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## APPENDIX A

## EMPLOYMENT, EARNINGS, AND LABOR INCOME IN DISTRIBUTION AND COMMODITY. PRODUCTION

## Employment in Distribution ${ }^{1}$

In this study primary reliance has necessarily been placed upon the occupation data derived from the census of population because no other long series exists. We have used the population counts (Table 1, Chapter 1 ) in the form in which they have been classified by industry by Carson. ${ }^{2}$ The principal defects for years prior to 1930 , which cannot now be removed, are: (1) workers in bars and restaurants are not covered; (2) certain business services, such as advertising, are included; (3) wholesale and retail trade cannot be separated; and (4) in addition to employed workers, persons seeking work are covered. No further comment will be made on these data for years prior to 1930 . For recent years, however, the establishment counts of the census of business furnish an alternative source of information about employment.

The first purpose of Table A-1 is to show the adjustments made (for 1930 and 1940 by Carson and for 1950 by myself) to the population census totals for "retail and wholesale trade" in deriving the figures in Table 1 in order to ensure comparability with years before 1930. No further comment on this matter seems necessary.

The further purpose of Table A-1 is to compare the results of the population count with figures for adjacent years obtained on an establishment basis by the census of business. Some of the numerous differences in concept and coverage can be identified and allowed for, as shown in the table. Thus workers in certain establishments of a service rather than mercantile nature are deducted, and hucksters and peddlers are added to the establishment total. Persons employed at manufacturers' sales branches (classed as wholesale trade by the census of business, but probably treated by the population census as manufacturing) are added to the population total, and persons seeking work and unpaid family members are deducted. Adjustment is then made to a twelve-month-average basis. The indicated change in employment between adjacent years so obtained is compared with an independent or "true" estimate of the

[^0]Table A-1
ALTERNATIVE ESTIMATES OF EMPLOYMENT IN DISTRIBUTION, 1929/1930, 1939/1940, 1948/1950 (thousand of persons, except where percentages are shown)

|  | Establishment Count 1929 | Population Count 1930 | Establishment Count 1939 | Population Count 1940 | Establishment Count 1948 | Population Count 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carson's data (Table 1) ${ }^{\text {a }}$ |  | 6,190 |  | 7,179 |  | 9,608 |
| Deduct business services ${ }^{\text {b }}$ |  | -156 |  | -240 |  | -474 |
| Original census data, not including restaurants and bars ${ }^{c}$ |  | 6,034 |  | 6,938 |  | 9,134 |
| Add restaurants and bars ${ }^{\text {d }}$ |  | +730 |  | +1,264 |  | +1,800 |
| Census data, including restaurants and bars ${ }^{\text {e }}$ | 7,717 | 6,764 | 8,021 | 8,202 | 11,452 | 10,934 |
| Deduct workers in service establishments ${ }^{\text {f }}$ | -233 |  | -26 |  | -28 |  |
| Add hucksters and peddlers (population count) | +57. |  | +57 |  | +22 |  |
| Add employees at manufacturers' sales branches (establishment count) g |  | +372 | ... | +315 |  | +520 |
| Deduct persons seeking work ${ }^{\text {b }}$ |  | -253 |  | -565 |  | -384 |
| Deduct unpaid family workers |  | ? | ... | -196 |  | -129 |
| Adjustment to obtain 12-month average ${ }^{1}$ | -110 | +60 | ... | +116 | -179 | +94 |
| Comparable estimates of employment in distribution | 7,431 | 6,943 | 8,052 | 7,872 | 11,267 | 11,035 |
| Indicated change in employment between adjacent dates | -6.6\% |  | -2.2\% |  | -2.1\% |  |
| "True" change in employment between adjacent dates ${ }^{j}$ | -3.4\% |  | +4.6\% |  | +0.3\% |  |
| Unexplained excess of establishment count over population count | $\left\{\begin{array}{l} 3.2 \% \\ 240 \end{array}\right.$ |  | $\begin{aligned} & 6.8 \% \\ & 550 \end{aligned}$ |  | $\begin{aligned} & 2.4 \% \\ & 270 \end{aligned}$ |  |
| Part-time workers included in above | 677 | ? | 869 | ? | 1,318 | ? |
| Unpaid family workers not included | ? | ? | 924 | 196 | 931 | 129 |

$\ldots=$ not applicable. Volume Eleven, National Bureau of Economic Research, 1949, a Daniel Carson, "Changes in the Industrial Composition of $\quad$ Table $1, \mathrm{p} .47$. Figures are for age 14 and over. The 1930
Manpower since the Civil War," Studies in Income and Wealth,
figure differs from that shown in Table 1 on page 4 because the
g 1930: Manufacturers' sales branches, wholesaling manufacturers, and manufacturers' agents from the 1929 census of wholesale trade. 1940 and 1950: Manufacturers' sales branches and sales offices from the 1939 and 1948 censuses of wholesale trade respectively.
h 1930: Class A unemployment was 3.735 per cent for persons in occupations readily identifiable as belonging predominantly to trade (Census of Population, 1930, Unemployment, Vol. II, pp. 17-18). 1940 and 1950: Original census totals for persons seeking work.
For paid employees (full-time and part-time) in retail trade (the only component for which adjustment can be made), the 1939 establishment count is already a 12-month average and needs no adjustment. A seasonal index was computed from the 1939 monthly figures (establishment count) after elimination of trend shown by "retail trade and automobile services" in Survey of Current Business, National Income Table 25. This seasonal index was then used to adjust the five remaining counts, whose original time references were as follows: all three population counts, April; establishment count, 1929, average of April, July, October, December; establishment count, 1948, November. j Change reported for full-time and part-time employees plus proprietors in wholesale and retail trade, ibid., National Income
latter is mean of "age 14 and over" and "age 10 and over." 1950: see note a to Table 1.
b Advertising; accounting, auditing, and bookkeeping services; and miscellaneous business services. Adjustment made by Carson to secure comparability with earlier censuses (see Carson, op.cit.,
c Alba M. Edwards, Comparative Occupation Statistics for the United States, 1870 to 1940, Census of Population, 1940, p. 83. d 1930: Carson, op.cit., p. 60; the figure necessarily includes persons aged 10 to 13. 1940. sand) apparently equals the original census count of experienced workers not on emergency work ( 8,123 thousand: see Census of Population, 1940, Vol. III, The Labor Force, Part I, pp. 181, 183) plus public emergency workers usually in trade, plus work seekers usually in trade, minus work seekers last employed in trade (see Edwards, op.cit., pp. 19-20). For each year the establishment count (census of business) includes part-time employees but not unpaid family workers (931 thousand in 1948). 1939 and 1948, but not for 1929: It includes employment at central warehouses and administrative offices.
f 1929: Auto garages and repair shops, fur shops, custom tailors, monument and tombstone works. 1939 and 1948: Fur shops and custom tailors.

## APPENDIXES

change in employment. After these allowances have been made, the establishment count exceeds the population count in all three cases: by 240 thousand in 1929/1930, 550 thousand in 1939/1940, and 270 thousand in 1948/1950.

Among probable causes of this discrepancy the most obvious is the contribution of (paid) part-time workers. Their inclusion in the establishment count may well involve duplication, for we may expect that-like a stage army-they will appear among the employees of more than one retailer, but count singly in the occupation census. Some occasional workers in distribution may work mainly elsewhere and be classified in other industries in the population count, or may work so irregularly as not to be treated as "occupied." ${ }^{3}$ This hypothesis fits in with the large excess of unpaid family workers reported by the establishment count in 1939/1940 and 1948/1950. Some thousands of these may have been reported as "self-employed" (i.e. as working proprietors) by the population count,4 but the majority would appear to have worked so irregularly as not to have been treated as occupied. Many perhaps worked only at Christmas and may have been entirely overlooked in April at the time of the population count.

Another cause of the excess in the establishment count is the inclusion of service workers. Employees of automobile repair shops, garages, fur shops, and monument and tombstone works are excluded from retail and wholesale trade in the population count and are also excluded (or have been specifically excluded in Table A-1) from the establishment count. But undoubtedly many other craftsmen, such as watchmakers in jewelry stores, are included in the establishment count but were classified by the occupation census-at least in 1930-in "manufacturing and mechanical industries." ${ }^{5}$

These matters-differing treatments of paid part-time workers, of un-

[^1]paid family workers, and of craftsmen-all contribute to a larger establishment total. That they are quantitatively important in the aggregate is suggested not only by the sizable remaining discrepancies in Table A-1, but also by the fact that some differences exist which must work in the opposite direction. For an establishment count omits returns from businesses that functioned during part of the census year but were no longer in existence when the census was taken (e.g. the 1929 census was taken during the spring of 1930). Nor are other businesses that came into existence since the close of the census year included by way of compensation. The undercoverage in question is nearly or wholly absent in the case of the occupation census, for people are asked what they now are doing at the time of the enumeration, not what they were doing three to fifteen months previously. These reasons would lead us to expect an excess in the population count. The fact that the difference runs the other way suggests the factor here considered is swamped by influences previously mentioned which work in the opposite direction.

For 1870 to 1920 our long-range comparisons of employment and productivity are based, as already explained, upon Carson's reclassification of the occupation figures and for later years upon industry totals derived from the population count (Table A-1). For this use of the population data the foregoing has mixed implications. In the first place the tendency of the occupation count to classify craftsmen in "manufacturing and mechanical industries" rather than in "trade" dovetails with our attempt to exclude enterprises not primarily engaged in distributing commodities (e.g. garages and repair shops) from distribution (see Table B-7). The failure of the occupation total for trade, even as reclassified by Carson, to cover workers in restaurants and bars, and the probable omission of employees at manufacturers' sales branches, are less happy for our purpose. For we have clear evidence that both catering and sales by manufacturers through branch houses have grown relatively to other forms of distribution. For this reason, as noted in the text of the report, our measure of employment in distribution since 1870 most probably suffers from a downward bias. Unfortunately no establishment count was made prior to 1929, and the population counts were not tabulated in such a way that a correction can be made.

## Employment in Commodity Production

In recent decades employment data for the commodity-producing indus-tries-agriculture, mining, and manufacturing-have been relatively abundant. Even for early years, establishment censuses (though often incomplete) in each of these fields prevent exclusive reliance upon the population count from being strictly necessary. That is to say, while the data for retail and wholesale trade in Table 1 cannot be appreciably improved from the standpoint of long-time trends, supplementary use of establishment data might well lead to better measures than those in Table 1 for agriculture, mining, and manufacturing. However, a comprehensive survey of employment data for the commodity-producing industries lay
outside the scope of this study. In any case our interest in these industries was limited to a comparison of their experience with the experience of commodity distribution. We desired measures of employment in production as comparable as possible to those we are bound to use in distribution. Hence we have used the population-count data (Table 1) for commodity production in the same manner as we used it for distribution.

## Sales Employees Not in Distribution

The definition of "distribution" used here is that used by Carson ${ }^{6}$ and resembles the classification adopted by the Census Bureau in 1940. Obviously large numbers of persons engaged in selling, warehousing, and other distributive functions are to be found elsewhere than in distribution. For instance, of the 9,623 thousand employees reported by the 1939 census of manufactures, 583 thousand were engaged in "selling, advertising, sales promotion, credit, collecting, billing, installing or servicing goods sold, and other distribution activities." ${ }^{7}$ Were the data available, we might study the trend of employment in distribution activities (wherever located) instead of the trend of employment in the distribution industry as is done here. Unfortunately we have only fragmentary information about persons engaged in distribution activities outside retail and wholesale trade. In fact most of our information comes from the 1930 population count which reported 938 thousand persons occupied in specified distribution activities ${ }^{8}$ outside retail and wholesale trade as defined by Carson. It is impossible to identify clerks engaged in billing and mechanics engaged in installing or servicing goods sold: moreover, some of those whose occupation was not disclosed doubtless were engaged in selling. We may therefore guess that, on any broad definition, the true number involved exceeded 1 million in 1930. Of the 938 thousand persons reported, 257 thousand were insurance agents and 234 thousand real estate agents: if these are deducted, there remain 446 thousand persons of whom 305 thousand were in manufacturing and mechanical industries and 59 thousand in transportation and communication.

Since the 1930 calculation can be made, even approximately, for no other year, we cannot know whether persons engaged in distribution activities outside the distribution industry increased more or less rapidly than those engaged within the industry. However, we do need to inquire whether the limits of the industry, as measured by the Carson labor force series, remain constant. The 1950 figures follow 1940 classifications; and because Carson follows Edwards' work, ${ }^{9} 1940$ and 1930 may be con-

[^2]sidered comparable. The difficulty lies with the figures prior to 1930 and with the possibility that they (mistakenly) include persons engaged in distribution activities outside distribution and, therefore, are not comparable with 1930 and later years. This possibility rests upon (1) the fact that Carson made at least some use of the 1910 industrial distribution ${ }^{10}$ and (2) the suspicion that the 1910 census coded all sales personnel into "retail and wholesale trade." This suspicion rests upon the absence of explicit mention of salesmen in the occupational tabulations for industries other than wholesale and retail trade in $1910^{11}$ (in contrast to 1930), together with some equivocal statements in the description of the 1910 classification. ${ }^{12}$ It is impossible to say for certain what 1910 practice was in this matter. Let us assume the worst, to see what difference it makes in our estimates of the total number engaged in trade. The result is the following revision of the figures, in thousands, of the persons engaged in distribution activities:

| Persons Engaged <br> in Trade: <br> (Carson estimates <br> as used by us: | "Commercial Travelers" <br> and "Salesmen <br> and Saleswomen" <br> Not in Trade a | Persons Engaged <br> in Trade <br> (Carson revised, |  |
| :---: | :---: | :---: | :---: |
| see Table 1) | 45 | 740 |  |
| 1870 | 785 | 63 | 1,092 |
| 1880 | 1,155 | 95 | 1,730 |
| 1890 | 1,825 | 127 | 2,333 |
| 1900 | 2,460 | 166 | 3,200 |
| 1910 | 3,366 | 218 | 3,955 |
| 1920 | 4,064 | 225 | 6,112 |
| 1930 | 6,112 | n.a. | 7,179 |
| 1940 | 7,179 | n.a. | 9,608 |

n.a. $=$ not available.
${ }^{\text {a }}$ Census of Population, 1930, Vol. v, Table 2. For other years the 1930 percentages for each industry distinguished by Carson were applied to Carson's figures for that industry.
${ }^{\text {b }}$ In 1930 no deduction is necessary; in 1920 a deduction of one-half the number shown.

Carson treats agents and collectors as a "repeater" occupation to be distributed among industries upon the 1930 basis; ${ }^{13}$ therefore no problem arises here. But Carson ${ }^{14}$ took "salesmen and saleswomen" from the 1910 census, and he does not say how he treated "commercial travelers." Other

[^3]occupational categories are unimportant. We adopted the extreme assumption and supposed that the 225 thousand persons reported for these two categories in $1930^{15}$ in industries other than wholesale and retail trade were all reported in wholesale and retail trade in 1910 and that Carson's figures for 1870 to 1910 include a corresponding overstatement, when judged by the criterion applied in 1930 and later years. There was no attempt by the census at industrial distribution in 1920, and for this year Carson interpolates between 1910 and 1930: we may suppose the error half as large as in 1910.

The revision decreases persons engaged in trade for 1870 through 1920 and changes the annual average growth rates for the numbers engaged in commodity distribution as follows:

|  | $1870-1910$ | $1910-1950$ | $1870-1950$ |
| :--- | :---: | :---: | :---: |
| Table 6, Chapter 1 | 3.6 | 2.7 | 2.9 |
| Revised, extreme assumption | 3.6 | 2.7, | 3.0 |

The revision also increases persons engaged in commodity production during 1870 through 1920, but here the percentage revision in numbers for the years mentioned and the revision in average annual rates of change are both negligible. Even under the extreme supposition outlined above, the revision in rates of change in output per man and output per man-hour (Tables 13-15, Chapter 3 ) would obviously be inconsequential.

## Hourly Earnings in Distribution and Commodity Production

The direct estimates of output per man-hour (Tables 12-14, Chapter 3) rest upon estimates of hours worked per week (Table 5, Chapter 1). On the other hand, the indirect estimate of the man-hour output differential between distribution and commodity production (Table 16, Chapter 3) does not use figures for employment or hours worked but instead estimates labor input indirectly by deflating labor income. For this purpose the average annual change in the ratio of average hourly earnings in distribution to average hourly earnings in production is the desideratum. We therefore estimated average hourly earnings for the employed labor force for decennial census dates from the same or similar sources to those which furnished weekly hours worked (see notes to Table 5 and Table A-2).

Although of course hourly earnings have risen over the period, both in distribution and in commodity production, and although the two series have not always kept pace, there is no apparent trend in the ratio between them. The corresponding entry in Table 16 is accordingly zero.

## Estimation of Labor Income from Value Added

An alternative estimate of the differential change in productivity is given in Chapter 3-an estimate in which labor income is obtained from value added and is then deflated to yield a measure of labor input. The latter

[^4]
## EMPLOYMENT

Table A-2
AVERAGE HOURLY EARNINGS, 1869-1939a
(current dollars, except where ratio is shown)

|  | 1869 | 1879 | 1889 | 1899 | 1909 | 1919 | 1929 | 1939 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agriculture ${ }^{\text {b }}$ | . 103 | . 084 | . 094 | . 097 | . 142 | . 275 | . 211 | . 253 |
| Mining ${ }^{\text {c }}$ | . 179 | . 164 | . 190 | . 198 | . 323 | . 759 | . 681 | . 886 |
| Manufacturing d | . 155 | . 142 | . 164 | . 175 | . 193 | . 477 | . 566 | . 633 |
| Whence three commodityproducing industries ${ }^{\text {e }}$ | . 119 | . 102 | . 119 | . 128 | . 169 | . 384 | . 391 | . 454 |
| Distribution ${ }^{\text {f }}$ | . 141 | . 144 | . 162 | . 175 | . 209 | . 480 | . 543 | . 536 |
| Ratio of: |  |  |  |  |  |  |  |  |
| Hourly earnings in distribution Hourly earnings in production | 1.18 | 1.41 | 1.36 | 1.37 | 1.24 | 1.25 | 1.39 | 1.18 |

${ }^{\text {a }}$ Figures are intended to represent a mean for the employed labor force (including self-employed). Sources are similar to those for hours worked per week (see notes to Table 5).
b 1919, 1929, and 1939: Centered five-year averages of farm net income (Historical Statistics of the United States, 1789-1945, Bureau of the Census, 1949, series E 94) divided by numbers engaged (Table 1) and 2,550 hours per year (see note b to Table 5). Projection back to 1869: basis, farm wages (series E 64).
c 1909 to 1939: Bituminous coal mining, Bureau of Labor Statistics (see Historical Statistics, series D 147). Projection back to 1890: Paul H. Douglas, Real Wages in the United States, Houghton Mifflin, 1930, p. 152. Prior to 1890: Basis, manufacturing.
d 1909 to 1939: BLS (see Historical Statistics, series D 117). Extrapolation back to 1890: Douglas, op.cit., p. 108. Thence to 1869: Using data from the Aldrich report. The latter will be found in Wholesale Prices, Wages and Transportation, 52d Cong., 2d Sess., S. Rep. 1394 (1893) Part I, Pp. 173-174 (daily wages) and 178-179 (hours per day). A weighted mean was taken for twelve manufacturing industries there shown.
e Figures for agriculture, mining, and manufacturing were combined using numbers engaged (Table 1) and hours worked per week (Table 5) as weights.
${ }^{f}$ 1939: BLS. Projected back to 1929: Using average weekly wages reported for full-time retail employees by the census of distribution ( $\$ 25.68$ in $1929, \$ 22.58$ in 1939), together with hours worked per week (Table 5). 1919: From weekly wages given by Willford I. King (Employment, Hours and Earnings in Prosperity and Depression, National Bureau of Economic Research, 1923, p. 115) and hours worked per week. 1869 to 1909: The following weekly wages were obtained from an extensive survey of state reports:

| 1869 | 1879 | 1889 | 1899 | 1909 |
| :---: | :---: | :---: | :---: | :---: |
| $\$ 9.70$ | $\$ 9.91$ | $\$ 11.00$ | $\$ 11.93$ | $\$ 12.95$ |

These figures were divided by nominal hours worked per week (Table 5, note f). step, the deflation of labor income, rests upon the figures for hourly earnings in distribution and in the commodity-producing industries respectively, discussed in the preceding section. The earlier step, the estimation of labor income from value added, will now be described.

As in Chapter 3, let

$$
r=\frac{n h p}{v}
$$

where $n h p$ is labor income (numbers times hours times hourly earnings) and $v$ is value added. Then we write $n h p$ at the base date as the product of $n, h$, and $p$; and we assume that ( $v$ - nhp) in constant (base date) dollars changes through time in the same manner as real estate improvements in constant doilars. The rationale of this procedure is that once labor income is deducted, the remainder of value added must mainly consist of interest, rents, and depreciation, together with entrepreneurial profits. These should be reflected in real estate improvements, though the capital value of real estate itself (for which we do not have data) might also be relevant. The rate at which income is capitalized might also be considered, but unless the decline in the rate of interest over the period affected distribution and other industries unequally, our failure to take it into account has no effect upon our estimate of the differential rate of change in productivity.

Table A-3
DERIVATION OF R, 1869-1939a
(1899 prices, millions of dollars, except where ratios are shown)

|  | 1869 | 1879 | 1889 | 1899 | 1909 | 1919 | 1929 | 1939 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distribution: |  |  |  |  |  |  |  |  |
| $v-n h p$ | 644 | 854 | 1,131 | 1,500 | 1,989 | 2,637 | 2,819 | 4,636 |
| $v$ | 931 | 1,360 | 1,985 | 2,899 | 4,233 | 6,180 | 9,024 | 13,177 |
| Whence: |  |  |  |  |  |  |  |  |
| Ratio: |  |  |  |  |  |  |  |  |
| $r=n h p / v$ | 0.308 | 0.372 | 0.430 | 0.483 | 0.530 | 0.573 | 0.688 | 0.648 |
| Production: |  |  |  |  |  |  |  |  |
| $v-n h p$ | 754 | 1,175 | 1,831 | 2,854 | 4,449 | 6,936 | 10,812 | 16,854 |
| $v$ | 3,219 | 4,490 | 6,262 | 8,734 | 12,181 | 16,990 | 23,697 | 33,052 |
| Whence: |  |  |  |  |  |  |  |  |
| Ratio: |  |  |  |  |  |  |  |  |
| $r=n h p / v$ | 0.766 | 0.738 | 0.708 | 0.673 | 0.635 | 0.592 | 0.544 | 0.490 |
| Ratio of $r$ in distribution to $r$ in production: |  |  |  |  |  |  |  |  |
| $R$ | 0.40 | 0.50 | 0.61 | 0.72 | 0.83 | 0.97 | 1.26 | 1.32 |

[^5]For the case in which 1899 is chosen as base, the work is set forth in Table A-3. As before, capital letters denote the ratio of the relevant quantity in distribution to its magnitude in the commodity-producing industries. The average annual rate of change in $R$, derived from the last line of the table, is 1.7 per cent. An analogous calculation was made using 1929 as the base date, yielding an annual rate of change of 1.4 per cent.

## APPENDIX B

## PROCEDURES USED IN ESTIMATING VALUE ADDED BY DISTRIBUTION

This appendix is intended as an amplification of the account given in Chapter 5 of the methods by which we estimated retail sales and value added by distribution for decennial census years 1869 to 1939 and for 1948. The intention is to show, in as much detail as necessary, how the summary figures in Tables 20 and 23 were obtained. The manner in which data for retail and wholesale margins (Tables 24 and 25) were collected has been explained in Chapter 6, and detailed source material is listed in Appendix C. Nothing further will be said here on this topic. Our purpose is rather to explain how the margin figures in Tables 24 and 25 were combined to yield the estimates of value added in Tables 20 and 23 and the estimates for total spread by kind of retail outlet in Table 26 (Chapter 7). We shall first briefly justify the kind-of-store classification on which the work is based. Thereafter we shall describe first the methods used for 1869 to 1929; second those employed for 1929, 1939 and 1948; and finally we shall comment on the large discrepancy between the dollar magnitudes disclosed by a comparison of the two sets of figures for 1929, the year in which the calculations overlap.

## Classification of Retail Outlets

The classification is based on the 1929 retail census (see Table B-7). We excluded types of operation in which fabrication or service seemed to predominate over the distribution of commodities. In grouping minor items we examined ratios of expense to sales in order, so far as possible, to separate types of stores whose costs of distribution differed; this explains why we distinguished between chains and independents in the case of groceries, shoes, and furniture but not in the case of drugs. The value of a classification similar to our own could be demonstrated for Canada, whose 1935 census tabulated data (not available for the United States) on the dispersion of distribution cost within kind-of-store categories. The variance between categories was found to be several hundred times the variance within categories. We may therefore assume that our classification affords a sound basis, at least in 1929, for weighting the data on margins.

To use substantially the same classification for earlier years presents some minor problems. At just what point did part of the dry-goods category split off and become the department store? Ought we not to take

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account of categories which no longer existed in 1929? Many curiosities can be cited: dealers in "pianos, organs, and sewing machines," "coal, wood, and sewing machines," and "furniture, carpets, pianos, organs, buggies, wagons." ${ }^{1}$ Then there was Mr. Vaughan of Waterloo, Iowa, who announced simply that he sold "everything on wheels" (from baby buggies to steam tractors?). ${ }^{2}$ Such anomalies probably could be duplicated today in rural areas.

In fact the literature suggests that, although certain categories (e.g. chains) were not represented in early years, our classification fits the entire period well enough. Based on the 1929 census, some of the distinctions it draws are vague. This can readily be seen from a detailed comparison of the 1929 and 1939 censuses, which will reveal many implausible expansions and contractions among minor subdivisions. Looked at from the standpoint of common observation, the question may be asked, for instance, just what it takes to qualify as a department store. As a concrete case, we regard Boston's Jordan Marsh as a department store because it carries a full line of hard goods, Filene's as an apparel store because it handles scarcely any consumer durables. ${ }^{3}$ Anyone acquainted with Goldsmith Brothers in New York will realize the absurdity of classifying that emporium as a mere stationery store. Again the distinction between a grocery (with meats) and a meat market (with groceries) could be reversed through a slight change in the composition of sales. Moreover, some categories that are tolerably distinct today were not so formerly: for instance, automobiles (vehicles) and farm implements. Were it desired to construct a series for sales or value added for individual kinds of business, e.g. meat markets or vehicle dealers, these qualifications would be important. Our purpose, on the contrary, is to obtain a system for weighting gross margins. In this context, classification difficulties recede into the background.

The rough adequacy of our kind-of-store classification in early years can be checked in many ways, as the notes to Table B-5 show. Among the more obvious are the grouping of stores in trade associations, the kind of audience to which specific publications (especially periodicals) tried to appeal, and the categories chosen in tabulating early censuses of distribution, such as those of Massachusetts and Indiana. A few specific comments may be made. In several cases the goods retailed by a classification

[^6]underwent a revolution, but we have chosen to preserve the classification notwithstanding. The retailing of vehicles, for instance, really is a continuous development. Automobiles first were retailed by those who sold carriages, ${ }^{4}$ just as they were manufactured by carriage makers. A comparable transformation occurred in the nature of household appliances, but whether the same dealers remained in the business is more doubtful. Today appliances include stoves, furnaces, iceboxes, and a wide range of electrical equipment; they are sold by many stores not regarded by the census as household-appliance dealers. At the opening of our period, appliances meant stoves and the specialists who sold them called themselves "housefurnishing stores"; they also sold enamel and galvanized ware and usually operated as tinsmiths as well. ${ }^{5}$ We have chosen to regard such dealers as the early occupants of the household appliance category.

There seems, then, no difficulty in using the same classification in 1869 as in 1929, even though the character of some categories underwent a revolution and others have a zero entry in the early years. However, to approximate a distribution of sales between categories for early years is a complex matter which will now be explained.

## Estimates for 1869 to 1929

Because no country-wide census of distribution was taken until 1929, estimates for earlier years have to be built up from production figures. For this purpose the starting point is the current-dollar totals for the output of finished goods and construction materials by Shaw. ${ }^{6}$ These figures, in producers' prices, have already had exports deducted and imports added, so that they represent domestic consumption. We first make a few minor additions (Table B-1) and next decide how much of each commodity group eventually is destined to reach the ultimate purchaser through some kind of retail outlet. We decided that among Shaw's commodity groups (his numbering) no significant amounts of the following are distributed through retail stores:
22. Pleasure craft
23. Ophthalmic products and artificial limbs
24. Monuments and tombstones

25a. Industrial machinery and equipment
26. Electrical equipment, industrial and commercial
30. Locomotives and railroad cars
31. Ships and boats
33. Aircraft
34. Professional and scientific equipment
36. Miscellaneous subsidiary durable equipment

[^7]In the case of groups 23 and 24 the retail census does indeed report establishments selling the commodities; but in both cases there is a large handicraft element and the function performed is perhaps as much manufacturing or service as distribution. Our exclusion of these commodity groups is matched by a corresponding exclusion of opticians and monument works from the census totals (Table B-7).

For the remaining groups, which include all Shaw's consumer-goods classifications-together with office furniture, business vehicles, tools, farm implements, and construction materials-estimates of the percentage sold through retail stores appear in Table B-2. In most cases the bulk of the output of the commodity is sold through a retail outlet. The remaining portion, which it is our purpose in each case to exclude from the distribution system, is either (1) not sold at all, as with food consumed by farm families producing it; or (2) sold to the consumer directly by the producer; or (3) sold to a wholesaler who in turn sells to the consumer. The first and second portions plainly never are handled by a distributor. The small amounts in the third category are handled by wholesalers, but we take no account of them, as the greater accuracy would not repay the extra complication.

For 1929 the percentages in Table B-2 are derived from Kuznets ${ }^{7}$ except for coal and firewood where the allocations are arbitrary. Foods we divided into manufactured and nonmanufactured on the basis of Shaw's figures, allowing $\$ 1,524$ million for nonmanufactured foods produced and consumed on farms. ${ }^{8}$ For years other than 1929, lack of information forced us to use the same percentages as in 1929 except in four cases. (1) For nonmanufactured foods we projected the amount produced and consumed on farms back to 1869 on the basis of farm population. (2) For clothing we made rough estimates for early years of the amounts not produced in factories and assumed that these amounts were sold direct to consumers (since we regard custom tailors as producers, not retailers -_see Table B-7). (3) In the case of manufactured fuels the amount not sold through retail stores consists of gasoline sold through garages and parking lots (not considered retailers by us) and small amounts sold direct to farmers. In earlier years manufactured fuels consisted of kerosene rather than gasoline, and hardly any of it can have been distributed otherwise than through retail outlets, so we have raised the allocation to 100 per cent. (4) There is some evidence that a larger fraction, if not of all building materials at least of lumber, formerly was sold through retail channels; ${ }^{9}$ this trend was incorporated. In all other cases, as explained,

[^8]
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the percentages in Table B-2 are necessarily the same for early years as for 1929.

Shaw's totals for commodity output in producers' current prices were corrected by the amounts in Table B-1 and multiplied by the percentages in Table B-2 to yield estimates of input into the distribution system before transportation costs. The figures in Table B-3, whose derivation is indicated in notes, show the transportation charges that must now be added. The transportation in question is between producer and initial distributor. (Freight charges on unfinished goods are of course included in the producers' prices of finished commodities, while transportation from wholesaler to retailer is included in the wholesale margin, from retailer to consumer in the retail margin.) The 1929 figures come from a contemporary inquiry. Earlier figures depend on (1) an index of commodity output in constant prices and (2) an index of railroad freight revenue per ton carried. The total checks with what we know about aggregate railroad freight revenue.

## Reclassification by Retail Outlet: Who Sold What

With the addition of freight charges (Table B-3) we reach the figures in Table B-4 which shows input into the distribution system by commodity groups. The next step was to reclassify the data on the basis of eventual retail outlet. For this purpose the census cross classification by kind of store and commodity was used. ${ }^{10}$ We also need at the same time to make, within the kind-of-store classification, an allocation between the flow to each kind of retailer via some wholesaler and the flow direct. We have for each commodity group total an allocation between wholesale and direct channels in 1929 from Kuznets. ${ }^{11}$ The two allocations have to be combined and also projected back to 1869. The results are in Table B-5. The leading assumptions will be mentioned here; while more detailed notes are appended to the table.

