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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.<sup>2</sup> 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

<sup>&</sup>lt;sup>1</sup> In writing this section, I have benefited from an unpublished memorandum by George J. Stigler.

<sup>&</sup>lt;sup>2</sup> 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.

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) a	:	6,190	÷	7,179	:	809'6
Deduct business services b	:	-156	:	-240	:	-474
Original census data, not including restaurants						
and bars c	:	6,034	:	6,938	:	9,134
Add restaurants and bars d		+730	:	+1,264	:	+1,800
Census data, including restaurants and bars e	7,717	6,764	8,021	8,202	11,452	10,934
Deduct workers in service establishments 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 h	:	-253	:	-565	:	-384
Deduct unpaid family workers	:	٠.	:	-196	:	-129
Adjustment to obtain 12-month average 1	l	09 <del>+</del>	:	+116	-179	+94
Comparable estimates of employment in distri-		•				•
bution	7,431	6,943	8,052	7,872	11,267	11,035
Indicated change in employment between adja-						
cent dates	<b>~9.9</b> —	%9	. —2.	-2.2%	2	-2.1%
"True" change in employment between adjacent				•		
dates i	-3.4%	4%	+4	+4.6%	+0	+0.3%
Unexplained excess of establishment count over		3.2%	9	6.8%	. 2.	2.4%
population count	7 24	0	550	0	. 270	0
Part-time workers included in above	<i>LL</i> 9	۰	698	۰.	1,318	ė
Unpaid family workers not included	i	٠	924	196	931	129
a Daniel Carson, "Changes in the Industrial Composition of Manpower since the Civil War," Studies in Income and Wealth,	Composition of		e Eleven, Natio 1, p. 47. Figur differs from that	nal Bureau of es are for a	Volume Eleven, National Bureau of Economic Research, 1949, Table 1, p. 47. Figures are for age 14 and over. The 1930 figure differs from that shown in Table 1 on page 4 because the	earch, 1949, r. The 1930 because the
					•	

atter is mean of "age 14 and over" and "age 10 and over."

and miscellaneous business services. Adjustment made by Carson to secure comparability with earlier censuses (see Carson, op.cit., <sup>b</sup> Advertising; accounting, auditing, and bookkeeping services; 1950: see note a to Table 1.

c Alba M. Edwards, Comparative Occupation Statistics for the United States, 1870 to 1940, Census of Population, 1940, p. 83. <sup>a</sup> 1930: Carson, op.cit., p. 60; the figure necessarily includes persons aged 10 to 13. 1940: Edwards, op.cit., p. 84.

workers not on emergency work (8,123 thousand; see Census of Population, 1940, Vol. in, The Labor Force, Part 1, pp. 181, 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). e 1940: The figure shown for population count (8,202 thousand) apparently equals the original census count of experienced seekers usually in trade, minus work seekers last employed in 1939 and 1948, but not for 1929: It includes employment at cen-183) plus public emergency workers usually in trade, plus work ral warehouses and administrative offices.

f 1929: Auto garages and repair shops, fur shops, custom taiors, monument and tombstone works. 1939 and 1948: Fur shops and custom tailors.

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.

in occupations readily identifiable as belonging predominantly pp. 17-18). 1940 and 1950; Original census totals for persons <sup>h</sup> 1930. Class A unemployment was 3.735 per cent for persons to trade (Census of Population, 1930, Unemployment, Vol. 11, seeking work.

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 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 popuation counts, April; establishment count, 1929, average of April, 1 For paid employees (full-time and part-time) in retail trade 1939 monthly figures (establishment count) after elimination uly, October, December; establishment count, 1948, November.

i Change reported for full-time and part-time employees plus proprietors in wholesale and retail trade, ibid., National Income

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." <sup>8</sup> 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, <sup>4</sup> 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." <sup>5</sup>

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

<sup>3</sup> 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. 1, Retail Distribution, Part 1, p. 40).

4 Self-employed and unpaid family workers in retail and wholesale trade were reported as follows:

	1939	1940	1948	1950
	(	thousands	of persons	)
Self-employed	1,748	1,814	1,742	2,191
Unpaid family workers	924	196	931	129
Total	2,672	2,010	2,673	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.

<sup>5</sup> 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.

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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 industries—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 8 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." 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, 1940 and 1930 may be con-

<sup>&</sup>lt;sup>6</sup> Op.cit., p. 91.

<sup>&</sup>lt;sup>7</sup> Census of Manufactures, 1939, Vol. I, pp. 22, 402. The figure includes employees neither at central administrative offices nor at manufacturers' sales branches.

<sup>&</sup>lt;sup>8</sup> The occupations included are advertising agents; insurance agents; 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.

<sup>9</sup> Alba M. Edwards, Comparative Occupation Statistics for the United States, 1870 to 1940, Census of Population, 1940, Part 1.

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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 <sup>10</sup> 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 <sup>11</sup> (in contrast to 1930), together with some equivocal statements in the description of the 1910 classification. <sup>12</sup> 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 in Trade: (Carson estimates as used by us: see Table 1)	"Commercial Travelers" and "Salesmen and Saleswomen" Not in Trade a	Persons Engaged in Trade (Carson revised, extreme assumption) b
1870	785	45	740
1880	1,155	63	1,092
1890	1,825	95	1,730
1900	2,460	127	2,333
1910	3,366	166	3,200
1920	4,064	218	3,955
1930	6,112	225	6,112
1940	7,179	n.a.	7,179
1950	9,608	n.a.	9,608

n.a. = not available.

<sup>b</sup> 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; <sup>13</sup> therefore no problem arises here. But Carson <sup>14</sup> took "salesmen and saleswomen" from the 1910 census, and he does not say how he treated "commercial travelers." Other

11 See Census of Population, 1910, Vol. IV, Table VI.

<sup>&</sup>lt;sup>a</sup> 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.

<sup>&</sup>lt;sup>10</sup> Op.cit., p. 65, 119-120.

<sup>&</sup>lt;sup>12</sup> "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 occupational-industrial summaries (e.g. Table 1) and not to Table vi.

<sup>&</sup>lt;sup>13</sup> Op.cit., p. 123; Carson apparently uses the series for "agents, collectors and credit men" in Edwards, op.cit., p. 112.

<sup>&</sup>lt;sup>14</sup> Op.cit., p. 120.

occupational categories are unimportant. We adopted the extreme assumption and supposed that the 225 thousand persons reported for these two categories in 1930 <sup>15</sup> 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

<sup>15</sup> Census of Population, 1930, Vol. v, Table 2.

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

	1869	1879	1889	1899	1909	1919	1929	1939
Agriculture b	.103	.084	.094	.097	.142	.275	.211	.253
Mining c	.179	.164	.190	.198	.323	.759	.681	.886
Manufacturing d	.155	.142	.164	.175	.193	.477	.566	.633
Whence three commodity-								
producing industries e	.119	.102	.119	.128	.169	.384	.391	.454
Distribution 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

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, manufac-

turing.

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 num-

bers 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:

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

$$r = \frac{nhp}{v},$$

where nhp is labor income (numbers times hours times hourly earnings) and  $\nu$  is value added. Then we write nhp at the base date as the product of n, h, and p; and we assume that  $(\nu-nhp)$  in constant (base date) dollars changes through time in the same manner as real estate improvements in constant dollars. 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, 1869-1939 a

(1899 prices, millions of dollars, except where ratios are shown)

<u> </u>	1869	1879	1889	1899	1909	1919	1929	1939
Distribution:								
v — nhp	644	854	1,131	1,500	1,989	2,637	2,819	4,636
ν	931	1,360	1,985	2,899	4,233	6,180	9,024	13,177
Whence:								
nhp	287	506	854	1,399	2,244	3,543	6,205	8,541
Ratio:								
r = nhp/v	0.308	0.372	0.430	0.483	0.530	0.573	0.688	0.648
Production:								
v - nhp	754	1,175	1,831	2,854	4,449	6,936	10,812	16,854
ν	3,219	4,490	6,262	8,734	12,181	16,990	23,697	33,052
Whence:								
nhp	2,465	3,315	4,431	5,880	7,732	10,054	12,885	16,198
Ratio:								
r = nhp/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

a For 1899:  $\nu$  was computed from data in Appendix B, and nhp was computed from data in this appendix. For years other than 1899:  $\nu-nhp$  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:  $\nu$  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/QP behaves in the same way, whether measured in current or in constant prices, i.e. that relevant differentials in price behavior offset each other.

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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

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." Then there was Mr. Vaughan of Waterloo, Iowa, who announced simply that he sold "everything on wheels" (from baby buggies to steam tractors?). 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

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<sup>&</sup>lt;sup>1</sup> See, respectively, Music Trade Review, November 20, 1900, p. 17; Retail Coalman, March 1907, p. 42; Implement Age, January 1, 1899, p. 56.

<sup>&</sup>lt;sup>2</sup> Implement Age, January 1, 1899, p. 134.

<sup>&</sup>lt;sup>3</sup> 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).

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,<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup> 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:

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

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,

<sup>&</sup>lt;sup>7</sup> 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.

<sup>8</sup> See Kuznets, op.cit., p. 318.

<sup>&</sup>lt;sup>9</sup> 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

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. 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. 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 right-hand 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

<sup>10</sup> Census of Distribution, 1930, Vol. 1, Retail Distribution, Part 1, pp. 959-968.

<sup>11</sup> *Op.cit.*, Part ш.

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).

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.<sup>12</sup> The remainder of the distribution in the 1929 column the 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 <sup>13</sup> and no mail-order houses, <sup>14</sup> in 1889 no variety chains, <sup>15</sup> in 1899 no food, shoe, or furniture chains. <sup>16</sup> We have in most cases assumed that

<sup>12</sup> Ihid

<sup>18</sup> 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).

<sup>&</sup>lt;sup>14</sup> Montgomery Ward was founded in 1872 but was quite small for many years; Sears Roebuck dates from 1886.

<sup>&</sup>lt;sup>15</sup> 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.

<sup>&</sup>lt;sup>16</sup> 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.<sup>17</sup>

We tried to devote special attention to those instances where a commodity group had to be apportioned among outlets with widely differing margins. Thus restaurants 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

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.

<sup>18</sup> 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.

<sup>19</sup> This judgment rests on Hower, op.cit.; United States Industrial Commission, Report, 1901, Vol. vii, pp. 458, 696, 736; and on opinions of present-day department store executives.

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.<sup>20</sup> 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.<sup>21</sup>

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.<sup>22</sup>

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

<sup>22</sup> 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.

<sup>&</sup>lt;sup>20</sup> Massachusetts, Census of 1885, pp. 1288-1291.

<sup>&</sup>lt;sup>21</sup> 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.

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.<sup>28</sup> Today, distribution is in large part through manufacturers' sales branches; <sup>24</sup> 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.<sup>25</sup> 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.<sup>26</sup>

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

<sup>24</sup> In 1929 the percentage was 60.

<sup>25</sup> 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.

<sup>26</sup> 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.

<sup>&</sup>lt;sup>23</sup> 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.

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 correspond—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.<sup>27</sup> 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

<sup>27</sup> 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 III-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.

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

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

Expenses of 
$$(A + B + C)$$
  
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 "whole-salers" 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-

vided in the proportions shown for 1929 in Table B-5 between "whole-sale" 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.<sup>29</sup> 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.<sup>30</sup> 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.<sup>31</sup>
- 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.

<sup>&</sup>lt;sup>28</sup> 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.

<sup>&</sup>lt;sup>29</sup> Op.cit., p. 171-176.

<sup>&</sup>lt;sup>80</sup> Harold Barger, Outlay and Income in the United States, 1921-1938, NBER, 1942, Chap. III.

<sup>&</sup>lt;sup>31</sup> 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 <sup>32</sup> 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: Increase of inventories in hands of distributors	(million dollars) 400
Failure to exclude direct sales to consumers by farmers (other than milk and dairy products)  Failure to exclude sales by service establishments, public utili-	100
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) Not yet accounted for	8,259 4,009

<sup>82</sup> 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; 83 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 III 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." <sup>34</sup> The same point is made by Shaw. <sup>35</sup> 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?

<sup>88</sup> William H. Shaw, Value of Commodity Output since 1869, NBER, 1947.

<sup>84</sup> Op.cit., p. 175.

<sup>85</sup> Op.cit., p. 186.

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: <sup>36</sup>

	(million dollars)
Dining and buffet cars	35
Schools and school fraternities	88
Institutions, clubs, and industrial lunchrooms	269
Total	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. 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. 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.

38 Distribution of Sales of Manufacturing Plants.

<sup>&</sup>lt;sup>36</sup> Survey of Current Business, National Income Supplement, July 1947, Table 30. <sup>37</sup> Ibid., Table 9. These estimates are residuals, and no accuracy is claimed for them by their authors.

Table B-1

ADDITIONS TO COMMODITY OUTPUT ON ACCOUNT OF OMISSIONS, BY COMMODITY GROUP, 1869–1929 a

	Federal Liquor Taxes b	State Gasoline Taxes c	Fire- wood <sup>d</sup>	
1869	57	٠	587	
1879	69		310	
1889	103		252	
1899	176		202	
1909	200		225	
1919	312		402	
1929	• • •	268	377	

.. = not applicable.

b 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.

c 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.

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.

<sup>&</sup>lt;sup>a</sup> 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.

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
1b	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
5a	Manufactured fuels	100	100	100	100	100	97	87.2
5b	Coal	100	100	100	100	100	100	100
1	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 house-							
	furnishings	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
20a,c;		0.3	0.3	0.0				
32a,b	Vehicles	83	83	83	83	83	83	83.1
20b ´	Automobile accessories					87	87	86.7
21	Motorcycles, bicycles			100	100	100	100	100
25b	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

 $\dots$  = not applicable.

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.

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
1a	Manufactured food	21	26	51	74	132	275	458
1b	Nonmanufactured food	83	153	94	145	182	476	762
2	Cigars, cigarettes, and							
	tobacco	1	1	1	2	3	10	12
3	Drugs	1	1	3	4	9	18	45
4	Magazines and stationery	0	1	1	2	4	7	17
5a	Manufactured fuel 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 house-							
	furnishings	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	٠0	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	1	2
20a,c; \		•				7	40	100
32a,b ∫	Vehicles	2	1	1	2	,	40	129
20b	Automobile accessories					0	0	4
21	Motorcycles, bicycles					0	. 0	0
25b	Tractors					0	4	12
27	Farm equipment	1	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	206	272	311	428	645	1,404	2,568
							_,	_,

.. = not applicable.

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

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 1, 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
Consume	r perishables:							
1a	Manufactured food	719	1,009	1,515	2,091	3,745	9,367	9,246
1b	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
5a	Manufactured fuel	34	47	77	112	155	691	1,510
5b	Nonmanufactured fuel	248	186	216	234	355	696	753
Consume	er 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
Consumé	er durables:							
12	Furniture	49	54	79	88	163	424	518
13a,b	Household appliances	24	21	36	57	98	304	493
13c	Radios				٠		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,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
Produce	r 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
	Business vehicles	16	15	23	28	43	313	457
35	Mechanics' tools	6	7	11		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

<sup>.. =</sup> not applicable.

Table B-5

ALLOCATION OF INPUT AMONG CHANNELS, BY RETAIL OUTLET, 1869-1929

(per cent of producer's value, after transportation charges)

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. The first figure, 44, means that in 1869, 44 per cent of all manufactured food products was sold to a wholesaler for eventual distribution W: through a wholesaler. D: direct to a retailer.

