commodity group in which either the finished or the mixed finished and unfinished commodity item reported in the Census is placed.

The classification into minor commodity groups is based upon several principles. The ultimate aim of distinguishing perishable, semidurable, and durable commodities was paramount, since the subsequent classification into the major divisions was made with the minor commodity groups, without further reference to the hundreds of commodity items given in the Census of Manufactures. The same procedure was followed in the apportionment of finished durable commodities between producers' durable and consumers' durable. Within each of these four major divisions the minor groups are formed by grouping together commodities that satisfy distinct types of wants: food products, tobacco products, stationery, clothing, toys, shoes, automobile tires. In the subsequent analysis some of the minor groups in Part

I are reallocated or combined, but the consequent reduction in the number of groups is insignificant until the analysis passes from the value of output at producers' prices to the value of the commodity flow at the cost to consumers. At this point, in Part V, the absence of detailed data on distributive margins necessitates combining the fifty minor groups into the four major divisions, and limiting the subsequent estimates to the latter.

Since the allocation of commodities among the minor and major groups is thus basic to the entire study, it is given fully in Table I-1. Careful inspection of the table reveals the problems encountered. No single commodity item reported in the Census of Manufactures can be considered entirely finished or unfinished. No matter how completely fabricated a non-durable commodity may be, it is unfinished in our classification if consumed in the business process; and small amounts of raw materials or semifinished products may be used by ultimate consumers. Thus beverages, although preponderantly a finished commodity, may on some occasions be used not by ultimate consumers but by business agencies. Cocoa butter, although preponderantly an unfinished commodity, may be sold in small amounts to ultimate consumers for household use. In the strict sense of the classification, all commodity items are mixed. But it is impracticable to attempt to correct for the very small fraction of the total volume of beverages that may be utilized in a business process, or for the minute fraction of cocoa butter that passes directly to ultimate consumers. Therefore, only when, on the basis of available knowledge, there was reason to suspect that the fraction of a different use was appreciable was the commodity item classified as mixed, and then subjected in Table I-3 to further analysis designed to segregate its constituent classes.

In connection with the distinction between finished and unfinished commodities, the treatment of parts deserves special mention. There was no doubt that the commodities of which the reported items were parts could be classified as fully finished commodities (industrial machinery, cars, etc.), and that parts sold to other manufacturers belonged to the unfinished class. The question arose with reference to parts sold as such for replacement in already existing durable commodities in the hands of their users. Here, especially among producers' durable commodities, parts have a rather long life; and the total of several machines may be treated as a combination of parts

since they are ordinarily replaced piece by piece until only the framework of the machine survives. It, therefore, seemed advisable to treat parts of producers' durable commodities for sale as such as finished durable commodities. As the case for such a treatment of parts of consumers' durable commodities seemed much weaker, they were treated as unfinished.

The approximate character of the distinction between finished and unfinished applies, although less significantly, to the classification of finished commodities among the fifty odd minor commodity groups. Here the groups are largely institutional in character, and hence by definition the distinction could not be as clear-cut as that between finished and unfinished commodities. Nevertheless, in scrutinizing this classification it must be borne in mind that the resulting minor commodity groups, with a few exceptions to be noted in Part II, are cast as units into the four major divisions: perishable, semidurable, consumers' durable, and producers' durable. Hence, if a minor commodity group includes both perishable and semidurable commodities, or commodities that while durable may be used by both ultimate consumers and producers, the subsequent classification into the four major divisions reflects this admixture within the minor commodity group. In general, the minor commodity groups have been so constructed as to prevent the grouping of commodities that belong to different major divisions in respect of their durability. But lack of pertinent data made a precise distinction between producers' and consumers' goods impossible. As a result, the subsequent classification of durable commodities and consumers' <sup>1</sup> and producers' goods is largely on the basis of preponderant use. This probably causes a slight underestimate of the volume of producers' goods and a corresponding slight overestimate of the volume of consumers' goods.

The services rendered by manufacturing enterprises are not classified with the same detail as are the commodity items themselves. However, a distinction, based on the characteristics of the commodity totals in the industries under which the services are reported in the Census of Manufactures, is made between services rendered in connection with consumers' durable commodities and with producers' durable commodities.

<sup>1</sup> Throughout this report, consumers include not only households but also larger groups such as hospitals, charitable institutions, and hotels.

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2 MEASUREMENT OF THE VALUE OF OUTPUT

*Manufactures, 1929, Volume II, Reports by Industries (Table 3, p. 117).*

1	Confectionery industry, all products, total value	\$393,269,849
2	Confectionery (incl. salted nuts)	375,132,530
3	Other products, not normally belonging to the industry	18,137,319
4	Confectionery (incl. salted nuts) made as secondary products in other industries	13,137,319
5	Confectionery (incl. salted nuts), all industries: Aggregate value (sum of lines 2 and 4)	388,231,171

The total in line 5 is broken down by commodity items, such as chocolates, bars, and hard candy. The figure in line 1 is that referred to above as the industry total. The figure in line 5 is the commodity total. One can pass from the industry to the commodity total by subtracting from the former 'other products' that do not normally belong to the industry (line 3, item designated below as *o*) and adding to the remainder the output of similar products made as 'secondary products' in other industries (line 4, item designated below as *s*).

The commodity totals for years for which the Census gives for each industry the actual value of *o* and *s* are obtained by straight copying. But the detail in which these values are given varies from one Census year to another. The fullest details appear in the Censuses for 1927 and 1929; those for 1925 and 1931 are only slightly less complete. But for 1923 and 1933, and especially for 1919 and 1921, the value of either *o* or *s*, or of both, has been omitted in a substantial number of industries; and in order to obtain the commodity rather than the industry totals, these *o* and *s* adjustments must be estimated. In this estimation we usually took the percentage constituted by the missing item *o*, or the net difference between *o* and *s* (when both were missing), in the industry total for the given industry for the nearest Census year for which the items were actually given; a similar percentage for the missing item *s* in the corresponding commodity total; and applied the percentages to the industry or commodity total for the year for which the items had not been reported. In most of the industries for which such estimates were made the amounts involved were less than 5 per cent of the industry totals; and in view of the minor character of the adjustments,

Having classified the commodity items in the Census of Manufactures by their major characteristics—finished, construction materials, other unfinished, mixed—we can proceed to tabulate the value of their output. For finished commodities, construction materials and other unfinished commodities, such an assembling of figures on output may be followed directly by a summation of the former into the minor commodity groups and of the latter into comprehensive totals. But for the mixed commodity items we need a further breakdown of the values that will allow their reallocation into the other major classes.

However, even for those commodity items that are entirely finished or unfinished, or belong wholly to construction materials, the direct copying of the corresponding figures from the Census of Manufactures must be supplemented by several adjustments, because the Census does not provide details consistently from year to year. The classification with which the analysis starts is based upon the Census for 1929, the most complete of the recent censuses of manufactures. In order to carry the classification through the other years, some slight adjustments were made, summarized as: (a) estimates of secondary products and of other products for industries in which these items are not segregated; (b) estimates of a detailed commodity breakdown; (c) adjustments in selected industries for 1919 and 1929:

*a Adjustment for 'other' and 'secondary' products*

In the Census of Manufactures the value of output is given by industries, rather than by commodities. But for most industries the Census provides a table showing 'products, by kind, quantity, and value'. It is this table that contains the numerous commodity items classified in our Table I-1, and shows the difference between the industry and the commodity total value of output. The industry total includes the value of all products turned out by the plants classified under the industry, whether or not these products belong ordinarily to the industry. The commodity total includes the value of those products produced by and belonging ordinarily to the industry, and in addition similar products turned out by plants classified under other industries.

This difference between industry and commodity totals may be illustrated by the confectionery industry as reported in the *Census of*

it was not considered necessary to present them in detail.<sup>2</sup>

One aspect of this *o* and *s* adjustment, however, requires specific mention. In all years, even when most detail is provided by the Census for this item, the reallocation of the 'other products' not normally belonging to the specific industries among the specific commodity totals reported as 'secondary products' is not complete. Hence, total output reported under the commodity classification as 'secondary products' is less than the total reported under the several industries as 'other products'. The Census thus contains a volume of manufacturing output that cannot be allocated within the commodity classification, but that has been allocated within the industry classification. This explains the fact that when in the analysis in Part I we retabulate the Census data on the value of products in our commodity and service classification, the total is less than the total value of output reported in the Census of Manufactures itself. The difference (Table I-b) is minor when expressed as a percentage of total output, ranging from 0.8 per cent in the lowest year to 1.8 per cent in the highest year, although in absolute figures it means over a billion dollars in the highest year.

Offhand, one would be inclined to distribute this unallocable remainder proportionally among the various commodity groups, at least among the major divisions. But more careful inspection of the Census data indicates that the large items among 'other products' that appear never to have been recovered among the 'secondary products' are mainly unfinished. The outstanding examples are the by-products of the meat-packing industry which provide raw materials for other industries, and some of the 'other products' in the motor vehicle industry. For this reason it seemed advisable to treat the entire difference as belonging to the group of unfinished commodities.

#### b *Estimates of a detailed commodity breakdown*

The commodity classification in Table I-1 is based upon the Census of Manufactures for 1929, which provides the most comprehensive and detailed distribution of the value of output among hundreds of commodity items. The Census data for 1925, 1927, and 1931 are almost as detailed as

<sup>2</sup> In 1933 the commodity breakdown for a small fraction of the output of some industries was reported on an abbreviated schedule. This resulted in an item on the products table entitled (in the industry used here as an example) 'Confectionery and other products not reported separately'. This item was allocated proportionally among the more detailed items reported on the detailed schedules.

those for 1929. But prior to 1925 and partly for 1933, some of the commodity items reported separately during 1929 are combined; and for these years a detailed breakdown of the value of output must be estimated. The commodity items whose value of output was thus estimated, the percentage breakdown on which the estimates were based, and the years for which the estimates had to be made, are all assembled in Table I-2. The general procedure, the only one easily available, was to apply the percentage allocation of the value of output in the nearest Census years for which the items were given separately to the combined total for the other years. For a few items, listed separately in the footnotes to Table I-2, the estimate was based on a different procedure.

Brief inspection of Table I-2 shows that for 1919, 1921, and 1923, and to a much smaller extent for 1933, the value of output of a substantial portion of the detailed commodity items had to be estimated. By the application of a constant percentage allocation we obtained but crude approximations to the detailed commodity items. That the value of chocolate and chocolate coatings was 55 and 45 per cent, respectively, of the combined total in 1923 is no warrant that the same percentage distribution was true of the combined total in 1921 or 1919. However, the crude character of the results is not as significant for the value of output for the minor commodity groups as for each of the detailed commodity items, since several items whose output is estimated separately are combined in the total within a single minor commodity group. And this reduction of the possible error in the estimating procedure is still greater in the major commodity divisions, the four categories that are distinguished in our final set of estimates. The initial estimates were made as detailed as possible, but the results were subsequently combined into groups so large that the final values would be little affected by the possible crudities of the estimating procedure at the earlier and more detailed stages of the investigation.

By comparing Tables I-1, I-2, and I-4 a critical reader can easily see which particular minor commodity groups are likely to be distorted by errors implicit in our simple method of estimating the value of output for the detailed commodity items not reported separately in some Census years. It is difficult to measure this effect quantitatively. But, on the whole, the value of output for the minor commodity groups is not greatly affected by the crudity of the estimating procedure; and the few groups for which it is likely to be greatly

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affected, may be recombined into more comprehensive divisions; in order to avoid substantial errors.

c *Adjustment of selected industries in 1919 and 1929*

The Census of Manufactures reported for 1919 the output of all manufacturing establishments, excluding only those units that had a gross value of output less than \$500; but since 1919 it has exempted from coverage establishments with a gross value of output under \$5,000.<sup>3</sup> For the manufacturing industry as a whole, and for all save a few industries, this rise in the exemption limit caused only an insignificant difference in total output, and had little effect on the movement from 1919 to 1921. In a few industries, however, the output of establishments with a gross value from \$500 to \$5,000 accounted for more than 2 or 3 per cent of total output, and for these an adjustment was made to render the value of output for 1919 comparable with that for 1921 and subsequent years.<sup>4</sup> The total adjustment (i.e., deduction from the 1919 output) amounted to less than 60 million dollars, an exceedingly minor correction when compared not only with the total output of manufactures in 1919, but even with the output of the thirteen industries in question.

Another minor adjustment was made for selected industries in 1929. For that year the Census of Manufactures asked for reports on the value of sales rather than of output. For most industries this shift in the basis of reporting from production to sales involved no significant change. But for seventy-six industries, in which inventories of finished products were assumed to be important, the Census asked for reports on the value of output, and has supplied separate data on changes in inventories (in *Distribution of Sales of Manufacturing Plants*, Table 3). Where such inventory changes were relatively insignificant, or occurred in industries whose products were classified by us as unfinished, the reported production values were not adjusted. But for some industries, producing finished commodities and showing significant changes in inventories, values for sales rather than

for output were used because we wished to estimate eventually the distributive and transportation margins in 1929; and for this purpose data on sales by manufacturers were more suitable than data on output.

However, the effect of the adjustment on the totals for the minor commodity groups was so slight as to impair but little their comparability as between 1929 and other years. This is indicated in the accompanying tabulation which compares, for the five commodity groups affected by the inventory adjustment, the estimate of sales with the estimate of production, the latter based on the assumption that the breakdown by channels of use in *Distribution of Sales of Manufacturing Plants* applied to production as well as to sales.

Value in 1929

Commodity Group	Sales	
	(production adjusted for changes in inventories)	Production (without inventory adjustment)
	(millions of dollars)	
7 Dry goods and notions	832	828
9 Clothing and furnishings, men's and boys'	1,828	1,816
10a Women's clothing	2,431	2,430
34a Farm machinery and equipment	420	435
40 Aircraft	61	67
Construction materials	5,011	4,973

3 ALLOCATION OF MIXED COMMODITY ITEMS AMONG CONSTITUENT CLASSES

When a commodity item could be definitely classified as representing a finished commodity, a construction material or another type of unfinished product, the adjustments described above were adequate. But for many commodity items diversity in use was so appreciable as to prevent the assignment of the entire value of output to a single major class. For these commodities output totals were analyzed further in order to segregate those parts which could be classified as representing the value of the finished product, construction material, or other unfinished product. This allocation is presented in detail in Table I-3, the notes to which describe the methods used for each mixed commodity item.

The value of output of mixed commodity items was allocated among the major types of use by one of three methods. The first was based on Census of Manufactures reports on the quantity and value of raw materials consumed by manufacturing establishments. For several mixed commodity items, especially in the food group, these data were used to estimate the unfinished part of the item, the

<sup>3</sup> This is true with the exception of the clay products industries, for which output for establishments with a gross value of less than \$5,000 is reported for all years since 1919.

<sup>4</sup> These industries, and their Census number for 1929, are: baskets and rattan and willow ware (301); mirror and picture frames (313); window and door screens (318); liquors, vinous (620); saddlery and harness (909); marble, granite, etc. (1014); statuary and art goods (1019); carriages, wagons, etc. (1404); brooms (1604); tobacco manufactures (1608, 1647); hand stamps, etc. (1618); models and patterns (1625); artificial limbs (1645).



remainder constituting the finished part. For those mixed commodities to which another method of allocation was applicable the Census data on the value consumed by manufacturing plants were used only if the total unfinished as estimated on the basis of them was larger than that resulting from the application of a different procedure. The reason was the possibility that the Census of Manufactures reports on consumption of raw materials underestimate the value of the commodity utilized in industrial operation. For other mixed commodity items, for which no such check was possible, the Census data on raw materials consumed were used directly. The mixed commodity items to which this first method was applied, and the detailed data underlying its application, are set forth in Note A to Table I-3.

The second method of allocation was based on the Census data in *Distribution of Sales of Manufacturing Plants* and on the details in the *Census of Wholesale Distribution* for 1929. The former gives for every industry the proportion of total output sold to wholesale outlets of various types, to retailers, to industrial consumers, and to ultimate consumers. The sales to industrial consumers by manufacturing plants, when applied to the mixed commodity item, result in the first estimate of the unfinished part of the corresponding total.

Sales to retailers may be assumed to be largely destined for ultimate consumers, and hence represent finished commodities. But sales by manufacturing plants to wholesale outlets must be analyzed further to show what part of the sales by wholesalers is to industrial consumers, and hence represents another *unfinished* part of the mixed commodity total. This estimate of sales by wholesalers to industrial consumers is undertaken on the basis of the detailed distribution of sales for 1929 in the *U. S. Summary of Wholesale Distribution*. Thus, for the mixed commodity items allocated by the second method, the unfinished part represents the portion based on the percentages of sales of the corresponding commodity group to industrial consumers by the manufacturing plants, either directly or through the channels of wholesale trade. Note B to Table I-3 describes this method in detail, lists the mixed commodity items to which it has been applied, and shows the percentages used in this breakdown of mixed commodity items.

Both methods must, obviously, be checked and supplemented with other information on the allocation of commodities among the major types of use. Neither can determine the allocation of a

mixed commodity item to construction materials or other unfinished products. Besides, even when the allocation is to finished or unfinished, both methods should be checked whenever possible. To this end, additional information was culled from the available published sources. Other sources of information were trade associations and commodity experts, to whom all estimates were circulated with a request that they review the estimated allocation of the mixed commodity items and suggest any modifications or changes that seemed advisable. Note C to Table I-3 presents in detail all the items allocated by a procedure other than the first two, and cites the source of the information determining each allocation.

The principal limitation of the allocation of the mixed commodity items is that most of the data are for 1929. For example, in recent years the Census of Manufactures data on the consumption of raw materials are available in detail only for 1929, and sometimes for 1931. Since *Distribution of Sales of Manufacturing Plants* is available only for 1929 the second method cannot be applied to other years.<sup>5</sup> And most of the published and unpublished information on the distribution of commodities among various uses is available also only for recent years. For this reason most mixed commodity items for years other than 1929 were allocated by applying to the total the percentages established for 1929. The items excepted are those for which published or unpublished information threw some light on the changes in the allocation over the period studied. Fortunately such information was available for most items in which the changes were especially marked, and hence had aroused the attention of students.

In addition to this important qualification of the allocation for years other than 1929 two comments on the results of this analysis are of interest. First, our methods quite possibly underestimate somewhat the unfinished part of the mixed commodity total, and hence overestimate the finished part, particularly of the items that were estimated on the basis of the consumption of raw materials. However, since the most important allocations were checked by correspondence with trade associations and commodity experts, the error is perhaps not great.

Second, at this stage of our analysis we considered as finished not only the part of the mixed commodity total that goes to ultimate consumers, but also that which is exported. This interpreta-

<sup>5</sup> Similar data in the Censuses for 1935 appeared too late to be utilized in the present study.

tion is necessary, because in both the first and second methods of allocation we subtract from the total as unfinished only that part which flows to *domestic* industrial consumers. Similarly, in obtaining information from trade associations we took care to emphasize that the finished part, in our definition, included the part exported. Only at a later stage in our analysis, when we passed from domestic production to production destined for domestic consumption, did our groups of finished commodities exclude completely all unfinished products. But even at the present stage of the analysis, unfinished products destined for export constitute merely a minor fraction of the finished commodity items.

The adequacy of the allocation for both 1929 and other years may be judged critically from the detailed notes to Table I-3. We now merely indicate the importance of the mixed commodity items in the minor or major commodity groups (Table I-a). The comparison of mixed output with that directly classifiable in the major and minor commodity groups shows the area within which the estimating described above had to be undertaken, and the possible importance that errors in the estimates would have in the totals for the minor and major commodity classes, respectively.

Of the grand total, 39.8 billion dollars, of finished commodities, plus construction materials but excluding the value of servicing, 30.9 billion, or 78 per cent, were classified as finished or construction materials directly, without further analysis as mixed commodity items. Total output of the latter accounted in 1929 for 18.3 billion dollars, of which 8.9 billion were allocated to either finished commodities or construction materials, and the rest, 9.4 billion dollars, to unfinished. The area within which the estimating was done was, therefore, fairly wide, and the addition to the total resulting from the estimate, fairly substantial. Still, if we assume that the distinction between finished, construction materials, other unfinished, and mixed was correct, an error of even 20 per cent in the allocation of the mixed commodity total, a rather improbable magnitude, would imply an error of less than 5 per cent in the total of finished commodities and construction materials.

Of greater significance and interest is the diverse importance of the mixed commodity items among the minor commodity groups and the four major commodity classes. Naturally, the mixed items are of greatest importance among commodities with a slight degree of fabrication and rela-

tively short average life. It is, therefore, not surprising to find that in such minor groups as foodstuffs, petroleum products, or dry goods and notions, the proportion of the total finished value obtained as a result of the allocation of mixed items is large. On the other hand, in groups covering such highly fabricated products as musical instruments, heavy household appliances, passenger cars, or industrial machinery, there is little possibility of immediate consumption in a business process. Consequently, the estimating procedure by which mixed items were allocated is of greatest importance for perishable goods and construction materials; of much less importance for the semi-durable group; of some significance for consumers' durable products; and of practically no significance for the producers' durable group. For our final estimates of capital formation the three groups—construction materials, consumers' durable, and producers' durable—are most important. For two groups the allocation of mixed products is of small or no importance; for construction materials it is based upon diverse, specific information, rather than upon the usual methods of value of materials consumed by manufacturing plants or distribution of sales.

#### 4 COMPARISON WITH NET VALUE OF MANUFACTURES

Tables I-4 to I-6 bring together the results of the various adjustments and estimates, and show the value of output for the minor commodity groups, total output of construction materials, and the value of services rendered by manufacturing establishments, for each Census year. To complete the record, the estimated values of unfinished products are given in Table I-7, for the sixteen major Census groups.

The brief recapitulation and comparison with the Census totals (Table I-b) show that our analysis does not account for the entire output reported in the Census, and, on the other hand, adds a few items not reported there. We found no room in our classification for the following commodities and industries reported in the Census: gas (a commodity reported under two industries), motion pictures (industry), and poultry killing (industry).<sup>6</sup> On the other hand, we supplied estimates for the coffee and spice, and the grindstone, pulpstone, and millstone industries for years for which the Census failed to include them. However, the

<sup>6</sup> This industry is not reported continuously in the Census, and was estimated in Part II of our study under non-manufactured products.

Table I-a

RELATIVE IMPORTANCE OF MIXED COMMODITIES IN THE GROUP TOTALS, MINOR AND MAJOR COMMODITY GROUPS, 1929  
(dollar values in thousands)

Minor commodity group	Total value of group	Classified directly		Resulting from allocation of mixed		Allocation of mixed				
		Value	Per-cent	Value	Per-cent	Total value	Finished or construction materials	Per-cent	Unfinished	Per-cent
<b>Perishable</b>										
1 Food and kindred products	9,769,316	6,867,587	70.3	2,901,729	29.7	3,846,904	2,901,729	75.4	945,175	24.6
2 Cigars, cigarettes, and tobacco	1,246,929	1,246,929	100.0	-	-	-	-	-	-	-
3 Drug, toilet and household preparations	1,096,556	498,016	45.4	598,540	54.6	1,383,036	598,540	43.3	784,496	56.7
4 Magazines, newspapers, stationery and supplies, and misc. paper products	979,814	524,556	53.5	455,258	46.5	1,215,011	455,258	37.5	759,753	62.5
5a Fuel and lighting products, manufactured and petroleum products	1,318,436	192,185	14.6	1,126,251	85.4	2,598,726	1,126,251	43.3	1,472,475	56.7
6a Caskets and coffins	85,174	85,174	100.0	-	-	-	-	-	-	-
6b Misc. perishable	98,718	48,492	49.1	502,226	50.9	166,778	50,226	30.1	116,552	69.9
Total Perishable	14,594,943	9,462,939	64.8	5,132,004	35.2	9,210,455	5,132,004	55.7	4,078,451	44.3
<b>Semidurable</b>										
7 Dry goods and notions	831,979	28,658	3.4	803,321	96.6	3,050,679	803,321	26.3	2,247,358	73.7
8 Personal furnishings	178,691	158,061	88.5	20,630	11.5	37,394	20,630	55.2	16,764	44.8
9 Clothing and furnishings, men's and boys' and fur goods	1,827,731	1,827,731	100.0	-	-	-	-	-	-	-
10 Clothing, women's misses' and children's, and furs and fur goods	2,591,448	2,591,448	100.0	-	-	-	-	-	-	-
11 Shoes and other footwear	1,084,714	1,074,703	99.1	10,011	0.9	28,604	10,011	35.0	18,593	65.0
12 Misc. house furnishings	470,268	325,650	69.2	144,618	30.8	712,648	144,618	20.3	568,030	79.7
13 Toys, games and sporting goods	226,084	226,084	100.0	-	-	-	-	-	-	-
14 Tires and tubes	472,361	-	-	472,361	100.0	694,078	472,361	68.1	221,717	31.9
Total Semidurable	7,683,276	6,232,335	81.1	1,450,941	18.9	4,523,403	1,450,941	32.1	3,072,462	67.9
<b>Consumers' Durable</b>										
15 Household furniture	625,380	625,380	100.0	-	-	340,585	189,638	55.7	150,947	44.3
16 Stoves, ranges and water heaters	189,638	-	-	189,638	100.0	-	-	-	-	-
17 Heavy household appliances, incl. mechanical refrigerators	278,741	278,741	100.0	-	-	-	-	-	-	-
18 House furnishings (durable)	492,027	484,217	98.4	7,810	1.6	12,995	7,810	60.1	5,185	39.9
19 China and household utensils	245,835	206,961	84.2	38,874	15.8	48,218	38,874	80.6	9,344	19.4
20 Portable household electric appliances and other supplies	68,873	68,873	100.0	-	-	165,078	64,878	39.3	100,200	60.7
21 Radio apparatus and equipment	388,476	325,598	83.5	64,878	16.7	-	-	-	-	-
22 Musical instruments	118,571	118,571	100.0	-	-	-	-	-	-	-
23 Jewelry, silverware, clocks and watches	288,490	287,012	99.5	1,478	0.5	14,038	1,478	10.5	12,560	89.5
24 Printing and publishing: books	199,015	199,015	100.0	-	-	-	-	-	-	-
25 Luggage	64,801	64,801	100.0	-	-	-	-	-	-	-

Table I-a (Concluded)

Minor commodity group	Total value of group	Classified directly		Resulting from allocation of mixed		Allocation of mixed								
		Value	Per cent	Value	Per cent	Value	Finished or construction materials	Per cent	Unfinished	Per cent				
											Value	Per cent		
26 Passenger cars	2,799,737	2,799,737	100.0	-	-	-	-	-	-	-	-	-	-	-
27 Auto-parts and accessories	407,584	11,491	2.8	396,093	97.2	1,904,199	396,093	20.8	1,508,106	79.2	-	-	-	-
28 Motorcycles, bicycles and accessories	18,273	14,240	77.9	4,033	22.1	6,958	4,033	58.0	2,925	42.0	-	-	-	-
29 Pleasure-craft	26,723	26,723	100.0	-	-	-	-	-	-	-	-	-	-	-
30 Ophthalmic products and surgical and orthopedic appliances	53,252	53,252	100.0	-	-	-	-	-	-	-	-	-	-	-
31 Monuments and tombstones	63,635	63,635	100.0	-	-	-	-	-	-	-	-	-	-	-
Total Consumers' Durable	6,319,051	5,616,247	88.9	702,804	11.1	2,492,071	702,804	28.2	1,789,267	71.8	-	-	-	-
Producers' Durable														
32 Industrial machinery and equipment	2,210,362	2,210,362	100.0	-	-	-	-	-	-	-	-	-	-	-
33 Electrical appliances, industrial and commercial	976,832	976,832	100.0	-	-	-	-	-	-	-	-	-	-	-
34 Farm machinery, tractors and wagons	621,195	621,195	100.0	-	-	-	-	-	-	-	-	-	-	-
35 Office and misc. machinery and equipment	383,677	383,677	100.0	-	-	-	-	-	-	-	-	-	-	-
36 Office and store furniture and fixtures	295,967	295,967	100.0	-	-	-	-	-	-	-	-	-	-	-
37 Locomotive and railroad cars	379,748	379,748	100.0	-	-	-	-	-	-	-	-	-	-	-
38 Ships and boats	56,676	56,676	100.0	-	-	-	-	-	-	-	-	-	-	-
39 Business motor vehicles	623,135	623,135	100.0	-	-	-	-	-	-	-	-	-	-	-
40 Aircraft	61,474	61,474	100.0	-	-	-	-	-	-	-	-	-	-	-
41 Professional and scientific equipment	145,223	81,025	55.8	64,198	44.2	83,810	64,198	76.6	19,612	23.4	-	-	-	-
42 Carpenters' and mechanics' tools	136,622	136,622	100.0	-	-	-	-	-	-	-	-	-	-	-
43 Durable containers	107,889	107,889	100.0	-	-	-	-	-	-	-	-	-	-	-
44 Misc. subsidiary durable equipment	231,985	231,985	100.0	-	-	-	-	-	-	-	-	-	-	-
Total Producers' Durable	6,230,785	6,166,587	99.0	64,198	1.0	83,810	64,198	76.6	19,612	23.4	-	-	-	-
Construction Materials														
Total Construction Materials	5,010,740	3,450,805	68.9	1,559,935	31.1	2,925,901	1,559,935	53.3	1,365,966 <sup>3</sup>	46.7	-	-	-	-
Grand Total, incl. Construction Materials	39,838,795	30,928,913	77.6	8,909,882	22.4	18,320,175 <sup>4</sup>	8,909,882	46.3	9,410,293 <sup>4</sup>	53.7	-	-	-	-

<sup>1</sup>Contains 373,672 thousand dollars of construction materials.

<sup>2</sup>Construction materials.

<sup>3</sup>Contains 247,126 thousand dollars of finished commodities.

<sup>4</sup>Corrected for duplication of items.

major source of discrepancy between our total and the Census lies in the incompleteness, mentioned above, of the commodity allocation in the Census of 'other products' among the 'secondary products'. The resulting difference ranges from 0.8 per cent in 1931 to 1.8 per cent in 1919 (last line of Table I-b).

The relative stability of the percentage distribution between finished and unfinished commodities is interesting. If servicing is included with finished products, and construction materials with unfinished, the former combined group constitutes on the average about 55 per cent of the total, ranging from 52.4 to 56.7 per cent. If we add construction materials to the finished group, the average percentage of the total becomes more than 61, ranging from 60.4 to 63.9. Notwithstanding their stability these percentages apparently fluctuate with cycles in the value of manufacturing output. In years of contraction, such as 1921, 1927, and 1931, the output of unfinished products declines more appreciably than the total of finished, construction materials, and servicing; as a result, their percentage of total manufacturing output declines. When the value of output rises, as in 1923 and 1929, the output of unfinished commodities rises more than that of other commodities; their percentage of the total accordingly rises. This is due largely to the preponderance among unfinished commodities of metal products, a group more susceptible to cyclical rises and declines than are the other groups of manufactured products.

The main results of our analysis can be compared with the net value of manufactures, measured so as to exclude the duplication that occurs because the product of one manufacturing establishment is consumed in the productive processes of another. Such estimates are available for every odd year in the period covered, prepared for 1929 by the Bureau of the Census and for other years by the Bureau of Foreign and Domestic Commerce. But the values measured differ from ours in one important respect. In estimating the net value of manufactures, only those manufactured products are considered unfinished which are consumed directly in the productive processes of other manufacturing plants. In our study, all those manufactured products are considered unfinished which are consumed in the productive processes not only of other manufacturing plants, but also of other business enterprises. Moreover, consumption of non-durable goods need not be in production proper to render them unfinished in our classification; it may occur in the process of

management. For example, in the estimate of the net value of manufactures, gasoline, cement, or lumber are considered unfinished only to the extent that they are consumed by manufacturing plants, while in our study the parts that are consumed by construction enterprises, distribution, transportation, or other business agencies are also considered unfinished. Or, with respect to paper and printing products, the estimate of the net value of manufactures includes among finished such items as account books and advertising circulars, since they are not used directly in the manufacturing process by other manufacturing plants, even though they may be used in the offices of manufacturing establishments. In our study, all these products, whether used by manufacturing firms, trading units, advertising companies, or professional units, are considered unfinished.

Obviously the definition of unfinished products used in our study is more comprehensive than that used by the Bureau of the Census or the Bureau of Foreign and Domestic Commerce in adjusting for the duplication among manufacturing establishments; accordingly, the volume of finished manufactured products as estimated in our study should be significantly smaller than that obtained as the net product of manufacturing industries by the two Bureaus.

Because net value of manufactures is estimated in some detail for 1929 we begin with a comparison for that year<sup>7</sup> (Table I-c).

The Census Bureau estimates show the net value of manufactures *originating* in the industries of each group, i.e., the gross value adjusted for the value of domestic semimanufactures *consumed*. Our estimates show the net value of manufactures *produced* by the industries of each group, i.e., the gross value adjusted for the value of domestic semimanufactures *produced*. We calculated the value of finished production for each group by subtracting from gross value the value of unfinished products that had been segregated. The remainder, therefore, covers not only finished products and servicing, but also construction materials, excluded industries, and the unallocable part that had to be omitted from our classification.

The Census total exceeds our total by slightly over 4 billion dollars (Table I-c). This excess of the net value of manufactures over our comparable total of finished products, servicing, and construction materials is, however, underestimated in Table I-c, since in column 6 we include 0.8 bil-

<sup>7</sup> See *Materials Used in Manufactures: 1929*, by Tracy E. Thompson (Washington, 1933).

Table I-b

COMMODITY TOTALS RESULTING FROM OUR CLASSIFICATION COMPARED WITH TOTALS SHOWN  
IN THE CENSUS OF MANUFACTURES

(dollar values in thousands)

	1919	1921	1923	1925	1927	1929	1931	1933
Commodity total resulting from our classification								
Finished	60,563,550	42,520,937	59,071,373	61,862,523	61,379,697	68,799,399	40,496,567	30,832,631
Percentage of commodity total	31,413,832	22,502,365	28,999,309	30,911,341	31,142,602	34,828,055	21,780,893	16,539,501
Construction materials	51.9	52.9	49.1	50.0	50.7	50.6	53.8	53.6
Percentage of commodity total	3,704,876	3,063,085	4,807,036	5,094,748	4,956,083	5,010,740	2,528,120	1,533,255
Services	6.1	7.2	8.1	8.2	8.1	7.3	6.2	5.0
Percentage of commodity total	1,899,092	1,606,015	1,970,760	1,684,032	1,689,305	1,704,531	973,735	657,623
Unfinished	3.1	3.8	3.3	2.7	2.8	2.5	2.4	2.1
Percentage of commodity total	23,545,750	15,349,472	23,294,268	24,172,402	23,591,707	27,256,073	15,213,819	12,102,252
	38.9	36.1	39.4	39.1	38.4	39.6	37.6	39.2
Census total (as shown in the 1931 and 1933 Census volumes)	62,041,795	43,653,282	60,555,999	62,713,712	62,718,348	70,434,864	41,350,465	31,358,840
Add:								
Peanuts, walnuts (in Census Group 1)								43,630
Coffee and spices (in Census Group 1)				410,928				187,406
Grindstones, pulpstones and millstones (in Census Group 10)						1,498	408	532
Subtract:								
Poultry killing (in Census Group 1)						130,161	97,560	66,157
Coke, not incl. gas-house coke:	41,705	34,717	26,424	45,454	-			
gas (in Census Group 7)	16,650	19,788	42,712	49,051	53,725	61,099	45,319	33,133
gas, mfd. illuminating and heating:				395,969	446,245	438,243	399,681	324,190
gas: (in Census Group 7)	282,289	372,032	394,506	93,636				
Motion pictures, not incl. projection in theaters (in Census Group 16)	36,705	77,397	86,418	62,540,530	134,343	184,102	-	-
Adjusted Census total	61,664,446	43,149,348	60,005,939	62,540,530	62,084,035	69,622,757	40,808,313	31,166,928
Commodity total as percentage of adjusted Census total	98.2	98.5	98.5	98.9	98.9	98.8	99.2	98.9

PART I

Table I-c

NET VALUE OF MANUFACTURES AND TOTALS OF FINISHED COMMODITIES, SERVICING, CONSTRUCTION MATERIALS AND THE UNALLOCATED REMAINDER, SIXTEEN INDUSTRY GROUPS COMPARED, 1929

(millions of dollars)

INDUSTRY GROUP (1)	BUREAU OF CENSUS ESTIMATE			NATIONAL BUREAU OF ECONOMIC RESEARCH ESTIMATE		
	DOMESTIC SEMI-MFD. AND MFD. FUELS			UNFINISHED COMMODITIES	UNALLOCATED REMAINDER	DIFFERENCE (4)-(6)
	GROSS VALUE OF PRODUCTS	CONSUMED, AND CONTRACT WORK	NET VALUE (2)-(3)			
	(2)	(3)	(4)	(5)	(6)	(7)
Food and kindred products	12,024	2,342	9,682	1,842	10,182	-500
Textiles and their products	9,243	3,389	5,854	3,576	5,667	+193
Forest products	3,592	1,260	2,332	1,271	2,321	+11
Paper and paper products	1,892	699	1,194	1,627	265	+929
Printing, publishing and allied industries	3,170	758	2,412	2,403	767	+1,645
Chemicals and allied products	3,759	1,065	2,695	2,222	1,537	+1,354
Products of petroleum and coal	3,648	357	3,291	1,711	1,937	+1,354
Rubber products	1,117	349	769	464	653	+116
Leather and its manufactures	1,906	776	1,130	691	1,215	-85
Stone, clay and glass products	1,561	168	1,393	376	1,185	+208
Iron and steel and their products, not including machinery	7,138	2,936	4,202	4,612	2,526	+1,676
Nonferrous metals and their products	3,597	1,597	2,000	2,729	868	+1,132
Machinery, not including transportation equipment	7,043	2,562	4,481	2,046	4,997	-516
Transportation equipment, air, land and water	6,047	3,638	2,409	1,292	4,755	-2,346
Railroad repair shops	1,270	522	748	0	1,270	-522
Miscellaneous industries	3,426	775	2,651	393	3,033	-382
Total	70,435	23,192	47,243	27,256	43,179	+4,064

SOURCE: Census figures from Tracy E. Thompson, *Materials Used in Manufactures: 1929* (Washington, 1933), Table 16, p. 31.

lion dollars of unallocated 'other products' which were considered largely unfinished. A correct estimate of the discrepancy in 1929 is then 4.8 billion dollars, the additional 0.8 billion being primarily in the groups of food and kindred products and of transportation equipment.

The two estimates for the totals of food and kindred products (if we allow for the unallocated part), forest products, leather and its manufactures, and perhaps textiles and their products are close. In each of these groups, obviously, the values of domestic semimanufactures and manufactured fuels consumed and produced are about equal, and the definition of unfinished products in the two estimates is fairly coextensive. For rubber products, and perhaps, stone, clay and glass products, the disparity is substantial in percentage terms, but does not contribute greatly to the total disparity. Finally, in an important set of industry groups—iron and steel, nonferrous metals, machinery, and transportation equipment—the two totals check if we combine the groups, on the ground that they are closely related in the industrial system and some consume primarily the semi-finished products of the others. If, for these four

industry groups, the differences in column 7 are added, the net total is -54 million dollars, an insignificant difference. It should really be positive rather than negative, since the total for transportation equipment in column 6 should be reduced by some proportion of the unallocated 'other products' (say 200 or 300 million dollars). Such a positive discrepancy would serve to reduce the negative item in column 7 for railroad repair shops, and to balance the negative remainder in this group and in the miscellaneous industries group over against the positive discrepancies in the stone, clay and glass, and the textile groups.

In the industry groups mentioned so far, the disparity between the two sets of estimates can thus be largely interpreted as the result of a difference between the volume of semifinished products consumed and the volume produced; the difference in definition of unfinished products appears of little significance in these twelve industry groups. In the other four groups—paper products, printing and publishing, chemicals, and petroleum products—in which the disparity between the two totals is highly significant and consistently positive, on the contrary, the source of the disparity

CLASSIFICATION OF MANUFACTURED COMMODITIES

seems to lie in the difference between the definitions of unfinished products. This is confirmed by the values of unfinished products for these groups in Table I-4. The most significant items that were considered unfinished in our study, but that are considered largely finished by the Census Bureau, are (with the value of their output in 1929, in billions of dollars): convertible paper products (largely containers for trade), 0.6; advertising, 1.1; commercial printing, 0.9; fertilizers and oil, cake and meal, 0.6; gasoline, 0.6. These few items alone amount to 3.8 billion dollars, while the total disparity in those four groups is 5.0 billion. Thus it is the difference in the definition of unfinished products that accounts for the total discrepancy between the estimate of the net value of manufactures for 1929 and our estimate of the value of finished commodities, servicing, and construction materials; and once that is taken into account, the two totals may be said to check roughly.

This comparison reconciles our estimates and those of the Census Bureau for one year, 1929. In Table I-d we compare the value of output computed in our study, including finished products,

servicing, and construction materials, with the estimated net value of manufactures for 1919-33, as shown in the Commerce Yearbook.

Our total is less than the net value of manufactures in all years except 1921. But the degree of both absolute and relative disparity varies appreciably. The greatest difference occurs in 1929, the year for which the most accurate estimates of the net product were obtained by the Bureau of the Census. In other years the difference is much less appreciable, and the reversal of the sign in 1921 is rather surprising.

It is difficult to appraise the accuracy of the Commerce Yearbook totals without access to the full details of the estimating procedure. The method used up to 1929 is described briefly as follows:

"It is . . . possible to estimate fairly closely the net value of manufactures by summarizing the available information as to the value of the major individual raw materials and of the imported partly manufactured materials used by factories. It is believed that this method gives totals for the cost of materials, exclusive of duplication, that are subject to a margin of error not greater than 10 per cent. The value added by manufacture is a definite figure obtained by deducting from the sum total of the value of all products the sum total of the cost of all materials. Since this value added by manufacture is, in the case of products other than foodstuffs, more than three times as great as the value of the raw and imported materials used, the combined total net value of product (materials plus value added by manufacture) is subject to only a relatively small margin of error—perhaps 3 or 4 per cent up or down from the estimated figure. To avoid giving the appearance of exactitude, however, the accompanying table and chart present the figures of net value of manufactures in the form of maximum and minimum range" (*Commerce Yearbook, 1926, I, 93*).

Table I-d

NET PRODUCT OF MANUFACTURING INDUSTRIES COMPARED WITH TOTAL OF FINISHED COMMODITIES, SERVICING, AND CONSTRUCTION MATERIALS AS DERIVED IN OUR STUDY, CENSUS YEARS, 1919-1933

(dollar values in billions)

YEAR	CENSUS TOTALS			N.B.E.R. TOTALS		DIFFERENCE	
	GROSS VALUE	RANGE OF NET VALUE	MEAN NET VALUE	PER-CENT-AGE OF GROSS VALUE	PER-CENT-AGE OF NET VALUE	ABSOLUTE (3)-(5)	PER-CENT-AGE (4)-(6)
	(1)	(2)	(3)	(4)	(5)	(7)	(8)
1919	62.0	37.3-39.3	38.3	61.8	37.4	60.3	+0.9 +1.5
1921	43.7	26.3-27.7	27.0	61.8	27.7	63.4	-0.7 -1.6
1923	60.6	37.35-39.05	38.2	63.0	36.3	59.9	+1.9 +3.1
1925	62.7	38.7-40.4	39.55	63.1	38.2	60.9	+1.35 +2.2
1927	62.7	39.3-41.0	40.15	64.0	38.5	61.4	+1.65 +2.6
1929	70.4	46.6-47.9	47.2	67.0	42.3	60.1	+4.9 +6.9
1931	41.4		27.0	65.2	25.8	62.3	+1.2 +2.9
1933	31.4		21.0	66.9	19.1	60.8	+1.9 +6.1

SOURCE: Census data for 1919-27 from *Commerce Yearbook, 1932, I, 94*; for 1931 and 1933, from Census of Manufactures for 1933, *Summary by Industries*. Our totals include also industries omitted from our classification.

The series before 1929 is perhaps not comparable with that for 1929, which is based on a study in *Materials Used in Manufactures: 1929*, by Tracy E. Thompson (Washington, 1933). Finally, for later years, 1931 and 1933, the estimates are given in round numbers in the summary of the Census for 1933, and are the result of "a careful estimate . . . [of] the net value (at f.o.b. factory prices, not retail prices) of finished manufactured products, in the form in which they reach the ultimate consumer. . . ."