The task is best explained by reference to Table B-5. In the top righthand corner the two-way distribution is given for manufactured food products for 1929. The sum of the pair of percentages in each line is the

[^9]percentage of the group going to each kind of retailer, irrespective of the channel (wholesale or direct), and comes from the commodity distribution in the retail census. The two column totals for manufactured foods, showing the shares of wholesalers and direct sales to retailers, come from Kuznets. ${ }^{12}$ The remainder of the distribution in the 1929 columnthe allocation between wholesale and direct channels for each kind of store-was made on the basis of a mixture of information and assumption which can be summarized as follows. We know that chain stores, department stores, variety stores, and mail-order houses buy predominantly direct from producers; that country general stores and restaurants buy mostly from wholesalers; and that other independents buy more or less from both sources, depending on their size and location. This information was supplemented at specific points: numerous department store executives were asked what particular commodities composed the small fraction of their purchases that they make from wholesalers. In addition we acted on the general principle, which we could check in isolated instances, that a retailer is most likely to buy from a wholesaler those commodities in which he does not specialize or which constitute a small fraction only of his purchases, and that if he buys direct from the producer, he is likely to go there for his chief line of merchandise.

The above information, together with the knowledge we already possessed of the totals for each pair of percentages and the two column totals, enabled us to complete the entries for each group in Table B-5 for the year 1929 without much difficulty. The projection of the figures back to 1869 is more speculative and required much study. We have to estimate the relative importance of different retail outlets and at the same time the sources (wholesale or direct) of their purchases.

To begin at points where we have reasonably good information, we can say for practical purposes that in 1879 there were no department stores ${ }^{13}$ and no mail-order houses, ${ }^{14}$ in 1889 no variety chains, ${ }^{15}$ in 1899 no food, shoe, or furniture chains. ${ }^{16}$ We have in most cases assumed that
${ }_{12}$ Ibid.
${ }^{13}$ Ralph M. Hower calls Macy's a department store by 1877 (op.cit., p. 141), and it was no doubt by that date already organized by departments. Yet we may doubt that stores selling much else besides dry goods and purchasing largely or mainly direct from producers existed until the 1880 's. On the minor point of terminology, although he so classified Macy's, Hower found no reference to the term "department store" until 1897 and doubts that it was much used before 1895 (ibid., p. 440). We found several earlier references, mostly complaints by independent retailers of department store competition (Leather Gazette, April 24, 1886, p. 8; July 10, 1886, p. 8; November 6, 1886, p. 10; Shoe and Leather Gazette, April 14, 1888, p. 12; Michigan Tradesman, November 14, 1888, p. 7).
${ }^{14}$ Montgomery Ward was founded in 1872 but was quite small for many years; Sears Roebuck dates from 1886.
${ }^{15}$ F. W. Woolworth was in business by 1879 but expanded rather slowly at first. Other variety chains date from the last years of the century.
${ }^{16}$ The American Grocer reported a chain of sixty retail groceries in 1895 as something of a curiosity (April 3, p. 5); some small chains existed in Pennsylvania by 1899 (Grocery World, February 6, 1899, p. 31); the Great Atlantic and Pacific Tea Co. was incorporated in 1901. The Federal Trade Commission gives the date of
the percentage of each commodity group going through each of these outlets grew in a straight line from zero to its 1929 level. ${ }^{17}$

We tried to devote special attention to those instances where a commodity group had to be apportioned among outlets with widely differing margins. Thus restaurańts have much higher margins than grocery stores, bars than liquor stores. Accordingly, we counted the numbers of each of these four types of outlet for forty-six cities in 1870 from directories. With an adjustment for the relatively smaller urban population of that time, the results of this inquiry enabled us to distribute manufactured and nonmanufactured foods between groceries and restaurants and that part of manufactured food which represents liquor between bars and liquor stores. In other cases we could sometimes approximate the relative importance of a given type of store from the number of dealers reported in the occupation census. The share of country general stores was based on the trend in percentage of rural to total United States population. Finally, we could check our estimates in many cases against the sales by kind of store reported for Indiana in 1879 and Massachusetts in 1905.

## Allocation to Wholesaling versus Direct Purchases

The above task represented the first half of the work of constructing Table B-5; the second step was, for each commodity group, to split the percentage arrived at for each kind of store into two portions-that passing through wholesale channels and that moving directly to retailers. Here, as before, we act on the principle that chain stores and mail-order houses always have bought most of their goods directly from producers; ${ }^{18}$ the same may be said for department stores, except that the fraction bought direct does not seem to have been quite so high in 1899 as it is today. ${ }^{19}$ For other kinds of store the distribution for years prior to

[^10]
## VALUE ADDED BY DISTRIBUTION

1899 is based upon few systematic and many scrappy indications. Among the former we found particularly useful the distribution of sales of manufacturing plants collected by Massachusetts on a census basis for $1885 .{ }^{20}$ We made a careful analysis of the buying habits of four country general stores at various dates between 1882 and 1906 from invoice books in the possession of the library of the University of Kentucky, and we assembled a large body of material of uneven value from our study of the trade press. The above may be regarded as information directly relevant to the question at hand.

More speculative is information that can be derived from the census of manufactures. To be sure 1929 was the first year for which the federal census collected data on the distribution of sales of manufacturing plants. But we can proceed on the principle that a commodity whose production is geographically concentrated is more likely to be distributed through wholesale channels than one whose production is well dispersed. (Of course this holds true only if we hold constant the size of the retailer and the share of the commodity in his total sales.) The principle is more than a textbook invention, for it can be documented, for instance, in the shoe trade. We found much evidence that before about 1890, when shoe manufacture was almost a New England monopoly, distribution was mainly through jobbers. When the western manufacture started, especially in St. Louis, shortly before the turn of the century, independent shoe stores throughout the West took to purchasing "direct from factory"; and New England producers, their market now restricted, also began to encourage "direct purchases." For the decline of the independent shoe wholesaler there is much evidence. ${ }^{21}$

Yet we should guard against the assumption that a decline in jobbing, easy to document in many trades, necessarily means a corresponding expansion of direct purchases, by retailer from producer, in our sense. For, in line with the Bureau of the Census, we regard manufacturers' sales branches carrying stocks as a form of wholesaling, and the cost of their operation is for us a part of the value added by distribution. No doubt many references to "direct purchases" or "purchases from the manufacturer" describe dealings with such branch houses. In shoes the business of the jobber was in part taken over by factory sales branches. ${ }^{22}$

To test the geographical concentration of shoe manufacture, we assumed consumption by states to follow population and then examined

[^11]output by states (census of manufactures). By comparing the two sets of data, we made minimum estimates of the percentage of the output crossing state lines (assuming no cross movement). For shoes the percentages were 63 in 1879, 61 in 1909, and 57 in 1929, a gradual decline which accords with the above analysis.

As another example we may select farm implements. It seems certain that, except in a few specialties like twine and hand tools, the jobber never has been important here. ${ }^{23}$ Today, distribution is in large part through manufacturers' sales branches; ${ }^{24}$ but this was not always the case. Such branches were already the typical form of wholesaler in 1918; McCormick and Deering both had sales branches before 1902; and we found a reference to "manufacturers' branch houses" as early as $1887 .{ }^{25}$ Yet numerous references to purchases "direct from factory," together with the small scale on which implement manufacture was undertaken, suggest that direct purchases by retailers were formerly much more important than they are today. The analysis of geographical distribution of manufacture is consistent with this conclusion: the percentage of output crossing state lines was found to 38 in 1869, 60 in 1899, and 61 in 1929. ${ }^{26}$

The geographical concentration of manufacture was also estimated for some other products for the three years mentioned. The calculation suggested diminished wholesaling in musical instruments and newspapers and increased wholesaling in tobacco products, and carriages and wagons. For furniture, manufactured food products, clothing and jewelry, no definite trend was observed.

A more detailed account of the application of these principles will be found in notes to Table B-5.

## Double Wholesaling

Undoubtedly some products are handled successively by more than one distributor before they reach the retailer. Moreover, we count manufacturers' sales through brokers to retailers as direct sales, yet their commission forms part of value added by distribution. Morover, our wholesale margins (Table 25, Chapter 6) do not adequately represent manufacturers' sales branches and certain types of specialty wholesaler. For this

[^12]reason we made the adjustment shown at the foot of Table 25 before using the material in the table. The basis of the adjustment will now be described.

Middlemen covered by the various censuses of wholesale trade (1929, 1933, 1935, and 1939) may be divided into three categories as follows (descriptions vary slightly between censuses):

A Wholesale merchants; also described as wholesalers proper, service wholesalers, regular wholesalers, and general-line and specialty wholesalers
$B$ Other wholesalers with stocks; e.g. manufacturers' wholesale sales branches with stocks, chain-store warehouses, cooperative wholesalers, cash-and-carry wholesalers, limited-function wholesalers, and assemblers
$C$ Middlemen without stocks, many of whom never take title: brokers, commission merchants, import agents, manufacturers' agents, manufacturers' branches, and sales offices without stocks.

Our sample margin data (Table 25 and Appendix C) is assumed to cor-respond-as it obviously does in most cases-to category $A$, rather than to $B$ or $C$. But our definition of wholesaling in Table B-5 (where output is allocated according to whether or not it passes through wholesale channels), following the practice of Part III of Commodity Flow, comprises groups $A+B$ above. ${ }^{27}$ Those in category $C$ are not considered wholesalers by us, but their markup must be accounted for through an upward adjustment in the wholesale margin.

It is evident that a twofold adjustment is needed: (1) for the bias in our data as a measure of the margin for all wholesaling as defined in Table B-5 (i.e. $A+B$ ) and (2) for the operations of agents and brokers, and "double wholesaling." Finally, (3) the two adjustments are combined. We assumed that expenses are proportional to the margin and used data
${ }^{27}$ Kuznets' description of his procedure, upon which much of our own work rests, is not wholly free from ambiguity. Thus (1) "sales by all agents and brokers were omitted as constituting duplications" (op.cit., p. 167); (2) "the over-all mark-up for wholesale trade in finished commodities in Table nir-3 checks with the operating expense ratio in the Census of Wholesale Distribution . . . if sales and expenses are taken for wholesalers alone and for manufacturers' sales branches" (ibid., p. 168); (3) according to the 1929 census, on which Kuznets' distribution is based, "an effort has been made to include in 'sales to manufacturers' own wholesale branches' those sales to wholesale branch outlets who store the goods and perform the function of a regular wholesale merchant as distinct from those credited to the manufacturers' selling offices that are only headquarters for salesmen and do not perform the wholesale functions usual to that particular industry or trade" (Distribution of Sales of Manufacturing Plants, pp. 3-4). These quotations seem to establish that Kuznets did not regard sales to (or through) category $C$ as sales to wholesalers, despite his statement elsewhere that "wholesale trade . . . is .. . . defined to include not only wholesalers proper, but also manufacturers' wholesale branches and all agents and brokers" (op.cit., p. 164; italics ours). In fact a check of the figures (in ibid., Part III) shows that sales through brokers to retailers are not considered sales to wholesale trade; nor does the census furnish data which could readily allow such sales to be so classified.

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from the wholesale census. The calculations were made for 1933 and for 1939 and were averaged.

1. To compensate for bias in observed data (see Appendix C), we multiply observed margin as a percentage of sales by

$$
\frac{\text { Expense ratio for }(A+B)}{\text { Expense ratio for } A},
$$

the expense ratios also being measured as a percentage of sales. In the special case of wholesale drugs, where our data refer to general-line wholesalers only, we need to multiply the observed margin by

$$
\text { Expense ratio for }(A+B)
$$

Expense ratio for general-line drug wholesalers .
2. We assume that "double wholesaling" occurs only in the form of sales to, or by, a wholesaler in category $A$ or $B$. We can then derive an adjusted expense ratio for $(A+B)$ as

$$
\frac{\text { Expenses of }(A+B+C)}{\text { Sales of }(A+B)} .
$$

This takes care of value added by agents and brokers, whether they are the only intermediary between producer and retailer or whether they sell to, or buy from, a wholesaler in category $A$ or $B$.
3. To summarize:
adjusted wholesale margin equals observed margin times

$$
\frac{\text { Expenses of }(A+B+C)}{\text { Sales of }(A+B)}
$$

divided by expense ratio for $A$. The calculation was performed for each of our wholesale categories, and the correction factor indicated is shown in the last column of Table 25.

## Estimates of Retail Sales

Totals for input into distribution, by kind of retail outlet and by "wholesalers" or "direct," can be obtained by applying the percentages of Table B-5 to the dollar totals of Table B-4. For each kind of retailer we then raised the amount flowing via wholesaler by the wholesale margin (Table 25), added the amount purchased directly by retailers, and raised the result (total retail purchases) by the retail margin (Table 24, Chapter 6). The results are recorded in Table B-6.

Estimates for 1929, 1939, and 1948
The second estimate for 1929 and those for 1939 and 1948 were obtained by a different method, starting from retail sales and working back. Thus figures for retail sales in the last three columns of Table B-6 come directly from the census of distribution (see for 1929 the reconciliation of our own and census totals in Table B-7). By applying retail margins (Table 24), we obtained purchases by retailers; such purchases we di-

## VALUE ADDED BY DISTRIBUTION

vided in the proportions shown for 1929 in Table B-5 between "wholesale" and "direct"; to the wholesale portion we applied the wholesale margin (Table 25); adding wholesalers' purchases to retailers' direct purchases, we obtained estimates of input by kind of store. (We made no effort to reclassify input by commodity group, so that our commodity analysis cannot be applied to 1939 and 1948.)

## Discrepancy between Estimates for $1929{ }^{28}$

For 1869 to 1929 our estimates of total retail sales (Table B-6) are obtained by adding transportation costs and wholesale and retail markups to figures for commodity output that have been reclassified by kind of retail outlet. For 1929, 1939, and 1948 we have direct estimates of retail sales based upon the census of distribution. For 1929 the former estimate is $\$ 54.7$ billion and the latter $\$ 46.4$ billion, the difference being $\$ 8.3$ billion or 16 per cent of the mean of the two estimates. This is an unreasonably large disparity.

Our two procedures correspond closely to what Simon Kuznets has called the "mark-up" and "volume-of-sales" (i.e. retail census) methods, and the discrepancy we obtain resembles his. For consumer goods (a narrower concept than our finished goods plus construction materials) Kuznets reported a disparity of 19 per cent. ${ }^{29} \mathrm{His}$ attempt to explain the difference was not wholly successful, nor will ours be. In another manifestation the difference appears as a marked tendency for estimates of the national accounts for the 1920's and 1930's from the product side to exceed estimates of the same quantities from the income side. ${ }^{30}$ It may be called the great statistical mystery of the age.

## Kuznets' Explanation

We shall first summarize the sources of disparity listed by Kuznets and shall note to what extent they also apply in the case of our figures.

1. The markup method overstates sales to the extent that distributive inventories increased during the year. He puts the increase at $\$ 200$ million for consumer goods, and it seems likely that another $\$ 200$ million for construction materials would not be far out. ${ }^{31}$
2. Kuznets believes the markup totals overstate retail sales by $\$ 500$ million, owing to his failure to exclude from input into the distribution system direct sales to consumers by farmers, especially of nonmanufactured food products. We, on the other hand, have deliberately excluded the largest of such items, i.e. milk and dairy products, and one may guess that the remaining overstatement, presumably made up of fruits and vegetables, could not well exceed $\$ 100$ million.
${ }^{28}$ Two separate totals could also be obtained for 1939 and 1948, but we did not have occasion to make estimates for these two years by what is here called the markup method.
${ }^{29}$ Op.cit., p. 171-176.
${ }^{30}$ Harold Barger, Outlay and Income in the United States, 1921-1938, NBER, 1942, Chap. III.
${ }^{31}$ Op.cit., Part vi.
3. The census of distribution does not include commodity sales by hotels. However, we have added a figure for hotel sales of meals-by far the most important item here-to the census figure for restaurants. (Table B-7), so that the understatement of our (corrected) census total (Table B-6) must be quite small on this account.
4. The markup method makes no deduction for commodities dispensed to consumers not through the distribution system but as an incident to the operation of service establishments (barber shops), public utilities (sale of gas and electric appliances), or medical practice (dispensing of drugs). Kuznets thinks the overstatement at this point could run to $\$ 500$ million.
5. The census does not attempt to cover itinerant vendors. Kuznets thinks failure to include what they sell could have contributed $\$ 500$ million to the underestimate of retail sales by the census.
6. There is the matter of failure and retirement. The 1929 census was taken in April 1930 and could not hope to include the sales of dealers who went out of business between January 1, 1929, and the date of enumeration fifteen months later. The gap here is especially serious because of the onset of the depression. The 1933 retail census counted the number of stores that had been in existence in 1929 and still were operating in 1933. Using these figures as a basis, Kuznets puts the shortfall resulting from retirements at $\$ 1,500$ million. However, Kuznets ${ }^{32}$ excludes the coal and lumber group and other stores selling construction materials. An unpublished calculation along similar lines but more comprehensive in scope, for which I am indebted to George Stigler, puts the shortfall at 5.28 per cent of reported sales; if applied to our total (Table B-7) this amounts to nearly $\$ 2,500$ million. Let us take $\$ 2,000$ million as the correction for retirements.
7. There is a tendency in all censuses to omit seasonal operations, when the date of enumeration falls outside the active season. Kuznets thinks that the census shortfall on this account could amount to $\$ 750$ million.

To summarize, the causes cited by Kuznets could contribute to the disparity in the estimates of 1929 retail sales (Table B-6) as follows:

| Overstatement by markup method: | (million dollars) |
| :--- | :---: |
| Increase of inventories in hands of distributors | 400 |
| Failure to exclude direct sales to consumers by farmers (other |  |
| than milk and dairy products) | 100 |
| Failure to exclude sales by service establishments, public utili- |  |
| $\quad$ ties, and medical practitioners | 500 |
| Understatement by census: |  |
| Omission of sales by itinerant vendors | 500 |
| Omissions due to failure and retirement | 2,000 |
| Omissions due to seasonal operation | 750 |
| Total | 4,250 |
| Discrepancy (Table B-6) | 8,259 |
| Not yet accounted for | 4,009 |

${ }^{32}$ Ibid., p. 173.

Evidently, after allowing for causes of the disparity cited by Kuznets, we still have a difference of $\$ 4$ billion.

To this we will return in a moment. We must first notice some factors working the other way. The markup method represents an understatement of retail sales on several grounds. (1) Commodity output is too small because the census of manufactures does not cover establishments the value of whose products is under $\$ 5,000$. (2) As with retailers, some retirements of manufacturing establishments could have occurred before the census was taken. Kuznets does not think these matters are quantitatively important. We should, however, add another, more relevant to our comparison than to his. (3) The census overstates retail sales of finished commodities and construction materials to the extent that it reports sales of unfinished goods (other than construction materials) and secondhand goods. Of the former the most obvious example is filling-station sales of gasoline to commercial users. In the case of secondhand goods, we have excluded from the census totals all sales by secondhand stores and sales of used cars by automobile dealers. But it is obvious that some sales of secondhand commodities by other types of store still are included.

Kuznets goes on to point out that the remaining disparity could be due to undercoverage (not so far analyzed) in the retail census, overstatement (for reasons not yet mentioned) in the flow of goods into the distribution system, or exaggeration in the wholesale and retail markups. He cites the large discrepancies in two commodity groups-cigars, cigarettes, and tobacco ( $\$ 1,250$ million) and shoes and other footwear ( $\$ 470$ million). He shows that matters so far discussed can explain little here. Moreover, for these two commodities errors in the flow to distribution should be minimal; it is hard to think of much of either group being unfinished or, if finished, reaching consumers otherwise than through retailers. Furthermore, Kuznets feels the markups are reliable, and for cigarettes, e.g., could readily be checked by price quotations. His implied conclusion is that the larger part of the residual discrepancy is to be attributed to failure of the census even to cover fully all retailers in business at the time it was taken.

## Some Further Considerations

At this point it seems desirable to record briefly the main differences between our results for 1929 and those given by Kuznets. Our estimate of total retail sales of consumables, obtained by the markup method, is $\$ 48.8$ billion compared with $\$ 49.4$ billion given by Kuznets. The basic data and much of the analysis are of course common to both estimates. One difference, however, is the heavy reliance placed by Kuznets on the expense ratios of the 1929 retail and wholesale censuses and the comparatively slight use we made of them. We had less confidence than Kuznets in the conversion of expense to gross margin through allowance for net profits, and we needed data as comparable as possible with other years. We therefore relied more heavily on unofficial surveys of realized retail and wholesale margins. As a consequence our 1929 dis-
tributive spread for consumables works out at 36.9 per cent of retail value compared with 34.2 per cent reported by Kuznets. However, this tendency for our markup estimates to come out higher is more than offset by contrary influences. The most important of these is our deliberate exclusion of food furnished employees and withdrawn by nonfarm proprietors, on the ground that such food does not pass through retail channels.

Certainly the largely independent investigation of markups undertaken in the present study supports Kuznets' opinion that he had not overstated distribution cost. If the remaining discrepancy-which for our figures runs as high as $\$ 4$ billion-is not due to the overstatement of markups, there remains the possibility, in addition to undercoverage by the retail census, of an overstatement of the flow of commodities into the distribution system. With respect to the apportionment of output between finished and unfinished goods, our study rests upon Shaw's work; ${ }^{33}$ with respect to the exclusion of finished output sold directly by producers to consumers and the allocation of the flow to distribution between wholesalers and sales direct to retailers, our study is built squarely upon foundations provided by Part in of Commodity Flow. The question remains whether the principles on which Kuznets' book is organized, and which we have scarcely modified in the present study, could have resulted either in (1) an overstatement of finished goods as a fraction of commodity output or in (2) an overstatement of the flow to distribution as a fraction of finished goods (and construction materials).

With respect to (1) Kuznets notes that "in the original breakdown of mixed commodity items the estimate of the unfinished part was usually a minimum, and hence there may have been some exaggeration in the finished part obtained as a residual." ${ }^{34}$ The same point is made by Shaw. ${ }^{35}$ Without repeating much of the basic work done by Shaw and Kuznets, it is impossible to form an independent opinion as to the scope for error here.

With respect to (2) something further may be said. Reference to Table B-6 shows that some of the largest discrepancies in estimated retail sales in 1929 are for outlets mainly selling food. For instance, combined sales of independent and chain groceries, milk dealers, meat markets, candy stores, and restaurants are $\$ 17.0$ billion by the markup method and $\$ 13.3$ billion as reported by the census (after inclusion of hotel restaurants and allowance for restaurant tips; see Table B-7). The difference ( $\$ 3.7$ billion) is nearly half the original disparity for total retail sales ( $\$ 8.3$ billion) and roughly equals the entire disparity remaining after the above reconciliation along lines suggested by Kuznets ( $\$ 4.0$ billion). At cost to retailer, the $\$ 4.0$ billion excess food sales would be worth $\$ 2.7$ billion. Can we have erroneously included in the flow to retail outlets anything like this volume of food?

[^13]
## VALUE ADDED BY DISTRIBUTION

Food produced and consumed on farms and milk and dairy products sold directly to consumers are no help here, for ample allowance has already been made (Table B-2) to prevent their entrance into the distribution system. However, the Department of Commerce lists the following food expenditures for 1929, most or all of which would not have been reported as sales by any retail store or (commercial) restaurant: ${ }^{36}$

| Dining and buffet cars | (million dollars) |
| :--- | :---: |
| Schools and school fraternities | 85 |
| Institutions, clubs, and industrial lunchrooms | $\underline{269}$ |
| $\quad$ Total | $\underline{392}$ |

If sold at "cost" this would evidently represent no more than a seventh of the $\$ 2.7$ billion excess (wholesale value) for food just mentioned. We may further note that the federal government purchased $\$ 186$ million, and state and local governments $\$ 1,469$ million, of goods and services (other than construction) from business enterprises. ${ }^{37}$ If we suppose half such expenditures were for finished goods (typewriters, stationery, furniture), the corresponding retail value would amount to more than $\$ 1$ billion. Let us remind ourselves that the exclusion from our estimates by the markup method of commodities destined for such users rests mainly upon the classification "sales to industrial and other large consumers" reported by manufacturers. ${ }^{38}$ At least to the extent that institutions or state and local governments buy through wholesalers or manufacturers' sales branches, commodities destined for such users would have been erroneously included by us in the flow to distribution and so through retail outlets.

To summarize, of the disparity of $\$ 8.3$ billion shown for the 1929 estimates in Table B-6, about $\$ 4.2$ billion can be explained on lines suggested by Kuznets. Perhaps another \$1-2 billion represents overstatement by the markup method through inclusion of finished goods destined for institutions and state and local governments. Of the remaining \$2-3 billion, an unknown amount may result from an overstatement of finished and understatement of unfinished goods in the commodity estimates. The remainder, perhaps as much as $\$ 2$ billion, looks as if it could represent undercoverage in the 1929 retail census, of a kind not analyzed above: omission of establishments operating at the time the census was taken or understatement of sales by establishments covered.

[^14]Table B-1
ADDITIONS TO COMMODITY OUTPUT ON ACCOUNT OF OMISSIONS, BY COMMODITY GROUP, 1869-1929 a (producers' current prices, millions of dollars)

|  | Federal <br> Liquor <br> Taxes ${ }^{\text {b }}$ | State <br> Gasoline <br> Taxes ${ }^{\text {c }}$ | Fire- <br> wood d |
| :---: | :---: | :---: | :---: |
| 1869 | 57 | $\cdots$ | 587 |
| 1879 | 69 | $\cdots$ | 310 |
| 1889 | 103 | $\cdots$ | 252 |
| 1899 | 176 | $\cdots$ | 202 |
| 1909 | 200 | $\cdots$ | 225 |
| 1919 | 312 | $\ldots$ | 402 |
| 1929 | $\ldots$ | 268 | 377 |

$\ldots=$ not applicable.
${ }^{\text {a }}$ The federal excise on tobacco is already included in census of manufactures values; hence, like duties on imported commodities, it is included in William H . Shaw's totals (Value of Commodity Output since 1869, National Bureau of Economic Research, 1947). State cigarette taxes are not included, but were still small in 1929. State liquor taxes were negligible, nor was there yet any federal tax on gasoline.
${ }^{5}$ Historical Statistics of the United States, 1789-1945, Bureau of the Census, 1949, Series P 110. Mean of adjacent fiscal years. An addition to the "manufactured foods" group, which includes liquor.
${ }^{\text {c A A }}$ figure of $\$ 432$ million may be obtained from the Statistical Abstract of the United States, but this must be multiplied by 949/1531 to exclude gasoline used for business purposes (see Simon Kuznets, Commodity Flow and Capital Formation, NBER, 1938, p. 62). An addition to the "manufactured fuels" group.
${ }^{\text {d See Shaw op.cit., p. 103. Estimated from data given there, together with the }}$ implicit price index obtained by dividing Shaw's nonmanufactured fuels in current prices by the same in 1913 prices. An addition to the "nonmanufactured fuels" group.

Table B-2
FRACTION OF COMMODITY OUTPUT SOLD THROUGH RETAIL STORES, BY COMMODITY GROUP, 1869-1929 a
(per cent of producers' value)

|  |  | 1869 | 1879 | 1889 | 1899 | 1909 | 1919 | 1929 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1a | Nonmanufactured food | 96.8 | 96.8 | 96.8 | 96.8 | 96.8 | 96.8 | 96.8 |
| 1 b | Manufactured food | 58 | 59 | 62 | 64 | 67 | 69 | 72.8 |
| 2 | Cigars, cigarettes and tobacco | 100 | 100 | 100 | 100 | 100 | 100 | 98.1 |
| 3 | Drugs | 92 | 92 | 92 | 92 | 92 | 92 | 91.7 |
| 4 | Magazines, newspapers and stationery | 82 | 82 | 82 | 82 | 82 | 82 | 81.5 |
| 5 a | Manufactured fuels | 100 | 100 | 100 | 100 | 100 | 97 | 87.2 |
| 5 b | \{ Coal | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 5 | Firewood | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 6 | Dry goods and notions | 100 | 100 | 100 | 100 | 100 | 100 | 97.9 |
| 7 | Clothing | 80 | 85 | 90 | 95 | 95 | 95 | 94.7 |
| 8 | Shoes | 100 | 100 | 100 | 100 | 100 | 100 | 98.9 |
| 9 | Nondurable housefurnishings | 84 | 84 | 84 | 84 | 84 | 84 | 84.5 |
| 10 | Toys, games and sporting goods | 91 | 91 | 91 | 91 | 91 | 91 | 90.6 |
| 11 | Tires and tubes |  |  |  | 90 | 90 | 90 | 90.1 |
| 12,28,29 | Household and office furniture | 82 | 82 | 82 | 82 | 82 | 82 | 82.1 |
| 13a,b | Household appliances | 91 | 91 | 91 | 91 | 91 | 91 | 91.4 |
| 13c | Radios |  |  |  |  |  | 93.5 | 93.5 |
| 14 | Durable housefurnishings | 94 | 94 | 94 | 94 | 94 | 94 | 94.2 |
| 15 | China and household utensils | 85 | 85 | 85 | 85 | 85 | 85 | 84.8 |
| 16 | Musical instruments | 79 | 79 | 79 | 79 | 79 | 79 | 79.0 |
| 17 | Jewelry | 93 | 93 | 93 | 93 | 93 | 93 | 93.4 |
| 18 | Books | 53 | 53 | 53 | 53 | 53 | 53 | 53.0 |
| 19 | Luggage | 89 | 89 | 89 | 89 | 89 | 89 | 88.9 |
| $\left.\begin{array}{l} 20 \mathrm{a}, \mathrm{c} ; \\ 32 \mathrm{a}, \mathrm{~b} \end{array}\right\}$ | Vehicles | 83 | 83 | 83 | 83 | 83 | 83 | 83.1 |
| 20 b | Automobile accessories | . | . |  |  | 87 | 87 | 86.7 |
| 21 | Motorcycles, bicycles |  | $\cdots$ | 100 | 100 | 100 | 100 | 100 |
| 25 b | Tractors |  |  |  |  |  | 80 | 80.4 |
| 27 | Farm equipment | 68 | 68 | 68 | 68 | 68 | 68 | 68.4 |
| 35 | Mechanics' tools | 51 | 51 | 51 | 51 | 51 | 51 | 50.8 |
| . | Construction materials | 57 | 54 | 51 | 48 | 45 | 42 | 39 |

[^15]
## APPENDIXES

Table B-3
FREIGHT CHARGES, BY COMMODITY GROUP, 1869-1929 a
(transportation from producer to initial distributor only, millions of dollars)

|  |  | 1869 | 1879 | 1889 | 1899 | 1909 | 1919 | 1929 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 a | Manufactured food | 21 | 26 | 51 | 74 | 132 | 275 | 458 |
| 1 b | Nonmanufactured food | 83 | 153 | 94 | 145 | 182 | 476 | 762 |
| 2 | Cigars, cigarettes, and tobacco | 1 | 1 | 1 | 2 |  | 10 | 12 |
| 3 | Drugs | 1 | 1 | 3 | 4 | 9 | 18 | 45 |
| 4 | Magazines and stationery | 0 | 1 | 1 | 2 | 4 | 7 | 17 |
| 5 a | Manufactured fuel ${ }^{\text {b }}$ | 5 | 7 | 17 | 24 | 30 | 61 | 197 |
| 5b | Nonmanufactured fuel | 51 | 53 | 76 | 82 | 123 | 164 | 247 |
| 6 | Dry goods | 2. | 3 | 4 | 4 | 6 | 8 | 15 |
| 7 | Clothing | 3 | 4 | 7 | 15 | 30 | 72 | 128 |
| 8 | Shoes | 3 | 2 | 3 | 6 | 10 | 23 | 32 |
| 9 | Nondurable housefurnishings | 0 | 0 | 1 | 1 | 1 | 5 | 11 |
| 10 | Toys, games, and sporting goods | 0 | 0 | 0 | 1 | 1 | 3 | 6 |
| 11 | Tires and tubes |  |  |  | 0 | 0 | 5 | 8 |
| 12,28,29 | Furniture | 1 | 1 | 4 | 4 | 8 | 17 | 45 |
| 13a,b | Household appliances | . 0 | 0 | 1 | 1 | 2 | 6 | 14 |
| 13c | Radios |  |  |  |  |  | 3 | 5 |
| 14 | Durable housefurnishings | 1 | 1 | 2 | 2 | 4 | 8 | 18 |
| 15 | China and household utensils | 2 | 1 | 2 | 4 | 5 | 13 | 26 |
| 16 | Musical instruments | 0 | 0 | 1 | 1 | 2 | 6 | 4 |
| 17 | Jewelry | 0 | 0 | 1 | 2 | 4 | 8 | 11 |
| 18 | Books | 0 | 0 | 1 | 1 | 1 | 1 | 3 |
| 19 | Luggage | 0 | 0 | 0 | 0 | 1 | I | 2 |
| $\left.\begin{array}{l} 20 \mathrm{a}, \mathrm{c} ; \\ 32 \mathrm{a}, \mathrm{~b} \end{array}\right\}$ | Vehicles | 2 | 1 | 1 | 2 | 7 | 40 | 129 |
| 20b | Automobile accessories | . | . | . | . | 0 | 0 | 4 |
| 21 | Motorcycles, bicycles |  |  |  | . | 0 | 0 | 0 |
| 25b | Tractors |  |  |  |  | 0 | 4 | 12 |
| 27 | Farm equipment | 1 | , | 1 | 2 | 3 | 8 | 11 |
| 35 | Mechanics' tools | 0 | 0 | 0 | 0 | 1 | 2 | 2 |
| .. | Construction materials | 29 | 16 | 39 | 49 | 76 | 163 | 332 |
|  | Total | $\overline{206}$ | $\overline{272}$ | 311 | $\overline{428}$ | $\overline{645}$ | $\overline{1,404}$ | 2,568 |

. = not applicable.
${ }^{\text {a }}$ Commodity group numbers refer to Shaw's classification. 1929: The basic source was Interstate Commerce Commission, Freight Revenue and Value of Commodities Transported on Class I Steam Railways, 1928, Statement 29111. We used the tabulation given by Simon Kuznets (Commodity Flow and Capital Formation, National Bureau of Economic Research, 1938, p. 228). Data for coal were obtained from the original source and for construction materials from ibid., p. 355. Total freight charges were projected back to 1869 as follows: Domestic consumption of commodities in 1913 prices (William H. Shaw, Value of Commodity Output since 1869, NBER, 1947, pp. 70-77) was used as (1) an index of physical volume of goods to be transported. Average revenue per ton originated for 1899 to 1929 (Statistics of Railways) and five-year average revenue per ton carried (H. T. Newcomb and E. G. Wood, Jr., "Changes in the Rates of Charge for Railway and Other Transportation Services," Dept. of Agriculture, Bulletin 15, Misc. Series, revised 1901) for 1869 to 1899 furnished (2) an index of freight charges per physical unit of goods. The

## VALUE ADDED BY DISTRIBUTION

product of (1) and (2) was treated as an index of total freight charges. The result, about 52 per cent of railroad freight revenue in 1929, is 68 per cent of railroad freight revenue in 1869 (ICC, "Railway Statistics before 1890," December 1932).