:	18	69	18	62	18	89	18	66	190	96	19	610	15	29
	W D	Ω	M D	D	W D	Ω	W D	Ω	M D	Ω	W	ρ	M D	Ω
la Manufactured food products:														
Grocery independents	44	7	39	10	34	13	29	13	24	7	31	9	30.1	5.3
Grocery chains	0	0	0	0	0	0	-	4	7	11	٣	14	3.2	17.9
Meat markets	9	m	9	3	9	æ	7	ю	7	m	7	m	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		-	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	-	0	-	0.1	0.5
Dry goods stores	0	0	0	0	0	0	0	0	0	-	0	-	0	0.8
Variety stores	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0
Restaurants	4	0	S	0	S	0	7	0	7	0	10	0	12.5	0
Bars	7	0	∞	0	10	0	0	0	11	0	٣.	0	0	0
Drugstores	-	0	_	0	_	0	-	0	7	0	7	0	2.2	0
Liquor stores	3	0	4	0	S	0	4	0	4	0	_	0	0	0
Other (feed stores)	-	0	1	0	_	0	_	0	-	0	-	0	1.1	0
Total	8	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	S	0	6	7	12	5.0	13.7
Meat markets	0	S	0	S	0	S	-	4	7	٣	٣	7	4.3	0.5
Milk dealers	10	0	12	0	12	0	14	0	16	0	18	0	19.3	0
Country general stores	-	т	_	٣	_	7	-	7	-	-	_	-	1.0	1.0
Dry goods stores	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0

		1	l	- 1				- 1				1			
	78		~		18		18		67		19		~	926	
	W D	I _	M D		W		M D		M D		M D		M D	D	
b Nonmanufactured food (continued):															
Restaurants	2	0	9	0	7	0	00	0	6	0	0	0	13.3	0	
Other (feed stores)	0	ó	0	0	0	0	0	0	0	0	0	0	0	9.0	
Total	52	48	54	46	. 55	45	28	42	62	38	65	35	70.9	29.1	
Cigars, cigarettes, and tobacco:															
Grocery independents	17	0	16	0	18	0	15	0	11	0	<b>∞</b>	0	∞	0	
Grocery chains	0	0	0	0	0	0	0	7	-	7	7	7	4.3	0	
Country general stores	17	10	18	00	18	5	21	7	20	-	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	7	0.1	0	
Dry goods stores	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0	
Restaurants	-	0	-	0	7	0	3	0	ς.	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	7	0	7	0	7	0	7	0	7	0	7	0	1.8	0	
Cigar stores	16	20	19	17	22	15	25	11	30	9	34	7	36.4	0	
Total	70	30	75	25	80	20	85	15	8	10	95	8	100	0	
Drugs:															
Grocery independents	5	0	ю	0	_	0	0	0	0	0		0	0	0	
Country general stores	2	0	4	0	n	0	7	0	-	0		0	0	0	
Department stores	0	0	0	0	.0	0	-	-	7	7		ю	3.0	3.4	
Mail order sales	0	0	0	0	0	0	0	0	0	-		-	0	9.0	
Dry goods stores	7	0	7	0	7	0	-	0	-	0		0	0.0	0	
Variety stores	0	0	0	0	0	0	0	-	0	7		m	0	4.0	
Drugstores	88	0	91	0	94	0	86	2	81	10		15	66.3	21.8	
Total	100	0	100	0	100	0	93	7	85	15	78	22	70.2	29.8	
Magazines, newspapers, and stationery:															
Department stores	0	0	0	0	0	0	0	_	-	-		,	1.6	2.0	
Variety stores	0	0	0	0	0	0	0	9	0	6		12	0	14.2	
Furniture independents	7	0	m	0	4	0	2	0	9	0		0	7.3	0	
Drugstores	5	0	Ś	0	5	0	9	0	9	-		7	9.9	3.1	
Book and stationery stores, newsdealers	43	20	41	51	39	52	35	46	32	43	30	38	26.9	35.9	
Cigar stores	0	0	0	0	0	0		0	-	0		-	2.0	1.0	
Total	20	20	49	51	84	52	47	53	46	24		55	43.8	56.2	

18	69	18	79	18	89	18	6	79	6	19	61	18	739	
M	Ω	⋧		×	Ω	M	D	W	Ω	×	D	M	D	
35	0	40	0		0	4	0	39	0	20	0	0	0	
35	0	30	0		0	30	0	53	0	18	0	0	0	
0	0	0	0		0	0	0	0	0	-	0	4.7	0	
0	0	0	0		0	0	0	0	0	7	0	3.6	0	•
0	0	0	0		0	0	0	m	0	32	15	9.19	30.1	
30	0	30	0		0	30	0	53	0	12	0	0	0	
100	0	8	0		0	100	0	100	0	85	15	6.69	30.1	
0	100	0	100	0	100	0	100	0	100	0	100	0	<u> </u>	
12	0	12	0	13	0	13	0	14	0	14	0	14.3	0	
0	0	0	0	0	0	7	m	15	9	22	ď	29.2	11.8	
0	0	0	0	0	0	0	-	0	ćΩ	0	4	0	3.6	
88	0	84	4	79	∞	4	œ	48	9	39	0	27.3	0	
0	0	0	0	0	0	0	m	0	7	0	Ξ	0	12.8	
0	0	0	0	0	0	-	0	_	0	1	0	0.9	0	
100	0	96	4	92	<b>∞</b>	85	15	88	22	76	24	71.8	28.2	
0	-	∞	_	6	0	<b>∞</b>	0	œ	0	9	0	6.2	0	
0	0	0	0	0	0	0	7	0	15	0	21	0	27.4	
0	0	0	0	0	0	0	-	0	m	0	m	0	2.3	
22	11	19	6	16	7	13	7	12	7	10	_	8.0	1.6	
0	0	0	0	0	0	0	_	0	7	0	m	0	3.9	
23	33	56	36	28	39	28	39	22	35	20	35	16.5	33.4	
-	0	-	0	-	0	-	0	-	0	-	0	0.4	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	
55	45	22	46	24	46	20	20	43	22	37	63	31.1	6.89	
	•													
22	0	22.	0	77	0	19	0	15	0 ;	12	٠;	11.1	0	
0	0	0	0	0	0	0	4	9	10	9	14	0	18.5	
	M   M   M   M   M   M   M   M   M   M	81	D 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D W L D D D D D D D D D D D D D D D D D	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

	18	698	18		1889		1899	l	1909	l	6161		1929	670
	≽	M D	W D		≽		W	. (	≽		≱	. 1	≱	Ω
8 Shoes (continued):														
Mail order sales	0	0	0	0	0	0	0		0	٣		S	0	3.3
Dry goods stores	15	S	14	4	12	٣	11	7	10	-		0	7.5	0
Apparel stores	15	S	14	4	12	٣	11	7	10	-		0	6.9	0
Shoe independents	18	70	70	22	25	24	29	16	31	6		<b>∞</b>	25.9	7.2
Shoe chains	0	0	0	0	0	0	0	2	0	10	0	15	0	19.6
Total	70	30	70	30	70	30	2	30	98	34		42	51.4	48.6
9 Nondurable housefurnishings:										,				
Department stores	0	0	0	0	0	0	4	4	σ	Q		15	18.4	18.4
Mail order sales	0	0	0	0	0	0	0	-	0	m		S	0	4.7
Dry goods stores	24	0	22	0	70	0	18	0	16	0		0	12.2	0
Variety stores	0	0	0	0	0	0	0	4	0	7		11	0	14.7
Furniture independents	46	30	45	33	43	37	38	30	31	23		13	15.1	12.4
Furniture chains	0	0	0	0	0	0	0	-	0	7	0	3	0	4.1
Total	20	30	67	33	63	37	9	40	99	4		47	45.7	54.3
10 Toys, games and sporting goods:												,	,	,
Department stores	0	0	0	0	0	0	S	7	10	4		9	20.3	8.5
Mail order sales	0	0	0	0	0	0	0	-	0	m		S	0	5.3
Dry goods stores	7	0	7	0	m	0	٣	0	4	0		0	4.4	0
Variety stores	0	0	0	0	0	0	0	4	0	6		13	0	17.3
Furniture independents	22	0	21	0	18	0	14	0	Ξ	0		0	3.6	0
Hardware stores	4	0	35	4	31	9	56	4	19	7		0	12.0	0
Farm implement dealers	20	0	17	0	14	0	11	0	∞	0		0	1.8	0
Luggage, camera, sporting goods stores	13	0	70		24	4	56	4	78	7	27	-	26.7	0
Total	100	0	95	8	90	10	85	15	80	20		25	68.9	31.1
11 Tires and tubes:							•	•	•	•		,	•	•
Mail order sales							>	4	<b>&gt;</b> ;	4.		4.	<b>)</b>	4.I
Vehicle (automobile) dealers							14	4 ;	14	4 ;		4 ;	13.7	4.7
Automobile accessory stores	-						0 2 2	4 v	9 9 9	4 4	<del>5</del> 5	4 v	18.4	13.6
rilling stations							0		9				10.1	:
Total							7.7	87	7.7	87		87	7.7	0./7

	1869	69	1879	62	1889	889	18	1899	19	1909	1919	61	I	1929
	≱	D	≱	D	W	D	≱	Q	≥	Ω	≽	Ω	≥	Ω
12,28,29 Household and office furniture:														
Country general stores	ς.	0	4	0	3	0	7	0	-	0	0	0	0	0
Department stores	0	0	0	o	0	0	0	e	0	9	0	.6	0	12.2
Mail order sales	0	0	0	0	0	0	0	-	0	7	Q	m	0	2.1
Dry goods stores	10	10	∞	∞	9	9	4	4	7	7		0	0	0
Furniture independents	17	48	20	25	23	. 26	25	53	27	52	78	50	26.7	47.0
Furniture chains	0	0	0	0	0	0	0	e	0	5	0	œ	0	10.9
Hardware stores	4	0	٣	0	7	0	-	0	0	0	0	0	0	0
Book and stationery stores, newsdealers	4	7	3	7	7	7	7	7	_	7	1	1	0.5	9.0
Total	40	09	38	62	36	2	34	99	31	69	29	71	27.2	72.8
13a,b Household appliances:														!
Country general stores	9	0	9	0	S	0	2	0	4	0	4	0	3.9	0
Department stores	0	0	0	0	0	0	0	0	7	1	3	7	4.0	4.2
Mail order sales	0	0	0	0	0	0	0	1	0	8	0	2	0	2.7
Dry goods stores	-	0	-	0	-	0	1	0	-	0.	-	0	1.2	0
Variety stores	0	0	0	0	0	0	0	0	0	0	0	0	0	9.0
Furniture independents	10	3	10	M	10	æ	10	6	6	7	6	7	7.7	3.0
Furniture chains	0	0	0	0	0	0	0	0	0	-	0	-	0	1.6
Household appliances stores	24	15	25	18	56	22	27	56	28	27	28	28	29.4	29.3
Hardware stores	20	10	18	6	16	7	13	9	11	4	6	٣	6.9	2.0
Farm implement dealers	6	7	<b>∞</b>	7	∞	7	7	-	9	-	2	0	3.5	0
Total	70	30	89	32	99	34	63	37	13	39	59	41	56.6	43.4
13c Radios:														
Department stores													11.4	3.3
Mail order sales													0	1.0
Dry goods stores													2.3	0
,													0	1.3
Furniture independents													14.3	0
Tomobold continue													o ;	2.2
nousenoud appliance stores Hardware stores													60.2	0
Total													7 6	0 0
													77.7	0./

	I8		18	6/	18	68	18	66	1909		161	6	I	67	
	Ω À	1	M D	Ω	W D	ρ	M D	Ω	*		W D	Ω	M D	D	
4 Durable housefurnishings:					ļ				l	!					
Department stores	0	0	0	0		0						17	11.8	23:5	
Mail order sales	0	0	0	0		0						4	0	4.6	
Dry goods stores	20	0	42	0		0						0	3.2	0	
Furniture independents	20	0	58	0		0						٣	45.0	4.5	
Furniture chains	0	0	0	0	0	0	0	7	0	4	0	9	0	7.4	
Total	100	0	100	0		0	_					30	60.0	40:0	
5 China and household utensils:															
Country general stores	10	0	∞	0	9	0						0	0	0	
Department stores	0	0	0	0	0	0						9	12.2	9.0	
Mail order sales	0	0	0	0	0	0						3	0	<u>.</u>	
Dry goods stores	2	0	S	0	S	0						0	4.9	0	
Variety stores	0	0	0	0,	0	0						13	0	17.8	
Furniture independents	30	0	31	m	59	6						e	6.6	2.2	
Furniture chains	0	0	0	0	0	0						7	0	2.0	
Hardware stores	35	0	30	4	28	S						7	20.0	©.8	
Farm implement dealers	. 17	0	16	0	15	0						0	10.7	0	
Jewelry stores	e	0	m	0	ო	0					5	0	1.5	0	
Total	100	0	93	7	98	14	79	21	72	28		34	59.1	40.9	
6 Musical instruments:															
Department stores	0	0	0	0								6	0	12.7	
Mail order sales	0	0	0	0								S	0	2.9	
Variety stores	0	0	0	0								m	0	4.2	
Furniture independents	99	34	64	36								19	17.1	11.3	•
Furniture chains	0	0	0	0								-	0	1.0	
Household appliance stores	0	0	0	0								11	30.9	19.9	
Total	99	34	4	36	62	38	09	40	56	44	52	48	48.0	52.0	
7 Jewelry:	,														
Department stores	0	0	0	0	0	0	0	m	0	S	0	œ	0	10.4	
Mail order sales	0	0	0	0	0	0	0	-	0	<b>~</b>	0	3	0	1.4	

	18	1869	18	6281	18	1889	1899	66	1909	90	1919	61	I	1929
	≯	D	×	D	*	Ω	≥	Ω	≽	Ω	≱	Δ	≱	Δ
17 Jewelry (continued):										<u> </u>				į
Dry goods stores	0	0	0	0	0	0	0	0	o	0	0	0	0.4	0
Variety stores	0	0	0	0	0	0	0	1	0	7	0	4	0	5.3
Apparel stores	7	0	7	0	7	0	7	0	7	0	7	0	1.8	0
Furniture independents	-	0	1	0	_	0	-	0	1	0	-	0	1.1	0
Furniture chains	0	0	0	0	0	0	0	0	0	0	0	Ó	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	9/	11	733	6	68.0	11.1
Total	98	14	98	14	98	14	83	17	79	21	76 2	24	71.6	28.4
18 Books:														
Book and stationery stores	20	20	20	20	20	20	20	20	20	20	20	20	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	<b>0</b>	0	0	0	0	-	0	7	0	ю	0	2.4
Dry goods stores	ο,	0	00	0	00	0	7	0	7	0	9	0	6.8	0
Luggage, camera, sporting goods stores	41	20	37	55	32	9	28	55	23	49	19	44	23.0	30.5
Total	20	20	45	55	9	09	35	65	30	70	25	75	29.7	70.3
20a, 20c, 32a, 32c Vehicles:														
Vehicle (automobile) dealers	35	20	35	20	9	20	45	20	20	20	20	20	45.6	54.4
Farm implement dealers	15	0	15	0	10	0	~	0	0	0	0	0	0	0
Total	20	20	20	20	20	20	20	20	20	20	20	20	45.6	54.4
20b Automobile accessories:														
Department stores									<b></b>	4	-	4	-	4
Mail order sales									0	_	0	_	0	-
Vehicle (automobile) dealers									28	S	28	S	58	5
Automobile accessory stores									14	10	14	10	14	10
Filling stations									S	0	S	ó	S	0
Hardware stores										0	<b>-</b>	0	<b>-</b>	0
Farm implement dealers									-	٥	-	0	-	0
Total									80	70	80	70	80	20

	1869		1879			18	66	16	96	161	61	18	53
	M D		W D	W D		M D	Ω	M D	Δ	M D		Ω M	Δ
21 Motorcycles, bicycles: Vehicle (automobile) dealers				25	75	25	75	25	75	25	75	25	75
25b Tractors:										ć	5	701	4
Vehicle (automobile) dealers										07	07	20.5	20.7
Farm implement dealers										3	<u>ا</u> ا	5 5 5	100
Total										20	20	50.1	49.9
27 Farm equipment:								ı	,		,	,	(
Country general stores							_	17	0	16	0	14.0	o ;
Mail order sales							7	0	4	0	7	0	5.5
Vehicle (automobile) dealers							0	0	0	6	0	9.1	0 (
							0	m	0	က	0	3.3	0
Farm implement dealers							17	47	16	48	13	46.8	17.5
Other (feed) stores	4		0	4	0	4	0	4	0	4	0	3.7	0
Total		20	60				20	80	50	80	20	76.9	23.1
35 Mechanics' tools:								,			,	•	,
Mail order sales							0	0	4	0	9	0	6.4
Hardware stores							0	81	7	9/	vo (	70.2	$\frac{12.7}{2}$
Farm implement dealers		0	13 0	13	0	=	0	13	0	13	0	12.8	0
Total	001						0	94	9	89	11	83.0	17.0
Construction materials:									•		•	,	•
Country general stores									۰ د		<b>-</b>	4.	
Department stores									<b>—</b>		- •	<b>-</b>	4.1
Mail order sales									7		· n	<b>-</b>	
Variety stores									۰ -		٠,	o ;	7.7
Furniture independents									0		o ·	1.1	0
Household appliance stores									0		0	7.0	1.3
Coal and lumber yards									=		2	52.0	10.1
Hardware stores									0		0	16.1	0
Farm implement dealers	s	0	5 0	4	0	4	0	4	0 (	4	0	4.2	0 (
Drugstores									د	•	>	>	0
Total		•							15		15	85.1	14.9