The internal evidence of the absolute figures and of the percentages in Table I-d raises questions as to the accuracy and comparability of the net value series over the period. First, the percentage that this net value constitutes of the gross is almost identical in 1919 and 1921, and in 1923 and 1925. Such identity is especially questionable for 1919 and 1921, years in which economic conditions were so strikingly different. A large proportion of domestic semifinished manufactures is in



the metals and machinery groups. Thus, in 1929 unfinished products in the iron and steel, nonferrous metal, machinery, and transportation equipment groups amounted, according to our calculation, to 10.3 billion dollars, out of a total of unfinished products of 27.3 billion, and as compared to the Census total of domestic semimanufactures and manufactured fuels of about 23 billion. It is the particularly acute decline in the output of these groups during depression that accounts largely for the decline in the percentage of our unfinished products to the total in a year like 1921, and for a corresponding rise in the percentage accounted for by finished commodities, servicing, and construction materials. But no such rise in the percentage of net value to gross production is shown in the Census estimates, even though such a rise did occur in the Census figures in 1927. Similarly, the decline from 1929 to 1931 is another ground for doubt.

Another important peculiarity that calls for explanation is the change in the estimated net value of manufactures from 1927 to 1929. The absolute change, if we compare the means of ranges, consisted of a rise of 7.05 billion dollars; the gross value increased 7.7 billion dollars. This implies

that the increase in the value of domestic semimanufactures was only 0.65 billion. Since the value of these semimanufactured products in 1929 was about 23 billion dollars, this small percentage rise in their output (about 3 per cent) as compared with the substantial rise in the output of finished manufactures (over 15 per cent) is, if true, an exceptional phenomenon demanding further investigation. An obvious explanation is that the more detailed estimate for 1929 is not comparable with those for either earlier or later years.

These comments are not intended as reflections on the accuracy of the estimates of the net value of manufactures, especially since for 1919-27 they are described as accurate only within a certain range. Nor are the variations in the difference between our estimate of finished products, inclusive of servicing and construction materials, and the net value, so far as they are not due to differences in scope, an indication of inaccuracies in the estimates derived in our study. On the contrary, the necessarily rough comparison results in a fair check of the two series of totals, in that ours is consistently lower, with a fairly reasonable absolute difference.

Table I—1

CLASSIFICATION OF MANUFACTURED PRODUCTS INTO  
FINISHED (BY MINOR COMMODITY GROUPS), CONSTRUCTION MATERIALS, SERVICING, UNFINISHED AND MIXED

The classification is based on the commodity tables of the 1929 *Census of Manufactures*, and the numbers preceding the industry titles are those shown in that Census.

The class designations used are as follows:

Finished products	F
Construction materials	C
Servicing (custom work and repairs)	S
Unfinished products	U
Products belonging to more than one class (mixed)	M

The minor commodity group classification of finished and mixed products is given in Note A following this table. Comments on the table will be found in the Preface to Part I, Section 1.

## PART I

Table I—1

## CLASSIFICATION OF MANUFACTURED PRODUCTS

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group I			123—Meat packing		
Food and Kindred Products			Fresh and cured meat, canned meat and sausage		
101—Beverages			Lard		
Beverages	F	1	Oleo oil and stock and stearin	U	
Malt beverages	F	1	Fertilizer materials	U	
102—Bread and other bakery products			Hides, skins and pelts		
103—Butter			Sheep and lamb slats and pickled sheep and lamb skins		
Creamery butter	M	1	Wool	U	
Whey butter	U		Hair, hog and other	U	
Butter oil	U		Custom and contract work	U	
104, 105—Canning and preserving			124—Oleomargarine		
Vegetables, soups and fruits; preserves, etc; pickles, etc.	F	1	125—Peanuts, walnuts and other nuts, processed or shelled	M	1
Fish, crabs, shrimps, etc.	F	1	126—Poultry killing, dressing and packing, wholesale		
106—Cereal preparations			127—Rice cleaning and polishing		
107—Cheese			Clean rice, whole-grain grades		
108—Chewing gum			Second-head, screenings and brewers' rice		
109—Chocolate and cocoa products, not incl. confectionery			Polish and bran		
Chocolate (except coatings)	F	1	128—Sausage, meat puddings, head- cheese, etc. and sausage casings		
Cocoa, powdered, in cans	F	1	Sausage, meat puddings, headcheese, scrapple, etc.		
Other chocolate and cocoa products	F	1	Sausage casings		
Cocoa butter	U		129, 130, 131—Sugar, beet; sugar, cane; and sugar refining, cane		
Coatings	U		Sugar, beet:		
Cocoa in barrels and drums	U		Sugar, granulated		
110—Coffee and spice roasting and grinding			Molasses		
Coffee roasted and ground	F	1	Sugar, cane:		
Spices ground	M	1	Sugar, granulated		
111—Condensed and evaporated milk			Sugar, clarified		
Sterilized milk (canned)	F	1	Sirup		
Condensed and evaporated milk and buttermilk	M	1	Molasses, other than blackstrap		
Powdered whole milk, cream, skim milk and dried and powdered buttermilk	M	1	Sugar refining, cane:		
Sugar of milk (crude)	U		Refined sugar, hard, soft or brown; refiners' sirup, edible		
Ice-cream mix	U		Sugar, beet:		
Dried casein	U		Beet pulp		
112—Confectionery			Unfinished sugar and molasses sold for desugarization purposes		
113—Corn sirup, corn sugar, corn oil and starch			Sugar, cane:		
114—Feeds, prepared, for animals and fowls			Raw sugar		
115—Flavoring extracts and flavoring sirups			Blackstrap molasses		
116—Flour and other grain-mill products			Bagasse		
Flour, wheat, rye, buckwheat, and corn (except prepared flour)	M	1	Sugar refining, cane:		
Bran and middlings	U		Refiners' blackstrap and nonedible sirup		
117—Food preparations, n.e.c.			132—Vinegar and cider		
118—Ice cream					
119—Ice, manufactured					
Ice, manufactured	M	1	Census Group 2		
Receipts for cold storage	U		Textiles and their Products		
120—Shortenings (not incl. lard) and vegetable cooking oils			201—Artificial leather		
121—Macaroni, spaghetti, vermicelli and noodles			Artificial leather		
122—Malt			Contract work		

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I-1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 2 (continued)					
202—Asphalted-felt-base floor covering	F	18	voiles, crepes, mosquito netting and		
203—Awnings, tents, sails and canvas covers	M	12	tarlatan, twills and sateens, gingham,		
204—Bags, other than paper, not made in textile mills	U		all shirtings, fabrics (other than shirtings and draperies), fabrics (except draperies) entirely or in chief		
205—Belting other than leather and rubber, not made in textile mills	U		value of rayon, other woven fabrics	M	7
206—Carpets and rugs, rag	F	18	Thread and cotton yarns	M	7
207—Carpets and rugs, wool, other than rag	F	18	Plushes, velvets, velveteens, corduroys	M	7
Carpets and rugs, wool, other than rag	F	18	Other cotton products	M	7
Contract work	U		Cotton goods made as secondary products in other industries	M	7
208, 211—Clothing (except work clothing), men's, youths' and boys', n.e.c., and work clothing (incl. sheep- lined and blanket-lined work coats but not incl. shirts), men's			Cotton tapestries	M	18
Clothing (except work clothing), men's, youths' and boys', n.e.c., regular factories	F	9	Ounce duck and numbered duck (except tire)	U	
Clothing, work (incl. sheep-lined and blanket-lined work coats but not incl. shirts), men's	F	9	Cotton bags made from fabrics woven by same establishment	U	
Clothing (except work clothing), men's, youths', and boys', n.e.c., contract work	U		Pillow tubings	U	
Clothing, work, men's, contract work	U		Old bagging and ties	U	
209—Clothing, men's, buttonholes	U		Tire fabrics	U	
210—Clothing, women's, n.e.c.			Tobacco, cheese, butter, bunting and bandage cloth	U	
Clothing, women's, n.e.c., regular factories	F	10a	Batting, wadding and mattress felts	U	
Contract work	U		Cotton card laps, sliver and roving	U	
212—Cloth sponging and refinishing	U		Cotton waste produced for sale	U	
213—Collars, men's	F	9	Contract work	U	
Collars, men's	F	9	217—Cotton small wares		
Contract work	U		Cotton small wares	M	7
214, 233, 236—Cordage and twine, jute goods, linen goods			Contract work	U	
Fish line	F	13	218—Dyeing and finishing textiles		
Rope, cable and cordage	F	44	Dyeing and finishing textiles: sheets	F	12
Linen woven goods and thread	M	7	Dyeing and finishing textiles	M	7
Binder twine	U		Contract work	U	
Twine, other than binder	U		219—Embroideries		
Yarns for sale	U		Embroideries	M	7
Jute woven goods	U		Contract work	U	
215—Corsets and allied garments			220—Felt goods, wool, hair or jute	U	
Corsets and allied garments	F	10a	221—Flags and banners	F	7
Contract work	U		222—Flax and hemp, dressed	U	
216—Cotton goods			223—Furnishing goods, men's, n.e.c.		
Draperies (except velvets and plushes)	F	18	Furnishing goods, men's, n.e.c.	F	9
Rugs (except bath mats), cotton	F	18	Contract work	U	
Blankets	F	12	224, 905—Gloves and mittens, cloth or cloth and leather combined, made from purchased fabrics, and gloves and mittens, leather		
Towels, towelings and wash cloths	F	12	Gloves and mittens, men's	F	9
Bath mats	F	12	Gloves and mittens, women's	F	10a
Bedspreads and quilts	F	12	Contract work	U	
Cotton table damask	F	12	225—Haircloth	U	
Sheets and pillow cases	F	12	226—Handkerchiefs		
Osnaburgs, sheetings, drills and tickings	M	7	Handkerchiefs	F	8
Denims, napped fabrics, cottonades and cotton worsteds, terry-woven fabrics (except towels, towelings, wash cloths and bath mats)	M	7	Contract work	U	
Print cloth, lawns, nainsooks, cambrics, etc., reps, poplins and broadcloths, pajama checks and dimities, etc.,			227—Hat and cap materials, men's	U	
			228—Hats and caps, except felt and straw, men's		
			Hats and caps, except felt and straw, men's	F	9
			Contract work	U	
			229—Hats, fur-felt		
			Hats, fur-felt: finished hats, men's	F	9
			Hats, fur-felt: finished hats, women's	F	10a
			Hat bodies and hats in the rough	U	
			Contract work	U	

## PART I

Table I—1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 2 (continued)					
230—Hats, wool-felt			248—Waste		
Hats, wool-felt, men's	F	9	Waste	U	
Hats, wool-felt, women's and children's	F	10a	Contract work	U	
Hat bodies	U		249, 253—Woolen goods and worsted goods		
231—Horse blankets, fly nets, and related products	F	34a	Woolen goods: all-wool and wool and cotton blankets	F	12
232—House-furnishing goods, n.e.c.			Woolen and worsted woven goods (except blankets)	M	7
Curtains and draperies	F	18	Woolen and worsted yarns for sale	M	7
Feather pillows and beds	F	18	Wool card rolls, batts and batting, tops and slubbing, noils and wool waste for sale	U	
Misc. house-furnishing goods	F	12	Contract work	U	
234—Knit goods			250—Wool pulling	U	
Knit goods: men's hosiery, underwear, outerwear	F	9	251—Wool scouring	U	
Knit goods: women's and infants' hosiery, underwear, outerwear	F	10a	252—Wool shoddy		
Knit cloth (except glove and shoe linings)	M	7	Wool shoddy	U	
Other knit goods	M	7	Contract work	U	
Knit goods: glove and shoe linings	U				
Contract work	U		Census Group 3		
235—Lace goods			Forest Products		
Nottingham lace curtains and nets	F	18	301—Baskets and rattan and willow ware, not including furniture		
Lace goods (except Nottingham lace curtains and nets)	M	7	Baskets and hampers and other reed, rattan and willow ware	F	43
Contract work	U		Custom and contract work	U	
237—Linoleum	F	18	302—Billiard and pool tables, bowling alleys and accessories		
238—Mats and matting, grass and coir	F	18	Billiard and pool tables, bowling alleys, and accessories	F	13
239—Millinery			Custom and contract work	U	
Millinery: trimmed hats	F	10a	303—Boxes, cigar, wooden		
Millinery: infants' headwear	F	10a	Boxes, cigar, wooden	U	
Hat frames, linings and trimmings	U		Custom and contract work	U	
Other millinery products	U		304—Boxes, wooden, except cigar boxes		
Millinery braids	U		Boxes, wooden, except cigar boxes	U	
Contract work	U		Custom and contract work	U	
240—Nets and seines	F	44	305—Caskets, coffins, burial cases, and other morticians' goods	F	6a
241—Oilcloth	F	12	306—Cooperage		
242—Regalia, badges and emblems	F	7	Cooperage	U	
243—Shirts			Custom and contract work	U	
Shirts (incl. nightwear in 1933)	F	9	307—Cork products		
Neckbands, etc. for sale as such	U		Cork insulation products incl. tiling and flooring	C	
Contract work	U		Cork stoppers and bottle closures	U	
244—Silk and rayon manufactures			Cork specialties and cork products not reported separately	U	
Silk and rayon products	M	7	308—Excelsior	U	
Contract work	U		309—Furniture, incl. store and office fixtures		
245—Suspenders, garters, and other elastic woven goods, made from purchased webbing			Furniture, household	F	15
Suspenders, garters and hose supporters, men's, armbands, and other elastic woven goods made from purchased webbing	F	9	Furniture, made in other industries, household	F	15
Garters and hose supporters, women's	F	10a	Furniture and fixtures for offices and stores	F	36
Contract work	U		Furniture for public buildings (chairs, church pews and pulpits, and desks)	F	36
246—Trimmings (not made in textile mills) and stamped art goods for embroidering			Furniture, professional, laboratory, hospital, etc.	F	36
Stamped art goods for embroidering	F	7	Lockers	F	36
Bias bindings for notion trade	F	7	Not reported by class	F	36
Scarfs and neckwear, women's	F	10a	Other furniture for public buildings	U	
Trimmings (except bias bindings for the notion trade)	U				
Contract work	U				
247—Upholstery materials, n.e.c.	U				

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I-1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 3 (continued)			Census Group 4		
309—Furniture (continued)			Paper and Paper Products		
Unfinished frames for suites, chairs, etc.	U		401, 402, 403, 404, 405, 406,		
Radio cabinets	U		408—Converted paper products		
Contract, custom and repair work	U		Bags, paper, excl. those made in paper mills	M	4
310—Lasts and related products			Boxes, paper, n.e.c.	M	4
Lasts and related products	F	44	Cardboard, not made in paper mills	M	4
Custom and contract work	U		Card cutting and designing	M	4
311—Lumber and timber products, n.e.c.			Envelopes	M	4
Firewood	F	5a	Labels and tags	M	4
Lath	C		Paper goods, n.e.c.	M	4
All other lumber and timber products	M		407—Paper		
Pulpwood	U		Writing paper	M	4
312—Matches			Building papers	C	
Matches, books	F	2	Paper (except writing paper and		
Matches, other than books	F	5a	building papers)	U	
313—Mirror and picture frames			410—Pulp (wood and other fiber)	U	
Mirror and picture frames	M	12	411—Wall paper	C	
Custom and contract work	U				
314—Planing-mill products (incl. general millwork)			Census Group 5		
Tanks and vats	F	43	Printing, Publishing, and Allied Industries		
Dressed lumber, incl. flooring, ceiling, partition and siding	C		501—Bookbinding and blank-book making	M	4
Doors	C		502—Engravers' materials	U	
Sash	C		503—Engraving (other than steel, copperplate or wood), chasing, etching and die-sinking	U	
Window and door frames	C		504, 505—Engraving, steel and copperplate, and plate printing and engraving, wood		
Portable and ready-cut houses	C		Engraving, steel and copperplate and plate printing and engraving, wood (except greeting cards)	U	
Misc. millwork and millwork not reported by kind	C		Greeting cards	F	4
Not reported by kind—made as secondary products in other industries	C		506—Lithographing		
Plywood	U		Lithographing (except greeting cards)	U	
Silo stock	U		Greeting cards	F	4
Custom planing	U		507—Photo-engraving, not done in printing establishments	U	
315—Pulp goods	U		508, 509, 510—Printing and publishing		
316—Refrigerators and refrigerator cabinets, excl. mechanical refrigerating equipment			Newspapers and periodicals: subscriptions and sales	F	4
Refrigerators, excl. mechanical refrigerating equipment, domestic	F	15	Sheet music and books of music	F	4
Commercial refrigerators, non-mechanical	F	36	Paper patterns	F	4
Cabinets for mechanical refrigeration	U		Books and pamphlets printed and published, or published only	F	24
Parts and accessories	U		Commercial printing- (except greeting cards)	U	
Custom and contract work	U		Greeting cards	F	4
317—Turpentine and rosin	U		Newspapers and periodicals: advertising	U	
318—Window and door screens and weather strip			511—Printing materials, not incl. type or ink	F	44
Window and door screens and weather strip	F	12	512—Stereotyping and electrotyping, not done in printing establishments	U	
Custom and contract work	U		513—Type founding	U	
319—Wood preserving			Census Group 6		
Wood preserving	C		Chemicals and Allied Products		
Contract work	U		601—Alcohol, ethyl, and distilled liquors	M	3
320—Wood turned and shaped and other wooden goods, n.e.c.			602—Ammunition and related products		
Woodenware	F	19	Ammunition	F	6b)
Ladders and parts	F	44	Safety fuses, miners' squibs, etc.	U	
Scaffolding equipment	F	44			
Wood turned and shaped and other wooden goods, n.e.c. (except woodenware, ladders and scaffolding equipment)	U				
Custom and contract work	U				

PART I

Table I—1 (continued)

CLASS	MINOR COMMODITY GROUP	CLASS	MINOR COMMODITY GROUP
Census Group 6 (continued)		703—Gas, manufactured, illuminating and heating	
602—Ammunition (continued)			
Blasting and detonating caps and railroad torpedoes	C	Coke, for sale	M 5a
603—Baking powders, yeast, and other leavening compounds	M 1	By-products (except coke and tar)	U
604—Blackening, stains and dressings	M 3	Tar	C
605—Bluing	M 3	Gas	Not classified
606—Bone black, carbon black and lampblack	U	704, 705—Petroleum refining and lubricating oils and greases, not made in petroleum refineries	
607—Candles	M 5a	Petroleum refining:	
608—Chemicals	M 3	Illuminating oils	F 5a
609—Cleaning and polishing preparations	M 3	Lubricating oils and greases, not made in petroleum refineries:	
610—Compressed and liquefied gases	U	Lubricating oils	M 5a
611—Druggists' preparations		Lubricating greases	M 5a
Alkaloids and derivatives	F 3	Petroleum refining:	
Biological products for human use	F 3	Lubricating oils	M 5a
Tinctures, fluid extracts, medicinal sirups, etc.	F 3	Lubricating greases and axle grease	M 5a
Pills, tablets, powders, etc.	F 3	Gasoline	M 5a
Pharmaceutical metals and their salts	F 3	Fuel oils	M 5a
Biological products for animal use	U	Coke, petroleum	M 5a
612—Drug grinding	U	Light products of distillation (except gasoline)	U
613—Explosives	M	Partially refined oils, sold for rerunning	U
614—Fertilizers	U	Petrolatum, mineral jelly, etc.	U
615—Fireworks	F 6b	Paraffin wax	U
616—Glue and gelatin	U	Acid Oil	U
617—Grease and tallow, not incl. lubricating greases	U	Other refinery products	U
618—Ink, printing	U	Liquid asphaltic road oils	C
619—Ink, writing	M 4	Residuum or tar	C
620—Liquors, vinous	M 1	Asphalt, other than liquid asphalt	C
621—Mucilage, paste, and other adhesives, except glue and rubber cement	M 4	Census Group 8	
622—Oil, cake and meal, cottonseed	U	Rubber Products	
623—Oil, cake and meal, linseed	U	801—Rubber boots and shoes	F 11
624—Oils, essential	U	802—Rubber goods, other than tires, inner tubes, and boots and shoes	
625—Oils, n.e.c.	U	Garden hose	F 12
626—Paints and varnishes	M 12	Mats and matting	F 12
627—Patent or proprietary medicines and compounds		Bathing caps	F 8
Medicines	F 3	Druggists' and medical sundries (except rubber gloves)	F 8
Compounds (excl. agricultural insecticides and boiler compounds)	F 3	Rubber gloves	F 8
Agricultural insecticides and fungicides	U	Fire hose	F 44
Boiler compounds	U	Rubber erasers and rubber bands	M 4
628—Perfumes, cosmetics, and other toilet preparations	M 3	Rubber cement	M 4
629—Rayon and allied products	U	Hard-rubber goods, other than battery jars, etc.	M 8
630—Salt	M 1	Jar rings	M 19
631—Soap	M 3	Tire sundries and repair materials	M 14
632—Tanning materials, natural dyestuffs, mordants and assistants, and sizes	U	Rubber heels, soles and soling strips	M 11
633—Wood distillation and charcoal manufacture	U	Mechanical rubber goods:	
Census Group 7		Rubber belting	U
Products of Petroleum and Coal		Rubber hose and tubing (except garden and fire hose)	U
701—Coke, not incl. gas-house coke		All other mechanical rubber goods	U
Tar	C	Hard-rubber goods, battery jars, boxes and parts	U
Coke	M 5a	Rubberized fabrics	U
Screenings and breeze and by-products (except gas and tar)	U	Reclaimed rubber	U
Gas	Not classified	Rubber thread	U
702—Fuel: briquettes and boulets	F 5a	Other manufactures of rubber	U
		Not distributed by class or kind	U
		Rubber flooring	C

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 8 (continued)					
803—Rubber tires and inner tubes			1005—Concrete products		
Pneumatic, motor-vehicle, except motorcycle	M	14	Monuments and grave markers, and burial vaults	F	31
Pneumatic, motorcycle and bicycle	M	14	Concrete products (except monuments, etc.)	C	
Solid and cushion tires	M	14	1006—Crucibles	F	44
Census Group 9					
Leather and its Manufactures					
901—Belting, leather			1007—Emery wheels and other abrasive appliances	F	44
Belting, leather	F	44	1008—Glass		
Belt repairs (incl. rebuilding and re- working)	U		Fruit jars (home-pack)	F	19
902—Boot and shoe cut stock, not made in boot and shoe factories	U		Beverage containers, pressure ware	F	43
903—Boot and shoe findings, not made in boot and shoe factories	U		Food-products containers, milk bottles	F	43
904—Boots and shoes, other than rubber			Pressed and blown glass (except containers, lenses, tubing, bulbs, opal ware, etc.)	M	19
Boots and shoes, other than rubber	F	11	Plate glass, polished	M	
Contract work	U		Window glass	C	
906—Leather goods, n.e.c.			Obscured glass, incl. cathedral and skylight glass, etc.	C	
Belts, men's	F	9	Wire glass	C	
Desk sets, vanity cases, key cases, cigar and cigarette cases	F	8	Lenses	U	
Misc. leather products (except belts and other items listed above)	M	8	Glass containers (except pressure ware, milk bottles and fruit jars)	U	
Contract work	U		Glass tubing	U	
Custom work and repairing	S		Other glass products	U	
907—Leather: tanned, curried and finished			Bulbs for electric lamps, opal ware, etc.	U	
Leather: tanned, curried and finished	U		1009—Glass products (except mirrors) made from purchased glass		
Contract work	U		Cut and decorated glassware	F	19
By-products of tanning, currying and finishing	U		Scientific glass apparatus	F	41
908—Pocketbooks, purses, and cardcases			Leaded, stained, and other orna- mental glass for windows, etc.	C	
Pocketbooks, purses, and cardcases	F	8	Plate glass, cut, beveled and polished	M	
Contract work	U		All other glass products made from purchased glass	U	
Custom work and repairing	S		1010—Graphite, ground and refined	U	
909—Saddlery and harness	F	13	1011—Grindstones, pulpstones and millstones	F	44
910—Trunks, suitcases and bags	F	25	1012—Hones, whetstones, and similar products	F	44
Census Group 10					
Stone, Clay, and Glass Products					
1001, 1644—Asbestos products and steam and other packing, pipe and boiler covering, and gaskets, n.e.c.			1013—Lime		
Brake linings and clutch facings	M	27	Lime (excl. agricultural lime)	C	
Building materials	C		Agricultural lime	U	
Pipe and boiler covering	C		1014—Marble, granite, slate and other stone products		
Asbestos textiles, except brake linings and clutch facings	U		Monumental stones	F	31
All other asbestos products	U		Marble, granite, slate and other stone products (except monumental stones)	C	
Custom and contract work	U		1015—Minerals and earths, ground or otherwise treated	U	
1002—Cement	M		1016—Mirrors, framed and unframed	M	12
1003—China firing and decorating, not done in potteries	F	19	1017—Pottery, incl. porcelain ware		
1004—Clay products (other than pottery) and nonclay refractories			Red earthenware	F	19
Clay products (other than pottery)	C		Stoneware (except chemical) and yellow and Rockingham ware	F	19
Nonclay refractories (except refractory cement)	C		White ware	F	19
Fire-clay products, shaped: brick, block or tile for locomotive and other fire-box lining	U		Hotel china	F	19
Clay sold, raw or prepared	U		Other pottery products	F	19
			Garden and art pottery	F	12
			Chemical stoneware and porcelain	F	44
			Saggers	F	44
			Vitreous china and semi-vitreous or por- celain plumbing fixtures (excl. fittings)	C	
			Porcelain electrical supplies	C	



## PART I

Table I—1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 10 (continued)					
1018—Sand-lime brick	C		and tacks, all industries	M	
1019—Statuary and art goods, factory product	M	12	Unrolled steel	U	
1020—Wall plaster, wall board, in- sulating board and floor composition	C		Semifinished rolled products	U	
Census Group 11					
Iron and Steel and their Products, not incl. Machinery					
1101—Bolts, nuts, washers and rivets, not made in plants operated in con- nection with rolling mills	M		Finished rolled products and forgings: Structural shapes (not assembled or fabricated)	U	
1102—Cast-iron pipe	C		Merchant bars, mill shaftings, etc.	U	
1103—Cutlery (not incl. silver and plated cutlery) and edge tools			Wire rods	U	
Safety-razor blades	F	3	Bolt and nut rods and spike and chain rods	U	
Table and kitchen cutlery	F	19	Plates (no. 12 and thicker), not coated	U	
Scissors and shears and pocket knives	F	12	Sheets (no. 13 and thinner); not coated	U	
Razors, safety and other	F	8	Skelp	U	
Axes, adzes and hatchets	F	42	Cotton ties	U	
Augers, bits, gimlets and counter- sinks (woodworking only) and chisels (except cold chisels)	F	42	Hoops, bands and strips	U	
Cutting dies (for use in cutting cloth, paper, leather, etc.)	F	42	Nail and tack plate	U	
Edge tools—other and not specified	F	42	Axles, rolled or forged	U	
Cutlery—other and not specified	F	44	Car and locomotive wheels, rolled or forged	U	
Repair work	S		Armor plate and ordnance	U	
1104—Doors, shutters and window sash and frames, metal			Rolled and forged iron and steel products, n.e.c.	U	
Doors, shutters and window sash and frames, metal	C		Scrap iron and steel	U	
Custom and repair work	S		Cinder and scale	U	
1105—Files	F	42	Galvanized and corrugated plates, sheets and strips	U	
1106—Firearms			Custom work and repairing	S	
Firearms	F	13	1114—Plumbers' supplies, not incl. pipe or vitreous-china sanitary ware	C	
Custom work and repairing	S		1115—Safes and vaults	F	36
1107—Forgings, iron and steel, not made in plants operated in connection with rolling mills	U		1116—Saws	F	42
1109—Hardware, n.e.c.			1117—Screw-machine products and wood screws		
Vacuum bottles, jugs, etc.	F	19	Wood screws	C	
Padlocks	F	44	Screw-machine products	U	
Vehicle hardware other than locks	M	27	1118—Springs, steel, except wire, not made in plants operated in connection with rolling mills	U	
Locks (except padlocks)	U		1119, 1121—Steam fittings and steam and hot-water heating apparatus, and stoves and ranges (other than electric) and warm-air furnaces		
Furniture and cabinet, piano and organ, saddlery and harness, and trunk and suit- case hardware, other than locks	U		Portable ovens	F	20
Other hardware and hardware not reported by class	U		Steam tables	F	20
Builders' hardware other than locks	C		Steam and hot-water heating apparatus	M	16
1110—Iron and steel: blast furnaces			Warm-air furnaces	M	16
Pig iron (incl. ferro-alloys)	U		Stoves, ranges, water heaters	M	16
Blast-furnace gas used as fuel	U		Fuel-oil burners (residence type)	M	16
Slag	U		Other heating and cooking apparatus and supplies	M	16
1111—Iron and steel, processed	U		Fittings, valves, and specialties	C	
1112, 1108, 1113—Iron and steel: steel works and rolling mills; galvanizing and other coating; and nails, spikes, etc.			Parts	U	
Horse and mule shoes and shoe calks	F	34a	1120—Steel barrels, kegs, and drums	F	43
Rails, rerolled or renewed rails, rail joints and fastenings, tie-plates, etc.	C		1122—Structural and ornamental iron and steel work, not made in plants connected with rolling mills	C	
Concrete-reinforcing bars	C		1123—Tin cans and other tinware, n.e.c.		
Cut and wrought nails, spikes	C		Ice-cream cans and milk cans	F	43
			Hole-top, sanitary and general-line cans	U	
			Other tinware, except stamped	U	
			1124—Tin plate and terneplate, not made in plants operated in connec- tion with rolling mills	U	

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I-1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 11 (continued)					
1125—Tools, not incl. edge tools, machine tools, files or saws			sticks and desk and reading lamps	C	
Forks, hoes, rakes, shovels and spades	F	34a	Street and highway fixtures	C	
Tools (excl. farm tools)	F	42	Gas fixtures and equipment	C	
1126, 1127—Wire, drawn from pur- chased bars or rods and wirework, n.e.c.			Lighting equipment not separately re- ported by kind	C	
Automobile skid chains	F	27	Misc. electric-lighting equipment: photographing etc. lamps, motor- vehicle lamps, miners' lamps and other equipment	U	
Barbed wire, plain and coated, poultry netting and woven-wire fence	F	34a	Carbide lamps, reflectors and shades, and parts	U	
Nails, brads, spikes, tacks and staples, all industries	M		1208—Gold leaf and foil	U	
Bare wire	U		1209—Gold, silver and platinum, reduc- ing and refining, not from the ore	U	
Iron and steel wire products (except nails, brads, spikes, tacks, staples, barbed wire, poultry netting, woven- wire fence and automobile skid chains)	U		1210—Jewelry	F	23
Nonferrous wire products	U		Jewelry findings	U	
Fabricated wire products not distributed	U		1211—Needles, pins, hooks and eyes, and snap fasteners	M	7
1128—Wrought pipe, welded and heavy riveted, not made in plants operated in connection with rolling mills	M		1212, 1217—Nonferrous metal alloys and products, not incl. aluminum prod- ucts and smelting and refining, metals other than gold, silver, or platinum, not from the ore	U	
Census Group 12					
Nonferrous Metals and their Products			1213—Plated ware	F	23
1201—Aluminum manufactures			1214—Silversmithing and silverware	F	23
Ware (principally cooking utensils and household articles)	F	19	1215—Smelting and refining, copper	U	
Motor-vehicle accessories and parts	M	27	1216—Smelting and refining, lead	U	
Castings	U		1218—Smelting and refining, zinc	U	
Other aluminum manufactures incl. rolled forms and ingots	U		12—Smelting and refining metals, n.e.c. (nonexistent after 1923, therefore no industry no. in 1929)	U	
1202, 1221, 1222, 1223—Clocks, watches, and parts			1219—Stamped ware, enameled ware, and metal stamping, enameling, japanning, and lacquering		
Clocks complete for use as timepieces only	F	23	Stamped household ware other than vitreous enamel and aluminum	F	19
Instruments and devices complete, with clockwork mechanism	F	23	Enameled ware, vitreous	F	19
Jeweled and nonjeweled watches, men's and women's	F	23	Stamped automotive parts and accessories	M	27
Clock movements for use as timepieces only	U		Other stamped ware	U	
Clock movements for use in recording instruments, etc.	U		Perforated metals	U	
Clock materials and parts, including cases	U		Bottle caps	U	
Watchcases	U		Amount received for custom work on materials furnished by others	U	
Jeweled movements, watch materials and parts	U		Not reported in detail	U	
Custom work and repairing	S		1220—Tin and other foils, not incl. gold foil	U	
1203—Collapsible tubes	U		Census Group 13		
1204—Copper, tin, and sheet-iron work, incl. galvanized-iron work, n.e.c.	M		Machinery, not incl. Transportation Equipment		
1205—Electroplating	U		1301—Agricultural implements		
1206—Fire extinguishers, chemical	F	44	Agricultural implements: plows and listers; harrows, rollers, pulverizers and stalk cutters; planting and fer- tilizing machinery; cultivators and weeders; harvesting machinery; haying machinery; and machines for preparing crops for market or for use		
1207—Gas and electric fixtures: lamps, lanterns and reflectors			Attachments and parts for preceding		
Electric-lighting equipment—port- able lamps, candelabra and candle- sticks, desk and reading lamps	F	20	Misc. agricultural implements		
Kerosene and gasoline lighting equipment	F	20	Misc. attachments and parts		
Incandescent mantles	F	20			
Electric-lighting equipment, residen- tial and nonresidential (except port- able lamps, candelabra and candle-					

## PART I

Table I—1 (continued)

CLASS	MINOR COMMODITY GROUP	CLASS	MINOR COMMODITY GROUP
Census Group 13 (continued)			
1302—Cash registers and adding, calculating, and card-tabulating machines		Instrument and meter transformers	U
Machines	F 35a	Insulated wire and cable: varnished-cambric, magnet, and other not reported by kind, and rubber, flexible cord	U
Parts and attachments	F 35a	Carbons	U
Rebuilt machines, experimental work, postage meters and credit systems	F 35a	Flashlight cases	U
1303—Electrical machinery, apparatus and supplies		Parts and supplies for all types of motors	U
Dry batteries: 6-inch	F 6b	Transformers, etc. except power	U
Vacuum cleaners	F 17a	Control apparatus	U
Electric fans (destined for domestic use)	F 20	Incandescent-filament lamps	M 6b
Domestic (household) apparatus and appliances	F 20	Domestic ranges, 2½ kw. and over	M 16
Radio apparatus and tubes:		Water heaters for permanent installation	M 16
Receiving sets	F 21	Loud speakers	M 21
Combination phonographs and radios	F 21	Transformers, total	M 21
Transmitting sets	F 21	Radio tubes	M 21
Radio and flashlight batteries	F 21	Misc. radio parts and accessories and transformers	M 21
Replacement parts, incl. head sets	F 21	Generators: automotive generators, for battery charging and automotive starter-motors	M 27
Generators, not incl. motor generator sets, automotive generators or self-contained power and lighting outfits	F 33a	Ignition apparatus for internal-combustion engines	M 27
Motor-generator sets and dynamotors (not incl. arc welding sets)	F 33a	Storage batteries	M 27
Power transformers	F 33a	Custom work and repairs	S
Stationary motors, 1 h.p. and over	F 33a	1304—Engines, turbines, tractors, and water wheels	
Industrial and commercial apparatus and appliances (not incl. motor-driven tools)	F 33b	Steam engines (except traction) and turbines, excl. marine	F 32a
Measuring instruments and meters (except laboratory testing and scientific instruments)	F 33c	Water turbines and water wheels	F 32a
Switchboards, circuit breakers and switches	F 33c	Internal-combustion engines: Diesel and semi-Diesel types, other than marine	F 32a
Insulated wire and cable: rubber-insulated except flexible cord, and paper and cotton insulated	F 33c	Electric-ignition type, other	F 32a
Fuses and fuse blocks	F 33c	Engines and turbines, class and type not reported	F 32a
Overhead trolley-line material	F 33c	Parts for sale as such	F 32a
Railway signals and attachments	F 33c	Tractors and traction engines	F 34b
Searchlights and floodlights	F 33c	Steam engines (except traction) and turbines, marine	U
Telephone and telegraph apparatus	F 33c	Internal-combustion engines (except tractors): Diesel and semi-Diesel, marine	U
Signaling apparatus (other than railway)	F 33c	Electric-ignition type aircraft and motor-vehicle	U
Rectifying apparatus	F 33c	Electric-ignition type, marine	U
Other electrical machinery, apparatus and supplies	F 33c	1305—Foundry and machine-shop products, n.e.c.	
Lightning arresters	F 33c	Dishwashing machinery	F 17a
Wet primary batteries	F 33c	Cement and concrete machinery	F 32f
Self-contained power and lighting outfits not exceeding 5 kw.	F 34a	Clay-working machinery	F 32f
Electrotherapeutic and electromedical apparatus	F 41	Cranes (incl. hoists and derricks)	F 32f
Laboratory testing and scientific instruments	F 41	Dredging, excavating, and road-building machinery	F 32f
Electric fans destined for commercial and industrial use	F 35a	Stone-working machinery	F 32f
Electric locomotives	F 37	Cars and trucks (mining)	F 32g
Wiring devices	C	Mining machinery (not incl. oil-well machinery)	F 32g
Interior conduits	C	Oil-well machinery	F 32g
Railway and vehicle power generators	U	Ore crushers	F 32g
Stationary motors (under 1 h.p.)	U	Bakers' machinery and equipment	F 32h
Railway and vehicle motors	U	Baling presses (other than hay presses)	F 32h
Storage battery parts and supplies	U	Bookbinding machinery	F 32h
Parts and supplies for both wet and dry batteries	U	Bottling machinery	F 32h
		Canning machinery	F 32h

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I-1 (continued)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 13 (continued)			1306—Gas machines, gas meters and water and other liquid meters		
1305—Foundry (continued)			Gas machines, gas meters and water and other liquid meters	F	32b
Clothing-pressing machines	F	32h	Parts and accessories	F	32b
Coffee roasting and grinding machines, food choppers and grinders, etc.	F	32h	1307—Machine tools		
Confectionery and ice-cream machinery	F	32h	Machine tools	F	32c
Cotton gins	F	32h	Replacement and repair parts	F	32c
Flour-mill and grain-mill machinery	F	32h	Contract and repair work	S	
Glass-making machinery	F	32h	1309—Pumps (hand and power) and pumping equipment		
Hat-making machinery	F	32h	Pumps (hand and power) and pumping equipment	F	32d
Incandescent-lamp-making machinery	F	32h	Parts and attachments for preceding	F	32d
Leather-working machinery (other than shoe machinery)	F	32h	Farm pumps and pumping equipment	F	34a
Oil-mill machinery (cottonseed and other)	F	32h	Parts and accessories for preceding	F	34a
Oil-refinery machinery	F	32h	Repair work	S	
Packaging machines	F	32h	1310—Refrigerators, mechanical		
Packing-house machinery	F	32h	Domestic electric refrigerators	F	17b
Paint-making machinery	F	32h	Absorption-type refrigeration systems and replacement parts	F	17b
Paper-box machines	F	32h	Commercial mechanical refrigerators	F	36
Paper-mill and pulp-mill machinery	F	32h	Compressors and evaporators	U	
Pharmaceutical machinery	F	32h	1311—Scales and balances		
Pneumatic machinery (not incl. pneumatic tools)	F	32h	Scales and balances	F	35a
Printing machinery	F	32h	Parts for preceding	F	35a
Rubber-working machinery	F	32h	1312—Sewing machines and attachments		
Shoe machinery	F	32h	Household types	F	17a
Sugar-mill machinery	F	32h	Industrial types	F	32e
Tobacco machinery (incl. cigar and cigarette)	F	32h	Parts and attachments incl. cabinets	U	
Condensers	F	32h	1313—Textile machinery and parts		
Wood-working machinery	F	32h	Textile machinery	F	32c
Ice-making machinery	F	32h	Extra parts, attachments and accessories for textile machinery	F	32e
Boiler-shop products	F	32i	Repair and contract work	S	
Industrial furnaces and industrial oil burners	F	32i	1314—Typewriters and parts		
Machinery not reported by specified class	F	32i	Typewriters	F	35a
Blowers and exhaust and ventilating fans	F	32i	Parts	F	35a
Cars and trucks (industrial)	F	32i	1315—Washing machines, wringers, driers, and ironing machines, for household use		
Conveying and elevating machinery	F	32i	Washing machines, wringers, driers, and ironing machines, for household use	F	17a
Foundry machinery	F	32i	Repair work	S	
Hydraulic machinery (other than for dredging)	F	32i	Parts and accessories	U	
Laundry machinery (for commercial laundries only)	F	32i	1316—Windmills and windmill towers		
Stokers, mechanical	F	32i	Windmills and windmill towers	F	34a
Well-drilling machinery (other than oil-well machinery)	F	32i	Parts for preceding	F	34a
Transmission machinery	F	32i	1318—Machine-tool accessories and small metal-working tools, n.e.c.		
Machine parts and attachments	F	32i	Machine-tool accessories and small metal-working tools, n.e.c.	F	32c
Lawn mowers	F	34a	Contract and repair work	S	
Addressing and mailing machines	F	35a			
Check-writing machines	F	35a			
Manifolding machines	F	35a			
Vending machines	F	35b			
Elevators and elevator machinery	C		Census Group 14		
Castings	U		Transportation Equipment, Air, Land and Water		
Misc. machine-shop products (except industrial furnaces and oil burners), and other machine-shop products	U		1401—Aircraft and parts		
Amount received for products manufactured on contract and for machine-shop repair work	S		Aircraft heavier than air (with engines)	F	40
			Parachutes, propellers and other aeronautical products	F	40
			Parts and engines for sale as such	F	40
			Experimental and repair work	S	

PART I  
Table I—1 (continued)

CLASS	MINOR COMMODITY GROUP	CLASS	MINOR COMMODITY GROUP
Census Group 14 (continued)		Census Group 16	
1401—Aircraft (continued)		Miscellaneous Industries	
Aircraft under construction at close of the year	U	1601—Artificial and preserved flowers and plants	M 7
1402—Carriage, wagon, sleigh and sled materials	U	1603—Artists' materials	M 4
1403, 1648—Carriages and sleds, children's, and toys, games and playground equipment		1604—Brooms	
Baby carriages and baby walkers and tenders, gocarts, strollers and sulkies	F 15	Household, whisk, toy and hearth	F 12
Toys, games and playground equipment (except parts)	F 13	Industrial brooms, street-sweeping-machine brooms, and other brooms	F 44
Children's wheel goods and sleds (except parts and baby carriages)	F 13	1605—Brushes, other than rubber	
Doll parts	U	Tooth and toilet brushes	F 8
Parts of toys and children's wheel goods	U	Household brushes	F 12
Repair work	S	Paint and varnish brushes (incl. artists' brushes)	F 44
1404—Carriages, wagons, sleighs and sleds		Industrial brushes	U
All products belonging to industry except business wagons	F 34a	Brushes not reported by kind (industrial)	U
Business wagons	F 34c	1606—Buttons	
Parts and repair work	S	Buttons	M 7
1405—Cars, electric and steam railroad, not built in railroad repair shops		Button blanks and molds	U
Cars	F 37	Parts of buttons, backs, etc.	U
Parts for sale as such	F 37	1607—Carbon paper and inked ribbons	U
Repair work	S	1608, 1647—Cigars and cigarettes, and tobacco: chewing and smoking, and snuff	F 2
1406—Locomotives not made in railroad repair shops		1609—Combs and hairpins, not made from metal or rubber	F 8
Locomotives	F 37	1610—Dairymen's supplies; creamery, cheese-factory and butter-factory equipment; and poultrymen's and apiarists' supplies	
Parts	F 37	Dairy, cheese-factory and butter-factory machinery	F 32h
Contract and repair work	S	Creamery, cheese-factory and butter-factory equipment; and poultrymen's and apiarists' supplies	F 34a
1407—Motor-vehicle bodies and motor-vehicle parts		1611—Dental goods and equipment	
Motor-vehicle bodies and parts	M 27	Dental goods and equipment	F 41
Contract and custom work and repairing	S	Dental laboratory work	U
1408—Motor vehicles, not incl. motorcycles		1612—Fancy and misc. articles, n.e.c.	
Passenger vehicles (not incl. public conveyances)	F 26	Greeting cards and paper novelties	F 4
Passenger chassis	R 26	Lamp shades	F 12
Public conveyances, commercial vehicles, gov't. vehicles, and trailers	F 39	Cigar lighters	F 8
Commercial and bus chassis	F 39	Rhinestone ornaments	M 23
Repair work	S	Fancy and misc. articles, n.e.c., except cigar lighters, greeting cards, rhinestone ornaments and lamp shades	
1409—Motorcycles, bicycles and parts		1613—Feathers, plumes and manufactures thereof	M 7
Motorcycles, side cars and bicycles	F 28	1614—Foundry supplies	U
Parts	M 28	1615—Fur goods	
1410—Ship and boat building, steel and wooden, incl. repair work		Fur and fur-lined coats and overcoats	F 10b
Pleasure-craft	F 29	Fur neck pieces	F 10b
Commercial craft	F 38	Fur robes	F 10b
Value of work done on vessels under construction, but not yet launched	U	Other fur and fur-lined goods	F 10b
Repair work	S	Fur trimmings	U
Census Group 15		Contract work	U
Railroad Repair Shops		Custom work and repairing	S
1501—Car and general construction and repairs, electric-railroad repair shops		1616—Furs, dressed	U
Work done and products mfd. (except locomotives and cars built)	S	1617—Hair work	M 7
1502—Car and general construction and repairs, steam-railroad repair shops		1618—Hand stamps and stencils and brands	F 35a
Work done and products mfd. (except locomotives and cars built)	S	1619—Hats, straw, men's	
		Hats, straw, men's	F 9
		Contract work	U
		1620—Instruments, professional and scientific	M 41