For years other than 1929: The total was distributed as follows: Railroad revenue per ton in 1911 was estimated for foods, fuels, and construction materials from partial data (Statistics of Railways, 1911, p. 48) and for 1869, 1879, and 1889 from data for individual commodities from the Aldrich report, op.cit., Part I, pp. 76-79.

Table B-4
INPUT INTO THE DISTRIBUTION SYSTEM, BY COMMODITY GROUP, 1869-1929
(producers' current prices, including freight charges, millions of dollars)

|  |  | 1869 | 1879 | 1889 | 1899 | 1909 | 1919 | 1929 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Consumer perishables: |  |  |  |  |  |  |  |  |
| 1a | Manufactured food | 719 | 1,009 | 1,515 | 2,091 | 3,745 | 9,367 | 9,246 |
| 1 b | Nonmanufactured food | 481 | 565 | 672 | 865 | 1,553 | 3,625 | 3,773 |
| 2 | Cigars, cigarettes, tobacco | 76 | 121 | 203 | 267 | 427 | 992 | 1,203 |
| 3 | Drugs | 36 | 38 | 78 | 128 | 239 | 629 | 947 |
| 4 | Magazines and stationery | 25 | 51 | 78 | 95. | 177 | 375 | 574 |
| 5 a | Manufactured fuel | 34 | 47 | 77 | 112 | 155 | 691 | 1,510 |
| 5 b | Nonmanufactured fuel | 248 | 186 | 216 | 234 | 355 | 696 | 753 |
| Consumer semidurables: |  |  |  |  |  |  |  |  |
| 6 | Dry goods | 226 | 266 | 286 | 260 | 374 | 857 | 789 |
| 7 | Clothing | 187 | 308 | 512 | 722 | 1,417 | 3,753 | 4,405 |
| 8 | Shoes | 188 | 176 | 239 | 299 | 478 | 1,244 | 1,102 |
| 9 | Housefurnishings | 11 | 13 | 28 | 36 | 64 | 230 | 363 |
| 10 | Toys, games, sporting goods | 12 | 15 | 20 | 26 | 49 | 140 | 201 |
| 11 | Tires and tubes |  |  |  | 12 | 21 | 487 | 403 |
| Consumer durables: |  |  |  |  |  |  |  |  |
| 12 | Furniture | 49 | 54 | 79 | 88 | 163 | 424 | 518 |
| 13a,b | Household appliances | 24 | 21 | 36 | 57 | 98 | 304 | 493 |
| 13c | Radios |  |  |  |  |  | 13 | 359 |
| 14 | Housefurnishings | 39 | 55 | 94 | 111 | 177 | 387 | 624 |
| 15 | China and household utensils | 24 | 27 | 41 | 56 | 93 | 197 | 258 |
| 16 | Musical instruments | 9 | 11 | 23 | 28 | 63 | 200 | 92 |
| 17 | Jewelry | 39 | 40 | 70 | 92 | 168 | 398 | 387 |
| 18 | Books | 4 | 10 | 20 | 25 | 34 | 69 | 105 |
| 19 | Luggage | 7 | 6 | 10 | 12 | 26 | 61 | 64 |
| 20a, ${ }^{\text {c }}$ | Vehicles | 31 | 30 | 46 | 49 | 175 | 1,112 | 2,240 |
| 20b | Automobile accessories |  |  |  |  | 18 | 197 | 358 |
| 21 | Cycles and motorcycles |  |  | 2 | 19 | 6 | 21 | 11 |
| Producer goods: |  |  |  |  |  |  |  |  |
| 25b | Tractors |  |  |  |  |  | 134 | 110 |
| 27 | Farm equipment | 35 | 47 | 58 | 69 | 116 | 259 | 276 |
| 28,29 | Office furniture | 13 | 16 | 27 | 30 | 70 | 185 | 416 |
| 32a,b | Business vehicles | 16 | 15 | 23 | 28 | 43 | 313 | 457 |
| 35 | Mechanics' tools | 6 | 7 | 11 | 12 | 25 | 77 | 66 |
|  | Construction materials | 244 | 256 | 467 | 532 | 973 | 1,678 | 2,280 |
|  | Total | 2,783 | 3,390 | 4,931 | 6,355 | 11,302 | 29,115 | 34,383 |

[^16]Table B-5
ALLOCATION OF INPUT AMONG CHANNELS, BY RETAIL OUTLET, 1869-1929 (per cent of producer's value, after transportation charges) W: through a wholesaler. $\mathbf{D}$ : direct to a retailer.
The first figure, 44 , means that in 1869,44 per cent of all manufactured food products was sold to a wholesaler for eventual distribution through independent grocery stores, and figure beside it, 7 , means that in the same year 7 per cent of the group was sold by producers directly to independent grocery stores. The totals in these two columns, 90 per cent and 10 per cent respectively, mean that producers' sales were distributed between sales to wholesalers and direct sales to retailers in this ratio.

|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 1a Manufactured food products: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grocery independents | 44 | 7 | 39 | 10 | 34 | 13 | 29 | 13 | 24 | 7 | 31 | 6 | 30.1 | 5.3 |
| Grocery chains | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 11 | 3 | 14 | 3.2 | 17.9 |
| Meat markets | 6 | 3 | 6 | 3 | 6 | 3 | 7 | 3 | 7 | 3 | 7 | 3 | 7.0 | 3.2 |
| Milk dealers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 |
| Candy stores | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 3 | 1 | 2.6 | 1.4 |
| Country general stores | 20 | 0 | 19 | 0 | 18 | 0 | 17 | 0 | 15 | 0 | 13 | 0 | 11.3 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.1 | 0.5 |
| Dry goods stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0.8 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 |
| Restaurants | 4 | 0 | 5 | 0 | 5 | 0 | 7 | 0 | 7 | 0 | 10 | 0 | 12.5 | 0 |
| Bars | 7 | 0 | 8 | 0 | 10 | 0 | 9 | 0 | 11 | 0 | 3 | 0 | 0 | 0 |
| Drugstores | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 2.2 | 0 |
| Liquor stores | 3 | 0 | 4 | 0 | 5 | 0 | 4 | 0 | 4 | 0 | 1 | 0 | 0 | 0 |
| Other (feed stores) | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1.1 | 0 |
| Total | 90 | 10 | 87 | 13 | 84 | 16 | 80 | 20 | 77 | 23 | 74 | 26 | 70.9 | 29.1 |
| 1b Nonmanufactured food: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grocery independents | 36 | 40 | 35 | 38 | 35 | 38 | 34 | 31 | 34 | 25 | 32 | 20 | 27.9 | 13.3 |
| Grocery chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 9 | 2 | 12 | 5.0 | 13.7 |
| Meat markets | 0 | 5 | 0 | 5 | 0 | 5 | 1 | 4 | 2 | 3 | 3 | 2 | 4.3 | 0.5 |
| Milk dealers | 10 | 0 | 12 | 0 | 12 | 0 | 14 | 0 | 16 | 0 | 18 | 0 | 19.3 | 0 |
| Country general stores | 1 | 3 | 1 | 3 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1.0 | 1.0 |
| Dry goods stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 |


|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 16 Nonmanufactured food (continued): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Restaurants | 5 | 0 | 6 | 0 | 7 | 0 | 8 | 0 | 9 | 0 | 9 | 0 | 13.3 | 0 |
| Other (feed stores) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 |
| Total | 52 | 48 | 54 | 46 | 55 | 45 | 58 | 42 | 62 | 38 | 65 | 35 | 70.9 | 29.1 |
| 2 Cigars, cigarettes, and tobacco: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grocery independents | 17 | 0 | 16 | 0 | 18 | 0 | 15 | 0 | 11 | 0 | 8 | 0 | 8 | 0 |
| Grocery chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 2 | 4.3 | 0 |
| Country general stores | 17 | 10 | 18 | 8 | 18 | 5 | 21 | 2 | 20 | 1 | 19 | 0 | 17.3 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0.1 | 0 |
| Dry goods stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 |
| Restaurants | 1 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 5 | 0 | 7 | 0 | 7.6 | 0 |
| Drugstores | 17 | 0 | 19 | 0 | 18 | 0 | 19 | 0 | 21 | 0 | 23 | 0 | 22.9 | 0 |
| Book and stationery stores, newsdealers | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1.8 | 0 |
| Cigar stores | 16 | 20 | 19 | 17 | 22 | 15 | 25 | 11 | 30 | 6 | 34 | 2 | 36.4 | 0 |
| Total | 70 | 30 | 75 | 25 | 80 | 20 | 85 | 15 | 90 | 10 | 95 | 5 | 100 | 0 |
| 3 Drugs: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grocery independents | 5 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Country general stores | 5 | 0 | 4 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3.0 | 3.4 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0.6 |
| Dry goods stores | 2 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0.9 | 0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 4.0 |
| Drugstores | 88 | 0 | 91 | 0 | 94 | 0 | 89 | 5 | 81 | 10 | 75 | 15 | 66.3 | 21.8 |
| Total | 100 | 0 | 100 | 0 | 100 | 0 | 93 | 7 | 85 | 15 | 78 | 22 | 70.2 | 29.8 |
| 4 Magazines, newspapers, and stationery: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 1.6 | 2.0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 9 | 0 | 12 | 0 | 14.2 |
| Furniture independents | 2 | 0 | 3 | 0 | 4 | 0 | 5 | 0 | 6 | 0 | 7 | 0 | 7.3 | 0 |
| Drugstores | 5 | 0 | 5 | 0 | 5 | 0 | 6 | 0 | 6 | 1 | 6 | 2 | 6.0 | 3.1 |
| Book and stationery stores, newsdealers | 43 | 50 | 41 | 51 | 39 | 52 | 35 | 46 | 32 | 43 | 30 | 38 | 26.9 | 35.9 |
| Cigar stores | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 2.0 | 1.0 |
| Total | 50 | 50 | 49 | 51 | 48 | 52 | 47 | 53 | 46 | 54 | 45 | 55 | 43.8 | $\frac{1}{56.2}$ |


|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 5a Manufactured fuels: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grocery independents | 35 | 0 | 40 | 0 | 40 | 0 | 40 | 0 | 39 | 0 | 20 | 0 | 0 | 0 |
| Country general stores | 35 | 0 | 30 | 0 | 30 | 0 | 30 | 0 | 29 | 0 | 18 | 0 | 0 | 0 |
| Vehicle (automobile) dealers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4.7 | 0 |
| Automobile accessory stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3.6 | 0 |
| Filling stations | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 32 | 15 | 61.6 | 30.1 |
| Hardware stores | 30 | 0 | 30 | 0 | 30 | 0 | 30 | 0 | 29 | 0 | 12 | 0 | 0 | 0 |
| Total | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 85 | 15 | 69.9 | 30.1 |
| 5b Coal and firewood: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coal and lumber yards | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | . 100 | 0 | 100 |
| 6 Dry goods and notions: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Country general stores | 12 | 0 | 12 | 0 | 13 | 0 | 13 | 0 | 14 | 0 | 14 | 0 | 14.3 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 15 | 6 | 22 | 9 | 29.2 | 11.8 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 0 | 3.6 |
| Dry goods stores | 88 | 0 | 84 | 4 | 79 | 8 | 64 | 8 | 48 | 6 | 39 | 0 | 27.3 | 0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 7 | 0 | 11 | 0 | 12.8 |
| Luggage, cameras, sporting goods stores | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0.9 | 0 |
| Total | 100 | 0 | 96 | 4 | 92 | 8 | 85 | 15 | 88 | 22 | 76 | 24 | 71.8 | $\frac{0}{28.2}$ |
| 7 Clothing: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Country general stores | 9 | 1 | 8 | 1 | 9 | 0 | 8 | 0 | 8 | 0 | 6 | 0 | 6.2 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 15 | 0 | 21 | 0 | 27.4 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 3 | 0 | 2.3 |
| Dry goods stores | 22 | 11 | 19 | 9 | 16 | 7 | 13 | 2 | 12 | 2 | 10 | 1 | 8.0 | 1.6 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 3.9 |
| Apparel stores | 23 | 33 | 26 | 36 | 28 | 39 | 28 | 39 | 22 | 35 | 20 | 35 | 16.5 | 33.4 |
| Shoe independents | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0.4 | 0 |
| Shoe chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |
| Total | 55 | 45 | 54 | 46 | 54 | 46 | 50 | 50 | 43 | 57 | 37 | 63 | 31.1 | 68.9 |
| 8 Shoes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Country general stores | 22 | 0 | 22 | 0 | 21 | 0 | 19 | 0 | 15 | 0 | 12 | 0 | 11.1 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 10 | 0 | 14 | 0 | 18.5 |


|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 8 Shoes (continued): |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 5 | 0 | 3.3 |
| Dry goods stores | 15 | 5 | 14 | 4 | 12 | 3 | 11 | 2 | 10 | 1 | 8 | 0 | 7.5 | 0 |
| Apparel stores | 15 | 5 | 14 | 4 | 12 | 3 | 11 | 2 | 10 | 1 | 8 | 0 | 6.9 | 0 |
| Shoe independents | 18 | 20 | 20 | 22 | 25 | 24 | 29 | 16 | 31 | 9 | 30 | 8 | 25.9 | 7.2 |
| Shoe chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 10 | 0 | 15 | 0 | 19.6 |
| Total | 70 | 30 | 70 | 30 | 70 | 30 | 70 | 30 | 66 | 34 | 58 | 42 | 51.4 | 48.6 |
| 9 Nondurable housefurnishings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 9 | 9 | 15 | 15 | 18.4 | 18.4 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 5 | 0 | 4.7 |
| Dry goods stores | 24 | 0 | 22 | 0 | 20 | 0 | 18 | 0 | 16 | 0 | 14 | 0 | 12.2 | 0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 7 | 0 | 11 | 0 | 14.7 |
| Furniture independents | 46 | 30 | 45 | 33 | 43 | 37 | 38 | 30 | 31 | 23 | 24 | 13 | 15.1 | 12.4 |
| Furniture chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 4.1 |
| Total | 70 | 30 | 67 | 33 | 63 | 37 | 60 | 40 | 56 | 44 | 53 | 47 | 45.7 | 54.3 |
| 10 Toys, games and sporting goods: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 10 | 4 | 15 | 6 | 20.3 | 8.5 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 5 | 0 | 5.3 |
| Dry goods stores | 2 | 0 | 2 | 0 | 3 | 0 | 3 | 0 | 4 | 0 | 4 | 0 | 4.4 | 0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 9 | 0 | 13 | 0 | 17.3 |
| Furniture independents | 25 | 0 | 21 | 0 | 18 | 0 | 14 | 0 | 11 | 0 | 7 | 0 | 3.6 | 0 |
| Hardware stores | 40 | 0 | 35 | 4 | 31 | 6 | 26 | 4 | 19 | 2 | 17 | 0 | 12.0 | 0 |
| Farm implement dealers | 20 | 0 | 17 | 0 | 14 | 0 | 11 | 0 | 8 | 0 | 5 | 0 | 1.8 | 0 |
| Luggage, camera, sporting goods stores | 13 | 0 | 20 | 1 | 24 | 4 | 26 | 4 | 28 | 2 | 27 | 1 | 26.7 | 0 |
| Total | 100 | 0 | 95 | 5 | 90 | 10 | 85 | 15 | 80 | 20 | 75 | 25 | 68.9 | 31.1 |
| 11 Tires and tubes: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mail order sales |  |  |  |  |  |  | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4.1 |
| Vehicle (automobile) dealers |  |  |  |  |  |  | 14 | 4 | 14 | 4 | 14 | 4 | 13.7 | 4.2 |
| Automobile accessory stores |  |  |  |  |  |  | 40 | 14 | 40 | 14 | 40 | 14 | 40.3 | 13.6 |
| Filling stations | , |  |  |  |  |  | 18 | 6 | 18 | 6 | 18 | 6 | 18.4 | 5.7 |
| Total |  |  |  |  |  |  | 72 | 28 | 72 | 28 | 72 | 28 | 72.4 | 27.6 |



|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 14 Durable housefurnishings: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 7 | 12 | 10 | 17 | 11.8 | 23.5 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 4.6 |
| Dry goods stores | 50 | 0 | 42 | 0 | 34 | 0 | 27 | 0 | 19 | 0 | 11 | 0 | 3.2 | 0 |
| Furniture independents | 50 | 0 | 58 | 0 | 66 | 0 | 59 | 1 | 54 | 2 | 49 | 3 | 45.0 | 4.5 |
| Furniture chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 6 | 0 | 7.4 |
| Total | 100 | 0 | 100 | 0 | 100 | 0 | 90 | 10 | 80 | 20 | 70 | 30 | 60.0 | 40.0 |
| 15 China and household utensils: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Country general stores | 10 | 0 | 8 | 0 | 6 | 0 | 4 | 0 | 2 | - 0 | 0 | 0 | 0 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 6 | 4 | 9 | 6 | 12.2 | 9.0 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 1.9 |
| Dry goods stores | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 | 4.9 | 0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 9 | 0 | 13 | 0 | 17.8 |
| Furniture independents | 30 | 0 | 31 | 3 | 29 | 9 | 24 | 8 | 19 | 6 | 16 | 3 | 9.9 | 2.2 |
| Furniture chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 2.0 |
| Hardware stores | 35 | 0 | 30 | 4 | 28 | 5 | 26 | 5 | 24 | 6 | 22 | 7 | 20.0 | 8.0 |
| Farm implement dealers | 17 | 0 | 16 | 0 | 15 | 0 | 14 | 0 | 13 | 0 | 12 | 0 | 10.7 | 0 |
| Jewelry stores | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 1.5 | 0 |
| Total | 100 | 0 | 93 | 7 | 86 | 14 | 79 | 21 | 72 | 28 | 66 | 34 | 59.1 | 40.9 |
| 16 Musical instruments: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 0 | 9 | 0 | 12.7 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 5 | 0 | 2.9 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4.2 |
| Furniture independents | 66 | 34 | 64 | 36 | 62 | 38 | 60 | 36 | 45 | 27 | 29 | 19 | 17.1 | 11.3 |
| Furniture chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1.0 |
| Household appliance stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 6 | 23 | 11 | 30.9 | 19.9 |
| Total | 66 | 34 | 64 | 36 | 62 | 38 | 60 | 40 | 56 | 44 | 52 | 48 | 48.0 | 52.0 |
| 17 Jewelry: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 0 | 8 | 0 | 10.4 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 3 | 0 | 1.4 |


|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 17 Jewelry (continued) : |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dry goods stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 5.3 |
| Apparel stores | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 1.8 | 0 |
| Furniture independents | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1.1 | 0 |
| Furniture chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 |
| Farm implement dealers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 | 0 |
| Jewelry stores | 83 | 14 | 83 | 14 | 83 | 14 | 80 | 12 | 76 | 11 | 73 | 9 | 68.0 | 11.1 |
| Total | 86 | 14 | 86 | 14 | 86 | 14 | 83 | 17 | 79 | 21 | 76? | 24 | 71.6 | $\overline{28.4}$ |
| 18 Books: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Book and stationery stores | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 43.8 | 56.2 |
| 19 Luggage: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 19 | 0 | 28 | 0 | 37.4 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 2.4 |
| Dry goods stores | 9 | 0 | 8 | 0 | 8 | 0 | 7 | 0 | 7 | 0 | 6 | 0 | 6.8 | 0 |
| Luggage, camera, sporting goods stores | 41 | 50 | 37 | 55 | 32 | 60 | 28 | 55 | 23 | 49 | 19 | 44 | 23.0 | 30.5 |
| Total | 50 | 50 | 45 | 55 | 40 | 60 | 35 | 65 | 30 | 70 | 25 | 75 | 29.7 | $\overline{70.3}$ |
| 20a, 20c, 32a, 32c Vehicles: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle (automobile) dealers | 35 | 50 | 35 | 50 | 40 | 50 | 45 | 50 | 50 | 50 | 50 | 50 | 45.6 | 54.4 |
| Farm implement dealers | 15 | 0 | 15 | 0 | 10 | 0 | 5 | 0 | 0 |  | 0 | 0 | 0 | 0 |
| Total | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 45.6 | $\overline{54.4}$ |
| 20b Automobile accessories: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department stores |  |  |  |  |  |  |  |  |  | 4 | 1 | 4 | 1 | 4 |
| Mail order sales |  |  |  |  |  |  |  |  | 0 | 1 | 0 | 1 | 0 | 1 |
| Vehicle (automobile) dealers |  |  |  |  |  |  |  |  | 58 | 5 | 58 | 5 | 58 | 5 |
| Automobile accessory stores |  |  |  |  |  |  |  |  | 14 | 10 | 14 | 10 | 14 | 10 |
| Filling stations |  |  |  |  |  |  |  |  | 5 | 0 | 5 | 0 | 5 | 0 |
| Hardware stores |  |  |  |  |  |  |  |  | 1 | 0 | 1 | 0 | 1 | 0 |
| Farm implement dealers |  |  |  |  |  |  |  |  | 1 | 0 | 1 | 0 | 1 | 0 |
| Total |  |  |  |  |  |  |  |  | $\overline{80}$ | 20 | $\overline{80}$ | 20 | 80 | 20 |


|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 21 Motorcycles, bicycles: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle (automobile) dealers |  |  |  |  | 25 | 75 | 25 | 75 | 25 | 75 | 25 | 75 | 25 | 75 |
| 25b Tractors: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vehicle (automobile) dealers |  |  |  |  |  |  |  |  |  |  | 20 | 20 | 19.6 | 19.5 |
| Farm implement dealers |  |  |  |  |  |  |  |  |  |  | 30 | 30 | 30.5 | 30.4 |
| Total |  |  |  |  |  |  |  |  |  |  | 50 | 50 | 50.1 | 49.9 |
| 27 Farm equipment: 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Country general stores | 18 | 4 | 17 | 3 | 17 | 2 | 18 | 1 | 17 | 0 | 16 | 0 | 14.0 | 0 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 7 | 0 | 5.5 |
| Vehicle (automobile) dealers | 9 | 9 | 10 | 8 | 13 | 5 | 9 | 0 | 9 | 0 | 9 | 0 | 9.1 | 0 |
| Hardware stores | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3.3 | 0 |
| Farm implement dealers | 16 | 37 | 26 | 29 | 33 | 23 | 46 | 17 | 47 | 16 | 48 | 13 | 46.8 | 17.5 |
| Other (feed) stores | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 3.7 | 0 |
| Total | 50 | 50 | 60 | 40 | 70 | 30 | 80 | 20 | 80 | 20 | 80 | 20 | 76.9 | 23.1 |
| 35 Mechanics' tools: 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 | 6 | 0 | 4.3 |
| Hardware stores | 87 | 0 | 87 | 0 | 87 | 0 | 87 | 0 | 81 | 2 | 76 | 5 | 70.2 | 12.7 |
| Farm implement dealers | 13 | 0 | 13 | 0 | 13 | 0 | 11 | 0 | 13 | 0 | 13 | 0 | 12.8 | 0 |
| Total | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 94 | 6 | 89 | 11 | 83.0 | 17.0 |
| Construction materials: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Country general stores | 7 | 0 | 7 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 5 | 0 | 4.7 | 0 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1.4 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 0 | 0.9 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1.2 |
| Furniture independents | 1 | 0 | 1 | 0 | 1 | 0 | 15 | 0 | 6 | 0 | 1 | 0 | 1.1 | 0 |
| Household appliance stores | 5 | 0 | 5 | 0 | 5 | 0 | 5 | 0 13 | 6 | 0 11 | 7 47 | 0 10 | 7.0 52.0 | 1.3 10.1 |
| Coal and lumber yards | 22 | 5 | 26 | 8 | 31 | 12 0 | 35 | 13 | 42 | 11 | 47 21 | 10 | 52.0 16.1 | 10.1 0 |
| Hardware stores | 45 | 0 | 40 | 0 | 35 | 0 | 31 | 0 | 26 | 0 | 21 4 | 0 | 16.1 4.2 | 0 |
| Farm implement dealers | 5 10 | 0 | 5 8 | 0 0 | 4 | 0 | 4 3 | 0 | 4 0 | 0 | 4 0 | 0 | 4.2 0 | 0 |
| Drugstores | 10 | 0 | 8 92 | 8 | 6 88 | $\frac{0}{12}$ | 3 85 | $\frac{0}{15}$ | 85 | $\frac{15}{15}$ | 85 | $\frac{0}{15}$ | 85.1 | 14.9 |
| Total | 95 | 5 | 92 | 8 | 88 | 12 | 85 | 15 | 85 | 15 | 85 | 15 | 85.1 | 14.9 |


|  | 1869 |  | 1879 |  | 1889 |  | 1899 |  | 1909 |  | 1919 |  | 1929 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | D | W | D | W | D | W | D | W | D | W | D | . W | D |
| Summary: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Grocery independents | 66 | 34 | 67 | 33 | 64 | 36 | 64 | 36 | 68 | 32 | 77 | 23 | 80 | 20 |
| Grocery chains | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 87 | 12 | 88 | 17 | 83 | 20 | 80 |
| Meat markets | 47 | 53 | 51 | 49 | 53 | 47 | 61 | 39 | 65 | 35 | 68 | 32 | 72 | 28 |
| Milk dealers | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 |
| Candy stores | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 75 | 25 | 65 | 35 |
| Country general stores | 91 | 9 | 92 | 8 | 95 | 5 | 96 | 4 | 98 | 2 | 98 | 2 | 98 | 2 |
| Department stores | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 78 | 19 | 81 | 19 | 81 | 21 | 79 |
| Mail order sales | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 |
| Dry goods stores | 89 | 11 | 87 | 13 | 84 | 16 | 88 | 12 | 88 | 12 | 96 | 4 | 92 | 8 |
| Variety stores | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 |
| Apparel stores | 50 | 50 | 47 | 53 | 46 | 54. | 45 | 55 | 42 | 58 | 40 | 60 | 36 | 64 |
| Shoe independents | 49 | 51 | 50 | 50 | 53 | 47 | 66 | 34 | 79 | 21 | 80 | 20 | 79 | 21 |
| Shoe chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 |
| Furniture independents | 60 | 40 | 62 | 38 | 62 | 38 | 63 | 37 | 61 | 39 | 59 | 41 | 59 | 41 |
| Furniture chains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 |
| Household appliance stores | 81 | 19 | 82 | 18 | 80 | 20 | 72 | 28 | 74 | 26 | 70 | 30 | 74 | 26 |
| Vehicle (automobile) dealers | 42 | 58 | 43 | 57 | 46 | 54 | 46 | 54 | 54 | 46 | 55 | 45 | 51 | 49 |
| Automobile accessory stores | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 29 | 71 | 29 | 73 | 27 | 74 | 26 |
| Filling stations | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 33 | 90 | 10 | 71 | 29 | 68 | 32 |
| Coal and lumber yards | 14 | 86 | 22 | 78 | 33 | 67 | 37 | 63 | 47 | 53 | 46 | 54 | 55 | 45 |
| Hardware stores | 98 | 2 | 97 | 3 | 97 | 3 | 97 | 3 | 97 | 3 | 95 | 5 | 93 | 7 |
| Farm implement dealers | 70 | 30 | 75 | 25 | 79 | 21 | 85 | 15 | 85 | 15 | 80 | 20 | 81 | 19 |
| Restaurants | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 |
| Bars | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 |  |  |
| Drugstores | 100 | 0 | 100 | 0 | 100 | 0 | 97 | 3 | 94 | 6 | 90 | 10 | 84 | 16 |
| Liquor stores | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 |  |  |
| Book and stationery stores, newsdealers | 53 | 47 | 46 | 54 | 46 | 54 | 48 | 52 | 46 | 54 | 48 | 52 | 46 | 54 |
| Cigar stores | 43 | 57 | 53 | 47 | 59 | 41 | 70 | 30 | 81 | 19 | 94 | 6 | 99 | 1 |
| Jewelry stores . . - | 86 | 14 | 86 | 14 | 85 | 15 | 87 | 13 | 88 | 12 | 89 | 11 | 86 | 14 |
| Luggage, camera, sporting goods stores | 56 | 44 | 63 | 37 | 53 | 47 | 59 | 41 | 63 | 37 | 68 | 32 | 79 | 21 |
| Other (feed) stores | 100 | - 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 |
| Total | 69.5 | $\overline{30.5}$ | 71.9 | 28.1 | 71.8 | $\overrightarrow{28.2}$ | 70.2 | 29.8 | 68.2 | 31.8 | 65.3 | $\overline{34.7}$ | 62.5 | 37.5 |

## VALUE ADDED BY DISTRIBUTION

## Notes to Table B-5

(The following notes should be read in conjunction with the text of Appendix B, which they supplement)

## 1a. Manufactured foods (includes liquor)

Retail outlets. The outputs of meat, liquor, and candy were separated from the total and used as a basis for projecting sales of meat markets, bars and liquor stores, and candy stores back to 1869. Amounts of liquor going to bars and package stores respectively were estimated from a count of the number of each type of establishment in 41 cities in $\mathbf{1 8 7 0}$. For the remainder of the group the most important question is to determine the relative importance of restaurants. We counted the number of restaurants and groceries in 46 cities in 1870; there were 15 restaurants per 100 groceries, the corresponding 1929 figure being 38 per 100. We assumed average sales per restaurant bore the same ratio to average sales per grocery in 1870 as in 1929; we further assumed few restaurants in 1870 were to be found in places with less than 10,000 population. Allowing for urbanization since 1870 and combining these results, we estimated restaurant sales at 10 per cent of grocery sales in 1869 (compares with 24 per cent in 1929). By similar methods we placed sales of package stores at 48 per cent of bar sales of liquor in 1869 (compares with 42 per cent in 1939). The flow of commodities through country general stores was projected back on the basis of the percentage of the population living outside cities of 10,000 or over (this percentage fell from 80 in 1870 to 52 in 1930).

Allocation to wholesalers. In 1929 purchases of meat markets and candy stores were assumed to be distributed as the sales of corresponding manufacturing industries. Independent groceries are assumed to buy mainly from wholesalers, chains mainly direct. The decline of the independent wholesaler can readily be documented; but, so far as a source for the independent retailer is concerned, his place has largely been taken by the manufacturer's sales branch (which for us is a form of wholesaling).

## 1b. Nonmanufactured foods

Retail outlets. Allocation the same as for manufactured food excluding liquor (see above), except that country general stores are relatively less important.
Allocation to wholesalers. Since pasteurization of milk is a wholesale function, all of that commodity may be assumed to pass through wholesale channels.

## 2. Cigars, cigarettes, and tobacco

Retail outlets. From the trade press (e.g. files of the American Grocer) it is obvious that grocery stores were formerly a more important outlet than today. In 1885 trade sources claimed one-half of all cigar sales were made by grocers (Merchants' Review, May 22, 1885, p. 33). Drugstores too were an important outlet (Michigan Tradesman, March 7, 1900, p. 18). According to Fred M. Jones (Middlemen in the Domestic Trade of the United States 1800-1860, University of Illinois, 1937, Illinois Studies in the Social Sciences, Vol. xxI, No. 3) there were no cigar stores in 1860, but the occupation census belies this contention.