	1869	69	1879		1889	. 68	1899	66	1909	60	19	6161	I 	1929
	M	D	3		×	Ω	≯	Ω	≥	Ω	≥	Q	≱	Q
Summary:														
Grocery independents	99	34	29	33	2	36	2	36	89	32	11	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	23	47	61	39	65	35	89	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	6	92	×	95	S	96	4	86	7	86	7	86	7
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	83	11	87	13	84	16	88	12	88	12	96	4	92	∞
Variety stores	0	0	0	0	0	0	0	100	0	100	0	100	0	100
Apparel stores	20	20	47	53	46	54	45	55	42	28	40	. 09	36	64
Shoe independents	49	51	20	20	53	41	99	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	9	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	70	72	28	74	56	70	30	74	56
Vehicle (automobile) dealers	42	28	43	27	46	54	46	24	24	46	55	45	51	49
Automobile accessory stores	0	0	0	0	0	0	71	59	71	53	73	27	74	56
	0	0	0	0	0	0	29	33	8	10	71	59	89	32
Coal and lumber yards	14	98	22	78	33	29	37	63	47	53	46	54	55	45
Hardware stores	86	2	26	٣	26	ю	24	m	24	3	95	2	93	7
Farm implement dealers	70	30	75	25	79	21	82	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	Ó		
Drugstores	100	0	100	0	100	0	24	m	4	9	90	10	84	16
Liquor stores	100	0	100	0	100	0	100	0	100	0	100	0		
Book and stationery stores, news-														
dealers	23	41	46	54	46	54	48	25	46	54	48	52	46	54
Cigar stores	43	27	53	47	59	41	70	30	81	19	94	9	66	-
Jewelry stores	98	14	98	14	.58	15	87	13	88	12	88	111	98	14
Luggage, camera, sporting goods	. ;		;	;	;	• !	. \$	. :	;		;	1		
stores	26	44	63	37	23	47	59	41	63		89	32	79	21
Other (feed) stores	100	0 -	100	0	100	0	100	0	00	0	100	0	100	0
Total	69.5	30.5	71.9	28.1	71.8	28.2	70.2	29.8	68.2		65.3	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 1870. 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.

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, 1858–1919, Harvard University Press, 1943; Dry Goods Economist, December 12, 1891;

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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.

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.

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### 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 be-

ginning 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

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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

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

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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, 1869–1948<sup>a</sup>
(millions of dollars)

		Comn	odity O	utput or	Commodity Output or Markup Method	Method		Cens of-	Census or Volume- of-Sales Method	ume- hod
	1869	1879	1889	1899	1909	6161	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	<b>L99</b>	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	9/9	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	716	904	211	2,507
Apparel stores	196	316	551	781	1,315	3,400	3,662	3,268	2,642	8,336
Shoe independents	86	103	169	202	307	786	602	501	310	621
Shoe chains	:	:	:	21	69	265	317	307	307	846
Furniture independents	143	187	346	395	929	1,749	2,516	1,830	1,244	3,574
Furniture chains	:	:	:	13	41	157	330	302	153	1,192
Household appliance stores	4	46	83	113	246	720	1,470	1,386	295	3,227
Vehicle (autômobile) dealers	89	69	110	153	374	2,589	4,654	4,507	3,479	12,816
Auto accessory stores	:	:	:	=	53	573	299	599	524	1,560
Filling stations	:	:	:	4	15	290	2,045	1,787	2,822	6,483
Coal and lumber yards	403	357	256	657	1,213	2,390	3,273	3,284	2,595	7,552
Hardware stores	234	230	358	379	592	1,032	966	905	782	2,954
Farm implement dealers	75	62	104	126	198	524	290	519	427	2,386
Restaurants (incl. tips)	83	135	200	361	089	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

285 180 392 802 275 627 305 723 76 174 547 1,460 17,807 45,906 in Tables 24 an	1,162 769 737 197 1,463 54,676 4 25, and su columns we for 1979, cf	485 410 536 1,612 46,417 mming over	481 318 208 362 108 1,191 40,635	2,475 766 535 1,225 616 4,370 126,029 d-of-store from the
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Table B-7
RECONCILIATION WITH RETAIL CENSUS, BY KIND OF STORE, 1929
(retail sales in millions of current dollars)

National Bureau of Eco- nomic Research. (Table B-6)			Census of Distribution
Grocery independents	5,320	5,320	Food group less meat markets, candy- nut, confectionery, milk dealers, bakeries, caterers, bottled waters and beverage, chains without meats, combination chains
Grocery chains	2,834	2,834	Chains without meats, combination chains
Meat markets	1,337	1,337	Meat markets
Milk dealers	691	691	Milk dealers
Candy stores	572	572	Candy-nut, confectionery
	2,571	2,571	Country general
Country general stores Department stores	3,903	3,903	Department stores with food, department stores without food
Mail order sales	447	447	Department-mail order houses
Dry goods stores	1,186	1,186	
Variety stores	904	904	Variety
Apparel stores	3,268	3,268	Apparel group less custom tailors, men's shoes, women's shoes, family shoes
Shoes independents Shoe chains	501 307	808	Men's shoes, women's shoes, family shoes
Furniture independents (incl. musical instrument) Furniture chains (incl. musical instrument)	302	2,077	Furniture group less household appliances (electric), household appliances, refrigerators (electric), refrigerators (electric and gas), radio and electrical, radio and musical instrument; add office and store appliance, office and store furniture, store fixture, typewriter
		55	Music without radio
Household appliance stores	1,386	1,386	Household appliance (electric), household appliance, refrigerator (electric), refrigerator (electric and gas), radio and electrical, radio and musical instrument, electrical (without radio), heating appliance, plumbing
Vehicle (automobile) dealers	4,507	6,304	ing Automotive group less used car dealers, filling stations, motorcycles, bi- cycles, and supplies, garages and re- pair shops, accessories, tires and batteries
	-	-1,797	less used car sales by automobile dealers a
Automobile accessory stores	599	599	Accessories, tires, and batteries

### VALUE ADDED BY DISTRIBUTION

		and hardware, roofing, other build- ing materials, coal and feed, coal
Hardware stores 902	902	and wood, ice Glass and mirror, paint and glass, hard- ware
Farm implement dealers 519	519	Farm implement, farm implement with hay, grain and feed, hardware and farm implement
Restaurants b 2,483	2,125 358	Eating places  add hotel food sales c
Bars Drugstores Liquor stores 1,690	1,690	Drinking places Drugstores Liquor
Book and stationery stores, 485 newsdealers	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 134 goods stores	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 automo- bile dealers
	-130	less milk dealers reported by census but omitted from census total a
	$\frac{-7}{49,115}$	Rounding error Census total

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. 1, Retail Distribution, Part 1, p. 962).

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.

## 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:

Α	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

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1865–71	Am. Grocer, Nov. 25, 1876, p. 882; Dec. 2, 1876, p. 939	<b>S</b> .	
1870-84	Am. Grocer, Apr. 16, 1885, p. 20	S	
1875	Ibid., Mar. 31, 1886, pp. 19-20	S	
1877-78	Ibid., 1877-79, passim	S, O	
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., 1879-1880, pp. 166-167		Ind. state census
1879–87	Am. Grocer, Jan. 1, 1880, p. 6; July 22, 1880, p. 197; Jan. 25, 1888, p. 21; Nov. 9, 1892, p. 18		Pa., Mass., Ark., and elsewhere
1880.	Trade Register, May 18, 1912,	S · ·	
1906–09, 1910	p. 12		
	1 New England Grocer, Mar. 1, 1912, p. 7 152	<b>S</b>	nský ži z zatel kar († )

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 1889	Am. Grocer, 1882-90, passim Mich. Tradesman, Apr. 3, 1889, p. 3	S, O O	Midwest
1891	Am. Grocer, Apr. 22, 1891, p. 6	0	
1896	Merchants' Review, Nov. 6, 1896, p. 6	ŏ	
1897-99	Am. Grocer, 1897-1900, passim	S, O	
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, 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	Ō	•
1904	Interstate Grocer, May 14, 1904, p. 5	0	
1904	New Eng. Grocer, June 21,	N	
1904 1914	1907, p. 20; June 28, 1907, p. 12 Modern Grocer, Feb. 21, 1914,	ο .	•
1905	p. 12 Am. Grocer, May 30, 1906, p. 8	0	
1906	Commercial Bull. and North- west 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	Inland Grocer, May 4, 1907, p. 8	Ŏ	
1909	Am. Grocer, Feb. 16, 1910, p. 8	0	
1909	New Eng. Grocer, July 16, 1909,	0	
1909	p. 5 Trade Register, Dec. 11, 1909,	S	· · · · · · · · · · · · · · · · · · ·
1909–10	p. 11 New Eng. Grocer, Jan. 28, 1910, pp. 5-7	S·	N.H.
<b>19</b> 10	Twin City Commercial Bull., Dec. 16, 1911, p. 40	S	
1911	Trade Register, Mar. 11, 1911, p. 8	<b>S</b>	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	1912, p. 20 Am. Grocer, Mar. 27, 1912, p. 18; Sept. 11, 1912, p. 7	S, O	
1912	Grocers' Mag., Mar. 1912, p. 24	. 0	
1912	New Eng. Grocer, Feb. 23, 1912, p. 11	O	
1912	N.Y. State Food Investigating Commission, Rep. of the Com- mittee on Market Prices and Costs, Chas. P. Young Co.,		
4040	1912, p. 33		
1912	Twin City Commercial Bull., June 8, 1912, p. 48	_	
1913	Am. Paint and Oil Dealer, May 1914, p. 48	_	
1913	Modern Grocer, Apr. 4, 1914, p. 16; Apr. 25, 1914, pp. 18–19; Sept. 5, 1914, p. 14		•
1913	System, May 1916, p. 643	T	
1913	Trade Register, Feb. 22, 1913, p. 6	S	Seattle
1913,	Joint Comm. of Agricultural In-	P	•
1916–21	quiry, Marketing and Distribution, 1921-22, Part IV, p. 163		
1914	Bull. of the Natl. Ass. of Credit Men, Vol. 14, May 15, 1914, p. 301		
1914	Am. Grocer, Aug. 26, 1914, p. 5	5 S	
1914	Butler Bros., The Butler Way System Book, 1916, p. 26	T	•
1914	Grocers' Mag., Nov. 1914, p. 15	S	
1914, 1919	<ol> <li>Harvard University, Bureau of Business Research (Harvard U.,</li> </ol>	С	U.S., 545 replies in 1924
1922–24	B.B.R.), Operating Retail Grocery Stores, 1914, 1919, 1922–24 appropriate issues		•
1914	Nystrom, P. H., The Economics of Retailing, Ronald, 1915, p. 80		
1914	Sammons, W., Keeping Up with Rising Costs, A. W. Shaw Com- pany, 1915, p. 22		
1915	Twin City Commercial Bull., Apr. 24, 1915, pp. 6-7; May 8, 1915, p. 7	S	1
1918	N.Y. State Dept. of Farms and Mkts., Retail Grocery Stores. J. B. Lyon Co., 1922, pp. 15-17		N.Y., 128 stores
1920–29	Nebraska University, College of Business Administration (Ne-	Mo 1920–23 C 1924–29	Neb., about 100 : stores :

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
	braska U., C.B.A.), Operating Expenses of Retail Grocery Stores in Nebraska, 1921, 1923- 29, appropriate issues	•	
1923–26	Colorado University, Bureau of Business and Government Re- search (Colorado U., B.B.G.R.), Expenses of Retail Grocery Stores in Colorado, 1923-26, ap-	•	Colo., 50 replies in 1926
1926 1926–27	propriate issues Wis. Retail Bull., Feb. 1931, p. 7 Colorado U., B.B.G.R., Operating Expenses and Profit of Retail Grocery and General Merchandise Stores in Colorado in 1927,	R	Wis. Colo., 35 stores
1927	1928 Bristol, W. F., Operating Costs of Service Grocery Stores in Iowa for the Year 1927, Iowa State College Press, 1930, pp. 23, 34	l L	Iowa, 61 stores
1928	Dept. of Commerce, Louisville Grocery Survey, Part II, 1931,		Louisville, 26 stores
1930	p. 37 Progressive Grocer, Operating Expenses of 100 Selected Food Stores		U.S., 75 stores
1930, 1932	The Progressive Grocer, June 1933, pp. 28-34, 54 ff.; Aug. 1933, pp. 20-23, 58 ff.; Dec. 1933, pp. 16-17, 62 ff.		U.S., 75 stores
1934	Progressive Grocer, Operating Expenses of 110 Selected Food Stores, 1935		U.S., 98 stores
1936, 1939	Mitchell, W. L., Jr., Standard Ratios for Retailing, Dun and Bradstreet, 1940, pp. ix and 11		U.S., 1489 replies
1937	Slaton, W. H., Cost of Doing Business Survey of Retail Gro- cery Stores in Colorado, Colo- rado University Press, 1938	T	Colo., 77 stores
1939	Progressive Grocer, Operating Expenses of 125 Food Stores, 1941, pp. 8, 9	WA	U.S., 95 stores
1939	Federal Trade Commission (FTC), Rep. on Distribution Methods and Costs, 1943-46, Part 1, p. 214		U.S., 156 replies
1940–43	Jour. of Marketing, July 1, 1946, pp. 62-64	WA	Ore., small stores
1940–43	The Progressive Grocer, Aug. 1944, p. 78		Iowa, 7 combina- tion stores
1942	The Progressive Grocer, May 1943, p. 55		•
	155		

# GROCERY STORES, INDEPENDENT (continued)

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1943	Sullivan, A. M., and Tebeau, R. L., Opportunities in Retail Trade for Servicemen, Dun and Bradstreet, 1945, p. 35		U.S., 35 stores
1946	Progressive Grocer, Oct. 1947, p. 65	WA	U.S., 16 stores
1948	Progressive Grocer, Facts in Food and Grocery Distribution, p. 16	WA	U.S., 21 self-service mkts.
	GROCERY STOR	ES, 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	С	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	С	U.S., 66 chains
1934	Unpublished data	S	U.S.
1934	Schmalz, op.cit.	С	U.S., 66 chains
1939	FTC, Rep. on Distribution Methods and Costs, Part 1, 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	
194647	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, pas- sim	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)	Α	U.S.
1910	Ibid., 1910, passim	P	N.Y.
1917	Joint Comm. of Agricultural Inquiry, Marketing and Distribution, Part IV, p. 176		
1917, 1919	Marshall, H. S., Retail Market- ing of Meats, Dept. of Agricul- ture, 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, North- western University, Bureau of Business Research (Northwest- ern U., B.B.R.), 1924		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 1x, pp. 63-64	WA	Seattle, 4 replies
1948	Meat Marketing, Sept. 1948, pp. 44-48	Α	Chicago, 40 stores

## APPĒNDĪXES

## MILK DISTRIBUTORS

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1912, 1914–18	FTC, Rep. on Milk and Milk Products, 1914-18, 1921	P	U.S.
1913	Am. Grocer, Feb. 26, 1913, p. 10	0	Boston
1913, 1919–21	Monthly Labor Review, Apr. 1922, pp. 72-77	WA	U.S., 214 replies
1915–16, 1931	N.Y. Legislature, Rep. of the Joint Legislative Comm. to Investigate the Milk Industry, J. B. Lyon Co., 1933, pp. 182, 191, 225		N.Y.C.
1917	Boston Chamber of Commerce, The Milk Question in New Eng- land, 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 vII, pp. 3191-3193	<b>P</b>	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	<b>P</b>	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.
1930, 1933–35	FTC, Distribution and Sale of Milk and Milk Products, 1936	WA	4 cities, 11 replies in 1930
1930's 1932–33	Milk Papers, Vol. 8, no. 155 Milk Dealer, Nov. 1933, pp. 43– 44; Dec. 1933, pp. 35–36	N	Wis., 13 replies N.Y. State, 59 replies
1934	FTC, Rep. on Agricultural Income Inquiry, Part 1, 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	N	Maine, 270 replies