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—1 (concluded)

	CLASS	MINOR COMMODITY GROUP		CLASS	MINOR COMMODITY GROUP
Census Group 16 (continued)			Parts and accessories—records and blanks	F	22
1621—Ivory, shell and bone work, not incl. buttons, combs or hairpins	U		Phonographs and parts, not reported in detail	M	22
1622—Jewelry and instrument cases	U		Phonograph cabinets	U	
1623—Lapidary work	M	23	Other parts and accessories	U	
1624—Mattresses and bed springs, n.e.c.			Custom work and repairing	S	
Mattresses and bed springs	F	18	1636—Photographic apparatus and materials		
Custom and contract work	U		Cameras and photographic apparatus and materials	F	13
1625—Models and patterns, not incl. paper patterns	F	44	Misc. equipment (projection apparatus, etc.)	F	44
1626—Motion pictures, not incl. projection in theatres	Not classified		Films, slides, sensitized cloth and paper	M	6b
1627, 1628, 1629, 1630—Musical instruments			1637—Pipes (tobacco)	F	8
Pianos	F	22	1638—Roofing, built-up and roll; asphalt shingles; roof coatings other than paint	C	
Organs	F	22	1639—Sandpaper, emery paper, and other abrasive paper and cloth	U	
Wind instruments	F	22	1640—Signs and advertising novelties	F	35c
Stringed instruments	F	22	1641—Soda-water apparatus	F	35d
Percussion and other instruments	F	22	1642—Sporting and athletic goods, not incl. firearms and ammunition	F	13
Piano and organ parts and materials—perforated music rolls	F	22	1643—Stationery goods, n.e.c.	M	4
Piano and organ parts and materials (except perforated music rolls)	U		1645—Surgical and orthopedic appliances, incl. artificial limbs		
Parts and materials for other musical instruments	U		Ligatures, sanitary napkins, surgical dressing and bandages	F	3
Custom work and repairing	S		Artificial limbs	F	30
1631—Optical goods			Other surgical and orthopedic appliances	F	30
Ophthalmic products	F	30	1646—Theatrical scenery and stage equipment	F	35e
Optical instruments and parts	F	41	1649—Umbrellas, parasols, and canes	F	8
Other optical goods	F	41	1650—Whips	F	13
1632—Paving materials: asphalt, tar, crushed slag, and mixtures	C		1651—Window shades and fixtures	M	12
1633—Pencils, lead (incl. mechanical)	M	4			
1634—Pens, fountain and stylographic; pen points, gold, steel and brass	M	4			
1635—Phonographs					
Needles	F	6b			
Phonographs (incl. dictating machines)	F	22			

PART I

Note A to Table I—1

CLASSIFICATION OF FINISHED COMMODITIES BY  
MAJOR AND MINOR GROUPS

MINOR GROUP CLASSI- FICATION NUMBER	MINOR GROUPS AND SUBGROUPS INTO WHICH SINGLE COMMODITIES ARE CLASSIFIED FOR CENSUS YEARS	MINOR GROUP CLASSI- FICATION NUMBER	MINOR GROUPS AND SUBGROUPS INTO WHICH SINGLE COMMODITIES ARE CLASSIFIED FOR CENSUS YEARS
	Perishable	29	Pleasure-craft
1	Food and kindred products	30	Ophthalmic products and surgical and orthopedic ap- plications
2	Cigars, cigarettes and tobacco	31	Monuments and tombstones
3	Drug, toilet and household preparations		Producers' Durable
4	Magazines, newspapers, stationery and supplies, and misc. paper products	32	Industrial machinery and equipment
5	Fuel and lighting products	32a	Engines and turbines
5a	Fuel and lighting products, mfd. and petroleum products	32b	Gas machines, gas and water meters
5b	Coal	32c	Machine tools and accessories
6	Miscellaneous perishable	32d	Pumps and pumping equipment
6a	Caskets and coffins	32e	Textile machinery
6b	All other misc. perishable	32f	Foundry and machine shop products: construction and construction material machinery
	Semidurable	32g	Foundry and machine shop products: mining ma- chinery
7	Dry goods and notions	32h	Foundry and machine shop products: factory ma- chinery
8	Personal furnishings	32i	Foundry and machine shop products: general and misc. machinery
9	Clothing and furnishings, men's and boys'	33	Electrical appliances, industrial and commercial
10	Women's clothing and furs	33a	Electric motors and control apparatus
10a	Clothing, women's, misses' and children's	33b	Industrial and commercial apparatus
10b	Furs and fur goods	33c	Other electrical apparatus, primarily public utility
11	Shoes and other footwear	34	Farm machinery, tractors and wagons
12	Misc. house furnishings (semidurable)	34a	Farm machinery and equipment
13	Toys, games and sporting goods	34b	Tractors and tractor engines
14	Tires and tubes	34c	Business wagons
	Consumers' Durable	35	Office and misc. machinery and equipment
15	Household furniture	35a	Office and store equipment
16	Stoves, ranges and water heaters	35b	Vending machines
17	Heavy household appliances	35c	Signs
17a	Washing machines, sewing machines, etc.	35d	Soda-water apparatus
17b	Domestic refrigerators, mechanical	35e	Theatrical scenery
18	House furnishings (durable)	36	Office and store furniture and fixtures
19	China and household utensils	37	Locomotive and railroad cars
20	Portable household electric appliances and other sup- plies	38	Ships and boats
21	Radio apparatus and equipment	39	Business motor vehicles
22	Musical instruments	40	Aircraft
23	Jewelry, silverware, clocks and watches	41	Professional and scientific equipment
24	Printing and publishing: books	42	Carpenters' and mechanics' tools
25	Luggage	43	Durable containers
26	Passenger cars	44	Misc. subsidiary durable equipment
27	Auto-parts and accessories		
28	Motorcycles, bicycles and accessories		

Table I—2

ESTIMATES OF COMMODITY VALUE FOR COMBINED TOTALS AND OTHER COMMODITY RECLASSIFICATIONS

Unless otherwise indicated in the notes at the end of the table, the percentage allocations, wherever shown, are based on data for the Census year nearest to the years for which the allocation had to be estimated. Cases where no percentages are given represent reclassification of commodities to assure comparable figures for the period. Specific footnotes indicate for each case the nature of the adjustment.

Comments on the table will be found in the Preface to Part I, Section 2.



## PART I

Table I—2

ESTIMATES OF COMMODITY VALUE FOR COMBINED TOTALS AND  
OTHER COMMODITY RECLASSIFICATIONS

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 1		129, 130, 131 (1919-1923)	
103 (1919-1923)		Refiners' edible sirup	64.2
Creamery butter	99.8	Refiners' nonedible sirup	35.8
Whey butter	.2	Census Group 2	
109 (1919-1921)		213 (1919-1921)	
Chocolate (except coatings)	55.3	Collars, men's	72.2
Coatings	44.7	Contract work	.6
110 (1919-1921)		Other products not belonging to the industry	27.2
Coffee, roasted and ground	92.3	214, 233, 236 (1919-1925)	
Spices, ground	7.7	Linen woven goods and thread (part) <sup>11</sup>	42.8
(1925, 1933)		Jute woven goods (part) <sup>11</sup>	57.2
Coffee and spices <sup>1</sup>		Fish line <sup>12</sup>	48.5
111 (1919-1921)		Linen woven goods (part) <sup>12</sup>	9.4
Ice-cream mix <sup>2</sup>	10.4	216 <sup>13</sup> (1919)	
117 (1919-1925)		Voiles, osnaburgs and other woven goods:	
Food preparations, n.e.c. <sup>3</sup>	87.6	Voiles	15.2
(1929-1931)		Osnaburgs	16.2
Food preparations, n.e.c. <sup>4</sup>		Other woven goods, except voiles and osnaburgs (1919-1921)	68.6
118 (1919-1923)		Bagging and cotton bags made from fabrics woven by same establishment:	
Ice cream <sup>5</sup>	6.6	Bagging	69.5
120 (1919-1925)		Cotton bags . . .	30.5
Shortenings (not incl. lard) and vegetable cooking oils <sup>6</sup> (1927) <sup>7</sup>		(1919-1925)	
125 (1919-1925)		Reps, poplins and broadcloths; pajama checks, dimities, and similar fabrics; crepes; other woven goods (except preceding) incl. bagging and excl. voiles and osnaburgs:	
Peanuts, walnuts and other nuts, processed or shelled <sup>8</sup>	12.4	Reps, poplins and broadcloths	35.3
(1933) <sup>9</sup>		Pajama checks, dimities	9.5
127 (1919-1921)		Crepes	2.1
Clean rice, whole-grain grades	87.4	Other (except preceding) incl. bagging and excl. voiles and osnaburgs	53.1
Second-head, screenings, and brewers' rice (1933)	12.6	(1919-1925)	
Clean rice, whole-grain grades	87.6	Other woven goods (residual as estimated above):	
Second-head, screenings, and brewers' rice	8.8	Draperies, cotton	34.5
Polish and bran	3.6	Rugs (except bath mats), cotton	3.8
128 (1923-1925)		All other woven goods	61.7
Sausage, meat puddings, head cheese, scrapple, etc.	88.5	(1927)	
Sausage casings	11.5	Other woven goods (as shown in 1927 Census) and sheets and pillow cases:	
(1933) <sup>10</sup>		Draperies, cotton	31.5
		Rugs . . . cotton	3.5
		Terry fabrics	0.6
		Misc. other woven goods, incl. sheets and pillow cases	64.4

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 2 (continued)		(All years)	
(1919-1933)		Outerwear:	
Misc. other woven goods incl. sheets and pillow cases:		Men's 14a	50.0
Misc. other woven goods	87.4	Women's 14a	50.0
Sheets and pillow cases	12.6		
(1919-1925)		(1919-1921)	
Cloth composed of cotton and silk or other vegetable fiber and silk . . . :		Nottingham lace curtains and nets	65.8
Fabrics . . . in chief value of cotton, containing rayon	48.4	Other lace goods	34.7
Fabrics . . . in chief value of cotton, containing silk	9.4		
Fabrics entirely or in chief value of rayon	42.2	219, 226, 239, <sup>15</sup> and 246	
(1919-1927)		(1919-1925)	
Fabrics . . . in chief value of cotton, containing rayon:		Embroideries:	
Fabrics . . .	72.8	Embroideries	3.9
Draperies . . .	27.2	Contract work	6.2
(1919-1927)		Millinery:	
Fabrics entirely or in chief value of rayon:		Trimmed hats	57.7
Fabrics . . .	80.1	Infants' headwear	2.3
Draperies . . .	19.9	Hat frames, linings and trimmings	4.1
(1919)		Other millinery products	.5
All other products:		Millinery braids	.8
Other cotton products (excl. cordage and rope)	45.7	Contract work	.1
Products not belonging to the industry	54.3	Trimmings, etc.:	
223		Stamped art goods . . .	3.5
(1919-1925)		Trimmings (incl. bias bindings)	9.4
Furnishing goods, men's	90.5	Neckwear and scarfs, women's	5.5
Handkerchiefs, men's 14	9.5	Contract work	1.0
224, 905		Handkerchiefs:	
(All years)		Women's	4.8
Gloves, men's 14a	75.0		
Gloves, women's 14a	25.0	239	
229		(1933)	
(1933)		Trimmed hats and infants' headwear	91.1
Hats, fur-felt, men's	70.4	Hat frames, linings and trimmings; other millinery products; millinery braids; and contract work	8.9
Hats, fur-felt, women's	1.2		
Hat bodies and hats in the rough	28.2	243	
Contract work	.2	(1919-1925)	
230		Shirts (incl. neckbands)	89.6
(1919-1921)		Contract work	5.6
Hats, wool-felt, men's	30.4	Other products not belonging to industry	4.8
Hats, wool-felt, women's and children's	69.6	(1919-1925)	
234		Shirts (incl. neckbands):	
(1919-1925)		Shirts	99.2
Hosiery:		Neckbands	.8
Men's	20.9	245	
Women's, children's and infants'	79.1	(1919-1925)	
(1927-1933)		Elastic woven goods, men's	70.0
Shirts and drawers:		Elastic woven goods, women's	30.0
Men's 14a	50.0	(1933)	
Women's 14a	50.0	Woven goods, men's	72.7
(1919-1925)		Woven goods, women's	26.5
Men's 14a	33.3	Contract work	.8
Women's 14a	66.7	246	
		(1919-1929)	
		Trimmings	84.8
		Bias bindings	15.2
		(1933)	
		Stamped art goods for embroidering	25.8

PART I

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED.	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 2 (continued)		Scaffolding equipment	.3
(1933) (continued)		All other	77.6
Bias bindings	11.1	Contract work	1.2
Trimmings (except bias bindings)	62.0		
Contract work	.1	Census Group 4	
Census Group 3		401, 402, 403, 404, 405, 406, 408	
307		(All years)	
(1919)		Paper goods, n.e.c. <sup>20</sup>	
Cork insulation products	25.3	Census Group 5	
Cork stoppers and bottle closures	25.1	504, 505	
Cork specialties . . .	49.6	(1919-1927)	
309		Engraving . . . (except greeting cards)	92.0
(1919-1925)		Greeting cards	8.0
Furniture, household:		506	
Furniture, household	98.3	Lithographing (except greeting cards)	99.0
Unfinished frames for suites, chairs, etc.	1.7	Greeting cards	1.0
(1931-1933)		508, 509, 510	
Furniture, household: 10		(1919-1927)	
Furniture, household	98.9	Commercial printing (except greeting cards)	97.8
Unfinished frames for suites, chairs, etc.	1.1	Greeting cards	2.2
(1919-1923)		Census Group 6	
Business furniture:		608	
For stores and offices	73.2	(1919-1925)	
For public buildings	14.5	Chemicals, n.e.c. <sup>21</sup>	
Professional, laboratory, etc.	6.9	611	
Lockers	2.8	(1919-1925)	
Seats for public conveyances	2.6	Biological products for human use	40.1
(1933)		Biological products for animal use	59.9
Furniture for public buildings and seats for public conveyances:		625	
Public buildings	47.4	(1919-1927)	
Seats for public conveyances	52.6	Oils, n.e.c. <sup>22</sup>	
(All years)		627	
Furniture made in other industries and not reported by class 17		(1919)	
(1919-1925)		Patent or proprietary compounds (excl. boiler compounds)	91.8
Radio cabinets 18		Boiler compounds	8.2
312		(1919-1925)	
Matches, books	16.0	Patent or proprietary compounds (excl. agricultural insecticides and boiler compounds)	89.6
Matches, other than books	84.0	Agricultural insecticides	10.4
315		Census Group 7	
(1919-1921)		701	
Pulp goods 19		(1933)	
Wall board 19		Tar	4.5
320		Coke	62.2
(1919-1925)		Gas	20.4
Commodity total (excl. contract work):		Screening and breeze and all other by-products	12.9
Woodenware	18.8	704, 705	
Ladders and parts	7.9	(1919-1927)	
Scaffolding equipment	.3	Lubricating oils not made in petroleum refineries 22	
All other	73.0		
(1927)			
All other, incl. scaffolding equipment:			
Scaffolding equipment	1.2		
All other	98.8		
(1933)			
Woodenware	15.9		
Ladders and parts	5.0		

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 8		(1933)	
802		Belts, men's	48.1
(1919-1923)		Desk sets . . .	6.5
Hose and tubing:		Misc. leather products . . .	43.5
Garden	32.3	Contract work	1.4
Fire	15.2	Custom work . . .	.6
All other	52.6	907	
(1919-1923)		(1919-1925)	
Rubber flooring, rubber cement and a misc. group composed of rubber mats and matting, bathing caps, jar rings, tire sundries and repair materials, mechanical rubber goods (except belting, hose and tubing), rubber thread, and other mfrs. of rubber (excl. rubber clothing):		Leather: tanned, curried and finished	92.1
Rubber flooring	5.4	Contract work	4.9
Rubber cement <sup>23</sup>	2.5	By-products . . .	2.0
Misc. group	92.1	Other products not belonging to the industry	1.0
(1919-1925)		Census Group 10	
Misc. group (described above):		1001, 1644	
Mats and matting	7.4	(1919-1927)	
Bathing caps	1.7	Brake linings . . .	26.4
Jar rings	3.1	Building materials	9.7
Tire sundries and repair materials	24.8	Pipe and boiler coverings	9.5
Mechanical rubber goods (except belting, hose and tubing)	32.5	Asbestos textiles . . .	14.7
Rubber thread	5.5	All other	39.6
Other mfrs. of rubber (excl. rubber clothing) <sup>24</sup>	25.0	1004	
(1919-1923)		(1919-1921)	
Druggists' and medical sundries, gloves, and erasers and rubber bands:		Fire-clay products . . . and high-alumina brick (included in total for non-clay refractories):	
Sundries	68.7	Fire-clay products . . .	97.3
Gloves	15.4	High-alumina brick	2.7
Erasers and rubber bands	15.9	(1919)	
(1927)		Other clay products incl. clay sold raw or prepared:	
Druggists' and medical sundries and erasers:		Clay sold raw or prepared	20.2
Sundries	84.9	Other clay products	79.8
Erasers	15.1	1005	
(1919-1925)		(1919-1923)	
Hard rubber goods:		Monuments and grave markers, etc.	2.2
Battery jars, boxes, etc.	52.2	Concrete products (except monuments . . .)	97.8
Other hard rubber goods	47.8	1007, 1012, 1639	
Census Group 9		(1931-1933)	
901		Emery wheels and other abrasive appliances; hones, whetstones, etc., and sandpaper, emery paper . . . <sup>25</sup>	
(1919-1925)		1008	
Belting, leather	78.4	(1919-1923)	
Belt repairs	2.5	Glass containers:	
Products not belonging to the industry (incl. leather packing)	19.1	Fruit jars (homepack)	6.6
906		Beverage containers, pressure ware	14.5
(1919-1927)		Milk bottles	10.6
Leather goods	90.5	Glass containers (excl. above)	68.4
Contract work	1.9	(1925)	
Custom work and repairing	.5	Beverage containers, pressure ware and glass containers excl. fruit jars and milk bottles:	
Products not belonging to the industry	7.1	Beverage containers, pressure ware	17.5
(1919-1927)		Glass containers . . .	82.5
Leather goods:		(1933)	
Belts, men's	33.9	Fruit jars (homepack) and pressed packers' ware:	
Desk sets . . .	7.4	Fruit jars (homepack)	89.0
All other misc. leather goods	58.7	Pressed packers' ware	11.0

## PART I

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 10 (continued)		Census Group 11	
(1919-1923)		1103	
Pressed and blown glass (except containers):		(1919-1923)	
Bulbs for electric lamps, opal ware, etc.	32.1	Cutlery and edge tools:	
Lenses	3.8	Safety-razor blades	48.6
Tubing	5.5	Table and kitchen cutlery	10.7
Pressed and blown glass (except containers) excl. above	58.6	Scissors and shears, and pocket knives	13.2
(1933)		Razors . . .	2.8
Polished plate glass and other glass products:		Axes, adzes, etc.	7.6
Polished plate glass	72.9	Augers . . . chisels	4.3
Other glass products	27.1	Cutting dies . . .	2.8
1009		Other edge tools . . .	7.6
(1919-1929, 1933)		Other cutlery . . .	2.3
Cut and decorated glassware	26.4	Repair work	.1
Scientific glass apparatus	4.8	(1925)	
Leaded, stained . . . glass	11.9	Razor blades and razors:	
Plate glass . . .	10.0	Safety-razor blades	95.6
All other . . .	47.0	Razors	4.4
1011		(1925)	
(1929-1933)		Other edge tools . . . and other cutlery . . .	77.2
Grindstones, pulpstones and millstones <sup>26</sup>		Other edge tools . . .	22.8
Other cutlery . . .			
1013		1109	
(1919-1925)		(1919-1923)	
Lime (excl. agricultural lime)	95.9	Vacuum bottles . . .	2.3
Agricultural lime	4.1	Padlocks	3.8
1014		Vehicle hardware other than locks	21.4
(1919-1923)		Locks (except padlocks)	16.2
Monumental stones	34.0	Furniture and cabinet . . . hardware	15.2
Marble, granite, slate . . . except monumental stones	66.0	Other hardware	18.4
(1933)		Builders' hardware	22.8
Monumental stones	34.4	(1925)	
Marble, granite, slate . . . except monumental stones	65.6	Locks and builders' hardware:	
1017		Locks	46.7
(1919-1925)		Builders' hardware	53.3
Garden and art pottery, and other pottery products:		(1925-1927)	
Garden and art	33.4	Locks:	
Other pottery products <sup>27</sup>	66.6	Padlocks	18.9
(1919)		Locks except padlocks	81.1
Chemical porcelain and other pottery products:		1113	
Chemical porcelain	36.4	(1919)	
Other pottery products <sup>27</sup>	64.6	Structural shapes (not assembled or fabricated), merchant bars . . . , wire rods, bolt and nut rods . . . , plates, sheets, skelp, hoops, bands and strips, nail and tack plate, and rolled and forged iron and steel products, n.e.c. <sup>29</sup>	
(1927)		(1919-1923)	
Chemical porcelain and other pottery products:		Sheets, polished, planished or glanced, and gal- vanized and corrugated plates, sheets and strips:	
Chemical porcelain	26.1	Sheets, polished . . .	37.6
Other pottery products	73.9	Galvanized and corrugated . . .	62.8
(1925)		(1931)	
Semivitreous fixtures and other pottery products:		Rerolled or renewed rails, and rolled and forged iron and steel products, n.e.c.	
Semivitreous fixtures	23.1	Rerolled or renewed rails	2.8
Other pottery products	76.9	Rolled and forged . . .	97.2
1020		1114	
(1919-1921)		(1931-1933)	
Wall plaster, wall board . . . <sup>28</sup>		Plumbers' supplies <sup>30</sup>	

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 11 (continued)		Ware . . .	22.7
1119, 1121 (1919-1923)		Motor-vehicle accessories and parts	6.6
Steam fittings . . . heating ap- paratus . . . stoves and ranges:		Coatings	20.8
Portable ovens	.4	Other aluminum manufactures	49.9
Steam tables	.2	1202, 1221, 1222, 1223 (1919-1921)	
Steam and hot-water heating apparatus	23.9	Clocks . . .	29.4
Warm-air furnaces	9.8	Instruments and devices . . .	3.2
Stoves, ranges, water heaters	34.6	Jeweled and nonjeweled watches	39.9
Fuel-oil burners	1.5	Clock movements for use in timepieces	.9
Other heating and cooking . . .	2.7	Clock movements for use in recording instruments	.8
Fittings, valves, and specialties	20.3	Clock materials . . .	1.6
Parts	6.6	Watchcases	20.6
(1925)		Jeweled movements . . .	3.6
Portable ovens, steam tables, other heating and cooking . . . , and products not belonging to the industry:		Custom work and repairing	1.0
Portable ovens	5.4	(1923-1927)	
Steam tables	3.6	Instruments and devices . . . , and clock move- ments for use in recording instruments, etc:	
Other heating and cooking . . .	39.5	Instruments and devices . . .	81.0
Not belonging to the industry	51.5	Movements	19.0
(1925)		1203, 1220 (1919-1923)	
Parts for steam and hot-water heating boilers and radiators, and steam fittings <sup>31</sup>		Collapsible tubes, and tin and other foils:	
(1929-1933)		Collapsible tubes	27.5
Other heating and cooking apparatus <sup>32</sup>		Tin and other foils	72.5
(1931-1933)		1207 (1919-1927)	
Fittings, valves and specialties <sup>33</sup>		Portable lamps, candelabra . . .	14.2
1123 (1919-1923)		Kerosene . . . equipment	3.7
Ice-cream cans and milk cans	1.8	Incandescent mantles	1.1
Hole top, sanitary and general line cans	94.9	Residential and nonresidential except portable lamps . . .	31.5
Other tinware . . .	3.3	Street and highway fixtures	4.8
1125 (1919-1925)		Gas fixtures . . .	2.5
All tools <sup>34</sup>		Not reported by kind	3.2
(All years)		Misc. equipment	31.1
Farm tools <sup>35</sup>		Carbide lamps, reflectors . . .	6.9
1126, 1127 (1919-1921)		1210 (1919-1925)	
Wire and wire products: <sup>36</sup>		Jewelry	90.2
Automobile skid chains	2.7	Jewelry findings	9.8
Barbed wire . . . poultry netting . . .	25.6	1219 (1919-1927)	
Nails, brads, spikes . . .	24.8	Stamped household ware . . .	14.7
Iron and steel wire products excl. above	40.8	Enameled ware, vitreous	15.5
Nonferrous wire products	6.1	Stamped automotive parts . . .	25.3
(1923-1927)		Other stamped ware	24.8
Automobile skid chains, and iron and steel wire products excl. barbed wire . . .		Perforated metals	1.9
poultry netting . . . and nails . . .		Bottle caps	12.6
Automobile skid chains	6.1	Custom work	5.2
Iron and steel wire products excl. barbed wire . . . poultry netting . . . and nails . . .	93.9	Census Group 13	
Census Group 12		1301 (All years)	
1201 (1919-1923)		Agricultural implements and parts <sup>37</sup>	
Aluminum manufactures:			

## PART I

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 13 (continued)		(1929)	
1302		Steam engines (reciprocating):	
(1919-1925)		Marine type	23.6
Cash registers, and adding, calculating	93.0	Other	76.4
and card-tabulating machines	7.0	(1929)	
Parts and attachments		Steam turbines:	
1303		Marine type	20.1
(1919)		Other	79.9
Electric fans and electric exhaust fans:		1305	
Electric fans	84.2	(All years)	
Exhaust fans	15.8	Foundry and machine-shop products <sup>39</sup>	
(1919)		1306	
Measuring instruments and meters:		(1919-1923)	
Laboratory testing and scientific instruments	8.3	Gas machines . . . and parts:	
Instruments and meters except laboratory . . .	91.7	Gas machines, meters . . .	91.1
(1919-1925)		Parts and accessories	8.9
Insulated wire and cable:		(1933)	
Rubber-insulated . . . and paper-	81.8	Gas machines . . . and parts:	
and cotton-insulated	18.2	Gas machines, meters . . .	77.3
Varnished cambric, magnet . . .		Parts and accessories	22.7
(All years)		1307	
Other electrical machinery,		(1919-1921)	
apparatus and supplies <sup>38</sup>		Machine tools and parts <sup>40</sup>	
(1931)		1309	
Electric locomotives <sup>38</sup>		(1919-1921)	
(1929-1933)		Total pumps and parts (excl. repair work):	
Wet primary batteries, and parts		Pumps and parts, other than used on farms	76.3
and supplies therefor:		Pumps and parts used on farms	23.7
Batteries	34.8	(1919-1921)	
Parts and supplies	65.2	Pumps and parts other than used on farms:	
(1919-1923)		Pumps . . .	91.3
Disc stoves, hot plates, and ranges of all sizes:		Parts and attachments	8.7
2½ kw. and over	85.8	(1919-1921)	
All other	14.2	Farm pumps . . . and parts . . .	
(1919)		Farm pumps . . .	92.4
Electrical household heating and cooking		Parts and accessories	7.6
appliances incl. water heaters:		(1923-1931)	
Water heaters	1.0	Farm pumps . . . and parts . . . <sup>41</sup>	
All other	99.0	(1933)	
(1919)		Total pumps and pumping equipment:	
Radio apparatus:		Other than farm	84.0
Radio tubes	10.3	Farm	16.0
All other	89.7	(1933)	
(1933)		Total parts:	
Other electrical machinery . . . and misc. radio parts:		Other than farm	77.9
Misc. radio parts	19.6	Farm	22.1
Other electrical machinery . . .	80.4	1310	
1304		(1919-1925)	
(1919)		Domestic refrigerators	88.4
Internal-combustion engines except electric-		All other refrigerators, etc.	11.6
ignition type, motor-vehicle:		(1919-1927)	
Diesel . . . other than marine	15.7	Refrigerators, etc. excl. domestic:	
Diesel . . . marine	7.3	Absorption-type systems . . .	36.6
Electric-ignition type, other than motor-vehicle	77.0	Commercial . . .	36.9
(1921-1923)		Compressors and evaporators	26.5
Total Diesel:			
Diesel . . . other than marine	68.3		
Diesel . . . marine	31.7		

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—2 (continued).

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 13 (continued)		(1925-1927)	
1311 (1919-1923)		Parachutes, propellers . . . and experimental and repair work:	
Scales and balances	98.4	Parachutes, propellers . . .	53.1
Parts	1.6	Experimental and repair work	46.9
1312 (1919-1923)		1403, 1648 (1919-1923)	
Sewing machines and attachments:		Baby carriages . . . toys, games . . . , children's wheel goods and sleds, and doll parts:	
Household types	55.0	Baby carriages . . .	11.1
Industrial types	24.0	Toys, games . . .	66.8
Parts and attachments	21.0	Children's wheel goods and sleds	20.7
(1925)		Doll parts	1.3
Sewing machines:		(1925)	
Household types	69.6	Doll clothes and doll parts:	
Industrial types	30.4	Doll clothes	21.3
(1927)		Doll parts	78.7
Not reported by type:		(1919-1927)	
Household	69.6	Parts of toys and children's wheel goods, and repair work: **	
Industrial	30.4	Parts of toys and children's wheel goods	84.7
(1929)		Repair work	15.3
Not reported by type:		1405 (1919-1921)	
Household	67.6	Products not belonging to the industry, parts and repair work:	
Industrial	32.4	Repair work	63.7
1313 (1919)		Products not belonging to the industry and parts	36.3
Other textile machinery	41.6	(1919-1923)	
Repair and contract work	58.4	Products not belonging to the industry and parts:	
1314 (1919-1925)		Parts	75.8
Typewriters	95.0	Products not belonging to the industry	24.2
Parts	5.0	(1927-1929)	
1315 (1919-1923)		Parts and repair work:	
Washing machines . . . , and parts and accessories:		Parts	39.0
Washing machines . . .	98.4	Repair work	61.0
Parts and accessories	1.6	1406 (1919)	
(1925)		Parts, contract and repair work, and products not belonging to the industry:	
Driers and wringers, and parts and accessories:		Parts	85.9
Driers and wringers	79.1	Contract and repair work, and products not belonging to the industry	14.1
Parts and accessories	21.9	(1919-1927)	
1316 (All years)		Contract and repair work, and products not belonging to the industry:	
Windmills and windmill towers, and parts <sup>42</sup>		Contract and repair work	31.7
1318 (1919-1927)		Products not belonging to the industry	68.3
Machine-tool accessories and small metal-working tools <sup>43</sup>		1407 (1919-1929)	
Census Group 14		Motor vehicles, bodies and parts <sup>45</sup>	
1401 (1919-1923)		1408 (1919)	
Parachutes, propellers . . . , parts and engines, and experimental and repair work:		Passenger chassis	22.6
Parachutes, propellers . . .	8.6	Commercial and bus chassis	77.4
Parts and engines	83.9		
Experimental and repair work	7.6		



PART I

Table I—2 (continued)

INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY	INDUSTRY NUMBER, COMMODITY AND CENSUS YEARS IN WHICH ESTIMATED	PERCENTAGE OF COM- BINED TOTAL ACCOUNTED FOR BY EACH COMMODITY
Census Group 14 (continued)		Rhinestone ornaments	2.3
1409 (1919-1921)		All other articles	70.0
Side cars and parts:		1615 (1919-1923)	
Side cars	20.3	Coats	79.9
Parts	79.7	Neckpieces	4.2
(1931)		Robes	.1
Motorcycles, side cars, and motorcycle parts:		Other fur goods	1.5
Motorcycles and side cars	75.0	Trimmings	1.8
Parts	25.0	Contract work	.1
(1933)		Custom work and repairing	3.0
Motorcycles, side cars, bicycles, and parts:		(1925)	
Motorcycles, side cars and bicycles	68.8	Fur robes, other fur goods, and trimmings:	
Parts	31.2	Robes	.8
1410		Other fur goods	6.5
(All years)		Trimmings	92.7
Pleasure-craft and commercial craft <sup>46</sup>		1620 (1927-1933)	
Census Group 16		Instruments, professional and scientific <sup>46</sup>	
1604 (1919-1925)		1627, 1628, 1629, 1630 (1919-1921)	
Household . . . brooms	93.6	Piano and organ parts and materials (except perforated music rolls), and products not belonging to the industries:	
Industrial, street . . . brooms	6.4	Parts and materials	79.5
(1927)		Products not belonging to the industries	20.5
Toy and industrial brooms:		1631 (1919-1925)	
Toy	6.2	Ophthalmic products	78.9
Industrial	93.8	Optical instruments and parts	17.3
1605 (1919-1925)		Other optical goods	3.8
Tooth, toilet and household brushes	40.2	(1933)	
Paint and varnish . . . brushes	41.7	Ophthalmic products	70.3
Industrial brushes	18.1	Optical instruments and parts	26.3
(1919-1925)		Other optical goods	3.4
Tooth, toilet and household:		1636 (1919-1929, 1933)	
Tooth and toilet	58.6	Photographic apparatus and materials:	
Household	41.4	Camera and photographic apparatus . . . , and misc. equipment	21.3
(All years)		Films, slides . . .	78.7
Not reported by kind <sup>47</sup>		(1919-1927, 1931-1933)	
1610 (All years)		Cameras and photographic apparatus . . . , and misc. equipment:	
Dairymen's supplies: creamery . . . equipment; and poultrymen's and apiarists' supplies <sup>48</sup>		Cameras and photographic apparatus . . .	77.1
1611 (1919-1925)		Misc. equipment	22.9
Dental goods and equipment	72.9	1645 (1919-1927)	
Dental laboratory work	27.1	Ligatures . . . , and other surgical and orthopedic appliances:	
1612, 1621 (1931-1933)		Ligatures . . .	67.4
Fancy and misc. articles, and ivory, shell and bone work:		Other appliances	32.6
Fancy and misc. articles	98.6		
Ivory, shell and bone work	1.4		
(1919-1927, 1931-1933)			
Fancy and misc. articles:			
Greeting cards and paper novelties	10.1		
Lampshades	12.5		
Cigar lighters	5.1		

Footnotes to Table I—2

1. Data on coffee and spices were not reported in the Census in 1925 and 1933. Estimates for these years are based on import data.

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—2 (continued)

2. This percentage was applied to the total of all other products as reported in 1921 and 1919.
3. This percentage was applied to a total of food preparations, n.e.c., and processed nuts, other than peanuts (see also note 8 below).
4. In 1929 and 1931 the value of canned chicken as reported in the poultry, dressing and packing industry was added to total food preparations, n.e.c., in order to attain closer comparability with preceding years.
5. This is the percentage of ice cream specialties included in a total of other products and specialties. The values for specialties thus estimated were added to the values of ice cream.
6. Prior to 1927 data for lard substitutes were available only in tables contained in the reports on the meat packing industry. The figures obtained therefrom were raised to represent the entire industry on the basis of the 1927 ratio. In that year the estimated commodity total for the industry was 140.7 per cent of the value of lard substitutes.
7. The figure for 1927 was revised to include salad oils on the basis of the revision of the 1929 total shown in the 1931 Census.
8. Prior to 1927 the value of processed nuts, other than peanuts, had to be estimated, the data having been included in Industry 117 (see note 3 above).
9. In 1933 this industry was not included in the Census. The estimate for that year was based on an index of the crop values of almonds, walnuts and peanuts derived from data reported in the *Yearbook of Agriculture*.
10. The 1933 values were estimated on the basis of the percentage changes from 1931 to 1933 shown in the amounts produced in the meat packing industry.
11. These percentages represent a breakdown of other woven goods, a miscellaneous classification reported in 1927 and earlier years. The breakdown was determined by comparison with the revised 1927 data shown in the 1929 Census.
12. These are percentages of a group designated minor products. The remaining 42.1 per cent presumably represents products not belonging to the industries.
13. In Table I—1 many of the commodities manufactured in the cotton goods industry were combined in order to expedite later computation. Most of the commodities were, however, estimated separately, as indicated in the percentage analysis. The complexity of this analysis renders it desirable for those who may wish to trace the estimates of separate commodities to use Table I—2 only in conjunction with the original Census reports. The accuracy of the various estimates is of little import in the study since almost all of the commodities were assigned to Minor Commodity Group 7. Those few which were assigned to other commodity groups constitute but a small proportion of the total value.
14. The values of men's handkerchiefs thus estimated were added to the values of women's handkerchiefs similarly estimated (see note 15). The resultant totals were placed under the handkerchief industry (Industry 226).
- 14a. The apportionments of the different kinds of wearing apparel between men's and women's are approximations based on whatever scanty data were available.
15. Prior to 1927 this industry was called Millinery and lace goods and included Embroideries (219), Women's handkerchiefs (part of 226), Millinery (239), and Trimmings . . . (246). The apportionment as shown totals only 99.8 per cent. In the actual computations, percentages were carried out to two places.
16. In 1929, 1931 and 1933 the values for sewing machine cabinets were removed from total household furniture in order to assure comparability with the data for earlier years.
17. In all the years in which values were reported for this classification apportionment between household and business was based on the approximate output reported separately for the two groups. Thus in 1919 and 1921, 85 per cent was assigned to household, and 15 per cent to business; in 1923, 1925, 1927 and 1929, a 75-25 per cent apportionment was used; while in 1933, an 80-20 per cent breakdown was used.
18. In all years the values for radio cabinets were subtracted from household furniture. Prior to 1927 they were estimated by applying to the values for radio sets in each year the 1927 percentage, 18.6, of the value of cabinets to the total value of radio sets (see Industry 1303).
19. In 1919 and 1921 the commodity totals for the entire industry, including wall board, were apportioned between pulp goods and wall board on the basis of the respective industry totals. Thus in 1921, 42.7 per cent was assigned to pulp goods, and 57.3 per cent to wall board; in 1919 the percentages were 67.4 and 32.6 respectively. The estimates for wall board were then added to Industry 1020 (see note 28 below).
20. Paper goods, n.e.c., include the following miscellaneous converted paper products listed in the 1929 Census volume: bottle caps, coated book paper, confetti, crepe paper, paper cups, dishes, spoons, etc., glazed and fancy paper, gummied paper and tape, lace paper, paper napkins, papeteries, paper rolls, tablets, toilet paper, paper towels, paperboard tubes, twisted paper, water proof wrapping paper, waxed paper, and all other converted paper and paperboard products. In 1927 the total value of the above was 163.7 per cent of the value of products reported for the paper goods, n.e.c. industry. This percentage was applied to the industry totals for the earlier years.
21. The values from 1925 through 1931 were taken from the 1931 Census report because in that report slight revisions in the data were made for those years. So far as possible, the figures for the earlier years were rendered comparable with those for the later years. In 1925 and preceding years, the value for compressed and liquefied gases was subtracted. Prior to 1925 the output of pyroxylin solutions was estimated; and removed in 1921 and 1919 on the basis of the 1923 percentage (20.2) to pyroxylin plastics and solutions; similarly the output of rayon was estimated in 1921 and 1919 on the basis of the 1923 percentage (85.9) to total rayon and other plastics.
22. Prior to 1929 the values were estimated on the basis of the percentage, 49.0, that the value of oils, n.e.c. constituted in 1927 of a total including oils, n.e.c., and lubricating oils not made in petroleum refineries. The remaining 51.0 per cent represented lubricating oils not made in petroleum refineries.
23. The values for rubber cement prior to 1927 were not used since rubber cement was already covered in the mucilage, paste . . . industry in those years.
24. To the values of other manufactures of rubber thus derived were added the values of rubber clothing. The totals of other manufactures thus include in all years several commodities that might seem to belong under finished. Since these commodities were, however, already included elsewhere in the Census (rubber clothing under the clothing industries, for example), they were treated as unfinished, i.e., Census duplication.
25. The 1931 and 1933 values are not strictly comparable with those of preceding years, the three industries having been combined and not presented in strictly comparable detail. In 1933 the total for the combined industries was apportioned as in 1931.
26. After 1927 this industry was no longer included in the Census of Manufactures. Data, however, were obtained from *Mineral Resources of the U. S.*, 1931, Pt. I, pp. 113, 114; and from *Minerals Yearbook*, 1934, p. 890; the figures reported therein were raised on the basis of the 1927 relationship of the Census figure to the Bureau of Mines total for grindstones, pulpstones and millstones. The former was 117.7 per cent of the latter.
27. After the adjustments required for other pottery products had been made, the values of red and brown ware were added in 1919, 1921 and 1923 in order to render the residuals for all years comparable.

Table I—2 (continued)

28. In 1919 and 1921 the estimated value of wall board had to be added (see note 19 above).

29. The values of these products were adjusted in 1919 in order to remove estimated consumption in own works. All such adjustments were based on the proportions in 1921 of such consumption to total production.

30. The values for 1931 and 1933 are not comparable with those for preceding years, indeterminate amounts of plumbers' brass goods being included in Industries 1119 and 1121 (see note 33 below).

31. In 1925, to the amount reported for parts in the 1927 Census was added the estimated value of parts for steam and hot-water heating boilers and radiators, which in 1925 had been included with steam fittings. The estimate was made by the use of 1927 percentages. The total value of parts thus derived was then adjusted to agree with a 1929 revision of the 1927 value of parts, the revised figure constituting 99.8 per cent of the original value reported.

32. In 1933 and 1931 the value of other heating and cooking apparatus and supplies included the following items reported in the Census: gasoline water heaters, gasoline camp stoves, gas burners, parts for oil and gas burners, incinerators, coffee urns and tanks (1931 only), waffle irons (1931 only), iron cooking utensils (1931 only), other cafeteria, hotel and cooking apparatus, and heating and cooking equipment not reported by kind. In 1929, it included in addition to the item reported as other heating and cooking apparatus and supplies the values of gasoline water heaters, gasoline camp stoves, and incinerators.

33. The data for 1931 and 1933 are not comparable with those for previous years, since indeterminate amounts of plumbers' supplies are included (see also note 30 above).

34. Prior to 1927 the totals as reported for the industry were adjusted in order to remove machine tool accessories, as indicated by the percentage, 65.2, of the revised 1927 total for the industry to the unrevised.

35. The data for farm tools were taken from the special Census reports on farm equipment in 1923, 1925, 1927 and 1931. In 1919 and 1921 the values of shovels, spades, scoops and hoes as reported in the tool industry were assumed to represent farm tools.

36. In 1921 and 1919 the values of wire products made only in the wire industries were reported by the Census. These figures (excluding insulated wire and cable and bare wire) were raised, on the basis of the 1923 data, to cover wire products made in all industries; in 1923 the total value was 195.9 per cent of the amount made in the wire industries. The commodity totals for 1921 and 1919 were then apportioned as in 1923.

