NATIONAL RECOVERY ADMINISTRATION

DIVISION OF REVIEW

E V I D E N C E   S T U D Y

NO. 16

OF

GRAPHIC ARTS INDUSTRY

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June, 1935

PRELIMINARY DRAFT

(NOT FOR RELEASE: FOR USE IN DIVISION ONLY)

THE EVIDENCE STUDY SERIES

The EVIDENCE STUDIES were originally planned as a means of gathering evidence bearing upon various legal issues which arose under the National Industrial Recovery Act.

These studies have value quite aside from the use for which they were originally intended. Accordingly, they are now made available for confidential use within the Division of Review, and for inclusion in Code Histories.

The full list of the Evidence Studies is as follows:

1. Automobile Manufacturing Ind.
2. Boot and Shoe Mfg. Ind.
3. Bottled Soft Drink Ind.
4. Builders' Supplies Ind.
5. Chemical Mfg. Ind.
6. Cigar Mfg. Industry
7. Construction Industry
8. Cotton Garment Industry
9. Dress Mfg. Ind.
10. Electrical Contracting Ind.
11. Electrical Mfg. Ind.
12. Fab. Metal Prod. Mfg., etc.
13. Fishery Industry
14. Furniture Mfg. Ind.
15. General Contractors Ind.
16. Graphic Arts Ind.
17. Gray Iron Foundry Ind.
18. Hosiery Ind.
19. Infant's & Children's Wear Ind.
20. Iron and Steel Ind.
21. Leather
22. Lumber & Timber Prod. Ind.
23. Mason Contractors Industry
24. Men's Clothing Industry
25. Motion Picture Industry
26. Motor Bus Mfg. Industry (Dropped)
27. Needlework Ind. of Puerto Rico
28. Painting & Paperhanging & Decorating
29. Photo Engraving Industry
30. Plumbing Contracting Industry
31. Retail Food (See No. 42)
32. Retail Lumber Industry
33. Retail Solid Fuel (Dropped)
34. Retail Trade Industry
35. Rubber Mfg. Ind.
36. Rubber Tire Mfg. Ind.
37. Silk Textile Ind.
38. Structural Clay Products Ind.
39. Throwing Industry
40. Trucking Industry
41. Waste Materials Ind.
42. Wholesale & Retail Food Ind. (See No. 31)
43. Wholesale Fresh Fruit & Veg.

In addition to the studies brought to completion, certain materials have been assembled for other industries. These MATERIALS are included in the series and are also made available for confidential use within the Division of Review and for inclusion in Code Histories, as follows:

44. Wool Textile Industry
45. Automotive Parts & Equip. Ind.
46. Baking Industry
47. Canning Industry
48. Coat and Suit Ind.
49. Household Goods & Storage, etc. (Dropped)
50. Motor Vehicle Retailing Trade Ind.
51. Retail Tire & Battery Trade Ind.
52. Ship & Boat Bldg. & Repairing Ind.
53. Wholesaling or Distributing Trade

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GRAPHIC ARTS INDUSTRIES

(Evidence)

CHAPTER I

DESCRIPTION AND SCOPE

Historical Background

From man's first crude attempts to record his thoughts in communicable form have evolved the Graphic Arts (publishing, printing and allied industries), which today have become indispensable to the forward thrust of civilization.

About the middle of the 15th Century a tremendous impetus was given the development of the Graphic Arts in the invention of the printing press in Germany. Soon thereafter such a press was transplanted to Mexico, and printing with its myriad off-shoots and allied industries took root in the New World.

Printing processes were introduced into this country at a very early date. It is well known that a number of newspapers were printed in the thirteen colonies, as well as pamphlets and handbills, while the engraving art, though much less used, was not unknown.

After the American Revolution and throughout the 19th Century the growth of the printing and publishing trades was very rapid. Thus, the Census of Manufactures shows that by 1899 there were over 25,000 printing establishments (including 500 lithographing and 400 engraving establishments) in the United States, employing some 260,000 wage earners, with value of products totaling over $600,000,000.

By the beginning of the 20th Century there were two major tendencies evident in the Graphic Arts Industries. First was the invention of processes and equipment tending to accelerate speed and refine the technique of printing. The development of linotype and monotype machines, power presses, zinc and aluminum plates for engraving, etc., attest this fact.