Allocation to wholesalers. In 1929 the small amount moving direct was given to chains and mail order houses. In earlier years direct sales by small local factories were important (the estimated minimum percentage moving across state lines was 36 in 1869, 41 in 1899, and 63 in 1929); this is confirmed in the case of country general stores by the Kentucky invoice books. We have assumed grocery and drugstores did not buy direct because of the small share of tobacco products in total sales; this is confirmed for groceries by the prominence of jobbers' advertisements in the grocery press.

## APPENDIXES

## 3. Drug, toilet, and household preparations

Retail outlets. The flourishing pharmaceutical press of the 1870's and 1880's shows that the drugstore was well developed by the opening of our period. The main change in early years must be allowance for drug sales by country general stores.
Allocation to wholesalers. We assumed in 1929 direct sales were made mainly to drug chains (which had about 16 per cent of total drugstore sales). We believe that direct sales were formerly unimportant: see character of advertising in the trade press.

## 4. Magazines, newspapers, stationery and supplies

Retail outlets. More of this group formerly was sold through newsdealers than today (newspapers and periodicals comprised 63 per cent of the group in 1869, 58 per cent in 1919). Then, as now, stationery was sold through drugstores (Michigan Tradesman, March 7, 1900, p. 18).

Allocation to wholesalers. We have assumed drug and furniture stores bought chiefly from wholesalers because the fraction the group represents of their sales is small. In early years more probably passed through wholesale channels than today: the estimated minimum percentage of newspapers crossing state lines fell from 34 in 1869, to 30 in 1899, and 28 in 1929.

## 5a. Manufactured fuel

Retail outlets. In recent years the group has consisted mainly of gasoline, but prior to World War I it meant kerosene. The latter appears to have been sold by hardware, grocery, and country general stores.

Allocation to wholesalers. For gasoline in the recent period we may be sure only (large) filling stations bought direct. In the early period kerosene was a minor item in the sales of its retailers and storage was difficult; direct purchases must have been negligible.

## 5b. Coal and firewood

Retail outlets. We have assumed the group reaches the consumer only through coal and lumber yards. Not all lumber yards sell coal, or vice versa, but the association seems to date at least from the 1870's and perhaps to have been closer in former days (American Lumberman, April 1, 1899, p. 17; February 16, 1901, p. 41).

Allocation to wholesalers. Coal is mainly sold to retail yards through the sales offices of mining companies or independent brokers, neither of whom carry stocks. This also seems to have been the case formerly (Retail Coalman, November 1906, p. 53; March 1907, p. 32; June 1907, p. 50; May 1911, p. 30; Coal Trade Journal, September 8, 1909, p. 661). We therefore assumed that, where coal is a finished commodity, none of it passes through wholesale channels; and firewood is treated in the same manner.

## 6. Dry goods and notions

Retail outlets. It is obvious that the group must originally have been distributed almost entirely by dry goods and country general stores.

Allocation to wholesalers. Our informal canvass of department store buying practices revealed this group (dry goods and notions) as among the few department store purchases for which the jobber is still an important source; yet much is also bought direct. Apart from department stores it is hardly likely that today there are any direct purchases except by mail order houses and variety chains. However, there is some evidence that direct buying began before the advent of department stores or variety chains, if not of mail order; indeed it seems likely that many dry goods stores that were later transformed into department stores bought direct at a fairly early date (see Ralph M. Hower, History of Macy's of New York, 18581919, Harvard University Press, 1943; Dry Goods Economist, December 12, 1891;

## VALUE ADDED BY.DISTRIBUTION

July 23, 1892, p. 9; also United States Industrial Commission, Report, 1901, Vol. viI, pp. 696, 736).

## 7. Clothing and personal furnishings

Retail outlets. In the early period, clothing seems mainly to have been sold by dry goods and apparel stores: our estimate of their relative importance rests on the fact that dealers in clothing grew in numbers more rapidly than dry goods dealers between 1870 and 1900 (occupation census).

Allocation to wholesalers. Direct sales of clothing always have been important, probably because of the small scale of production and the style factor. This seems to be especially true of women's clothing, which grew from 6 per cent of output in 1869 to 33 per cent in 1919. We have therefore assumed that wholesaling was somewhat more important in early years than today. (We treat custom tailors as producers selling direct to the public, so that we are concerned only with clothing made in factories or by craftsmen who do not themselves retail.) The allocations for clothing and dry goods combined check with the estimate ( 52 per cent through jobbers) given by Charles C. Parlin (The Merchandising of Textiles, National Wholesale Dry Goods Association, 1914).

## 8. Shoes and other footwear

Retail outlets. The ratio of shoe to dry goods dealers in 1870 was 1 to 6 according to the occupation census; the literature suggests shoe stores were uncommon except in the larger cities. The fraction of output distributed through shoe stores must therefore have been smaller than today. Other urban outlets must have been dry goods and apparel: Macy's began to sell shoes in 1875 (Hower, op.cit., p. 105), and so did many other dry goods stores in the 1880's (Leather Gazette, February, 20, 1886, p. 10). Of course country general stores sold shoes.

Allocation to wholesalers. The allocation of the group was discussed in the text of the Appendix. The allocation to wholesalers for consumption in Michigan can be estimated at 60 per cent from figures in the Michigan Tradesman for February 13, 1884: the 1885 census distribution for Massachusetts is similar; because both states had factories, the national average would be higher. Shoe stores were given most of the direct purchases in accordance with the principle that specialty shops buy direct and because we know from the literature that many of them did so.

## 9. Nondurable housefurnishings

Retail outlets. While dropping out department and variety stores in early years, we have roughly preserved the balance recorded in 1929 between dry goods and furniture dealers. Throughout, the occupation census lists the latter as about 2 per cent of all dealers.

Allocation to wholesalers. It must be assumed that the relatively large direct allocation in 1929 was due to the role of department stores and that before their appearance wholesalers played a bigger role.

## 10. Toys, games, and sporting goods

Retail outlets. We have used pretty much the 1929 distribution, omitting department and variety stores in early years. However, we felt that sporting goods stores are partly a modern development and that rural sales through hardware or farm implement stores, especially of guns and ammunition (Iron Age, May 29, 1902, p. 45), must formerly have been large.

Allocation to wholesalers. It seems reasonable to suppose department, mail order, and variety stores are the only ones to buy direct.

## 11. Tires and tubes

Retail outlets. We have used the 1929 distribution throughout.
Allocation to wholesalers. Except that mail order houses undoubtedly buy direct, we have little to go upon.

## 12,28,29. Furniture

Retail outlets. As remarked, furniture dealers have always comprised about 2 per cent of the total. Therefore the share of furniture stores in sales of furniture cannot have varied greatly. There were no department stores in the early period, but it is clear that furniture was sold by dry goods stores (e.g. Macy's since 1872; see Hower, op.cit., p. 103). Such items as iron bedsteads commonly were sold by hardware stores (Iron Age, May 29, 1902, p. 45). Office equipment, then as now, was sold by stationery stores (John G. Banbridge; "The Stationery Store," in One Hundred Years of American Commerce, D. O. Haynes \& Co., 1895).

Allocation to wholesalers. Although jobbers sometimes assembled knocked down furniture (Omaha Trade Exhibit, September 2, 1899, p. 9), they seem to have been scarcely more important in the past than they are today. The geographical dispersion of production did not much change; and the trade press, which frequently speaks of manufacturers selling direct, rarely mentions jobbers (e.g. American Furniture Gazette, August 1893, p. 29; advertisements in the Furniture Trade Review, 1895; Merchants' Trade Journal, May 1907, p. 26). We therefore raised the allocation to wholesalers in early years only enough to allow for the absence of department stores and chains.

## 13a,b. Household appliances

Retail outlets. Today household appliances mean stoves, furnaces, iceboxes, and a wide range of electrical equipment. In an earlier day the category meant stoves and little else. We know that these were sold primarily by tinsmiths (the household appliance stores of the 1870 's and 1880 's, often known as "housefurnishing stores": see Dean S. Paden, The King Hardware Company and Atlanta, King Hardware Co., Atlanta, 1946, p. 17) and hardware stores; in rural areas also by farm implement dealers and (inevitably) general stores.

Allocation to wholesalers. Unlike smaller articles of hardware, which are distributed almost entirely through jobbers, stoves, refrigerators, lawn mowers, and sewing machines seem to have been sold direct to retailers in substantial quantities from early times. (See surveys reported in National Hardware Bulletin, 1910, passim.) But it would seem that there has been some upward trend in direct purchases (ibid., May 1910, pp. 46-48).

## 13c. Radios

No comment seems necessary.

## 14a,b. Durable housefurnishings

Retail outlets. Comprising especially floor coverings, this group is sold through furniture and department stores; and in early days the latter's predecessor was the dry goods store (Macy's did not sell rugs until 1892, but sold other housefurnishings before 1888).

Allocation to wholesalers. The high allocation in early years ( 100 per cent) rests on two considerations. (1) None of the outlets specialized in the group. (2) Carpets were much imported, and practically all imports must have involved handling by a jobber.

## 15. China and household utensils

Retail outlets. Except that country general and hardware stores sold much crockery to the rural population, we know little about the distribution at the beginning of our period.

Allocation to wholesalers. The present sizable direct sales to retailers (1929) must be imputed mainly to department and variety chains. Direct sales formerly were not unknown (e.g. Crockery and Glass Journal, July 27, 1905, p. 16), but the literature strongly suggests that wholesaling played a larger and larger role as we go back in time. The reasons: (1) the role of imports; (2) the small number of American

## VALUE ADDED BY DISTRIBUTION

factories and their concentration at a few points such as Trenton, N.J., and East Liverpool, Ohio.

## 16. Musical instruments

Retail outlets. We have included musical instrument dealers with furniture stores because they have similar margins. It seems safe to assume that before the days of department and variety stores the whole commodity group was retailed through furniture (including musical instrument) stores.

Allocation to wholesalers. We may generalize that pianos and the larger instruments always were sold direct to independent retailers or to the public through manufacturer-owned outlets (Music Critic and Trade Review, 1880, 1881, passim), although some wholesaling existed at the very beginning of our period, especially in the West (Musical Courier, July to December, 1896, passim; Music Trades, June 13, 1903, p. 28). The evidence for the absence of wholesaling of pianos and organs in the East rests on the frequent use of "wholesale" to mean "at the factory" (Music Trade Review, March 30, 1895), an early trade directory (ibid., November 7, 1896), the popularity of consignment sales of pianos (Music Trades, September 7, 1901), and the numerous small manufacturers (ibid., September 20, 1902, p. 28). But if there were no jobbers, some of the larger factories had wholesale branches or used their retail depots as such. Also, it is plain that both the "small goods trade" (music boxes and small instruments) and sheet music depended heavily on jobbing (Music Trade Review, May 28, 1904, p. 49). It would appear on balance that there was somewhat, though not a great deal, more wholesaling in 1869 than today.

## 17. Jewelry, silverware, clocks, and watches

Retail outlets. With no definite knowledge of early distribution channels, we have assumed the same pattern as today-of course without department stores and mail order houses.

Allocation to wholesalers. Probably the extreme diversification of the group kept the flow through wholesale channels at least as large, if not larger, in early years. The geographical dispersion of manufacture scarcely changed.

## 18. Books

Retail outlets. Although common observation suggests books are sold in small quantities through many other types of store, the census shows that we may treat books in practice as sold only through bookstores. We have assumed that the same pattern was applicable in early years.

Allocation to wholesalers. We have supposed the allocation did not change materially.

## 19. Luggage

Retail outlets. Dry goods stores seem to have shared in distribution: by 1887 Macy's was selling luggage through its housefurnishings department (Hower, op.cit., pp. 162-163). Otherwise the group must have been carried mainly by leather and similar specialty stores. Whether the sale of luggage often was combined with the sale of harness or sporting goods, we cannot say.

Allocation to wholesalers. We must assume that the high proportion of direct flow reported for 1929 is largely a reflection of the popularity of the commodity with department stores and that in earlier times more was sold through wholesale channels.

## 20a. Vehicles

Retail outlets. As stated in the text of this Appendix, automobiles first were retailed by those who had sold carriages, just as they first were manufactured by carriage makers. But (unlike automobiles) carriages and wagons were handled

## APPENDIXES

extensively by farm implement dealers: on occasion the latter could even be jealous of the carriage dealer (Farm Implement News, January 20, 1898, p. 14). Other evidence is the fact that implement dealers and carriage dealers often joined the same trade groups (e.g. National Implement and Vehicle Dealers' Association, Carriage Dealers' Journal, December 1910, p. 82), and the large volume of carriage, and wagon advertising printed in the implement press (e.g., Implement Trade Journal, 1905, passim). Indeed as we go back in time prior to 1900 the distinction between the two kinds of dealer becomes quite nebulous, although of course many urban dealers sold only vehicles.
Allocation to wholesalers. By about 1910 the present system of distributing automobiles through manufacturers' sales branches was already in effect (Vehicle Dealer, March 1908, p. 313; Automobile Trade Journal, October 1909, p. 206; August 1913, p. 169). Although sales branches already were common in the implement trade prior to 1900 , we have found little evidence of their existence in the distribution of vehicles; probably the reason was that carriage builders operated on too small and local a scale. However, carriages and wagons undoubtedly were handled by jobbers, particularly in the West (Farm Implement News, September 1891, p. 25; Vehicle Dealer and Implement Trade Journal, 1900-1910, passim). Our conclusion is that the proportion of vehicles passing through wholesale channels in early years did not greatly differ from the proportion in the case of automobiles today.

## 20b. Automobile accessories

Retail outlets. The current rather clear distinction between automobile and automobile accessory dealers probably developed after 1919. But retail margins on accessories (however distributed) always have been higher than on vehicles, and the distinction between the two kinds of outlets, even if artificial in early years, is maintained to give effect to this knowledge.

Allocation to wholesalers. We cannot doubt that the bulk of accessories (if not of spare parts) always has passed through wholesale channels (Automobile Trade Journal, February 1907, p. 378; also May 1913).

## 21. Motorcycles, bicycles

The small importance of this group excuses comment.

## 25b. Tractors and

## 27. Farm equipment

Retail outlets. There seems no reason to believe that the pattern of retail distribution was much different in 1869 from the 1929 picture. We have however assumed that distribution was somewhat less specialized, i.e. that vehicle dealers and country general stores participated more widely. Yet the rather artificial character of the distinction between vehicle and implement dealers has been indicated.

Allocation to wholesalers. The rise of the branch house and the justification for rating wholesale channels as formerly less important have already been described in the text of the Appendix.

## 35. Carpenters' and mechanics' tools

Retail outlets. We assumed that in early years, apart from the absence of mail order, hardware and farm implement dealers shared this group unequally as they do today.

Allocation to wholesalers. As in the distribution of other types of small and highly differentiated hardware, wholesaling seems to have played an even larger role in the distribution of tools at the opening of our period than today (see e.g. surveys of retailers' sources, National Hardware Bulletin, 1910, passim).

## Construction materials

Retail outlets. There is some evidence that hardware stores handled a larger

## VALUE ADDED BY DISTRIBUTION

fraction of the group and that building materials bulked more largely in the hardware retailers' sales. It seems that in the first half of our period, lumber yards rarely sold builders' hardware or paint (American Lumberman, January 13, 1900, p. 16; August 19, 1905, p. 28); certainly builders' hardware, paint, glass, and even mill work appear to have formed the staple business of the early hardware store (Paden, op.cit., p. 21; Iron Age, February 19, 1903, p. 83). We must also notice that drugstores commonly sold paint and window glass during the early part of our period (Edwin T. Freedley, Leading Pursuits and Leading Men, E. H. Young, 1856, pp. 166-169; Indiana Pharmacist, June 1882, p. 9; Michigan Tradesman, March 6, 1884, p. 3; Trans. Ill. State Hist. Soc., Publication 8, 1903, pp. 234-274; reminiscences in National Hardware Bulletin, August 1910, p. 91). The small amount sold by appliance stores (the old "housefurnishing" category) consisted of tinware. These considerations explain the distribution for early years.

Allocation to wholesalers. For hardware, paint, and glass, wholesaling always was important. For lumber there is much evidence that wholesaling declined during 1869-1899 and thereafter revived. The main reason for the decline was that northern white pine was originally shipped by water to a wholesale center (as Buffalo or Tonawanda) where stocks were kept for reshipment by rail to retailers; in the early 1870's not one of the 80 sawmills on the Saginaw River had a rail connection (Northwestern Lumberman, February 21, 1880, p. 2). With the movement of Michigan lumbering away from waterways and with the appearance of southern yellow pine in the 1880's and later of Pacific Coast lumber, transportation became all-rail and the opportunity for wholesaling furnished by reshipment disappeared. As with coal, sales were made by the carload direct from mill to retailer or through an agent or broker who did not carry stocks and is not to be considered a wholesaler for our purposes. (See James E. Defebaugh, History of the Lumber Industry in North America, Chicago, 1906-1907; also American Lumberman, 1900-1904, passim.) After 1900 wholesaling seems to have undergone a revival on a small scale owing to greater diversification of the product and the increased importance of millwork (American Lumberman, November 11, 1902, p. 13; March 30, 1907, p. 33).
Table B-6
RETAIL SALES, BY KIND OF OUTLET, 1869-1948a (millions of dollars)

|  | Commodity Output or Markup Method |  |  |  |  |  |  | Census or Volume-of-Sales Method |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1869 | 1879 | 1889 | 1899 | 1909 | 1919 | 1929 | 1929 | 1939 | 1948 |
| Grocery independents | 985 | 1,238 | 1,668 | 2,027 | 2,934 | 7,602 | 6,826 | 5,320 | 5,377 | 16,233 |
| Grocery chains |  |  |  | 183 | 751 | 2,588 | 3,335 | 2,834 | 2,833 | 10,218 |
| Meat markets | 128 | 175 | 246 | 374 | 654 | 1,616 | 1,621 | 1,337 | 751 | 1,776 |
| Milk dealers | 96 | 135 | 160 | 244 | 504 | 1,319 | 1,548 | 691 | 740 | 1,528 |
| Candy stores | 54 | 78 | 115 | 161 | 288 | 689 | 667 | 572 | 295 | 649 |
| Country general stores | 505 | 630 | 874 | 1,104 | 1,721 | 3,686 | 3,283 | 2,571 | 810 | 1,159 |
| Department stores |  |  |  | 161 | 676 | 2,501 | 3,898 | 3,903 | 3,511 | 9,344 |
| Mail order sales |  |  |  | 31 | 165 | 543 | 454 | 447 | 464 | 1,301 |
| Dry goods stores | 348 | 413 | 487 | 436 | 638 | 1,217 | 1,118 | 1,186 | 713 | 2,824 |
| Variety stores |  |  |  | 39 | 201 | 692 | 977 | 904 | 977 | 2,507 |
| Apparel stores | 196 | 316 | 551 | 781 | 1,315 | 3,400 | 3,662 | 3,268 | 2,642 | 8,336 |
| Shoe independents | 98 | 103 | 169 | 205 | 307 | 786 | 602 | 501 | 310 | 621 |
| Shoe chains |  |  |  | 21 | 69 | 265 | 317 | 307 | 307 | 846 |
| Furniture independents | 143 | 187 | 346 | 395 | 670 | 1,749 | 2,516 | 1,830 | 1,244 | 3,574 |
| Furniture chains |  |  |  | 13 | 41 | 157 | 330 | 302 | 153 | 1,192 |
| Household appliance stores | 44 | 46 | 83 | 113 | 246 | 720 | 1,470 | 1,386 | 562 | 3,227 |
| Vehicle (automobile) dealers | 68 | 69 | 110 | 153 | 374 | 2,589 | 4,654 | 4,507 | 3,479 | 12,816 |
| Auto accessory stores |  |  |  | 11 | 29 | 573 | 667 | 599 | 524 | 1,560 |
| Filling stations |  |  |  | 4 | 15 | 590 | 2,045 | 1,787 | 2,822 | 6,483 |
| Coal and lumber yards | 403 | $357{ }^{\circ}$ | 556 | 657 | 1,213 | 2,390 | 3,273 | 3,284 | 2,595 | 7,552 |
| Hardware stores | 234 | 230 | 358 | 379 | 592 | 1,032 | 996 | 902 | 782 | 2,954 |
| Farm implement dealers | 75 | 62 | 104 | 126 | 198 | 524 | 590 | 519 | 427 | 2,386 |
| Restaurants (incl. tips) | 83 | 135 | 200 | 361 | 680 | 2,189 | 3,042 | 2,593 | 2,601 | 8,478 |
| Bars | 115 | 183 | 344 | 433 | 941 | 648 |  |  | 1,485 | 4,465 |
| Drugstores | 116 | 140 | 252 | 365 | 705 | 1,875 | 2,457 | 1,690 | 1,563 | 4,013 |

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[^17]Liquọr stores
Book and stationery stores, newsdealers Cigar stores
Luggage, camera and sporting goods stores
Other stores
Total

Table B-7
RECONCILIATION WITH RETAIL CENSUS, BY KIND OF STORE, 1929
(retail sales in millions of current dollars)

| $\begin{array}{c}\text { National Bureau of Eco- } \\ \text { nomic Research. } \\ \text { (Table B-6) }\end{array}$ |  |  | Census of Distribution |
| :--- | ---: | ---: | :--- |$]$| Grocery independents | 5,320 | 5,320 |
| :--- | ---: | :--- |

## VALUE ADDED BY DISTRIBUTION

| Filling stations | 1,787 | 1,787 | Filling stations |
| :---: | :---: | :---: | :---: |
| Coal and lumber yards | 3,284 | 3,284 | Lumber and building materials, lumber and hardware, roofing, other building materials, coal and feed, coal and wood, ice |
| Hardware stores | 902 | 902 | Glass and mirror, paint and glass, hardware |
| Farm implement dealers | 519 | 519 | Farm implement, farm implement with hay, grain and feed, hardware and farm implement |
| Restaurants ${ }^{\text {b }}$ | 2,483 | $\begin{array}{r} 2,125 \\ 358 \end{array}$ | Eating places add hotel food sales c |
| Bars |  |  | Drinking places |
| Drugstores | 1,690 | 1,690 | Drugstores |
| Liquor stores |  |  | Liquor |
| Book and stationery stores, newsdealers | , 485 | 485 | Bookstores, libraries, toy, art, and gift, novelty, newsdealers, office and school supply, dealers in blank books, paper products, stationers |
| Cigar stores | 410 | 410 | Cigar |
| Jewelry stores | 536 | 536 | Jewelry |
| Luggage, camera, sporting goods stores | 134 | 134 | Camera dealers, luggage, sporting goods, sporting goods with toys, athletic equipment |
| Other (feed) stores | 1,612 | 1,612 | Bottled waters, feed stores, fertilizers, harness, irrigation equipment, farmers' supply, seed stores, cooperages, grain elevators, feed with groceries, florists, opticians, scientific instrument |
| NBER total | 46,307 | 46,307 |  |
|  |  | 1,506 | Included in census but not considered retail stores by us: bakeries, caterers, women's exchanges, garages and repair shops, custom tailors, printers and lithographers, monument and tombstone works, secondhand stores, used car dealers |
|  |  | -358 | less addition made by us to census (see above): hotel food sales |
|  |  | 1,797 | add deduction made by us to census (see above): used car sales by automobile dealers |
|  |  | -130 | less milk dealers reported by census but omitted from census total d |
|  |  | $\frac{-7}{49,115}$ | Rounding error Census total |

[^18]
## APPENDIX C

## SOURCES OF MARGIN DATA

This appendix lists chronologically for each kind of retail outlet and kind of wholesale business all sources from which margin data were drawn. In essence it forms an extended footnote to Tables 24 and 25.

The following abbreviations have been used:
S Individual store or stores
O Opinion
P Margin derived from spread between retail and wholesale prices
LF Legally fixed margin
All other data represent the results of surveys, and in such cases the type of average is indicated as follows:

A Arithmetic mean
WA Weighted arithmetic mean
M Median
Mo Mode
C. Common figure

R Representative figure
T Typical figure
N Type of average not shown

## 1. RETAIL TRADE

GROCERY STORES, INDEPENDENT
\(\left.$$
\begin{array}{llll}\hline \begin{array}{l}\text { Period } \\
\text { Covered }\end{array} & \text { Source }\end{array}
$$ \quad \begin{array}{c}Type of <br>

Data\end{array}\right) \quad\)| Location, Number, |
| :--- |
| and Type of Stores |


| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1881 | Mass. Bur. Stat. Labor, Thirteenth Annual Rep., 1882, pp. 434-459 | P |  |
| 1881-85 | N.Y. State Bur. Stat. Labor, Fourteenth Annual Rep., 1896, p. 823 | P |  |
| 1881-88 | Am. Grocer, 1882-90, passim | S, 0 |  |
| 1889 | Mich. Tradesman, Apr. 3, 1889, p. 3 | 0 | Midwest |
| 1891 | Am. Grocer, Apr. 22, 1891, p. 6 | 0 |  |
| 1896 | Merchants' Review, Nov. 6, 1896, p. 6 |  |  |
| 1897-99 | Am. Grocer, 1897-1900, passim | S, 0 |  |
| 1897 | Grocer and Country Merchant, Aug. 13, 1897, p. 9 | S |  |
| 1898, 1913 | System, Dec. 1913, p. 566 | 0 |  |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 913 stores |
| 1901-03 | Am. Grocer, 1901, 1903, passim | S, O |  |
| 1901 | Butchers' Advocate, Aug. 28, 1901, p. 15 | 0 |  |
| 1901 | Dry Goods Economist, Dec. 7, $\text { 1901, p. } 9$ | 0 |  |
| 1901 | Grocers' Mag., Mar. 1901, p. 9 | 0 |  |
| 1904 | Grocers' Criterion, Nov. 14, 1904, p. 4 | S |  |
| 1904 | Grocers' Mag., July 1904, p. 9 | 0 |  |
| 1904 | Interstate Grocer, May 14, 1904, p. 5 | 0 |  |
| 1904 | New Eng. Grocer, June 21, 1907, p. 20; June 28, 1907, p. 12 | N |  |
| 1904, 1914 | Modern Grocer, Feb. 21, 1914, p. 12 | 0 |  |
| 1905 | Am. Grocer, May 30, 1906, p. 8 | 0 |  |
| 1906 | Commercial Bull. and Northwest Trade, Feb. 17, 1906, p. 47 | S |  |
| 1906 | Inland Grocer, Jan. 13, 1906, p. 13 | 0 |  |
| 1906 | Retail Merchant, June 1906, p. 5 | 0 |  |
| 1907 | ${ }_{8}^{\text {Inland Grocer, May 4, 1907, p. }}$ | 0 |  |
| 1909 | Am. Grocer, Feb. 16, 1910, p. 8 | 0 |  |
| 1909 | New Eng. Grocer, July 16, 1909, p. 5 | 0 |  |
| 1909 | Trade Register, Dec. 11, 1909, p. 11 | S |  |
| 1909-10 | New Eng. Grocer, Jan. 28, 1910, pp. 5-7 | S | N.H. |
| 1910 | Twin City Commercial Bull., Dec. 16, 1911, p. 40 | S |  |
| 1911 | Trade Register, Mar. 11, 1911, p. 8 | S | Minn. |
| 1911 | Trade Register, Dec. 23, 1911, p. 9 | S | Ind, |

GROCERY STORES, INDEPENDENT (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1911 | Twin City Commercial Bull., Dec. 30, 1911, p. 19; May 4, 1912, p. 20 | S, 0 |  |
| 1912 | Am. Grocer, Mar. 27, 1912, p. 18; Sept. 11, 1912, p. 7 | $\mathrm{S}, \mathrm{O}$ |  |
| 1912 | Grocers' Mag., Mar. 1912, p. 24 | O |  |
| 1912 | New Eng. Grocer, Feb. 23, 1912, p. 11 |  |  |
| 1912 | N.Y. State Food Investigating Commission, Rep. of the Committee on Market Prices and Costs, Chas. P. Young Co., 1912, p. 33 | 0 |  |
| 1912 | Twin City Commercial Bull., June 8, 1912, p. 48 | S |  |
| 1913 | Am. Paint and Oil Dealer, May 1914, p. 48 | 0 |  |
| 1913 | Modern Grocer, Apr. 4, 1914, p. 16; Apr. 25, 1914, pp. 18-19; Sept. 5, 1914, p. 14 | S |  |
| 1913 | System, May 1916, p. 643 | ${ }_{\text {T }}$ |  |
| 1913 | Trade Register, Feb. 22, 1913, p. 6 | S | Seattle |
| $\begin{aligned} & \text { 1913, } \\ & \text { 1916-21 } \end{aligned}$ | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, 1921-22, Part Iv, p. 163 | P |  |
| 1914 | Bull. of the Natl. Ass. of Credit Men, Vol. 14, May 15, 1914, p. 301 | 0 |  |
| 1914 | Am. Grocer, Aug. 26, 1914, p. 5 | S |  |
| 1914 | Butler Bros., The Butler Way System Book, 1916, p. 26 | T |  |
| 1914 | Grocers' Mag., Nov. 1914, p. 15 | S |  |
| 1914, 1919, | Harvard University, Bureau of Business Research (Harvard U., | C | U.S., 545 replies in 1924 |
| 1922-24 | B.B.R.), Operating Retail Grocery Stores, 1914, 1919, 192224 appropriate issues |  |  |
| 1914 | Nystrom, P. H., The Economics of Retailing, Ronald, 1915, p. 80 | Mo |  |
| 1914 | Sammons, W., Keeping Up with Rising Costs, A. W. Shaw Company, 1915, p. 22 | T |  |
| 1915 | Twin City Commercial Bull., Apr. 24, 1915, pp. 6-7; May 8, 1915, p. 7 | S |  |
| 1918 | N.Y. State Dept. of Farms and Mkts., Retail Grocery Stores. J. B. Lyon Co., 1922, pp. 15-17 | WA | N.Y., 128 stores |
| 1920-29 | Nebraska University, College of Business Administration (Ne154 | $\begin{array}{ll} \text { Mo } & 1920-23 \\ \text { C } \quad 1924-29 \end{array}$ | Neb., about 100 stores. |

SOURCES OF MARGIN DATA


GROCERY STORES, INDEPENDENT (continued)

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | ---: | :--- |
| 1943 | Sullivan, A. M., and Tebeau, WA <br> R. L., Opportunities in Retail <br> Trade for Servicemen, Dun and | U.S., 35 stores |  |
|  | Bradstreet, 1945, p. 35 |  |  |
| 1946 | Progressive Grocer, Oct. 1947, WA <br> p. 65 |  |  |
|  | Progressive Grocer, Facts in <br> Food and Grocery Distribution, WA <br> p. 16 | U.S., 16 stores |  |
|  |  | U.S., 21 self-serv- <br> ice mkts. |  |

GROCERY STORES, CHAIN

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1909-30 | FTC, Chain Stores; Gross Profit and Avg. Sales, 1933, p. 10 | WA | U.S., 22 chains in 1930 |
| 1910 | Am. Grocer, May 18, 1910, p. 5 | S |  |
| 1919-41 | Confidential data | S |  |
| 1923 | Jour. of Commerce, Sept. 27, 1924, p. 12 | WA | U.S., 16 chains |
| 1923-47 | Moody's Industrials | S | 8 chains |
| 1929 | McNair, M. P., Expenses and Profits in the Chain Grocery Business in 1929, Harvard U., B.B.R., 1931 | C | U.S., 82 chains |
| 1931-32 | McNair, M. P., Chain Store Expenses and Profits, an Interim Report for 1932, Harvard U., B.B.R., 1934 | C | U.S., 39 chains in 1932 |
| 1933-34 | Schmalz, C. N., Expenses and Profits of Food Chains in 1934, Harvard U., B.B.R., 1936 | C | U.S., 66 chains |
| 1934 | Unpublished data | S | U.S. |
| 1934 | Schmalz, op.cit. | C | U.S., 66 chains |
| 1939 | FTC, Rep. on Distribution Methods and Costs, Part I, p. 214 | WA | U.S., 43 replies |
| 1939-44 | Office of Temporary Controls, Survey of Retail Chain Grocery Stores and Wholesale Grocers, OPA Economic Data Series No. 26, 1947 | WA | U.S., 72 replies |
| 1946-47 | Progressive Grocer, Aug. 1948, p. 112 | S |  |
| 1946-47 | Securities and Exchange Commission (SEC), Survey of Am. Listed Corps., 1946-47, Part Iv, p. 104 | WA | U.S., 16 companies |
| 1947 | Unpublished data | S |  |