37. Data for the agricultural implements industry for all years, except 1933 and 1919, were secured from the special Census reports on farm equipment. For convenience the figures taken from those reports were divided into two groups. The content of the first is indicated in the description of agricultural implements given under Industry 1301 in Table I—1. The various classes of implements included represent the first seven classes of implements described in the definition of the agricultural implements industry given in the 1929 Census. The desired totals were obtained simply by adding together the corresponding classes as listed in the farm equipment reports; the values of the implements and the values of the parts and attachments for the implements were summated separately. The data for 1925 and earlier years are not strictly comparable with those of later years because fertilizer machinery was excluded in the earlier years. Miscellaneous agricultural implements include all other types of farm equipment that can be presumed to be produced primarily by the agricultural implements industry. In 1931 and 1929 the following items were selected from the farm equipment report: all barn and barnyard equipment, corncribs, grain bins, eveners, singletrees, doubletrees and neck yokes, farm gates, scythes, scythe snaths, lightning rods, silos, stump pullers and miscellaneous items. For miscellaneous parts, attachments and

parts for barn and barnyard equipment and the value of attachments and parts given at the end of the Census table dealing with miscellaneous farm equipment were utilized. The latter figure includes an indeterminate amount of attachments and parts not belonging to the agricultural implements industry. For 1927 the same procedure was followed for miscellaneous implements and parts as for 1929. For 1925 a similar procedure was also followed, although several other reported items were included: cane mills, cider mills, scrapers, stalk cuffers, various types of fertilizing machinery, etc. A similar method was adopted for 1923 except that it was possible to subtract certain undesired items included in miscellaneous parts and attachments. For 1921 a similar method was followed, except that the value of forks, hoes and rakes was removed from the value of all other products. Attachments and repair parts could not be broken down and were thus treated as a single total. Finally, for 1919 the total value of the agricultural implements industry corrected for *o* and *s*, as reported in the 1919 Census volume, was divided according to the 1921 proportions—68.4 per cent to implements and 31.6 per cent to parts.

For 1933 the value of agricultural implements and other products *not reported separately* was apportioned between other products and custom and repair work, 8.8 per cent, and agricultural implements, 91.2 per cent.

The amount estimated as agricultural implements was then apportioned between implements, 59.7 per cent, and parts, 40.3 per cent, as indicated by the commodity table.

The 1933 data are probably not strictly comparable with those for earlier years since the coverage of certain miscellaneous implements is uncertain.

38. For 1929 the revised figure as shown in the 1931 Census was used except that the value of relays presented separately in that report was re-added. For both 1929 and 1931 the value of pole line hardware was added in order to render the data comparable with those for earlier years. In 1931 it was necessary to subtract an estimated value for electric locomotives. The estimate was made on the basis of the percentage in 1927, 7.3, that the value of electric locomotives was of the total of other electrical machinery (as calculated) and electric locomotives. For 1921 and 1919 the desired values were obtained by totaling all the electrical machinery items specifically classified and presented in our various subgroups, and subtracting this total from the grand total for the industry as reported in the Census.

The values for the earlier years are not strictly comparable with those for the later years because of the inclusion of small but indeterminate amounts belonging to items specifically classified in later years.

39. The values for various types of machinery presented under this industry were obtained from the special Census reports on the production of machinery by principal classes. In the earlier years certain types were not reported separately and could not be satisfactorily estimated; the missing data presumably are all included under machinery not reported by specified class. This, of course, affects the comparability of values by distinct types of machinery but not of the totals.

Before determining the values for any of the constituent items of the industry, it was necessary to adjust the industry totals for 1927 and all prior years. First, in accordance with the 1927 revision designed to eliminate the value of machine-tool accessories (which were 1.0 per cent of the inclusive total value of products for that year) the industry totals for all earlier years were reduced. Then on the basis of the net correction for *o* and *s* in 1929, plus 6.4 per cent, all years prior to 1929 were raised. These changes rendered the resultant commodity totals relatively comparable, and in 1927 and 1925 they were apportioned on the basis of the Census division of the unadjusted figures. Prior to 1925 the 1925 percentages were utilized. The percentage apportionments for 1927 and 1925 follow:

CLASSIFICATION OF MANUFACTURED COMMODITIES

Table I—2 (continued)

	1927	1925
Boiler-shop products	5.1	4.8
Castings	17.9	19.0
All machinery (specified and not specified)	39.7	39.4
Parts and miscellaneous	30.4	31.2
Contract and repair work	7.0	5.6

To obtain the values for 'not reported by specified class' the respective totals of specified machinery were subtracted from the totals of all machinery as estimated above. The resultant figures are not comparable from year to year because of less detailed reporting by type in the earlier years.

The values derived for parts and miscellaneous for 1925 and earlier years were apportioned as in 1927: 95.7 per cent to miscellaneous, and 4.3 per cent to parts.

The values for miscellaneous were then made comparable by the removal of industrial furnaces in 1929 (.9 per cent of total miscellaneous including furnaces as in 1931), and of industrial furnaces and oil burners prior to 1929 (1.4 per cent of the inclusive total of miscellaneous in 1929).

40. For 1919 and 1921 the values for machine tools and parts were estimated on the basis of the percentages for 1923, 67.9 and 19.2, respectively, that the revised 1923 figures were of the un-revised 1923 total as shown in the 1923 Census.

41. From 1923 to 1931 the values for farm pumps and pumping equipment, and for parts and accessories thereof, were taken from the special Census reports on farm equipment.

42. From 1921 through 1931 the desired values were obtained from the special Census reports on farm equipment. For 1921 it was necessary to estimate the value of parts. This was done on the basis of the percentage, 6.2, of the value of parts to that of windmills and windmill towers in 1923. For 1919 the values for both windmills and parts were estimated on the basis of the percentage that each constituted in 1921 of the *unadjusted* industry total: 60.5 and 3.8 respectively.

The data for 1933 are not strictly comparable with those for preceding years, having been secured from the engines, turbines, etc. industry. (Industry 1304)

43. The data for the years prior to 1929 are not comparable with those for 1929, 1931 and 1933. They are estimates of the amounts of the tools, not including edge tools . . . and the foundry and machine-shop products, n.e.c., industries which belonged to the machine-tool accessories industry as defined in 1929. The estimates are based on comparisons of the original with the revised figures for the tool and for the foundry-shop products industry in 1927. In the tool industry the revised figure was 65.2 per cent of the original; in the foundry-shop products industry the revised total was 99.0 per cent of the original. Thus in all years prior to 1929, 34.8 per cent of the tool industry and 1.0 per cent of the foundry products industry were considered to belong to the machine-tool accessories industry. Additional indeterminate amounts of machine-tool accessories are included, before 1929, in the machine-tool industry.

44. Prior to 1925 the totals for parts and repair work were estimated on the basis of the percentage, 1.5, of the 1925 figure to the industry total in that year.

45. Prior to 1931 the Census reported bodies and parts made in other industries (excluding the motor-vehicle industry). On the basis of 1931 figures, special adjustments were made in order to include bodies and parts manufactured in the motor-vehicle industry. First the difference between the revised and the un-revised *s* for 1931 was obtained. This difference was expressed as a percentage of *o* (excluding trailers) of the motor-vehicle industry. The percentage derived, 45, was then applied to the value of *o* in all preceding years, the estimates of repair work having first been subtracted from *o* as reported by the Census. The resultant figures were added to the commodity totals for the bodies and parts industry. Despite these adjustments, however, it is possible that the commodity totals, especially for the earlier years, are still under-estimates since it is believed that larger proportions of bodies and parts were included in the motor-vehicle industry during the earlier years. Thus, the use of 1931 percentages probably results in minimum estimates for these years.

46. The values of pleasure-craft for 1923 through 1933 were estimated by adding to 20.0 per cent of the value of vessels of 5 gross tons and over the value of all vessels under 5 tons, except life-boats. The 20.0 per cent estimate was obtained from a special unpublished tabulation of Census schedules. The marked increase in ship building in 1921 and 1919, however, rendered the percentage of dubious validity in those years. In its place an index of vessels built under 5 tons, was applied to the 1923 estimate of pleasure-craft of 5 gross tons and over.

The values for lifeboats in years prior to 1927 were estimated on the basis of the percentage, 1.9, that they were of the value of all vessels under 5 tons in 1927.

The values of commercial craft were derived by subtraction of the final pleasure-craft estimates from the values of all ships and boats.

47. The values for brushes not reported by kind were divided proportionately in each year among the several types.

48. The data for dairy, cheese-factory and butter-factory machinery were taken from the Census tabulations of machinery by specified classes. In 1919 the figure given was apportioned as in 1921 between miscellaneous dairy . . . machinery (48.6 per cent) and milking machines and cream separators (51.4 per cent).

The data on equipment and supplies include all the commodities produced in the industry except the machinery listed separately. The figure for 1931 represents a total of such items as were discovered elsewhere in the Census, notably in the special report on farm equipment. For 1933, only the value of brooders and incubators as derived from Industry 1119 could thus be found. The values of the other commodities could not be traced.

49. From 1927 through 1933 the data on nautical and surveying instruments were removed from the Census totals as reported and placed in Industry 1631 in order to render the total comparable with those of preceding years.



Table I—3

OUTPUT OF MIXED COMMODITIES AND ITS ALLOCATION  
BY CONSTITUENT PARTS,  
CENSUS OF MANUFACTURES YEARS, 1919-1933

The values analyzed in this table are for commodities designated by M in Table I—1. The methods used in allocating these values by constituent parts are described in Notes A, B and C immediately following this table. The capital letters A, B or C in parentheses following each commodity title refer to the note in which the method of allocation is described. As in the other tables in this Part, the Census industry numbers are those given in the *1929 Census of Manufactures*.

Comments on this table will be found in the Preface to Part I, Section 3.

Table I-3

OUTPUT OF MIXED COMMODITIES AND ITS ALLOCATION BY CONSTITUENT PARTS  
(thousands of dollars)

Minor Commodity Group Number.	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
1	Census Group 1								
	103 Creamery butter (A)								
	Total	532,263	441,803	585,058	635,763	695,106	705,980	440,644	357,911
1	Unfinished	23,015	19,502	19,981	22,771	23,539	24,646	16,871	13,333
	Finished	509,248	422,301	565,077	612,992	671,567	681,334	423,773	344,578
	Total	137,281	77,939	124,534	111,761	110,162	112,724	70,215	58,947
1	107 Cheese (B)								
	Unfinished	11,120	6,313	10,087	9,053	8,923	9,131	5,687	4,775
	Finished	126,161	71,626	114,447	102,708	101,239	103,593	64,528	54,172
1	110 Spices, ground (C)								
	Total	22,398	16,577	21,399	21,779	19,805	23,698	13,690	10,312
	Unfinished	9,308	6,889	8,931	13,150	11,979	13,239	8,423	5,997
1	Finished	13,090	9,688	12,468	8,629	7,826	10,459	5,267	4,315
	111 Condensed and evaporated milk and buttermilk (A)								
	Total	298,659	159,700	165,125	145,304	167,850	173,316	115,873	107,575
1	Unfinished	25,281	22,142	23,820	25,989	27,251	31,639	17,061	12,888
	Finished	273,378	137,558	141,305	119,315	140,599	141,677	98,812	94,687
	112 Powdered whole milk, cream, skim milk and dried and powdered buttermilk (A)								
1	Total	12,182	8,164	12,528	11,967	19,737	24,480	16,306	16,792
	Unfinished	9,034	7,808	7,772	8,989	9,141	10,395	6,174	5,094
	Finished	3,148	356	4,756	2,978	10,596	14,085	10,132	11,698
1	113 Corn syrup, corn sugar, corn oil and starch (B)								
	Total	156,549	68,040	96,870	112,436	111,123	135,216	87,144	83,471
	Unfinished	65,525	47,913	53,362	54,605	58,455	59,225	39,029	29,020
1	Finished	91,224	20,127	43,508	57,831	52,668	75,991	48,115	54,451
	115 Flavoring extracts and flavoring syrups (A)								
	Total	90,001	90,237	86,759	110,261	119,116	143,032	136,189	61,861
1	Unfinished	29,776	42,461	40,005	39,400	39,496	33,779	36,465	20,789
	Finished	60,225	47,776	46,754	70,861	79,620	109,253	99,724	41,072
	116 Flour: wheat, rye, buckwheat, and corn (except prepared flour) (A)								
1	Total	1,526,503	906,717	713,364	946,677	844,274	783,606	471,333	463,062
	Unfinished	301,746	252,798	240,836	293,784	295,824	325,399	207,637	178,249
	Finished	1,224,757	653,919	472,528	652,893	548,450	458,207	263,696	284,813
1	117 Food preparations, n.e.c. (B)								
	Total	169,456	108,534	137,150	170,513	188,287	191,328	173,087	179,180
	Unfinished	19,826	12,698	16,047	19,950	22,030	22,385	20,251	21,502
1	Finished	149,630	95,836	121,103*	150,563	166,257	168,943	152,836	157,678
	119 Ice, manufactured (C)								
	Total	138,795	161,865	164,523	187,080	184,400	209,008	189,410	138,522
1	Unfinished	61,903	72,192	73,377	83,438	82,242	93,218	84,477	61,781
	Finished	76,892	89,673	91,146	103,642	102,158	115,790	104,933	76,741

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
1	120 Shortenings and vegetable cooking oils (not incl. lard) (A) Total Unfinished Finished	451,491 35,474 416,017	135,669 29,811 105,858	142,494 28,611 113,883	207,652 34,263 173,389	200,671 34,523 166,148	205,769 35,590 170,179	147,622 25,952 121,670	93,582 21,980 71,602
1	121 Macaroni, spaghetti, vermicelli and noodles (B) Total Unfinished Finished	34,537 2,314 32,223	28,904 1,937 26,967	27,547 1,846 25,701	40,545 2,717 37,828	46,259 3,099 43,160	47,361 3,173 44,188	36,094 2,418 33,676	35,748 2,395 33,353
1	122 Malt (B) Total Unfinished Finished	39,052 39,052 -	21,317 11,469 9,848	16,488 8,871 7,617	23,811 12,810 11,001	20,224 10,881 9,343	23,061 12,407 10,654	18,726 10,075 8,651	27,136 27,136 -
1	123 Lard (A) Total Unfinished Finished	420,077 32,524 387,553	190,373 27,297 163,076	263,887 26,198 237,689	279,625 31,374 248,251	234,864 31,612 203,252	248,008 34,083 213,925	149,492 22,812 126,680	104,686 19,324 85,362
1	124 Oleomargarine (B) Total Unfinished Finished	121,784 2,801 118,983	48,837 1,123 47,714	43,925 1,010 42,915	48,388 1,113 47,275	51,752 1,190 50,562	60,415 1,390 59,025	25,689 591 25,098	17,358 347 17,011
1	125 Peanuts, walnuts and other nuts, processed or shelled (B) Total Unfinished Finished	59,530 4,524 55,006	34,715 2,638 32,077	37,715 2,866 34,849	44,885 3,411 41,474	60,613 4,607 56,006	51,740 3,932 47,808	40,776 3,099 37,677	43,630 3,316 40,314
1	129, 130, 131 Beet sugar: Sugar, granulated Molasses Cane sugar: Sugar, granulated Sugar, clarified Sirup Molasses, other than blackstrap	137,852 2,365 9,547 27,213 4,189 4,869	127,642 2,365 6,835 5,636 682 1,308	112,384 1,287 3,491 3,804 1,546 1,835	124,026 2,251 1,584 988 1,768 1,131	98,141 692 691 298 1,341 927	90,332 1,169 2,639 832 1,341 1,370	81,474 394 1,968 730 924 761	120,812 877 4,826 1,254 1,869 1,045
1	Cane-sugar refining: Refined sugar, hard, soft or brown; refiners' sirup, edible Total sugar products (A) Unfinished Finished	719,050 905,085 177,816 727,269	465,035 609,503 142,856 466,647	723,474 847,821 148,972 698,849	602,261 734,009 168,056 565,951	594,867 696,957 173,866 523,091	504,154 601,837 177,414 424,423	392,919 479,170 132,950 346,220	335,000 464,683 100,507 364,176
1	132 Vinegar and cider (B) Total Unfinished Finished	28,376 3,008 25,368	20,884 2,214 18,670	16,955 1,797 15,158	18,266 1,936 16,330	13,421 1,423 11,998	17,796 1,886 15,910	13,921 1,476 12,445	10,634 1,127 9,507
12	Census Group 2 203 Awnings, tents, sails and canvas covers (B) Total Unfinished Finished	45,433 29,986 15,447	36,867 24,332 12,535	44,150 29,139 15,011	47,570 31,396 16,174	46,693 30,817 15,876	46,768 30,848 15,920	30,112 19,874 10,238	20,341 13,425 6,916



Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
7	214, 233, 236 Linen woven goods and thread (B) Total Unfinished Finished	12,376 5,148 7,228	7,962 3,312 4,650	9,791 4,073 5,718	9,096 3,784 5,312	7,763 3,229 4,534	7,875 3,276 4,599	5,273 2,194 3,079	4,734 1,969 2,765
7	216 Osnaburghs, sheetings, drills and tickings (B) Total Unfinished Finished	326,059 205,091 120,968	201,203 126,557 74,646	286,092 179,952 106,140	251,500 158,194 93,306	236,815 148,957 87,858	213,372 134,230 79,142	104,005 65,419 38,586	129,704 81,584 48,120
7	Denims, napped fabrics, cottonades and cotton worsteds, terry-woven fabrics (except towels, towellings, wash cloths and bath mats) (B) Total Unfinished Finished	126,004 80,895 45,109	75,051 48,183 26,868	137,840 88,493 49,347	108,493 69,653 38,840	113,701 72,996 40,705	106,404 68,511 38,093	61,255 39,326 21,929	77,388 49,683 27,705
7	Print cloth, lawns, nainsooks, cambrics, etc., reps, poplins and broadcloths, pajama checks and dimities, etc., voiles, crepes, mosquito netting and tarlatan, all twills and sateens, gingham, all shirtings, fabrics (other than shirtings and draperies), fabrics (except draperies) entirely or in chief value of rayon, other woven fabrics (B) Total Unfinished Finished	581,009 372,427 208,582	399,025 255,775 143,250	593,869 380,670 213,199	497,350 318,801 178,549	453,255 290,536 162,719	423,630 271,547 152,083	259,571 166,385 93,186	274,201 175,763 98,438
7	Thread and cotton yarns (B) Total Unfinished Finished	508,633 418,605 90,028	268,757 221,187 47,570	403,996 332,489 71,507	366,344 301,501 64,843	300,073 246,960 53,113	290,449 239,040 51,409	141,026 116,064 24,962	161,326 132,771 28,555
7	Plushes, velvets, velveteens, corduroys (B) Total Unfinished Finished	36,674 27,616 9,058	21,139 15,918 5,221	47,664 35,891 11,773	50,232 37,825 12,407	54,387 40,953 13,434	50,447 37,976 12,471	19,880 14,970 4,910	15,664 11,795 3,869
7	Other cotton products (B) Total Unfinished Finished	31,239 18,806 12,433	11,483 6,913 4,570	23,082 13,895 9,187	15,878 9,559 6,319	7,883 4,746 3,137	15,311 9,217 6,094	20,488 12,334 8,154	18,654 11,230 7,424
7	Cotton goods made as secondary products in other industries (B) Total Unfinished Finished	10,865 6,541 4,324	3,280 1,975 1,305	7,223 4,348 2,875	5,402 3,252 2,150	9,915 5,969 3,946	none reported separately	none reported separately	4,791 1,912 2,879
18	Cotton tapestries (B) Total Unfinished Finished	17,296 6,901 10,395	13,922 5,555 8,367	20,899 8,339 12,560	17,390 6,939 10,451	16,612 6,628 9,984	12,995 5,185 7,810	7,242 2,890 4,352	4,791 1,912 2,879

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
7	217 Cotton small wares (B) Total Unfinished Finished	73,287 47,124 26,163	46,701 30,029 16,672	70,595 45,393 25,202	66,760 42,927 23,833	62,156 39,966 22,190	65,494 42,113 23,381	40,303 25,915 14,388	38,109 24,504 13,605
7	218 Dyeing and finishing textiles (excluding contract work and sheets) (C) Total Unfinished Finished	143,971 113,593 30,378	122,988 97,038 25,950	162,927 128,549 34,378	181,544 143,238 38,306	180,447 142,373 38,074	207,032 163,246 43,786	143,180 112,969 30,211	123,962 97,806 26,156
7	219 Embroideries (B) Total Unfinished Finished	9,965 4,773 5,192	10,600 5,077 5,523	11,683 5,596 6,087	12,181 5,835 6,346	12,679 6,073 6,606	10,369 4,967 5,402	8,128 3,893 4,235	4,901 2,348 2,553
7	234 Knit cloth (except glove and shoe linings) (B) Total Unfinished Finished	56,827 34,892 21,935	43,181 26,513 16,668	62,685 38,489 24,196	50,822 31,205 19,617	51,399 31,559 19,840	63,164 38,771 24,393	49,001 30,087 18,914	45,214 27,761 17,453
7	Other knit goods (B) Total Unfinished Finished	16,393 1,377 15,016	12,735 1,070 11,665	21,090 1,772 19,318	24,872 2,089 22,783	13,918 1,169 12,749	16,783 1,409 15,374	9,855 8,828 9,027	11,909 1,000 10,909
7	235 Lace goods (except Nottingham lace curtains and nets) (B) Total Unfinished Finished	10,515 6,025 4,490	9,021 5,169 3,852	12,337 7,069 5,268	11,049 6,331 4,718	8,044 4,609 3,435	12,006 6,879 5,127	8,387 4,806 3,581	7,415 4,249 3,166
7	244 Silk and rayon products (C) Total Unfinished Finished	646,659 462,254 184,405	552,756 393,408 159,348	726,394 519,659 206,735	763,917 544,665 219,252	707,091 509,457 197,635	696,992 507,785 189,207	376,091 294,721 81,370	248,768 195,393 53,375
7	249, 253 Woolen goods and worsted goods (except blankets) (C) Total Unfinished Finished	728,142 626,202 101,940	539,425 463,906 75,519	733,094 630,461 102,633	658,860 566,620 92,240	560,271 481,833 78,438	544,684 468,428 76,256	316,301 272,019 44,282	292,443 251,501 40,942
7	Woolen and worsted yarns for sale (C) Total Unfinished Finished	238,064 230,922 7,142	161,257 154,807 6,450	252,632 247,579 5,053	211,095 208,994 2,111	184,025 182,185 1,840	199,758 197,760 1,998	129,144 126,561 2,583	111,978 108,619 3,359
Con	Census Group 3 311 All other lumber and timber products (C) Total Unfinished Finished	972,375 553,773 416,602	525,165 433,158 92,007	924,280 683,067 236,213	840,520 665,792 174,728	658,627 568,088 90,539	756,070 595,226 160,844	268,844 222,459 46,385	211,974 155,758 56,216
12	313 Mirror and picture frames (B) Total Unfinished Finished	17,898 1,056 16,842	15,419 910 14,509	18,568 1,096 17,472	19,024 1,122 17,902	18,312 1,080 17,232	18,006 1,062 16,944	10,444 616 9,828	6,657 393 6,264

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
4	Census Group 4								
4	401, 2, 3, 4, 5, 6 and 8 Bags, paper, excl. those made in paper mills	55,077	44,635	51,691	58,991	71,011	79,124	61,576	57,375
4	Boxes, paper, n.e.c.	212,424	184,424	278,638	309,914	332,379	346,447	259,807	253,557
4	Cardboard, not made in paper mills	8,251	6,918	8,341	6,508	7,267	6,937	4,205	4,870
4	Card cutting and designing	5,522	4,700	6,694	9,185	15,691	16,104	15,197	10,967
4	Envelopes	39,518	42,584	49,276	49,321	54,512	57,658	45,270	33,093
4	Labels and tags	23,862	18,007	23,841	29,052	29,238	30,898	not reported	
4	Paper goods, n.e.c.	175,626	137,719	190,157	203,343	230,760	281,450	228,421	201,557
	Total, converted paper products (B)	520,280	438,987	608,638	663,322	740,848	818,476	614,476	561,419
	Unfinished	395,527	325,289	451,008	491,522	548,968	606,539	455,327	416,011
	Finished	124,753	113,698	157,630	171,800	191,880	212,079	159,149	145,408
4	407 Writing paper (B)								
	Total	87,741	61,314	89,098	105,474	105,148	113,224	77,865	61,330
	Unfinished	26,849	18,762	27,264	32,275	32,175	34,694	23,827	18,767
	Finished	60,892	42,552	61,834	73,199	72,973	78,530	54,038	42,563
4	Census Group 5								
	501 Bookbinding and blank-book making (B)								
	Total	80,017	77,391	93,243	99,245	108,421	123,027	93,019	62,636
	Unfinished	54,732	52,935	63,778	67,884	74,160	84,094	63,625	42,843
	Finished	25,285	24,456	29,465	31,361	34,261	38,933	29,394	19,793
3	Census Group 6								
	601 Alcohol, ethyl and distilled liquors (B)								
	Total	32,532	29,883	33,836	59,060	32,928	50,203	21,758	60,850
	Unfinished	18,673	17,153	19,422	33,900	18,901	28,811	12,489	34,928
	Finished	13,859	12,730	14,414	25,160	14,027	21,392	9,269	25,922
1	603 Baking powders, yeast and other leavening compounds (A)								
	Total	48,556	52,547	51,521	51,075	51,333	49,941	43,417	29,296
	Unfinished	25,677	21,550	20,683	24,769	24,956	22,141	21,212	17,996
	Finished	22,879	30,997	30,838	26,306	26,377	27,800	22,205	11,300
3	604 Blacking, stains and dressings (B)								
	Total	23,648	17,198	23,541	23,102	20,784	22,757	18,756	17,570
	Unfinished	5,628	4,093	5,603	5,498	4,947	5,416	4,464	4,182
	Finished	18,020	13,105	17,938	17,604	15,837	17,341	14,292	13,388
3	605 Bluing (B)								
	Total	2,847	1,985	1,604	2,110	1,632	1,382	1,187	1,040
	Unfinished	313	218	176	232	180	152	131	114
	Finished	2,534	1,767	1,428	1,878	1,452	1,230	1,056	926
5a	607 Candles (B)								
	Total	7,997	5,782	7,015	7,249	7,579	8,093	6,109	4,673
	Unfinished	4,758	3,440	4,174	4,313	4,510	4,815	3,635	2,780
	Finished	3,239	2,342	2,841	2,936	3,069	3,278	2,474	1,893
3	608 Chemicals, n.e.c. (B)								
	Total	558,861	363,157	570,618	551,544	610,143	758,815	548,621	484,137
	Unfinished	504,848	332,995	530,383	505,462	562,845	700,923	488,934	433,771
	Finished	54,013	30,162	40,235	46,082	47,298	57,892	59,687	50,366

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
3	609 Cleaning and polishing preparations (B) Total Unfinished Finished	25,666 4,748 20,918	22,007 4,071 17,936	35,205 6,513 28,692	36,439 6,741 29,698	49,359 9,131 40,228	61,433 11,365 50,068	55,507 10,269 45,238	47,451 8,778 38,673
Con	613 Explosives (C) Total Unfinished Construction materials	85,668 77,101 8,567	55,754 50,179 5,575	68,133 61,320 6,813	63,826 57,507 6,319	66,192 58,911 7,281	62,953 54,643 8,310	40,269 30,363 9,906	29,045 20,419 8,626
4	619 Ink, writing (B) Total Unfinished Finished	6,172 586 5,586	4,153 395 3,758	5,559 528 5,031	5,310 504 4,806	4,732 450 4,282	4,670 444 4,226	3,542 336 3,206	2,527 240 2,287
1	620 Liquors, vinous (B) Total Unfinished Finished	16,509 5,448 11,061	4,700 1,551 3,149	5,646 1,863 3,783	3,548 1,171 2,377	2,175 718 1,457	2,101 694 1,407	847 280 567	22,205 280 21,925
4	621 Mucilage, paste and other adhesives, except glue and rubber cement (B) Total Unfinished Finished	12,391 5,985 6,406	11,166 5,393 5,773	12,078 5,833 6,245	14,306 6,910 7,396	9,690 5,010 5,010	8,729 4,214 4,515	6,185 2,987 3,198	4,232 2,044 2,188
Con and 12	626 Paints and varnishes (C) Total Unfinished Construction materials Finished	346,168 86,542 225,009 34,617	271,753 67,939 176,639 27,175	412,076 103,019 287,849 41,208	481,313 120,329 312,853 48,131	527,109 131,777 342,621 52,711	574,880 143,720 373,672 57,488	362,064 90,516 235,342 36,206	296,390 74,098 192,653 29,639
3	628 Perfumes, cosmetics and other toilet preparations (B) Total Unfinished Finished	82,084 2,545 79,539	90,756 2,813 87,943	119,237 3,696 115,541	147,393 4,569 142,824	178,474 5,533 172,941	201,689 6,156 195,533	166,257 5,154 161,103	113,439 3,517 109,922
1	630 Salt (C) Total Unfinished Finished	36,163 29,147 7,016	31,965 25,764 6,201	35,511 28,622 6,889	33,020 26,614 6,406	33,093 26,673 6,420	36,487 29,409 7,078	31,574 24,470 7,104	29,156 22,596 6,560
3	631 Soap (B) Total Unfinished Finished	235,800 25,938 209,862	200,801 22,088 178,713	229,582 25,254 204,328	241,875 26,606 215,269	249,219 27,414 221,805	286,757 31,673 255,084	238,062 26,187 211,875	184,521 20,297 164,224
5a	Census Group 7 701 Coke (C) Total Unfinished Finished	251,212 244,573 6,639	142,241 134,804 7,437	363,822 341,118 22,704	253,651 225,873 27,778	247,188 218,142 29,046	256,559 215,002 41,557	138,059 99,310 38,749	101,023 59,137 41,886
5a	703 Coke, for sale (C) Total Unfinished Finished	17,543 17,080 463	17,229 16,328 901	21,533 20,195 1,338	20,721 18,445 2,276	25,514 22,521 2,993	26,868 22,516 4,352	26,673 19,193 7,480	20,754 12,144 8,610
5a	704, 705 Lubricating oils and greases, not made in petroleum refineries: Lubricating oils Lubricating greases	82,119 9,453	48,950 11,655	62,009 14,454	61,808 17,344	54,257 16,083	48,419 18,683	29,084 12,113	28,358

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
5a	704,705 (Continued)								
5a	Petroleum refining:								
	Lubricating oils	196,242	194,609	204,495	252,105	244,629	304,673	197,372	142,656
	Lubricating greases and axle grease	8,146	7,204	7,998	10,361	9,987	14,098	10,153	7,396
5a	Total, oils and greases (C)	295,966	262,618	288,966	341,618	324,616	385,972	248,722	178,410
	Unfinished	248,702	204,790	228,640	257,674	244,121	278,300	186,541	21,203
	Finished	47,258	57,828	60,316	83,944	80,495	107,573	62,181	57,207
5a	Gasoline (C)								
	Total	679,867	840,672	876,732	1,218,236	1,048,471	1,531,242	831,386	764,691
	Unfinished	265,148	327,862	341,925	475,112	335,511	581,872	282,671	256,995
	Finished (C)	414,719	512,810	534,807	743,124	712,960	949,370	548,715	504,696
5a	Fuel oils (C)								
	Total	318,124	377,264	345,666	488,958	456,959	384,680	271,568	256,104
	Unfinished	314,943	373,491	342,209	476,734	442,336	365,398	251,744	228,957
	Finished	3,181	3,773	3,457	12,224	14,623	19,282	19,824	27,147
5a	Coke, petroleum (C)								
	Total	3,928	3,715	4,796	6,437	7,170	5,461	7,182	5,596
	Unfinished	3,824	3,521	4,504	5,729	6,315	4,572	5,155	3,272
	Finished	104	194	292	708	855	889	2,027	2,324
	Census Group 8								
4	802 Rubber erasers and rubber bands (B)								
	Total	2,511	2,145	3,156	2,934	2,500	3,020	1,821	1,445
	Unfinished	615	526	773	719	612	740	446	354
	Finished	1,896	1,619	2,383	2,215	1,888	2,280	1,375	1,091
4	Rubber cement (B)								
	Total		Included with Industry 621						
	Unfinished								
	Finished								
19	Jar rings (B)								
	Total	2,328	1,357	1,994	3,287	3,054	3,001	3,115	1,784
	Unfinished	889	518	762	1,256	1,167	1,146	1,190	681
	Finished	1,439	839	1,232	2,031	1,887	1,855	1,925	1,103
14	Tire sundries and repair materials (C)								
	Total	18,442	10,746	15,792	26,036	24,210	17,168	9,583	7,817
	Unfinished	7,377	4,836	7,896	14,520	13,316	10,301	6,229	5,081
	Finished	11,065	5,910	7,896	11,716	10,894	6,867	3,354	2,736
11	Rubber heels, soles and soiling strips (C)								
	Total	18,559	16,268	28,599	36,476	34,845	28,604	22,017	21,208
	Unfinished	14,847	13,014	21,449	24,439	21,604	18,593	16,513	16,542
	Finished	3,712	3,254	7,150	12,037	13,241	10,011	5,504	4,666
8	Hard rubber goods (other than battery jars, boxes, etc.) (C)								
	Total	16,435	5,708	12,014	13,915	9,029	12,128	5,879	5,673
	Unfinished	11,504	3,996	8,410	9,741	6,320	8,490	4,115	3,976
	Finished	4,931	1,712	3,604	4,174	2,709	3,638	1,764	1,697
14	803 Pneumatic tires, motor-vehicle, except motorcycle (C)								
	Total	685,209	430,688	533,090	774,726	739,070	654,103	358,997	250,464
	Unfinished	151,068	97,571	186,903	218,589	160,450	205,445	74,540	46,481
	Finished	534,141	333,117	346,187	556,137	578,620	448,658	284,457	203,983

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
14	803 (Continued) Pneumatic tires, motorcycle and bicycle (C) Total Unfinished Finished Solid and cushion tires (C) Total Unfinished Finished	14,796 3,270 11,526 52,922 19,994 32,928	4,263 1,256 3,007 15,389 8,441 6,948	5,689 1,563 4,126 30,352 12,739 17,613	3,961 1,273 2,688 45,860 17,545 28,315	3,695 810 2,885 36,768 8,956 27,812	3,634 735 2,899 19,173 5,236 13,937	2,411 461 1,950 5,458 238 5,220	2,302 440 1,862 3,746 165 3,581
8	Census Group 9 906 Misc. leather products (except belts and desk sets, etc.) (C) Total Unfinished Finished	30,189 9,872 20,317	26,747 8,746 18,001	24,394 7,977 16,417	25,647 8,387 17,260	25,342 8,287 17,055	25,266 8,274 16,992	11,335 3,707 7,628	8,024 2,624 5,400
27	Census Group 10 1001, 1644 Brake linings and clutch facings (C) Total Unfinished Finished	17,989 14,558 3,431	11,760 9,451 2,309	19,481 15,394 4,087	22,364 17,664 4,700	24,333 18,466 5,867	28,378 23,553 4,825	16,104 12,868 3,236	12,840 10,108 2,732
Con	1002 Cement (C) Total Unfinished Construction materials containers, lenses, tubing, bulbs, opal ware, etc.) (B) Total Unfinished Finished	138,714 6,483 132,231	187,708 6,283 181,425	264,524 9,546 254,978	298,944 12,951 285,993	293,035 15,803 277,232	266,808 15,865 250,943	149,031 10,426 138,605	87,891 4,329 83,562
19	1008 Pressed and blown glass (except containers, lenses, tubing, bulbs, opal ware, etc.) (B) Total Unfinished Finished	41,494 7,510 33,984	32,679 5,915 26,764	45,324 8,204 37,120	42,275 7,652 34,623	41,146 7,447 33,699	45,217 8,198 37,019	32,877 5,951 26,926	32,459 5,875 26,584
Con	Plate glass, polished (C) Total Unfinished Construction materials polished (C) Total Unfinished Finished	33,348 10,004 23,344	37,261 11,178 26,083	66,103 35,035 31,068	57,207 30,320 26,887	44,258 27,883 16,375	50,192 36,640 13,552	25,765 15,459 10,306	19,466 7,786 11,680
Con	1009 Plate glass, cut, beveled and polished (C) Total Unfinished Construction materials framed and unframed (B) Total Unfinished Finished	2,914 874 2,040	2,259 678 1,581	2,483 1,316 1,167	3,338 1,769 1,560	2,954 1,861 1,093	4,384 3,200 1,184	2,724 1,634 1,090	2,470 988 1,482
12	1016 Mirrors, framed and unframed (B) Total Unfinished Finished	19,077 7,383 11,694	15,406 5,962 9,444	29,234 11,314 17,920	28,036 10,850 17,186	24,527 9,492 15,035	24,733 9,572 15,161	13,871 5,368 8,503	12,553 4,858 7,695
12	1019 Statuary and art goods, factory products (H) Total Unfinished Finished	5,032 3,316 1,716	6,640 4,376 2,264	7,692 5,069 2,623	9,684 6,382 3,302	10,288 6,780 3,508	9,809 6,464 3,345	5,835 3,845 1,990	2,636 1,737 899

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
Con	Census Group 11 1101 Bolts, nuts, washers and rivets, all industries (C) Total Unfinished Construction materials	109,789 74,437 35,352	56,103 38,038 18,065	118,739 80,505 38,234	110,987 75,210 35,777	106,543 71,922 34,621	136,846 95,745 41,101	54,184 30,496 23,688	46,154 26,324 19,830
27	1109 Vehicle hardware other than locks (C) Total Unfinished Finished	34,204 27,557 6,647	23,633 19,016 4,617	42,391 33,633 8,758	44,955 35,917 9,038	50,844 38,765 12,079	61,224 50,670 10,554	31,774 25,302 6,472	26,048 20,402 5,646
Con	1112, 1113 Cut and wrought nails, spikes and tacks, all industries (C) Total Unfinished Construction materials	5,535 3,753 1,782	4,896 3,319 1,577	6,983 4,734 2,249	7,404 5,020 2,384	7,898 5,331 2,567	7,504 5,253 2,251	5,060 2,904 2,156	4,716 2,688 2,028
16 and Con	1119, 1121 Steam and hot-water heating apparatus and unit heaters Warm-air furnaces Stoves, ranges, water heaters Fuel-oil burners (residence type) Other heating and cooking apparatus and supplies Total (C) Finished Construction materials	85,330 34,781 123,607 5,315 9,560 258,593 114,557 144,036	64,089 26,115 92,810 3,991 7,178 194,163 86,014 108,149	115,618 47,125 167,482 7,202 12,954 350,381 155,219 195,162	116,332 47,423 168,526 7,260 13,047 352,588 156,196 196,392	110,155 43,189 168,663 11,502 14,017 347,526 153,954 193,572	88,839 32,580 171,927 21,355 8,730 323,431 143,344 180,087	39,957 18,274 98,206 19,123 8,760 184,320 81,654 102,666	22,229 8,128 73,904 17,873 6,172 128,306 56,840 71,466
Con	1126, 1127 Nails, brads, spikes, tacks and staples, all industries (C) Total Unfinished Construction materials	77,809 52,755 25,054	50,863 34,485 16,378	67,681 45,888 21,793	56,285 38,161 18,124	50,290 33,946 16,344	47,917 33,542 14,375	24,135 13,853 10,282	26,442 15,072 11,370
Con	1128 Wrought pipe, welded, heavy riveted and seamless (C) Total Unfinished Construction materials	320,385 44,534 275,851	209,827 29,166 180,661	369,142 51,311 317,831	359,054 49,909 309,145	397,754 55,394 342,370	455,277 83,417 371,860	200,225 27,697 172,528	120,623 27,858 92,765
27	Census Group 12 1201 Motor-vehicle accessories and parts (C) Total Unfinished Finished	5,030 3,958 1,072	2,923 2,410 513	6,870 5,410 1,460	9,404 7,596 1,808	16,272 12,476 3,796	7,467 6,261 1,206	2,788 2,141 647	7,363 5,724 1,639
Con	1204 Copper, tin and sheet-iron work, incl. galvanized-iron work, n.e.c. (B) Total Unfinished Construction materials	157,092 36,445 120,647	150,718 34,967 115,751	189,326 43,924 145,402	179,760 41,704 138,056	191,179 44,354 146,825	222,485 51,589 170,896	116,443 27,015 89,428	68,807 15,826 52,981
7	1211 Needles, pins, hooks and eyes, and snap fasteners, etc. (B) Total Unfinished Finished	24,694 15,286 9,408	18,701 11,576 7,125	19,449 12,039 7,410	17,025 10,538 6,487	19,525 12,086 7,439	20,426 7,773	18,561 11,489 7,072	20,755 12,847 7,908

Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
27	1219 Stamped automotive parts and accessories (C) Total Unfinished Finished	36,841 29,551 7,290	26,073 20,943 5,130	44,092 35,042 9,050	42,319 33,842 8,677	36,553 27,580 8,973	56,985 47,034 9,951	25,888 20,495 5,393	38,516 30,320 8,196
6b	Census Group 13 1303 Incandescent-filament lamps (C) Total Unfinished Finished	57,647 37,471 20,176	59,728 38,823 20,905	71,966 46,778 25,188	73,558 47,813 25,745	87,933 57,156 30,777	85,320 55,458 29,862	70,502 44,064 26,438	49,849 31,156 18,693
16 and Con	Domestic ranges, 2½ kw. and over (C) Total Construction materials Finished	2,954 1,309 1,645	1,540 682 858	3,154 1,397 1,757	6,777 3,002 3,775	11,135 4,933 6,202	15,514 6,876 8,638	9,008 3,991 5,017	3,898 1,727 2,171
21	Water heaters for permanent installation (C) Total Construction materials Finished	376 167 209	367 163 204	406 180 226	769 341 428	953 422 531	1,640 1,727 913	1,106 490 616	432 191 241
21	Loud speakers (C) Total Unfinished Finished	no data	no data	5,608 1,122 4,486	18,956 5,887 13,269	18,839 8,101 10,738	30,551 23,219 7,332	4,648 4,555 93	3,002 2,942 60
21	Transformers (C) Total Unfinished Finished	832 376 456	1,098 496 602	9,824 4,440 5,384	1,860 558 1,302	690 297 393	1,042 792 250	no data	no data
21	Radio tubes (C) Total Unfinished Finished	832 376 456	1,098 496 602	9,824 4,440 5,384	23,015 10,403 12,612	22,163 10,018 12,145	82,013 37,070 44,943	29,335 13,264 16,071	27,319 9,345 17,974
21	Misc. radio parts and accessories and transformers (C) Total Unfinished Finished	no data	no data	24,322 4,864 19,458	28,789 8,637 20,152	48,779 20,975 27,804	51,472 39,119 12,353	21,649 21,216 433	12,177 11,933 244
27	Generators: automotive generators for battery charging and automotive starter-motors (C) Total Unfinished Finished	36,663 29,587 7,076	27,443 22,056 5,387	54,007 42,913 11,094	56,221 44,652 11,569	58,128 43,979 14,149	61,059 50,505 10,554	23,628 18,666 4,962	16,811 13,168 13,643
27	Ignition apparatus for internal-combustion engines (C) Total Unfinished Finished	51,287 23,037 28,250	20,589 9,344 11,245	31,831 14,109 17,722	41,854 19,031 22,823	36,431 16,215 20,216	58,627 25,787 32,840	27,894 12,982 14,912	23,432 11,272 12,160
27	Storage batteries (C) Total Unfinished Finished	56,648 25,208 31,440	43,242 18,812 24,430	66,922 28,042 38,880	88,870 36,809 52,061	79,674 34,268 45,406	105,720 44,022 61,698	63,435 26,978 36,457	51,217 20,655 30,562



Table I-3 (Continued)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
27	Census Group 14 1407 Motor-vehicle bodies and parts (C) Total Unfinished Finished	965,628	566,141	1,254,178	1,589,496	1,241,629	1,524,739	942,650	745,843
		776,731	455,839	996,679	1,263,749	941,387	1,260,274	747,633	585,561
		188,897	110,302	257,499	325,747	300,242	284,465	195,017	160,282
28	1409 Motorcycle and bicycle parts (C) Total Unfinished Finished	15,789	7,135	9,241	7,017	4,948	6,958	4,146	3,648
		6,631	2,997	3,881	2,947	2,078	2,925	1,741	1,532
		9,158	4,138	5,360	4,070	2,870	4,033	2,405	2,116
7	Census Group 16 1601 Artificial and preserved flowers and plants (B) Total Unfinished Finished	15,864	13,943	19,316	18,413	19,518	14,629	8,776	6,258
		3,966	3,486	4,829	4,603	4,880	3,653	2,194	1,564
		11,898	10,457	14,487	13,810	14,638	10,976	6,582	4,694
4	1603 Artists' materials (B) Total Unfinished Finished	6,348	6,858	8,555	11,734	8,702	9,462	6,127	5,219
		698	754	941	1,291	957	1,041	674	579
		5,650	6,104	7,614	10,443	7,745	8,421	5,453	4,640
7	1606 Buttons (B) Total Unfinished Finished	35,704	23,936	27,690	27,880	24,884	24,215	17,750	19,131
		32,491	21,782	25,198	25,371	22,644	22,036	16,152	17,409
		3,213	2,154	2,492	2,509	2,240	2,179	1,598	1,722
23	1612 Rhinestone ornaments (C) Total Unfinished Finished	1,481	1,226	1,491	1,481	2,002	2,110	1,374	1,020
		820	547	826	820	1,109	1,169	761	565
		661	679	665	661	893	941	613	455
7	Fancy and misc. articles, n.e.c., except cigar lighters, greeting cards, rhinestone ornaments and lampshades (C) Total Unfinished Finished	45,300	37,940	45,611	45,298	61,216	64,668	42,030	31,179
		9,196	7,702	9,259	9,195	12,427	13,097	8,532	6,329
		36,104	30,238	36,352	36,103	48,789	51,571	33,498	24,850
7	1613 Feathers, plumes and manufactures thereof (B) Total Unfinished Finished	15,857	9,256	8,258	4,320	1,439	1,146	1,986	873
		10,244	5,979	5,335	2,791	930	740	1,283	564
		5,613	3,277	2,923	1,529	509	406	703	309
7	1617 Hair work (B) Total Unfinished Finished	6,851	10,984	11,250	6,328	2,253	1,825	1,230	1,024
		843	1,351	1,384	778	277	224	151	126
		6,008	9,633	9,866	5,550	1,976	1,601	1,079	898
41	1620 Instruments, professional and scientific (C) Total Unfinished Finished	56,663	40,888	60,201	74,167	84,327	83,810	35,787	22,227
		13,259	9,568	14,087	17,355	19,733	19,612	8,374	5,201
		43,404	31,320	46,114	56,812	64,594	64,198	27,413	17,026
23	1623 Lapidary work (C) Total Unfinished Finished	29,660	4,316	9,010	9,990	12,325	11,928	2,510	835
		28,325	4,122	8,605	9,540	11,770	11,397	2,397	797
		1,335	194	405	450	555	537	113	38

Table I-3 (Concluded)

Minor Commodity Group Number	Industry Number and Commodity	1919	1921	1923	1925	1927	1929	1931	1933
4	1633 Pencils, lead (incl. mechanical) Total Unfinished Finished	18,496 4,532 13,964	16,529 4,050 12,479	19,747 4,838 14,909	20,519 5,027 15,492	21,441 5,253 16,188	24,476 5,997 18,479	16,861 4,131 12,730	13,975 3,424 10,551
4	1634 Pens, fountain and stylographic; pen points, gold, steel and brass (B) Total Unfinished Finished	18,819 753 18,066	14,913 597 14,316	23,709 948 22,761	26,455 1,058 25,397	21,779 871 20,908	29,235 1,169 28,066	17,806 712 17,094	8,675 347 8,328
22	1635 Phonographs and parts, not re- ported in detail (C) Total Unfinished Finished	7,173 509 6,664	1,402 74 1,328	1,302 1,103 1,199	3,599 173 3,426	3,092 235 2,857		none reported	
6b	1636 Films, slides, sensitized cloth and paper (C) Total Unfinished Finished	70,462 52,846 17,616	56,613 42,460 14,153	57,275 42,956 14,319	61,940 46,455 15,485	71,953 53,965 17,988	81,458 61,094 20,364	62,359 46,769 15,590	42,260 31,695 10,565
4	1643 Stationery goods, n.e.c. (B) Total Unfinished Finished	61,565 15,083 46,482	66,520 16,297 50,223	81,699 20,016 61,683	71,757 17,580 54,177	60,935 14,929 46,006	75,853 18,552 57,301	53,120 13,014 40,106	15,978 3,915 12,063
12	1651 Window shades and fixtures (B) Total Unfinished Finished	26,456 1,852 24,604	26,538 1,858 24,680	43,364 3,035 40,329	39,104 2,737 36,367	36,558 2,559 33,999	38,452 2,692 35,760	20,676 1,447 19,229	16,267 1,139 15,128

PART I

Note A to Table I—3

ALLOCATION OF MIXED COMMODITIES BASED ON CENSUS REPORTS OF MATERIALS CONSUMED IN MANUFACTURING

The following commodities were apportioned on the basis of the amount estimated as consumed in manufacturing establishments, that amount of course representing unfinished: butter; condensed and evaporated milk; powdered milk, etc.; flavoring extracts and sirups; flour; shortenings (except lard) and vegetable cooking oils; lard; sugar; baking powder, yeast, etc.