The second tendency lies in the invention and the increasing use of a host of processes based on relief printing, lithography, and engraving. These new inventions or adaptations of old processes brought about rapid and cheap methods of simulating relief printing, lithography and engraving without their perfection or enduring quality. Tin printing, various types of rotogravure work, photolithography, multilith, planograph, etc., exemplify this tendency.

Printers and allied artisans with vision and foresight are beginning to realize as never before that they are merely on the threshold of the Golden Age of Printing, with infinite possibilities ahead, both in the way of accomplishments as craftsmen and of financial returns for their work. Whatever the industry's future may be, it is quite evident that there is a growing belief among the majority of its members that their individual and collective well-being depends upon a larger degree of cooperation from within the Industry itself.

Industry Processes

Obviously it is impossible within the brief limits of this report to do more than touch upon the major operations of the 31 sharply varied industries embraced by the Graphic Arts Code. Clearly, the technique involved in producing and marketing maps differs considerably from that used in connection with bank and commercial stationery. This divergence is even more marked between periodical publishing and playing-card production, for example. It may be said in general, however, that nearly all graphic arts products are produced on direct order or contract either from retailers or the ultimate consumer by one of the following three processes, embraced in the four groups named, or by a process based on one or more of them. 1/

1. Relief Printing Process. - In brief, this process is based upon raised type, set either by hand or by one of various methods of machine composition, the best known of which is by linotype. The composition is then printed, occasionally by a hand press but usually by one of a large variety of power presses.

2. Lithographic Printing Process. - In this process, the design is made on a stone or metal plate, by hand or by photo-reproduction, and then transferred to a chemically prepared zinc plate and from this to paper through an intervening rubber-covered cylinder.

3. Engraving Process. - This process is usually known as the intaglic printing method, and consists of engraving on a metal plate a design which is directly transferred to specially prepared paper.

Large plants often maintain departments for each of the above-named types of printing, but lithographing and engraving are usually done in plants specializing in each type.

Code Origin

The Graphic Arts Code, as finally approved, was contained in a proposed Code submitted late in July, 1933, by the United Typothetae of America, the dominant trade association of the Commercial Relief Printing Industry, and was designed primarily to operate in the interest of commercial relief-printing establishments. In August, 1933, the National Editorial Association, composed essentially of rural weekly-newspaper publishers (though some daily publishers are included), presented a Code covering newspaper publishing and printing and job printing, together with a blanket Code covering some 17 related Industries.

After protracted Public Hearings on the matter in September, October, and November, 1933, a basic Code for all but a few Graphic Arts Industries was evolved. Those Industries not included under the basic Code were strong enough to retain their status as separate industries and later were granted separate Codes of Fair Competition. These were Photo-Engraving, Electrotyping and Stereotyping, Book Publishing, Music Publishing, and Daily Newspapers (not assenters to the Graphic Arts Code).

1/ An exception should be made in the case of the five service industries under the Code, which sell certain products and services to Graphic Arts establishments. Among these are typesetting, lithographic plates, finishing, binding, and ruling services.

Code Approval

The Graphic Arts Code, approved February 17, 1934, to include within its scope practically all publishing, printing, and allied processes, is one of the most detailed and complicated approved by the National Recovery Administration. It covers 31 separate and often competing Industries, nearly all of which originally presented their own Codes of Fair Competition.

These Industries embrace four major groups, as follows: (1) Relief printing, with 5 constituent industries covering commercial relief printing, periodicals, books, and daily and non-metropolitan newspapers; 1/ (2) lithographic printing; (3) intaglio printing with three subdivisions, covering gravure work, steel and copperplate engraving, and securities and banknote engraving; and (4) service groups with 5 constituent industries, involving typesetting, lithographic plate making, advertising typography, trade mounting and finishing, and trade binding and paper ruling.

In addition to these 4 groups there are 17 national product groups, producing a wide variety of Graphic Arts products, such as maps, playing cards, greeting cards, labels, and tickets and coupons.

Each Industry under the three printing-process groups just named, and each Industry in the service group is administered by a National Code Authority; while each of the 17 National Product Groups is administered by and Administrative Agency. There are, in addition, four Appeal Boards, representing each of the Code Authority groups; and a National Graphic Arts Coordinating Committee.