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1937 1938–40	Milk Papers, Vol. 8, no. 155 Comfort, H. D., "Facts for the Consumer Regarding Cost of Milk," Milk Papers, Vol. 9, no.	N S	N.Y. State Borden Co.
1940	FTC, Rep. on Distribution Methods and Costs, Part I, p. 92	N	63 dist. in 14 cities
1941	Garver, W. B., Marketing Costs of Minnesota Foods	P	Milwaukee and St. Paul
1941, 1944	Milk Industry Foundation, Milk Distribution Costs—1944	WA	U.S., 170 replies
1941–48	Spencer, Leland, An Economic Study of the Operations of Six Leading Milk Companies in the New York-New Jersey Metro- politan Area, 1941-1948, Bulle- tin AE 686, N.Y. State College of Agriculture, Cornell Univer- sity, 1949	WA	Met. area, 6 replies
	CANDY ST	ORES	
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.	<b>M</b> .	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 GENE	RAL STORES	
Period Covered	Source	Type of Data	Location, Number and Type of Stores
1879	Ind. Bur. of Stat. and Geology,	WA	Ind. state census
1879–84 1889	First Annual Rep., pp. 150-160 Am. Grocer, 1880-85, passim Am. Grocer, Nov. 27, 1889, p.	S, O S	Me., and elsewhere Ind.
	Shaw, A. W., Co., Graphic and	S	•
1890–1913	Statistical Sales Helps, 1920, p. 123 (chart)		

## COUNTRY GENERAL STORES (continued)

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1897	Merchants' Review, Oct. 1, 1897, p. 9	0	
1897, 1911	Unpublished data (Univ. of Ky. files)	. <b>S</b>	Ga.
1900	Unpublished data (Univ. of Ky. files)	S	Ala.
1900	St. Louis Grocer and General Merchant, Aug. 9, 1900, pp. 8-9	0	
1900	Omaha Trade Exhibit, Jan. 6, 1900, p. 22	S	
1901–09	Unpublished data (Univ. of Ky. files)	<b>S</b> .	• •
1903-05, 1908, 1913-14	Unpublished data (Univ. of Ky. files)	S	Ga.
190709	Merchants' Trade Jour., 1908- 09, 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. 1910, p. 16	S	S.D.
1911	Twin City Commercial Bull., 1911, passim	·S	S.D. and elsewhere
1913–15	Twin City Commercial Bull., 1913-15, passim	S	
1914	The Butler Way System Book, p. 26	T	
1915	Twin City Commercial Bull., May 1, 1915, p. 18	0	
1918	Harvard U., B.B.R., Manage- ment Problems in Retail Gro- cery Stores, 1919	<b>C</b> .	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	Wis.
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	WA	U.S., 12 stores
1936, 1939	Stores; 1935 Mitchell, Standard Ratios for	M	U.S., 1100 replies
1939	Retailing, pp. ix and 33 Progressive Grocer, Operating Expenses of 125 Food Stores,	WA ,	U.S., 25 stores
1940–43	1941 Jour. of Marketing, July 1946, pp. 62-64	WA	Ore., small stores
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### **DEPARTMENT STORES**

Period Covered	Source	Type of Data	Location, Number and Type of Stores
1872–1919	Hower, op.cit., pp. 130, 136–137, 171, 174–175, 255, 257,	S (Macy's)	
1880	390 McNair, M. P., Teele, S. F., and Mulhearn, F. G., Distribu- tion Costs, an International Di- gest, Harvard University Press,	S	
1890–1913	1941, p. 5 Shaw, A. W., Co., Graphic and Statistical Sales Helps, p. 123 (graph)	S	
1890, 1910, 1929	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	i
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	О	
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	Č
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		U.S., about 500 replies
1927 1928–33	Wis. Retail Bull., Feb. 1931, p. 7 Gault, E. H., Performance of Department Stores, 1933, Uni- versity of Michigan, B.B.R.,	M	Wis. Mich., 15–25 store
1929, 1931–34	1934, p. 138 Teele, S. F., Operating Results of Department Store Chains and Department Store Ownership Groups, 1929, 1931–1934, Harvard U., B.B.R., 1936 161		U.S., 41 chains

# 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		U.S., about 500 replies
1938–40, 1942, 1944, 1946–48	McNair, M. P., Operating Results of Department and Specialty Stores, 1938-40, 1942, 1944, 1946-48, Harvard U., B.B.R., appropriate issues		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.,		U.S., 492 replies
1943	B.B.R., 1942 Teele, S. F., Operating Results of Department Stores and Specialty Stores in 1943, Harvard U., B.B.R., 1944	<b>C</b> .	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	WĄ	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 His- tory of Sears, Roebuck and Company, University of Chi- cago Press, 1950	S	Sears, Roebuck
1912-13	Unpublished data	S	
1912-13	Nystrom, op.cit., pp. 250-251	0	
1913	Am. Grocer, Feb. 5, 1913, p. 6	O T	
1913 1914(?)	System, May 1916, p. 643 Butler, R. S., Marketing Methods and Salesmanship, Alexander Hamilton Institute, 1917,	N .	7 replies
1914,	Part 1, pp. 75–76 Unpublished data	<b>S</b>	U.S.
1916–25 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
194647	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 Store.
1876–77, 1887	Hower, op.cit., pp. 136-137, 174-175	S	
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 162-163	WA	Ind. state census
18901913	Shaw, A. W., Co., Graphic and Statistical Sales Helps, p. 123 (graph)	S	•
1900	Mass. Labor Bull., Nov. 1901, pp. 122-124	WA	Mass., 131 stores
1900	Drygoodsman, Feb. 17, 1900, p. 17	О	
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, O	West and elsewhere
1912(?)	Walsh, R. J., Selling Forces, Curtis, 1913, p. 179	N	U.S.
1913	System, May 1916, p. 643	T	
1913,	Joint Comm. of Agricultural In-	P	
1916–21	quiry, Marketing and Distribu- tion, Part IV, p. 164		
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	
191 <i>5</i> –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	Мо	SW; 376 stores
1939	Mitchell, Standard Ratios for Retailing, p. 37	M	U.S., 564 replies
,	VARIÉTY S	TORES	
Period Covered	Source	Type of Data	Location, Number, and Type of Firms
	Ind. Bur. of Stat. and Geology,	WA	Ind. state census
1890's	First Annual Rep., pp. 194-195 Winkler, J. K., Five and Ten, Robert M. McBride & Com-	S	Woolworth
	pany, 1940, p. 125 Unpublished data	S	U.S., chain

# VARIETY STORES (continued)

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1909–12, 1923–28,	Moody's Industrials	S	Chains
1937–47 1909–30	FTC, Chain Stores: Gross Profit	WA	U.S., 87 chains in 1930
1911-12	and Avg. Sales, p. 10 Unpublished data	S	Chain
1913	System, May 1916, p. 643	Ť	Cham
1913–16	Unpublished data	ŝ	Chain
1914	The Butler Way System Book, p. 26	Ť	
1914	Sammons, op.cit., p. 23	T	
	McNair, M. P., Expenses and Profits of Variety Chains, 1931, 1933, 1936, Harvard U., B.B.R.,		U.S., about 30 chains
1932	appropriate issues Harvard U., B.B.R., Expenses and Profits of Variety Chains in 1932, 1933		U.S., 29 chains
1934–35, 1937–38	Teele, S. F., Expenses and Profits of Limited Price Variety Chains, 1934-35, 1937-38, Har-		U.S., 44 chains in 1938
1936, 1939	vard U., B.B.R., appropriate issues Mitchell, Standard Ratios for Retailing, pp. ix and 49		U.S., 320 replies
1939 <b>–42,</b> 1944–46	Burnham, E. A., Expenses and Profits of Limited Price Variety Stores, 1939-42, 1944-46, Har- vard U., B.B.R., appropriate is-		U.S., 62 replies in 1946
1940–43	sues Jour. of Marketing, July 1946,	WA	Ore., small stores
1943	pp. 62-64 Bursk, E. C., Expenses and Profits of Limited Price Variety Stores in 1943, Harvard U.,		U.S., 76 replies
1946–47	B.B.R., 1944 SEC, Survey of Am. Listed Corps., 1946-47, Part VI, p. 126	WA	U.S., 12 companies
1947	Brown, M. P., Expenses and Profits of Limited Price Variety Stores in 1947, Harvard U.,	С	U.S., 100 replies
1948	B.B.R., 1948 Love, E. M., Expenses and Profits of Limited Price Variety Stores in 1948, Harvard U., B.B.R., 1949	1	U.S., 109 replies

## APPAREL STORES

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1876–77, 1887	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		Ind. state census
1880	Werner, M. R., Julius Rosen- wald, Harper, 1939, p. 11	S	
1886	Dry Goods Chronicle and Fancy Goods Review, Mar. 13, 1886, p. 14		
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		
1913	System, May 1916, p. 643	T	
1913,	Joint Comm. of Agricultural	P	
1916–21	Inquiry, Marketing and Distribution, Part IV, pp. 179, 181		
1914	Sammons, op.cit., p. 25	T	• _
1914	Nystrom, op.cit., p. 80	Мо	Wis.
1915	Monthly Bull. of the Natl. Re- tail Dry Goods Assn., Jan. 1915, p. 1		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		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		Colo. & Wyo., 15 replies in 1926
1926	Wis. Retail Bull., Feb. 1931, p. 7	WA	Wis.
1927	Colorado U., B.B.G.R., Operat- ing Expenses and Profits of Re- tail 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	Ť	U.S.
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix, 55-68, 73	M	U.S., 1133 replies
1940–43	Jour. of Marketing, July 1946, pp. 62-64	WA	Ore., small stores
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# APPAREL STORES (continued)

Period Covered	Source	Type of Data	Location, Number and Type of Stores
1944	Dun's Review, Aug. 1946, pp. 15-17	Т	U.S., 230 stores
1946–47	SEC, Survey of Am. Listed Corps., 1946-47, Part VI, p. 6	WA	U.S., 29 replies
	SHOE STORES, IN	DEPENDEN	Т
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	P	
1886	Shoe and Leather Gazette, July 3, 1886, p. 12	S	St. Louis
1887	Shoe and Leather Gazette, Sept. 17, 1887, p. 10	0	
1900	Mass. Labor Bull., Nov. 1901, pp. 122-124	•	Mass., 101 stores
1903–04	Shoe and Leather Gazette, Nov. 12, 1903, p. 19; Feb. 25, 1903, p. 23; Nov. 23, 1904, p. 22		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		
1906–08	Shoe Retailer, Aug. 25, 1906, p. 22; May 25, 1907, p. 47; Oct. 26, 1907, p. 25; Jan. 4, 1908, pp. 58-59, 65	S, O	
1909	Mich. Tradesman, Sept. 8, 1909, p. 34	О	
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		U.S., 130 stores
1913, 1916–21	Joint Comm. of Agricultural Inquiry, Marketing and Distribu- tion, Part IV, p. 172	N	
1913 1914	System, May 1916, p. 643 The Butler Way System Book, p. 26	T T	. '
1914	Nystrom, op.cit., p. 80 Sammons, op.cit., p. 29	Mo T	
1914 1914, 1917–18	FTC, Rep. on Leather and Shoe Industries, 1919, p. 123	_	
	166		

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1916–19	Hay, J. H., Investigation of Trade Practices and Profits In- volved in the Manufacture and Sale of Shoes		
1920	Natl. Distribution Conf., Expenses of Doing Business, p. 19	N	
1921, 1924	Nebraska U., C.B.A., Operating Expenses of Retail Shoe Stores in Nebraska, 1921, 1924, appropriate issues		Neb., 22 stores in 1924
1926	Wis. Retail Bull., Feb. 1931, p. 7	N	Wis.
1919–23	Harvard U., B.B.R., Operating Expenses of Retail Shoe Stores, 1919-21, 1922-23 appropriate issues		U.S. about 500 replies
1931–32	Natl. Shoe Retailers Assn., Ed. Divn., Shoe Store Operations, 1931-32	M	
1936	Stewart and Dewhurst, op.cit., pp. 45-46	P	
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix and 69	M	U.S., 300 replies
1936–39, 1944–45	Office of Temporary Controls, Survey of Leather Tanners	WA	U.S., 163 replies
1937	Dun and Bradstreet, 1937 Survey, Rep. 3	T	U.S., 92 replies
1940–43	Jour. of Marketing, July 1946, pp. 62-64	WA	Ore.

## SHOE STORES, CHAIN

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1909–30	FTC, Chain Stores: Gross Profit and Avg. Sales, p. 10	. WA	U.S., 151 chains in 1930
1920-47	Moody's Industrials	S	Chains
1929	Schmalz, Carl N., Operating Results of Shoe Chains in 1929, Harvard U., B.B.R., 1931		U.S., 53 chains
1932	McNair, M. P., Chain Store Ex- penses and Profits, an Interim Report		U.S., 23 chains in 1932
1936–39, 1944–45	Office of Temporary Controls, Survey of Leather Tanners, Shoe Manufacturers and Wholesale and Retail Shoe Distributors, OPA Economic Data Series No. 14, 1947		U.S., 8 chains
1937	Dun and Bradstreet, 1937 Survey, Rep. 3	T	U.S., 9 replies
1946–47	SEC, Survey of Am. Listed Corps., 1946-47, Part IV, p. 150 167	WA	U.S., 9 replies

# FURNITURE STORES, INDEPENDENT

Period Covered	Source	Type of 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.	O (P)	(pianos)
	10 10 210, Oct. 31, 1830, p.		
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	Únpublished data	<b>S</b>	Large Far Western city
1914	The Butler Way System Book, p. 26	T	
1914	Nystrom, op.cit., p. 80	Mo	
1914	Sammons, op.cit., p. 27	<b>T</b> :	
1919	Furniture Merchants' Trade Jour., Oct. 1919, p. 30	: <b>S</b>	Mont.
1920-21	FTC, Report on the House-		2 - 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -
	furnishings Industry, 1923-25, Vol. 1, p. 110		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
	University Press, 1931, p. 27	337 A	Midwest 104
1929–30	Mitchell, W., Jr., Furniture Dis		Midwest, 104 replies
	tribution in the West Mid-Continent, Dept. of Commerce, 1932		repnes .
	p. 90 168		
	100	•	

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1929–38	Dept. of Commerce, Business Information Service, How Fur- niture Stores Fared, 1929–1938		Wis., 36 Stores
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix, 101-111, 155, 159		U.S., 876 replies
1937–46	Natl. Retail Furniture Assn., Special Information	T	
194043	Jour. of Marketing, July 1946, pp. 62-64	WA	Ore.
1941, 1944–45	Office of Temporary Controls, Survey of Retail Furniture Stores, OPA Economic Data Se- ries No. 7, 1947		U.S., 182 replies
1946–47	Joint Committee on the Economic Rep., Prices of Consumer Goods, 1947, p. 72		Denver, 10 stores
1947, 1949	Natl. Furniture Review, July 1948, pp. 68, 144; Jan. 1950, pp. 83-84, 137		

## FURNITURE STORES, CHAIN

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1909–30	FTC, Chain Stores: Gross Proand Avg. Sales, p. 10	ofit WA	U.S., 23 replies in 1930
1922-47	Moody's Industrials	S	Chain
1946–47	SEC, Survey of Am. Lis Corps., 1946-47, Part vi, p. 9		U.S., 10 replies

## HOUSEHOLD APPLIANCE STORES

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 188-189		Ind. state census; stores and tinware dealers
1920–21	FTC, Rep. on the Housefurnishings Industry, Vol. 3, pp. 255-256		U.S., 15 stores
1924	Radio Retailing, June 1925, pp. 540-542	T	U.S., 10 stores
1927–29	Alderson, W., and Haag, F., Jr., Problems of Wholesale Electri- cal Goods Distribution, Dept. of Commerce, 1931		South
	169		