The adequacy of the method is dependent on the reliability of tables appearing in the *Census of Manufactures, 1929* which show for various industries the value of principal materials consumed. The figures given for each industry represent at least 50 per cent of the industry in terms of value of products (usually covering between 75 and 95 per cent). Consequently they had to be raised in order to provide complete coverage, on the assumption that the part of an industry not

reporting materials consumed consumes them in the same relative proportion to value of products as the rest of the industry.

After the necessary adjustments for a complete coverage had been made the values for specific materials were estimated for the years prior to 1929 on the basis of the average of 1929 and 1931 relationships (if both were available) to total cost of materials. For 1933, the 1931 apportionment was used.

It is highly probable that the estimates of unfinished as calculated by the above method represent minima, since not all industries using specified materials report them as such even in 1929.

Table A—1 indicates the consumption of specified materials by industries in which it could be estimated.

Table A-1

## SELECTED MATERIALS CONSUMED IN VARIOUS INDUSTRIES

(thousands of dollars)

	1919	1921	1923	1925	1927	1929	Percentage Distribution 1929	1931	Percentage Distribution 1931	1933
101 Beverages <sup>1</sup>										
Total cost of materials, incl. fuel and containers	68,599	116,102	99,572	98,466	95,430	103,026		76,045		41,873
Cost of specified materials:										
Sugar	9,083	15,372	13,183	13,037	12,635	14,633	14.20	9,337	12.28	5,142
Corn sirup	6,672	11,138	9,976	9,665	9,335	1,055	1.02	7,719	.95	398
Flavoring extract and coloring	18,343	31,046	26,626	26,330	25,518	19,358	18.79	26,378	34.69	14,526
Malt extract	343	581	498	492	477	541	.53	355	.47	197
102 Bread and other bakery products <sup>1</sup>										
Total cost of materials, incl. fuel and containers	713,239	598,614	574,521	688,016	693,236	737,100		505,477		428,465
Cost of specified materials:										
Flour (all kinds)	283,898	238,608	229,004	274,243	276,324	305,969	41.51	193,200	38.22	163,759
Sugar	60,768	51,002	48,949	58,619	59,064	58,041	7.87	46,320	9.16	39,247
Butter	17,118	14,367	13,789	16,512	16,638	17,827	2.39	12,171	2.41	10,326
Lard	32,524	27,297	26,198	31,374	31,612	34,083	4.62	22,812	4.51	19,324
Lard substitutes and other shortenings	35,474	29,811	28,611	34,263	34,523	35,590	4.83	25,952	5.13	21,980
Condensed and evaporated milk	13,837	11,613	11,146	13,348	13,449	14,892	2.02	9,358	1.85	7,927
Powdered milk	7,917	6,645	6,377	7,637	7,695	8,176	1.11	5,607	1.11	4,756
Yeast	25,677	21,550	20,683	24,769	24,956	22,141	3.00	21,212	4.20	17,996
105 Canning and preserving: Fruits and vegetables, etc. <sup>1</sup>										
Total cost of materials, incl. fuel and containers	358,666	237,682	298,969	385,573	355,186	462,062		322,005		268,420
Cost of specified materials:										
Sugar	22,022	14,594	15,357	23,674	21,808	27,354	5.92	20,527	6.37	17,098
108 Chewing gum <sup>1</sup>										
Total cost of materials, incl. fuel and containers	25,202	19,908	15,487	17,968	27,168	23,231		16,824		12,599
Cost of specified materials:										
Sugar	3,314	2,618	2,037	2,363	3,573	3,090	13.30	2,187	13.00	1,638
Corn sirup	587	464	361	419	633	609	2.62	344	2.04	257
Flavoring extracts	199	157	122	142	215	286	1.23	59	.35	44

Note A to Table I-3 (Concluded)  
Table A-1 (Concluded)

	1919	1921	1923	1925	1927	1929	Percentage Distribution 1929	1931	Percentage Distribution 1931	1933
109 Chocolate and cocoa products <sup>1</sup>	101,754	49,134	60,843	73,522	90,423	79,549		50,045		41,572
Total cost of materials, incl. fuel and containers	13,208	6,378	7,897	9,543	11,737	8,892	11.18	7,395	12.98	5,396
Cost of specified materials:	2,483	1,199	1,485	1,794	2,206	1,618	2.03	1,422	2.84	1,181
Sugar	1,801	870	1,077	1,501	1,600	1,529	1.92	811	1.62	673
Evaporated, condensed and powdered milk <sup>2</sup>										
Butter										
112 Confectionery <sup>1</sup>	252,434	174,072	202,719	205,433	218,373	215,192		144,748		114,164
Total cost of materials, incl. fuel and containers	50,537	34,849	40,584	41,128	43,718	41,767	19.41	29,869	20.64	23,563
Cost of specified materials:	18,756	12,934	15,062	15,264	16,225	16,501	7.67	10,404	7.19	8,208
Sugar	1,918	1,323	1,541	1,561	1,660	1,554	.72	1,141	.79	902
Corn sirup										
Flavoring extracts										
115 Flavoring extracts and sirups <sup>1</sup>	50,417	45,349	38,177	47,064	51,091	55,118		48,575		20,333
Total cost of materials, incl. fuel and containers	11,424	10,276	8,651	10,665	11,577	12,760	22.98	10,855	22.35	4,544
Cost of specified materials:	908	816	687	847	920	804	1.45	1,039	2.14	435
Sugar										
Corn sugar										
118 Ice Cream <sup>1</sup>	116,375	121,170	145,307	140,864	150,602	155,964		110,504		66,315
Total cost of materials, incl. fuel and containers	1,117	1,163	1,395	1,352	1,446	2,219	1.42	567	.51	338
Cost of specified materials:	8,961	9,330	11,189	10,847	11,596	15,129	9.70	6,301	5.70	3,780
Powdered milk	7,460	7,767	9,314	9,029	9,654	10,877	6.97	6,460	5.85	3,879
Evaporated and condensed milk	4,096	4,265	5,115	4,958	5,301	5,490		3,889		2,334
Sugar	8,984	9,354	11,218	10,875	11,626	12,040		8,532		5,120
Creamery butter										
Flavors										
121 Macaroni, spaghetti, etc. <sup>1</sup>	25,110	19,964	16,646	27,491	27,434	27,336		20,311		20,365
Total cost of materials, incl. fuel and containers	17,848	14,190	11,832	19,541	19,500	19,430	71.08	14,437		14,490
Cost of specified materials:										
Flour										

<sup>1</sup> The data as reported were raised to cover the entire industry on the basis of the percentage of the industry that they represented:

	1929	1931
101 Beverages	76.0	94.2
102 Bread and other bakery products	90.8	85.3
105 Canning and preserving, fruits and vegetables, etc.	78.8	67.6
108 Chewing gum	100.0	100.0
109 Chocolate and cocoa products	97.3	100.0
112 Confectionery		1929
115 Flavoring extracts and sirups		92.9
118 Ice cream		93.0
121 Macaroni, spaghetti, etc.		65.9
		96.9
		no data

# CLASSIFICATION OF MANUFACTURED COMMODITIES

## Note B to Table I—3

### ALLOCATION OF MIXED COMMODITIES BASED ON DISTRIBUTION OF SALES FOR 1929

The method involves the use of *Distribution of Sales of Manufacturing Plants* and the *U. S. Summary of Wholesale Distribution* for 1929. From the former, percentage sales by industries and parts of industries to wholesalers and direct to industrial consumers were obtained; from the latter were derived the percentage sales by wholesalers to industrial consumers.

In most instances percentage sales by wholesalers to industrial consumers were taken from Table 3 of the *U. S. Summary*, which provides distribution of sales data for all types of wholesaler. The general procedure included these steps:

- a. The grouping selected was that most comparable with the commodity being analyzed.
- b. Total wholesale sales as reported in Table 3 were adjusted to eliminate duplication (i.e., sales of agents, brokers, etc.) by use of the percentage duplication indicated by comparable commodity group sales as estimated from Table 13 of the *U. S. Summary*.
- c. Sales to industrial consumers as reported in Table 3 were then expressed as a percentage of *adjusted* total sales.
- d. This percentage was then applied to sales to wholesalers, as previously determined from *Distribution of Sales of Manufacturing Plants*.

e. Total sales to industrial consumers were then obtained by addition and the resultant figure or percentage assumed to represent unfinished for 1929.

f. The 1929 relationship was then used for all remaining years.

As an alternative procedure (used primarily in textiles, in which manufacturers' sales to agents, etc. are large, and/or sales to manufacturers' wholesale branches are small) data were taken from Table 2 of the *U. S. Summary*, which presents sales distribution data for wholesalers only. The steps then followed were similar to those outlined above, except that no adjustments for duplication were necessary.

When no comparable data were available in the *Wholesale Census* the percentages were taken from the *Distribution of Sales of Manufacturing Plants* directly. In such cases entries were not made in column (2).

Table B—1 presents the percentage apportionments for those industries in which any variation of the *Distribution of Sales* method was utilized. It should be remembered that the method results in the *inclusion of all exports* under finished. An asterisk (\*) indicates the use of Table 2 of the *Wholesale Census*.

## PART I

Table B—1

## PERCENTAGE OF SALES TO VARIOUS CHANNELS, 1929

(Entries in columns (1), (2), (4), and (5) are percentages of sales by manufacturing plants; entries in column (3) are percentages of sales by wholesalers)

INDUS- TRY NUM- BER	COMMODITY	FROM DISTRIBUTION OF SALES OF MANUFACTURING PLANTS		FROM WHOLESALE CENSUS		
		DIRECT TO INDUSTRIAL CONSUMERS (1)	TO WHOLE- SALERS (2)	SALES BY WHOLE- SALERS TO INDUSTRIAL CONSUMERS (3)	SALES TO INDUSTRIAL CONSUMERS THROUGH WHOLE- SALERS (2) × (3) (4)	TOTAL SALES TO INDUSTRIAL CONSUMERS (1) + (4) (5)
107	Cheese	8.1	..	no data		8.1
113	Corn sirup, sugar, oil and starch <sup>1</sup>	43.8	..	no data		43.8
117	Food preparations, n.e.c.	11.7	..	no data		11.7
121	Macaroni, spaghetti, etc.	6.7	..	no data		6.7
124	Oleomargarine	2.3	..	no data		2.3
125	Peanuts, walnuts, etc.	7.6	..	no data		7.6
132	Vinegar and cider	10.6	..	no data		10.6
122	Malt <sup>1</sup>	53.8	..	no data		53.8
203	Awnings, tents, etc.	65.6	14.4	2.5*	4	66.0
216	Osnaburgs, sheetings, drills and ticking	31.2	68.5	41.9*	28.7	62.9 <sup>2</sup>
	Denims, napped fabrics, etc.	38.4	61.6	41.9*	25.8	64.2
	Print cloth, lawns, etc.	38.3	61.5	41.9*	25.8	64.1
	Thread and yarns	46.3	50.9	67.9*	34.6	82.3 <sup>2</sup>
	Plushes, velvets, etc.	61.2	33.6	41.9*	14.1	75.3
	Other cotton products	35.4	59.2	41.9	24.8	60.2
	Cotton goods made in other industries	(same percentages used as for other cotton products)				
	Cotton tapestries	38.3	45.6	3.5*	1.6	39.9
217	Cotton small wares	51.1	41.1	32.0*	13.2	64.3
219	Embroideries	22.6	53.0	47.7	25.3	47.9
234	Knit cloth	41.0	48.3	42.2*	20.4	61.4
	Other knit goods	8.0	56.6	.7	4	8.4
235	Lace goods	18.3	81.7	47.7	39.0	57.3
236	Linen woven goods and thread	38.3	61.5	5.4	3.3	41.6
313	Mirror and picture frames	4.9	32.5	3.0	1.0	5.9
401, 2, 3, 4, 5,						
6, 8	Converted paper products	57.7	33.8	48.5	16.4	74.1
407	Writing paper	25.4	72.8	7.2	5.2	30.6
501	Bookbinding and blank-book making	66.9	20.2	7.2	1.5	68.4
601	Alcohol, ethyl and distilled liquors	56.8 <sup>3</sup>	36.9 <sup>3</sup>	1.6	.6	57.4
605	Bluing	(same percentages as for soap, Industry 631)				
607	Candles	59.5	..	no data		59.5
604	Blackening, stains, etc.	23.8	..	no data		23.8
608	Chemicals, n.e.c. <sup>1</sup>	61.7	36.6	83.8	30.7	92.4
609	Cleaning and polishing preparations	18.5	..	no data		18.5
619	Ink, writing	5.4	57.1	7.2	4.1	9.5
620	Liquors, vinous <sup>1</sup>	29.2	66.3	5.8	3.8	33.0
621	Mucilage, paste, etc.	45.2	42.7	7.2	3.1	48.3
631	Soap	7.6	78.3	4.4	3.4	11.0
628	Perfumes, cosmetics, etc.	1.2	47.5	3.9	1.9	3.1
802	Rubber erasers and rubber bands	(same percentages as for stationery goods, Industry 1643)				
	Rubber cement	(same percentages as for mucilages, etc., Industry 621)				
	Jar rings	38.2	..	no data		38.2
1008	Pressed and blown glassware (except containers, etc.)	15.2	58.6	5.0*	2.9	18.1
1016	Mirrors	37.7	38.5	2.5	1.0	38.7
1019	Statuary and art goods	65.9	..	no data		65.9
1204	Copper, tin and sheet-iron work	23.2	..	no data		23.2
1211	Needles, pins, hooks and eyes, etc.	51.8	31.7	32.0*	10.1	61.9
1303	Ignition apparatus <sup>4</sup>	19.9	67.6	28.2	19.1	39.0
	Storage batteries <sup>4</sup>	16.7	63.5	34.1 <sup>3</sup>	21.7	38.4
1601	Artificial and preserved flowers and plants	21.5	39.9	8.7*	3.5	25.0

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Table B-1 (continued)

INDUS- TRY NUM- BER	COMMODITY	FROM DISTRIBUTION OF SALES OF MANUFACTURING PLANTS		FROM WHOLESALE CENSUS		
		DIRECT TO INDUSTRIAL CONSUMERS	TO WHOLE-SALERS	SALES BY WHOLE-INDUSTRIAL SALERS TO CONSUMERS	SALES TO INDUSTRIAL CONSUMERS	
					THROUGH WHOLE-SALERS	TOTAL SALES TO INDUSTRIAL CONSUMERS
(1)	(2)	(3)	(2) X (3) (4)	(1) + (4) (5)		
1603	Artists' materials	11.1	..	no data		11.1
1606	Buttons	62.2	37.8	76.3	28.8	91.0
1613	Feathers, plumes, etc.	63.1	4.5	32.6*	1.5	64.6
1617	Hairwork	12.3		no data		12.3
1633	Pencils, lead	(same percentages as for stationery goods, Industry 1643)				
1634	Pens and pen points	2.3	23.6	7.2	1.7	4.0
1643	Stationery goods, n.e.c.	21.7	38.3	7.2	2.8	24.5
1651	Window shades	6.2	31.5	2.5	.8	7.0

<sup>1</sup> See special reference to this industry in Note C; 1929 percentage not used for all other Census years.

<sup>2</sup> See Note C for this commodity group; allowance made for interplant transfers.

<sup>3</sup> Unpublished Census data.

<sup>4</sup> After the apportionment, the values for exports were transferred from finished to unfinished. Thus, the percentages here given do not indicate the final breakdown.

Note C to Table I-3

SPECIFIC INFORMATION ON THE ALLOCATION OF MIXED COMMODITIES

110—Spices, ground:

The allocation of spices into unfinished and finished was accomplished by using a variation of the Distribution of Sales method. In 1929, 3.2 per cent of the sales of the total coffee and spices industry was direct to industrial consumers. It was assumed that this 3.2 per cent was composed entirely of spices, the figure thus derived being considered to represent unfinished spices (no wholesale data being available). For the years other than 1929 the 1929 percentage was used.

113—Corn sirup, sugar, oil, and starch:

The 1929 figure for unfinished obtained from Distribution of Sales was extrapolated by means of an index of corn sirup, etc., consumed in four industries: beverages, flavoring extracts, chewing gum and confectionery (for data see Note A to Table I-3). The index thus derived was: 1919, 110.3; 1921, 80.9; 1923, 90.1; 1925, 92.2; 1927, 98.7; 1929, 100.0; 1931, 65.9; 1933, 49.0.

119—Ice, manufactured:

From an unpublished tabulation of the Bureau of the Census for 1929 it was found that 55.4 per cent of manufactured ice was sold either to retailers or directly to household consumers. The approximate correctness of this percentage was verified by correspondence with the National Association of Ice Industries.

122—Malt:

It was assumed that malt was used entirely for industrial purposes in 1919 and 1933 because of the legal existence of the malt beverages industry in these years.

218—Dyeing and finishing textiles:

The commodity total for the industry was apportioned in all years on the basis of data obtained in 1929. In that year, the value of contract work was reported in Table 3, *Distribution of Sales of Manufacturing Plants*, while an estimated value for sheets was obtained from the Bureau of the Census. The percentages indicated were 3.22 for sheets, 52.34 for contract work, and 44.44 for the rest of the industry. For the allocation of the rest of the industry a variation of the Distribution of Sales method was used. The sales ratios reported in Table 1, *Distribu-*

*tion of Sales*, were applied to a total including the entire industry except contract work. These showed 53.8 per cent direct to industrial consumers and 40.5 per cent to wholesalers. Sales to wholesalers were further allocated by utilizing the percentage of piece goods (the classification most comparable to dyeing and finishing) sold by wholesalers to industrial consumers. As indicated in Table 2, *U. S. Summary of Wholesale Distribution*, this amounted to 48.7 per cent and was thus applied to sales to wholesalers. Total unfinished and total finished were then obtained but from finished was subtracted the value of sheets, as previously computed. The final percentages thus derived (after the exclusion of sheets) showed 78.9 for unfinished and 21.1 for finished. These percentages were applied to the values estimated for the rest of the industry in all the other years.

244—Silk and rayon products:

For 1919 through 1927 the breakdown was made primarily on the basis of data for 1924 appearing in *Distribution of Textiles, Bulletin No. 56*, Harvard Bureau of Business Research, Table 21, p. 96. This table provided data on the distribution of sales of various types of silk goods (in total quantities billed as reported by silk manufacturers) and is summarized below.

TYPE OF PURCHASER	BROAD SILKS, VELVETS, UPHOLSTERIES AND TAPESTRIES	RIBBONS, HAT BANDS, BRAIDS AND BINDING	THREADS <sup>1</sup>
	(percentages)		
Cutters-up and other manufacturers	44	60	35
Wholesalers and jobbers, incl. export trade	32	20	14
Department stores and all other retailers	24	20	51

<sup>1</sup> Includes machine twists, sewing, embroidery, etc.

In order to derive percentages representing total unfinished the share sold to wholesalers and jobbers, including export



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trade, had to be apportioned. This was done on the basis of data taken from the *Census of Wholesale Distribution* in 1929. Table 2 of the U. S. Summary indicated that 66.5 per cent of silk and velvet piece goods were sold by wholesalers to industrial consumers. Lack of more satisfactory data necessitated the application of this percentage to sales to wholesalers of all the commodities treated in the above table. Thus it was indicated that the percentages of billings representing total unfinished were as follows:

Broad silks, etc.	65 (44 + 66.5 of 32)
Ribbons, etc.	73 (60 + 66.5 of 20)
Threads	44 (35 + 66.5 of 14)

All the commodities not included above—yarns, fringes and gimps, silk warps and minor silk products—were considered completely unfinished. The percentages were then applied to the respective value figures in the various Census years, the resultant amounts being totaled and subtracted from the commodity total for the industry in order to derive figures representing finished.

In 1929, after a correction for inventory change (on the basis of the inventory decrease shown in Table 3 of *Distribution of Sales*) the usual *Distribution of Sales* procedure was followed. The sales ratios derived for silk and rayon manufactures from Table 1, *Distribution of Sales*, were 59.9 per cent to wholesalers and 33.2 per cent direct to industrial consumers after the inclusion of interplant transfers. Sales to wholesalers were further allocated by utilizing the percentage of sales of piece goods, rayons and piece goods, silks and velvets by wholesalers to industrial consumers. As indicated in Table 2 of the *U. S. Summary of Wholesale Distribution* this percentage was 66.2 and it was applied to sales to wholesalers as previously determined. Total unfinished and consequently total finished were then obtained.

In 1931 and 1933 the same procedure as in the years prior to 1929 was followed except that the broad goods percentage was changed. This change was based on Table 29, p. 52, of *Production and Distribution of Silk and Rayon Broad Goods*, Textile Foundation and National Federation of Textiles, New York, 1935. Of total distribution of broad goods and prints 7 per cent was sold to wholesalers and 70 per cent to cutters-up (industrial consumers). When industrial sales of wholesalers were estimated as previously total industrial sales were indicated to be 75 per cent. This percentage, together with the previously estimated percentages for ribbons, etc. and threads, was applied to the respective Census figures for 1931 and 1933.

249, 253—Woolen and worsted woven goods except blankets: Distribution ratios were derived from data on woolen and worsted billings for 1924 as given in *Distribution of Textiles*. After subtracting all billings of blankets and horse blankets, the following percentages were computed from Table 12, p. 62 of that volume.

To cutters-up and other manufacturers	76
To wholesalers including export trade	21
To retailers	3

Sales to wholesalers were further allocated by using the percentage of piece goods, woolens and worsted sold by wholesalers to industrial consumers. As indicated in Table 2, *U. S. Summary of Wholesale Distribution*, the amount so sold was 47.8 per cent and this percentage was then applied to sales to wholesalers. Thus total unfinished was 86 per cent (76 per cent + 47.8 per cent of 21 per cent).

This percentage was then applied to all the Census totals. *Distribution of Sales* data were not used in 1929 because of the confusion on the part of the reporting manufacturers, of cutters-up and wholesalers.

Woolen and worsted yarns for sale:

The apportionment of yarns between unfinished and finished represents a rough approximation based on data relating to the

production of hand knitting worsted yarns as revealed in *Analysis of Production of Worsted Sales Yarn*, Research Studies VII, Industrial Research Department, University of Pennsylvania. The allocation in 1931 and 1933 is little more than a guess based on an approximate allowance for the apparent increase in home knitting in these years.

311—Lumber and timber products:

Commodity totals were obtained by removing the value of planing mill products made in the industry and the value of other products not belonging to the industry. From these commodity totals were subtracted the estimated values for firewood, pulpwood and lath. The values for firewood and pulpwood were estimated on the basis of 1929 percentages. In that year firewood as reported was .15 per cent of the commodity total, and pulpwood was 1.03 per cent. The values for lath were derived by multiplying the quantities produced by respective average prices. Both quantities and prices are reported in the various volumes of the Census.

Upon the subtraction of the figures for firewood, pulpwood and lath, values representing all other lumber and timber products remained. These were apportioned between unfinished and construction materials by the following procedure. In 1928 the quantity of lumber consumed in manufacture (excluding planing mill products and sash, doors, blinds and general mill work) was 10,317,421 M.ft. b.m.<sup>1</sup> After adjustment to include boxes, baskets, crates, patterns and flasks consumed in non-wood industries on the basis of 1933 ratios<sup>2</sup> the amount of lumber used in manufacture was raised to 11,530,138 M.ft. b.m. This total was moved for the various Census years except 1933 by means of an index of total lumber production derived from data given in the *Census of Manufactures*. The quantities thus obtained for the Census years were multiplied by the respective average price per M. bd. ft. of lumber at the mill (also reported in the *Census*). The following table shows the estimated quantities of lumber consumed in manufacture and the resultant estimated values.

	QUANTITY OF LUMBER CONSUMED (M.Bd.Ft.)	AVERAGE PRICE, ALL LUMBER (dollars per M.Bd.Ft.)	ESTIMATED VALUE OF LUMBER CONSUMED IN MANUFACTURE (thousands of dollars)
1919	11,668,500	30.21	352,505
1921	10,123,461	23.47	237,598
1923	12,556,320	31.78	399,040
1925	12,948,345	28.02	362,813
1927	11,656,970	25.80	300,750
1929	12,452,549	26.94	335,472
1931	5,580,587	18.56	100,576
1933	5,105,753 <sup>1</sup>	18.55	94,712

<sup>1</sup> Taken from *Lumber Used in Manufactures, 1933*, Table 1, passim, the amount used for flooring, sash, frames, doors, etc., having been subtracted from the total.

All data relating to planing mills having been removed from the preceding estimates, it was necessary to estimate the value of lumber consumed in independent planing mills. In 1929, 4,860,857 M.bd.ft. of lumber was reported in the *Census* as being consumed by independent planing mills whose aggregate production value represented 72.7 per cent of the total value of production for the industry. Raised to cover the entire industry, the quantity consumption figure becomes 6,686,186 M.bd.ft. When multiplied by the average lumber price at mill for 1929, \$26.94 per M.bd.ft. this quantity becomes in terms of value \$180,126 thousand. The following table indicates the values as estimated for the *Census* years on the basis of an index of the total cost of materials in the planing mill products industry.

<sup>1</sup> *Lumber Used in Manufacture, 1928*, U. S. Dept. of Agriculture Forest Service, Table 1, passim.

<sup>2</sup> *Ibid.*, 1933, Table 1, passim.

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	1919	1921	1923	1925	1927	1929	1931	1933
Value of lumber consumed in independent planing mills (thousands of dollars)						180,126		
Index of cost of materials used in independent planing mills	101.1	91.9	135.5	136.2	108.6	100.0	42.5	22.9
Estimated value of materials used in independent planing mills (thousands of dollars)	182,107	165,536	244,071	245,332	195,617	180,126	76,554	41,249

There remains one further set of estimates relating to lumber consumption, i.e., the amount purchased by the wood preserving industry. In 1933, 1931, 1929 and 1927 it was possible to obtain for contract work in this industry the value of products before and after treatment. In 1933 the value of products before treatment was 64.0 per cent of the value after treatment, in 1931, 67.7 per cent, in 1929, 68.1 per cent, and in 1927, 63.2 per cent. These percentages were applied to the total value of products (excluding contract work) for the respective years; for the years prior to 1927 the 1927 percentage was used. The resultant estimates of

lumber purchased by the wood preserving industry in thousands of dollars were:

1919	1921	1923	1925
21,161	30,024	44,956	57,647
1927	1929	1931	1933
71,721	79,628	42,329	19,797

Combination of the above figures for various types of lumber consumption made possible the apportionment of all other lumber and timber products between unfinished and construction materials. This apportionment is given in the following table:

	1919	1921	1923	1925	1927	1929	1931	1933
				(thousands of dollars)				
1. Total value of all other lumber and timber products	972,375	525,165	924,280	840,520	658,627	755,990	268,844	211,974
2. Unfinished (amount used in all manufacturing industries) <sup>1</sup>	555,773	433,158	688,067	665,792	568,088	595,226	222,459	155,758
3. Construction materials (incl. all exports), line (1) — line (2)	416,602	92,007	236,213	174,728	90,539	160,764	46,385	56,216

<sup>1</sup> This includes lumber consumed in manufacture, in independent planing mills and in the wood preserving industry.

608—Chemicals, n.e.c.:

The figure for finished secured for 1929 by use of Distribution of Sales, was extrapolated for the other Census years by means of an index of the values of sodium bicarbonate (refined), chloroform, hydrogen peroxide and finished coal-tar medicinals. Data for the first three items were available in the Census, for the fourth the Tariff Commission's *Census of Dyes and Other Synthetic Organic Chemicals* (1927, pp. 6-8; 1929, pp. 6-7; 1933, p. 3) was used. The index thus derived was: 1919, 93.3; 1921, 52.1; 1923, 69.5; 1925, 79.6; 1927, 81.7; 1929, 100.0; 1931, 103.1; 1933, 87.0.

613—Explosives:

From *Technical Paper 540*, pp. 21-22, and *Report of Investigations 325*, p. 5, both publications of the Bureau of Mines, the following percentages of explosives (in terms of quantity) used in railroad and other construction work were derived: 1933, 29.7; 1931, 24.6; 1929, 13.2; 1927, 11.0; 1925, 9.9. These data were assumed to be representative of value relationships and were thus employed to estimate the values for explosives used as construction materials. Prior to 1925, 10%, an approximation based on the 1925 relationship, was used.

620—Liquors, vinous:

It was arbitrarily assumed that, because of the repeal of prohibition in 1933, the value of unfinished was the same as in 1931, and that the rest of the industry was finished.

626—Paints and varnishes:

The apportionment of paints and varnishes was based on approximations by Henry A. Gardner, Director of the Scientific Section of the National Paint, Varnish and Lacquer Association (by correspondence). His allocations indicate 25% to unfinished, 65% for construction purposes, and 10% to finished.

630—Salt:

From *Production and Distribution of Salt in the United States*

by *Primary Producers*, U. S. Tariff Commission (mimeographed), March 1935, pp. 7 and 8, the average quantities (for the five-year period 1929-33) of rock salt and evaporated salt destined for domestic or household use were ascertained. The percentages (derived from Table 3 of the report) were 9 for rock salt and 28 for evaporated salt. From Table 2 of the same report annual percentages of domestic to total salt (all types) were taken: 1929, 16; 1930, 17; 1931, 19; 1932, 21; 1933, 20; five-year average 19%. By deriving the ratios of the annual percentages to the five-year average and applying them to the five-year averages for rock and evaporated salt, the following percentages representing production for domestic use were obtained:

	1929	1931	1933
Rock	8	9	9
Evaporated	24	28	29

Application of these percentages to the values for rock and evaporated salt as determined by the Bureau of Mines and reported in the Census of Manufactures resulted in the following values in thousands of dollars:

	1929	1931
Rock for domestic use	570	516
Evaporated for domestic use	4,301	3,970
Total	4,871	4,486

The totals of domestic rock and domestic evaporated expressed as percentages of the total values of salt were 19.4 in 1929, 22.5 in 1931. These percentages were applied to the total values of salt as reported by the Census of Manufactures. Prior to 1929 the 1929 percentage was used; in 1933 the 1931 percentage was applied.

701, 703, 705—Coke:

Based on data from the *Minerals Yearbook*, 1934, and from *Mineral Resources of the U. S., Part II*, 1931, 1929 and 1922. Actual dollar sales of coke destined for domestic users were

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available back to 1923. For 1921 and 1919 the quantity data as given were multiplied by the respective average values per ton of coke sold for other industrial and domestic uses. The ratios of these values to all coke produced (Industries 701, 703 and 705) were then obtained and applied to the amount of coke produced in each industry. Although the apportionment in any one or more of the three industries may thus be incorrect, the apportionment of all coke is relatively accurate.

704, 705—Lubricating oils and greases:

In the apportionment of lubricating oils and greases it was assumed that finished was adequately represented by the use of estimates representing passenger-car demand. In 1931 the Bureau of Mines estimated automotive consumption at 11,500 M. bbls. or 483,000 M. gallons (*Mineral Resources*, 1931, Part II, p. 645). Of this total passenger-car consumption was assumed to account for 69%, this being the ratio of passenger-car gasoline demand to total motor-vehicle demand derived from Table 16, p. 121, of *Petroleum Investigation Hearings . . . before Committee on Interstate and Foreign Commerce*, H. Res. 441, Part I, Washington, 1934.

The resultant figure, 333,270 M. gallons, was then expressed as a percentage of the total production of lubricating oils and greases as given in the *1931 Census of Manufactures* (1,308,872 M. gal.). This percentage, 25, was then applied to value of production in 1931. The resultant 1931 value figure representing finished was then moved by an index based on the estimates of the values of finished gasoline.

Derivation of finished by the above method excludes the value of exports.

Gasoline:

For the apportionment of gasoline between unfinished and finished data were obtained on passenger-car consumption from the Petroleum Investigation Hearings report. These data, derived from Part I, Table 16, p. 121, are shown in line 1 of the accompanying table. Line 2 shows total gasoline production as reported in the Census of Manufactures. Line 3 indicates the percentage of passenger-car demand to total production. The percentages thus derived (although really representing quantity relationships) were then applied to the Census value figures. Prior to 1925 the 1925 percentage was used, and in 1933 the 1931 percentage.

	1925	1927	1929	1931
Passenger-car demand (M. gallons)	6,507,396	8,651,286	10,789,758	11,354,574
Total production (M. gallons)	10,726,262	12,729,536	17,538,789	17,100,621
Percentage of passenger-car demand to total production	61	68	62	66

All gasoline demand other than passenger-car was thus considered unfinished although a small amount of non-automotive gasoline might well have been treated as finished had sufficient data been available. Finished as derived by the above method excludes exports, in contrast to our estimates of the finished portion of other commodities.

Fuel oil:

For the apportionment between unfinished and finished data were secured from the Bureau of Mines report, *National Survey of Fuel Oil Distribution*, 1930. The following quantity data relating to oil consumption for domestic heating appeared on p. 19 of that bulletin.

	1923	1925	1927	1929	1931	1933
	(heating season)		(calendar year)			
Consumption (thousands of barrels)	2,818	8,829	11,709	19,581	24,848 <sup>1</sup>	34,140 <sup>1</sup>

<sup>1</sup> From *Statistical Appendix to Minerals Yearbook*, 1934, p. 257.

The preceding figures, expressed as percentages of the total

production of fuel oil reported in the Census, are given below. These percentages were assumed to represent the amount of fuel oil destined for household consumption (finished) and were applied to the production value figures, no allowance being made for possible price differences between the value at the manufacturing stage of industrial fuel oil and domestic fuel oil. The percentage for 1923 was used without change for 1921 and 1919.

Percentage of fuel oil destined for domestic consumption to total production	1923	1925	1927	1929	1931	1933
	1.0	2.5	3.2	5.0	7.3	10.6

802—Tire sundries and repair materials:

Information concerning the apportionment of tire sundries and repair materials was secured from E. W. Sloan, Chief, Leather and Rubber Division, Bureau of Foreign and Domestic Commerce. The following percentage apportionments were indicated:

	1919	1921	1923	1925	1927	1929	1931	1933
Unfinished	40	45	50	55	55	60	65	65
Finished	60	55	50	45	45	40	35	35

Rubber heels, soles, and soling strips:

Similar data were obtained from Mr. Sloan on rubber heels, soles, etc.

	1919	1921	1923	1925	1927	1929	1931	1933
Unfinished	80	80	75	67	62	65	75	78
Finished	20	20	25	33	38	35	25	22

Hard-rubber goods (other than battery jars, boxes, etc.):

This item was apportioned 70% to unfinished and 30% to finished on the basis of an approximation also supplied by Mr. Sloan.

803—Pneumatic tires and tubes, motor-vehicle:

The apportionment of pneumatic tires and tubes was determined by the following procedure: From Special Circular No. 3500 of the Rubber Section of the Bureau of Foreign and Domestic Commerce, *U. S. Renewal Tire Market Analysis*, the number of casings and tubes required for original equipment were obtained. These, when multiplied by the average value per casing and tube (derived from the Census of Manufactures), provided estimates of the value of tires and tubes used for original equipment, i. e., unfinished.

Solid and cushion tires:

From the same Special Circular the production of cars and trucks equipped with solids was obtained. These figures, when multiplied by four and then by the average value per solid and cushion tire (again derived from data in the Census), provided estimates of the value of solid and cushion tires used for original equipment.

Pneumatic, motorcycle and bicycle:

A similar technique was followed for motorcycle and bicycle tires and tubes. The total number of motorcycles, side cars (as estimated) and bicycles, was first multiplied by the number of wheels per vehicle and then by the approximate average value per casing and tube.

906—Miscellaneous leather products (except belts, and desks, etc.):

A variation of the Distribution of Sales method was used. Sales ratios were derived from Distribution of Sales by subtracting the values of leather belts from the sales distribution values for the entire industry and computing sales ratios from the remainder. These showed 29.0 per cent to wholesalers and 27.1 per cent direct to industrial consumers, and were applied to all leather goods (except belts). Sales to wholesalers were further allocated by using the percentage of leather goods, n. e. c., sold to industrial consumers by wholesalers. As indicated in Table 2, *U. S. Summary of Wholesale Distribution*, this amounted to

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6.9 per cent. Total unfinished was then obtained by totaling all sales to industrial consumers. Total finished for miscellaneous then represented total sales minus unfinished and minus sales already treated as finished, desk sets, etc. The final 1929 percentages as used for the apportionment of miscellaneous were 32.7 to unfinished and 67.3 to finished.

1001, 1648—Brake linings and clutch facings: See note for Industry 1407.

1002—Cement:

The value of cement was apportioned between unfinished and construction materials on the basis of the amount of cement consumed in making concrete products as reported for 1929 in the *Census of Manufactures*. This item was estimated for all years except 1929 on the basis of the 1929 percentage relationship, 46.6, to total materials consumed in the concrete products industry.

1008, 1009—Plate glass:

For the apportionment of plate glass between unfinished and construction materials quantity percentages representing the percentage of plate glass production consumed by the automobile industry were used. These were obtained from *Facts and Figures of the Automobile Industry*.

	1919	1921	1923	1925	1927	1929	1931	1933
Percentage consumed by automobile industry	(1921 used)	30	53	53	63	73	60	40

1101—Bolts, nuts, washers, and rivets:

These data were taken from the special tables appearing in the Census reports for the steel works and rolling mill industry (1112).

For the apportionment between unfinished and construction materials an approximation was used. The values of railroad spikes, plus those of railroad, boiler [not listed separately], bridge and structural bolts were assumed to represent construction materials. In 1933, the 1931 percentage was used, while in 1927 and 1925 the values of railroad, boiler, etc. were estimated on the basis of the percentage, 22.5, that the 1929 figure was of the total production of bolts, nuts, etc. Prior to 1925 the commodity totals were apportioned as in 1925, 32.2 per cent to construction materials, and 67.8 per cent to unfinished.

1109—Vehicle hardware other than locks: See note for Industry 1407.

1112, 1113—Cut and wrought nails, spikes . . . :

These data include the production in all industries. For cut and wrought nails, etc. the figures were partially estimated prior to 1925. In that year the value of these commodities produced in establishments connected with rolling mills was 24.1 per cent of the total value. Thus in 1923, 1921 and 1919 the values reported for rolling mills were raised to represent total production on the basis of the preceding percentage.

Lack of adequate distribution data necessitated the use of the bolt, nut, etc. percentages (see 1101) for the apportionment between unfinished and construction materials:

1119, 1121—Heating apparatus . . . stoves:

From Table 13, p. 27, of the *Census of Construction, 1930*, the cost to contractors of heating and ventilating equipment and supplies was obtained. Since the Construction Census is probably deficient in coverage, the cost figure as reported was multiplied by 1.2064, the ratio of the total volume of construction in 1929 as estimated in *National Income, 1929-32*, Senate Document No. 124, 73d Congress, 2d Session (see Ch. IX) to the Census figure for total construction. The resultant figure was assumed to represent the value of all heating equipment, etc. used as construction material. Expressed as a percentage of the total value of heating equipment derived from the Census

(the data presented in the mixed group of Industries 1119 and 1121, plus the values of electric domestic ranges, and electric water heaters as shown under Industry 1303) it amounted to 44.3. The remainder, 55.7, was assumed to represent finished, and these percentages were then applied to the value totals for all years.