Number and Distribution of Establishments

The approximate number of establishments in those Graphic Arts Industries covered by the Code, and their geographical distribution, are shown in the following table. Although the data for 1929, 1931, and 1933 are incomplete they nevertheless show the marked decline in the number of establishments which took place during these years.

1/ Daily Newspapers have the option of assenting either to a separate Code covering the Daily Newspaper Publishing Business or to the Graphic Arts Code. Of approximately 1900 Dailies, about 1200 have assented to the separate Code and about 500 to the Graphic Arts Code. The other 200 not having assented to either Code, are not under any Code.

Table I

Number and Distribution of Establishments

State	1929 a/	1931 a/	1933 a/	1934 b/
New York	4,165	4,029	2,984	5,446
Illinois	2,325	2,095	1,651	3,626
California	1,769	1,610	1,241	2,829
Pennsylvania	1,726	1,630	1,316	3,399
Ohio	1,461	1,285	1,021	3,140
Massachusetts	1,038	1,002	862	1,711
Other States	12,699	11,115	8,469	20,028
United States Total Total	25,219	22,766	17,544	40,178

Graphic Arts establishments are distributed throughout every State in the Union, the largest number (5,446) being in New York, and the smallest (93) in Delaware, 1/ About 72 per cent of the establishments counted are, however, concentrated in 12 states, 2/ and approximately 50 per cent in the 6 states listed in Table I.

Members, by Volume and Value of Production

While it is impossible to classify members of the Graphic Arts Industries as a whole by value or volume of member production without dissecting the corporate structure of the over 40,000 Graphic Arts Establishments, it may be stated on the basis of conversations with Code Authority secretaries, deputies, and Industry members, that the Graphic Arts Industries are composed in general of separate and individual units. Thus, while there are a few dominating firms in certain groups - notably Commercial Relief Printing, Periodical, Newspaper, securities and Bank Note Engraving, and Playing Card groups - whose firms have branches and sales offices in several States - the Industry is singularly free from concentration of corporate control.

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a/ Census of Manufactures. "Printing and Publishing", "Lithographing", and "Engraving." Includes firms whose products are valued at less than $5,000. Code applications, which deal comprehensively with only the year 1933, recorded 42,309 establishments for 1933.

b/ Proposed 1935 Code Authority Budgets. Includes all establishments subject to assessment by the Code Authorities of the Graphic Arts Industries.

1/ Proposed 1935 Code Authority Budgets. Includes all establishments subject to assessment by the Code Authorities of the Graphic Arts Industries.

2/ Michigan, Missouri, Texas, New Jersey, Minnesota and Indiana, and the six states named in Table I.

Capital Investment

The approximate capital investment of the Industry for the years 1929, 1931, and 1933, follows. While figures for 1934 are not available, it is believed that capital investment in this year was not much greater than in 1933, despite some improvement in the Industry's financial position. These figures are largely determined on the theoretical market value of the investment in plant and equipment. 1/

Table II

Capital Investment

Year	Amount
1929	$ 679,039,974
1931	859,988,348
1933	1,436,116,945

Source: Code Applications of the Industry; incomplete for 1929 and 1931. The Commercial Relief Printing Industry, Daily and Non-metropolitan Newspaper Publishing and Printing Industry, Book Manufacturing Industry, Lithographic Printing Industry and Trade Binding and Paper Ruling Industry made no report for 1929 and 1931; the Trade Lithographic Plate-Making Industry, none for 1929; and the Trade Typesetting Industry, none for 1931.

Number of Failures

The only available record of failures among the Graphic Arts Industries is confined to the "Printing and Publishing Industries." The data are given in Table III below:

Table III

Failures in the Printing and Publishing Industries

Year	Number of Failures	Liabilities Involved (thousands)
1929	174	$ 2,571
1930	212	7,173
1931	260	9,471
1932	394	13,035
1933	313	8,123
1934	162 a/	3,899

Source: Dun and Bradstreet Monthly Review.

a/ The Code Authority figure for number of failures in the year 1934 is 143.

1/ Verbal statement of Code Authority executives for the Commercial Relief Printing Industry, Securities and Bank Note Engraving and Printing Industry, etc.