# HOUSEHOLD APPLIANCE STORES (continued)

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1929–30	Bur. Foreign and Domestic Commerce, Merchandising Prob- lems of Radio Retailers in 1930, pp. 17-21		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, 1944	Office of Temporary Controls, Survey of Electrical Appliance Dealers, OPA Economic Data Series No. 4, 1947	. WA	U.S., 133 replies
1940–43	Jour. of Marketing, July 1946, pp. 62-64	WA	Ore., small stores
1946	Electrical Merchandising, Sept. 1947, p. 47	<b>T</b> .	Midwest, 200 re- plies
1946–47	Electrical Retailers' News, July 26, 1948	. <b>N</b>	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	· O	Canada
1906	Unpublished data (Univ. of Ky. files)	S	
1906	Implement Trade Jour., Apr. 7, 1906, p. 23	О	Kansas
1907	Cycle and Automobile Trade Jour., Jan. 1907, p. 335a	Ο	Cal.
1909, 1912	Implement Trade Jour., Jan. 16, 1909, p. 37; Feb. 24, 1912, pp. 27-28		Minn. and else- where
1913	Carriage Dealers' Jour., June 1913, p. 28	O	
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	
	Automobile Trade Jour., May 1914, pp. 110-111; June 1914, p. 184; Oct. 1914, p. 190; Oct. 1916, p. 107		
1917	Shaw, A. W., Co., How to Run a Retail Automobile Business at a Profit, 1918, pp. 3-7		23 stores

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	Т	
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
193940	Natl. Automobile Dealers Assn., N.A.D.A. Trade Survey	<b>N</b>	•

### AUTOMOTIVE ACCESSORY DEALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1921	Automobile Trade Jour., Aug. 1921, p. 43	0	
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	S	
1923	Harvard U., B.B.R., Operating Expenses in the Retail Automo- bile Tire and Accessory Business in 1923, 1924		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		
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		U.S., 3 replies
1947	Natl. Assn. of Independent Tire Dealers, Inc., What It Cost In- dependent Tire Dealers to do Business in 1947	M	U.S., 106 replies (tires)

### 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	P	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,	P	Tulsa
1919	1919, p. 75 Natl. Petroleum News, Aug. 18, 1920, p. 25	S	Albany
1919–25	Natl. Petroleum News, Dec. 1,	P	Iowa
1920–24	1926, p. 76 Natl. Petroleum News, 1920-24,	P, O	
1921	passim Natl. Petroleum News, July 29, 1921, p. 17	<b>N</b> .	Buffalo
1924	Natl. Petroleum News, Mar. 5,	S	Des Moines
1925–28	1924, p. 32-C Natl. Petroleum News, July 4, 1928, p. 32	N .	Midwest, 30 cities
1926–28	Natl. Petroleum News, 1926–28,	0	
1926	passim Natl. Petroleum News, Feb. 23,	(official estimate)	Wis.
1926	1927, p. 62 Natl. Petroleum News, Apr. 7,		Tenn.
1927	1926, p. 25; Apr. 14, 1926, p. 47 Natl. Petroleum News, Sept. 14,	<b>S</b>	Cleveland
1927	1927, p. 29 Natl. Petroleum News, Nov. 9,	(distributors' contract)	Midwest
1928	1927, p. 17 Natl. Petroleum News, Mar. 28,		
1928-33	1928, p. 67 Natl. Petroleum News, Sept. 19,		50 cities
1929	1934, p. 23; Feb. 24, 1937, p. 47 Natl. Petroleum News, May 8,		Okla.
1930	1929, p. 29 Natl. Petroleum News, 1930,	О	
1930	passim Gasoline Retailer, Nov. 1930,	О .	
1930	passim Natl. Petroleum News, July 22,	S	·
	1931, p. 28 172		

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1930	Natl. Petroleum News, July 30, 1930, p. 45	N ·	50 cities
1931–33	Natl. Petroleum News, Feb. 24, 1937, p. 52	N	Cleveland, 600 stations
1931–33	Natl. Petroleum News, Sept. 5, 1934, p. 15	N	Cleveland, 9 oil companies
1934	Natl. Petroleum News, Aug. 26, 1936, pp. 21-22	<b>S</b> .	Ft. Ŵayne, 149 stations
1934	Natl. Petroleum News, Aug. 1, 1934, p. 10; Oct. 17, 1934, p. 16	0	Midwest
1934	Natl. Petroleum News, Nov. 21, 1934, p. 21	P	Midwest
1934, 1947	Natl. Petroleum News, June 18, 1947, pp. 23-24	O	
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	0	
1936	Natl. Petroleum News, Feb. 15, 1939, p. 40	N	III.
1936	Natl. Petroleum News, Feb. 24, 1937, p. 59	<b>S</b>	2 replies
1936	Stewart and Dewhurst, op.cit., pp. 54-56	P	•
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix and 81	M	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	M	Denver, 27 replies
1938	Natl. Petroleum News, Aug. 10, 1938, p. 12	LF	N.Y.
1938	Natl. Petroleum News, Aug. 17, 1938, p. 12	N	Mich.
1938	T.N.E.C., Hearings, Part xvi, pp. 9027-9028	, <b>S</b>	Kans. City
1939 ."	T.N.E.C., Hearings, Part xv, pp. 8425-8426, 8444, 8454, 8507	0	
1939	Natl. Petroleum News, July 5, 1939, p. 37; Nov. 30, 1939, p. 12	LF <sub>.</sub>	N.J.
1947	Natl. Petroleum News, July 2, 1947, p. 54	<b>P</b>	÷

### COAL AND LUMBER YARDS

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1876	Coal Trade Jour., July 5, 1876, p. 317	P (coal)	
1879	Coal Trade Jour., Sept. 17, 1879, p. 204	P (coal)	Toledo
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 174-175, 190-191	WA	Ind. state census
1879	Retail Coalman, 1879, passim	P (coal)	
1889	Coal Trade Jour., Jan. 2, 1889, pp. 3-5; May 1, 1889, p. 212	P (coal)	
1889	Coal Trade Jour., July 3, 1889, pp. 309-311	P (coal)	
1899	Am. Lumberman, Jan. 14, 1899, p. 21; Aug. 26, 1899, p. 15; Sept. 9, 1899, p. 15	0	Lumber yards
1899	Am. Lumberman, Aug. 12, 1899, p. 15	<b>S</b> .	4 cases, lumber yards
1899	Coal Trade Jour., Jan. 4, 1899, p. 3; Jan. 11, 1899, p. 17; Jan. 18, 1899, p. 42	P (coal)	•
1900	Am. Lumberman, July 14, 1900, p. 17	P (lumber)	
1900	Mass. Labor Bull., Nov. 1901, pp. 122-124	WA	Mass., 50 yards
1900, 1905 1910, 1915–20	5, Peterson, F. H., Investigation of the Trade Practices and Profits Involved in the Manufacture and Sale of Building Material, pp. 5, 21	P (lumber)	:Minn.
1901–03	Am. Lumberman, Jan. 12, 1901, pp. 13, 16; Aug. 31, 1901, p. 22; Mar. 28, 1903, p. 27; May 21, 1904, p. 31	S	Lumber yards
1902	Am. Lumberman, Dec. 27, 1902, p. 17	P (coal)	
1903-07	Retail Coalman, Apr. 1908, p. 41	S	10 coal yards
1904–13	Retail Coalman, 1904-13, pas- sim	P (coal)	
1905 1905	Am. Lumberman, 1905, passim Am. Lumberman, Aug. 19, 1905, p. 28; Sept. 2, 1905,	O S	Lumber yards Ia., Colo.; N.J. lumber yards
1905–06	p. 30 Am. Lumberman, Feb. 16, 1907,	WA	Ill., 16 lumber yards
1906	p. 52 Am. Lumberman, Feb. 10, 1906, p. 44; Feb. 17, 1906, pp. 55-72; Feb. 9, 1907, p. 42G	S	Lumber yards
1906–12	Retail Coalman, May 1913, p. 51	S	Coal yard
1907–08	Am. Lumberman, Jan. 26, 1907, p. 61; Mar. 16, 1907, p. 56; Aug. 22, 1908, p. 47	0	Lumber yards
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Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1907	Retail Coalman, May 1907, p.	. N	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, pas-	· S	Coal yards
1909	Retail Coalman, Dec. 1909, p. 59	N	Phila., N.Y., and Boston; coal yards
1912	Retail Coalman, Mar. 1913, p. 54; May 1912, p. 51; Aug. 1912, p. 44		Mass. and else- where; coal yards
1913 1917, 1918	Retail Coalman, Jan. 1913, p. 78 Retail Lumberman, Jan. 1918, p. 55; Jan. 1919, p. 60	P (coal; Fuel Administration maximum)	Phila.
1918	Am. Lumberman, May 4, 1918, pp. 48-49		
1920–22	Coal Comm., Report, Part II, 1925, pp. 782 ff.		
1921–22	Nebraska U., C.B.A., Trade Practices and Costs of the Re- tail Coal Business in Lincoln, Nebraska in 1922, 1923	=	Neb., 5 replies
1924	Natl. Distribution Conf., Expenses of Doing Business, p. 62 (from Nat. Amer. Wholesale Lumber Assn.)	:	30 replies
1924–26	Colorado U., B.B.G.R., Operating Expenses of Retail Lumber Yards, 1924-26, appropriate issues	•	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	· . · ·	Wis., 72 yards in 1935
1926–28	Harvard U., B.B.R. Operating Expenses of Building Material Dealers, 1926-28, appropriate issues	C	U.S., about 300 replies
1926–29, 1936	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		Colo., Wyo., and Neb. 22% of yards in 1936
1926–47	Moody's Industrials	S	Chain
1927 1929	Wis. Retail Bull., Feb. 1931, p. 7 Hooper, W. D., Operating Costs of Retailing Coal in Columbus, Ohio State University Press, 1932		Wis., lumber yards Columbus, 15 coal yards
	175		

# COAL AND LUMBER YARDS (continued)

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1933	Rovetta, C., and Schmidt, M. F., Operating Expense of the Retail Lumber Yards in the Mountain States Region, Colorado U., B.B.G.R., 1933-34		Mt. states, 327 yards
1936–45	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., 412 replies
1939	Mitchell, Standard Ratios for Retailing, pp. 129, 137	M	U.S., 951 replies
1939	Starr, G. W., and George, H. C., Costs of Retailing Coal, Indiana University, Bureau of Business Research (Indiana U., B.B.R.), 1941		Ind., 67 replies
1939	FTC, Rep. on Distribution Methods and Costs, Part III, p.	WA	U.S., 286 replies, lumber yards
1940 (?)	Starr, G. W., and George, H. C., Operating Costs of Retail Lum- ber Dealers, Indiana U., B.B.R.,		Ind., 120 replies
1940	1942 Am. Lumberman, Aug. 9, 1941,	WA	Ky., 40 replies
1940–41	p. 37 Ky. Retail Lumber Dealers Assn., 1941 Cost of Doing Busi- ness Survey		Ky., 41 replies
1946	Ky. Retail Lumber Dealers Assn., Business Survey of 80 Dealers		Ky., 80 replies
1946–47	SEC, Survey of Am. Listed Corps., 1946-47, Part vi, p. 118		6 fuel and ice dealers Lumber yards
1946	Wood Construction and Building Materialist, Sept. 1949, p. 75		200 lumber yards
1947	Briley, Paul W., The Cost of Doing Business: Operating Results in 1947 of Retail Lumber Yards in Kansas, Missouri, Oklahoma and Arkansas, Southwestern Lumbermen's Association and Kansas U., B.B.R., 1948?		
1947	Dept. of Commerce, Lumber Dealers—1947 Operating Ratios	N .	Ky., Ohio, Kans., Mo., Okla., Ark.; 293 replies
1947–48	Ky. Retail Lumber Dealers Assn., Lumber Dealers' Business Survey		Ky., 76 replies
	176	•	

### 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	0	
1886–87	Hardware Dealers' Mag., Aug. 1898, pp. 173-175	<b>S</b>	Newark
1900	Iron Age, Feb. 22, 1900, p. 45; Mar. 8, 1900, p. 48	Α, Ο	Ohio and else- where
1900	Hardware Dealers' Mag., July 1900, p. 58	0	
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	0	
1906	Hardware Dealers' Mag., June 1906, pp. 1111-1112	S	29 replies
1906	Hardware Dealers' Mag., July 1906, p. 82; Sept. 1906, pp. 435-437	Ο	
1907	Iron Age, Feb. 28, 1907, p. 693	N	
1909	Implement Trade Iour., Mar. 6, 1909; H'ware Supp., p. 5	N	•
1909	Implement Trade Jour., Nov. 6, 1909, H'ware Supp., p. 9	S	
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	<b>S</b>	14 replies
1909	Natl. Hardware Bull., Sept. 1909, pp. 56-59	<b>O</b> .	
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; Apr. 1910, p. 871; May 1910, p. 1059	S	
1910	Implement Trade Jour., Jan. 28, 1911, p. 15	0	
1910	Iron Age, Feb. 5, 1910, p. 89	Α	
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)	
	177	:	

# 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. 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	0	
1913,	Joint Comm. of Agricultural	N	
1916–21	Inquiry, Marketing and Distribution, Part IV, p. 171		
1913	Am. Paint and Oil Dealer, May 1914, p. 48	0	
1913	Hardware Dealers' Mag., Feb.	S, O	
	1913, p. 326; Apr. 1913, p. 787; July 1914, p. 86	·	
1913	Hardware Dealers' Mag., Aug. 1914, 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	Т	
1914	Sammons, op.cit., p. 24	T	$\pm 4$
1915	Am. Paint and Oil Dealer, June 1916, p. 14		Paint stores
1916–17	Hardware Dealers' Mag. June 1916, p. 1211; Aug. 1917, p. 345		
1917–18	Natl. Hardware Bull., June 1919, pp. 67-69	S	III.
1917-18,	Harvard U., B.B.R., Operating	С	U.S., 155 stores
1919	Expenses in Retail Hardware Stores, appropriate issues		in 1919
1918	Natl. Hardware Bull., Feb. 1918, pp. 56-66; Mar. 1918, pp. 55-64		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		Neb., 51 stores
1924–25	Colorado U., B.B.G.R., Operating Expenses of Retail Hardware Stores in Colorado, 1924,		Colo., 13 stores in 1925
1927	1925, appropriate issues Wis. Retail Bull., Feb. 1931, p. 7	Α	Wis.
	Mitchell, Standard Ratios for	M	U.S., 914 replies
1940–43	Retailing, pp. ix, 115-127  Jour. of Marketing, July 1946,	WA	Ore.
	pp. 62–64		

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1945–48	Dept. of Commerce, Hardware Stores—Operating Ratios, 1946 1948		U.S., about 1000 stores

# 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	P	Midwest
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 170-171		Ind. state census
1882, 1912	Implement Trade Jour., Oct. 5, 1912, p. 20a	<b>P</b>	Neb.
1886	Farm Implement News, Apr. 13, 1893, p. 21	О .	
1894–98	Farm Implement News, Jan. 12, 1899, p. 128	. S	Iowa
189 <b>5</b> –96	Farm Implement News, Jan. 24, 1895, pp. 21–22; Jan. 23, 1896, p. 17		
1899	Farm Implement News, Jan. 12, 1899, p. 126	. S	Iowa
1900	Implement Age, Jan. 15, 1900, p. 28	. Р	
1902	Bur. of Corporations, Interna- tional Harvester Co., 1913, p. 327		McCormick dealers
1906	Implement Trade Jour., Jan. 27, 1906, p. 14	. О	
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		
1908	Implement Trade Jour., July 17, 1909, p. 13; Aug. 14, 1909, pp. 8-9	, <b>S</b>	Okla.
1909	Implement Trade Jour., Jan. 16, 1909, pp. 16, 21, 23	, О	·
1909	Bulletin of the Natl. Assn. of Credit Men, Nov. 15, 1909, pp. 874-878		18 states, 85 replies
1910	Implement Trade Jour., Jan. 1, 1910, p. 57	О .	
1910	Natl. Hardware Bull., June 1910, p. 52	· O	
1911	Implement Trade Jour., Nov. 18, 1911, p. 20g; Dec. 9, 1911, pp. 20, 22c		3 replies
1911	Implement Trade Jour., Apr. 8, 1911 (Ann. Supp.)	, . <b>S</b>	Minn.
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# 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		
1911	Carriage Dealers' Jour., Jan. 1912, pp. 76-78	0	
1911	Carriage Dealers' Jour., Nov. 1911, p. 23	N	U.S.
1912	Implement Trade Jour., Aug. 17, 1912, p. 14	. 0	
1912	Implement Trade Jour., Dec. 7, 1912, p. 27	S	Okla.
1912	Implement Trade Jour., Nov. 1, 1913, p. 17	N	Iowa, 100 replies
1912	Carriage Dealers' Jour., Jan. 1912, pp. 76-78	0	
1913	System, May 1916, p. 643	T	
1915–18	FTC, Rep. on the Causes of		U.S., 308 replies
1710 10	High Prices of Farm Implements, 1920, p. 237	.,	0.0., 500 Tephes
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	WA	U.S., 646 replies in 1945
1047	Farm Equipment, Automotive Passenger Cars, Automotive Trucks, and New Machine Tools, OPA Economic Data Se- ries No. 19, 1947	WA	U.S., about 7000
1947	Natl. Retail Farm Equipment Assn., Farm Equipment Retail- ing, 1948	WA	questionnaires
	RESTAURA	ANTS	
Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1876–77, 1887	Hower, op.cit., pp. 136-137, 174-175	S	Dept. of Macy's
	Hotel Monthly, Sept. 1897, p. 14; July 1898, p. 23; Apr. 1900, p. 15	S	Chicago
1908	Hotel Monthly, Feb. 1908, pp. 34-35; Dec. 1908, p. 51	S	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	ı
1913	Hotel Monthly, Sept. 1913, p. 64 180	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	. <b>S</b>	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.	S	
1922	Cafeteria Management, Apr. 1922, p. 29; May 1922, pp. 9, 40, 41		
1922	Am. Restaurant, June 1922, pp. 38-40	N	
1923	Hotel Management, Dec. 1923; Food Service Supp., pp. 54-55	S	2 restaurants
1923	Hotel Management, Dec. 1923, p. 303	. <b>N</b>	
1923	Am. Restaurant, June 1923, p.	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	<b>M</b>	U.S., 222 replies in 1939
1938 (?)	Dahl, J. O., Restaurant Manage- ment: Principles and Practice, Harper, 1938, pp. 160-161, 321		•
1938	Am. Restaurant, Nov. 1938, pp. 38-39, 66		U.S., 105 restau- rants
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 restaurant
1945	Chicago Restaurant Assn., An Analysis of Restaurant Operat- ing Data Covering the Chicago		Chicago, 291 res taurants
	Metropolitan Area for 1945, 1946		
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		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,	WA	U.S., 373 hotel res taurants 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. 180-	WA	Ind. state census
1898–99	Liquor Trades Review, Mar. 8, 1898, p. 6; April 11, 1899, p. 6		
1899	Hotel Monthly, Sept. 1899, pp. 13-14	Ο	
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	Р, О	
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 Aug. 1936, pp. 28-29	WA	N.Y. and Chicago,
1936, 1939		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.