1126, 1127—Nails, brads, spikes, tacks and staples, all industries: Lack of adequate sales distribution data necessitated using the percentage apportionments derived for bolts, nuts, etc. (Industry 1101), given below.

	1919	1921	1923	1925	1927	1929	1931	1933
Unfinished	67.8	67.8	67.8	67.8	67.5	70.0	57.4	57.0
Construction materials	32.2	32.2	32.2	32.2	32.5	30.0	42.6	43.0

1128—Wrought pipe, welded, heavy riveted and seamless:

For the apportionment between unfinished and construction materials all boiler tubing and mechanical tubing were treated as unfinished. Prior to 1927 the values for unfinished were estimated on the basis of the 1927 percentage of the total, 13.9.

1201—Motor-vehicle accessories and parts: See note for Industry 1407.

1219—Stamped automotive parts and accessories: See note for Industry 1407.

1303—Incandescent-filament lamps:

The apportionment between unfinished and finished is based on information given by the Incandescent Lamp Department of the General Electric Company. Correspondence with this department revealed that in 1931, 37.5 per cent of all incandescent lamps were estimated as sold for household use (finished) and in 1930, 35.6 per cent. For 1929 and all prior Census years household lamps were assumed to be 35 per cent of the total. For 1933, the 1931 percentage was used.

Domestic ranges and water heaters: See note for Industries 1119 and 1121.

Loud speakers, transformers and miscellaneous radio parts:

The apportionment of loud speakers was based on the percentage of quantities sold at retail (as reported in the annual statistical issues of *Radio Retailing*) to total number produced, except in 1931 when an estimate obtained by correspondence with the Department of Commerce was used. Thus, in 1923, 80% was finished, in 1925, 70%; in 1927, 57%; in 1929, 24% and in 1931 and 1933, 2%. The same percentages were applied to transformers and to miscellaneous parts.

Radio tubes:

The apportionment for all years was based on the 1931 Census data which indicated that 45.2 per cent of total tube production was sold as initial equipment, i.e., unfinished.

Automotive generators, etc: See note for Industry 1407.

1407—Motor-vehicle bodies and parts:

The apportionment of automotive equipment, parts and accessories was difficult, because the inadequacy of the available sales distribution data made the usual method of working forward by use of Distribution of Sales etc. unsatisfactory. A method that involved working backward from retail sales was substituted. From the *Retail Census, 1929*, it was possible to derive total retail sales of automobile parts and accessories and tires and tubes. This total amounted to \$1,470,633 thousand and could not be divided between parts . . . and tires and tubes on the basis of available retail commodity data because of indeterminate overlapping.

Hence, the next step was to estimate the retail sales value of tires and tubes. This was done by the application of successive mark-ups to the manufacturers' value of finished tires and tubes as previously estimated (see note for Industry 803). The retail

PART I

value obtained by use of the mark-ups was \$718,916 thousand (see Table III-4, for the derivation). This figure was then subtracted from the total retail sales of parts and accessories and tires and tubes as determined above.

The resultant figure, \$751,717 thousand, was assumed to represent retail sales of parts and accessories. To translate the retail figure into manufacturers' value an approximate spread of 45% was utilized (based on examination of available data, wholesale and retail expense ratios, etc.).<sup>1</sup> Thus, in terms of manufacturers' prices, the value of finished automobile parts and accessories in 1929 was \$407,586 thousand.

Our next problem was the division of the preceding total among the nine groups of products (belonging to seven industries) that constituted various kinds of automotive parts and accessories. Closely connected with this problem was the derivation of figures for the years other than 1929. The grand total of the nine groups of products (inclusive of both unfinished and finished) amounted to \$1,915,690 thousand. Of this total, \$407,586 thousand represented finished. In order to move this figure for finished, three indexes given in the *Survey of Current Business* were utilized. These indexes represented accessory shipments to wholesalers, shipments of replacement parts and of service equipment. The separate indexes were weighted equally as of January 1925 and combined, the resultant summary index with 1929 as a base being as follows:

1925	1927	1929	1931	1933
109	103	100	67	56

By means of this index, values for finished were obtained back to 1925. Prior to 1925 a constant percentage based on the relationship of the 1925 finished estimate to the 1925 total production of all parts, accessories etc. was used, this percentage being applied to the total production data in the earlier years. It then merely remained to apportion the finished total among the nine groups of products. Three of the groups, automobile skid chains, storage batteries and ignition apparatus, were treated separately. Skid chains were considered entirely finished; while the value of finished storage batteries and ignition apparatus was first estimated in 1929 by the Distribution of Sales method and then estimated for the other years by use of the 1929 percentages. The remainder of total finished (after subtraction of chains, batteries and ignition apparatus) was apportioned among the six remaining groups of products on the basis of the relative production in each Census year. Although such

<sup>1</sup> In actuality a spread of 45.2371% was used. The resultant manufacturers' value was then divided by 101 per cent in order to allow for a 1% transportation charge. Such decimal accuracy in computation was rendered necessary because of minor revisions in the basic data. Since a number of dependent data had been calculated before the revision, it was decided to vary the spread (originally exactly 45%) rather than attempt a laborious recalculation of the dependent data.

an apportionment may be inaccurate in its application to a single industry, it does not affect the estimated total.

1409—Motorcycle and bicycle parts:

The apportionment was made by means of a variation of the Distribution of Sales method. The industrial sales for the entire industry, 13.8 per cent of the commodity total as determined from Distribution of Sales, were assumed to represent unfinished parts. The 1929 figure thus calculated was 42.0 when expressed as a percentage of parts alone. This percentage was utilized for the other years.

1612—Rhinstone ornaments:

All rhinstone ornaments except those sold to retailers were treated as unfinished. Unpublished Census data indicated 44.6% sales to retailers.

Miscellaneous articles:

First the Distribution of Sales method was applied to the commodity total for the industry. Of total sales 40.6% were to wholesalers and 14.8% direct to industrial consumers. As indicated in Table 2, *U. S. Summary of Wholesale Distribution*, 1.6% of novelties was sold to industrial consumers by wholesalers. This percentage was applied to sales to wholesalers. Thus total unfinished and consequently total finished were obtained for the entire industry. From these totals the data treated separately (cigar lighters, greeting cards, rhinstone ornaments, and desk sets, etc.) were subtracted. After all such adjustments the 1929 percentages as derived for application to the miscellaneous group, 20.3 unfinished and 79.7 finished, were applied in all years.

1620—Instruments, professional and scientific:

From unpublished Census tabulations it was ascertained that 23.4% of total sales was to manufacturers for incorporation in machines, etc. in 1929. This percentage was used for all years.

1623—Lapidary work:

Only lapidary work sold direct to retailers (4.5% according to *Distribution of Sales*) was treated as finished. This percentage was used for all years.

1635—Phonographs not reported in detail:

During the years in which this item was reported, the data were apportioned between unfinished and finished on the basis of the proportionate division of the rest of the industry. The percentages for unfinished were 1927, 7.6; 1925, 4.8; 1923, 7.9; 1921, 5.3; 1919, 7.1.

1636—Films, slides, sensitized cloth and paper:

The apportionment between unfinished and finished was made on the basis of a confidential trade estimate.

Table I—4

OUTPUT OF FINISHED COMMODITIES BY MAJOR AND  
MINOR COMMODITY GROUPS  
CENSUS OF MANUFACTURES YEARS, 1919–1933

The entries in this table are the commodities marked F in Table I—1 and those designated as finished in Table I—3. The output values, at prices charged by the producing establishments, are given for the specific commodities by minor commodity groups and subgroups according to the order indicated in the classification provided in Note A to Table I—1. Within each group or subgroup the order of the specific commodities follows the corresponding 1929 Census industry numbers.

Table I-4

## OUTPUT OF FINISHED COMMODITIES

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Perishable								
	Minor Group 1 Food and Kindred Products								
101	Beverages	511,125	236,003	226,639	233,887	241,993	265,430	210,659	460,200
102	Bread and other bakery products	1,150,479	1,097,402	1,117,846	1,263,201	1,392,536	1,514,912	1,187,818	918,212
103	Creamery butter	509,248	422,301	565,077	612,992	671,567	681,334	423,773	344,578
104, 105	Canning and preserving:								
	Vegetables, soups and fruits;	548,386	358,614	499,846	606,940	553,925	710,550	481,665	417,733
	preserves, etc; pickles, etc.	76,762	36,051	50,142	58,637	64,410	72,477	41,359	39,673
106	Fish, crabs, shrimps, etc.	153,969	114,146	128,364	145,058	159,945	168,708	136,676	109,660
107	Cereal preparations	126,161	71,626	114,447	102,708	101,239	103,593	64,528	54,172
108	Cheese	52,815	41,717	45,513	54,117	58,419	58,559	49,755	39,605
109	Chewing gum	54,444	33,612	47,179	53,917	49,845	48,204	35,220	28,710
	Chocolate (except coatings)	9,423	8,310	6,874	7,815	8,526	9,609	7,335	6,546
	Cocoa, powdered, in cans	3,826	6,485	1,577	2,869	4,073	1,728	2,070	2,200
	Other, chocolate, and cocoa products	268,482	198,706	258,706	389,149	354,534	390,012	249,514	177,094
110	Coffee roasted and ground	13,090	9,688	12,468	8,629	7,826	10,459	5,267	4,315
111	Spices ground		not reported		413	656	498	not reported	separately
	Sterilized milk (canned)								
	Condensed and evaporated milk and								
	buttermilk	273,378	137,558	141,305	119,315	140,599	141,677	98,812	94,687
	Powdered milk, etc.	3,148	356	4,756	2,978	10,596	14,085	10,132	11,698
112	Confectionery	441,362	310,156	362,035	374,324	360,500	388,231	282,216	204,565
113	Corn sirup, sugar, oil and starch	91,224	20,127	43,508	57,831	52,668	75,991	48,115	54,451
115	Flavoring extracts and sirups	60,225	47,776	46,754	70,861	79,620	109,253	99,724	41,072
116	Flour	1,224,757	653,919	472,528	652,893	548,450	458,207	263,696	284,813
117	Food preparations, n.e.c.	149,630	95,836	121,103	150,563	166,257	168,943	152,836	157,678
118	Ice cream	204,834	228,250	275,084	299,508	312,374	332,080	270,208	160,686
119	Ice, manufactured	76,892	89,673	91,146	103,642	102,158	115,790	104,933	76,741
120	Shortenings and vegetable cooking oils	416,017	105,858	113,883	173,369	166,148	170,179	121,670	71,602
121	Macaroni, spaghetti, etc.	32,223	26,967	25,701	37,828	43,160	44,188	33,676	33,353
122	Malt		9,848	7,617	11,001	9,343	10,654	8,651	
123	Fresh and cured meat, canned meat and								
	sausage	3,016,384	1,701,695	1,909,153	2,242,240	2,271,115	2,576,548	1,669,087	1,087,209
	Lard	387,553	163,076	237,689	248,251	203,252	213,925	126,680	85,362
124	Oleomargarine	118,983	47,714	42,915	47,275	50,598	59,025	25,098	17,011
125	Peanuts, walnuts, etc.	55,006	32,077	34,849	41,474	56,006	47,808	37,677	40,314
127	Clean rice, whole-grain grades	72,946	34,120	39,160	44,172	45,824	39,561	34,926	26,556
128	Sausage, meat puddings, headcheese, scrapple, etc.								
129, 130, 131	Sugar, refined, edible sirup and molasses	193,243	156,931	187,656	240,870	242,893	290,480	195,225	136,072
132	Vinegar and cider	727,269	466,647	698,849	565,951	523,091	424,423	346,220	364,176
603	Baking powder, yeast, etc.	25,368	18,670	15,158	16,330	11,998	15,910	12,445	9,507
620	Liquors, vinous	22,879	30,997	30,838	26,306	26,377	27,800	22,205	11,300
630	Salt	11,061	3,149	3,783	2,377	1,457	1,407	567	21,925
	Total, Minor Group 1	7,016	6,201	6,889	6,406	6,420	7,078	7,104	6,560
	Total, Minor Group 1	11,089,628	7,022,262	7,986,037	9,076,097	9,120,362	9,769,316	6,866,542	5,600,036

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
312 1608, 1647	Minor Group 2 Cigars, Cigarettes and Tobacco Matches, books Tobacco manufactures Total, Minor Group 2	2,959 1,001,061 1,004,020	4,837 1,048,490 1,053,327	3,814 1,044,192 1,048,006	3,778 1,090,958 1,094,736	3,973 1,161,455 1,165,428	4,272 1,242,657 1,246,929	4,406 1,153,215 1,157,621	6,303 907,576 913,879
601 604 605 608 609 611	Minor Group 3 Drug, Toilet and Household Preparations Alcohol, ethyl and distilled liquors Blacking, stains and dressings Bluing Chemicals, n.e.c. Cleaning and polishing preparations Alkaloids and derivatives Biological products for human use Tinctures, fluid extracts, medicinal sirups, etc. Pills, tablets, powders, etc. Pharmaceutical metals and their salts Patent or proprietary medicines Patent or proprietary compounds (excl. agricultural insecticides and boiler compounds) Perfumes, cosmetics, etc. Soap Safety-razor blades Ligatures, sanitary napkins, surgical dressings and bandages Total, Minor Group 3	13,859 18,020 2,534 54,013 20,918 15,416 6,366 39,084 37,804 162,474	12,730 13,105 1,767 30,162 17,936 4,987 4,354 29,777 30,451 1,898 128,306	14,414 17,938 1,428 40,235 28,692 6,433 5,615 26,316 30,553 1,172 165,465	25,160 17,604 1,878 46,082 29,698 6,337 4,259 30,232 32,553 1,176 174,306	14,027 15,837 1,452 47,392 40,068 7,155 7,385 38,612 41,745 2,580 184,073	21,392 17,341 1,230 57,687 50,068 8,030 7,118 49,486 46,184 4,439 211,840	9,269 14,292 1,056 59,687 45,238 7,677 7,088 33,595 47,211 4,008 175,800	25,922 13,388 1,926 50,366 38,673 7,621 4,903 115,252 141,367
627		37,729 79,539 209,862 33,293	36,196 87,943 178,713 23,064	53,183 115,541 204,328 34,155	59,640 142,824 215,269 37,641	69,463 172,941 221,805 37,935	86,489 195,533 255,084 39,967	67,725 161,103 211,875 27,906	109,922 164,224 16,785
628 631 1103 1645		29,884 761,216	22,638 624,027	31,365 776,933	38,249 862,908	39,847 942,403	44,463 1,096,556	32,954 906,484	33,226 722,575
401, 402, 403, 404, 405, 406, 408 407 501 504, 505 506 508, 509, 510	Minor Group 4 Magazines, Newspapers, Stationery and Supplies and Miscellaneous Paper Products Converted paper products Writing paper Bookbinding and blank-book making Engraving (greeting cards) Lithographing (greeting cards) Newspapers and periodicals, subscriptions and sales Sheet music and books of music Paper patterns Commercial printing (greeting cards) Ink, writing Mucilage, paste, etc. Rubber erasers and bands Rubber cement Artists' materials Greetings cards and paper novelties Pencils, lead Pens and pen points Stationery goods, n.e.c. Total, Minor Group 4	134,753 60,892 25,285 2,038 804 278,006 16,277 1,528 11,986 5,586 6,406 1,896 5,650 6,520 13,964 18,066 46,482 636,139	113,698 42,552 24,456 2,349 807 328,284 14,293 10,530 13,549 3,758 5,773 1,619 6,104 5,396 12,479 14,316 50,223 650,186	157,630 61,834 29,465 2,652 997 360,893 14,163 9,259 14,680 5,031 4,245 2,383 7,614 6,565 14,909 22,761 61,683 778,764	171,800 73,199 31,361 2,692 1,085 398,338 14,133 13,713 16,206 4,806 7,396 2,215 10,443 6,520 15,497 25,397 54,177 848,973	191,880 72,973 34,261 3,604 1,121 429,467 17,147 13,782 17,713 4,282 5,010 1,888 2,008 7,745 8,811 16,188 20,908 46,006 894,794	212,079 78,530 38,933 4,298 1,263 460,326 16,538 12,204 11,622 15,477 3,206 3,198 1,375 1,686 5,453 6,050 18,479 28,066 57,301 979,814	159,149 54,038 28,394 5,619 3,049 425,267 12,204 11,622 15,477 3,206 3,198 1,375 1,686 5,453 6,050 12,730 17,094 40,106 806,717	145,408 42,563 19,793 2,261 3,554 367,440 2,341 7,500 7,801 2,287 2,188 1,091 1,229 4,640 4,488 10,551 8,328 12,063 645,526



Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Minor Group 5 Fuel and Lighting Products								
	a Fuel and Lighting Products, Manufactured and Petroleum Products								
311	Firewood	1,420	768	1,367	1,243	975	1,089	411	323
312	Matches, other than book	15,537	25,395	20,025	19,832	20,872	16,079	14,067	20,070
607	Candles	3,239	2,342	2,841	2,936	3,069	3,278	2,474	1,893
701, 703, 705	Coke	7,206	8,532	24,334	30,762	32,894	46,798	48,256	52,820
	Fuel, briquettes and boulets	2,359	3,258	6,299	6,788	8,093	10,181	5,241	3,337
	Illuminating oils	235,663	151,595	146,942	161,881	147,925	107,573	72,743	78,481
	Lubricating oils and greases	47,258	57,823	60,316	83,944	80,835	107,573	62,181	57,207
704, 705	Gasoline	414,719	512,810	534,907	743,124	712,960	949,370	548,715	504,996
	Fuel oils	3,181	3,773	3,457	12,224	14,623	19,232	19,824	27,147
	Total, Minor Group 5a	730,582	766,301	800,388	1,062,734	1,022,246	1,318,436	773,912	745,974
	Minor Group 6 Miscellaneous Perishable								
	a Caskets, Coffins, etc.								
305	Caskets, coffins, burial cases, etc.	64,237	53,869	64,189	69,322	74,469	85,174	68,650	57,741
	b All Other Miscellaneous Perishable								
602	Ammunition	92,967	22,999	36,622	29,531	30,934	31,686	20,814	21,318
615	Fireworks	4,630	4,727	4,977	6,031	5,885	6,584	3,722	2,520
1303	Dry batteries: 6-inch	17,806	10,560	9,055	12,316	9,287	8,287	3,680	2,844
1303	Incandescent-filament lamps	20,176	20,905	25,188	25,745	30,777	29,862	26,438	18,693
1635	Phonograph needles	1,609	1,134	1,465	961	1,322	1,972	434	345
1636	Films, sensitized cloth and paper, slides and plates	17,616	14,153	14,319	15,485	17,988	20,364	15,590	10,565
	Total, Minor Group 6b	154,804	74,478	91,626	90,069	96,193	98,718	70,678	56,285
	Total, Major Group of Perishable Commodities	14,440,626	10,244,450	11,545,943	13,104,839	13,315,895	14,594,943	10,650,604	8,742,016
	Semidurable								
	Minor Group 7 Dry Goods and Notions								
216	Osaburgs, sheetings, etc.	120,968	74,646	106,140	93,306	87,858	79,142	38,586	48,120
	Denims, napped fabrics, etc.	45,109	26,868	49,347	38,840	40,705	38,093	21,929	27,705
	Print cloth, lawns, poplins, voiles, crepes, singhams, shirtings, etc.	208,582	143,250	213,199	178,549	162,719	152,083	93,186	98,438
	Thread and cotton yarns	90,028	47,570	71,507	64,843	53,113	51,409	24,962	28,555
	Flushes, velvets, etc.	9,058	5,221	11,773	12,407	13,454	12,471	4,910	3,869
	Other cotton products	12,433	4,570	9,187	6,319	3,137	6,094	8,154	7,424
	Cotton goods made in other industries	4,324	1,305	2,875	2,150	3,946	none reported separately	13,605	13,605
217	Cotton small wares	26,163	16,672	25,202	23,833	22,190	23,381	14,388	26,156
218	Dyeing and finishing textiles	30,378	25,950	34,378	38,306	38,074	43,786	30,211	26,156
219	Embroideries	5,192	5,523	6,087	6,346	6,066	3,886	4,235	2,553
221	Flags and banners	5,454	3,522	3,870	4,598	4,524	3,406	2,789	2,139
224	Knit cloth	21,935	16,668	24,196	19,617	19,840	24,393	18,914	17,453
235	Other knit goods	15,016	11,665	19,318	22,783	12,749	15,374	9,027	10,909
236	Lace goods (except curtains)	4,490	3,852	5,268	4,718	3,455	5,127	3,581	3,166
242	Linen woven goods and thread	7,228	4,660	5,718	5,312	4,534	4,599	3,079	2,765
244	Regalia, badges and emblems	8,933	4,660	5,718	5,312	4,534	4,599	3,079	2,765
244	Silk and rayon products	184,405	159,348	206,735	219,232	197,635	189,207	81,370	53,375
246	Stamped art goods for embroidering	8,953	9,524	10,497	10,945	11,392	12,279	7,246	5,524

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
249, 253	Bias bindings for notion trade Woolen and worsted woven goods (except blankets)	3,610	3,840	4,232	4,413	4,596	4,050	3,110	2,376
1211	Woolen and worsted yarns	101,940	75,519	102,633	92,240	78,438	76,256	44,282	40,942
1601	Needles, pins, etc.	7,142	6,450	5,053	2,111	1,840	1,998	2,583	3,359
1606	Artificial and preserved flowers	9,408	7,125	7,410	6,487	7,439	7,773	7,072	7,908
1612	Buttons	11,898	10,457	14,487	13,810	14,638	10,976	6,582	4,908
1613	Fancy and miscellaneous articles	3,213	2,154	2,492	2,509	2,240	2,179	1,598	1,722
1617	Feathers, plumes, etc.	36,104	30,238	36,352	36,103	48,789	51,571	33,498	24,850
	Hairwork	5,613	3,277	2,923	1,529	509	406	703	309
	Total, Minor Group 7	6,008	9,633	9,866	5,550	1,976	1,601	1,079	898
		993,585	719,500	1,001,379	926,245	854,273	831,979	473,133	441,834
226	Minor Group 8 Personal Furnishings								
802	Handkerchiefs	23,077	20,964	24,588	26,852	31,351	28,548	18,427	15,105
	Bathing caps	1,294	754	1,108	1,827	1,701	1,842	1,795	1,341
	Druggists' and medical sundries (except rubber gloves)	10,857	9,277	13,649	12,686	10,809	10,946	8,499	5,933
	Rubber gloves	2,433	2,079	3,059	2,843	2,423	2,928	2,013	1,815
906	Hard-rubber goods, other than battery jars, etc.	4,931	1,712	3,604	4,174	2,709	3,638	1,764	1,697
906	Desk sets, vanity cases, key cases, cigar and cigarette cases	3,806	3,372	3,075	3,233	3,195	3,166	1,692	1,199
908	Misc. leather goods	20,317	18,001	16,417	17,260	17,055	16,992	7,628	5,400
1103	Pocketbooks, purses and card cases	13,811	12,483	31,055	40,742	54,226	65,200	42,200	27,724
1605	Razors, safety and other	1,918	1,329	1,968	2,139	2,119	2,228	1,983	7,689
1609	Brushes: tooth and toilet	8,895	8,162	11,776	10,597	11,616	11,923	10,113	7,689
	Combs and hairpins, not made from metal or rubber	6,211	4,332	8,294	4,912	3,843	2,940	1,880	894
1612	Cigar lighters	3,325	2,752	3,348	3,325	4,493	4,750	3,085	2,288
1637	Pipes (tobacco)	11,515	7,109	9,685	7,360	7,246	5,537	5,380	3,190
1649	Umbrellas, parasols and canes	24,227	24,892	27,391	26,096	23,001	18,053	9,101	8,242
	Total, Minor Group 8	136,617	117,218	159,017	164,046	175,787	178,691	115,560	83,216
208	Minor Group 9 Clothing and Furnishings, Men's and Boys'								
211	Clothing (except work clothing), men's, youths', and boys', n.e.c.	1,071,647	864,815	936,787	878,092	871,310	841,102	513,792	406,061
213	Clothing, work (incl. sheep-lined and blanket-lined work coats but not incl. shirts) men's	incl. in Industry	208	157,447	139,416	136,889	127,274	80,842	133,439
223	Collars, men's	35,167	24,897	32,587	23,519	14,417	8,883	5,165	3,092
224, 905	Furnishing goods, men's, n.e.c.	102,983	75,491	97,284	112,985	149,883	155,587	100,813	57,133
228	Gloves and mittens, cloth or cloth and leather combined, made from purchased fabrics, and leather, men's hats and caps, except felt and straw, men's	55,292	29,475	48,704	46,216	49,157	52,235	31,607	29,312
229	Finished fur-felt hats, men's	44,812	37,951	43,698	44,306	41,442	34,852	17,130	12,858
230	Hats, wool-felt, men's	70,595	44,023	62,553	59,677	70,659	68,917	39,231	26,696
234	Men's hosiery, underwear, outerwear	1,668	1,476	2,619	2,944	2,931	2,937	1,443	1,160
243	Shirts	258,368	230,828	297,514	277,410	262,410	261,845	169,429	149,391
245	Suspenders, garters, and hose supporters, men's, arm bands, and other elastic woven goods made from purchased webbing	198,743	190,007	232,612	213,820	230,385	216,933	148,883	110,199
		41,607	30,762	16,632	18,720	18,819	19,975	11,452	8,530

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
906	Belts, men's	17,435	15,447	14,088	14,811	14,635	14,562	12,517	8,862
1619	Hats, straw, men's	32,650	30,312	33,867	30,213	26,652	22,629	16,146	11,551
	Total, Minor Group 9	1,930,967	1,575,484	1,976,392	1,862,170	1,889,589	1,827,731	1,148,450	958,284
	Minor Group 10 Women's Clothing and Furs								
210	a Clothing, Women's, Misses' and Children's factories	1,146,312	978,926	1,360,777	1,227,050	1,407,183	1,615,392	1,224,982	801,638
215	Corsets and allied garments	72,569	74,446	75,126	74,094	74,135	74,202	70,614	57,012
224, 905	Gloves and mittens, cloth or cloth and leather combined, made from purchased fabrics, women's	18,430	9,825	16,235	15,406	16,386	17,411	10,536	9,772
229	Finished fur-felt hats, women's	1,148	716	1,010	3,074	2,425	1,892	668	455
230	Hats, wool-felt, women's and children's	3,818	3,379	5,994	3,869	2,748	2,037	706	570
234	Women's and infants' hosiery, underwear, outerwear	365,529	331,531	439,279	436,783	468,926	534,729	344,292	279,566
239	Trimmed hats	145,854	155,148	171,008	178,298	186,602	173,518	132,091	71,872
245	Infants' headwear	5,918	6,295	6,939	7,235	7,521	5,290	2,243	3,109
246	Garters and hose supporters, women's	17,831	13,184	7,128	8,023	8,050	6,556	4,177	
	Scarfs and neckwear, women's	13,885	14,770	16,279	16,973	17,653	included in Industry 210		
	Total, Minor Group 10a	1,791,294	1,588,220	2,099,775	1,970,805	2,190,629	2,431,027	1,790,309	1,223,994
1615	b Furs and Fur Goods								
	Fur and fur-lined coats and over-coats	132,628	106,973	149,676	193,012	160,720	133,839	73,936	
	Fur neck pieces	7,024	5,666	7,927	10,262	14,113	21,779	8,619	
	Fur robes	167	135	189	247	790	635	213	
	Other fur and fur-lined goods	2,509	2,023	2,831	3,635	7,279	4,168	4,316	
	Total, Minor Group 10b	142,328	114,797	160,623	207,156	182,902	160,421	87,084	
	Minor Group 11 Shoes and Other Footwear								
801	Rubber boots and shoes	115,957	94,807	134,987	119,923	133,196	111,360	48,308	41,513
802	Rubber heels, soles and soiling strips	3,712	3,254	7,150	12,037	13,241	10,011	5,504	4,666
904	Boots and shoes, other than rubber	1,137,820	887,903	988,989	915,532	933,997	963,343	653,104	552,636
	Total, Minor Group 11	1,257,489	985,964	1,131,126	1,047,492	1,080,434	1,084,714	706,916	598,815
	Minor Group 12 Miscellaneous House Furnishings (semidurable)								
203	Awnings, etc.	15,447	12,535	15,011	16,174	15,876	15,920	10,238	6,916
216	Blankets	32,640	21,507	24,713	29,548	29,452	25,392	12,721	16,069
	Towels, towelings and wash cloths	30,812	31,148	36,693	38,150	42,611	33,037	24,108	22,487
	Bath mats						1,532	1,416	988
	Bedspreads and quilts	10,245	11,002	13,552	16,703	18,950	16,396	8,643	6,360
	Cotton table damask	9,544	10,760	10,852	12,450	6,751	8,363	3,651	2,837
	Sheets and pillow cases	3,369	4,208	6,067	6,728	5,036	5,723	4,241	4,555
218	Dyeing and finishing textiles: sheets	10,432	8,911	11,805	13,154	13,075	15,000	10,374	8,982
232	Misc. house-furnishing goods	43,946	39,812	52,072	56,990	59,520	76,171	50,670	49,424
241	Oilcloth	15,951	14,921	18,714	18,822	18,763	23,640	13,506	12,223
249	All-wool and wool and cotton blankets	22,804	15,153	20,745	23,575	24,127	26,454	15,066	13,838
313	Mirror and picture frames	16,842	14,509	17,472	17,902	17,232	16,944	9,828	6,264

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
318	Window and door screens and weather strip	10,944	12,039	20,722	28,901	25,639	28,187	14,996	6,992
626	Paints and varnishes	34,617	27,175	41,208	48,131	52,711	57,488	36,206	29,639
802	Garden hose	8,720	5,889	10,986	11,514	8,092	9,049	6,038	3,804
1016	Rubber mats and matting	5,534	3,225	4,740	7,814	7,273	8,806	4,616	4,021
1017	Mirrors, framed and unframed	11,694	9,444	17,920	17,186	15,035	15,161	8,503	7,695
1019	Garden and art pottery	1,465	973	1,683	2,259	2,482	2,694	1,923	1,665
1019	Statuary and art goods	1,716	2,264	2,623	3,302	3,508	3,345	1,990	1,899
1103	Knives and shears, and pocket	9,043	6,264	9,277	10,252	10,021	8,396	6,184	4,477
1604	Brooms: household, whisk, toy and hearth	26,876	16,754	24,080	20,753	17,644	17,173	11,911	8,080
1605	Brushes: household	6,285	5,767	8,319	7,486	7,000	8,115	4,334	4,800
1612	Lamp shades	8,060	6,670	8,115	8,060	10,892	11,502	7,478	5,547
1651	Window shades and fixtures	24,604	24,680	40,329	36,367	33,999	35,760	19,229	15,128
	Total, Minor Group 12	360,590	305,610	417,698	452,221	445,689	470,268	287,870	243,690
	Minor Group 13 Toys, Games and Sporting Goods								
214	Fish line	2,109	1,207	2,195	2,674	2,333	2,893	2,187	1,955
302	Billiard and pool tables, bowling alleys and accessories	15,375	7,325	6,295	5,621	7,242	9,602	4,339	1,296
909	Saddlery and harness	83,494	30,472	42,372	30,901	27,786	23,712	9,594	10,364
1106	Firearms	29,212	13,737	16,041	14,289	16,889	17,701	7,805	6,573
1403, 1648	Toys, games and playground equipment (except parts)	48,041	39,170	61,787	58,852	68,363	79,832	54,212	38,265
	Children's wheel goods and sleds (except parts and baby carriages)	14,887	12,138	19,146	18,248	18,262	18,731	9,693	7,993
1636	Cameras and equipment	14,703	11,813	11,952	12,925	15,014	17,000	13,040	8,819
1642	Sporting and athletic goods, not incl. firearms and ammunition	21,592	29,717	37,417	38,658	42,230	56,286	50,441	25,873
1650	Whips	3,090	1,139	800	586	265	327	136	Included in Industry 909
	Total, Minor Group 13	232,503	146,718	198,005	182,754	198,384	226,084	151,247	101,138
	Minor Group 14 Tires and Tubes								
802	Tire sundries and repair materials	11,065	5,910	7,896	11,716	10,984	6,867	3,354	2,736
803	Pneumatic tires and tubes, motor-vehicle	534,141	333,117	346,187	556,137	578,620	448,658	284,457	203,983
	Pneumatic tires and tubes, motor-cycles and bicycles	11,526	3,007	4,126	2,688	2,885	2,899	1,950	1,862
	Solid and cushion tires	32,928	6,948	17,613	28,315	27,812	13,937	5,220	3,581
	Total, Minor Group 14	589,660	348,982	375,822	598,856	620,211	472,361	294,981	212,162
	Total, Major Group of Semidurable Commodities	7,435,033	5,872,493	7,519,837	7,411,745	7,637,898	7,683,276	5,055,550	3,905,406
	Consumers' Durable								
309	Minor Group 15 Household Furniture	494,299	455,760	568,866	603,529	605,087	575,176	332,778	224,095
	Furniture, household	14,017	10,256	9,299	18,514	19,628	24,398	none reported separately	2,492
	Furniture, made in other industries, household								

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
316	Refrigerators, excl. mechanical refrigerating equipment, domestic	10,757	13,478	20,976	22,925	20,120	15,967	8,627	4,050
1403, 1648	Baby carriages and baby walkers and tenders, etc.	7,983	6,509	10,267	9,794	9,535	9,839	6,309	4,185
	Total, Minor Group 15	527,056	486,003	609,408	654,762	654,370	625,380	347,714	234,822
1119, 1121, 1303	Minor Group 16 Stoves, Ranges and Water Heaters	145,890	109,211	197,145	200,595	200,305	189,638	108,299	73,878
	Heating apparatus, stoves, ranges and water heaters (incl. electric)								
	Minor Group 17 Heavy Household Appliances								
	a Washing Machines, Sewing Machines, etc.								
1303	Domestic (household) apparatus and appliances - vacuum cleaners	21,842	19,753	35,982	39,971	36,222	35,108	24,847	14,410
1305	Dish-washing machinery	not reported		1,066	1,474	2,018	3,424	1,984	361
1312	Sewing machines, household types	31,866	19,584	23,646	24,801	22,639	25,285	7,622	4,386
1315	Washing machines, wringers, driers, and ironing machines, for household use	42,210	31,925	56,630	69,633	69,140	79,011	48,281	42,422
	Total, Minor Group 17a	95,918	71,262	117,324	135,879	130,019	142,828	82,734	61,579
	b Domestic Refrigerators, Mechanical								
1310	Domestic electric refrigerators	13,262	16,237	17,059	41,811	81,024	111,675	99,688	77,119
	Absorption-type refrigeration systems and replacement parts	642	786	826	2,024	3,939	14,238	15,646	14,040
	Total, Minor Group 17b	13,904	17,023	17,885	43,835	84,963	125,913	115,334	91,159
	Minor Group 18 House Furnishings (durable)								
202	Asphalted-felt-base floor covering	13,909	13,043	30,240	30,029	34,900	36,943	21,629	24,577
206	Carpets and rugs, rag	5,740	5,586	6,180	5,782	5,966	5,476	3,321	1,845
207	Carpets and rugs, wool, other than rag	110,156	100,262	192,415	182,035	163,289	171,611	86,942	70,104
216	Draperies (except velvets and plushes)	20,878	13,033	26,404	29,944	38,125	39,043	25,329	19,004
	Rugs (except bath mats), cotton	1,868	1,100	1,689	2,071	2,175	2,465	2,320	1,749
	Cotton tapestries	10,395	8,367	12,560	10,451	9,984	7,810	4,352	2,879
232	Curtains and draperies	17,270	15,645	20,463	22,391	30,964	47,667	34,427	33,633
	Feather pillows and beds	3,611	3,271	4,278	4,685	5,865	6,954	6,324	6,156
235	Nottingham lace curtains and nets	19,823	17,007	23,256	19,100	16,316	15,925	8,699	7,686
237	Linoleum	27,457	32,629	44,589	44,513	42,039	48,744	19,408	16,119
238	Mats and matting, grass and coir	5,128	4,104	4,104	3,684	1,622	1,785	959	667
1624	Mattresses and bed springs	89,749	74,174	111,033	113,985	98,212	107,604	69,178	53,288
	Total, Minor Group 18	325,974	286,367	477,211	468,670	449,457	492,027	282,888	237,707
	Minor Group 19 China and Household Utensils								
320	Woodenware	11,346	9,760	11,633	10,980	11,391	13,045	9,079	6,754
802	Rubber jar rings	1,439	839	1,232	2,031	1,887	1,855	1,925	1,103
1003	China firing and decorating not done in potteries	917	1,277	1,679	1,640	1,745	1,664	1,207	815
	Fruit jars (home-pack)	6,267	5,676	7,099	6,641	11,358	8,525	15,103	8,338
1008	Pressed and blown glass (except containers, etc.)	33,984	26,764	37,120	34,623	33,699	37,019	26,926	26,584

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1009 1017	Cut and decorated glassware Red earthenware Stoneware (except chemical) and yellow and Rockingham ware White ware	7,692 1,298	5,964 2,030	6,554 2,458	8,812 2,632	7,798 2,850	11,573 2,798	7,193 2,034	6,520 1,207
1103 1109 1201	Hotel china Other pottery products Table and kitchen cutlery Vacuum bottles, jugs, etc. Aluminum ware (principally cooking utensils and household articles)	4,603 29,847 2,305 929 7,330 3,676	4,920 29,744 7,868 1,941 5,078 2,540	4,746 38,696 9,761 3,358 7,520 4,556	4,349 32,816 9,867 4,507 8,289 4,857	4,503 31,692 10,020 4,952 6,519 5,054	4,144 32,066 10,476 2,965 7,776 5,466	3,300 20,108 6,594 2,965 3,855 2,706	2,222 15,005 5,008 2,479 3,493 2,145
1219	Aluminum ware (principally household articles) Stamped household ware other than vitreous enamel and aluminum Enameled ware, vitreous	17,299	10,054	23,628	32,052	28,989	35,100	22,279	16,400
	Total, Minor Group 19	21,406 22,571	15,149 15,974	25,619 27,013	24,588 25,926	21,238 22,394	33,213 35,018	18,454 23,083	17,975 18,770
1119, 1121	Minor Group 20 Portable Household Electric Appliances and Other Supplies	172,909	145,598	212,672	214,590	206,089	245,835	166,811	134,818
1207	Portable ovens Steam tables Electric-lighting equipment, portable lamps, candleabra and candlesticks, desk and reading lamps Kerosene and gasoline lighting equip- ment	1,320 856	991 643	1,788 1,160	1,794 1,189	1,911 1,280	2,882 1,322	977 305	548 331
1303	Incandescent mantles Electric fans (domestic) Domestic (household) apparatus and appliances	11,144	10,380	16,679	18,334	17,832	21,605	13,836	8,855
	Total, Minor Group 20	2,904 863 2,920	2,705 804 2,538	4,346 1,292 3,354	4,777 1,420 3,729	4,646 1,381 3,623	5,676 1,596 3,569	2,265 1,155 3,369	2,288 686 914
1303	Minor Group 21 Radio Apparatus and Equipment	13,576 33,583	16,011 34,072	24,373 52,992	27,585 58,818	29,209 59,882	32,223 68,873	20,617 42,504	17,967 31,589
	Receiving sets	7,243	9,550	13,326	93,356	95,162	253,261	117,837	70,553
	Combination phonographs and radios			920	not reported	2,233	22,194	6,310	1,408
	Transmitting sets			not reported	1,356	10,571	5,788	2,398	1,363
	Replacement parts, incl. head sets			4,486	11,503	16,791	16,791	8,050	2,341
	Loud speakers				13,289	10,738	7,332	93	60
	Transformers				1,302	393	250	not reported	
	Misc. radio parts and accessories			19,458	20,152	27,804	12,353	433	244
	Radio tubes			5,384	12,612	12,145	44,943	16,071	17,974
	Radio and flashlight batteries			9,848	24,923	33,637	25,564	13,038	10,085
	Total, Minor Group 21	15,214	12,920	53,422	178,473	192,683	388,476	164,230	104,028
1627 through 1630	Minor Group 22 Musical Instruments	95,823 6,074 4,286 3,062 1,447	66,268 9,465 7,082 1,954 1,723	104,363 10,192 7,812 3,468 2,288	93,677 13,250 9,470 5,859 2,866	67,211 17,167 8,395 4,201 2,715	37,999 11,529 5,545 3,067 2,913	12,781 5,451 2,814 1,947 1,847	6,238 2,661 1,373 950 902
1635	Pianos Organs Wind instruments Stringed instruments Percussion and other instruments Piano and organ parts and materials - perforated music rolls Phonographs (incl. dictating machines)	3,104 91,569	2,121 38,605	5,262 57,037	6,068 22,614	3,217 49,242	2,556 20,833	428 18,671	209 10,695

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1635	Parts and accessories - records and blanks Phonographs and parts not reported in detail Total, Minor Group 22	44,690 6,664 256,468	47,844 1,328 176,390	36,372 1,199 227,993	26,791 3,426 184,049	31,781 2,857 186,786	34,129 118,571	7,698 none reported 51,637	2,500 25,528
1202, 1221, 1222, 1223	Minor Group 23 Jewelry, Silverware, Clocks and Watches Clocks complete for use as timepieces only Instruments and devices complete, with clockwork mechanism Jeweled and nonjeweled watches, men's and women's Jewelry Plated ware Silversmithing and silverware Rhinstone ornaments Lapidary work Total, Minor Group 23	21,087 2,295 28,619 184,308 40,636 27,366 661 1,335 306,307	15,747 1,714 21,370 115,169 34,240 22,346 679 194 211,459	21,606 2,397 29,360 156,548 51,760 24,843 665 405 287,574	22,904 2,224 33,123 151,454 45,603 28,919 661 450 286,338	28,708 3,816 29,845 140,944 54,044 27,757 893 555 286,562	25,512 6,950 33,446 142,433 52,503 26,168 941 537 288,490	20,391 2,461 14,829 68,175 28,828 14,985 613 113 150,395	11,474 1,249 12,222 40,302 34,533 455 38 100,073
508	Minor Group 24 Printing and Publishing: Books Books and pamphlets printed and published or published only	132,699	126,256	135,279	154,991	178,163	199,015	146,438	95,312
910	Minor Group 25 Luggage Trunks, suitcases and bags	64,864	47,051	63,810	61,231	60,750	64,801	27,062	17,594
1408	Minor Group 26 Passenger Cars Passenger vehicles (not incl. public conveyances) Passenger chassis Total, Minor Group 26	1,324,459 41,118 1,365,577	1,128,605 18,805 1,147,410	2,253,110 25,121 2,278,231	2,483,885 39,919 2,523,804	2,147,563 27,156 2,174,719	2,767,339 32,398 2,799,737	1,119,817 3,739 1,123,556	753,134 3,875 757,009
1001	Minor Group 27 Auto-Parts and Accessories <sup>1</sup> Brake linings and clutch facings	3,431	2,309	4,087	4,700	5,867	4,825	3,236	2,732
1109	Vehicle hardware other than locks	6,647	4,617	8,758	9,038	12,079	10,554	6,472	5,646
1126	Automobile skid chains	8,471	5,537	7,243	7,846	9,086	11,491	5,987	3,387
1201	Aluminum motor-vehicle accessories and parts	1,072	513	1,460	1,808	3,796	1,206	647	1,639
1219	Stamped automotive parts and accessories	7,290	5,130	9,050	8,677	8,973	9,951	5,393	8,196
1303	Automotive generators and starter-motors	7,076	5,387	11,094	11,569	14,149	10,554	4,962	3,643
	Ignition apparatus for internal-combustion engines	28,250	11,245	17,722	22,823	20,216	32,840	14,912	12,160
	Storage batteries	31,440	24,430	38,880	52,061	45,406	61,698	36,457	30,562
1407	Motor-vehicle bodies and parts Total, Minor Group 27	188,897 282,574	110,302 169,470	257,499 355,793	325,747 444,269	300,242 419,814	264,465 407,584	195,017 273,083	160,282 228,247

<sup>1</sup> This group does not include any exports.