MEAT MARKETS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1889 | Am. Grocer, Feb. 6, 1889, p. 11; Feb. 27, 1889, p. 8 | P (beef) |  |
| 1905 | Butchers' Advocate, 1905, passim | P |  |
| 1909 | Interstate Grocer, Dec. 18, 1909, p. 6 | $S$ (beef) | St. Louis |
| 1909-30 | FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10 | WA | U.S., 51 chains in 1930 |
| 1910 | Inland Grocer, July 2, 1910, p. 18 | P |  |
| 1910 | Butchers' Advocate, Jan. 26, 1910; Mar. 16, 1910, p. 12 (Dept. of Agriculture study) | A | U.S. |
| 1910 | lbid., 1910, passim | P | N.Y. |
| 1917 | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part Iv, p. 176 | N |  |
| 1917, 1919 | Marshall, H. S., Retail Marketing of Meats, Dept. of Agriculture, 1925 | WA | 33 cities; 230 stores and 15 chains |
| 1923 (?) | Natl. Distribution Conf., Expenses of Doing Business, 1925, p. 19 | T |  |
| 1923 | Secrist, H., Expenses, Profits and Losses in Retail Meat Stores, How Much and Why, Northwestern University, Bureau of Business Research (Northwestern U., B.B.R.), 1924 | WA | Chicago, Cleveland, N.Y., 143 stores |
| 1925-34 | Tobin, B. F., and Greer, H. C., What Becomes of the Consumer's Meat Dollar, University of Chicago Press, 1936, p. 18 | P | Chicago |
| 1925-34 | Stewart, P. W., and Dewhurst, J. F., Does Distribution Cost Too Much? Twentieth Century Fund, 1939, p. 32 | P | U.S. |
| 1928-32 | Jour. of Business of the University of Chicago, July 1933, pp. 215-239 | WA | Chicago, about 50 stores |
| 1933-39 | Meat Merchandising, Aug. 1940, pp. 50-53 | WA | Chicago, about 50 stores |
| 1935 | FTC, Rep. on Agricultural Income Inquiry, 1938, p. 145 | P |  |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 27 | M | U.S., 138 replies in 1939 |
| 1941-43 | FTC, Distribution Methods and Costs, Part Ix, pp. 63-64 | WA | Seattle, 4 replies |
| 1948 | Meat Marketing, Sept. 1948, pp. 44-48 | A | Chicago, 40 stores |

## MILK DISTRIBUTORS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1912, | FTC, Rep. on Milk and Milk | P | U.S. |
| 1914-18 | Products, 1914-18, 1921 |  |  |
| 1913 | Am. Grocer, Feb. 26, 1913, p. 10 | 0 | Boston |
| 1913, | Monthly Labor Review, Apr. | WA | U.S., 214 replies |
| 1919-21 | 1922, pp. 72-77 |  |  |
| 1915-16, | N.Y. Legislature, Rep. of the | N | N.Y.C. |
| 1931 | Joint Legislative Comm. to Investigate the Milk Industry, J. B. Lyon Co., 1933, pp. 182, 191, 225 |  |  |
| 1917 | Boston Chamber of Commerce, The Milk Question in New England, 1917, p. 46 | N | Boston |
| 1917-35 | Stewart and Dewhurst, op.cit., p. 381 | p | Chicago |
| 1919-20 | N.Y. State Dept. of Farms and Mkts., Foods and Mkts., Nov. 1920 | N | Kingston, N.Y. |
| 1919-38 | T.N.E.C., Hearings, 1939-41, Part vil, pp. 3191-3193 | P | 12 cities, 1929-30, 1937-38; Boston, 1919-38 |
| 1920 | Creamery and Milk Plant Monthly, Oct. 1921, pp. 43-44 | WA | Wis., 7 dealers |
| 1920-31 | Senate, Hearings of the Subcommittee on Agriculture and Forestry, pp. 225, 228 | S | 2 companies |
| 1921-25 | Norton, Laurence J., and Spencer, L., A Preliminary Survey of Milk Marketing in New York, Cornell U., Agricultural Experiment Station, Bulletin 445, 1925, p. 50 | P | N.Y.C. |
| 1929 | Rost, O. F., Distribution Today, McGraw-Hill, 1933, p. 188 | S |  |
| 1929, 1939 | Jour. of Farm Economics, Vol. 21, pp. 291-298 (Proceedings, Feb. 1939) | P | N.Y. |
| $\begin{aligned} & \text { 1930, } \\ & 1933-35 \end{aligned}$ | FTC, Distribution and Sale of Milk and Milk Products, 1936 | WA | 4 cities, 11 replies $\text { in } 1930$ |
| 1930's | Milk Papers, Vol. 8, no. 155 | N | Wis., 13 replies |
| 1932-33 | Milk Dealer, Nov. 1933, pp. 4344; Dec. 1933, pp. 35-36 |  | N.Y. State, 59 replies |
| 1934 | FTC, Rep. on Agricultural Income Inquiry, Part I, p. 119 | WA | 8 companies |
| 1935 | T.N.E.C., Monograph No. 13, 1940-1941, p. 55 | N | Boston |
| 1936 | Buckingham, S. M., "Dealers Spread in Conn.," Milk Papers, 1938-39, Vol. 5, no. 86 | N | Conn., 47 replies |
| 1936 | Maine U., Agricultural Expt. Stn., Bull. 395, p. 601 |  | Maine, 270 replies |

SOURCES OF MARGIN DATA


CANDY STORES

| Period Covered | Source | Type of. Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1876-77 | Hower, R. M., History of Macy's of New York, 1858-1919, Harvard University Press, 1943, pp. 136-137, 174-175 | S | Dept. of Macy's |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 144 stores |
| 1909-30 | FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10 | WA | U.S., 21 chains in 1930 |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 5. |  | U.S., 102 replies in 1939 |
| 1946-47 | SEC, Survey of Am. Listed Corps., 1946-47, Part v, p. 38 | WA | U.S., 4 chains |

COUNTRY GENERAL STORES

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- |
| 1879 | Ind. Bur. of Stat. and Geology, |  |  |
| First Annual Rep., pp. 150-160 | WA | Ind. state census |  |
| $1879-84$ | Am. Grocer, 1880-85, passim <br> Am. Grocer, Nov. 27, 1889, p. | S, O | S. |

1890-1913 Shaw, A. W., Co., Graphic and S Statistical Sales Helps, 1920, p. 123 (chart)

COUNTRY GENERAL STORES (continued)

| Period Covered | Source | Type of <br> Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1897 | Merchants' Review, Oct. 1, 1897, p. 9 |  |  |
| 1897, 1911 | Unpublished data (Univ. of Ky. files) | S | Ga. |
| 1900 | Unpublished data (Univ. of Ky. files) |  | Ala. |
| 1900 | St. Louis Grocer and General Merchant, Aug. 9, 1900, pp. 8-9 |  |  |
| 1900 | Omaha Trade Exhibit, Jan. 6, 1900, p. 22 |  |  |
| 1901-09 | Unpublished data (Univ. of Ky. files) |  |  |
| $\begin{aligned} & \text { 1903-05, } \\ & \text { 1908, } \\ & 1913-14 \end{aligned}$ | Unpublished data (Univ. of Ky. files) | S | Ga. |
| 1907-09 | Merchants' Trade Jour., 190809, passim | S | Tex., Mo., Va., and elsewhere |
| 1909-10 | Twin City Commercial Bull., Mar. 11, 1911, p. 14; Apr. 29, 1911, p. 22 | S |  |
| 1910 | Merchants' Trade Jour., Jan. $\text { 1910, p. } 16$ |  | S.D. |
| 1911 | Twin City Commercial Bull., 1911, passim |  | S.D. and elsewhere |
| 1913-15 | Twin City Commercial Bull., 1913-15, passim |  |  |
| 1914 | The Butler Way System Book, p. 26 |  |  |
| 1915 | Twin City Commercial Bull., May 1, 1915, p. 18 |  |  |
| 1918 | Harvard U., B.B.R., Management Problems in Retail Grocery Stores, 1919 | C | U.S., 115 replies |
| 1926-27 | Colorado U., B.B.G.R., Operating Expenses and Profit of Retail Grocery and General Merchandise Stores in Colorado in 1927, 1928 | R | Colo., 15 stores |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | WA |  |
| 1930 | Progressive Grocer, Operating Expenses of 100 Selected Food Stores; 1931 | WA | U.S., 25 stores |
| 1934 | Progressive Grocer, Operating Expenses of 110 Selected Food Stores; 1935 | WA | U.S., 12 stores |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 33 |  | U.S., 1100 replies |
| 1939 | Progressive Grocer, Operating Expenses of 125 Food Stores, 1941 | WA | U.S., 25 stores |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore., small stores |

DEPARTMENT STORES

| Period Covered | Source ${ }^{\text {T }}$ | ype of <br> Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1872-1919 | Hower, op.cit.; pp. 130, 136137, 171, 174-175, 255, 257, $390$ | S (Macy's) |  |
| 1880 | McNair, M. P., Teele, S. F., and Mulhearn, F. G., Distribution Costs, an International Digest, Harvard University Press, 1941, p. 5 | S |  |
| 1890-1913 | Shaw, A. W., Co., Graphic and Statistical Sales Helps, p. 123 (graph) | S |  |
| $\begin{aligned} & 1890,1910, \\ & 1929 \end{aligned}$ | Nystrom, op.cit., Vol., 2, p. 121 | 0 |  |
| 1899 | Dry Goods Economist, Feb. 18, 1899, p. 16; Apr. 29, 1899, p. 17 | 0 |  |
| 1900 | Dry Goods Economist, Mar. 3, 1900, p. 17 | 0 |  |
| 1902-03 | Dry Goods Economist, Feb. 15, 1902, p. 35; Dec. 19, 1903, p. 17 | 0 |  |
| 1904 | Crockery and Glass Jour., Feb. 18, 1904, p. 28 | 0 |  |
| 1905-24 | Unpublished data | S | N.Y. |
| 1906 | Am. Grocer, May 1, 1907, p. 9 | S | Chicago |
| 1907-09 | Dry Goods Economist, Sept. 5, 1908, p. 87; Dec. 4, 1909, p. 23 | S |  |
| 1909-11 | Unpublished data | S | Large Midwestern cities, chain |
| 1911 | Hardware World, Nov. 1913, p. 128 | S | Philadelphia |
| 1911 | System, March 1911, p. 246 | 0 |  |
| 1912-20 | Unpublished data | S | 2 stores, Phila. and N.Y.C. |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914 | Nystrom, op.cit., p. 80 | Mo | Wis. |
| 1916-20 | Unpublished data | S | Chain |
| 1918-20 | Unpublished data | S | Large Eastern city |
| 1919-25 | Unpublished data | S | Los Angeles |
| 1921-28 | Harvard U., B.B.R., Operating Expenses, Department and Specialty Stores, 1921-28, appropriate issues | C | U.S., about 500 replies |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | WA | Wis. |
| 1928-33 | Gault, E. H., Performance of Department Stores, 1933, University of Michigan, B.B.R., 1934, p. 138 | M | Mich., 15-25 stores |
| $\begin{aligned} & \text { 1929, } \\ & \text { 1931-34 } \end{aligned}$ | Teele, S. F., Operating Results of Department Store Chains and Department Store Ownership Groups, 1929, 1931-1934, Harvard U., B.B.R., 1936 | C | U.S., 41 chains |

## APPENDIXES

DEPARTMENT STORES (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1929-37 | Schmalz, C. N., Operating Results of Department and Specialty Stores, 1929-37, Harvard U., B.B.R., appropriate issues | C | U.S., about 500 replies |
| $\begin{aligned} & \text { 1938-40, } \\ & \text { 1942, } \\ & 1944, \\ & 1946-48 \end{aligned}$ | McNair, M. P., Operating Results of Department and Specialty Stores, 1938-40, 1942, 1944, 1946-48, Harvard U., B.B.R., appropriate issues | C | U.S., 351 replies in 1948 |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore. |
| 1941 | Bliss, C. A., Operating Results of Department and Specialty Stores in 1941, Harvard U., B.B.R., 1942 | C | U.S., 492 replies |
| 1943 | Teele, S. F., Operating Results of Department Stores and Specialty Stores in 1943, Harvard U., B.B.R., 1944 | C | U.S., 366 replies |
| 1945 | Brown, M. P., Operating Results of Department and Specialty Stores in 1945, Harvard U., B.B.R., 1946 | C | U.S., 398 replies |
| 1946-47 | SEC, Survey of Am. Listed Corps., 1946-47, p. 14 | WA | U.S., 43 companies |

## MAIL ORDER HOUSES

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1902-05 | Emmet, B., and Jeuck, J. E., Catalogues and Counters: a History of Sears, Roebuck and Company, University of Chicago Press, 1950 | S | Sears, Roebuck |
| 1912-13 | Unpublished data | S |  |
| 1912-13 | Nystrom, op.cit., pp. 250-251 | O |  |
| 1913 | Am. Grocer, Feb. 5, 1913, p. 6 | $\bigcirc$ |  |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914(?) | Butler, R. S., Marketing Methods and Salesmanship, Alexander Hamilton Institute, 1917, Part I, pp. 75-76 | N | 7 replies |
| $\begin{aligned} & \text { 1914, } \\ & 1916-25 \end{aligned}$ | Unpublished data | S | U.S. |
| 1943-44 | SEC, Survey of Am. Listed Corps., 1943-44, Part v, p. 131; 1945-46, Part vi, p. 125 | WA | U.S., 7 replies |
| 1946-47 | SEC, Survey of Am. Listed Corps., 1946-47, Part vi, p. 136 | WA | U.S., 7 replies |

## DRY GOODS STORES

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1876-77, \\ & 1887 \end{aligned}$ | Hower, op.cit., Pp. 136-137, 174-175 |  |  |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 162-163 | WA | Ind. state census |
| 1890-1913 | Shaw, A. W., Co., Graphic and Statistical Sales Helps, p. 123 (grapb) | S |  |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 131 stores |
| 1900 | Drygoodsman, Feb. 17, 1900, p. 17 |  |  |
| 1903-08 | Dry Goods Economist, Mar. 21, 1903, p. 25; Nov. 14, 1903, p. 16; Feb. 25, 1905, p. 59; Sept. 1, 1906, p. 73; Jan. 4, 1908, p. 77 | S, 0 | West and elsewhere |
| 1912(?) | Walsh, R. J., Selling Forces, Curtis, 1913, p. 179 | N | U.S. |
| 1913 | System, May 1916, p. 643 | T |  |
| $\begin{aligned} & \text { 1913, } \\ & 1916-21 \end{aligned}$ | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part Iv, p. 164 | P |  |
| 1914 | The Butler Way System Book, p. 26 | 0 |  |
| 1914 | Sammons, op.cit., p. 20 | T |  |
| 1915 | Twin City Commercial Bull., Apr. 24, 1915, pp. 6-7 | S |  |
| 1915-20 | Unpublished data | S | Small Midwestern city |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | WA | Wis. |
| 1928 | Gerish, Edward F., Commercial Survey of the Gulf Southwest, Part 1, "Distribution of Dry Goods in the Gulf Southwest," Dept. of Commerce, 1931, p. 156 | Mo | SW; 376 stores |
| 1939 | Mitchell, Standard Ratios for Retailing, p. 37 |  | U.S., 564 replies |

## VARIETY STORES

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :--- | :--- |
| 1879 | Ind. Bur. of Stat. and Geology, WA | Ind. state census |  |
| 1890 's | First Annual Rep., pp. 194-195 <br> Winkler, J. K., Five and Ten, S | Robert M. McBride \& Com- <br> pany, 1940, p. 125 <br> Unpublished data | S |

VARIETY STORES (continued)

| Period |  | Type of <br> Covered | Source |
| :--- | :--- | :--- | :--- |$\quad$| Location, Number, |
| :--- |
| and Type of Stores |

APPAREL STORES

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 1876-77, } \\ & 1887 \end{aligned}$ | Hower, op.cit., pp. 136-137, 174-175 | S | Dept. of Macy's |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 172-173, 186-187 | WA | Ind. state census |
| 1880 | Werner, M. R., Julius Rosenwald, Harper, 1939, p. 11 | S |  |
| 1886 | Dry Goods Chronicle and Fancy Goods Review, Mar. 13, 1886, p. 14 | 0 |  |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 161 stores |
| 1905-26 | Unpublished data | S | Large Eastern city |
| 1908 | Merchants' Trade Jour., June 1909, p. 6 | S |  |
| 1909-30 | FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10 | WA | U.S., 275 chains in 1930 |
| 1913 | Hart, Schaffner and Marx, What Do You Know About Your Own Business?, 1915 | N |  |
| 1913 | System, May 1916, p. 643 | T |  |
| $\begin{aligned} & \text { 1913, } \\ & \text { 1916-21 } \end{aligned}$ | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part Iv, pp. 179, 181 | P |  |
| 1914 | Sammons, op.cit., p. 25 | T |  |
| 1914 | Nystrom, op.cit., p. 80 | Mo | Wis. |
| 1915 | Monthly Bull. of the Natl. Retail Dry Goods Assn., Jan. 1915, p. 1 | N | 38 states |
| 1916-22 | Secrist, H., A Seven Years' Review of Sales and Expenses of Retail Clothiers, 1916 to 1922, Northwestern U., B.B.R., 1924 | WA | U.S., 120 stores |
| 1916-25 | Unpublished data | S | Large Midwestern city |
| 1924, 1926 | Colorado U., B.B.G.R., Operating Expenses of Retail Clothing Stores, 1924, 1926, appropriate issues | R | Colo. \& Wyo., 15 replies in 1926 |
| 1926 | Wis. Retail Bull., Feb. 1931, p. 7 | WA | Wis. |
| 1927 | Colorado U., B.B.G.R., Operating Expenses and Profits of Retail Men's Clothing Stores in Colorado in 1927, 1929 | R | Colo., 10 replies |
| 1929-32 | Natl. Clothier, Mar. 1934, p. 12 | T | U.S. |
| 1933-46 | Natl. Assn. of Retail Clothiers, 19th Annual Business Survey of Men's Wear Stores | T | U.S. |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix, 55-68, 73 |  | U.S., 1133 replies |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore., small stores |

APPAREL STORES (continued)

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- | :--- |
| 1944 | Dun's Review, Aug. 1946, pp. T <br> $15-17$ $1946-47$ | SEC, Survey of Am. Listed <br> Corps., 1946-47, Part vi, p. 6 | U.S., 230 stores |
|  |  | U.S., 29 replies |  |

SHOE STORES, INDEPENDENT

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 168-169 | WA | Ind. state census |
| 1881 | Mass. Bur. Stat. Labor, Thirteenth Annual Rep., 1882, pp. 434-459 | $\mathbf{P}$ |  |
| 1886 | Shoe and Leather Gazette, July $3,1886, \text { p. } 12$ | S | St. Louis |
| 1887 | Shoe and Leather Gazette, Sept. $17,1887, \text { p. } 10$ | 0 |  |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 101 stores |
| 1903-04 | Shoe and Leather Gazette, Nov. 12, 1903, p. 19; Feb. 25, 1903; p. 23; Nov. 23, 1904, p. 22 | 0 | Iowa |
| 1905 | Boot and Shoe Recorder, June 7, 1905, pp. 27; 39 | N |  |
| 1906-07 | Shoe and Leather Gazette; Mar. 14, 1906, p. 11; May 15, 1907, p. 23 | 0 |  |
| - 1906-08 | Shoe Retailer, Aug. 25, 1906, p. <br> 22; May 25, 1907, p. 47; Oct. <br> 26, 1907, p. 25; Jan. 4, 1908, pp. $58-59,65$ | S, O |  |
| 1909 | Mich. Tradesman', Sept. 8, 1909, <br> p. 34 | 0 |  |
| 1911 | Twin City Commercial. Bull., Jan. 8, 1911, p. 20 | 0 |  |
| 1912 | Harvard U., B.B.R., Object and History of the Bureau with Some Preliminary Figures on the Retailing of Shoes, 1915 | C | U.S., 130 stores |
| $\begin{aligned} & \text { 1913, } \\ & \text { 1916-21 } \end{aligned}$ | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part Iv, p. 172 | N |  |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914 | The Butler Way System Book, <br> p. 26 | T |  |
| 1914 | Nystrom, op.cit., p. 80 Sammons, op.cit., p. 29 | $\begin{aligned} & \text { Mo } \\ & \mathrm{T} \end{aligned}$ |  |
| 1914, | FTC, Rep. on Leather and Shoe | P |  |
| 1917-18 | Industries, 1919, p. 123 |  |  |



FURNITURE STORES, INDEPENDENT

| Period Covered | Source | Type of <br> Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1876-77, | Hower, op.cit., pp. 136-137, | S | Dept. of Macy's |
| 1887 | 174-175 |  |  |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 200-201 | WA | Ind. state census |
| 1880 | Musical Courier, Feb. 28, 1880, p. 53 | S (P) |  |
| 1881 | Music Critic and Trade Review, Feb. 5, 1881, p. 16 | O (P) | (pianos) |
| 1882-1920 | Unpublished data | S | 2 stores in Eastern cities |
| 1885, 1901 | Presto, Jan. 31, 1901, p. 15; Feb. 7, 1901, p. 15 | S (P) | (pianos) |
| 1886 | Music Trade Review, Feb. 20, 1886, p. 216; Oct. 31, 1896, p. 10 | O (P) | (pianos) |
| 1896 | Musical Courier, Jan. 29, 1896, p. 51 | S (P) | (pianos) |
| 1897 | Furniture Jour., Sept. 1897, p. 4 | 0 |  |
| 1898 | Music Trade Review, Apr. 9, 1898, p. 6; Apr. 30, 1898, p. 13 | S (P) | (pianos) |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 171 stores |
| 1901 | Music Trade Review, Aug. 3; 1901, p. 17 | $S(P)$ | (pianos) |
| 1903 | Music Trade Review, Jan. 24, 1903, p. 9; Feb. 14, 1903, p. 9 | 0 | ( (pianos) |
| 1904 | Grocers' Criterion, Aug. 22, 1904, p. 9 | 0 |  |
| 1913 | Music Trade Indicator, Jan. 18, 1913, p. 7. | S (P) | (pianos) |
| 1913 | System, May 1916, p. 643 | T |  |
| 1913-25 | Unpublished data | S | Large Far Western city |
| 1914 | The Butler Way System Book, p. 26 |  |  |
| 1914 | Nystrom, op.cit., p. 80 | Mo |  |
| 1914 | Sammons, op.cit., p. 27 | T |  |
| 1919 | Furniture Merchants' Trade Jour., Oct. 1919, p. 30 | S | Mont. |
| 1920-21 | FTC, Report on the Housefurnishings Industry, 1923-25, Vol. 1, p. 110 | WA | U.S., 355 stores |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7. | N | Wis. |
| 1927-28 | Lowrie, J. A., Operating Results of Thirty Installment Retail Furniture Stores-1928, Ohio State | N | Ohio, 30 stores |
| 1929-30 | University Press, 1931, p. 27 <br> Mitchell, W., Jr., Furniture Distribution in the West Mid-Conti- | WA | Midwest, 104 replies |

SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1929-38 | Dept. of Commerce, Business Information Service, How Furniture Stores Fared, 1929-1938 | N | Wis., 36 Stores |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix, 101-111, 155, 159 | M | U.S., 876 replies |
| 1937-46 | Natl. Retail Furniture Assn., Special Information | T |  |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore. |
| $\begin{aligned} & 1941, \\ & 1944-45 \end{aligned}$ | Office of Temporary Controls, Survey of Retail Furniture Stores, OPA Economic Data Series No. 7, 1947 | WA | U.S., 182 replies |
| 1946-47 | Joint Committee on the Economic Rep., Prices of Consumer Goods, 1947, p. 72 | WA | Denver, 10 stores |
| 1947, 1949 | Natl. Furniture Review, July 1948, pp. 68, 144; Jan. 1950, pp. 83-84, 137 | T, N |  |

FURNITURE STORES, CHAIN

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- |
| $1909-30$ | FTC, Chain Stores: Gross Profit | WA | U.S., 23 replies <br> and Avg. Sales, p. 10 |
| $1922-47$ | Moody's Industrials | S | Chain |
| $1946-47$ | SEC, Survey of Am. Listed | WA | U.S., 10 replies |
|  | Corps., 1946-47, Part VI, p. 92 |  |  |

HOUSEHOLD APPLIANCE STORES

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- |
| 1879 | Ind. Bur. of Stat. and Geology, WA <br> First Annual Rep., pp. 188-189 | WA | Ind. state census; <br> stores and tinware <br> dealers |
| $1920-21$ | FTC, Rep. on the Housefurnish- <br> ings Industry, Vol. 3, Pp. 255- | WA | U.S., 15 stores |
|  | 256 |  |  |
|  | Radio Retailing, June 1925, pp. <br> 540-542 | T | U.S., 10 stores |
| $1924-29$ | Alderson, W., and Haag, F., Jr., <br> Problems of Wholesale Electri- <br> cal Goods Distribution, Dept. of <br> Commerce, 1931 | South |  |

HOUSEHOLD APPLIANCE STORES (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1929-30 | Bur. Foreign and Domestic Commerce, Merchandising Problems of Radio Retailers in 1930, pp. 17-21 | WA | U.S., 8 replies in 1930 |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix, 95, and 113 | M | U.S., 44 replies |
| 1939 | FTC, Distribution Methods and Costs, Part Iv, pp. 164-165 | WA | U.S., 82 replies |
| 1939 | Electrical Merchandising, Sept. 1940, pp. 10-11, 96 | T | U.S., 24 replies |
| 1939, 1941, | Office of Temporary Controls, | WA | U.S., 133 replies |
| 1944 | Survey of Electrical Appliance Dealers, OPA Economic Data Series No. 4, 1947 |  |  |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore., small stores |
| 1946 | Electrical Merchandising, Sept. 1947, p. 47 | T | Midwest, 200 replies |
| 1946-47 | Electrical Retailers' News, July 26, 1948 | N | U.S. |

VEHICLE DEALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1903 | Cycle and Automobile Trade Jour., Mar. 1903, p. 31 | 0 | Canada |
| 1906 | Unpublished data (Univ. of Ky. files) | S |  |
| 1906 | Implement Trade Jour., Apr. 7, 1906, p. 23 |  | Kansas |
| 1907 | Cycle and Automobile Trade Jour., Jan. 1907, p. 335a |  | Cal. |
| 1909, 1912 | Implement Trade Jour., Jan. 16, 1909, p. 37; Feb. 24, 1912, pp. $27-28$ | 0 | Minn. and elsewhere |
| 1913 | Carriage Dealers' Jour., June 1913, p. 28 |  |  |
| 1913 | Automobile Trade Jour., Mar. 1913, p. 87; Mar. 1913, p. 90; May 1913, p. 112 |  |  |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914 | Sammons, op.cit., p. 22 | T |  |
| 1914, 1916 | Automobile Trade Jour., May 1914, pp. 110-111; June 1914, p. 184; Oct. 1914, p. 190; Oct. 1916, p. 107 | O |  |
| 1917 | Shaw, A. W., Co., How to Run a Retail Automobile Business at a Profit, 1918, pp. 3-7 |  | 23 stores |

SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1921 | Automobile Trade Jour., July 1922, pp. 24-27 | S | Cal. |
| 1922 | Niles and Niles, Review of Published Statistics, 1925 | P (combined wholesale and retail margin) |  |
| 1923-25 | Automobile Trade Jour., May 1923, p. 28; July 1924, p. 39; June 1925, p: 33 | 0 |  |
| 1928 | Fancher, H. M., Model Budgets for Automobile Dealers, Natl. Automobile Dealers' Assn., 1927 | T |  |
| 1933-39 | N.A.D.A. Bull., June 1938, p. 7; July 1940, p. 8 | WA | U.S., 334 dealers in 1939 |
| 1935-37 | FTC, Rep. on the Motor Vehicle Ind., 1939, pp. 863-867 | WA | U.S., 361 replies in 1937 |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 91 | M | U.S., 791 replies |
| 1939-40 | Natl. Automobile Dealers Assn., N.A.D.A. Trade Survey | N |  |

## AUTOMOTIVE ACCESSORY DEALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1921 | Automobile Trade Jour., Aug. 1921, p. 43 |  |  |
| 1921, 1933 | Stewart and Dewhurst, op.cit., pp. 52-54 | P (combined wholesale \& retail margin) |  |
| 1922 | Natl. Petroleum News, Oct. 11, 1922, p. 74 |  |  |
| 1922-23 | Automobile Trade Jour., Jan. 1924, pp. 46-47 |  |  |
| 1923 | Harvard U., B.B.R., Operating Expenses in the Retail Automobile Tire and Accessory Business in 1923, 1924 | C | U.S., 88 replies |
| 1923 | Accessory and Garage Jour., June 1, 1926, p. 43 | C | U.S., 88 stores |
| 1926-47 | Moody's Industrials | S | 2 chains |
| 1931-32 | Natl. Petroleum News, Dec. 9, 1931, p. 23; Mar. 16, 1932, p. 45 | 0 |  |
| 1939 | Mitchell, Standard Ratios for Retailing, p. 77 | M | U.S., 268 replies |
| 1939 | FTC, Distribution Methods and Costs, Part Iv, p. 138 | WA | U.S., 144 replies (tubes and tires) |
| 1946-47 | SEC, Survey of Am. Listed Corps., 1946-47, Part vi, p. 32 | WA | U.S., 3 replies |
| 1947 | Natl. Assn. of Independent Tire Dealers, Inc., What It Cost In- | M | U.S., 106 replies (tires) |

## APPENDIXES

FILLING STATIONS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1911 | Natl. Petroleum News, Aug. 1911, p. 6 | S | Ohio |
| 1914 | Natl. Petroleum News, July 1914, p. 6 | S | Wash. |
| 1914 | Natl. Petroleum News, Aug. 1914, p. 34 | P | Dakotas |
| 1914 | Natl. Petroleum News, May 1915, p. 66 | S | Midwest |
| 1915 | Natl. Petroleum News, June 1915, p. 6; Nov. 1915, p. 1 |  | Chicago; Cleveland |
| 1915 | Natl. Petroleum News, July 1915, p. 1 | 0 | Cleveland |
| 1916 | Natl. Petroleum News, Mar. 1916, p. 73 | 0 |  |
| 1918 | Natl. Petroleum News, Aug. 21, 1918, pp. 80-81 | P | Pittsburgh |
| 1919 | Natl. Petroleum News, July 16, 1919, p. 75 | P | Tulsa |
| 1919 | Natl. Petroleum News, Aug. 18, 1920, p. 25 | S | Albany |
| 1919-25 | Natl. Petroleum News, Dec. 1, 1926, p. 76 | P | Iowa |
| 1920-24 | Natl. Petroleum News, 1920-24, passim | P, O |  |
| 1921 | Natl. Petroleum News, July 29, 1921, p. 17 |  | Buffalo |
| 1924 | Natl. Petroleum News, Mar. 5, 1924, p. 32-C | S | Des Moines |
| 1925-28 | Natl. Petroleum News, July 4, 1928, p. 32 | N | Midwest, 30 citics |
| 1926-28 | Natl. Petroleum News, 1926-28, passim | 0 |  |
| 1926 | . Natl. Petroleum News, Feb. 23, 1927, p. 62 | (official estimate) | Wis. |
| 1926 | Natl. Petroleum News, Apr. 7, 1926, p. 25; Apr. 14, 1926, p. 47 | LF | Tenn. |
| 1927 | Natl. Petroleum News, Sept. 14, 1927, p. 29 |  | Cleveland |
| 1927 | Natl. Petroleum News, Nov. 9, 1927, p. 17 | (distributors contract) | Midwest |
| 1928 | Natl. Petroleum News, Mar. 28, 1928, p. 67 | 0 |  |
| 1928-33 | Natl. Petroleum News, Sept. 19, 1934, p. 23; Feb. 24, 1937, p. 47 | P | 50 cities |
| 1929 | Natl. Petroleum News, May 8, 1929, p. 29 |  | Okla. |
| 1930 | Natl. Petroleum News, 1930, passim |  |  |
| 1930 | Gasoline Retailer, Nov. 1930, passim |  |  |
| 1930 | Natl. Petroleum News, July 22, 1931, p. 28 | S |  |


| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| . 1930 | Natl. Petroleum News, July 30, 1930, p. 45 |  | 50 cities |
| 1931-33 | Natl. Petroleum News, Feb. 24, 1937, p. 52 |  | Cleveland, 600 stations |
| 1931-33 | Natl. Petroleum News, Sept. 5, 1934, p. 15 |  | Cleveland, 9 oil companies |
| 1934 | Natl. Petroleum News, Aug. 26, 1936, pp. 21-22 |  | Ft. Wayne, 149 stations |
| 1934 | Natl. Petroleum News, Aug. 1, 1934, p. 10; Oct. 17, 1934, p. 16 |  | Midwest |
| 1934 | Natl. Petroleum News, Nov. 21, 1934, p. 21 |  | Midwest |
| 1934, 1947 | Natl. Petroleum News, June 18, 1947, pp. 23-24 |  |  |
| 1935-37 | Natl. Petroleum News, Aug. 7, 1935, p. 25; Sept. 4, 1935, p. 15; Nov. 20, 1935, pp. 11-12; Mar. 17, 1937, p. 58; Dec. 22, 1937, pp. 11-12 |  |  |
| 1936 | Natl. Petroleum News, Feb. 15, 1939, p. 40 |  | 111. |
| 1936 | Natl. Petroleum News, Feb. 24, 1937, p. 59 |  | 2 replies |
| 1936 | Stewart and Dewhurst, op.cit., pp. 54-56 |  |  |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and: 81 |  | U.S., 1145 replies |
| 1937 | Slaton, W. H., Cost of Doing Business Survey of Petroleum Retailers in Denver, Colorado U., B.B.G.R., 1937 |  | Denver, 27 replies |
| 1938*. ". | Natl. Petroleum News, Aug. 10, 1938, p. 12 |  | N.Y. |
| 1938 | Natl. Petroleum News, Aug. 17, 1938, p. 12 |  | Mich. |
| 1938 | T.N.E.C.,Hearings, Part xvi, pp. 9027-9028 |  | Kans. City |
| 1939 :" | T.N.E.C., Hearings, Part xv, pp. 8425-8426, 8444, 8454, 8507 |  |  |
| 1939 | Natl. Petroleum News," July 5, 1939, p. 37; Nov. 30, 1939, p. |  | N.J. |
| $1947{ }^{\text { }}$ | 12 <br> Natl. Petroleum News, July 2, 1947, p. 54 |  |  |