Period Covered	Source	Type of 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. 178-179	WA	Ind. state census
1883	Ind. Pharmacist, June 1883, p. 5	0	
1883	Pharmaceutical Record, Oct. 1, 1883, p. 337		
1884	New Eng. Grocer, Mar. 28, 1884, p. 10	. О	
1888	Ind. Pharmacist, Dec. 1888, p. 227	S	Indianapolis
1888	Am. Pharmacist, Dec. 1888, pp. 271-272	N	U.S., 150 druggists
1889	Mich. Tradesman, Oct. 16, 1889, p. 7	<b>O</b> "	
1889–92	Pharmaceutical Record, Sept. 16, 1889, p. 277; July 30, 1891, p. 656; Oct. 20, 1892, p. 285		

Period Covered	Source	Type of Data	Location, Number, and Type of Stores	
1892	Ind. Pharmacist, Feb. 1892, p	. 0		
1897	Am. Druggist and Pharmaceuti cal Record, Aug. 25, 1897, p 101	- O -		
1899	Pharmaceutical Era, July 27 1899, pp. 138-139	, 0		
1900	Mass. Labor Bull., Nov. 1901 pp. 122–124	, WA	Mass., 127 stores	
1904	Apothecary and New Eng Druggist, Nov. 1904, p. 836			
1905	Apothecary and New Eng Druggist, Feb. 1905, pp. 106- 108	. S -	13 replies	
1905	Apothecary and New Eng Druggist, Mar. 1905, pp. 186- 190		U.S., 21 replies	
1906	Apothecary, Sept. 1906, pp 662-663	. S	U.S., 10 replies	
1908 1909	Apothecary, Aug. 1908, p. 390 Merchants' Trade Jour., June 1909, p. 6	S S	Miss.	
1909–30	FTC, Chain Stores: Gross Profi and Avg. Sales, p. 10	t WA	U.S., 166 chains in 1930	
1910	Notes of the Natl. Assn. of Re tail Druggists, Jan. 27, 1910, p		<b></b> 1230	
1913 1914	System, May 1916, p. 643 The Butler Way System Book p. 26	T T		
1914	Sammons, op.cit., p. 26	T		
1916–47 1919	Moody's Industrials Harvard U., B.B.R., Operating Expenses in Retail Drug Store, in 1919, 1920		Drug chains U.S., 191 replies	
1924–28, 1933	Colorado U., B.B.G.R., Operating Expenses of Retail Drug Stores in Colorado, 1924–28	3	Colo., 18 stores in 1933	
1925	1933 (Bull. 3, 9, 13, 20, 24, 31) Ostlund, H. J., A Study of Drug Store Operating Costs, 1925 Northwestern Pharmaceutica Bureau, Bull. 3	y WA	Iowa, Minn., Dak. 147 stores	
1925	Apothecary, Mar. 1925, p. 14	C		
1927	Wis. Retail Bull., Feb. 1931, p. 7		Wis.	
1928	Starr, G. W., Operating Result. of Indiana Retail Druggists, In- diana U., B.B.R., 1931	5 T -	Ind., 204 replies	
1929	Schmalz, C. N., Operating Results of Drug Chains in 1929 Harvard U., B.B.R., 1932		U.S., 56 chains	
1931–32	Alderson, W., and Miller, N. A. Costs, Sales and Profits in the Retail Drug Store, 1934, p. 44	?	St. Louis, 7 stores	

### DRUG STORES (continued)

	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	<b>M</b>	U.S., 587 replies
1938–48	Eli Lilly & Co., Lilly Digest, 1949	Α	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	S: PRIVATE	
Period Period		Type of	Location, Number,
Covered	Source	Data	and Type of Stores
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 182-183	WA	Ind. state census
1900	Mass. Labor Bull., Nov. 1901, pp. 122–124	WA	Mass., 179 stores
1917(?), · 1933	Spirits, Apr. 1934, p. 121	<b>P</b> .	
1933–43	Liquor Store and Dispenser, April 1936, p. 51; Dec. 1943, p. 48		
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix and 1	M	U.S., 69 replies
1938	T.N.E.C., <i>Hearings</i> , Part vi, pp. 2685, 2698, 2703	P	
1938, 1942, 1943	, Beverage Media, Dec. 1946, pp. 14, 16	0	
1941	Wine and Liquor Retailer, Dec. 1941, p. 29	N .	15 stores
1947	Beverage Associates of N.D., Economic Survey of the Bever- age Industry in N.D., Bismarck, 1949?, p. 71	<b>WA</b>	N.D., 875 replies
1947	N.Y. Times, June 29, 1947, p. 31	P	
·	LIQUOR STORES: ST	ATE OPERATED	
Period Covered	Source	Type of Data	Location, Number, and Type of Stores
- OVETEU		2 444	
1934–41	Ackers, G. C., Mich. Liquor Control Comm., Activities, 1933-45, p. 7	WA	Mich.
1935–40	Natl. Conference of State Liquor Administrators, Rep. of the Comm. on Statistical Data, 1935-40, appropriate issues		State systems
	101		

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		Mich.
1941–48	Census Bur., State Finances, Vol. 3, Statistical Compendium, appropriate issues		State systems
1948–49	Mich. Liquor Control Comm., Net Sales Percentage, fiscal yr. July 1, 1948-June 30, 1949		Mich.
1947–49	Vt. Liquor Control Bd., Annual Rep., 1948-49	WA	Vt.
1949	Me. State Liquor Comm., Com- parative Profit and Loss State- ment, period ending June 30, 1949		Me.

#### **BOOK AND STATIONERY STORES**

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1876–77, 1887	Hower, op.cit., pp. 136-137,	S	Book dept. of Macy's
1879	Ind. Bur. of Stat. and Geology, First Annual Rep., pp. 176-177		Ind. state census
1900	Mass. Labor Bull., Nov. 1901, pp. 122-124		Mass., 23 stores
1926, 1928	Harvard U., B.B.R., Operating Results of Retail Stationers and Office Outfitters, 1926, 1928, appropriate issues		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		U.S., 200 book- stores
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix, 133, 163	M	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 Geold First Annual Rep., pp. 196-		Ind. state census
1900	Mass. Labor Bull., Nov. 19 pp. 122-124		Mass., 105 stores

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# CIGAR STORES (continued)

Period Covered	Source	Type of 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	Š	.,
1908	Hotel Monthly, Mar. 1908, pp. 28-29	Ö	
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. 46-48	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.
193940	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" (un- published)	WA	Mass., and else- where

# JEWELRY STORES

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1879	Ind. Bur. of Stat. and Geology First Annual Rep., pp. 198-199		Ind. state census
1900	Mass. Labor Bull., Nov. 1901, pp. 122–124	, WA	Mass., 45 stores
1913	System, May 1916, p. 643	T	
1914	Nystrom, op. cit., p. 80	Mo	
1914	Sammons, op. cit., p. 28	T	

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		U.S., about 200 replies
1927	Wis. Retail Bull., Feb. 1931, p. 7	A	Wis.
1929	Foreign and Domestic Commerce Bur., Jewelry Distribu- tion by Retail Jewelers, 1931, p. 39	WA	U.S., 281 stores
1935	Dun and Bradstreet, Large Re- tail 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., Jew- elry Stores—Operating Ratios, 1938 (data from Am. Natl. Re- tail Jewelers Assn.)		U.S., 81 stores
1940–43	Jour. of Marketing, July 1946, pp. 62-64	WA	Ore.
1947	Office of Domestic Comm., Jew- elry Stores—1947 Operating Ratios (data from Am. Natl. Retail Jewelers Assn.)	•	U.S., about 200 stores

### CAMERA, LUGGAGE, TOY, AND SPORTING GOODS STORES

Period Covered	Source	Type of Data	Location, Number, and Type of Stores
1900	Mass. Labor Bull., Nov. 1901, pp. 122-124	WA	Mass., 12 stores
1936, 1939	Mitchell, Standard Ratios for Retailing, pp. ix and 161	M	U.S., 45 replies
1940–43	Jour. of Marketing, July 1946, pp. 62-64	WA	Ore.
1943	Spink, J. G. T., and Autz, H., How to Start a Sporting Goods Store, The Sporting Goods Dealer, 1944		U.S., 40 replies

# 2. WHOLESALE TRADE

#### **GROCERY WHOLESALERS**

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1880	Am. Grocer, Jan. 1, 1880, p. 78	3 0	
1881	Mass. Bur. Labor Stat., Thir-		
	teenth Annual Rep., 1882, pp 434-459	. Р	

# GROCERY WHOLESALERS (continued)

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1902	Interstate Grocer, May 24, 1902, p. 1	0	<del></del>
1907	Inland Grocer, Feb. 23, 1907, p. 14	0	
1912	Am. Grocer, Apr. 3, 1912, p. 6.	0	
1912	N.Y. State Food Investigating		
1712	Comm., Rep. of the Comm. on Market Prices and Costs, p. 33		
1913	Annals of the American Academy of Political Science, Vol. 50, Nov. 1913, p. 77	0	
1913,	Joint Comm. of Agricultural In-	P (22 commodit	ties)
1916–21	quiry, Marketing and Distribu- tion, Part IV, p. 161	`	
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	<b>S</b>	N.Y., Chicago 4 firms
1916,	Harvard U., B.B.R., Operating	Ċ	U.S., 501 replies
1918–23	Expenses in the Wholesale Grocery Business, 1916, 1918–23, appropriate issues	Ü	in 1923
1917	Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, 1918, p. 4	Т	
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	<b>WA</b> .	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		Ind., 22 replies
1928	Dept. of Commerce, Louisville Grocery Survey, Part 1, 1930	WA	Louisville, 25 stores
1929,	O'Leary, E. B., Cooperative	S	Ohio
1933–37	Wholesaling in Grocery Distri- bution, pp. 88-89, Ohio State University Press, 1942		32
1936	Dun & Bradstreet, 1937 Whole- sale Survey, Rep. 1, 1937, p. 15 188		U.S., 88 replies

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.	WA	U.S., about 100 replies
1937	26, 1947 Schmalz, C. N., Operating Results of Consumer Cooperatives in the U.S., Harvard U., B.B.R., 1939	С	U.S., 42 firms
1939	FTC, Rep. on Distribution Methods and Costs, Part 1, 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 WHOL	ESALERS	
Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1925–34 1935	Tobin and Greer, op. cit., p. 18 FTC, Rep. on Agricultural Income Inquiry, p. 145	P P	Chicago
	CANDY WHO	ESALERS	
Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1936	Dun's Review, Nov. 1937, p. 21	WA	U.S., 18 replies
	DRY GOODS WH	OLESALERS	+ .
Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1856	Edwin T. Freedley, Leading Pursuits and Leading Men, E.	0	
1904–07	Young, 1856, p. 206  Dry Goods Economist, Mar. 11, 1905, p. 101; Apr. 13, 1907, p. 69	<b>S</b>	
1913–14	National Wholesale Dry Goods Association, Proceedings of An- nual Conventions, 1914; 1915	N	U.S., 18 firms
1917	Shaw, A. W., Co., How to Run a Wholesale Business at a Prof- it, p. 4	T	
	", p. 4 189		· · ·

# 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	С	U.S., 73 replies
1923–25	Unpublished data	Ş	Large Midwestern
1923–42	Dun & Bradstreet, Dry Goods Wholesalers, p. 11	WA	U.S., 68 replies in 1942
1924 1947	Unpublished data Bromell, J. R., Dry Goods Wholesalers' Operations, Dept. of Commerce, 1949	S WA	U.S., 65 houses
	APPAREL WHO	LESALERS	
Period Covered	Source	Type of Data	Location, Number and Type of Firms
1917	Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4	T	
1923	Schneider, T. I., Budgetary Control for the Cloak and Suit Industry, Maxwell Keller Publishing Co., 1924 pp. 57-84	C, WA	
1936	Dun's Review, Nov. 1937, p. 21	WA	U.S., 48 replies
	SHOE WHOLE	ESALERS	
Period		Type of	Location, Number
Covered	Source	Data	and Type of Firm.
1900	Boot and Shoe Recorder, July 17, 1901, p. 53	S	3 representative houses
1905, 1912 1917	System, Dec. 1913, p. 566 Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4	N T	
1936	Stewart and Dewhurst, op.cit., pp. 45-46	<b>P</b> .	
1936–39, 1944–45	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

#### FURNITURE WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1896	Musical Courier, Dec. 16, 1896, p. 26	P (pianos)	
1927	Harvard U., B.B.R., Operating Expenses of Wallpaper Wholesalers in 1927, 1928	С	U.S., 54 replies
1929–30	Bowers, W. A., Furniture Dis- tribution in the Gulf Southwest, Dept. of Commerce, p. 37	WA	S.W., 24 replies
1929–30	Niklason, C. R., Furniture Distribution in the Midwest, Dept. of Commerce, 1932, p. 56		2 replies
1936–47	Natl. Wholesale Furniture Assn., 1947 Operating Experience Rep.		,

### HOUSEHOLD APPLIANCE WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1917	Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4	Т	
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 Heat- ing Supply Wholesalers in the Central States in 1927, 1928	С	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. 171-172	P (washing machines)	

### VEHICLE WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1911	Automobile Trade Jour., Oct. 1911, p. 88	. 0	
1923	Automobile Trade Jour., Jan 1923, p. 32	. 0	
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 Financial Survey of Automotive Jobbing Industry, 1941		U.S., 350 jobbers