According to the figures given in Table I, there was a decline of some 5,000 establishments reported by the Census from the years 1931 to 1933, while the failures reported for these two years total around 700. It may be noted that failures are reported for companies, while Census data are for individual establishments; that establishments may be closed without going into bankruptcy; and that establishments included in the 1931 Census might be excluded in 1933 because of the decline in the value of their annual business to less than $5,000, the smallest-sized establishment covered by the Census.

Volume and Value of Production

The principal products of the Graphic Arts Industries fall into four mains classes:

1. Relief Printing Products. - Job printing, books, periodicals, newspapers, music, tickets, coupons, labels, etc.

2. Lithographic Printing Products. - Bank and commercial stationery, maps, posters, photo-lithographed products, etc.

3. Engraving Products. - Social stationery, securities and bank notes, greeting cards, etc.

4. Service Products. - Typesetting, lithographic plates, advertising mats, mounting and finishing services, binding and paper ruling services, etc.

Volume of Production. - The number and character of Graphic Arts products is so wide and varied that, except for a few of the National Product groups, it is difficult to set up a quantitative yardstick that will convey any adequate meaning. To say that so many hundred million pieces of matter were printed, lithographed or engraved during a given year, does not convey the same statistical meaning as in the case of commodities sold in definite quantitative measure, such as by the pound, ton, or other unit.

Newspapers and periodicals supply circulation figures which are roughly analogous to their volume of production, but this volume does not bear a direct relation to the value of their product, which in the last analysis depends on the amount of advertising revenue received. Few figures on production volume are collected by the individual industries under the Graphic Arts Code, with exceptions such as the Playing Card Industry, which reported the sale of 40,318,000 decks in 1932, as against 46,320,000 decks in 1929; and the Dry Transfer Manufacturers, which reported sales of 1,231,340,000 units in 1932, as against sales of 1,154,923,000 units in 1929. 1/

Determination of Value. - Most Graphic Arts products are valued according to a fixed number of units. For example, all commercial relief printing products are sold in lots of a dozen, hundred, or thousand. The same applies to lithographed and engraved products.

The products of the Newspaper and Periodical Publishing Industries are largely valued according to their advertising revenue, while they are sold either in single units to individual subscribers or in lots of 12, 50, etc.,

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1/ Code Applications of the Industry.

for newsstand circulation. Books are printed in hundred and thousand lots.

The National Product groups, i. e., bank and commercial stationery, decalcomanias, greeting cards, labels, posters, tickets, coupons, dry transfers, maps and kindred products are sold in varying lots.

Certain exceptions to the foregoing stated units may be noted in the Service Industries, particularly in the case of typesetting, which is sold by the pound, but even in this group, lithographic plates, mats (advertising typography), mounting and finishing services are sold in units.

While a breakdown, by value, of even the major products of the Graphic Arts Industries is not available, the composite valuation of each of the four principal groups under the Code follows:

Table IV

Annual Value of Product, by Principal Groups
(In thousands)

Group	1929	1931	1933
Printing and Publishing	$2,760,196	$2,212,267	$1,524,990
Lithographing	121,014	87,433	68,188
Engraving	49,901	27,425	16,223
Total	2,931,111	2,327,125	1,609,401

Source: Census of Manufactures for the industries listed. Establishments with products valued at less than $5,000 are not included, value includes "value added by manufacturing." Data on Service groups not available.

Annual Sales

A breakdown showing sales of the Graphic Arts Industries for the five leading products for 1933, the latest year for which such data are available, follows:

Table V

Sales of Principal Products, 1933

Product	Amount (thousands)
Commercial Relief Printing	$300,000
Periodical Publishing and Printing	300,000
Book Manufacturing	60,000
Steel and Copperplate Engraving and Printing	25,000
Trade Typesetting	17,715

Source: Code Applications of the Industry.