COAL AND LUMBER YARDS


SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1907 | Retail Coalman, May 1907, p. 48 |  | Coal yards |
| 1908 | Retail Coalman, Apr. 1908, pp. 40-41; May 1908, pp. 43-45 | S | 10 coal yards |
| 1909-11 | Retail Coalman, 1909-11, passim | S | Coal yards |
| 1909 | Retail Coalman, Dec. 1909, p. 59 |  | Phila., N.Y., and Boston; coal yards |
| 1912 | Retail Coalman, Mar. 1913, p. 54; May 1912, p. 51; Aug. 1912, <br> p. 44 | S, 0 | Mass. and elsewhere; coal yards |
| $\begin{aligned} & 1913 \\ & 1917,1918 \end{aligned}$ | Retail Coalman, Jan. 1913, p. 78 Retail Lumberman, Jan. 1918, p. 55; Jan. 1919, p. 60 | P (coal) <br> P (coal; Fuel Administration maximum) | Phila. |
| 1918 | Am. Lumberman, May 4, 1918; pp. 48-49 | 0 |  |
| 1920-22 | Coal Comm.; Report, Part in, 1925, pp. 782 ff . | P (coal) |  |
| 1921-22 | Nebraska U., C.B.A., Trade Practices and Costs of the Retail Coal Business in Lincoln, Nebraska in 1922, 1923 | C | Neb., 5 replies |
| 1924 | Natl. Distribution Conf., Expenses of Doing Business, p. 62 (from Nat. Amer. Wholesale Lumber Assn.) | N | 30 replies |
| 1924-26 | Colorado U., B.B.G.R., Operating Expenses of Retail Lumber Yards, 1924-26, appropriate issues | R | Colo. and Wyo., 16 replies |
| 1925-35 | Fox, Philip G., and Elwell, F. H., "Profits and Costs of Doing Business: Wisconsin Incorporated Retail Lumber, Fuel and Building Material Yards, 1925-1935," Wisconsin Retail Lumbermen's Association, 1937 | T | Wis., 72 yards in 1935 |
| 1926-28 | Harvard U., B.B.R. Operating Expenses of Building Material Deaiers, 1926-28, appropriate issues | C | U.S., about 300 replies |
| $\begin{aligned} & 1926-29, \\ & 1936 \end{aligned}$ | Colorado U., B.B.G.R., Operating Expenses of the Retail Lumber Yards in the Rocky Mountain Region, 1927, in the Mountain States Region, 1928-29, 1936, appropriate issues | R | Colo., Wyo., and Neb. $22 \%$ of yards in 1936 |
| 1926-47 | Moody's Industrials | N | Chain |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | N | Wis., lumber yards |
| 1929 | Hooper, W. D., Operating Costs of Retailing Coal in Columbus, Ohio State University Press, 1932 | WA | Columbus, 15 coal yards |

COAL AND LUMBER YARDS (continued)

| Period |
| :--- | :--- | :--- | :--- |
| Covered | | Source |
| :--- | :--- | :--- |$\quad$| Location, Number, |
| :--- |
| and Type of Stores |

HARDWARE STORES

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 164-165 | WA | Ind. state census |
| 1883, 1913 | Hardware Dealers' Mag., Feb. 1914, p. 380 |  |  |
| 1886-87 | Hardware Dealers' Mag., Aug. 1898, pp. 173-175 |  | Newark |
| 1900 | Iron Age, Feb. 22, 1900, p. 45; Mar. 8, 1900, p. 48 | A, 0 | Ohio and elsewhere |
| 1900 | Hardware Dealers' Mag., July 1900, p. 58 |  |  |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 67 stores |
| 1900 | Mich. Tradesman, July 25, 1900, p. 20 | $O(P)$ | Mich. |
| 1902 | Iron Age, Feb. 20, 1902, p. 65; Feb. 27, 1902, p. 81; Apr. 3, 1902, p. 55 | 0 |  |
| 1904 | Iron Age, Mar. 24, 1904, p. 59; June 16, 1904, pp. 50-51 |  |  |
| 1906 | Hardware Dealers' Mag., June 1906, pp. 1111-1112 |  | 29 replies |
| 1906 | Hardware Dealers' Mag., July 1906, p. 82; Sept. 1906, Pp. 435 437 | $0$ |  |
| 1907 | Iron Age, Feb. 28, 1907, p. 693 | N |  |
| 1909 | Implement Trade Jour., Mar. 6, 1909; H'ware Supp., p. 5 | N |  |
| 1909 | Implement Trade Jour., Nov. 6, 1909, H'ware Supp., p. 9 |  |  |
| 1909 | Hardware Dealers' Mag., Apr. 1909, pp. 785-786; July 1909, p. 83 | S | 7 replies |
| 1909 | Hardware Dealers' Mag., Jan. 1910, pp. 163-166 |  | 14 replies |
| 1909 | Natl. Hardware Bull., Sept. 1909, pp. 56-59 |  |  |
| 1909-30 | FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10 | WA | U.S., 21 chains in 1930 |
| -1910 | Hardware Dealers' Mag., Jan. 1910, pp. 97-99; Арг. 1910, p. 871; May 1910, p. 1059 | S |  |
| $191^{\circ}$ | Implement Trade Jour., Jan. 28, 1911, p. 15 | 0 |  |
| 1910 | Iron Age, Feb. 5, 1910, p. $89{ }^{\text { }}$ | A |  |
| 1910 | Natl. Hardware Bull., Feb. 1910, pp. 59-61; Apr. 1910, pp. 40-42; July 1910, pp. 55-56 | S, A | U.S., 15 replies |
| 1911 | Am. Paint and Oil Dealer, May 1912, p. 12 | O (paint) |  |
| 1912 | Am. Paint and Oil Dealer, Apr. 1913, p. 41; Nov. 1912, p. 20; Dec. 1912, p. 9 | S, P (paint) | . |

HARDWARE STORES (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1912 | Hardware Dealers' Mag., Jan. 1912, p. 85; Mar. 1912, p. 549 | S | Far West, 2 stores |
| 1912 | Hardware Dealers' Mag., Apr. $\text { 1912, p. } 811$ | 0 | Conn. |
| 1912 | Hardware Dealers' Mag., Dec. 1912, p. 1244 | S | 6 stores |
| 1912 | Hardware Review, Nov. 1912, p. 61 | P |  |
| 1912 | Natl. Hardware Bull., Apr. 1912, p. 76 |  |  |
| $\begin{aligned} & \text { 1913, } \\ & \text { 1916-21 } \end{aligned}$ | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part Iv, p. 171 | N |  |
| 1913 | Am. Paint and Oil Dealer, May 1914, p. 48 | 0 |  |
| 1913 | Hardware Dealers' Mag., Feb. 1913, p. 326; Apr. 1913, p. 787; July 1914, p. 86 | S, O |  |
| 1913 | Hardware Dealers' Mag., Aug. $1914, \text { p. } 354$ | S | Ind. |
| 1913 | Hardware World, Nov. 1913, p. 128 | N | Ind., 19 replies |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914 | The Butler Way System Book, p. 26 | T |  |
| 1914 | Sammons, op.cit., p. 24 | T |  |
| 1915 | Am. Paint and Oil Dealer, June 1916, p. 14 | N | Paint stores |
| 1916-17 | Hardware Dealers' Mag. June 1916, p. 1211; Aug. 1917, p. 345 | 0 |  |
| 1917-18 | Natl. Hardware Bull., June 1919, pp. 67-69 | S | III. |
| $\begin{aligned} & \text { 1917-18, } \\ & 1919 \end{aligned}$ | Harvard U., B.B.R., Operating Expenses in Retail Hardware Stores, appropriate issues | C | U.S., 155 stores in 1919 |
| 1918 | Natl. Hardware Bull., Feb. 1918, pp. 56-66; Mar. 1918, pp. 55-64 | N | U.S., 1795 replies |
| 1921-22 | FTC, Rep. on the Housefurnishings Industry, Vol. 3, pp. 255, 266 | WA | U.S., 70 stores |
| 1922 | Nebraska U., C.B.A., Operating Expenses of Retail Hardware Stores in Nebraska in 1922, 1923 | C | Neb., 51 stores |
| 1924-25 | Colorado U., B.B.G.R., Operating Expenses of Retail Hardware Stores in Colorado, 1924, 1925, appropriate issues | WA | Colo., 13 stores in 1925 |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | A | Wis. |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix, 115-127 | M | U.S., 914 replies |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore. |

SOURCES OF MARGIN DATA

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- |
| $1945-48$ | Dept. of Commerce, Hardware <br> Stores-Operating Ratios, 1946, <br> WA | U.S., about 1000 <br> stores |  |
|  | 1948 |  |  |

FARM IMPLEMENT DEALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1865-93 | Implement Trade Jour., Apr. 7, 1906, pp. 20-28 |  | Midwest |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 170-171 | WA | Ind. state census |
| 1882, 1912 | Implement Trade Jour., Oct. 5, 1912, p. 20a | P | Neb. |
| 1886 | Farm Implement News, Apr. 13, $\text { 1893, p. } 21$ | 0 |  |
| 1894-98 | Farm Implement News, Jan. 12, $1899, \text { p. } 128$ | S | Iowa |
| 1895-96 | Farm Implement News, Jan. 24, 1895, pp. 21-22; Jan. 23, 1896, p. 17 | 0 |  |
| 1899 | Farm Implement News, Jan. 12, 1899, p. 126 | S | Iowa |
| 1900 | Implement Age, Jan. 15, 1900, <br> p. 28 |  |  |
| 1902 | Bur. of Corporations, International Harvester Co., 1913, p. 327 | 0 | McCormick dealers |
| 1906 | Implement Trade Jour., Jan. 27, 1906, p. 14 | 0 |  |
| 1906 | Unpublished data (Univ. of Ky. files) | P | Tenn. |
| 1907-08 | Implement Trade Jour., July 13, 1907, pp. 20-21; Dec. 14, 1907, p. 15; Dec. 5, 1908, p. 17; Dec. 19, 1908, pp. 6, 8 | 0 |  |
| 1908 | Implement Trade Jour., July 17, 1909, p. 13; Aug. 14, 1909, pp. 8-9 | S | Okla. |
| 1909 | Implement Trade Jour., Jan. 16, 1909, pp. 16, 21, 23 | 0 |  |
| 1909 | Bulletin of the Natl. Assn. of Credit Men, Nov. 15, 1909, pp. 874-878 | N | 18 states, 85 replies |
| 1910 | Implement Trade Jour., Jan. 1, 1910, p. 57 |  |  |
| 1910 | Natl. Hardware Bull., June 1910, p. 52 | 0 |  |
| 1911 | Implement Trade Jour., Nov. 18, 1911, p. 20g; Dec. 9, 1911, pp. 20, 22c | S | 3 replies |
| 1911 | Implement Trade Jour., Apr. 8, 1911 (Ann. Supp.) | . S | Minn. |

FARM IMPLEMENT DEALERS (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1911 | Implement Trade Jour., Jan. 21, 1911, p. 22; Oct. 21, 1911, p. 32a; Nov. 18, 1911, p. 20g | 0 |  |
| 1911 | Carriage Dealers' Jour., Jan. 1912, pp. 76-78 |  |  |
| 1911 | Carriage Dealers' Jour., Nov. 1911, p. 23 |  | U.S. |
| 1912 | Implement Trade Jour., Aug. $17,1912, \text { p. } 14$ |  |  |
| 1912 | Implement Trade Jour., Dec. 7, 1912, p. 27 |  | Okla. |
| 1912 | Implement Trade Jour., Nov. 1, 1913, p. 17 | N | Iowa, 100 replies |
| 1912 | Carriage Dealers' Jour., Jan. 1912, pp. 76-78 |  |  |
| 1913 | System, May 1916, p. 643 | T |  |
| 1915-18 | FTC, Rep. on the Causes of High Prices of Farm Implements, 1920, p. 237 | WA | U.S., 308 replies |
| 1935-36 | FTC, Distribution Methods and Costs, Part Iv, pp. 186-187 | WA | U.S., 92 replies |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 41 | M | U.S., 147 replies |
| 1936-45 | Office of Temporary Controls, Survey of Retail Dealers of Farm Equipment, Automotive Passenger Cars, Automotive Trucks, and New Machine Tools, OPA Economic Data Series No. 19, 1947 | WA | U.S., 646 replies in 1945 |
| 1947 | Natl. Retail Farm Equipment Assn., Farm Equipment Retailing, 1948 | WA | U.S., about 7000 questionnaires |

RESTAURANTS

| Period Covered | Source ${ }^{\text {a }}$ | Type of <br> Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1876-77, \\ & 1887 \end{aligned}$ | Hower, op.cit., pp: 136-137, $174-175$ | S | Dept. of Macy's |
| 1897-1900 | Hotel Monthly, Sept. 1897, p. 14; July 1898, p. 23; Apr. 1900, p. 15 | S | Chicago |
| 1908 | Hotel Monthly, Feb. 1908, pp. <br> 34-35; Dec. 1908, p. 51 |  | Tex.; W. Va. |
| 1910 | Hotel Monthly, Jan. 1910, p. 43 | S | Pittsburgh |
| 1910-14 | Jour. of Home Economics, Jan. 1916, pp. 19-28 | S | Boston |
| 1911-13 | Hotel Monthly, Oct. 1911, p. 68; June 1913, p. 57; Sept. 1913, p. 67 | S |  |
| 1913 | Hotel Monthly, Sept. 1913, p. 64 | N | 10 hotel restaurants |


| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1915 | Hotel Monthly, Nov. 1915, p. 50 | S | Iowa |
| 1915-19 | Unpublished data | S | Small Midwestern city |
| 1917 | Hotel Monthly, Feb. 1917, p. 76 | 0 |  |
| 1917 | Hotel Monthly, May 1917, p. 52 | S | Milwaukee |
| 1919 | Am. Restaurant, June 1920, p. 17 | S | Iowa |
| 1919 | Hotel Management, Nov. 1923, p. 224 | S | San Francisco |
| 1919 (?) | Am. Restaurant, Sept. 1920, pp. $38-40$ | N | 500 replies |
| 1920 | Am. Restaurant, Dec. 1920, pp. 17-18 | S |  |
| 1921 | Hotel Management, Mar. 1922, p. 67 | N |  |
| 1922 | Am. Restaurant, May 1922, p. 31 | S |  |
| 1922 | Cafeteria Management, Apr. 1922, p. 29; May 1922, pp. 9, 40, 41 | S |  |
| 1922 | Am. Restaurant, June 1922, pp. $38-40$ | N |  |
| 1923 | Hotel Management, Dec. 1923; <br> Food Service Supp., pp. 54-55 | S | 2 restaurants |
| 1923 | Hotel Management, Dec. 1923, <br> p. 303 | N |  |
| 1923 | Am. Restaurant, June 1923, p. 41 | N | 10 restaurants |
| 1932 | Restaurant Management, Nov. 1932, pp. 236-239 | T | 90 restaurants |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 29 | M | U.S., 222 replies in 1939 |
| 1938 (?) | Dahl, J. O., Restaurant Management: Principles and Practice, Harper, 1938, pp. 160-161; 321 | N |  |
| 1938 | Am. Restaurant, Nov. 1938, pp. 38-39, 66 | N | U.S., 105 restaurants |
| 1940 | Am. Restaurant, Nov. 1947, pp. 70, 86, 88 | M | U.S., 240 restaurants |
| 1940-45 | Am. Restaurant, Oct. 1946, p. 114 | WA | 25 hotel restaurants |
| 1945 | Chicago Restaurant Assn., An Analysis of Restaurant Operating Data Covering the Chicago Metropolitan Area for 1945, 1946 | - WA | Chicago, 291 restaurants |
| 1946 | Am. Restaurant, Nov. 1947, pp. $70,86,88$ | M | Texas, 33 restaurants |
| 1946-47 | SEC, Survey of Am. Listed Corps., 1946-47, Part vi, p. 144 | WA | 5 replies |
| 1946 | Ahrens Pub. Co., Selling to Restaurants and Hotels, 1946, p. 70 | N |  |
| 1946-48 | Harris, Kerr, Forster \& Co., Trends in the Hotel Business, 1946-48, appropriate issues | WA | U.S., 373 hotel restaurants in 1948 |

BARS

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 180181 | WA | Ind. state census |
| 1898-99 | Liquor Trades.Review, Mar. 8, 1898, p. 6; April 11, 1899, p. 6 | P (whiskey) |  |
| 1899 | Hotel Monthly, Sept. 1899, pp. 13-14 | 0 |  |
| 1905 | Am. Grocer, May 3, 1905, pp. 6-7 | P (whiskey) |  |
| 1907-08 | Hotel Monthly, June 1907, pp. 35, 39; Mar. 1908, pp. 28-29; Oct. 1908, p. 60 | P, O |  |
| 1912-13 | Hotel Monthly, Oct. 1912, pp. 78-79; June 1913, pp. 58-59 | O, S |  |
| 1936 | Huntington, R. T., Bar Management and Beverage Profits, The Dahls, 1938, pp. 59-62 | S |  |
| 1936 | Liquor Store and Dispenser <br> Aug. 1936, pp. 28-29 | WA | N.Y. and Chicago, 15 hotels |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 9 | M | U.S., 136 replies in 1939 |
| 1938 | Carstairs Digest, Dec. 1938 | 0 |  |
| 1940-45 | Am. Restaurant, Oct. 1946, p. 114 | WA | 25 hotels |
| 1946 | Liquor Store and Dispenser, Oct. 1947, pp. 46-47 | N |  |

DRUG STORES.
\(\left.$$
\begin{array}{llll}\hline \begin{array}{l}\text { Period } \\
\text { Covered }\end{array} & \text { Source }\end{array}
$$ \quad \begin{array}{c}Type of <br>

Data\end{array}\right) \quad\)| Location, Number, |
| :--- |
| and Type of Stores |


| Period Covered | SourceType of <br> Data |  | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1892 | Ind. Pharmacist, Feb. 1892, p. | 0 |  |
|  | 311 |  |  |
| 1897 | Am. Druggist and Pharmaceutical Record, Aug. 25, 1897, p. | 0 |  |
|  | 101 |  |  |
| 1899 | Pharmaceutical Era, July 27, 1899, pp. 138-139 | 0 |  |
| 1900 | Mass. Labor Bull., Nov. 1901, | WA | Mass., 127 stores |
|  | Pp. 122-124 |  |  |
| 1904 | Apothecary and New Eng. Druggist, Nov. 1904, p. 836 | 0 |  |
| 1905 | Apothecary and New Eng. Druggist, Feb. 1905, pp. 106- | S | 13 replies |
|  | 108 |  |  |
| 1905 | Apothecary and New Eng. Druggist, Mar. 1905, pp. 186- | S (prescriptions) | U.S., 21 replies |
|  | 190. |  |  |
| 1906 | Apothecary, Sept. 1906, pp. 662-663 |  | U.S., 10 replies |
| 1908 | Apothecary, Aug. 1908, p. 390 | S |  |
| 1909 | Merchants' Trade Jour., June 1909, p. 6 | S | Miss. |
| 1909-30 | FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10 | WA | U.S., 166 chains in 1930 |
| 1910 | Notes of the Natl. Assn. of Retail Druggists, Jan. 27, 1910, p. 969 | 0 |  |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914 | The Butler Way System Book, p. 26 |  |  |
| 1914 | Sammons, op.cit., p. 26 | T |  |
| 1916-47 | Moody's Industrials | WA | Drug chains |
| 1919 | Harvard U., B.B.R., Operating Expenses in Retail Drug Stores in 1919, 1920 | C | U.S., 191 replies |
| $\begin{aligned} & \text { 1924-28, } \\ & 1933 \end{aligned}$ | Colorado U., B.B.G.R., Operating Expenses of Retail Drug Stores in Colorado, 1924-28, 1933 (Bull. 3, 9, 13, 20, 24, 31) | WA | Colo., 18 stores in 1933 |
| 1925 | Ostlund, H. J., A Study of Drug Store Operating Costs, 1925, Northwestern Pharmaceutical Bureau, Bull. 3 | WA | Iowa, Minn., Dak., 147 stores |
| 1925 | Apothecary, Mar. 1925, p. 14 | C |  |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | N | Wis. |
| 1928 | Starr, G. W., Operating Results of Indiana Retail Druggists, Indiana U., B.B.R., 1931 | T | Ind., 204 replies |
| 1929 | Schmalz, C. N., Operating Results of Drug Chains in 1929, Harvard U., B.B.R., 1932 | C | U.S., 56 chains |
| 1931-32 | Alderson, W., and Miller, N. A., Costs, Sales and Profits in the Retail Drug Store, 1934, p. 44 (Dept. of Agriculture) | WA | St. Louis, 7 stores |

DRUG STORES (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1931-32 | McNair, Chain Store Expenses and Profits | C | U.S., 34 chains in 1932 |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 141 | M | U.S., 587 replies |
| 1938-48 | Eli Lilly \& Co., Lilly Digest, 1949 | A | U.S., 1000 stores |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore. |
| 1946-47 | SEC, Survey of Am. Listed Corps., 1946-47, Part VI | WA | U.S., 14 chains |

## LIQUOR STORES: PRIVATE



LIQUOR STORES: STATE OPERATED

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- |
| $1934-41$ | Ackers, G. C., Mich. Liquor WA <br> Control Comm., Activities, | Mich. |  |
|  | 1933-45, p. 7 |  |  |
|  | Natl. Conference of State Liquor <br> Administrators, Rep. of the <br> Comm. on Statistical Data, <br> 1935-40, appropriate issues | State systems |  |


| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1938 | Mich. Liquor Control Comm., Activities, for fiscal yr. ending June 30, 1938, p. 29 | WA | Mich. |
| 1941-48 | Census Bur., State Finances, Vol. 3, Statistical Compendium, appropriate issues | WA | State systems |
| 1948-49 | Mich. Liquor Control Comm., Net Sales Percentage, fiscal yr. July 1, 1948-June 30, 1949 | WA | Mich. |
| 1947-49 | Vt. Liquor Control Bd., Annual Rep., 1948-49 | WA | Vt. |
| 1949 | Me. State Liquor Comm., Comparative Profit and Loss Statement, period ending June 30, 1949 | WA | Me. |

BOOK AND STATIONERY STORES

| Period Covered | Source | Type of <br> Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 1876-77, } \\ & 1887 \end{aligned}$ | Hower, op.cit., pp. 136-137, 174-175 | S | Book dept. of Macy's |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 176-177 | WA | Ind. state census |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 23 stores |
| 1926, 1928 | Harvard U., B.B.R., Operating Results' of Retail Stationers and Office Outfitters, 1926, 1928, appropriate issues | C | U.S., about 275 replies, stationery stores |
| 1926-47 | Natl. Stationers Assn., Operating Costs in 1947 | N | stationery stores |
| 1929 | Cheney, O. H., The Economic Survey of the Book Industry, 1930-1931, Natl. Assn. of Book Publishers, 1931, p. 283 | N | U.S., 200 bookstores |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix, 133, 163 |  | U.S., 188 replies, bookstores |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore., bookstores |

CIGAR STORES

| Period Covered | Source | Type of Data | Location, Number, and Type of Stores |
| :---: | :---: | :---: | :---: |
| 1879 | Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 196-197 | WA | Ind. state census |
| 1900 | Mass. Labor Bull., Nov. 1901, pp. 122-124 | WA | Mass., 105 stores |

CIGAR STORES (continued)

| Period Covered | Source | Type of <br> Data | Location, Number and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1900-12 | Bureau of Corporations, Rep. of the Commissioner of Corporations on the Tobacco Industry, Part iII, 1915, pp. 69, 79, 100, 170, 190, 246 | P (combined wholesale and retail margin) |  |
| 1903 | Hotel Monthly, Nov. 1903, p. 31 | S | Wis. |
| 1907 | Hotel Monthly, July 1907, p. 35 | S |  |
| 1908 | Hotel Monthly, Mar. 1908, pp. 28-29 |  |  |
| 1908 | Hotel Monthly, Dec. 1908, p. 48 | S | Tex. |
| 1909-30 | FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10 | WA | U.S., 34 chains in 1930 |
| 1915 | Bohannan, C. D., and Campbell, D. P., A Preliminary Study of the Marketing of Burley Tobacco in Central Ky., Ky. Agricultural Experiment Station Annual Report, 1916 | N |  |
| 1916 | Shaw, A. W., Co., Graphic and Statistical Sales Helps, pp. 4648 | T |  |
| 1922 | Hotel Management, Apr. 1922, p. 123 | S | 4 stands |
| 1923 | Hotel Management, Nov. 1923, p. 227 | 0 |  |
| 1939 | Mitchell, Standard Ratios for Retailing, p. 135 | M | U.S., 43 replies |
| 1937 | Stewart and Dewhurst, op. cit., pp. 47-49 | P | U.S. |
| 1939-40 | Howell, L. D., and Young, W. P., Marketing and Mfg. Margins for Tobacco, Dept. of Agriculture, 1946, pp. 41-49 | P |  |
| 1941, 1947 | Dun \& Bradstreet, "Cigarette Retailers Licensed in Mass.: Cost of Doing Business-1941" (unpublished) | WA | Mass., and elsewhere |

## JEWELRY STORES

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :--- | :--- |
| 1879 | Ind. Bur. of Stat. and Geology, |  |  |
|  | First Annual Rep., p. 198-199 |  | Ind. state census |
| 1900 | Mass. Labor |  |  |
|  | Pull., Nov. 1901, WA |  | Mass., 45 stores |
| 1913 | Sp. 122-124 |  |  |
| 1914 | System, May 1916, p. 643 | T |  |
| 1914 | Sammons, op. cit., p. 80 | Mo |  |

SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1919-27 | Harvard U., B.B.R., Operating Expenses in Retail Jewelry Stores, 1919-27, appropriate issues | C | U.S., about 200 replies |
| 1927 | Wis. Retail Bull., Feb. 1931, p. 7 | A | Wis. |
| 1929 | Foreign and Domestic Commerce Bur., Jewelry Distribution by Retail Jewelers, 1931, p. 39 | WA | U.S., 281 stores |
| 1935 | Dun and Bradstreet, Large Retail Jewelry Stores, 1936 | M | U.S., 42 replies |
| 1936, 1939 | Mitchell, Standard Ratios for Retailing, pp. ix and 149 | M | U.S., 149 replies |
| 1938 | Office of Domestic Comm., Jewelry Stores-Operating Ratios, 1938 (data from Am. Natl. Retail Jewelers Assn.) | T | U.S., 81 stores |
| 1940-43 | Jour. of Marketing, July 1946, pp. 62-64 | WA | Ore. |
| 1947 | Office of Domestic Comm.; Jewelry Stores-1947 Operating Ratios (data from Am. Natl. Retail Jewelers Assn.) | T | U.S., about 200 stores |

CAMERA, LUGGAGE, TOY, AND SPORTING GOODS STORES

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Stores |
| :--- | :--- | :---: | :--- |
| 1900 | Mass. Labor Bull., Nov. 1901, WA <br> pp. 122-124 | Mass., 12 stores |  |
| $1936,1939$Mitchell, Standard Ratios for M <br> Retailing, pp. ix and 161 <br> Jour. of Marketing, July 1946, WA | U.S., 45 replies |  |  |
| $1940-43$ | pp. 62-64 |  |  |
| Spink, J. G. T., and Autz, H., T T <br> How to Start a Sporting Goods <br> Store, The Sporting Goods <br> Dealer, 1944 | Ore. |  |  |
|  |  |  |  |

## 2. WHOLESALE TRADE

GROCERY WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :---: | :--- |
| 1880 | Am. Grocer, Jan. 1, 1880, p. 78 | O |  |
| 1881 | Mass. Bur. Labor Stat,., Thir- <br> teenth Annual Rep., 1882, pp. <br> 434-459 | P |  |
|  |  |  |  |

GROCERY WHOLESALERS (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1902 | Interstate Grocer, May 24, 1902, p. 1 |  |  |
| 1907 | Inland Grocer, Feb. 23, 1907, p. 14 |  |  |
| 1912 | Am. Grocer, Apr. 3, 1912, p. 6. | 0 |  |
| 1912 | N.Y. State Food Investigating Comm., Rep. of the Comm. on Market Prices and Costs, p. 33 | 0 |  |
| 1913 | Annals of the American Academy of Political Science, Vol. 50, Nov. 1913, p. 77 | 0 |  |
| $\begin{aligned} & \text { 1913, } \\ & \text { 1916-21 } \end{aligned}$ | Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part Iv, p. 161 | P (22 |  |
| 1913-24 | Harvard U., B.B.R., Cases on Merchandise Control in the Wholesale Grocery Business, 1925 | S |  |
| 1914 | Modern Grocer, Feb. 21, 1914, p. 12 | 0 |  |
| 1916 | FTC, Food Investigation, Report on Canned Foods, 1918, p. 54 | S | N.Y., Chicago 4 firms |
| $\begin{aligned} & \text { 1916, } \\ & \text { 1918-23 } \end{aligned}$ | Harvard U., B.B.R., Operating Expenses in the Wholesale Grocery Business, 1916, 1918-23, appropriate issues | C | U.S., 501 replies in 1923 |
| 1917 | Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, 1918, p. 4 | T |  |
| 1918 | FTC, Rep. on Canned Foods: General Rep., 1918 | 0 |  |
| 1923-24 | Ohio State U., Bur. Bus. Res., Operating Results of Ohio Wholesale Grocers, Year 1934, 1936 | WA | Ohio, about 30 replies |
| 1925 | Wholesale Grocer News, April 1926 | N | Va., 26 firms |
| 1926 | Wholesale Grocer News, Sept. 1927 | N | N.Y., 20 firms |
| 1927 | Starr, G. W., Operating Results of Indiana Wholesale Grocers, year of 1927, Indiana U., B.B.R., 1928 | WA | Ind., 22 replies |
| 1928 | Dept. of Commerce, Louisville Grocery Survey, Part I, 1930 | WA | Louisville, 25 stores |
| $\begin{aligned} & \text { 1929, } \\ & \text { 1933-37 } \end{aligned}$ | O'Leary, E. B., Cooperative Wholesaling in Grocery Distribution, pp. 88-89, Ohio State University Press, 1942 | S | Ohio |
| 1936 | Dun \& Bradstreet, 1937 Wholesale Survey, Rep. 1, 1937, p. 15 | WA | U.S., 88 replies |

SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1936-46 | Office of Temporary Controls, Survey of Retail Chain Grocery Stores and Wholesale Grocers, OPA Economic Data Series No. 26, 1947 | WA | U.S., about 100 replies |
| 1937 | Schmalz, C. N., Operating Results of Consumer Cooperatives in the U.S., Harvard U., B.B.R., 1939 | C | U.S., 42 firms |
| 1939 | FTC, Rep. on Distribution Methods and Costs, Part I, 1944, p. 207 | WA | U.S., 171 replies |
| 1948 | Bromell, John R., Survey of Wholesale Grocers' Profit and Loss Figures, p. 6 | WA | U.S., 141 replies |
| 1948 | Unpublished data | WA | 7 replies |

MEAT WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :---: | :--- |
| $1925-34$ | Tobin and Greer, op. cit., p. 18 | P | Chicago |
| 1935 | FTC, Rep. on Agricultural In- <br> come Inquiry, p. 145 | P |  |
|  |  |  |  |

CANDY WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :---: | :---: |
| 1936 | Dun's Review, Nov. 1937, p. 21 | WA | U.S., 18 replies |