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# AUTOMOTIVE ACCESSORY WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1921	Automobile Trade Jour., Feb. 1921, p. 95	0	
1923–24	Harvard U., B.B.R., Operating Expenses in the Wholesale Automotive Equipment Business, 1923-24, appropriate issues	•	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 Covered	Source	Type of Data	Location, Number, and Type of Firms
1896–1903	U.S. Bur. of Corporations, Rep. on the Petroleum Ind., Part II, 1928, p. 311		
1913	Natl. Petroleum News, Sept. 1913, pp. 50-51	0	
1915	Natl. Petroleum News, July 1915, p. 2	P	Iowa
1919	Natl. Petroleum News, May 7, 1919, p. 13	0	Minneapolis, Milwaukee
1921–27	Natl. Petroleum News, 1921–27 passim	0	Mainly Midwest
1923	Natl. Petroleum News, Jan. 24, 1923, p. 24; June 6, 1923, p. 18	. <b>S</b>	3 replies
1923	Natl. Petroleum News, Aug. 15, 1923, p. 24	P (gasoline)	Buffalo
1923–26	Natl. Petrolum News, July 14, 1926, p. 18	N	13 Midwest cities
1924	Natl. Petroleum News, Nov. 12, 1924, pp. 38-41	P (gasoline)	
1925	Natl. Petroleum News, Sept. 2, 1925, p. 80	N	12 cities, bulk stations
1926	Natl. Petroleum News, Jan. 1, 1926, pp. 28, 34, 103	S	6 replies
1926	Natl. Petroleum News, Nov. 17, 1926, p. 64	P	Wis.
1927	Natl. Petroleum News, Feb. 5, 1930, p. 97	<b>N</b>	16 cooperatives
1927	Natl. Petroleum News, Aug. 24, 1927, p. 21	P	Chicago; Iowa; Texas
1929	Natl. Petroleum News, Sept. 24, 1930, p. 57	. <b>S</b>	Ohio
1930	Natl. Petroleum News, July 30, 1930, p. 45	N .	50 cities
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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	N	Ohio
1934	Natl. Petroleum News, Apr. 4, 1934, p. 15; May 2, 1934, p. 68		Mich., 39 jobbers
1934	Natl. Petroleum News, Nov. 21, 1934, p. 21		Midwest
1935	Natl. Petroleum News, Aug. 7, 1935, p. 25	O .	Chicago
1936	Stewart and Dewhurst, op.cit., pp. 54-56	P (gasoline)	
1937	$\hat{N}$ atl. Petroleum News, Mar. 17, 1937, p. 58	0	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	0	
1947	Natl. Petroleum News, May 21, 1947, pp. 19, 59; Aug. 13, 1947, p. 36		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, p. 69	WA	65 yards, lumber distributors
1937–45	Office of Temporary Controls, Survey of Retail Lumber Deal- ers, Wholesale Stock Millwork Distributors, and Plumbing and Heating Jobbers and Dealers, OPA Economic Data Series No. 16, 1947		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. Cov- ering Mill Shipments (unpub- lished)		U.S., 89 replies in 1947

# HARDWARE WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1893, 1903, 1913	System, May 1915, p. 480	N	Distributors of pipe and supplies
1896, 1913–20	Paden, D. S., The King Hard- ware Company and Atlanta, King Hardware Co., Atlanta,	S	Atlanta
1000	Ga., 1946, pp. 43–45, 82	_	
1900 1902	Iron Age, Feb. 22, 1900, p. 59 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. 1187-1188	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, 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	0	
1917	Shaw, A. W., Co., How to Run a Wholesale Business at a Profit,	T	
1919–29	p. 4 Beckman, T. N., and Engle, N. H., Wholesaling, Principles and Practice, Ronald, 1937, pp. 608– 609 (data from Natl. Wholesale Hardware Assn.)	N	

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1920–21	FTC, Rep. on the Housefur- nishings Ind., Vol. 3, pp. 262– 263		U.S., 19 distributors
1924–27	FTC, Rep. on Resale Price Maintenance, 1929-31, Part II, p. 41		U.S., 39 replies
1925–26	Harvard U., B.B.R., Operating Expenses in the Wholesale Paint and Varnish Business in 1926, 1927		U.S., 62 replies in 1926
1936	Dun's Review, Nov. 1937, p. 21	N	15 replies

### FARM IMPLEMENT WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1898	Farm Implement New 10, 1898, p. 22	s, Nov. O	Distributors of plows
1935–36	FTC, Distribution Meth Costs, Part IV, pp. 186-1		U.S., 29 replies

# LIQUOR WHOLESALERS

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1917 (?), 1933	Spirits, Apr. 1934, p. 121	P	
1933–43 (av.)	Liquor Store and Dispenser, Dec. 1943, p. 48	0	Whiskey distribu- tors
1935	Slaton, W. H., Cost of Doing Business Survey of Colorado Wholesale Wine and Liquor Dealers		Colo., 5 replies
1937-42	Unpublished data	N	About 50 replies
1938	Bur. Internal Revenue, Tax Paid Products, appropriate issue	P (whiskey)	1
1942	Calvert Distillers Corp., Look- ing Ahead, 1943	О	Based on 1,500 replies
1947	Beverage Associates of N.D., Economic Survey of the Bev- erage Industry in N.D., Bis- marck, 1949?, p. 71		N.D., 22 replies
1947	N.Y. Times, June 29, 1947, p. 31	P (imported whiskies)	

### DRUG WHOLESALERS

Pharmaceutical Record, Nov. 4,		and Type of Firms
1889, pp. 337–338	0	
Natl. Wholesale Druggists' Assn., Proceedings of Annual Meetings, 1898, p. 129; 1903,	0	
Pharmaceutical Record, Oct. 1,	S	
Mich. Tradesman, Feb. 13,	0	
Pharmaceutical Record, Oct. 9, 1890, p. 388; Oct. 29, 1891, p. 282	О	
Natl. Wholesale Druggists' Proceedings of Annual Meeting, 1910, pp. 249-256; 1920, pp. 182-188	WA	U.S.
Mason, H. B., The Druggist and	S	50 firms
Shaw, A. W., Co., How to Run a Wholesale Business at a Profit,	Т	
Harvard U., B.B.R., Operating Expenses in the Wholesale Drug Business, 1922-24, appropriate	С	U.S., about 100 replies
Natl. Wholesale Druggists' Assn., Proceedings of Annual	WA .	U.S.
Ostlund, H. J., Analysis of Costs of Wholesale Drug Distribu- bution with Special Reference to Possible Expense Reductions		U.S., 30 replies
Ostlund, H. J., Expense Analysis of a Wholesale Drug House Having Annual Sales of \$1,000,000 (N.W.D.A. Bul. 4),		18 replies
Ostlund, H. J., Wholesale Drug Distribution Costs in 1930		U.S., over 100 replies
Ostlund, H. J., Analysis of the Operations of Service Wholesale Druggists in 1935 (N.W.D.A. Bul. 21), 1936		U.S., 116 replies
Natl. Wholesale Druggists' Assn., 1942 N.W.D.A. Year		
Ostlund, H. J., Operations of Service Wholesale Druggists— 1936 (N.W.D.A. Bul. 23), 1937	- ,	U.S., 110 replies
	Assn., Proceedings of Annual Meetings, 1898, p. 129; 1903, pp. 36–37; 1906, p. 258 Pharmaceutical Record, Oct. 1, 1883, p. 337 Mich. Tradesman, Feb. 13, 1889, p. 7 Pharmaceutical Record, Oct. 9, 1890, p. 388; Oct. 29, 1891, p. 282 Natl. Wholesale Druggists' Proceedings of Annual Meeting, 1910, pp. 249–256; 1920, pp. 182–188 Mason, H. B., The Druggist and his Profits, pp. 82, 89 Shaw, A. W., Co., How to Run a Wholesale Business at a Profit, p. 4 Harvard U., B.B.R., Operating Expenses in the Wholesale Drug Business, 1922–24, appropriate issues Natl. Wholesale Druggists' Assn., Proceedings of Annual Meeting, 1924, p. 246 Ostlund, H. J., Analysis of Costs of Wholesale Drug Distribution with Special Reference to Possible Expense Reductions (N.W.D.A. Bul. 10), 1930 Ostlund, H. J., Expense Analysis of a Wholesale Drug House Having Annual Sales of \$1,000,000 (N.W.D.A. Bul. 4), 1929 Ostlund, H. J., Wholesale Drug Distribution Costs in 1930 (N.W.D.A. Bul. 16), 1931 Ostlund, H. J., Wholesale Druggists in 1935 (N.W.D.A. Bul. 21), 1936 Natl. Wholesale Druggists' Assn., 1942 N.W.D.A. Year Book, pp. 492–493 Ostlund, H. J., Operations of Service Wholesale Druggists - 1936 (N.W.D.A. Bul. 23), 1937	Assn., Proceedings of Annual Meetings, 1898, p. 129; 1903, pp. 36–37; 1906, p. 258 Pharmaceutical Record, Oct. 1, S 1883, p. 337 Mich. Tradesman, Feb. 13, O 1889, p. 7 Pharmaceutical Record, Oct. 9, O 1890, p. 388; Oct. 29, 1891, p. 282 Natl. Wholesale Druggists' WA Proceedings of Annual Meeting, 1910, pp. 249–256; 1920, pp. 182–188 Mason, H. B., The Druggist and Shis Profits, pp. 82, 89 Shaw, A. W., Co., How to Run Ta Wholesale Business at a Profit, p. 4 Harvard U., B.B.R., Operating Expenses in the Wholesale Drug Business, 1922–24, appropriate issues Natl. Wholesale Druggists' WA Assn., Proceedings of Annual Meeting, 1924, p. 246 Ostlund, H. J., Analysis of Costs of Wholesale Drug Distribubution with Special Reference to Possible Expense Reductions (N.W.D.A. Bul. 10), 1930 Ostlund, H. J., Expense Analysis of a Wholesale Drug House Having Annual Sales of \$1,000,000 (N.W.D.A. Bul. 4), 1929 Ostlund, H. J., Wholesale Drug WA Distribution Costs in 1930 (N.W.D.A. Bul. 16), 1931 Ostlund, H. J., Mholesale Drug WA Distribution Costs in 1930 (N.W.D.A. Bul. 16), 1931 Ostlund, H. J., Analysis of the Operations of Service Wholesale Druggists in 1935 (N.W.D.A. Bul. 21), 1936 Natl. Wholesale Druggists' WA Assn., 1942 N.W.D.A. Year Book, pp. 492–493

Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1937	Ostlund, H. J., 1937 Operating Survey, Service Wholesale Drug- gists (N.W.D.A. Bul. 25), 1938		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			U.S., 20 replies
	CIGAR WHOL	ESALERS	
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	P	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 1, 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		
1944	Meserole, W. H., A Study of Tobacco Wholesalers' Operations, Dept. of Commerce, 1946, pp. 22-24	WA	U.S., 30 replies
	JEWELRY WHO	LESALERS	
Period Covered	Source	Type of Data	Location, Number, and Type of Firms
1913 1914	System, May 1916, p. 643 Sammons, op.cit., p. 28	T T	
1923–42	Natl. Wholesale Jewelers Assn., Statement of Expenses, Calendar or Fiscal Year 1942	WA	U.S., 39 houses in 1942
1928–30	Hall, J., Jewelry Distribution by Wholesale Jewelers, Dept. of Commerce, 1933, Part I, p. 88	WA	U.S., 106 replies

### APPENDIX D

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

For the period prior to 1919, Part II 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	Union List: Yes No	Comments
*Accessory and Ga- rage Journal	1911–30	Pawtucket, R.I.; N.Y.	x	
American Analyst	1885–94	Boston	<b>x</b> .	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	<b>X</b>	Called Am. Druggist and Pharmaceutical Record, 1893-1922.
American Druggists' Circular and Chem ical Gazette	-			See Druggists' Circu- lar and Chemical Gazette.

#### BIBLIOGRAPHY OF TRADE PERIODICALS

Title	Dates Published	Place Published	Union Yes		Comments
American Furniture Gazette	1880–1902	Chicago	х		
American Furrier and Fur Style	1904–36	New York	х		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 Lumber- man	1899+	Chicago	x		
American Merchant	1881–87	Chicago	x		
*American Paint and Oil Dealer	1908+	St. Louis	x	•	
*American Phar- macist	1885–90	Detroit	х		
American Store- keeper	188489			<b>x</b> ·	
American Vehicle	1888–1910	Philadelphia	х		Called Varnish 1888- 1904; merged with Carriage Wagon Builder.
*Apothecary	1888+	Boston; N.Y.; Phila.	х		Called New England Druggist, 1888–1903; Apothecary and New England Druggist, 1903–04.
Apparel Gazette	1890+	Chicago		<b>x</b>	File in NN, DLC; title changed to Men's Wear, 1924.
Apparel Retailer	1908	Boston		X	
Appetizer	1916–17			х	File in NN.
*Automobile Trade Journal	1896–1940	Philadelphia	х		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.
Bookkeep <b>er</b>		199			See Business.

Title	Dates Published	Place Published	Union I Yes		Comments
Bookseller and Stationer	1894–1923	New York	- <b>x</b>		Called Bookseller, Newsdealer, and Sta- tioner, 1894–1920.
*Boot and Shoe Recorder	1882+	Boston	<b>x</b> .		•
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			<b>X</b> .	
Bulletin of Com- merce	1888			x	·
Bulletin of Pharmacy	1887–1928	Detroit	<b>x</b>		Called Druggists' Bulletin, 1887-90; united with Western Druggist to form Drug Bulletin.
Business: the Maga- zine for Office, Store, and Factory	1888–1915	Detroit	x		Called Bookkeeper, 1888-1903; Business- man's Magazine and The Bookkeeper, 1904-08; Bookkeep- er, 1908-10, Business and the Bookkeeper, 1910-11.
Business Gazette	1888	Muskegon		x	
Business Topics	1902-03			x	
Businessman's Maga- zine and the Book- keeper			-		See Business.
*Butchers' Advocate	1879+	New York and Chicago	i x		
Cabinet Maker			•		See Furniture World and Furniture Buyer and Decorator.
California Grocer	1882-83			x	
California Retail Grocers' Advocate	1896+	San Francisco	, <b>x</b>		Called Retail Grocers' Advocate, 1896–1930.

# BIBLIOGRAPHY OF TRADE PERIODICALS

Title	Dates Published	Place Published	Union List. Yes No	Comments
Candy and Ice Cream Retailer	1889–1927	Chicago	x	Called Candy and Ice Cream, 1889–1923.
Carpet Trade Re- view	1870+	New York	, <b>x</b>	Called Carpet and Upholstery Trade Review, 1870–1939.
*Carriage Dealers' Journal	1890–1915	Troy, N.Y.	X	
Carriage Journal		Chicago	x	
Cash Grocer	1891–93	Philadelphia	x	
Caterer and Hotel Proprietors' Gazett	1893+ e	New York	x	•
Chef and Steward	1891-1920	New York	x	
Chicago Current.	1886		<b>x</b> ·	
Chicago Grocer	1874–1903	Chicago	x	Merged with Inland Grocer, 1903.
Chicago Lumberman	1897–1929	Chicago	х	Called Radford Review, 1897–1902; Lumber Review, 1902–11; Lumber, 1902–26; Lumber World Review, 1912– 26.
Chicago Trade	1886		x	
Cigar Store Magazine				See Smokers' Maga-zine.
Clothier and Furnisher	18801926	New York	x	
Clothiers' and Haber- dashers' Weekly	1892–1901	New York	x	Merged into Men's Wear.
Clothing Gazette	1881-1903	New York	x	
Coal Association Message	1911+	Reading, Pa.	x	•
Coal Dealer	1904+	Minneapolis	x	\$
Coal Merchant	1919-29	Philadelphia	x	
Coal Trade	1874-1921	New York	x	
Coal Trade Bul- letin	1898–1926	Pittsburgh	x	
*Coal Trade Journal	1869–1937	New York	x	
Commerce of Pitts- burgh		-		See Industry.
Commercial Bulletin	1859+	Boston 201	<b>x</b>	

Title	Dates Published	Place Published	Union List: Yes No	Comments
Commercial Bulletin	1887+	Los Angeles	x	Groceries.
*Commercial Bulle- tin and Apparel Merchant	1882+	Minneapolis	x	Called Commercial Bull. and Northwest Trade, 1882–1908; Twin City Commer- cial 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	<b>X</b>	
Counter				See Industry.
Country Merchant	1901	Lincoln, Neb.	х	
*Credit and Financial Management	1889+	New York	<b>x</b>	Called Bulletin of the National Assoc. of Credit Men, 1889– 1920.
*Crockery and Glass Journal	1874+	New York		
*Cycle and Automo- bile 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.	, х	
Drug Bulletin	1879–1933	Chicago; St. Louis	. <b>x</b>	Called Druggist and Paint and Oil Re- view, 1879; Druggist, 1880–86; Western Druggist, 1887–1928.
Drug Topics	1883+	New York 202	x	•