The annual sales of the Graphic Arts Industries, according to its four major groups, follow:

Table VI

Annual Sales, by Principal Groups
(In thousands)

	1929	1931	1933
Relief Printing Products a/	$507,000	$853,177	$2,102,385
Lithographing	121,014	87,433	67,000
Engraving b/	58,224	37,599	37,114
Service Groups c/	27,930	24,067	41,903
Total	$714,168	$1,002,276	$2,248,402

Source: Code Applications of the Industry. Figures for 1934 are not yet available. Figures from this source should be regarded as estimates only.

a/ The Commercial Relief Printing Industry and Book Manufacturing Industry did not submit figures for 1929 and 1931, while the Non-Metropolitan and Daily Newspaper Publishing Industries submitted no figures for 1929.

b/ The Securities and Bank Note Engraving Industry did not submit figures for 1929 and 1931. These figures are somewhat out of line with the Census figures, for the reason that the Code application include Gravure Printing, which showed sales of about $11,000,000 in 1929, nearly $9,000,000 in 1931, and about $8,000,000 in 1933.

c/ Trade Typesetting and Trade Binding and Paper Ruling did not submit figures for 1929 and 1931, and Trade Lithographic Plate Making submitted no figures for 1929.

Competition

Kindred Industries which directly compete with one or more other Industries under the Graphic Arts Code are:

(a) Those Under Other Codes.

1. Daily Newspaper Publishing Business.
2. Photo-Engraving.
3. Electrotyping and Stereotyping.
4. Book Publishing.
5. Music Publishing.
6. Advertising Specialties.
7. Loose-Leaf Blank Books.

(b) Those Under no Code.

1. Duplicating and Mailing.
2. City Directory
3. Metal Decorators.
4. Public Printing Agencies (Federal, State, County, and municipal printing establishments).

In addition to the foregoing, there are two classes of indirect competition which should be mentioned.

1. Private Plants. - Private printing plants are those used by every manner of firm (candy, steel, drug, hotel, retail store, etc.) to print labels, menus, forms, catalogs and the like strictly for their own consumption. These compete with the commercial printer in the sense that he might get their orders if they had not their own presses.

2. Paper Industries. - There are at least 4 so-called "paper industries" which use printing processes in connection with their products. These Industries, which have codes of their own, regard their printing operations as an integral part of their products and hence not subject to the Graphic Arts Code. Certain firms in these Industries - insofar as their printing operations are concerned - have, through rulings in their individual cases, been brought under the Graphic Arts Code.

Products Used by Other Industries

With the exception of the Service Industries, which sell the bulk of their products to other Industries under the Graphic Arts Code, and of the Music and Book Printing Industries, most of whose products are used by the Music and Book Publishing Industries, very few products of Graphic Arts establishments are employed by other Industries in production, manufacture, or for resale.

Of course much printed, lithographed and engraved matter is bought by many other industries and used in the advertising of their own wares. Among such printed products may be listed business letterheads (printed or engraved), circulars, handbills, posters, labels, and dry transfers. To list all the industries which use these products would be impossible here and serve no good purpose as their widespread dispersion is apparent.

Imports

Foreign imports of Graphic Arts products have no significant effect on the Graphic Arts Industry as a whole. For the year 1933, imports of printed matter of various kinds reached a total of only a little over $3,000,000 1/ as compared with domestic sales of nearly $2,250,000. 2/

1/ Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States, 1933.

2/ Code Applications of the Industry, 1933.

CHAPTER II

LABOR STATISTICS

Number of Employees

The following table shows the number of employees in the Graphic Arts Industries, according to the three sources available.

Table VII

Number of Employees

Source	1929	1931	1933	1934
Census of Manufactures a/	310,370	277,671	233,389	---
Code Applications b/	99,087	78,834	432,908	---
Bureau of Labor Statistics c/	281,100	253,800	213,800	228,100

a/ From reports for "Printing and Publishing," "Lithographing," and "Engraving" Industries. These figures cover wage earners only, i.e., mechanical employees as against office workers, executives, etc., and do not include firms with products valued at less than $5,000. No figures are available for 1934.

b/ No report was made for 1929 and 1931 by the Commercial Relief Printing Industry, Non-Metropolitan and Daily Newspaper Publishing Industries, Book Manufacturing Industry, Securities and Bank Note Engraving Industry, Trade Typesetting Industry and Trade Binding and Paper Ruling Industry. No report was made for 1929 by the Trade Lithographic Plate Making Industry. These figures cover all employees. No figures are available for 1934.

c/ Index as published in Trend of Employment, multiplied by Census base and adjusted by NRA to 1933 Census totals. These figures cover only the printing and publishing industries. Also, they cover wage earners only, and do not include office workers, executives, etc.