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1409	Minor Group 28 Motorcycles, Bicycles and Accessories Motorcycles, side cars and bicycles Parts for replacement and repair Total, Minor Group 28	31,268 9,158 40,426	13,922 4,138 18,060	21,660 5,360 27,020	16,485 4,070 20,555	14,453 2,870 17,323	14,240 4,033 18,273	9,139 2,405 11,544	8,045 2,116 10,161
1410	Minor Group 29 Pleasure-Craft Ship and boat building: pleasure-craft	14,195	9,546	12,366	15,285	18,108	26,723	17,072	4,911
1631	Minor Group 30 Ophthalmic Products and Surgical and Orthopedic Appliances								
1645	Ophthalmic products Artificial limbs Other surgical and orthopedic appliances Total, Minor Group 30	41,935 3,070 14,454 59,459	34,202 2,419 10,949 47,570	41,906 2,680 15,171 59,757	26,076 3,005 18,500 47,581	28,298 3,208 19,273 50,779	29,343 2,442 21,467 53,252	23,011 1,760 16,409 41,180	21,635 1,773 16,546 39,954
1005	Minor Group 31 Monuments and Tombstones Monuments and grave markers, and burial vaults	793	748	1,262	1,775	2,219	3,461	2,802	2,044
1014	Monumental stones Total, Minor Group 31 Total, Major Group of Consumers' Durable Commodities	43,557 44,150 3,897,157	46,182 46,930 3,162,598	64,302 65,564 5,251,446	65,010 66,785 5,760,510	59,694 61,913 5,432,685	60,174 63,635 6,319,054	40,748 43,550 3,196,031	18,802 20,846 2,269,215
1304	Producers' Durable Minor Group 32 Industrial Machinery and Equipment a Engines and Turbines Steam engines (except traction) and turbines, excl. marine Water turbines and water wheels Internal-combustion engines: Diesel and semi-Diesel types, other than marine Electric-ignition type, other Engines and turbines, class and type not reported Parts for sale as such Total, Minor Group 32a b Gas Machines, Gas and Water Meters Gas machines, gas meters and water and other liquid meters Parts and accessories Total, Minor Group 32b c Machine Tools and Accessories Machine tools Replacement and repair parts	24,564 4,136 14,570 71,457 3,335 48,550 166,612	21,118 4,624 5,650 27,817 1,003 23,639 83,851	23,210 6,732 9,570 29,173 2,385 45,471 114,541	22,017 5,338 15,875 27,648 15,465 53,000 139,343	19,905 5,441 13,347 34,699 414 50,896 124,702	25,720 5,028 15,369 49,251 675 58,341 154,384	10,051 6,889 6,978 19,341 none reported 42,961 86,220	6,777 483 3,327 8,509 191 26,303 45,590
1306		27,765 2,471 30,236	22,735 2,023 24,758	30,540 2,727 33,367	32,030 2,884 34,884	31,236 3,936 35,172	35,518 7,524 43,042	17,607 5,165 22,772	9,812 2,882 12,694
1307		122,048 34,511	42,054 11,892	89,964 25,461	91,459 32,193	107,102 18,719	186,374 17,150	58,712 7,504	23,828 5,694



Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1318	Machine-tool accessories and small metal-working tools, n.e.c. Total, Minor Group 32c	73,075 229,634	40,197 94,143	66,230 181,655	64,844 188,496	63,714 189,535	183,139 386,663	74,551 140,767	46,878 76,400
1309	d Pumps and Pumping Equipment Pumps (hand and power) and pumping equipment other than used on farms Parts and attachments for same Total, Minor Group 32d	56,637 5,397 62,034	46,398 4,421 50,819	61,590 5,869 67,459	84,463 8,048 92,511	93,200 8,873 102,073	113,678 11,152 124,830	59,279 6,133 65,412	30,589 4,172 34,761
1312	e Textile Machinery Sewing machines and attachments, industrial types	13,905 78,100	8,546 71,658	10,318 85,718	10,833 67,313	9,909 62,209	12,093 71,682	7,631 34,362	5,888 29,253
1313	Textile machinery Extra parts, attachments, and accessories for textile machinery Total, Minor Group 32e	37,587 129,592	43,508 123,712	41,688 137,724	42,041 120,187	39,991 112,109	43,843 127,618	26,861 68,854	28,639 63,780
1305	f Foundry and Machine-Shop Products: Cement and concrete machinery Clay-working machinery Cranes (incl. hoists and derricks) Dredging, excavating and road-building machinery Stone-working machinery Total, Minor Group 32f	16,405 3,187 52,534 37,340 not reported 109,466	13,604 3,772 20,445 35,707 not reported 73,528	22,688 5,508 42,197 64,570 1,849 136,812	23,830 5,238 43,936 72,138 1,736 146,938	20,534 4,308 44,454 79,610 2,790 151,696	19,924 4,402 57,840 91,439 2,185 175,790	7,394 1,671 18,448 57,193 1,327 86,033	1,732 591 5,607 18,619 484 27,033
1305	g Foundry and Machine-Shop Products: Cars and trucks (mining) Mining machinery (not incl. oil-well machinery) Oil-well machinery Ore crushers Total, Minor Group 32g	not reported 51,243 28,351 2,367 81,961	not reported 30,290 27,415 3,322 61,027	4,820 47,590 52,158 4,862 109,430	6,527 34,827 47,299 3,252 91,905	8,239 35,259 62,126 2,893 108,517	8,967 40,325 89,067 not reported 136,359	3,369 12,570 23,105 not reported 39,044	2,181 8,776 20,706 not reported 31,663
1305	h Foundry and Machine-Shop Products: Bakers' machinery and equipment Baling presses (other than hay presses) Bookbinding machinery Bottling machinery Canning machinery Clothing-pressing machines Coffee roasting and grinding machines, food choppers and grinders, etc. Confectionery and ice-cream machinery Cotton gins Flour-mill and grain-mill machinery Glass-making machinery Hat-making machinery Incandescent-lamp-making machinery Leather-working machinery (other than shoe machinery)	9,359 not reported not reported 10,468 not reported not reported not reported 9,341 10,176 19,991 3,316 not reported not reported 4,691	10,560 not reported not reported 6,642 5,139 not reported not reported 5,157 2,721 8,663 4,088 not reported not reported 2,526	14,451 1,585 3,389 5,969 9,691 6,282 4,878 5,029 7,175 9,084 2,666 2,751 1,535 2,575	17,212 1,196 3,389 10,139 9,766 8,409 6,782 5,143 12,808 7,946 2,666 522 4,255 2,232	20,015 1,206 2,789 11,584 7,339 9,078 6,506 5,682 9,543 7,967 3,085 2,704 2,740 2,000	21,730 2,345 4,158 11,082 8,535 7,216 11,503 3,674 11,760 8,286 3,688 3,787 3,092 1,249	10,876 2,821 2,840 5,653 4,065 3,601 12,593 3,809 2,630 4,342 2,545 2,450 2,627 816	7,332 395 1,031 9,157 3,139 2,013 7,048 2,667 2,165 2,354 1,395 1,483 1,659 747

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933	
1610	Oil-mill machinery (cottonseed and other)	11,306	1,472	3,037	4,132	4,697	2,533	1,286	2,110	
	Oil-refinery machinery	not reported	not reported	not reported	4,387	5,038	30,210	7,912	4,807	
	Packaging machines	not reported	4,133	5,441	5,370	5,577	5,757	6,954	3,697	
	Packing-house machinery	not reported	not reported	733	1,213	948	6,663	4,622	2,756	
	Paint-making machinery	not reported	not reported	18,736	4,645	4,305	995	481	3,353	
	Paper-box machines	27,421	31,581	18,736	21,209	27,098	4,553	2,306	2,116	
	Paper-mill and pulp-mill machinery	not reported	not reported	821	815	717	30,456	15,793	8,696	
	Pharmaceutical machinery	19,346	16,316	28,799	30,582	30,186	41,374	16,867	7,611	
	Pneumatic machinery (not incl. pneumatic tools)	53,325	54,870	68,630	68,055	63,240	64,860	32,324	13,598	
	Printing machinery	17,002	8,003	6,849	10,164	9,951	13,552	4,425	3,347	
	Rubber-working machinery	16,261	9,482	10,663	11,799	12,334	12,317	9,755	8,130	
	Shoe machinery	14,847	12,075	9,112	8,643	6,601	5,046	1,840	794	
	Sugar-mill machinery	not reported	not reported	3,647	3,818	4,968	5,018	3,476	1,106	
	Tobacco machinery (incl. cigar and cigarette)	24,216	8,065	4,588	4,938	4,899	4,386	2,590	990	
	Condensers	36,763	25,682	44,447	39,620	29,569	35,151	11,057	6,100	
	Wood-working machinery	15,665	14,806	17,244	15,296	21,682	26,579	10,218	2,527	
	Ice-making machinery	16,660	8,639	7,818	6,220	7,098	7,120	7,661	5,858	
	Other dairy, cheese-factory and butter-factory machinery	320,144	240,620	307,296	333,331	330,146	396,949	199,058	117,444	
	Total, Minor Group 32h	General and Miscellaneous Machinery								
	1305	1 Foundry and Machine-Shop Products:								
Boiler-shop products		115,747	79,155	118,165	114,490	123,106	157,142	72,062	41,221	
Industrial furnaces and industrial oil burners		10,080	6,893	10,291	9,971	9,834	11,942	5,502	2,489	
Machinery not reported by specified class		346,694	199,382	247,183	177,265	163,597	240,446	117,724	68,737	
Blowers and exhaust and ventilating fans		12,141	12,518	14,386	16,210	20,433	25,243	15,323	6,955	
Cars and trucks (industrial)		not reported	not reported	13,099	17,739	13,502	17,919	6,820	3,869	
Conveying and elevating machinery		not reported	not reported	26,203	30,688	33,528	48,537	22,109	11,413	
Foundry machinery		not reported	not reported	not reported	7,017	7,017	10,639	3,338	1,957	
Hydraulic machinery (other than for dredging)		not reported	not reported	3,871	4,938	2,906	10,082	4,540	1,549	
Laundry machinery (commercial laundries only)		13,891	12,983	19,077	24,198	27,204	28,893	14,637	5,980	
Stokers, mechanical		4,280	7,161	14,095	9,420	10,213	14,054	8,310	5,629	
Well-drilling machinery (other than oil-well machinery)		2,567	1,353	1,074	1,843	1,545	1,463	1,530	777	
Transmission machinery		not reported	not reported	11,359	15,350	18,246	26,787	15,226	9,693	
Machine parts and attachments		32,351	22,124	33,027	32,000	31,380	69,580	52,193	48,445	
Total, Minor Group 32i		537,751	341,569	511,830	454,112	462,511	662,727	339,414	208,714	
1303		Minor Group 33 Electrical Appliances, Industrial and Commercial								
		a Electrical Motors and Control Apparatus								
		Generators not incl. motor-generator sets, automotive generators or self-contained power and lighting outfits	19,308	18,436	22,744	23,216	22,838	26,066	13,064	4,070
Motor-generator sets and dynamotors (not incl. arc welding sets)		4,851	6,311	7,305	8,264	6,764	13,397	6,007	2,201	

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1303	Power transformers	6,251	9,742	18,506	20,234	22,806	28,985	15,680	2,627
	Stationary motors, 1 h.p. and over	76,178	41,171	60,839	64,399	63,770	84,783	34,782	17,196
	Total, Minor Group 32a	106,588	75,660	109,394	116,113	116,178	153,231	69,533	26,094
	b Industrial and Commercial Apparatus								
	Industrial and commercial apparatus and appliances (not incl. motor-driven tools)	6,631	3,821	6,788	10,283	12,761	28,637	17,660	12,598
	c Other Electrical Apparatus, Primarily Public Utility								
	Measuring instruments and meters (except laboratory testing and scientific instruments)	17,718	17,484	22,915	26,398	26,159	25,731	17,073	7,295
	Switchboards, circuit breakers and switches	21,861	36,299	57,856	69,759	71,924	81,201	44,832	16,243
	Insulated wire and cable (rubber-paper and cotton-insulated)	98,313	75,126	140,937	160,911	160,384	228,446	90,791	32,419
	Fuses and fuse blocks	7,895	4,483	9,245	10,393	10,891	14,036	7,761	4,825
	Overhead trolley-line material	9,379	2,691	3,796	4,240	5,446	3,261	1,718	1,213
	Railway signals and attachments	4,467	1,620	4,466	14,030	22,540	22,572	10,583	6,432
	Searchlights and floodlights	not reported	not reported	not reported	1,263	3,217	3,875	3,941	not reported
	Telephone and telegraph apparatus	48,863	102,236	94,484	84,433	121,013	166,293	113,170	21,180
	Signaling apparatus (other than railway)	8,216	8,848	9,782	8,571	9,976	12,247	6,881	incl. with railway signals and attachments
	Rectifying apparatus	1,965	956	4,251	10,466	11,910	4,259	2,871	1,723
	Other electrical machinery, apparatus and supplies	109,156	60,752	104,838	117,407	137,033	224,259	89,008	49,952
	Lightning arresters	3,553	2,044	3,834	5,961	6,327	6,515	3,257	1,592
	Wet primary batteries	3,509	1,280	2,543	3,743	3,359	2,269	1,212	830
	Total, Minor Group 33c	333,695	313,819	463,947	517,575	589,979	794,964	393,098	143,704
	Minor Group 34 Farm Machinery, Tractors, and Wagons								
	a Farm Machinery and Equipment								
231	Horse blankets, fly nets and related products	7,945	4,549	5,884	4,236	4,436	3,047	1,285	1,777
1113	Horse and mule shoes and shoe calks	11,787	7,964	8,669	5,327	5,682	3,203	1,680	1,519
1125	Forks, hoes, rakes, shovels and spades	14,461	7,043	14,417	13,070	12,867	13,161	8,047	6,498
1127	Barbed wire, plain and coated, poultry netting and woven-wire fence	80,319	52,504	70,004	58,628	52,983	52,401	30,342	26,240
1301	Plows and listers; harrows, rollers, pulverizers and stalk cutters; planting and fertilizing machinery; cultivators and weeders; harvesting machinery; haying machinery; and machines for preparing crops for market or for use								
	Attachments and parts for preceding	163,101	89,844	95,370	104,212	149,873	183,011	56,174	17,463
	Misc. agricultural implements	75,351	47,589	35,842	32,737	37,363	51,267	20,327	11,810
	Misc. attachments and parts	incl. above	13,277	24,576	26,039	19,584	20,404	11,386	incl. above
		incl. above	above	1,697	2,686	1,428	962	816	incl. above

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1303	Self-contained power and lighting outfits not exceeding 5 kw.	24,079	4,043	7,685	11,143	8,239	6,840	1,639	945
1305	Lawn mowers	3,777	6,401	8,258	8,047	9,269	10,953	6,141	3,467
1309	Farm pumps and pumping equipment	17,805	14,586	19,390	20,074	15,865	17,581	11,268	5,827
1316	Parts and accessories for same	1,463	1,199	1,801	1,801	2,293	2,315	1,741	1,183
1404	Windmills and windmill towers	6,009	3,953	4,636	5,682	4,555	5,411	1,652	1,400
	Parts for same	377	245	286	690	366	522	265	185
1610	Carrriages, wagons, sleighs and sleds (except business wagons)	60,474	21,327	23,491	18,854	10,820	10,754	2,834	2,610
	Dairymen's supplies: creamery, cheese-factory and butter-factory equipment; and poultrymen's and apiarists' supplies								
	Total, Minor Group 34a	20,140	18,350	34,885	34,330	37,138	38,487	12,385	2,615
	b Tractors and Tractor Engines	487,088	292,874	356,710	347,556	372,761	420,319	167,982	83,539
1304	Tractors and traction engines	172,667	53,169	78,320	102,905	136,950	196,997	57,537	18,900
1404	c Business wagons	8,418	4,071	5,172	4,960	4,593	3,879	1,393	1,283
	Business wagons								
	Minor Group 35 a, b, c, d and e Office and Misc. Machinery and Equipment								
1302	Cash registers and adding, calculating and card-tabulating machines	79,577	50,183	89,632	87,063	93,526	99,570	44,746	33,287
	Parts and attachments	5,990	3,777	6,746	6,553	7,077	6,647	4,163	2,988
	Rebuilt machines, etc.			none reported				3,854	3,352
1303	Electric fans (destined for commercial and industrial use)	5,423	4,713	6,229	6,925	6,729	6,627	5,615	1,523
1305	Addressing and mailing machines	not reported	not reported	5,768	9,035	9,788	10,537	6,156	2,293
	Check-writing machines	not reported	not reported	2,489	2,093	1,780	2,346	1,316	731
1311	Manifolding machines	20,641	15,885	21,836	23,691	22,165	25,385	2,998	2,549
	Scales and balances	20,330	15,254	21,836	23,691	22,165	25,385	12,072	6,805
1314	Parts for same	41,147	30,373	37,549	47,680	51,942	55,057	19,172	328
	Typewriters	2,166	1,599	1,976	2,510	2,737	6,476	2,483	1,809
1618	Parts	9,014	9,414	10,824	14,998	13,132	16,768	15,254	11,601
	Hand stamps and stencils and brands								
	Subtotal 35a	164,288	116,198	183,394	204,814	212,763	233,602	118,276	81,121
1305	Vending machines, 35b	1,646	2,466	3,777	4,202	7,059	8,821	5,861	5,472
1640	Signs and advertising novelties, 35c	44,618	54,088	67,987	89,056	98,217	113,137	70,835	44,740
1641	Soda-water apparatus, 35d	13,852	12,620	14,649	17,888	20,327	22,636	14,307	5,914
1646	Theatrical scenery and stage equipment, 35e	1,028	1,169	1,566	3,561	5,485	5,481	3,032	2,064
	Total, Minor Group 35	225,432	186,541	271,373	319,521	343,851	383,677	212,311	139,311
	Minor Group 35 Office and Store Furniture and Fixtures								
309	Furniture and fixtures for offices and Stores	55,404	62,194	121,107	140,468	159,270	193,359	91,405	46,857
	Furniture for public buildings	10,975	12,320	23,990	27,867	23,733	22,779	13,768	4,309
	Professional, laboratory, hospital, etc.	5,223	5,862	11,416	13,139	15,204	14,283	10,044	4,554
	Lockers	2,119	2,379	4,632	5,309	4,641	5,233	3,142	1,149

Table I-4 (Continued)

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
316	Not reported by class - office and store, etc.	2,474	1,810	3,100	6,172	6,542	8,133	none reported	623
1115	Commercial refrigerators, non-mechanical	12,577	15,759	24,526	26,803	23,525	18,669	10,077	3,661
1310	Safes and vaults	13,459	17,358	16,809	20,277	18,440	19,362	11,607	2,918
	Commercial mechanical refrigerators	637	780	819	2,008	3,907	14,149	15,520	7,986
	Total, Minor Group 36	102,868	118,462	206,399	242,043	255,262	295,967	155,563	72,057
1303	Minor Group 37 Locomotives and Railroad Cars	8,160	9,397	8,865	10,331	9,858	17,705	7,009	1,962
1405	Electric locomotives	403,038	201,939	423,869	274,618	228,753	249,679	48,841	7,540
	Cars, electric and steam railroad	47,555	42,373	59,216	43,605	40,372	38,110	14,290	4,197
1406	Parts for sale as such	139,226	80,717	185,808	48,028	60,650	65,203	13,073	787
	Locomotives	14,789	20,190	28,917	15,596	15,861	9,051	2,230	2,466
	Parts	612,768	354,616	706,675	392,178	355,494	379,748	85,443	16,952
1410	Total, Minor Group 37	1,003,070	208,878	33,737	37,417	39,219	56,676	47,631	13,517
	Minor Group 38 Ships and Boats								
	Commercial craft								
1408	Minor Group 39 Business and Motor Vehicles	238,909	116,296	281,506	346,357	305,119	356,686	205,752	137,514
	Public conveyances, commercial vehicles, government vehicles, and trailers	140,819	64,488	76,365	81,597	68,088	266,449	67,422	41,786
	Commercial and bus chassis	379,728	180,784	337,871	427,954	373,207	623,135	273,174	179,302
	Total, Minor Group 39								
	Minor Group 40 Aircraft								
1401	Aircraft heavier than air (with engines)	8,046	4,133	7,737	6,674	14,505	51,508	21,790	15,670
	Parachutes, propellers and other aeronautical products	401	200	350	387	748	4,177	1,936	1,565
	Parts and engines for sale as such	3,916	1,956	3,411	3,795	5,038	10,892	9,224	5,898
	Increase in inventory in aircraft and parts in 1929						-5,103		
	Total, Minor Group 40	12,363	6,289	11,498	10,856	20,291	61,474	32,950	23,133
1009	Minor Group 41 Professional and Scientific Equipment	1,399	1,084	1,192	1,602	1,418	2,104	1,319	1,185
1303	Scientific glass apparatus	5,911	6,820	5,991	9,788	13,802	23,555	9,164	4,389
	Electrotherapeutic and electromedical apparatus	1,604	1,591	1,769	1,508	2,399	6,006	2,110	976
1611	Laboratory testing and scientific instruments	19,888	17,557	22,068	26,688	28,542	33,029	23,881	16,355
1620	Dental goods and equipment	43,404	31,320	46,114	56,812	64,594	64,198	27,413	17,026
	Instruments, professional and scientific	9,195	7,499	9,189	5,718	6,205	13,504	8,619	8,094
1631	Optical instruments and parts	2,020	1,647	2,018	1,256	1,342	2,827	1,099	1,046
	Other optical goods	83,421	67,518	88,341	103,372	118,302	145,223	73,605	49,071
	Total, Minor Group 41								

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1103	Minor Group 42 Carpenters' and Mechanics' Tools Axes, adzes and hatchets Augers, bits, gimlets and counter-sinks (woodworking only) and chisels (except cold chisels) Cutting dies (for use in cutting cloth, paper, leather, etc.) Edge tools - other and not specified Files Saws Tools (excl. farm tools) Total, Minor Group 42	5,206 2,946 1,918 5,206 18,515 30,598 79,559 143,948	3,607 2,041 1,329 3,607 8,037 17,762 36,938 75,321	5,541 3,022 1,968 5,541 14,257 30,151 65,882 125,962	5,928 3,303 2,153 5,931 14,234 24,236 65,993 121,778	3,708 3,025 3,057 9,969 12,476 19,538 63,740 115,513	5,105 3,120 3,981 4,108 13,609 20,398 86,301 136,622	2,217 1,245 3,363 1,055 6,957 9,471 34,370 58,678	3,208 772 3,181 2,245 7,246 8,112 27,701 52,465
301	Minor Group 43 Durable Containers Baskets and hampers, and other rattan and willow ware Tanks and vats	12,042 4,461	11,777 4,065	15,404 6,582	18,384 5,819	23,797 5,220	24,706 6,180	17,168 3,210	13,016 4,955
314	Beverage containers, pressure ware	13,699	12,407	15,516	14,513	15,995	16,690	13,097	20,102
1008	Food-products containers, milk bottles	9,997	9,055	11,324	10,588	11,480	11,696	10,027	9,181
1120	Steel barrels, kegs and drums	22,429	13,660	22,555	20,837	27,275	42,818	22,060	30,977
1123	Ice-cream cans and milk cans	4,124	2,946	3,759	4,560	5,537	5,799	3,404	2,957
	Total, Minor Group 43	66,752	53,910	74,940	74,701	89,304	107,889	68,966	81,188
214	Minor Group 44 Miscellaneous Subsidiary Equipment Rope, cable and cordage	57,577	25,809	38,441	47,976	44,642	42,671	18,987	15,238
240	Nets and seines	5,227	3,082	4,692	5,717	5,774	6,589	2,867	2,026
310	Lasts and related products	12,134	12,559	9,996	9,672	8,109	7,673	5,601	4,916
320	Ladders and parts	4,768	4,101	4,889	4,614	4,811	5,345	2,846	2,124
511	Scaffolding equipment	181	156	186	175	149	208	155	127
511	Printing materials, not incl. type or ink	5,005	5,301	5,107	6,536	7,519	9,204	5,999	5,513
802	Fire hose	4,090	2,748	5,153	5,401	6,203	5,988	3,856	2,622
901	Belting, leather	35,616	15,477	29,764	25,475	21,777	25,624	9,642	9,636
1006	Crucibles	6,674	2,463	4,153	2,767	2,504	2,752	1,114	7,758
1007	Emery wheels and other abrasive appliances	31,127	12,530	24,940	25,381	22,428	35,523	15,274	14,564
1011	Grindstones, pulpstones and millstones	1,466	1,530	2,283	2,012	1,872	1,498	408	532
1012	Hones, whetstones and similar products	1,769	290	500	732	753	975	57	50
1017	Chemical stoneware and porcelain	1,099	829	1,157	1,171	1,243	1,342	970	700
1103	Saggers	2,116	1,927	1,870	1,764	1,916	1,308	645	326
1109	Cutlery - other and not specified	1,576	1,092	1,516	1,751	2,937	6,631	4,719	3,985
1206	Padlocks	6,074	4,197	7,527	7,940	7,046	6,547	3,659	2,209
1604	Fire extinguishers, chemical	5,249	3,978	5,665	7,344	7,495	7,544	4,468	3,786
1605	Industrial brooms, street-sweeping-machine brooms, and other brooms	1,894	1,146	1,647	1,419	1,207	2,152	1,175	1,043
1625	Paint and varnish brushes (incl. artists' brushes)	15,763	14,465	20,867	18,778	19,320	18,354	11,572	9,450
1625	Models and patterns, not incl. paper patterns	25,367	15,875	30,839	22,864	23,833	39,010	17,725	9,447
1636	Misc. photographic equipment	4,367	3,509	3,550	5,839	4,460	5,047	5,873	2,619
	Total, Minor Group 44	228,139	133,064	204,842	203,328	195,998	231,985	115,610	91,671
	Total, Major Group of Producers' Durable Commodities	5,641,006	3,222,824	4,682,083	4,634,247	4,756,124	6,230,785	2,878,708	1,622,864

Table I-4 (Concluded)

## RECAPITULATION

Industry Number	Major and Minor Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Perishable	14,440,626	10,244,450	11,545,943	13,104,839	13,315,895	14,594,943	10,650,604	8,742,016
	Semidurable	7,435,033	5,872,493	7,519,837	7,411,745	7,637,898	7,683,276	5,055,550	3,905,406
	Consumers' Durable	3,897,157	3,162,598	5,251,446	5,760,510	5,432,685	6,319,054	3,196,031	2,269,215
	Producers' Durable	5,641,006	3,222,824	4,682,083	4,634,247	4,756,124	6,230,785	2,878,708	1,622,864
	All Finished Manufactured Commodities	31,413,822	22,502,365	28,999,309	30,911,341	31,142,602	34,828,058	21,780,893	16,539,501

Table I—5

OUTPUT OF CONSTRUCTION MATERIALS  
CENSUS OF MANUFACTURES YEARS, 1919–1933

The entries in this table are for commodities marked C in Table I—1 and for those shown as construction materials in Table I—3. The specific commodities are listed in the order of the corresponding industry numbers. The value of output is at prices charged by the manufacturing establishments.

Table I—6

VALUE OF REPAIRS AND SERVICING  
CENSUS OF MANUFACTURES YEARS, 1919–1933

The entries in this table are those marked S in Table I—1. Repairs and servicing are classified in two major groups: those for consumers' durable commodities and those for producers' durable commodities. Within each group the items are arranged in the order of the Census industry numbers under which they are reported.



Table I-5

## OUTPUT OF CONSTRUCTION MATERIALS

(thousands of dollars)

Industry Number	Commodity	1919	1921	1923	1925	1927	1929	1931	1933
307	Cork insulation products incl. tiling and flooring	4,094	3,393	5,263	5,985	5,774	9,604	6,024	4,981
311	Lath	8,292	8,613	15,176	15,529	8,065	5,903	1,627	1,036
314	All other lumber and timber products	416,602	92,007	236,213	174,728	90,539	160,844	46,385	56,216
	Dressed lumber, incl. flooring, ceiling, partition and siding	403,696	373,212	558,857	572,969	555,313	493,456	183,627	135,029
	Doors	55,603	51,404	76,974	79,266	57,972	59,316	20,757	10,408
	Sash	30,603	28,293	42,366	43,505	29,766	25,282	10,646	6,744
	Window and door frames	30,173	27,894	41,770	42,497	33,015	27,699	11,077	4,644
	Portable and ready-cut houses	10,911	10,087	15,104	15,316	14,227	11,575	3,727	1,640
	Misc. millwork and millwork not reported by kind	253,902	234,730	351,490	360,692	300,887	281,926	132,358	63,400
	Inventory decrease in planing-mill products in 1929						37,857		
	Not reported by kind - made as secondary products in other industries	4,935	3,916	11,259	3,482	5,847	7,613	none reported	
319	Wood preserving	33,482	47,506	71,133	91,213	113,482	116,928	62,525	30,933
407	Building papers	18,591	13,267	26,706	45,692	40,062	39,376	18,129	14,060
411	Wall paper	22,933	29,002	34,582	29,911	29,985	30,005	20,189	15,794
602	Blasting and detonating caps and railroad torpedoes	10,758	3,015	5,644	6,190	7,303	9,170	5,299	4,814
613	Explosives	8,567	5,575	6,813	6,319	7,281	8,310	9,906	8,626
626	Paints and varnishes	225,009	176,639	267,849	312,853	342,621	373,672	235,342	192,653
701	Tar	6,919	5,271	8,675	11,107	14,570	14,652	9,980	7,309
703	Tar	4,661	5,396	5,040	6,141	8,218	8,170	6,631	4,544
705	Liquid asphaltic road oils	4,491	7,831	7,865	12,512	9,308	11,041	10,425	8,399
	Residuum or tar	1,523	1,831	3,191	5,582	5,118	3,149	1,663	1,299
802	Asphalt, other than liquid asphalt	12,500	16,647	23,339	30,461	37,884	34,506	21,751	17,932
1001,1644	Rubber flooring	4,335	2,526	3,712	6,123	4,503	4,267	2,924	1,237
	Asbestos building materials	6,613	4,321	7,158	8,217	8,947	10,424	5,648	3,479
1002	Asbestos pipe and boiler covering	6,477	4,232	7,010	8,048	8,756	10,219	6,205	3,446
1004	Cement	132,231	181,425	254,978	285,993	277,232	250,943	138,605	83,562
	Clay products (other than pottery)	158,751	162,451	264,261	270,785	258,036	225,221	95,294	37,584
	Nonclay refractories (except refractory cement)	10,915	7,754	18,859	18,094	22,312	27,785	12,134	10,181
1005	Concrete products	34,918	32,951	55,598	78,019	91,501	89,795	50,183	17,538
1008	Window glass	41,101	24,026	42,623	37,525	26,814	25,962	10,307	10,790
	Obscured glass, incl. cathedral and skylight glass, etc.	4,300	2,547	5,114	6,916	5,093	5,256	2,389	incl. with wire glass
1008,1009	Wire glass	2,907	3,316	5,533	5,810	4,378	5,992	1,800	2,957
1009	Plate glass	25,383	27,664	32,235	28,456	17,468	14,736	11,396	13,162
	Leaded, stained and other ornamental glass for windows, etc.	3,438	2,666	2,929	3,939	3,485	5,217	3,233	2,939
1013	Lime (excl. agricultural lime)	27,061	25,251	39,050	40,703	35,556	27,146	16,599	12,115
1014	Marble, granite, slate, and other stone products (except monumental stones)	81,564	89,647	124,822	125,965	139,378	130,449	77,867	35,854
1017	Vitreous china and semi-vitreous or porcelain plumbing fixtures (excl. fittings)	14,872	15,303	28,049	30,826	29,094	28,957	14,889	8,356

Table I-5 (Concluded)

Industry Number	Commodity	1919	1921	1923	1925	1927	1929	1931	1933
1018	Porcelain electrical supplies	12,615	14,331	21,248	21,827	22,861	22,135	13,154	7,056
1020	Sand-lime brick	1,730	1,269	2,472	3,781	3,646	2,910	1,237	195
1101	Wall plaster, wall board, insulating board, and floor composition	35,298	49,871	73,441	90,438	81,934	75,622	52,900	27,340
1102	Bolts, nuts, washers and rivets	35,352	18,065	36,234	35,777	34,621	41,101	23,688	19,830
1104	Cast-iron pipe	48,515	40,401	90,144	97,387	91,238	85,890	51,111	22,633
1109	Doors, shutters, and window sash and frames, metal	8,832	10,123	12,478	40,647	56,218	69,369	34,782	13,071
1112	Builders' hardware other than locks	36,442	25,179	45,165	47,949	42,625	58,309	29,000	15,078
1112,1113	Rails, rerolled or renewed rails, rail joints and fastenings, tie-plates, etc.	125,184	125,124	161,953	163,710	168,062	163,619	67,900	25,010
1112,1113	Concrete-reinforcing bars	18,429	10,267	32,446	35,078	35,410	42,417	23,081	12,309
1113,1126,1127	Cut and wrought nails, spikes and tacks	1,782	1,577	2,249	2,384	2,567	2,251	2,156	2,028
1114	Wire nails, brass, etc.	25,054	16,378	21,793	18,124	16,344	14,375	10,282	11,370
1117	Plumbers' supplies, not incl. pipe or vitreous-china sanitary ware	57,896	66,521	129,732	175,806	151,098	137,463	66,953	43,144
1119,1121,1303	Wood screws	12,179	8,450	14,258	14,777	8,874	12,990	5,186	4,447
1119,1121	Heating apparatus	116,033	86,859	156,796	159,539	159,309	150,947	86,135	58,758
1122	Fittings, valves and specialties	72,416	54,373	98,121	98,756	104,118	140,730	115,154	67,396
1122	Structural and ornamental iron and steel work	305,546	262,762	419,859	435,794	445,394	482,284	237,216	107,289
1128	Wrought pipe, welded and heavy riveted	275,851	180,661	317,831	309,145	342,370	371,860	172,528	92,765
1204	Copper, tin and sheet-iron work	120,647	115,751	145,402	138,056	146,825	170,896	89,428	52,981
1207	Electric-lighting equipment, residential and nonresidential (except portable lamps, candelabra and candlesticks and desk and reading lamps)	24,720	23,027	36,999	40,671	39,556	47,804	23,882	16,006
	Street and highway fixtures	3,767	3,509	5,638	6,197	6,028	7,337	4,195	
	Gas fixtures and equipment	1,962	1,828	2,936	3,228	3,139	3,786	1,467	
	Lighting equipment, not separately reported by kind	2,511	2,339	3,759	4,132	4,018	4,921	reported	458
1303	Wiring devices	26,919	21,806	34,966	34,806	32,703	38,395	21,778	17,796
1305	Interior conduits	19,267	19,346	37,500	45,785	41,717	58,158	32,835	19,102
1632	Elevators and elevator machinery	70,187	40,931	52,516	47,430	43,152	44,044	20,035	8,322
1638	Asphalt, tar, crushed slag and mixtures	41,290	57,264	65,965	84,980	107,137	27,619	18,899	12,932
	Roofing, built-up and roll; asphalt shingles, roof coatings, other than paint	81,341	73,464	76,255	113,175	115,335	101,085	55,597	42,278
	Total Construction Materials	3,704,876	3,063,085	4,807,036	5,094,748	4,956,083	5,010,740	2,528,120	1,533,255

Table I-6

## VALUE OF REPAIRS AND SERVICING REPORTED IN THE CENSUS OF MANUFACTURES

(thousands of dollars)

Industry Number	Major Group and Industry	1919	1921	1923	1925	1927	1929	1931	1933
906	Consumers' Durable Leather goods, n.e.c.: custom work and repairing	265	239	201	203	216	194	151	107
908	Pocketbooks, purses and cardcases: custom work and repairing	29	27	66	87	115	112	236	168
1106	Firearms: custom work and repairing	396	39	496	633	680	1,064	333	209
1202,1221, 1222,1223	Clocks, watches and parts: custom work and repairing	764	570	791	860	1,649	1,122	no data	687
1315	Washing machines, etc: repair work	489	362	604	812	959	1,294	786	
1403,1648	Children's carriages and sleds, and toys and games: repair work	210	172	271	241	219	236	181	49
1407	Motor-vehicle bodies and motor-vehicle parts: contract and custom work and repairing	7,614	4,488	11,144	16,081	15,023	13,063	8,000	4,092
1408	Motor vehicles: repair work	25,372	13,411	21,358	9,635	16,104	10,998	7,376	1,087
1615	Fur goods: custom work and repairing	5,017	4,047	5,662	7,274	20,037	19,241	11,682	5,670
1627,1628, 1629,1630	Musical instrument industries: custom work and repairing	1,576	1,396	1,515	1,653	1,472	1,966	911	444
1635	Phonographs: custom work and repairing	269	452	408	296	233	1,072	945	1,303
	Total, Repairs and Servicing of Consumers' Durable	42,001	25,203	42,516	37,775	56,707	50,362	30,601	13,816
	Producers' Durable								
901	Belting, leather: belt repairs (incl. rebuilding and reworking)	1,136	494	949	812	681	1,127	468	223
1103	Cutlery (not incl. silver and plated cutlery) and edge tools: repair work	69	48	70	66	278	220	294	120
1104	Doors, shutters: custom and repair work	371	425	524	1,707	2,361	2,918	323	119
1112	Steel works and rolling mills: custom work and repairing	6,307	3,713	4,486	3,037	1,900	3,111	1,361	798
1303	Electrical machinery, apparatus and supplies: custom work and repairs	27,106	4,825	10,942	6,887	5,642	10,026	5,055	4,067
1305	Foundry and machine-shop products: amount received for products mfd. on contract and for machine-shop repair work	135,039	92,348	137,860	133,571	168,969	184,967	64,666	41,107
1307	Machine tools: contract and repair work	8,921	2,845	5,763	6,056	6,651	5,414	1,948	1,263
1318	Machine-tool accessories and small metal-working tools, n.e.c.: contract and repair work	950	523	861	843	828	2,305	1,433	713
1309	Pumps and pumping equipment: repair work	1,025	840	1,115	1,428	6,133	8,046	6,288	4,211

TABLE I-6 (Concluded)

Industry Number	Major Group and Industry	1919	1921	1923	1925	1927	1929	1931	1933
1313	Textile machinery and parts: repair and contract work	5,994	6,563	9,679	7,797	6,912	6,978	4,125	2,326
1401	Aircraft and parts: experimental and repair work	355	177	309	342	660	3,688	4,597	1,730
1404	Carriages, wagons, sleighs and sleds: parts and repair work	26,178	14,424	9,333	2,963	3,667	3,812	1,777	1,637
1405	Cars, electric and steam railroad: repair work	110,087	98,095	136,971	68,159	63,145	59,607	38,002	33,012
1406	Locomotives: contract and repair work	3,356	1,070	1,711	1,190	1,299	4,092	2,006	289
1410	Ship and boat building, steel and wooden, incl. repair work: repair work	187,486	104,995	113,327	89,514	101,464	114,728	78,442	51,746
1501	Car and general construction and repairs, electric-railroad repair shops: work done and products manufactured (except locomotives and cars built)	74,434	86,064	82,690	82,987	83,590	84,806	61,749	44,187
1502	Car and general construction and repairs, steam-railroad repair shops: work done and products manufactured (except locomotives and cars built)	1,268,277	1,163,363	1,411,654	1,238,898	1,178,418	1,158,324	670,600	456,259
	Total, Repairs and Servicing of Producers' Durable	1,857,091	1,580,812	1,928,244	1,646,257	1,632,598	1,654,169	943,134	643,807
	Total, All Repairs and Servicing	1,899,092	1,606,015	1,970,760	1,684,032	1,689,305	1,704,531	973,735	657,623



Table I—7

OUTPUT OF UNFINISHED COMMODITIES,  
BY CENSUS GROUPS

CENSUS OF MANUFACTURES YEARS, 1919-1933

The entries in this table are for commodities marked U in Table I—1 and for those shown as unfinished in Table I—3. They are grouped by the sixteen broad industry groupings distinguished in the *Census of Manufactures*. The order of the specific commodities within each industry group follows the industry numbers of the Census. The value of output is at prices charged by manufacturing establishments.