DRY GOODS WHOLESALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1856 | Edwin T. Freedley, Leading Pursuits and Leading Men, E. Young, 1856, p. 206 | 0 |  |
| 1904-07 | Dry Goods Economist, Mar. 11, 1905, p. 101; Apr. 13, 1907, p. 69 | S |  |
| 1913-14 | National Wholesale Dry Goods Association, Proceedings of Annual Conventions, 1914; 1915 | N | U.S., 18 firms |
| 1917 | Shaw, A. W., Co., How to Run a Wholesale Business at a Prof$i t$, p. 4 | T |  |

DRY GOODS WHOLESALERS (continued)

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1919-22 | Southern Wholesale Dry Goods Assn., Rep. of the Cost Comm: (mimeo) as reported in McNair, Distribution Costs, p. 264 | N |  |
| 1923 | Harvard U., B.B.R., Operating Expenses in the Wholesale Dry Goods Business in the South in 1923, 1924 | C | U.S., 73 replies |
| 1923-25 | Unpublished data | S | Large Midwestern city |
| 1923-42 | Dun \& Bradstreet, Dry Goods Wholesalers, p. 11 | WA | U.S., 68 replies in 1942 |
| 1924 | Unpublished data | S |  |
| 1947 | Bromell, J. R., Dry Goods Wholesalers' Operations, Dept. of Commerce, 1949 | WA | U.S., 65 houses |

## APPAREL WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :--- | :--- |
| 1917 | Shaw, A. W., Co., How to Run <br> a Wholesale Business at a Profit, |  |  |
| 1923 | p. 4 <br> Schneider, T. I., Budgetary Con- C, WA <br> trol for the Cloak and Suit In- <br> dustry, Maxwell Keller Publish- <br> ing Co., 1924 pp. 57-84 <br> Dun's Review, Nov. 1937, p. 21 | WA | U.S., 48 replies |

SHOE WHOLESALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1900 | Boot and Shoe Recorder, July 17, 1901, p. 53 | S | 3 representative houses |
| 1905, 1912 | System, Dec. 1913, p. 566 | N |  |
| 1917 | Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4 | T |  |
| 1936 | Stewart and Dewhurst, op.cit., pp. 45-46 | P |  |
| $\begin{aligned} & \text { 1936-39, } \\ & 1944-45 \end{aligned}$ | Office of Temporary Controls, Survey of Leather Tanners, Shoe Manufacturers and Wholesale and Retail Shoe Distributors, OPA Economic Data Series No. 14, 1947 | WA | U.S., 34 replies |

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SOURCES OF MARGIN DATA
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FURNITURE WHOLESALERS
\(\begin{array}{llll}\hline \begin{array}{l}Period <br>

Covered\end{array} \& Source\end{array} \quad\)| $\begin{array}{c}\text { Type of } \\ \text { Data }\end{array}$ |
| :--- |
| 1896 | \(\left.\begin{array}{l}Musical Courier, Dec. 16, 1896, P (pianos) <br>

and Type of Firms\end{array}\right\}\)

HOUSEHOLD APPLIANCE WHOLESALERS

| Period Covered | Source | Type of <br> Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1917 | Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4 | T |  |
| 1920-21 | FTC, Rep. on the Housefurnishings Ind., Vol. 3, pp. 262-263 | WA | U.S., 7 stores |
| 1926 | Wis. Retail Bull., Feb. 1931, p. 7 | N | Wis. |
| 1927 | Harvard U., B.B.R., Operating Expenses of Plumbing and Heating Supply Wholesalers in the Central States in 1927, 1928 | C | U.S., 134 replies |
| 1936 | Natl. Electrical Wholesalers Assn., Information Bull. 647 | N |  |
| 1939 | FTC, Distribution Methods and Costs, Part Iv, pp. 164-165 | WA | U.S., 56 replies |
| 1947 | Fortune, Nov. 1947, pp. 171172 | P (washing machines) |  |

## VEHICLE WHOLESALERS

| Period Covered | Source | Type of <br> Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1911 | Automobile Trade Jour., Oct. O 1911, p. 88 |  |  |
|  |  |  |  |
| 1923 | Automobile Trade Jour., Jan. 0 1923, p. 32 |  |  |
| 1935-37 | FTC, Rep. on the Motor Vehicle Ind., 1939, pp. 863-867 | WA | U.S., 166 replies in 1937 |
|  |  |  |  |
| 1938-40 | Natl. Credit Office, Trade and WA |  | U.S., 350 jobbers |
|  | Financial Survey of Automotive Jobbing Industry, 1941 |  |  |
|  |  |  |  |  |  |

## AUTOMOTIVE ACCESSORY WHOLESALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1921 | Automobile Trade Jour., Feb. 1921, p. 95 | O |  |
| 1923-24 | Harvard U., B.B.R., Operating Expenses in the Wholesale Automotive Equipment Business, 1923-24, appropriate issues | C | U.S., about 150 replies |
| 1925 | Automobile Trade Jour., May 1925, p. 29 | S |  |
| 1936 | Dun's Review, Nov. 1937, p. 21 | WA | U.S., 124 replies |
| 1939 | FTC, Distribution Methods and Costs, Part IV, p. 135 | WA | U.S., 16 replies, jobbers of tubes and tires |

GASOLINE AND OIL WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :---: | :---: |

1896-1903 U.S. Bur. of Corporations, Rep. P (illuminaton the Petroleum Ind., Part II, ing oil) 1928, p. 311
1913 Natl. Petroleum News, Sept. O 1913, pp. 50-51
1915 Natl. Petroleum News, July P Iowa 1915, p. 2
1919 • Natl. Petroleum News, May 7, O 1919, p. 13
1921-27 Natl. Petroleum News, 1921-27 O passim
1923 Natl. Petroleum News, Jan. 24, S 1923, p. 24; June 6, 1923, p. 18
1923 Natl. Petroleum News, Aug. P (gasoline) Buffalo 15, 1923, p. 24
1923-26 Natl. Petrolum News, July 14, N 13 Midwest cities
1924 Natl. Petroleum News, Nov. 12, P (gasoline) 1924, pp. 38-41
1925 Natl. Petroleum News, Sept. 2, N 12 cities, bulk 1925, p. 80
1926 Natl. Petroleum News, Jan. 1, S 1926, pp. 28, 34, 103
1926 Natl. Petroleum News, Nov. 17, P 1926, p. 64
1927 Natl. Petroleum News, Feb. 5, N 1930, p. 97
1927 Natl. Petroleum News, Aug. 24, P 1927, p. 21
1929 Natl. Petroleum News, Sept. 24, S
1930 Natl. Petroleum News, July 30, N 1930, p. 45
stations
6 replies
Wis.
16 cooperatives
Chicago; Iowa;
Texas
Ohio
50 cities

SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1932-36 | Natl. Petroleum News, Mar. 17, 1937, p. 65 | N | Midwest |
| 1933 | Natl. Petroleum News, May 16, 1934, p. 68 | S | S.C. |
| 1934 | Natl. Petroleum News, Oct. 3, 1934, p. 33 |  | Ohio |
| 1934 | Natl. Petroleum News, Apr. 4, 1934, p. 15; May 2, 1934, p. 68 | N | Mich., 39 jobbers |
| 1934 | Natl. Petroleum News, Nov. 21, 1934, p. 21 | P (gasoline) | Midwest |
| 1935 | Natl. Petroleum News, Aug. 7, 1935, p. 25 | $0$ | Chicago |
| 1936 | Stewart and Dewhurst, op.cit., pp. 54-56 | P (gasoline) |  |
| 1937 | Natl. Petroleum News, Mar. 17, 1937, p. 58 |  | Gasoline jobber |
| 1938 | Natl. Petroleum News, Aug. 10, 1938, p. 12 | LF (gasoline) | N.Y. |
| 1939 | T.N.E.C., Hearings, Part 15, pp. 8411, 8454 |  |  |
| $1947$ | Natl. Petroleum News, May 21, 1947, pp. 19, 59; Aug. 13, 1947, <br> p. 36 | S | Md., fuel oil |

## LUMBER WHOLESALERS

| Period Covered | Source | Type of Data | Location, Number, and.Type of Firms |
| :---: | :---: | :---: | :---: |
| 1900 | Am. Lumberman, Mar. 10, 1900, p. 11 | 0 | Lumber distributors |
| 1913-22 | Coal Comm., Report, Part II, 1925, p. 726 | WA | U.S., 424 replies in 1922, coal distributors |
| 1925 | Am. Lumberman, Sept. 5, 1925, <br> p. 69 | WA | 65 yards, lumber distributors |
| 1937-45 | Office of Temporary Controls, Survey of Retail Lumber Dealers, Wholesale Stock Millwork Distributors, and Plumbing and Heating Jobbers and Dealers, OPA Economic Data Series No. 16, 1947 | WA | U.S., 76 replies |
| 1939 | FTC, Rep. on Distribution Methods and Costs, Part III, p. 21 | WA | U.S., 89 lumber distributors |
| 1946-47 | Natl. Am. Wholesale Lumber Assn., Wholesale Cost Rep. Covering Mill Shipments (unpublished) | WA | U.S., 89 replies in 1947 |

HARDWARE WHOLESALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 1893, 1903, } \\ & 1913 \end{aligned}$ | System, May 1915, p. 480 | N | Distributors of pipe and supplies |
| $\begin{aligned} & \text { 1896, } \\ & \text { 1913-20 } \end{aligned}$ | Paden, D. S., The King Hardware Company and Atlanta, King Hardware Co., Atlanta, Ga., 1946, pp. 43-45, 82 | . | Atlanta. |
| 1900 | Iron Age, Feb. 22, 1900, p. 59 | 0 |  |
| 1902 | American Artisan and Hardware Record, Jan. 4, 1902, p. 31 | 0 |  |
| 1907 | Hardware Dealers' Mag., Mar. 1907, p. 522; Apr. 1907, pp. 758-760; June 1907, pp. 11871188 | 0 |  |
| 1908, 1916 | Hardware Dealers' Mag., June 1916, pp. 1211-1213 | S |  |
| 1909 | Natl. Pipe and Supplies Assn., Report of the Proceedings of the 8th Ann. Convention, 1917, pp. 65 and 81 | N | Distributors of pipe and supplies |
| 1910-11 | Hardware Dealers' Mag., Jan. 1910, pp. 97-99; Oct. 1911, pp. 749-750 | S |  |
| 1912 | Am. Paint and Oil Dealer, Dec. 1912, p. 9 | P |  |
| 1912 | Fernley, T. A., Price Maintenance, Commerce Publishing Co., 1913, pp. 225-228 | 0 |  |
| 1912 | Hardware Review, Nov. 1912, p. 61 | P |  |
| 1912 | Hardware World, Nov. 1913, p. 128 | S | Distributors of plumbing supplies |
| 1912 | Natl. Hardware Bull., June 1912, pp. 47-48 | S |  |
| 1912-22 | Domestic Engineering, May 26, $\text { 1923, p. } 391$ | N | U.S., about 100 replies, distributors of pipe and supplies |
| 1914-22 | Belting Transmission, Tools and Supplies, Oct. 1923, p. 25 (data from Natl. Wholesale Hardware Assn.) | N | U.S., 130 replies |
| 1916 | Hardware Dealers' Mag., June 1916, p. $1211^{\prime}$ | 0 |  |
| 1917 | Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4 | T |  |
| 1919-29 | Beckman, T. N., and Engle, N. H., Wholesaling, Principles and Practice, Ronald, 1937, pp. 608609 (data from Natl. Wholesale Hardware Assn.) | N |  |

## SOURCES OF MARGIN DATA

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1920-21 | FTC, Rep. on the Housefurnishings Ind., Vol. 3, pp. 262263 | WA | U.S., 19 distributors |
| 1924-27 | FTC, Rep. on Resale Price Maintenance, 1929-31, Part 1I, p. 41 | WA | U.S., 39 replies |
| 1925-26 | Harvard U., B.B.R., Operating Expenses in the Wholesale Paint and Varnish Business in 1926, 1927 | C | U.S., 62 replies in 1926 |
| 1936 | Dun's Review, Nov. 1937, p. 21 | N | 15 replies |

FARM IMPLEMENT WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :---: | :--- |
| 1898 | Farm lmplement News, Nov. | O | Distributors of |
| $1935-36$ | 10, 1898, p. 22 | FTC, Distribution Methods and <br> Costs, Part Iv, pp. 186-187 | WA |

LIQUOR WHOLESALERS

| Period <br> Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1917 \text { (?), } \\ & 1933 \end{aligned}$ | Spirits, Apr. 1934, p. 121 | P |  |
| $\begin{aligned} & 1933-43 \\ & \text { (av.) } \end{aligned}$ | Liquor Store and Dispenser, Dec. 1943, p. 48 | 0 | Whiskey distributors |
| 1935 | Slaton, W. H., Cost of Doing Business Survey of Colorado Wholesale Wine and Liquor | M | Colo., 5 replies |
| 1937-42 | Unpublished data | N | About 50 replies |
| 1938 | Bur. Internal Revenue, Tax Paid Products, appropriate issue | P (whiskey) |  |
| 1942 | Calvert Distillers Corp., Looking Ahead, 1943 | 0 | Based on 1,500 replies |
| 1947 | Beverage Associates of N.D., Economic Survey of the Beverage Industry in N.D., Bismarck, 1949?, p. 71 | WA | N.D., 22 replies |
| 1947 | N.Y. Times, June 29, 1947, p. 31 | P (imported whiskies) |  |

DRUG WHOLESALERS

| Period Covered | Source ${ }^{\text {a }}$ | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1873, 1889 | Pharmaceutical Record, Nov. 4, 0 |  |  |
|  | 1889, pp. 337-338 ${ }^{\text {a }}$, |  |  |
| 1878-98 | Natl. Wholesale Druggists' | 0 |  |
|  | Assn., Proceedings of Annual |  |  |
|  | Meetings, 1898, p. 129; 1903, |  |  |
|  | pp. 36-37; 1906, p. 258 |  |  |
| 1883 | Pharmaceutical Record, Oct. 1, S |  |  |
| 1889 | Mich. Tradesman, Feb. 13, O |  |  |
|  | 1889, p. 7 |  |  |
| 1890-91 | Pharmaceutical Record, Oct. 9, 0 |  |  |
|  | 282 |  |  |
| 1904-19 | Natl. Wholesale Druggists' WA U.S. |  |  |
|  | Proceedings of Annual Meet-ing, 1910, pp. 249-256; 1920, |  |  |
|  |  |  |  |
|  | pp. 182-188 |  |  |
| 1915 | Mason, H. B., The Druggist and his Profits, pp. 82, 89 | S | 50 firms |
| 1917 | Shaw, A. W., Co., How to Run T a Wholesale Business at a Profit, |  |  |
|  | p. 4 |  |  |
| 1922-24 | Harvard U., B.B.R., Operating | C | U.S., about |
|  | Expenses in the Wholesale Drug |  | 100 replies |
|  | Business, 1922-24, appropriate issues |  |  |
| 1923 | Natl. Wholesale Druggists' Assn., Proceedings of Annual Meeting, 1924, p. 246 | WA | U.S. |
|  |  |  |  |
|  |  |  |  |
| 1928 | Ostlund, H. J., Analysis of Costs | WA | U.S., 30 replies |
|  | of Wholesale Drug Distribubution with Special Reference |  |  |
|  | to Possible Expense Reductions (N.W.D.A. Bul. 10), 1930 |  |  |
| 1928 | Ostlund, H. J., Expense Analy- WA |  | 18 replies |
|  | sis of a Wholesale Drug House |  |  |
|  | Having Annual Sales of |  |  |
|  | $\$ 1,000,000$ (N.W.D.A. Bul. 4), |  |  |
|  | 1929 |  |  |
| 1930 | Ostlund, H. J., Wholesale Drug Distribution Costs in 1930 (N.W.D.A. Bul. 16), 1931 | WA | U.S., over 100 |
|  |  |  | replies |
|  |  |  |  |
| 1935 | Ostlund, H. J., Analysis of the Operations of Service Wholesale | WA | U.S., 116 replies |
|  |  |  |  |
|  | Drugists in 1935 (N.W.D.A. |  |  |
|  | Bul. 21), 1936 |  |  |
| 1935-37 | Natl. Wholesale Druggists' Assn., 1942 N.W.D.A. Year Book, pp. 492-493 | , WA |  |
|  |  |  |  |
|  |  |  |  |
| 1936 | Ostlund, H. J., Operations of Service Wholesale Druggists1936 (N.W.D.A. Bul. 23), 1937 | W WA | U.S., 110 replies |
|  |  |  |  |
|  |  |  |  |

## SOURCES OF MARGIN DATA

| Period Covered | Source | Type of <br> Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1937 | Ostlund, H. J., 1937 Operating Survey, Service Wholesale Druggists (N.W.D.A. Bul. 25), 1938 | WA | U.S., 107 replies |
| 1938-48 | Burley, O. E., Survey of 1948 and 1947 Operations of Service Wholesale Druggists (N.W.D.A.) | WA | U.S., about 100 replies |
| 1945, 1948 | Natl. Wholesale Druggists' Assn., Wholesale Drug Commodity Handling Costs | WA | U.S., 20 replies |

CIGAR WHOLESALERS

| Period Covered | Source | Type of Data | Location, Number, and Type of Firms |
| :---: | :---: | :---: | :---: |
| 1915 | Bohannan, C. D., and Campbell, D. P., A Preliminary Study of the Marketing of Burley Tobacco in Central Ky. | , |  |
| 1915 | Retail Tobacconist, Nov. 11, 1915, p. 6 |  | Metropolitan dist. |
| 1924-27 | FTC, Rep. on Resale Price Maintenance, Part II, p. 41 | -WA | 3 distributors |
| 1934 | FTC, Rep. on Agricultural Income Inquiry, Part I, p. 143 | - WA | 4 distributors |
| 1937 | Stewart and Dewhurst, op.cit., pp. 47-49 | P | U.S. |
| 1939-40 | Howell and Young, Marketing and Mfg. Margins for Tobacco | P |  |
| 1944 | Meserole, W. H., A Study of Tobacco Wholesalers Operations, Dept. of Commerce, 1946, pp. 22-24 | WA | U.S., 30 replies |

## JEWELRY WHOLESALERS

| Period <br> Covered | Source | Type of <br> Data | Location, Number, <br> and Type of Firms |
| :--- | :--- | :--- | :--- |
| 1913 | System, May 1916, p. 643 | T |  |
| 1914 | Sammons, op.cit., p. 28 | T |  |
| $1923-42$ | Natl. Wholesale, Jewelers Assn., |  |  |
|  | Statement of Expenses, Calendar <br> or Fiscal Year 1942 | U.S., 39 houses in |  |
| $1928-30$ | Hall, J., Jewelry Distribution by <br> Wholesale Jewelers, Dept. of | WA | 1942 |

# APPENDIX D 

## BIBLIOGRAPHY OF PERIODICALS IN RETAIL AND WHOLESALE TRADE TO 1919

For the period prior to 1919, Part if of this work rests heavily upon a study of the periodical press. As a by-product we accumulated a great deal of bibliographical information nowhere else available. We think it best to include the whole of this information, whether or not individual titles supplied us with useful information.

We sampled substantially all periodicals listed here, for which extant files could be located. Those which promised usable material, we perused more thoroughly. Starred (*) entries furnished us with margin data, as reported in Appendix C.

In the case of publications not mentioned in the Union List of Serials, card catalogs were checked at the Library of Congress (DLC) and the New York Public Library (NN); where a file was found in either location, a notation to that effect is made. Where the publication was not mentioned in the Union List and no file was found, dates cited are those for which the publication was quoted or mentioned elsewhere.

| Title | Dates Published | Place Published | $\begin{aligned} & \text { Union List: } \\ & \text { Yes No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: |
| *Accessory and Garage Journal | 1911-30 | Pawtucket, R.I.; N.Y. | x |  |
| American Analyst | 1885-94 | Boston | x . | Merged in Reflector. |
| *American Artisan and Hardware Record | $1880+$ | Chicago | x | Called Am. Artisan, 1904-08. |
| American Beverage and Food Journal | 1906-10 | Cincinnati | x | Called Bar and Buffet, 1906-09 |
| American Bookseller | 1876-93 | New York | x |  |
| American Cabinet Maker |  |  |  | See Furniture World and Furniture Buyer and Decorator |
| American Creamery | 1888-97 | Chicago; N.Y. | x |  |
| American Druggist | 1871+ | New York | x | Called Am. Druggist and Pharmaceutical Record, 1893-1922. |
| American Druggists' Circular and Chem ical Gazette |  |  |  | See Druggists' Circular and Chemical Gazette. |

BIBLIOGRAPHY OF TRADE PERIODICALS

| Title | Dates <br> Published | Place Published | $\begin{gathered} \text { Union } \\ \text { Yes } \end{gathered}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| American Furniture Gazette | 1880-1902 | Chicago | x |  |  |
| American Furrier and Fur Style | 1904-36 | New York | x |  | Called Am. Furrier, 1904-28. |
| * American Grocer and Dry Goods Chronicle | $1869+$ | New York | x |  | Called Am. Grocer, 1869-83. |
| American Jeweler | 1882-1929 | Chicago | x |  |  |
| American Journal of Pharmacy | 1829+ | Philadelphia | x |  |  |
| * American Lumberman | $1899+$ | Chicago | $\mathbf{x}$ |  |  |
| American Merchant | 1881-87 | Chicago | x |  |  |
| *American Paint and Oil Dealer | $1908+$ | St. Louis | $\mathbf{x}$ |  |  |
| *American Pharmacist | 1885-90 | Detroit | x |  |  |
| American Storekeeper | 1884-89 |  |  | x |  |
| American Vehicle | 1888-1910 | Philadelphia | x |  | Called Varnish 1888 <br> 1904; merged with Carriage Wagon Builder. |
| * Apothecary | $1888+$ | $\begin{aligned} & \text { Boston; N.Y.; } \\ & \text { Phila. } \end{aligned}$ | x |  | Called New England Druggist, 1888-1903; Apothecary and New England Druggist, 1903-04. |
| Apparel Gazette | $1890+$ | Chicago |  | x | File in NN, DLC title changed to Men's Wear, 1924. |
| Apparel Retailer | 1908 | Boston |  | x |  |
| Appetizer | 1916-17 |  |  | x | File in NN. |
| *Automobile Trade Journal | 1896-1940 | Philadelphia | x |  | Called Cycle and Automobile Trade Journal, 1903-12; merged into Motor Age, 1902+ |
| Bar and Buffet |  |  |  |  | See Am. Beverage and Food Journal. |
| Book and News Dealer | 1890-1906 | San Francisco; N.Y. | ; x |  | Called Newsdealer, 1890-91. |
| Bookkeeper |  |  |  |  | See Business. |

APPENDIXES

| Title | Dates <br> Published | Place Published | Union Yes | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bookseller and Stationer | 1894-1923 | New York | x |  | Called Bookseller, Newsdealer, and Stationer, 1894-1920. |
| *Boot and Shoe Recorder | 1882+ | Boston | x |  |  |
| Boots and Shoes | 1882-1901 | New York | x |  | Apparently absorbed by Shoe Retailer. |
| Boston Grocers' Gazette | 1889 | Boston |  | x |  |
| Boston Journal of Commerce | 1872-1908 | Boston | x |  |  |
| Brainard's Musical World | 1864-95 | Cleveland | x |  |  |
| Buckeye Grocer | 1889 |  |  | $\mathbf{x}$ |  |
| Bulletin of Commerce | 1888 |  |  | x |  |
| Bulletin of Pharmacy | 1887-1928 | Detroit | x |  | Called Druggists' Bulletin, 1887-90; united with Western Druggist to form Drug Bulletin. |
| Business: the Magazine for Office, Store, and Factory | 1888-1915 | Detroit | x |  | Called Bookkeeper, 1888-1903; Businessman's Magazine and The Bookkeeper, 1904-08; Bookkeeper, 1908-10, Business and the Bookkeeper, 1910-11. |
| Business Gazette | 1888 | Muskegon |  | x |  |
| Business Topics | 1902-03 |  |  | x |  |
| Businessman's Magazine and the Bookkeeper |  |  |  |  | See Business. |
| *Butchers' Advocate | 1879+ | New York and Chicago | x |  |  |
| Cabinet Maker |  |  |  |  | See Furniture World and Furniture Buyer and Decorator. |
| California Grocer | 1882-83 |  |  | x |  |
| California Retail Grocers' Advocate | 1896+ | San Francisco | x |  | Called Retail Grocers' Advocate, 1896-1930. |

BIBLIOGRAPHY OF TRADE PERIODICALS

| Title | Dates <br> Published | Place <br> Published | Union List: <br> Yes | No | Comments |
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APPCNDIXES

| Title | Dates Published | Place Published | Union Yes | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Commercial Bulletin | 1887+ | Los Angeles | x |  | Groceries. |
| *Commercial Bulletin and Apparel Merchant | 1882+ | Minneapolis | x |  | Called Commercial Bull. and Northwest Trade, 1882-1908; Twin City Commercial Bull., 1908-19. |
| Commercial Car Journal | $1911+$ | Philadelphia | x |  |  |
| Commercial Enquirer | 1881-83 | New York | x |  |  |
| Commercial Gazette | 1892 | Chicago |  | x |  |
| Commercial Gazette | 1888 | Pittsburgh |  | x |  |
| Commercial Reporter | 1886-89 | Boston |  | x |  |
| Commercial Tribune | 1892 | Denver |  | x |  |
| Commercial Union | 1910 | Chicago |  | x | File in NN. |
| Confectioner | 1883 | New York |  | x |  |
| Confectioners Gazette | 1881-1930 | New York | x |  |  |
| Confectioners' Journal | 1874+ | Philadelphia | x |  |  |
| Confectioners' Review | 1902+ | Cincinnati | x |  |  |
| Counter |  |  |  |  | See Industry. |
| Country Merchant | 1901 | Lincoln, Neb. |  | x |  |
| *Credit and Financial Management | $1889+$ | New York | x |  | Called Bulletin of the National Assoc. of Credit Men, 18891920. |
| *Crockery and Glass Journal | 1874+ | New York |  |  |  |
| *Cycle and Automobile Trade Journal |  |  |  |  | See Automobile Trade Journal. |
| Dallas Mercantile Journal | 1889 | Dallas |  | x |  |
| Department Store Journal | 1896-98 |  | x |  | Merged in Hardware Dealers' Magazine. |
| Drug and Trade Review | 1887 | Crescent City, Calif. |  | x |  |
| Drug Bulletin | 1879-1933 | Chicago; <br> St. Louis | x |  | Called Druggist and Paint and Oil Review, 1879; Druggist, 1880-86; Western Druggist, 1887-1928. |
| Drug Topics | 1883+ | $\begin{gathered} \text { New York } \\ 202 \end{gathered}$ | x |  |  |

BIBLIOGRAPHY OF TRADE PERIODICALS

| Title | Dates Published | Place Published | Union Yes | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Druggist |  |  |  |  | See Drug Bulletin. |
| Druggist | 1873-75 | New Lebanon, N.Y. | , x |  |  |
| Druggist (St. Louis) |  |  |  |  | See Meyer Druggist. |
| Druggists' Bulletin |  |  |  |  | See Bull. of Pharmacy. |
| Druggists' Circular | 1851-1940 | New York | x |  | Called Am. Druggists' Circular and Chemical Gazette, 1851-66; Druggists' Circular and Chemical Gazette, 18661906. |
| Druggists' Journal | 1886-97 | Chicago | x |  |  |
| Druggists' Journal | 1882-89 | Philadelphia | x |  |  |
| Drugman. | 1884-1891 | Chattanooga; Nashville | x |  |  |
| Dry Goods and Apparel | 1899-1922 | New York | x |  | Called Dry Goods, 1899-1918. |
| "Dry Goods Chronicle and Fancy Goods Review | 1886-1901 | New York | x |  | Called Buyer and Dry Goods Chronicle, 1899-1901; April-July 1901, called Modern Merchant. |
| *Dry Goods Economist | 1846-1937 | New York | x |  | Called U.S. Economist and Dry Goods Reporter, 1852-89. |
| Dry Goods Guide | 1898-1921 | New York | x |  |  |
| *Dry Goods Journal | 1903+ | Des Moines | x |  | Called Merchants' Trade Journal, 190318. |
| Dry Goods Record | 1900 |  |  | x |  |
| Dry Goods Reporter | 187.1-1929 | Chicago | x |  |  |
| *Drygoodsman and General Merchant |  |  |  |  | See National Dry Goods Reporter and Drygoodsman. |
| Dun's Review | $1893+$ | New York | x |  |  |
| Electrical Merchandising | 1907+ | New York | x |  | Called Selling Electricity, 1907-12; Electrical Merchandise and Selling Electricity, 1912-16. |
| Eli Grocer | 1910 | $\begin{array}{r} \text { St. Louis } \\ 203 \end{array}$ |  | x |  |

APPENDIXES

| Title | Dates Published | Place Published | $\begin{aligned} & \text { Union } \\ & \text { Yes } \end{aligned}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fancy Goods Gazette | 1884 |  |  | $\mathbf{x}$ |  |
| Fancy Goods Record | 1885 |  |  | x |  |
| *Farm Implement News | 1882+ | Chicago | x |  |  |
| Farm Machinery. | 1886+ | St. Louis | x |  |  |
| Furniture Dealer | 1900 |  |  | x |  |
| Furniture Index | $1900+$ | Jamestown, N.Y. | x |  |  |
| Furniture Journal | 1888-1931 | Rockford, IIl.; Chicago | x |  | Called Rockford Furniture Journal, 188892. |
| Furniture Merchandising | 1901-32 | High Point, N.C. | $\mathbf{x}$ |  | Called Southern Fur niture Journal, 190130. |
| Furniture Merchants' Trade Journal | 1916-22 | Des Moines | x |  |  |
| Furniture News | 1889-1931 | St. Louis | x |  | Called St. Louis Furniture News, 18891924. |
| Furniture Record | 1892-1940 | Grand Rapids | x |  | Called Grand Rapids Furniture Record, 1892-1925. |
| Furniture Trade Review | 1880-1919 | New York | x |  |  |
| Furniture World and Furniture Buyer and Decorator | 1870+ | New York | x |  | Called Cabinet Maker, 1870-75; Am. Cabinet Maker, 1875-1919. |
| General Merchants' Review | 1904-06 | Chicago |  | x |  |
| German-American Grocer | 1883 | New York |  | x | Apparently written in English. |
| Geyer's Topics | 1877+ | New York | x |  | Called Geyer's Stationer, 1877-1939. |
| Grocer | 1883-84 | Baltimore |  | x |  |
| Grocer (Chicago) |  |  |  |  | See Chicago Grocer. |
| Grocer | 1902 | Cleveland |  | x |  |
| Grocer | 1886-87 | Cincinnati |  | x |  |
| Grocer | 1885 | Indianapolis |  | x |  |
| Grocer | 1875-81 | New York | x |  | Merged into Merchants' Review. |

BIBLIOGRAPHY OF TRADE PERIODICALS

| Title | Dates Published | Place Published | $\begin{gathered} \text { Union } \\ \text { Yes } \end{gathered}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Grocer | 1906 | Oakland, Calif. |  | X |  |
| Grocer | 1885-88 | Philadelphia |  | x | Absorbed by Am. Grocer by 1904. |
| Grocer and Butcher |  | Toledo |  | x |  |
| Grocer and Canner | 1884-85 | Baltimore |  | x |  |
| *Grocer and Country Merchant and Tobacconist |  |  |  |  | See San Francisco Grocer. |
| Grocer and Marketman | 1886 |  |  | x |  |
| Grocer and Price Current | 1887 | Pittsburgh |  | x |  |
| Grocer and Trade Reporter | 1887 | Detroit |  | x |  |
| Grocers' Bulletin |  | St. Louis |  | x |  |
| *Grocers' Criterion | 1873-1912 | Chicago | x |  |  |
| Grocers' Journal |  | Washington, D.C. |  | x |  |
| Grocers' Journal of Commerce | 1892 | Kansas City |  | x |  |
| *Grocers' Magazine | 1900-39 | Boston | $\mathbf{x}$ |  |  |
| Grocers' Magazine |  | Los Angeles |  | x |  |
| Grocers' Magazine |  | Portland, Ore. |  | X |  |
| Grocers' Monthly Review | 1896 | New York |  | x |  |
| Grocers' Review | 1891-1927 | Philadelphia | x |  |  |
| *Grocers' Trade Register | 1892-1917 | Seattle, Wash. | x |  | Called Trade Register, 1892-1916. |
| Grocery and Provision Review | 1875 |  |  | x |  |
| Grocery World |  |  |  |  | See Modern Merchant and Grocery World. |
| Haberdasher and Clothier | 1886-1931 | New York | X |  | Called Haberdasher, 1886-1926. |
| Hardware | 1890-1909 | New York | x |  | Succeeded by Hardware Age. |
| Hardware and Housefurnishing Goods | 1917-25 | Atlanta | x |  | . |
| Hardware Age | 1909+ | New York | x |  |  |
| Hardware and Implement Journal | 1896+ | Dallas 205 | x |  |  |