A breakdown of the incomplete data obtained from the Industry's Code applications, covering all employees (mechanical employees, clerical force, etc.) in the three process groups and in the service groups, is given in Table VIII.

TABLE VIII

Employment, by Principal Groups

Group	1929	1931	1933
Relief Printing a/	54,000	53,000	390,643
Lithographing	18,979	16,217	14,000
Engraving b/	13,708	1,485	11,775
Service Industries c/	12,400	8,182	16,450
Total	99,087	78,884	432,868

Source: Code Applications. Figures for 1934 not available.

a/ Only the Periodical Publishing Industry reported figures for 1929 and 1931.

b/ The Securities and Bank Note Engraving Industry did not report for 1929 and 1931, and the Steel and Copperplate Engraving Industry did not report for 1931.

c/ The Trade Typesetting Industry did not report for 1929 and 1931; the Trade Lithographic Plate-Making Industry did not report figures for 1929, and the Trade Binding and Paper Ruling Industry did not report figures for 1931.

Number of Wage Earners

A breakdown of the Census figures shows the following number of wage earners in the three process groups.

TABLE IX

Wage Earners, by Principal Groups

Group	1929	1931	1933
Relief Printing	281,119	254,461	213,777
Lithographing	18,979	16,217	14,579
Engraving	10,272	6,995	5,033
Total	310,370	277,673	233,389

Source: Census of Manufactures, "Printing and Publishing," "Lithographing," and "Engraving."

a/ Firms with products valued at less than $5,000 not included. Figures for 1934 not available.

Table X shows the number of wage earners in each state in the three process groups.

TABLE X

Wage Earners, by Principal States

State	1929 Printing and Publishing	1929 Litho-graphing	1929 Engrav-ing	1931 Printing and Publishing	1931 Litho-graphing	1931 Engrav-ing	1933 Printing and Publishing	1933 Litho-graphing	1933 Engrav-ing
New York	52,390	6,229	3,796	50,361	4,996	2,448	40,562	4,794	1,752
Illinois	37,085	2,501	1,177	30,800	1,797	748	23,978	1,751	411
Pennsylvania	24,542	1,368	1,195	23,137	1,396	830	[illegible]	1,094	586
Ohio	21,261	2,478	478	19,523	2,437	152	17,967	1,749	115
Massachusetts	15,193	1,052	769	13,224	790	524	11,359	774	411
California	13,435	926	261	12,537	847	172	11,068	763	150
Michigan	10,024	505	72	8,472	507	44	[illegible]	404	58
Missouri	[illegible]	312	[illegible]	8,769	426	a/	7,262	297	a/
New Jersey	7,977	342	[illegible]	7,948	243	659	6,622	404	505
Indiana	7,338	a/	154	6,131	144	[illegible]	5,253	114	56
Total in 10 States	[illegible]	15,713	9,060	180,902	13,583	5,646	151,454	12,144	4,042
All Other States	31,231	3,266	1,212	73,559	2,632	1,349	62,323	2,435	991
U.S. Total	221,119	18,979	10,272	254,461	16,215	6,995	213,777	14,579	5,033

Source: Census of Manufactures, "Printing and Publishing," "Lithographing," and "Engraving." Wage earners of firms with products valued at less than $5,000 not included.

a/ Not reported separately.

Wages

The annual wages paid by the three process groups under the Graphic Arts Code, are shown below:

TABLE XI

Annual Wages
(In thousands)

Group	1929	1931	1933
Printing and Publishing	$ 506,290	$ 437,424	$ 292,461
Lithographing	32,022	25,723	18,123
Engraving	14,313	9,503	5,265
Total	$ 553,125	$ 472,650	$ 315,849

Source: Census of Manufactures for the industries listed. Firms with products valued at less than $5,000 not included.

Table XII shows the annual wages paid to wage earners in the 10 principal states in the three process groups.