### BIBLIOGRAPHY OF TRADE PERIODICALS

Title	Dates Published	Place Published	Union Yes		Comments
Druggist					See Drug Bulletin.
Druggist	1873–75	New Lebanon, N.Y.	, х		
Druggist (St. Louis)					See Meyer Druggist
Druggists' Bulletin					See Bull. of Pharmacy.
Druggists' Circular	1851–1940	New York	x		Called Am. Drug- gists' Circular and Chemical Gazette 1851-66; Druggists Circular and Chemi- cal Gazette, 1866- 1906.
Druggists' Journal	1886–97	Chicago	x		
Druggists' Journal	1882–89	Philadelphia	x		
Drugman <sub>.</sub>	1884–1891	Chattanooga; Nashville	x		
Dry Goods and Apparel	1899–1922	New York	x		Called Dry Goods, 1899-1918.
*Dry Goods Chroni- cle and Fancy Goods Review	1886–1901	New York	x		Called Buyer and Dry Goods Chroni- cle, 1899-1901; April-July 1901, called Modern Mer- chant.
*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, 1903– 18.
Dry Goods Record	1900			x	
Dry Goods Reporter	1871-1929	Chicago	x		
*Drygoodsman and General Merchant					See National Dry Goods Reporter and Drygoodsman.
Dun's Review	1893+	New York	x		
Electrical Mer- chandising	1907+	New York	x		Called Selling Electricity, 1907–12; Electrical Merchandise and Selling Electricity, 1912–16.
Eli Grocer	1910	St. Louis 203		x	

Title	Dates Published	Place Published	Union Yes		Comments
Fancy Goods Gazette	1884			х	
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, Ill.; Chicago	; х		Called Rockford Fur niture Journal, 1888 92.
Furniture Mer- chandising	1901–32	High Point, N.C.	x		Called Southern Fur niture Journal, 1901- 30.
Furniture Merchants' Trade Journa <b>l</b>	1916–22	Des Moines	x		
Furniture News	1889–1931	St. Louis	<b>X</b>		Called St. Louis Fur niture News, 1889 1924.
Furniture Record	1892–1940	Grand Rapids	<b>x</b>		Called Grand Rapid Furniture Record, 1892–1925.
Furniture Trade Review	1880–1919	New York	x		
Furniture World and Furniture Buyer and Decorator	1870+	New York	<b>X</b>	-	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 Groces
Grocer	1902	Cleveland		х.	
Grocer	1886–87	Cincinnati		x	
Groce <b>r</b>	1885	Indianapolis		x	
Grocer	1875–81	New York	x		Merged into Mechants' Review.
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Title	Dates Published	Place Published	Union Yes	List: No	Comments
Grocer	1906	Oakland, Cali	f.	х	
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 To- bacconist					See San Francisco Grocer.
Grocer and Market- man	1886			x	•
Grocer and Price Current	1887	Pittsburgh		<b>x</b>	
Grocer and Trade Reporter	1887	Detroit		. <b>X</b>	
Grocers' Bulletin		St. Louis		x	
*Grocers' Criterion	1873-1912	Chicago	x		• 1
Grocers' Journal		Washington, D.C.		x	
Grocers' Journal of Commerce	1892	Kansas City		x	
*Grocers' Magazine	1900-39	Boston	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	. х		Called Trade Register, 1892–1916.
Grocery and Pro- vision Review	1875			x	
Grocery World					See Modern Mer- chant and Grocer World.
Haberdasher and Clothier	1886–1931	New York	х		Called Haberdasher 1886-1926.
Hardware	1890–1909	New York	x		Succeeded by Hard ware Age.
Hardware and House- furnishing Goods	1917–25	Atlanta	x		
Hardware Age	1909+	New York	x	*	
Hardware and Imple-	1896+	Dallas	x		
ment Journal		205	,		

Title	Dates Published	Place Published	Union Yes		Comments
Hardware Business Monthly	1903–38	Duluth, Minn	. · x		Called Zenith, 1903-31.
*Hardware Dealers' Magazine	1893–1929	New York	x		Merged into Hard- ware Age.
Hardware Journal	1916–30	Pittsburgh; Philadelphia	x		Called Hardware 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	· <b>x</b>		Called Nat'l Hard-ware 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.	, х		
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	ı	x	
Hotel Life	1888-1917	Cleveland	x		
*Hotel Monthly	1893+	Chicago	x		
Hotel Quarterly	1899	Richmond, Va	ì.	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	
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Title	Dates Published	Place Published	Union Li. Yes N	
Hotel Reporter	1897–98	St. Louis	,	Δ
(Daily) Hotel Reporter	189097	Salt Lake City	, ,	
Hotel World	1875+	Chicago	x	•
Housefurnishing Review	1892+	New York	x	
Hub	1859-1919	New York	x	•
Hutchinson Wholesaler	1909	Hutchinson, Kans.	x	<b>K</b>
Ice Trade Journal	1877–1904	New York	x	Absorbed by Cold Storage.
Ideal Grocer	1910–18	New York	x	
Illinois Retail Mer- chants' Journal	1902–28	E. St. Louis	x	
*Implement Age	1892–1918	Philadelphia	x	Became Implement and Tractor.
*Implement and Tractor	1876+	Kansas City	x	Called Implement and Farm Jour., 1876-92; Implement Trade Jour., 1893- 1902; Weekly Imple- ment Trade Jour., 1903-16; Implement and Tractor Trade Jour., 1916-25.
Implement and Ve- hicle Journal	1906	, Dallas	7	<b>C</b>
Implement and Ve- hicle News	1900–10	Cincinnati	х	Merged into Imple- ment Age, later Im- plement and Tractor.
Implement and Ve- hicle Record	1912		7	
Implement Dealer	1903	Omaha	. ,	•
Implement Dealers' Bulletin	1910–12		,	•
*Implement Trade Journal				See Implement and Tractor.
Implement World and Western Merchant	1893		,	
Independent Grocer	1887	Chicago	X	
Industry, a Magazine of Commerce and Finance	1898-1908	Pittsburgh	x	Advice to employ- ees; called Counter, 1898-1903; Store Life, 1903-04; Com- merce of Pittsburgh, 1904-06.

Title	Dates Published	Place Published	Union Yes		Comments
*Indiana Pharmacist	1882–94	Indianapolis	x	٠.	
Indiana Retail Merchant	1907–10		٠.	x	
*Inland Grocer	1901-14	Cleveland	x		4
Interstate Druggist	1899–1925	Columbus, O.	х		Called Midland Druggist, 1909-25.
*Interstate Grocer	1889+	St. Louis	x	٠	
Interstate Trade Bulletin		Denver		x	
Iowa Trade Journal	1903	Des Moines		<b>X</b> .	
Iron, Hardware and Implement Trade	1876–78	Chicago	<b>X</b>		
*Iron Age	1859+	Middletown, N.Y.; N.Y.	x		
Ironmonger	1887			x	File in NN.
Jewelers' Circular- Keystone	1869+,;	New York	x	·	Called Jewelers' Circular, 1869-1934.
Jewelers' Review	1887–1902	New York	x	,	Merged into Jewel- ers' Circular.
Jewelers' Weekly	1885–1900	New York	x		Merged into Jewel- ers' 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	1906			x	
of Commerce	Ÿ			: · . <i>i</i>	
Leader	1919	÷		<b>x</b>	Organ of Automotive Equipment Ass. (for-
			. •		merly N.A. of Auto Accessory Jobbers).
Liquor Trades (and Hotel) Review	1895–1901	New York	x		
Lumber	`,				See Chicago Lumber- man.
Lumber Review				. :	See Chicago Lumber- man.
Lumber Trade	1873–75	Boston	x		Absorbed by North-western Lumberman.
Lumber World Review	,	·			See Chicago Lumberman.

	Dates	Place	Union		
Title	Published	Published	Yes	No	Comments
Meat Trade Journal				x	
Mercantile Journal	1863-73	New York "	x		
Mercantile Journal	1898	Pittsburgh		x	
Mercantile Journal	1883-97	Richmond, Va	. 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 Inter- state Grocer.
Merchants' Mail	1886-87			x	
*Merchants' Review	1879-1908	New York	х		
* Merchants' Trade Journal					See Dry Goods Journal.
Meyer Druggist	1880+	St. Louis	x		Called St. Louis Drug Market, 1880-87; Druggist, 1888; Mey- er Bros. Druggist, 1889-1919.
*Michigan Trades- man	1883+		x		
Midland Druggist				:	See Interstate Drug- gist.
Mississippi Valley Grocer	1889–90			X	
Mississippi Valley Lumberman	1876+	Minneapolis	x		
Mixed Stocks	1888-1908	Chicago	$\mathbf{x}_{\perp}$		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 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.
*Music Trade Review	1879–1933	New York	x		

Title	Dates Published	Place Published	Union List: Yes No	Comments
Music Trades	1890+	New York	х	
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	. <b>x</b>	
N.A.R.D. Notes				See Natl. Assn. o Retail Druggists, Journal.
National Association of Credit Men, Bulletin				See Credit and Finan cial Management
National Association of Retail Clothiers, Bulletin			-	See National Cloth ier.
National Association of Retail Druggists, Journal	1902+	Chicago	x	Called <i>N.A.R.D. Notes</i> , 1902–10.
*National Clothier	1916+	Chicago	x	Called Natl. Assn. o Retail Clothiers, Bui letin, 1916–19.
National Druggist	1882–1936	St. Louis		Early issues called St. Louis Druggist.
*National Drygoods Reporter and Dry- goodsman	1898–1930	St. Louis	x	Called Drygoods an General Merchant 1898–1914; Dry- goodsman and South western Merchant, 1914–23.
National Federation of Implement and Vehicle Dealers' Assns, Bulletin	1905–10		<b>x</b>	
National Grocer	1875–94	New York	x	Absorbed by Am. Grocer.
National Grocers' Bulletin	1912+	Kansas City	x	
*National Hardware Bulletin				See Hardware Re- tailer.
National Hote <b>l</b> Reporter	1897–9 <b>8</b>	Chicago	, <b>x</b>	
National Jeweler	1906+	Chicago	x	
National Liquor League of U.S.A., <i>Proceedings</i>	1893–1916		x	Association called Natl. Retail Liquo Dealers to 1904.
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Title	Dates Published	Place Published	Union List: Yes No	Comments
National Lumber- man	1888–1932	St. Louis	X	Called St. Louis Lumberman, 1888- 1932.
*National Petroleum News	1909+	Cleveland	x	
National Provisioner	1889+	New York; Chicago	x	
*National Retail Dry Goods Assn., Bul- letin	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	<b>x</b>	
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 New Dealer.
Northwest Trade	1891	Minneapolis	✓ X	File in NN.
Northwestern Grocer	1883-84	-	x	
Northwestern Lum- berman	1873–99	Chicago	x	Merged with Timbe man into Am. Lun berman, 1899.
Northwestern Mer- chant		Seattle	х	File in DLC; Wash Ret. Grocers and Merchants Assn.
Northwestern Trade Bulletin	1879–84	Milwaukee	x	Called Northwester Grocer, 1879.
Nugent's	1902-32	New York	x	Called Nugent's Bu letin, 1902-17.
Ohio Lumber Journal	1886		x	
Ohio Merchant			х	Became Inland Grocer, 1902.
Ohio Wholesale Grocer	1899		х	
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		Published	Yes:	NO	Comments
Oil Paint and Drug Reporter	1871+	New York	х		
*Omaha Trade Exhibit	1890+	Omaha	<b>x</b>		· · ·
Oregon Merchants' Magazine	ı		٠	<b>x</b> .	
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		x	DLC.
Petroleum Age and Service Station Merchandising	1914–37	Chicago; N.Y.	<b>x</b>		Called Petroleum Age, 1914-28.
*Pharmaceutical Era	1887-1931	New York	х		
*Pharmaceutical Record	1881–93	New York	x		
Pottery and Glass	1908–15	New York	x		
Pottery and Glass- ware Reporter	1879–93	Pittsburgh .	x		
Practical Druggist and Spatula	1896–1935	New York	<b>x</b>		Called Practical Druggist and Phar- maceutical Review of
• .		2.2			Reviews, 1896-1925.
*Presto	1884–1926	Chicago	x		• • •
Price Current	1909	Wichita, Kans		X	File in NN.
Provisioner	,	Kansas City		X	
Purchasing Agent	1884	Chicago	,	X	File in NN.
Radford Review			:	•	See Chicago Lumber- man.
Radio Merchant	1905–34	New York	x	1.	Called Talking Machine World, 1905-34.
Registered Pharmacist	1887-98	Chicago	x		
Restaurant Bulletin	1903-05	Chicago		x	File in DLC.
Retail Butchers' Review	1899	New York 212	;	( <b>X</b> ;	

Title	Dates Published	Place Published	Union Yes		Comments
*Retail Coalman	1900+	Chicago	х		
Retail Druggist	1893-1931	Detroit	х		- '
Retail Grocer	1886-89	Denver		х	
Retail Grocers' Advocate					See California Retail Grocers' Advocate.
Retail Grocers' Journal	1883	St. Louis		x	
Retail Grocers' Journal		San Francisco	· ·	X	
Retail Grocers' Magazine	1906–08	Portland, Ore	•	x	
*Retail Lumber- man	1908+	Kansas City, Mo.	x		
*Retail Merchant	1901-14	Dallas	x		
Retail Merchants' Journal		Peoria, Ill.		x	
Retail Merchants' Review	1900			<b>X</b>	
*Retail Tobacconist	1901+	Long Island City, N.Y.	x		
Retailers' Journa <b>l</b>					See Natl. Retail Grocer.
Retailers' Sentinel	1899–1905			х	Organ of Iowa Implement Dealers Assn.
Rockford Furniture Journal				•	See Furniture Journal.
Saddlery Drummer	1888–91	Rome, N.Y.	x		
Saddlery Journal	1886			x	
St. Louis Drug Market	*				See Meyer Druggist.
St. Louis Druggist					See Natl. Druggist.
*St. Louis Grocer and General Mercha <b>nt</b>	1878–1900	St. Louis	<b>X</b>		
St. Louis Lumber- man					See Natl. Lumber- man.
St. Louis Trade Journal	1875	St. Louis		x	
St. Paul Trade Journal	1893–1908	St. Paul	x		
*San Francisco Grocer	1874–1934	San Francisco	x		Called Grocer and Country Merchant and Tobacconist, 1874–1915; Grocer,
		* * * * * * * * * * * * * * * * * * * *	· · · ·		1915–16.
		010			

Title	Dates Published	Place Published	Union List: Yes No	Comments
San Francisco Jour- nal of Commerce	1884	San Francisco	, x	
Scout	1909	Detroit	х	
Selling Electricity				See Electrical Mer- chandising.
Shoe and Leather Facts	1889–1938	Philadelphia	<b>x</b> .	
*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	<b>X</b>	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 Mer- chandising.
Southern Merchant	1901-09	Atlanta	x	
Southern Trade Gazette	1886		x	
Sporting Goods Dealer	1899+	St. Louis	<b>x</b> ·	
Store Life			:	See Industry.
Store Manager			x	
Stoves and Hardware Reporter				See Hardware Reporter.
*System: The Maga- zine of Business	1902–20	Chicago	x	Merged with Am. Business.
Texas Grocers' Review			. <b>x</b>	
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	

Title	Dates Published	Place Published	Union Yes		Comments
Trade Journal	1883	Des Moines		х	
Trade Journal	1909	Indianapolis		x	
Trade Journal	190609	San Francisco	x		
Trade Press	1901+	Detroit		x	File in DLC.
Trade Register					See Grocers' Register.
Tradesman and Com- mercial Record					See Oregon Trades- man.
*Twin City Commer- cial Bulletin					See Commercial Bull. and Apparel Mer- chant.
U.S. Economist and Dry Goods Reporte	er				See Dry Goods Economist.
Up-to-Date	1899	Scranton, Pa.		x	Groceries.
Variety Goods Magazine	1909–28	Cincinnati	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; Man- chester, N.H.	х		Called Bull. of Leather and Shoe News.
West Coast Trade	1889+	Tacoma	x		
Western Drug News	1887			x	
Western Grocer, 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	. х		·
Wine and Spirit Gazette	1887–1905	New York	x		
Wine and Spirit News	1900	Columbus, O.		x	
Wisconsin Grocer	1901			x	
Zenith					See Hardware Business Monthly.

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