APPENDIXES

| Title | Dates Published | Place Published | $\begin{gathered} \text { Union } \\ \text { Yes } \end{gathered}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hardware Business Monthly | 1903-38 | Duluth, Minn. | x |  | Called Zenith, 1903 31. |
| *Hardware Dealers' Magazine | 1893-1929 | New York | $\mathbf{x}$ |  | Merged into Hardware Age. |
| Hardware Journal | 1916-30 | Pittsburgh; Philadelphia | x |  | Called Hardware <br> News, 1916-26. |
| Hardware Reporter | 1883-1913 | St. Louis | x |  | Early issues called Stoves and Hardware Reporter; merged into Iron Age. |
| Hardware Retailer | $1901+$ | Indianapolis | x |  | Called Nat'l Hardware Bull., 1901-23. |
| Hardware Trade | 1890+ | Minneapolis | x |  |  |
| *Hardware World | 1906+ | Portland, Ore. | x |  |  |
| Herald of Commerce | 1892 | Detroit |  | x |  |
| Hoard's Dairyman | 1870+ | Fort Atkinson, Wis. | , x |  |  |
| Hosiery and Knit Goods Journal | 1889 |  |  | x |  |
| Hotel | 1899 | Boston |  | x |  |
| Hotel and Commer. cial Messenger | 1898 | Topeka |  | x |  |
| Hotel Bulletin | 1900-06 | Chicago | x |  |  |
| Hotel Bulletin | 1899 | Denver |  | x |  |
| Hotel Gazette | 1897-99 | Los Angeles |  | x |  |
| Hotel Gazette | 1876+ | New York | x |  |  |
| Hotel Gazette | 1898-1908 | San Francisco |  | x |  |
| Hotel Life | 1888-1917 | Cleveland | x |  |  |
| *Hotel Monthly | $1893+$ | Chicago | x |  |  |
| Hotel Quarterly | 1899 | Richmond, Va. |  | $x$ |  |
| Hotel Record | 1904 |  |  | x |  |
| Hotel Register | 1884-1912 | New York | x |  |  |
| Hotel Reporter | 1898 | Cincinnati |  | x | Absorbed by Hotel Life. |
| (Daily) Hotel Reporter | 1897 | New York |  | x |  |
| Hotel Reporter | 1897 | Omaha |  | x |  |
| (Weekly) Hotel Reporter | 1897 | Philadelphia |  | x |  |
| (Daily) Hotel Reporter | 1904-05 | Pittsburgh |  | x |  |

BIBLIOGRAPHY OF TRADE PERIODICALS

| Title | Dates <br> Published | Place <br> Published | Union List: <br> Yes | No | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |

APPENDIXES

| Title | Dates Published | Place Published | Union Yes | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| *Indiana Pharmacist | 1882-94 | Indianapolis | x |  |  |
| Indiana Retail Merchant | 1907-10 |  | , | $\mathbf{x}$ |  |
| *Inland Grocer | 1901-14 | Cleveland | x |  |  |
| Interstate Druggist | 1899-1925 | Columbus, 0. | x |  | Called Midland. <br> Druggist, 1909-25. |
| *Interstate Grocer | 1889+ | St. Louis | x |  |  |
| Interstate Trade Bulletin |  | Denver |  | x |  |
| Iowa Trade Journal | 1903 | Des Moines |  | x |  |
| Iron, Hardware and Implement Trade | 1876-78 | Chicago | x |  | . |
| *Iron Age | 1859+ | Middletown, N.Y.; N.Y. | x |  |  |
| lronmonger | 1887 |  |  | x | File in NN. |
| Jewelers' CircularKeystone | 1869+ | New York | $\mathbf{x}$ |  | Called Jewelers' Circular, 1869-1934. |
| Jewelers' Review | 1887-1902 | New York | x |  | Merged into Jewelers' Circular. |
| Jewelers' Weekly | 1885-1900 | New York | x |  | Merged into. Jewelers' Circular. |
| Jobber and Retailer | 1910 |  |  | x |  |
| Journal of Commerce |  | Baltimore |  | x |  |
| Journal of Commerce | 1910 | St. Joseph, Mo. |  | x |  |
| Kansas City Grocer | 1886 |  |  | x |  |
| Kansas City Journal of Commerce | 1906 |  |  |  |  |
| Leader | 1919 |  |  | x | Organ of Automotive Equipment Ass. (formerly N.A. of Auto Accessory Jobbers). |
| Liquor Trades (and Hotel) Review | 1895-1901 | New York | x |  |  |
| Lumber | $\because$ |  |  |  | See Chicago Lumberman. |
| Lumber Review |  |  |  |  | See Chicago Lumberman. |
| Lumber Trade | 1873-75 | Boston | x |  | Absorbed by Northwestern Lumberman. |
| Lumber World Review |  |  |  |  | See Chicago Lumberman. |

BIBLIOGRAPHY OF TRADE PERIODICALS

| Title | Dates <br> Published | Place Published | $\begin{gathered} \text { Union } \\ \text { Yes } \end{gathered}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Meat Trade Journal |  |  |  | x |  |
| Mercantile Journal | 1863-73 | New York ${ }^{\text {" }}$ | x |  |  |
| Mercantile Journal | 1898 | Pittsburgh |  | x |  |
| Mercantile Journal | 1883-97 | Richmond, Va. | a. x |  |  |
| Merchant | 1880-89 | San Francisco | x |  | Called Pacific Wine and Spirit Review. |
| Merchant Sentinel | 1892 | Cincinnati |  | x |  |
| Merchants' Index | 1905+ | Denver | x |  | Groceries. |
| Merchants' Journal | 1891-95 | Topeka, Kans. | x |  | Merged with Interstate Grocer. |
| Merchants' Mail | 1886-87 |  |  | x |  |
| *Merchants' Review | 1879-1908 | New York | x |  |  |
| * Merchants' Trade Journal |  |  |  |  | See Dry Goods Journal. |
| Meyer Druggist | 1880+ | St. Louis | x |  | Called St. Louis Drug <br> Market, 1880-87; <br> Druggist, 1888; Mey- <br> er Bros. Druggist, <br> 1889-1919. |
| *Michigan Tradesman | 1883+ |  | x |  |  |
| Midland Druggist |  |  |  |  | See Interstate Druggist. |
| Mississippi Valley Grocer | 1889-90 |  |  | $\mathbf{x}$ |  |
| Mississippi Valley Lumberman | $1876+$ | Minneapolis | x |  |  |
| Mixed Stocks | 1888-1908 | Chicago | x |  | Groceries. |
| Modern Druggist | 1912+ | New Orleans | x |  |  |
| *Modern Grocer | 1898+ | Chicago | x |  |  |
| Modern Merchant | 1898-1910 | Kansas City | x |  |  |
| Modern Merchant | 1886-1901 | New York | $x$ |  |  |
| *Modern Merchant and Grocery World | 1887+ | Philadelphia | x |  | Called Grocery <br> World, 1887-1914. |
| Motor | 1903+ | New York | x |  |  |
| Motor Age | 1902+ | Chicago; Phila. | x |  |  |
| Motor World Wholesale | 1900-40 | New York | x |  | Called Motor World, 1900-25. |
| Music Trade Indicator | 1878-1915 | Chicago |  | x | File in NN; merged into Piano and Radio Magazine. |

[^19]APPENDIXES

| Title | Dates Published | Place Published | $\begin{aligned} & \text { Union List: } \\ & \text { Yes No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: |
| Music Trades | $1890+$ | New York | X |  |
| Musical Courier | 1880+ | Phila.; N.Y. | X |  |
| Musical Times | 1881-1926 | Chicago | X | United with Presto to form Presto-Times. |
| *N.A.D.A. Bulletin | $1928+$ | St. Louis | $\mathbf{x}$ |  |
| N.A.R.D. Notes |  |  |  | See Natl. Assn. of Retail Druggists, Journal. |
| National Association of Credit Men, Bulletin |  |  |  | See Credit and Financial Management |
| National Association of Retail Clothiers, Bulletin |  |  | - | See National Clothier. |
| National Association of Retail Druggists, Journal | 1902+ | Chicago | X | Called N.A.R.D. <br> Notes, 1902-10. |
| * National Clothier | 1916+ | Chicago | x | Called Natl. Assn. of Retail Clothiers, Bulletin, 1916-19. |
| National Druggist | 1882-1936 | St. Louis |  | Early issues called St. Louis Druggist. |
| *National Drygoods Reporter and Drygoodsman | 1898-1930 | St. Louis | $\mathbf{x}$ | Called Drygoods and General Merchant, 1898-1914; Drygoodsman and South western Merchant, 1914-23. |
| National Federation of Implement and Vehicle Dealers' Assns, Bulletin | 1905-10 | . | $\mathbf{x}$ |  |
| National Grocer | 1875-94 | New York | X | Absorbed by Am. Grocer. |
| National Grocers' Bulletin | $1912+$ | Kansas City | $\mathbf{x}$ |  |
| * National Hardware Bulletin |  |  |  | See Hardware Retailer. |
| National Hotel Reporter | 1897-98 | Chicago | $\mathbf{x}$ |  |
| National Jeweler | 1906+ | Chicago | x |  |
| National Liquor League of U.S.A., Proceedings | 1893-1916 |  | X | Association called Natl. Retail Liquor Dealers to 1904. |

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| Title | Dates <br> Published | Place Published | $\begin{gathered} \text { Union } \\ \text { Yes } \end{gathered}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| National Lumberman | 1888-1932 | St. Louis | x |  | Called St. Louis Lumberman, 18881932. |
| *National Petroleum News | 1909+ | Cleveland | x |  |  |
| National Provisioner | 1889+ | New York; Chicago | x |  |  |
| *National Retail Dry Goods Assn., Bulletin | 1913+ | New York | x |  |  |
| National Retail Grocer | 1896-1939 | Chicago | x |  | Called Retailers' Journal, 1896-1928. |
| National Wholesale Grocer | 1907-39 | Chicago | x |  | Called Wholesale Grocer, 1907-28. |
| New England Druggist |  |  |  |  | See Apothecary. |
| *New England Grocer | 1877-1932 | Boston | $\mathbf{x}$ |  |  |
| New Jersey Grocer | 1888 |  |  | x | File in NN. |
| New Jersey Trade Review | 1887-1915 | Newark | x |  |  |
| New York Lumber Trade Journal | 1906+ | New York | x |  |  |
| New York Market Journal | 1886 |  |  | x |  |
| Newsdealer |  |  |  |  | See Book and News Dealer. |
| Northwest Trade | 1891 | Minneapolis |  | , x | File in NN. |
| Northwestern Grocer | 1883-84 |  |  | x |  |
| Northwestern Lumberman | 1873-99 | Chicago | x |  | Merged with Timberman into Am. Lumberman, 1899. |
| Northwestern Merchant |  | Seattle |  | x | File in DLC; Wash. Ret. Grocers and Merchants Assn. |
| Northwestern Trade Bulletin | 1879-84 | Milwaukee | x |  | Called Northwestern Grocer, 1879. |
| Nugent's | 1902-32 | New York | x |  | Called Nugent's Bulletin, 1902-17. |
| Ohio Lumber Journal | 1886 |  |  | x |  |
| Ohio Merchant |  |  |  | x | Became Inland Grocer, 1902. |
| Ohio Wholesale Grocer | 1899 |  |  | x |  |

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| Title | Dates Published | Place Published | Union List: Yes.No | Comments |
| :---: | :---: | :---: | :---: | :---: |
| Oil Paint and Drug Reporter | $1871+$ | New̧ York | x |  |
| *Omaha Trade Exhibit | 1890+ | Omaha | x |  |
| Oregon Merchants' Magazine |  |  | x |  |
| Oregon Tradesman | 1891-1908 | Portland, Ore. | x | Called Tradesman and Comm'l. Record, 1891-1905. |
| Pacific Coast Grocers' Magazine |  |  | x |  |
| Pacific Coast Merchant | 1898-1932 | San Francisco | x |  |
| Pacific Grocer | 1875 |  | x |  |
| Pacific Wine and Spirit Review |  |  |  | See Merchant. |
| Pennsylvania Grocer | 1908+ | Pittsburgh | $\mathbf{x}$ | DLC. |
| Petroleum Age and Service Station Merchandising | 1914-37 | Chicago; N.Y. | x | Called Petroleum Age, 1914-28. |
| *Pharmaceutical Era | 1887-1931 | New York | x |  |
| *Pharmaceutical Record | 1881-93 | New York | x |  |
| Pottery and Glass | 1908-15 | New York | x |  |
| Pottery and Glassware Reporter | 1879-93 | Pittsburgh | X |  |
| Practical Druggist and Spatula | 1896-1935 | New York | x | Called Practical Druggist and Pharmaceutical Review of Reviews, 1896-1925. |
| *Presto | 1884-1926 | Chicago | x |  |
| Price Current | 1909 | Wichita, Kans. | . | File in NN. |
| Provisioner |  | Kansas City | x |  |
| Purchasing Agent | 1884 | Chicago | x | File in NN. |
| Radford Review |  |  |  | See Chicago Lumberman. |
| Radio Merchant | 1905-34 | New York | $\mathbf{x}$ | Called Talking Ma chine World, 190534. |
| Registered Pharmacist | 1887-98 | Chicago | x |  |
| Restaurant Bulletin | 1903-05 | Chicago | x | Files in DLC. |
| Retail Butchers' Review | 1899 | New York | $\mathbf{x}$ |  |

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\hline Title \& Dates Published \& Place. Published \& Union Yes \& List: No \& Comments \\
\hline *Retail Coalman \& \(1900+\) \& Chicago \& x \& \& \\
\hline Retail Druggist \& 1893-1931 \& Detroit \& X \& \& \\
\hline Retail Grocer \& 1886-89 \& Denver \& \& X \& \\
\hline \begin{tabular}{l}
Retail Grocers' \\
Advocate
\end{tabular} \& . \& \& \& \& See California Retail Grocers' Advocate. \\
\hline Retail Grocers' Journal \& 1883 \& St. Louis \& \& X \& \\
\hline Retail Grocers' Journal \& \& San Francisco \& \& \(\mathbf{x}\) \& \\
\hline Retail Grocers' Magazine \& 1906-08 \& Portland, Ore. \& \& x \& \\
\hline \begin{tabular}{l}
*Retail Lumber- \\
man
\end{tabular} \& \(1908+\) \& Kansas City, Mo. \& x \& * \& \\
\hline *Retail Merchant \& 1901-14 \& Dallas \& X \& \& \\
\hline Retail Merchants' Journal \& \& Peoria, Ill. \& \& X \& \\
\hline Retail Merchants' Review \& 1900 \& \& \& X \& \\
\hline *Retail Tobacconist \& \(1901+\) \& Long Island City, N.Y. \& X \& \& \\
\hline Retailers' Journal \& - \& \& \& \& See Natl. Retail Grocer. \\
\hline Retailers' Sentinel \& 1899-1905 \& \& \& \(\mathbf{x}\) \& Organ of Iowa Implement Dealers Assn. \\
\hline Rockford Furniture Journal \& \& \& \& \& See Furniture Journal. \\
\hline Saddlery Drummer \& 1888-91 \& Rome, N.Y. \& x \& \& \\
\hline Saddlery Journal \& 1886 \& \& \& x \& \\
\hline St. Louis Drug Market \& \& \& \& \& See Meyer Druggist. \\
\hline St. Louis Druggist \& \& \& \& \& See' Natl. Druggist. \\
\hline *St. Louis Grocer and General Merchant \& 1878-1900 \& St. Louis \& \(\mathbf{x}\) \& . \& \\
\hline St. Louis Lumberman \& \& \& \& \& See Natl. Lumberman. \\
\hline St. Louis Trade Journal \& 1875 \& St. Louis \& \& X \& \\
\hline St. Paul Trade Journal \& 1893-1908 \& St. Paul \& x \& \& \\
\hline *San Francisco Grocer \& 1874-1934 \& San Francisco \& \(\mathbf{x}\)

$\therefore$ \& \& Called Grocer and Country Merchant and Tobacconist, 1874-1915; Grocer, 1915-16. <br>
\hline
\end{tabular}

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| Title | Dates Published | Place Published | $\begin{gathered} \text { Union } \\ \text { Yes } \end{gathered}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| San Francisco Journal of Commerce | 1884 | San Francisco |  | x |  |
| Scout | 1909 | Detroit |  | x |  |
| Selling Electricity |  |  |  |  | See Electrical Merchandising. |
| Shoe and Leather Facts | 1889-1938 | Philadelphia | x |  |  |
| *Shoe and Leather Gazette | 1884-1913 | St. Louis | x |  | Merged into Boot and Shoe Recorder. |
| Shoe and Leather Review | 1877-1902 | Chicago | x |  |  |
| *Shoe Retailer | 1898-1929 | Boston | x |  | Called Shoe Retailer and Boots and Shoes, 1898-1916; merged into Boot and Shoe Recorder. |
| Shoe Trade Journal | 1893-1910 | Chicago | x |  | Merged into Dry Goods Reporter. |
| Smokers' Magazine | 1899-1904 | New York |  |  | Called Cigar Store, 1899-1900; Cigar Store Mag., 1900-01. |
| Southern Druggist | 1897-1908 | Atlanta | x |  |  |
| Southern Furniture Journal |  |  |  |  | See Furniture Merchandising. |
| Southern Merchant | 1901-09 | Atlanta | x |  |  |
| Southern Trade Gazette | 1886 |  |  | x |  |
| Sporting Goods Dealer | 1899+ | St. Louis | x | , |  |
| Store Life |  |  |  |  | See Industry. |
| Store Manager |  |  |  | x |  |
| Stoves and Hardware Reporter |  |  |  |  | See Hardware Reporter. |
| *System: The Magazine of Business | 1902-20 | Chicago | x |  | Merged with Am. Business. |
| Texas Grocers' Review |  |  |  | x |  |
| Tobacco | 1886+ | New York | x |  |  |
| Tobacco World | $1881+$ | Philadelphia | x |  |  |
| Trade | 1894-1917 | Detroit | x |  |  |
| Trade Bulletin | 1886 |  |  | x |  |
| Trade Bureau | 1874-93 | New York 214 | x |  |  |

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| Title | Dates Published | Place Published | $\begin{array}{r} \text { Union } L \\ \text { Yes } \Lambda \end{array}$ | $\begin{aligned} & \text { List: } \\ & \text { No } \end{aligned}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trade Journal | 1883 | Des Moines |  | x |  |
| Trade Journal | 1909 | Indianapolis |  | x |  |
| Trade Journal | 1906-09 | San Francisco | x |  |  |
| Trade Press | 1901+ | Detroit |  | x | File in DLC. |
| Trade Register |  |  |  |  | See Grocers' Register. |
| Tradesman and Commercial Record |  |  |  |  | See Oregon Trades man. |
| *Twin City Commercial Bulletin |  |  |  |  | See Commercial Bull. and Apparel Merchant. |
| U.S. Economist and Dry Goods Reporter |  |  |  |  | See Dry Goods Econ omist. |
| Up-to-Date | 1899 | Scranton, Pa. |  | x | Groceries. |
| Variety Goods Magazine | 1909-28 | Cincinnati | $\mathbf{x}$ |  | Called $5 \& 10$ Store Mag. and Variety Review, 1912-16. |
| Varnish |  |  |  |  | See Am. Vehicle. |
| Vehicle Dealer | 1902-11 | Philadelphia | x |  |  |
| Washington Grocer |  |  |  | x |  |
| Weekly Bulletin of Leather and Shoe News | 1896+ | Boston; Manchester, N.H. | x |  | Called Bull. of Leath er and Shoe News |
| West Coast Trade | 1889 + | Tacoma | x |  |  |
| Western Drug News | 1887 |  |  | x |  |
| Western Grocer, <br> Butcher and Clerk | 1905 | Denver | x |  |  |
| Wholesale Grocer |  |  |  |  | See Natl. Wholesale Grocer. |
| Wholesale Grocery Chain Review | 1900-30 | New York | x |  | Called Wholesale Grocery Review. |
| Wine and Spirit Bulletin | 1886-1918 | Louisville, Ky. | x |  |  |
| Wine and Spirit Gazette | 1887-1905 | New York | x |  |  |
| Wine and Spirit News | 1900 | Columbus, O . |  | x |  |
| Wisconsin Grocer | 1901 |  |  | x |  |
| Zenith |  |  |  |  | See Hardware Busi ness Monthly. |

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[^0]:    ${ }^{1}$ In writing this section, I have benefited from an unpublished memorandum by George J. Stigler.
    ${ }^{2}$ Daniel Carson, "Changes in the Industrial Composition of Manpower since the Civil War," Studies in Income and Wealth, Volume Eleven, National Bureau of Economic Research, 1949.

[^1]:    ${ }^{3}$ In some measure these possibilities apply also to those classed as full-time workers, for "persons employed only part of the year but working on a full daily and weekly basis were returned as full-time employees" (Census of Distribution, 1929, Vol. I, Retail Distribution, Part I, p. 40).
    ${ }^{4}$ Self-employed and unpaid family workers in retail and wholesale trade were reported as follows:

    |  | 1939 | 1940 <br> (thousands | 1948 <br> of persons) | 1950 |
    | :--- | ---: | :--- | :--- | :--- |
    | Self-employed | 1,748 | 1,814 | 1,742 | 2,191 |
    | Unpaid family workers | $\frac{924}{2,672}$ | $\frac{196}{2,010}$ | $\frac{931}{2,673}$ | $\frac{129}{2,320}$ |

    These figures suggest that the tendency for the population count to treat unpaid family workers as self-employed was especially strong in 1950 or, alternatively, that the tendency of the establishment count to do the reverse was unusually marked in 1948. It is not too hard to imagine a family member describing himself as part owner of a retail store even when the head of the family considers him an unpaid employee.
    ${ }^{5}$ The authority for this statement is a letter, dated December 23, 1943, from the late J. C. Capt, then Director of the Bureau of the Census, to George Stigler.

[^2]:    ${ }^{6}$ Op.cit., p. 91.
    ${ }^{7}$ Census of Manufactures, 1939, Vol. I, pp. 22, 402. The figure includes employees neither at central administrative offices nor at manufacturers' sales branches.
    ${ }^{8}$ The occupations included are advertising agents; insurance agentś; real estate agents; agents not elsewhere considered; canvassers; collectors; commercial travelers; credit men; purchasing agents; sales agents; salesmen and saleswomen. See Census of Population, 1940, Vol. v, Table 2.
    ${ }^{9}$ Alba M. Edwards, Comparative Occupation Statistics for the United States, 1870 to 1940, Census of Population, 1940, Part 1.

[^3]:    ${ }^{10}$ Op.cit., p. 65, 119-120.
    ${ }^{11}$ See Census of Population, 1910, Vol. rv, Table vi.
    12 "The general plan of combination was to bring together all the workers in each separate important occupation without regard to the different industries in which the occupation is pursued. . . . Each occupation in the condensed list is classified in that part of the industrial field in which it is most commonly pursued" (ibid., pp. 24-25). But these remarks seem to refer to the mixed occupationalindustrial summaries (e.g. Table I) and not to Table vi.
    ${ }^{13}$ Op.cit., p., 123; Carson apparently uses the series for "agents, collectors and credit men" in Edwards, op.cit., p. 112.
    ${ }^{14}$ Op.cit., p. 120.

[^4]:    ${ }^{15}$ Census of Population, 1930, Vol. v, Table 2.

[^5]:    a For 1899: $v$ was computed from data in Appendix B, and $n h p$ was computed from data in this appendix. For years other than 1899: $v-n h p$ was computed from the average annual rate of change in real estate improvements plus equipment ( 1929 dollars), using the five available observations, $1880,1890,1900,1912$, and 1922 (Simon Kuznets, National Product since 1869, National Bureau of Economic Research, 1946, pp. 218-219, variant A); for production we used the sum of real estate improvements in agriculture, mining, and manufacturing, and for distribution we used "other industrial." For years other than 1899: v was estimated from the average annual rate of change in net output (distribution) and commodity output (commodity production). The calculation has to be carried out in constant prices because real estate improvements and equipment are not available in current prices. The procedure implies the (unwelcome) assumption that $V / Q P$ behaves in the same way, whether measured in current or in constant prices, i.e. that relevant differentials in price behavior offset each other.

[^6]:    ${ }^{1}$ See, respectively, Music Trade Review, November 20, 1900, p. 17; Retail Coalman, March 1907, p. 42; Implement Age, January 1, 1899, p. 56.
    ${ }^{2}$ Implement Age, January 1, 1899, p. 134.
    ${ }^{3}$ The trade and textbook definition of a department store involves at least: (1) organization by departments; (2) large size; and (3) a wide range of merchandise, including dry goods and apparel. Hower also considers that in order to qualify, a store must cater primarily to women, be located in an urban shopping area, and offer many "free" services; but, as the term now is used in the trade, these qualifications appear secondary (see the extended discussion by Ralph M. Hower, History of Macy's of New York, 1858-1919, Harvard University Press, 1943, Chap. iv). The term often was abused: for instance, the Merchants' Trade Journal reported the existence of a "department store" in a Michigan town of fewer than 1,000 people (April 1908, p. 19).

[^7]:    ${ }^{4}$ Vehicle Dealer, March 1908, p. 313; Carriage Dealers' Journal, 1910-1913, passim.
    ${ }^{5}$ Dean S. Paden, The King Hardware Company and Atlanta, King Hardware Co., Atlanta, 1946, p. 17.
    ${ }^{6}$ William H. Shaw Value of Commodity Output since 1869, National Bureau of Economic Research, 1947, pp. 30-69.

[^8]:    ${ }^{7}$ Simon Kuznets, Commodity Flow and Capital Formation, NBER, 1938, Tables III-1 to III-4. The estimates rest mainly on the Census of Manufactures, 1929, Distribution of Sales of Manufacturing Plants.
    ${ }^{8}$ See Kuznets, op.cit., p. 318.
    ${ }^{9}$ Evidence: (1) the 1929 census reported sales of retail lumber yards both for Indiana and for the United States at 4.9 per cent of total retail sales. From the Indiana census of 1879 sales of lumber yards may be placed at some 7 per cent of total retail sales in the state in that year, and we may suppose that for the United States also the percentage was higher in 1879 than in 1929. But if the 1929

[^9]:    allocation to retail stores ( 39 per cent in the case of lumber yards) is used for 1879, United States sales of lumber yards in that year would equal only 4 per cent of total retail sales. The allocation must therefore have been higher than 39 per cent in early years. (2) In 1904 retail lumber yards in the five states Iowa, Minnesota, Nebraska, North Dakota, and South Dakota averaged 1 to every 1,500 persons (American Lumberman, March 26, 1904, p. 29); in 1929, 1 to every 1,900 persons (census). (3) Data for Boston in 1882 and Philadelphia in 1902 (James E. Defebaugh, History of the Lumber Industry in North America, Vol. II; The American Lumberman, 1907, pp. 226, 588-589), when compared with the 1929 census, show many more lumber yards in Boston and slightly more in Philadelphia, per head of population, than in 1929. (4) On the other hand, of the total output of construction materials, the share of those items seldom or never retailed (as rails, bars for reinforcing concrete, structural ironwork, road oil, and asphalt) remained remarkably constant throughout the period (Shaw, op.cit., pp. 133-135).
    ${ }^{10}$ Census of Distribution, 1930, Vol. 1, Retail Distribution, Part 1, pp. 959-968. ${ }^{11}$ Op.cit., Part II .

[^10]:    the first grocery chain as 1872 and lists twenty-one chains in 1900, but these were mostly small (Growth and Development of Chain Stores, 1932, p. 56). The files of the American Grocer, the New England Grocer, and the Interstate Grocer suggest that chain competition did not much affect the independent grocer until about 1910. As for shoes, Melville, Florsheim, Kinney, and Endicott-Johnson, all founded in the middle 1890 's, were just beginning by 1899 to make an impression on the retail shoe trade. According to the FTC the first furniture chain started in 1875 but only four quite small chains existed at the turn of the century.
    ${ }^{17}$ However we modified this procedure in the case of mail-order houses, which seem to have grown more rapidly before 1919 than between 1919 and 1929. For instance P. H. Nystrom puts mail-order sales as high as 4 per cent of retail sales in 1914 (Economics of Retailing, Ronald, 1915, p. 236), and M. T. Copeland estimates the sales of the three leading companies at $\$ 362$ million in 1919 (Principles of Merchandizing, A. W. Shaw Co., 1924, p. 92): the census figure for 1929 is $\$ 447$ million or 0.9 per cent of retail sales. Retail stores owned by mail-order companies are classified as department stores, so that only mail-order sales are in question.
    ${ }^{18}$ This may be confirmed for Woolworths from John K. Winkler, Five and Ten, McBride, 1940, and for Sears, Roebuck from Boris Emmet and J. E. Jeuck, Catalogues and Counters, University of Chicago, 1950.
    ${ }^{19}$ This judgment rests on Hower, op.cit.; United States Industrial Commission, Report, 1901, Vol. vil, pp. 458, 696, 736; and on opinions of present-day department store executives.

[^11]:    ${ }^{20}$ Massachusetts, Census of 1885, pp. 1288-1291.
    ${ }^{21}$ From a large number of references the following may be noted: Leather Gazette, February 13, 1886, p. 5; March 20, 1886, p. 8; May 15, 1886, p. 8; January 14, 1888, p. 13; March 17, 1888, pp. 14-15; Shoe and Leather Gazette, February 20, 1902, p. 17; July 30, 1903, p. 22; Shoe Retailer, November 23 and 30, 1907. See also Fred M. Jones, Middlemen in the Domestic Trade of the United States 1800-1860, University of Illinois, 1937 (Illinois Studies in the Social Sciences, Vol. xxi, No. 3), for a confirmation of the importance of wholesaling at the very beginning of our period when production was concentrated in Massachusetts.
    ${ }^{22}$ Shoe and Leather Gazette, January 12, 1901, pp. 14, 87-88; Shoe Retailer, May 19, 1906. In 1929, 26.4 per cent of boot and shoe output was sold through manufacturers' sales branches.

[^12]:    ${ }^{23}$ See the recollections of Mr. O. V. Eckert, sometime president of the Iowa Implement Dealers' Association (Implement Trade Journal, April 7, 1906, p. 28). The conclusion is confirmed by the popularity of sales to dealers on consignment in the 1870's (Implement Age, January 15, 1901, p. 24), and of the commission contract system until World War I (Implement Trade Journal, December 18, 1909, p. 57; Cyrus H. McCormick, The Century of the Reaper, Houghton Mifflin, 1931, p. 240): neither method was well adapted to sale through jobbers.
    ${ }^{24}$ In 1929 the percentage was 60.
    ${ }^{25}$ Federal Trade Commission, Causes of the High Price of Farm Implements, 1920, pp. 50-59, 282; McCormick, op.cit., p. 233; Farm Implement News, September 1887, p. 32.
    ${ }^{26}$ The geographical distribution of purchases of farm implements was estimated, not as in other cases from the distribution of population, but from that of the gross value of farm products.

[^13]:    ${ }^{33}$ William H. Shaw, Value of Commodity Output since 1869, NBER, 1947.
    ${ }^{34}$ Op.cit., p. 175.
    ${ }^{35}$ Op.cit., p. 186.

[^14]:    ${ }^{36}$ Survey of Current Business, National Income Supplement, July 1947, Table 30.
    ${ }^{37}$ Ibid., Table 9. These estimates are residuals, and no accuracy is claimed for them by their authors.
    ${ }^{38}$ Distribution of Sales of Manufacturing Plants.

[^15]:    = not applicable.
    ${ }^{\text {a }}$ Commodity group numbers refer to Shaw's classification (William H. Shaw, Value of Commodity Output, since 1869, National Bureau of Economic Research, 1947. Data for 1929 from Simon Kuznets, Commodity Flow and Capital Formation, NBER, 1938, Part III. The projection back to 1869 is described in the text of this Appendix.

[^16]:    . . = not applicable.

[^17]:    margins in Tables 24 and 25, and summing over each kind-of-store category. The last three columns were obtained directly from the census of distribution (for 1929, cf. Table B-7).

    10 , and Table 21, line 7. The first seven columns were obtained
    applying the percentages in Table B-5 to the dollar volumes in Table B-4, raising the result by markups corresponding to th

[^18]:    ${ }^{\text {a }}$ Also wholesale sales. Thus reported sales by retailers included 20.7 per cent as used cars and 7.8 per cent as new cars sold to other dealers (Census of Distribution, 1930, Vol. I, Retail Distribution, Part 1, p. 962).
    ${ }^{\mathrm{b}}$ Not including tips. The latter are estimated for 1929 at $\$ 110$ million.
    c Simon Kuznets, Commodity Flow and Capital Formation, NBER, 1938, p. 172.
    ${ }^{d}$ Retail Distribution, Part 1, p, 89.

[^19]:    *Music Trade Review 1879-1933 New York
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