TABLE XII

Total Annual Wages, by Principal States
(In thousands)

State	1929 Printing and Publishing	1929 Litho-graphing	1929 Engrav-ing	1931 Printing and Publishing	1931 Litho-graphing	1931 Engrav-ing	1933 Printing and Publishing	1933 Litho-graphing	1933 Engrav-ing
New York	$ 112,916	$ 11,503	$ 6,622	$ 99,755	$ 8,892	$ 3,799	$ 64,591	$ 6,577	$ 2,169
Illinois	71,286	4,314	1,755	56,323	3,043	1,057	34,607	2,317	247
Pennsylvania	4,886	2,160	1,617	36,894	2,086	1,007	25,988	1,307	545
Ohio	35,592	3,947	608	30,894	3,469	171	22,500	1,772	90
Massachusetts	28,115	1,537	830	23,457	1,180	572	16,336	977	[illegible]
California	26,164	1,707	348	23,111	1,454	245	16,074	1,141	153
Michigan	18,838	902	124	14,491	798	57	8,625	458	44
Missouri	16,754	544	428	14,317	575	a/	9,657	311	a/
New Jersey	15,661	511	944	14,956	332	1,037	9,624	482	[illegible]
Indiana	11,099	a/	141	9,212	147	61	6,308	110	47
Total in 10 States	$ 341,311	$ 27,125	$13,417	$323,410	$ 21,976	$ 8,006	$ 214,310	$ 15,452	$ [illegible]
All Other States	164,979	4,897	1,396	114,014	3,747	1,497	78,151	2,671	[illegible]
U.S. Total	$506,290	$ 32,022	$14,813	$437,424	$ 25,723	$ 9,503	$ 292,461	$ 18,123	$ 5,265

Source: Census of Manufactures, "Printing and Publishing," "Lithographing," and "Engraving." Wage earners of firms with products valued at less than $5,000 not included.

a/ Not reported separately.

Wage Rates

The most reliable statistics on average hourly wage rates are those published by the Bureau of Labor Statistics, and these cover only the printing and publishing industries, as follows:

TABLE XIII

Average Hourly Wage Rates in the Printing and Publishing Industries a/

Year	Average Hourly Rate (In cents)
1929	79.7
1931	79.6
1933	72.9
1934	78.8

Source: National Industrial Conference Board, Service Letter, for 1929 and 1931 data; Bureau of Labor Statistics, Trend of Employment, for 1933 and 1934 data.

a/ Weighted composites of "Book and Job" and "Newspaper and Periodicals" groups.

Average Hours Worked

Average weekly hours worked per employee are available only for the Printing and Publishing Industries. These data are given in the following table.

TABLE XIV

Average Hours Per Week in the Printing and Publishing Industries a/

Year	Average Hours Worked Per week
1929	45.9
1931	42.5
1933	38.0
1934	36.6

Source: National Industrial Conference Board, Service Letter, for 1929 and 1931 data; Bureau of Labor Statistics, Trend of Employment, for 1933 and 1934 data.

a/ Weighted composites of "Book and Job" and "Newspaper and Periodicals" groups.

There are no statistics available covering the average hours worked per week by employees in the various states, nor average weeks worked per year per employe.

Employees Under 16

The vast majority of employees under 16 years of age in the Graphic Arts Industries serve as sellers or carriers of newspapers, periodicals and advertising newspapers. A special report of the Research and Planning Division, May, 1934, on newspaper sellers and carriers shows that the major newspapers 1/ of the country in March, 1933, employed 127,419 newsboys under 16, while 209,390 were similarly employed by periodicals, and 1,805 by advertising newspapers.

Percentage Cost of Labor is of Value of Products

The percentage which the cost of labor is to the value of products in the Graphic Arts Industries, shown in the following table, is derived by dividing the total annual wages paid into the value of the products.

TABLE XV

Labor Costs

Year	Value of Product (thousands)	Annual Wages (thousands)	Per Cent Labor Cost is of Value of Product
1929	$ 2,929,111	$ 553,125	18.9
1931	2,327,125	472,650	20.3
1933	1,609,401	215,849	19.6

Source: Census of Manufactures, for "Printing and Publishing," "Lithographing," and "Engraving." Firms with value of products less than $5,000 not included.

It should be realized that the above percentages do not cover the entire labor cost as the wage data refer only to wage earners. If figures were added covering the salaries of office workers, executives, etc., labor costs would be somewhat higher. Statistics covering these latter, however, are lacking.

1/ Most of these newspapers are under the separate Code for the Daily Newspaper Publishing Business.