Table I-7

## OUTPUT OF UNFINISHED COMMODITIES

(thousands of dollars)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Census Industry Group 1 - Food and Kindred Products								
103	Whey butter	1,067	885	1,172	986	519	469	310	288
	Butter oil		none reported		1,058	239	393	none reported	
	Creamery butter	23,015	19,502	19,981	22,771	23,539	24,646	16,871	13,353
107	Cheese	11,120	6,313	10,087	9,053	8,923	9,131	5,687	4,775
109	Chocolate coatings	42,977	26,252	35,490	43,053	49,238	48,945	34,528	22,470
	Cocoa in barrels and drums	14,197	2,255	2,383	3,361	5,294	5,445	4,361	3,894
	Cocoa butter	13,900	4,809	5,240	6,818	8,555	5,429	3,612	3,296
110	Spices, ground	9,308	6,889	8,931	13,150	11,979	13,239	8,423	5,997
111	Condensed and evaporated milk and buttermilk	25,281	22,142	23,820	25,989	27,251	31,639	17,061	12,888
	powdered whole milk, cream, skim milk and dried and powdered buttermilk								
	Sugar of milk (crude)	9,034	7,808	7,772	8,989	9,141	10,395	6,174	5,094
	Ice-cream mix	2,633	813	no data	890	644	686	706	436
	Dried casein	9,558	5,719	7,701	12,354	13,775	15,278	13,493	8,848
	Corn sirup, corn sugar, corn oil and starch	2,200	621	2,502	2,299	3,052	5,726	2,266	2,560
113	Feeds, prepared, for animals and fowls	65,325	47,913	53,362	54,605	58,455	59,225	39,029	29,020
114	Flavoring extracts and flavoring sirups	219,372	105,814	141,564	260,285	390,560	494,516	256,275	187,438
115	Flour: wheat, rye, buckwheat and corn (except prepared flour)	29,776	42,461	40,005	39,400	39,496	33,779	36,465	20,789
	Bran and middlings	301,746	252,798	240,836	293,784	295,824	325,399	207,637	178,249
117	Food preparations, n.e.c.	211,436	105,538	118,011	137,897	142,194	141,985	73,670	62,552
119	Ice, manufactured	19,826	12,698	16,047	19,950	22,030	22,385	20,251	21,502
	Receipts for cold storage	61,903	72,192	73,377	83,438	82,242	93,218	84,477	61,781
120	Shortenings and vegetable cooking oils (not incl. lard)	7,143	4,494	4,721	4,180	4,720	5,446	5,092	4,274
121	Macaroni, spaghetti, vermicelli, and noodles	35,474	29,811	28,611	34,263	34,523	35,590	25,952	21,980
122	Malt	2,314	1,937	1,846	2,717	3,099	3,173	2,418	2,395
123	Lard	39,052	11,469	8,871	12,810	10,881	12,407	10,075	27,136
	Oleo oil and stock and stearin	32,524	27,297	26,198	31,374	31,612	34,083	22,812	19,324
	Fertilizer materials	47,896	18,664	22,958	24,654	19,031	16,222	7,542	5,204
	Hides, skins and pelts	no data	5,446	6,369	6,896	7,768	6,230	2,883	2,011
	Sheep and lamb slats and pickled sheep and lamb skins	243,561	61,057	91,227	114,520	126,665	109,023	53,946	56,949
	Wool	10,948	3,420	4,439	5,650	6,040	6,562	2,560	2,655
	Hair, hog and other	2,071	9,889	19,097	23,429	18,478	19,874	12,547	15,098
	Custom and contract work	4,059	702	1,800	2,111	2,722	1,154	516	372
124	Oleomargarine	4,977	1,555	2,018	2,518	2,584	1,785	1,802	2,350
125	Peanuts, walnuts and other nuts, processed or shelled	2,801	1,123	1,010	1,113	1,190	1,390	1,591	2,347
127	Second-head screenings and brewers' rice	4,524	2,638	2,866	3,411	4,607	3,932	3,099	3,316
	Polish and bran	10,516	4,913	5,638	6,941	6,004	6,527	3,515	2,668
	Sausage casings	3,406	1,598	1,814	1,823	1,604	2,166	1,432	1,091
128		26,355	14,556	24,385	31,300	31,567	32,616	13,505	18,745

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
129	Beet pulp	5,798	4,388	3,708	5,530	4,413	5,231	2,833	4,219
130	Unfinished sugar and molasses sold for desugarization purposes	247	722	409	388	1,647	1,888	956	1,092
	Raw sugar	9,899	7,967	15,598	7,098	4,127	10,279	9,007	9,201
131	Blackstrap molasses	not reported	421	825	621	1,193	1,088	4,005	507
	Bagasse	not reported	not reported	not reported	229	416	684	158	453
129, 130, 131	Refiners' blackstrap and non-edible sirup	9,834	1,870	2,142	3,859	2,172	3,044	1,090	842
	Sugar, refined, edible sirup and molasses	177,816	142,856	148,972	168,058	173,866	177,414	132,950	100,507
132	Vinegar and cider	3,008	2,214	1,797	1,936	1,423	1,886	1,476	1,127
	Total, Census Industry Group 1	1,757,897	1,104,429	1,235,600	1,537,559	1,694,302	1,841,622	1,150,458	949,073
	Census Industry Group 2 - Textiles and Their Products								
201	Artificial leather	23,496	13,871	30,005	36,675	29,165	31,346	15,025	13,435
203	Contract work	not reported	not reported	not reported	12	22	14	not reported	not reported
	Awings, tents, sails and canvas covers	29,986	24,332	29,139	31,396	30,817	30,848	19,874	13,425
204	Bags, other than paper, not made in textile mills	217,912	117,486	156,016	177,649	166,621	170,641	106,361	91,074
205	Belting other than leather and rubber, not made in textile mills	7,933	2,314	3,426	3,509	3,836	3,233	1,413	1,263
207	Carpets and rugs, wool, other than rag: contract work			not reported			37	not reported	not reported
208	Clothing (except work clothing men's, youths' and boys', n.e.c.: contract work)	79,306	60,308	70,118	63,107	68,386	66,179	42,380	34,968
209	Contract work	1,090	646	804	658	918	574	313	265
	Clothing, men's, buttonholes								
210	Clothing, women's, n.e.c.: contract work	62,231	45,657	47,322	63,636	96,830	105,080	73,506	51,069
211	Clothing, work, men's: contract work	Incl. in Industry 208	208	2,361	1,093	2,430	1,817	1,307	1,886
212	Cloth sponging and refinishing	3,691	4,101	4,652	3,889	3,458	3,361	2,447	2,855
213	Collars, men's: contract work	290	199	245	402	243	203	208	208
	Linen woven goods and thread	5,148	3,312	4,073	3,784	3,229	3,276	2,194	1,969
236	Binder twine	46,256	31,643	23,491	29,249	19,457	18,395	11,458	6,991
	Twine other than binder	36,265	21,617	36,592	30,734	32,973	44,195	19,327	21,205
215	Yarns for sale	13,288	9,864	19,213	19,475	15,742	15,467	7,402	7,358
	Jute woven goods	15,035	6,843	5,254	7,940	7,094	4,493	2,812	3,893
216	Corsets and allied garments: contract work	76	78	78	97	32	124	789	57
	Ounce duck and numbered duck (except tire)	93,996	34,943	57,163	53,827	57,930	64,184	24,757	28,261
214, 233,	Cotton bags made from fabrics woven by same establishment	4,008	2,062	5,864	3,384	3,271	2,032	712	775
	Pillow tubings	2,556	4,949	3,347	5,473	4,416	3,989	1,623	1,403
215	Old bagging and ties	2,505	730	1,728	2,120	1,414	1,303	761	728
	Tire fabrics	175,688	101,652	106,080	105,626	80,974	111,721	41,250	31,754
216	Tobacco, cheese, butter, bunting and bandage cloth	16,976	10,024	20,110	16,269	19,298	18,100	9,776	11,000
	Battings, wadding and mattress felts	8,482	5,877	16,646	14,134	16,304	19,407	12,241	8,866
217	Cotton card laps, sliver and roving	1,956	1,063	1,570	1,799	1,980	1,760	754	938
	Cotton waste produced for sale	36,332	13,308	37,306	40,623	26,609	32,570	10,641	12,770
218	Contract work	6,082	3,643	5,718	9,666	4,162	2,251	2,143	3,201



TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Osnaburghs, sheetings, drills and tickings	205,091	126,557	179,952	158,194	148,957	134,230	65,419	81,584
	Denims, napped fabrics, cottonades and cotton worsteds, terry-woven fabrics (except towels, towelings, wash cloths and bath mats)	80,895	48,183	88,493	69,653	72,996	68,311	39,326	49,683
	Print cloth, lawns, mainsooks, cambrics, etc., reps, poplins and broadcloths, pajama checks and dimities, etc., voiles, crepes, mosquito netting and tarlatan, twills and sateens, gingham, all shirtings, fabrics (other than shirtings and draperies), fabrics (except draperies) entirely or in chief value of rayon, other woven fabrics	372,427 418,605	255,775 221,187	380,670 332,489	318,801 301,501	290,536 246,960	271,547 239,040	166,385 116,064	175,763 132,771
	Thread and cotton yarns	27,616	15,918	35,891	37,825	40,953	37,976	14,970	11,795
	Plushes, velvets, velveteens, cor-duroy	18,806	6,913	13,895	9,559	4,746	9,217	12,334	11,230
	Other cotton products	6,541	1,975	4,348	3,252	5,969	5,185	none reported	1,912
	Cotton goods made as secondary products in other industries	6,901	5,555	8,339	6,939	6,628	2,890	2,890	1,912
217	Cotton tapestries	47,124	30,029	45,393	42,927	39,966	42,113	25,915	24,504
	Contract work	not reported	not reported	115	47	not reported	not reported	not reported	not reported
218	Dyeing and finishing textiles	113,593	97,038	128,549	143,238	142,373	163,246	112,969	97,806
	Contract work	169,565	144,851	191,890	213,817	212,525	243,789	168,633	145,998
219	Embroideries	4,773	5,077	5,596	5,835	6,073	4,967	3,893	2,348
220	Contract work	15,782	16,787	18,503	19,292	20,086	15,150	12,400	7,476
222	Felt goods, wool, hair or jute	38,909	22,635	40,433	41,394	40,013	42,294	26,580	25,598
223	Flax and hemp, dressed	2,569	268	281	459	283	197	not reported	not reported
	Furnishing goods, men's, n.e.c.:	3,016	2,223	2,890	2,596	3,174	4,123	3,438	1,063
224, 905	contract work	115	61	101	96	104	140	90	82
	Gloves and mittens, cloth and leather: contract work	3,342	2,639	3,764	2,768	3,645	3,885	2,453	2,411
225	Hair cloth	946	860	1,008	1,101	1,299	1,422	946	not reported
226	Handkerchiefs: contract work	24,246	10,625	18,971	20,330	21,618	23,546	10,360	9,143
227	Hat and cap materials, men's	180	153	215	539	773	1,154	185	143
228	Hats and caps, except felt and straw, men's: contract work	7,657	5,133	10,171	14,401	19,941	24,469	15,688	10,693
229	Hat bodies and hats in the rough	24	299	104	110	84	42	110	76
230	Contract work	165	245	479	1,347	2,734	3,621	2,982	2,399
234	Hat bodies, wool-felt	1,577	1,070	1,772	2,089	1,169	1,409	828	1,000
	Other knit goods	34,892	26,513	38,489	31,205	31,559	38,771	30,087	27,761
	Knit cloth (except glove and shoe linings)	2,521	2,118	5,836	4,632	4,773	4,655	1,053	1,323
	Glove and shoe linings	8,771	6,862	13,498	10,580	5,889	8,352	5,480	5,655
235	Contract work	6,025	5,169	7,069	6,331	4,609	6,879	4,806	4,249
	Lace goods (except Nottingham lace curtains and nets)	not reported	not reported	not reported	24	not reported	not reported	not reported	not reported
	Contract work	10,344	11,003	12,128	12,645	13,151	10,794	4,649	4,649
239	Hat frames, linings and trimmings	1,239	1,318	1,453	1,515	1,581	2,404	3,598	3,598
	Other millinery products	2,049	2,179	2,402	2,504	2,612	3,969	4,226	4,226
	Millinery braids	329	350	385	402	430	1,007	4,672	7,022
	Contract work								

TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
243	Neckbands, etc., for sale as such	1,603	1,532	1,876	1,724	1,892	1,592	not reported	1,058
244	Contract work	12,522	11,972	14,655	13,471	14,577	17,630	15,977	6,195
245	Silk and rayon products	462,254	393,408	519,659	544,285	509,457	507,783	294,721	195,393
	Contract work	38,335	29,829	32,730	48,943	48,566	57,274	46,366	39,501
246	Suspenders, garters, and other elastic woven goods, made from purchased webbing: contract work	413	306	173	195	196	215	132	94
247	Trimings (except bias bindings for the notion trade)	20,138	21,422	23,612	24,618	25,639	22,598	17,399	13,274
248	Contract work	2,605	2,771	3,054	3,184	3,309	1,121	3,300	235
249, 253	Upholstery materials, n.e.c.	8,799	4,130	7,731	8,736	10,549	12,259	5,527	3,215
	Waste	30,590	16,739	33,140	{ 39,308 353	33,476 431	33,268 657	15,258 419	14,163
	Woolen and worsted woven goods (except blankets)	626,202	463,906	630,461	566,620	481,833	468,428	272,019	251,501
	Woolen and worsted yarns	230,922	154,807	247,579	208,984	182,185	197,760	126,561	108,619
	Wool card rolls, bats and batting, tops and slubbing, noils and wool waste for sale	39,732	17,156	43,539	41,826	39,785	31,980	19,120	26,564
250	Contract work	18,387	13,142	13,522	11,120	11,580	14,741	13,991	12,739
251	Wool pulling	17,361	6,767	15,176	13,209	14,640	13,648	7,378	10,226
252	Wool scouring	13,680	6,820	8,190	5,820	6,662	6,241	4,640	4,404
	Wool shoddy	22,084	5,944	14,026	19,201	10,737	13,354	5,197	8,203
	Contract work	1,099	480	1,118	1,241	1,363	1,174	576	545
	Total, Census Industry Group 2	4,073,545	2,749,221	3,893,134	3,769,423	3,491,897	3,576,229	2,116,484	1,888,426
301	Census Industry Group 3 - Forest Products								
	Baskets and rattan and willow ware, not incl. furniture: custom and contract work		not reported			36	16	19	not reported
302	Billiard and pool tables, bowling alleys, and accessories: custom and contract work								
303	Boxes, cigar, wooden	273	130	113	100	127	103	41	12
	Custom and contract work	13,659	14,856	15,234	13,500	12,775	11,723	8,680	5,699
304	Boxes, wooden, except cigar boxes	23	25	25	23	82	100	not reported	not reported
	Custom and contract work	187,976	133,660	178,192	219,361	180,113	197,778	108,206	79,237
306	Cooperage	91,109	77	103	124	371	262	71	64
	Custom and contract work	91,856	58,120	73,731	68,737	65,722	61,877	37,575	33,397
307	Cork stoppers and bottle closures	4,061	74	95	87	208	174	3,382	538
	not reported separately	8,025	6,660	5,726	4,223	5,897	6,857	3,065	2,834
308	Excelsior	4,978	4,304	5,447	4,920	4,686	4,954	3,038	1,969
309	Other furniture for public buildings (seats for public conveyances, etc.)	1,968	2,209	4,302	5,067	6,845	18,265	15,277	4,781
	Unfinished frames for suites, chairs, etc.	8,572	7,913	9,884	10,742	10,788	7,355	3,841	2,568
310	Radio cabinets	1,347	1,776	2,650	17,616	18,128	69,551	12,601	6,566
	Contract, custom and repair work	not reported	not reported	3,858	4,308	4,927	5,544	1,583	564
311	Lasts and related products: custom and contract work	135	134	107	101	82	168	144	126
	Pulpwood	9,748	5,272	9,386	8,534	6,696	7,708	2,819	2,220
	All other lumber and timber products	555,773	433,158	688,067	665,792	568,088	595,226	222,459	155,758

TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
313	Mirror and picture frames	1,056	910	1,096	1,122	1,080	1,062	616	393
314	Custom and contract work	62	53	63	63	288	282	135	88
	Plywood	22,724	21,008	31,458	32,512	40,668	55,085	19,970	18,253
315	Silo stock	3,476	3,214	4,813	4,999	5,821	2,479	1,253	482
	Custom planing	3,757	3,474	5,201	5,518	3,304	4,019	1,551	524
316	Pulp goods	16,793	14,137	20,496	20,526	24,230	27,290	30,826	29,127
	Cabinets for mechanical refrigeration	2,106	2,579	2,709	6,641	13,415	22,802	20,026	19,276
317	Parts and accessories	58	73	not reported	not reported	96	254	327	not reported
	Custom and contract work	53,051	23,301	35,167	42,364	39,903	36,282	16,506	16,427
318	Turpentine and rosin	29	31	54	74	142	157	83	42
319	Window and door screens and weather strip: custom and contract work		not reported in Census			70,453	74,018	43,443	12,704
	Wood preserving: contract work								
320	Wood turned and shaped and other wooden goods, n.e.c. (except wooden-ware, ladders and scaffolding equipment)	44,057	37,897	45,174	42,635	44,293	51,599	44,236	32,963
	Custom and contract work	422	363	432	414	799	1,125	668	510
	Total, Census Industry Group 3	1,036,212	778,784	1,148,894	1,186,971	1,134,357	1,271,240	602,770	430,525
	Census Industry Group 4 - Paper and Allied Products								
401, 402, 403, 404, 405, 406, 407	Converted paper products	385,527	325,289	451,008	491,522	548,968	606,539	455,327	416,011
	Writing paper	26,849	18,762	27,284	32,275	32,175	34,694	23,027	18,767
410	Paper (except writing paper and building papers)	567,782	511,683	700,665	712,585	726,997	750,701	535,112	446,163
	Pulp (wood and other fiber)	94,477	67,538	69,897	64,873	214,177	234,759	164,934	132,471
	Total, Census Industry Group 4	1,074,635	923,272	1,248,854	1,301,255	1,522,317	1,626,693	1,179,200	1,013,412
	Census Industry Group 5 - Printing, Publishing, and Allied Industries								
501	Book-binding and blank-book making	54,732	52,935	63,778	67,884	74,160	84,094	63,625	42,843
	Engravers' materials	2,339	1,858	2,340	2,047	2,273	3,153	2,338	1,698
502	Engraving (other than steel, copper-plate or wood), chasing, etching and diesinking	6,924	4,618	8,502	8,034	7,844	10,514	5,411	3,305
	Engraving, steel, copper, etc., and wood	23,435	27,019	30,503	30,962	41,444	49,147	23,763	14,936
503	Lithographing	79,598	79,880	98,690	107,439	110,938	129,409	89,422	69,117
	Photo-engraving	31,410	38,979	46,933	61,343	71,451	80,294	60,979	41,146
504, 505	Commercial printing	532,816	602,298	652,591	720,441	787,409	882,667	705,296	456,236
	Newspapers and periodicals: advertising	529,299	676,987	793,893	923,273	1,030,221	1,120,238	868,510	569,674
512	Stereotyping and electrotyping not done in printing establishments	27,380	19,248	24,386	27,037	30,621	40,827	27,242	21,404
	Type founding	2,207	2,249	2,653	2,588	2,834	2,750	1,349	not reported
513	Total, Census Industry Group 5	1,290,140	1,506,071	1,724,269	1,951,048	2,159,195	2,403,093	1,847,935	1,220,359
	Census Industry Group 6 - Chemicals and Allied Products								
601	Alcohol, ethyl and distilled liquors	18,673	17,153	19,422	33,900	18,901	28,811	12,489	34,928
	Safety fuses, miners' squibs, etc.	3,322	3,374	5,231	5,405	5,227	4,043	2,563	1,855
603	Baking powders, yeast and other leavening compounds	25,677	21,550	20,683	24,769	24,956	22,141	21,212	17,996

TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
604	Blacking, stains and dressings	5,628	4,093	5,603	5,498	4,947	5,416	4,464	4,182
605	Bluing	313	218	176	232	180	152	131	114
606	Bone black, carbon black and lampblack	7,579	10,386	15,567	13,614	14,518	20,703	10,230	8,488
607	Candles	4,758	3,440	4,174	4,313	4,510	4,815	3,635	2,780
608	Chemicals, n.e.c.	504,848	332,995	530,383	505,462	562,845	700,023	488,934	433,771
609	Cleaning and polishing preparations	4,748	4,071	6,513	6,741	9,131	10,269	8,778	8,778
610	Compressed and liquefied gases	43,264	40,421	53,384	55,533	61,864	71,293	62,484	49,781
611	Biological products for animal use	9,510	6,503	8,387	6,363	11,026	9,734	7,733	5,088
612	Drug grinding	16,938	10,086	10,562	8,446	9,205	9,669	9,159	6,399
613	Explosives	77,101	50,179	61,320	57,507	58,911	54,643	30,363	20,419
614	Fertilizers	287,715	176,600	179,950	195,040	173,810	222,731	140,718	85,028
616	Glue and gelatin	34,898	23,177	26,457	26,085	30,752	32,196	27,653	17,249
617	Grease and tallow, not incl. lubricating greases	91,895	34,851	61,460	70,618	62,926	67,872	32,575	29,229
618	Ink, printing	25,429	20,220	28,510	34,260	35,472	41,630	32,329	26,131
619	Ink, writing	586	395	528	504	450	444	336	240
620	Liquors, vinous	5,448	1,551	1,863	1,171	718	694	280	280
621	Mucilage, paste, and other adhesives, except glue and rubber cement	5,985	5,393	5,833	6,910	4,680	4,214	2,987	2,044
622	Oil, cake and meal, cottonseed	581,245	217,225	226,388	295,685	276,338	299,376	181,347	104,212
623	Oil, cake and meal, linseed	116,773	69,489	109,455	128,693	112,111	118,389	64,458	41,475
624	Oils, essential	5,698	3,422	3,184	5,882	4,642	6,653	3,505	3,094
625	Oils, n.e.c.	76,675	45,705	57,897	57,710	50,660	45,160	25,922	22,254
626	Paints and varnishes	86,542	67,939	103,019	120,329	131,777	143,720	90,516	74,098
627	Agricultural insecticides and fungicides	4,821	4,622	6,740	7,591	8,782	10,340	6,965	3,781
628	Boiler compounds	3,801	3,622	4,889	5,757	5,867	5,084	3,387	3,365
629	Perfumes, cosmetics and other toilet preparations	2,545	2,813	3,696	4,569	5,533	6,156	5,154	3,517
630	Rayon and allied products	36,885	36,766	59,051	88,008	109,888	149,546	132,632	156,932
631	Salt	29,147	25,764	28,622	26,614	26,673	29,409	24,470	22,596
632	Soap	25,938	22,088	25,254	26,606	27,414	31,673	26,187	20,297
633	Tanning materials, natural dyestuffs, etc.	52,958	27,501	33,410	31,224	30,929	33,615	24,091	21,964
	Wood distillation and charcoal manufacture	32,662	9,710	29,761	25,238	27,571	30,289	11,488	11,080
	Total, Census Industry Group 6	2,230,005	1,303,322	1,737,372	1,886,277	1,913,214	2,221,899	1,500,666	1,243,445
	Census Industry Group 7 - Products of Petroleum and Coal								
701	Screenings and breeze and by-products (except gas and tar)	39,602	28,175	53,176	51,718	53,370	62,774	28,622	20,952
701, 703, 705	Coke	265,477	154,653	365,817	250,047	246,978	242,090	123,658	74,553
	Gas, manufactured, illuminating and heating: by-products (except coke and tar)	4,340	3,809	4,904	4,021	6,531	6,743	4,268	3,443
704, 705	Light products of distillation (except gasoline)	77,480	40,483	47,624	47,048	53,683	78,802	22,690	14,577
	Partially refined oils, sold for re-running	29,269	24,178	54,977	65,305	62,210	49,143	28,458	23,762
	Petrolatum, mineral jelly, etc.	3,750	3,552	2,974	2,559	2,222	2,548	1,968	1,968
	Paraffin wax	28,348	11,764	12,899	30,590	23,432	22,328	13,533	12,225
	Acid oil	993	1,477	1,472	1,139	1,849	663	1,120	1,015

TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Other refinery products	15,473	23,608	33,611	29,894	22,324	20,413	28,333	36,019
	Lubricating oils and greases	248,702	204,790	228,640	257,674	244,121	278,300	186,541	121,203
	Gasoline	265,148	327,862	341,925	475,112	335,511	581,872	282,671	259,995
	Fuel oils	314,943	373,491	342,209	476,734	442,336	365,398	251,744	228,957
	Total, Census Industry Group 7	1,293,525	1,196,842	1,490,041	1,692,841	1,495,319	1,711,074	973,680	798,669
	Census Industry Group 8 - Rubber Products								
802	Rubber belting	22,436	13,067	24,267	23,481	21,947	25,776	13,608	12,928
	Rubber hose and tubing (except garden and fire hose)	14,188	9,532	17,873	18,729	27,177	25,894	12,219	11,743
	All other mechanical rubber goods	31,464	18,531	26,307	38,535	36,557	49,140	27,648	24,384
	Hard-rubber goods, battery jars, boxes and parts	17,948	6,233	13,120	15,196	9,862	5,810	5,577	4,339
	Hard-rubber goods, other than battery jars, etc.	11,504	3,996	8,410	9,741	6,320	8,490	4,115	3,976
	Rubberized fabrics	24,409	11,219	20,758	21,633	26,541	29,754	17,653	18,251
	Reclaimed rubber	20,173	7,424	11,714	23,021	27,373	23,906	9,985	5,983
	Rubber thread	4,069	2,371	3,485	5,745	5,340	5,190	2,904	2,236
	Other manufactures of rubber	27,400	14,908	29,054	33,972	40,428	45,446	32,229	32,556
	Not distributed by class or kind	9,134	2,498	2,451	10,999		none reported		
	Rubber erasers and rubber bands	615	526	773	719	612	740	446	354
	Rubber cement			Included with Industry 621		1,876	2,269	1,576	1,149
	Jar rings	889	518	762	1,256	1,167	1,146	1,190	681
	Tire sundries and repair materials	7,377	4,836	7,896	14,320	13,316	10,301	6,229	5,081
803	Rubber heels, soles and soling strips	14,847	13,014	21,449	24,439	21,604	18,593	16,513	16,542
	Pneumatic tires and tubes, motor-vehicle, except motorcycle	151,068	97,571	186,903	218,589	160,450	205,445	74,540	46,481
	Pneumatic tires and tubes, motorcycle and bicycle	3,270	1,256	1,563	1,273	810	735	461	440
	Solid and cushion tires	19,994	8,441	12,739	17,545	8,956	5,236	238	165
	Total, Census Industry Group 8	380,785	215,941	389,504	479,193	410,336	463,871	227,131	187,289
	Census Industry Group 9 - Leather and Its Manufactures								
902	Boot and shoe cut stock, not made in boot and shoe factories	163,363	75,423	106,236	98,403	129,887	143,190	85,555	60,388
903	Boot and shoe findings, not made in boot and shoe factories	65,080	39,772	49,782	56,067	58,382	59,588	37,973	38,867
904	Boots and shoes, other than rubber: contract work	876	1,128	1,300	1,203	1,233	1,593	695	971
906	Misc. leather products	9,872	8,746	7,977	8,387	8,287	8,274	3,707	2,624
907	Contract work	1,006	907	763	770	823	670	354	251
	Leather	856,379	353,474	451,549	416,568	454,965	458,308	253,682	222,885
	Contract work	45,501	18,785	23,956	22,157	24,201	17,457	11,972	9,331
908	By-products of tanning, currying and finishing	18,572	7,667	9,778	9,044	10,010	1,726	3,975	1,254
	Pocketbooks, purses and cardcases: contract work	117	106	264	346	461	522	94	56
	Total, Census Industry Group 9	1,160,766	506,008	651,605	612,945	688,249	691,328	398,007	336,627
	Census Industry Group 10 - Stone, Clay, and Glass Products								
1001, 1644	Asbestos textiles, except brake linings and clutch facings	10,022	6,548	10,847	12,453	13,549	15,804	8,375	6,477

TABLE I-7. (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1002 1004	All other asbestos products Custom and contract work Brake linings and clutch facings Cement	26,999 129 14,558 6,483	17,640 84 9,451 6,283	29,221 140 15,394 9,546	33,546 160 17,664 12,951	36,500 174 18,466 15,803	42,536 159 23,553 15,865	25,606 125 12,868 10,426	22,230 352 10,108 4,329
1008	Fire-clay products, shaped: brick, block or tile for locomotive and other fire-box lining Clay solid, raw or prepared Pressed and blown glass (except containers) Bulbs for electric lamps, opal ware, etc.	36,952 1,786 7,510	24,138 1,160 5,915	45,370 3,182 8,204	40,728 3,482 7,652	34,287 2,598 7,447	36,169 2,200 8,198	15,686 970 5,951	13,116 1,012 5,875
1008, 1009 1009	Lenses Glass containers (except pressure ware, milk bottles and fruit jars) Glass tubing Other glass products Plate glass	22,703 2,696 64,707 3,863 2,057 10,879	17,880 2,123 58,606 3,042 1,801 11,856	24,799 2,944 73,292 4,219 2,386 36,351	23,132 2,744 68,560 3,935 6,637 32,089	29,909 1,579 75,548 4,023 5,182 29,744	32,619 2,966 84,744 4,750 5,110 39,840	19,132 1,362 67,100 3,140 9,853 17,093	11,906 1,795 61,968 2,601 7,558 8,774
1010 1013 1015	All other glass products made from purchased glass Graphite, ground and refined Agricultural lime	13,694 2,240 1,157	10,617 1,457 1,080	11,668 2,185 1,670	15,688 2,569 1,740	13,882 2,932 1,538	20,604 3,760 2,482	12,811 1,962 1,431	11,608 1,490 1,039
1016 1019	Minerals and earths, ground or otherwise treated Mirrors, framed and unframed Statuary and art goods, factory product	44,634 7,383 3,316	26,128 5,962 4,376	34,738 11,314 5,069	41,810 10,850 6,382	40,132 9,492 6,780	18,983 9,572 6,464	7,524 5,368 3,845	9,984 4,858 1,737
	Total, Census Industry Group 10	283,768	216,147	332,539	344,772	349,565	376,378	340,628	187,817
1101 1107	Census Industry Group 11 - Iron and Steel and Their Products Bolts, nuts, washers and rivets Forgings, iron and steel, not made in plants operated in connection with rolling mills	74,437	38,038	80,505	75,210	71,922	95,745	30,496	26,324
1109	Locks (except padlocks) Furniture and cabinet, piano and organ, saddlery and harness, and trunk and suitcase hardware, other than locks	166,976 25,893	79,908 17,891	172,030 32,091	129,211 34,072	100,792 30,235	149,999 28,076	45,792 12,234	31,222 5,852
1109	Vehicle hardware other than locks Other hardware and hardware not reported by class	24,295 27,557	16,786 19,016	30,110 33,633	31,861 35,917	26,051 38,765	29,711 50,670	17,035 25,302	17,148 20,402
1110	PIE iron (incl. ferro-alloys) Blast-furnace gas used as fuel Slag	29,409 785,960 5,929 655 9,926	20,320 408,582 7,798 861 5,466	36,449 984,983 17,034 1,345 8,002	38,636 744,734 17,004 1,687 1,857	37,031 688,642 15,747 2,059 1,267	31,584 744,588 19,019 2,462 3,395	19,583 296,212 8,449 1,288 combined with Industry 1305	12,652 204,056 6,021 508
1111	Iron and steel, processed	169,465 389,596	85,752 175,748	240,533 455,460	184,670 405,411	168,128 346,041	215,183 421,328	67,683 161,673	38,737 137,957
1112	Unrolled steel Semifinished rolled products Structural shapes (not assembled or fabricated) Merchant bars, mill shaftings, etc.	138,142 319,096	57,273 100,901	161,749 345,936	154,815 318,500	149,339 254,050	188,898 371,885	71,668 115,332	35,216 111,189

TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1112, 1113	Wire rods	51,202	53,065	62,003	54,713	46,059	49,042	23,420	26,179
	Bolt and nut rods and spike and chain rods	2,070	1,784	5,238	3,312	4,381	5,683	843	1,361
	Plates (no. 12 and thicker), not coated	406,695	{ 92,824	220,454	180,668	164,514	228,236	75,853	53,508
	Sheets (no. 13 and thinner), not coated	43,648	{ 87,841	249,090	234,438	227,683	306,935	125,920	136,918
	Skelp	66,442	{ 31,552	69,215	54,431	50,604	50,121	21,320	15,206
	Cotton ties	1,126	{ 1,339	2,768	2,780	2,230	1,842	1,932	1,488
	Hoops, bands and strips	9,753	{ 30,753	99,830	83,268	64,121	95,131	47,905	46,471
	Nail and tack plate	17,045	3,385	15,408	11,387	10,737	12,039	2,239	n.e.c.
	Axles, rolled or forged	55,700	10,775	23,345	15,345	15,197	19,352	7,689	6,486
	Car and locomotive wheels, rolled or forged	55,700	39,675	1,921	494	2,614	3,287	6,184	2,080
	Armor plate and ordnance	104,619	35,104	92,675	59,378	57,787	66,346	24,220	19,335
	Rolled and forged iron and steel products, n.e.c.	37,414	16,783	37,100	37,627	35,750	42,101	16,645	10,256
Scrap iron and steel	12,157	2,625	3,993	1,467	1,869	2,731	1,308	1,268	
Cinder and scale	84,857	55,437	83,374	91,868	102,940	104,310	49,986	44,444	
Galvanized and corrugated plates, sheets and strips	3,753	3,319	4,734	5,020	5,331	5,253	2,904	2,688	
Cut and wrought nails, spikes and tacks	52,755	34,465	45,888	38,161	33,946	33,542	13,853	15,072	
Wire nails, brads, splks, tacks and staples	45,004	21,146	43,053	55,053	51,046	91,468	37,825	27,579	
Screw-machine products	57,652	33,535	64,137	49,818	44,977	50,299	20,582	16,386	
Springs, steel, except wire, not made in plants operated in connection with rolling mills	23,544	17,678	31,901	32,105	24,251	21,501	15,809	10,309	
Parts for heating apparatus, stoves, ranges, furnaces, etc.	217,423	155,314	198,188	238,913	234,267	272,284	216,189	198,837	
Hole-top, sanitary and general-line cans	7,561	5,401	6,892	8,264	7,869	5,727	4,701	5,685	
Other tinware, except stamped tin plate and ternplate, not made in plants operated in connection with rolling mills	180,325	99,129	165,587	190,918	193,894	193,894	213,085	151,601	
Bare wire	180,298	105,666	234,256	224,562	210,359	283,062	142,698	85,181	
Iron and steel wire products (except nails, brads, spikes, tacks, staples, barbed wire, poultry netting, woven-wire fence and automobile skid chains)	128,008	83,678	111,495	120,780	139,863	176,643	102,622	82,102	
Nonferrous wire products	19,139	12,511	16,779	23,519	23,620	35,883	20,531	11,634	
Fabricated wire products not distributed	44,534	none reported	51,311	49,909	1,436	none reported	397	2,255	
Wrought pipe, welded and heavy riveted	4,020,060	2,078,892	4,541,971	4,042,365	3,741,798	4,611,863	1,984,002	1,652,249	
Total, Census Industry Group 11									
Census Industry Group 12 - Nonferrous Metals and Their Products									
Motor-vehicle accessories and parts	3,958	2,410	5,410	7,596	12,476	21,476	6,261	2,141	5,724
Castings	15,851	9,212	21,650	29,340	21,059	38,268	17,071	17,071	9,247
Other aluminum mfrs. incl. rolled forms and ingots	33,027	22,101	51,939	70,495	72,474	81,160	37,376	33,141	33,141

TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1202, 1221, 1222, 1223	Clock movements for use in timepieces only Clock movements for use in recording instruments, etc. Clock materials and parts, incl. cases Watchcases Jeweled movements, watch materials and parts	646 574 1,148 14,776	482 428 857 11,033	673 560 1,179 15,123	1,098 522 628 15,135	777 895 804 15,471	730 1,634 1,071 11,504	752 567 1,854 3,349	288 254 329 1,673
1203 1204 1205 1207	Collapsible tubes Copper, tin and sheet-iron work Electroplating Photographing, etc. lamps, motor-vehicle lamps, miners' lamps and other equipment	2,582 4,613 36,445 10,354	1,928 3,613 34,967 8,048	2,640 6,040 43,924 12,286	1,903 7,734 41,704 12,805	2,197 9,235 44,354 13,900	5,911 8,564 51,889 24,205	1,776 7,768 27,015 13,170	1,711 7,049 15,826 10,102
1208 1209	Carbide lamps, reflectors and shades, and parts Gold leaf and foil	25,191 5,415 4,475	23,465 5,044 7,035	37,703 8,104 3,573	41,445 8,909 3,757	40,310 8,665 2,740	48,705 10,480 3,872	19,735 5,689 1,963	12,363 3,031 1,241
1210 1211	Gold, silver, and platinum, reducing and refining, not from the ore Jewelry findings Needles, pins, hooks and eyes, snap fasteners, etc.	52,307 20,025 15,286	43,357 12,513 11,576	67,598 17,009 12,039	88,986 16,455 10,538	63,077 15,326 12,086	68,435 21,707 12,653	41,688 12,691 11,489	44,604 8,960 12,847
1212, 1217	Nonferrous-metal alloys and products, not incl. aluminum products; smelting and refining, metals other than gold, silver or platinum, not from the ore	501,784 651,102 196,795 104,123 20,075	220,093 234,895 150,594 37,483 7,060	501,066 625,433 227,735 94,184 5,382	556,368 665,177 285,043 118,906	571,608 609,299 225,138 108,298	815,305 994,784 90,726 118,901 none reported	305,980 269,384 90,726 48,479	244,085 158,610 70,453 41,123
1215 1216 1218 no number 1219	Smelting and refining, copper Smelting and refining, lead Smelting and refining, zinc Smelting and refining, metals, n.e.c. Stamped automotive parts and accessories	29,551 36,113 2,767 18,348 7,572	20,943 25,558 1,958 12,985 5,359	35,042 43,220 3,311 21,959 9,062	33,642 41,482 3,178 21,076 8,698	27,580 35,831 2,745 18,204 7,513	47,034 55,838 4,500 30,588 11,675	20,495 35,231 1,888 25,394 5,513	30,320 28,550 1,493 23,432 5,315 1,538
1220	Other stamped ware Perforated metals Bottle caps Amount received for custom work on materials furnished by others Not reported in detail Tin and other foils, not incl. gold foil	12,161 1,832,064	9,526 924,523	15,923 1,889,767	20,408 2,111,028	22,671 1,964,733	21,862 2,729,151	11,780 1,021,164	10,923 784,232
1303	Total, Census Industry Group 12 Census Industry Group 13 - Machinery, not incl. Transportation Equipment	6,217 4,920 6,355 3,388	8,939 16,907 6,974 5,316	14,636 23,939 10,586 25,921	11,341 28,249 7,515 21,342	15,130 33,903 10,528 18,134	6,419 51,252 25,961 3,881	3,144 33,648 13,529 1,308	1,417 23,977 5,879 1,912
	Railway and vehicle power generators Stationary motors (under 1 h.p.) Railway and vehicle motors Storage battery parts and supplies Parts and supplies for both wet and dry batteries Instrument and meter transformers Insulated wire and cable: varnished-cambric, magnet and other not reported by kind, and rubber flexible cord	3,598 no data	3,716 1,493	3,776 2,276	4,054 1,773	6,298 4,714	4,251 5,076	2,270 2,546	1,556 1,891
	Total, Census Industry Group 12	30,369	23,207	43,535	49,706	49,664	84,146	29,998	28,807



TABLE I-7 (Continued)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
	Carbons	13,292	not reported	14,746	13,955	14,364	17,049	9,512	8,997
	Flashlight cases	not reported	5,528	3,642	5,248	4,007	7,050	2,171	1,876
	Parts and supplies for all types of motor	18,722	9,394	13,824	12,947	14,147	55,047	27,062	10,466
	Transformers etc. (except power)	20,810	32,361	40,609	41,919	43,998	44,289	22,186	15,165
	Control apparatus	21,584	19,551	33,177	31,503	34,181	55,458	44,064	31,156
	Incandescent-filament lamps	37,471	38,823	46,778	47,813	57,156	23,219	4,555	2,942
	Loudspeakers	not reported	not reported	1,122	5,687	8,101	792	not reported	not reported
	Transformers	376	not reported	4,440	10,403	297	37,070	13,264	9,345
	Radio tubes	not reported	496	4,864	8,637	10,018	39,119	21,216	11,933
	Misc. radio parts and accessories	not reported	not reported	4,440	10,403	20,975	39,119	21,216	11,933
	Generators: automotive generators for battery charging and automotive starter-motors	29,587	22,056	42,913	44,652	43,979	50,505	18,666	13,168
	Ignition apparatus for internal-combustion engines	23,037	9,344	14,109	19,031	16,215	25,787	12,982	11,272
1304	Storage batteries	25,208	18,812	28,042	36,809	34,268	44,022	26,978	20,655
	Steam engines (except traction) and turbines, marine	74,053	8,237	1,170	636	2,668	6,695	4,832	1,666
	Diesel and semi-Diesel, marine	6,774	2,623	4,442	7,352	7,062	11,430	4,876	1,827
1305	Electric-ignition type, aircraft and motor-vehicle	60,989	31,005	59,074	55,624	73,130	75,620	29,204	12,866
	Electric-ignition type, marine	20,578	7,604	8,492	11,394	12,924	14,963	7,880	2,198
	Castings	458,167	313,322	467,738	453,189	432,079	498,003	222,839	163,137
	Misc. machine-shop products (except industrial furnaces and oil burners), and other machine-shop products	709,927	485,491	724,757	702,212	692,595	836,553	353,786	238,192
1310	Compressors and evaporators	467	572	600	1,472	2,829	10,247	12,824	5,590
1315	Washing machines, wringers, driers and ironing machines, for household use: parts and accessories	686	519	921	1,128	812	2,002	1,918	1,275
1312	Sewing machines: parts incl. cabinets	12,167	7,478	9,029	9,497	10,632	10,523	3,930	4,067
	Total, Census Industry Group 13	1,588,742	1,079,768	1,649,158	1,645,446	1,674,808	2,046,429	931,188	631,232
	Census Industry Group 14 - Transportation Equipment								
1401	Aircraft under construction at close of year	1,659	966	1,340	1,428	not reported	not reported	2,827	2,486
1402	Carriage, wagon, sleigh and sled materials	26,783	11,477	8,119	5,657	3,360	3,085	Industry abandoned	Industry abandoned
1403, 1648	Doll parts	935	762	1,202	1,177	1,672	2,912	2,295	819
	Parts of toys and children's wheel goods	1,052	858	1,354	1,331	1,210	1,306	801	427
1407	Motor-vehicle bodies and parts	776,731	455,839	996,679	1,263,749	941,387	1,260,274	747,633	565,561
1409	Parts for motorcycles and bicycles	6,631	2,997	3,881	2,947	2,078	2,925	1,741	1,532
1410	Value of work done on vessels under construction, but not yet launched	378,188	63,815	39,349	18,284	31,605	21,484	34,330	16,863
	Total, Census Industry Group 14	1,191,979	536,714	1,051,924	1,294,573	981,312	1,291,986	789,627	607,688
	Census Industry Group 16 - Miscellaneous Industries								
1601	Artificial and preserved flowers and plants	3,966	3,486	4,829	4,603	4,880	3,653	2,194	1,564
1603	Artists' materials	698	754	941	1,291	957	1,041	674	579
1605	Industrial brushes	6,155	5,648	8,148	7,332	7,574	6,228	4,162	3,232

TABLE I-7 (Concluded)

Industry Number	Census Industry Groups and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
1606	Brushes not reported by kind (industrial)	663	608	878	790	811	613	439	438
	Buttons	32,491	21,782	25,198	25,371	22,644	22,036	16,152	17,409
	Button blanks and molds	3,092	2,380	3,082	3,182	2,839	3,972	2,246	2,634
	Parts of buttons, backs, etc.	1,070	100	343	79	16	226	194	
1607	Carbon paper and inked ribbons	9,425	8,469	11,200	12,349	13,534	16,781	14,535	12,112
1611	Dental laboratory work	7,393	6,526	8,203	9,921	13,534	not included in Census		
1612	Rhinestone ornaments	820	547	826	820	1,109	1,169	761	565
	Fancy and misc. articles, n.e.c., except cigar lighters, greeting cards, rhinestone ornaments and lamp shades	9,196	7,702	9,259	9,195	12,427	13,097	8,532	6,329
1613	Feathers, plumes and mfrs. thereof	10,244	5,979	5,335	2,791	2,930	740	1,283	564
1614	Foundry supplies	9,090	4,921	10,643	12,429	11,518	12,168	5,132	3,580
1615	Fur trimmings	19,735	15,918	22,272	28,647	87,817	93,467	64,366	31,250
	Contract work	167	135	169	367	2,070	3,211	1,807	1,412
1616	Furs, dressed	21,551	19,149	25,797	25,746	27,692	40,237	37,873	24,948
1617	Hair work	1,843	1,351	1,384	778	2,277	40,237	37,873	24,948
1619	Hats, straw, men's: contract work	258	229	261	216	222	228	406	126
1620	Instruments, professional and scientific	13,259	9,568	14,087	17,355	19,733	19,612	8,374	5,201
1621	Ivory, shell, and bone work, not incl. buttons, combs or hairpins	2,640	2,383	2,669	2,125	876	1,321	852	632
1622	Jewelry and instrument cases	8,551	7,197	10,746	11,109	10,239	9,642	5,314	3,344
1623	Lapidary work	28,325	4,122	8,605	9,540	11,770	11,391	2,397	797
1624	Mattresses and bed springs, n.e.c.: custom and contract work	581	517	745	742	1,866	1,653	918	702
1627, 1628, 1629, 1630	Piano and organ parts and materials (except perforated music rolls)	36,381	18,885	33,690	31,847	22,265	10,390	3,378	1,649
	Parts and materials for other musical instruments	3,677	1,713	1,851	1,867	2,180	2,830	1,612	787
1633	Pencils, lead (incl. mechanical)	4,532	4,050	4,838	5,027	5,253	5,997	4,131	3,424
1634	Pens, fountain and stylographic, pen points, gold, steel and brass	753	597	948	1,058	871	1,169	712	347
1635	Phonograph cabinets	3,653	1,683	2,544	2,817	2,016	786	not reported	not reported
	Other parts and accessories	10,516	4,911	8,093	2,543	6,773	6,684	not reported	not reported
	Phonographs and parts, not reported in detail	509	74	103	173	235	none reported	none reported	none reported
1636	Films, sensitized cloth and paper, slides and plates	52,846	42,460	42,956	46,455	53,965	61,094	46,769	31,695
1639	Sandpaper, emery paper, and other abrasive paper and cloth	11,612	7,539	15,942	17,784	17,458	20,313	11,054	10,539
1643	Stationery goods, n.e.c.	15,083	16,297	20,016	17,580	14,929	18,552	13,014	3,915
1651	Window shades and fixtures	1,852	1,858	3,035	2,737	2,559	2,692	1,447	1,139
	Total, Census Industry Group 16	331,627	229,038	309,656	316,686	370,305	393,217	260,879	171,209



Table I—8

OUTPUT OF INDUSTRIES AND COMMODITIES NOT  
UTILIZED IN THE STUDY  
CENSUS OF MANUFACTURES YEARS, 1919-1933

The entries in this table are for industries or commodities marked not classified in Table I—1.

Table 1-8  
INDUSTRIES AND COMMODITIES NOT UTILIZED IN THE STUDY  
(thousands of dollars)

Industry Number	Industries and Commodities	1919	1921	1923	1925	1927	1929	1931	1933
126	Poultry killing, dressing and packing, wholesale	41,705	34,717	26,424	45,454	not included in Census	130,161	97,560	66,157
701	Coke, not incl. gas-house coke: gas	16,650	19,788	42,712	49,051	53,725	61,099	45,319	33,133
703	Gas, mfd., illuminating and heating: gas	282,289	372,032	394,506	395,969	446,245	438,243	399,681	324,190
1626	Motion pictures, not incl. projection in theatres	36,705	77,397	86,418	93,636	134,343	184,102	154,436	119,343
	Total, Industries and Commodities not Utilized in the Study	377,349	503,934	550,060	584,110	634,313	813,605	696,996	542,823