CHAPTER III

MATERIALS, RAW AND SEMI-PROCESSED

Principal Materials Used

The 31 Industries under the Graphic Arts Code used hundreds of materials in the manufacture of their products. As seen in Table XVI, the cost of paper represents the major expenditure for raw materials. Such specialized commodities as fine chemicals, ink eradicators and glue are important in certain of the National Product Groups, but, considering the Graphic Arts Industries as a whole the raw materials listed in the table cover their principal requirements.

Value of Each Principal Material Used

It is seen that the total value of the principal materials used in the Graphic Arts Industries declined consistently in the years following 1929: 25 per cent from 1929 to 1931, and 46 per cent from 1929 to 1933. Nearly every material listed followed this general trend; however, it may be noted that the value of domestic newsprint used increased between 1929 and 1931, while that of "trade lithographic plate-making" and "trade mounting and finishing" increased between 1931 and 1933.

TABLE XVI

Value of the Principal Materials and Services Used, by Principal Divisions

Materials and Services	1929	1931	1933
Materials a/			
Newsprint and Similar Paper			
Domestic	$80,706,899	$86,143,284	$47,836,504
Imported	145,000,000	110,000,000	68,000,000
Book Paper	168,271,655	120,282,799	83,244,346
Printers' Ink	42,749,992	32,188,398	24,387,781
Printers' Supplies	8,579,000	5,795,071	5,327,499
Engraving Materials	3,129,483	2,319,223	1,684,610
Sub-total	$448,437,035	$356,728,775	$230,[illegible]80,740
Services b/			
Trade Typesetting	$31,481,558	c/	$17,714,962
Trade Lithographic Plate Making	c/	3,000,000	3,500,000
Advertising Typography	22,680,000	16,217,000	12,769,000
Trade Mounting and Finishing	5,250,000	4,850,000	5,840,000
Trade Binding and Paper Ruling	c/	c/	4,999,429
Sub-total	$59,411,5[illegible]	$24,067,000	$44,823,391
Total	$507,84[illegible]	$380,795,775	$275,[illegible]04,131

a/ Census of Manufactures for the industries listed. Includes only products sold conclusively to the Printing and Publishing, Lithographing, and Engraving groups. No allowance has been made for exports of these products because such a small proportion of the total is exported. Excludes firms whose products are valued at less than $5,000. A part of these total sums - and presumably a large part of such items as newsprint paper - was spent by the 1,200 daily newspapers under the code for the Daily Newspaper Publishing Business.

b/ Code Applications of the Industry.

c/ Not available.

Sources of Raw Materials

Table XVII shows the localities which supply the major part of the more important raw materials used in the Graphic Arts Industries, and the percentage of each material originating in such locality. There was no great shift in the relative proportions of raw materials contributed by the various localities between the years 1929, 1931 and 1933; therefore, the figures for only the year 1933 are included.

The data presented in this table show that, of the nine states listed, Illinois, New York, Ohio and Pennsylvania are the most important domestic sources of supply. Virtually none of the listed materials are imported, with the exception of paper, about 54 per cent of which comes from Canada and about 3 per cent from Newfoundland.

Percentage Cost of Material is of Value of Products

From the reports of the Census of Manufactures 1/ it is calculated that for the years 1929, 1931 and 1933, the cost of materials 2/ used by the Graphic Arts Industries was, respectively, 24.3 per cent, 23.5 per cent and 21.8 per cent of the total value of the Industries' products.

1/ Reports for "Printing and Publishing", "Lithographing", and "Engraving." Excludes firms the value of whose products was less than $5,000.

2/ Includes fuel and purchased electric energy, which amounted, in 1929, to 3.2 per cent of the total cost of materials, fuel, and purchased electric energy.

TABLE XVII

Raw Materials Supplied Graphic Arts Industries, by Principal Sources, 1933.
(In per cent)

Region	Paper	Printers' Ink	Printers' Supplies	Engravers' Materials
Illinois	a/	22.8	22.6	30.8
Maine	3.8	a/	a/	a/
Massachusetts	3.9	a/	a/	a/
Michigan	4.1	a/	a/	a/
New Jersey	a/	7.0	a/	a/
New York	5.5	32.1	18.5	27.9
Ohio	3.4	6.4	3.7	a/
Pennsylvania	3.1	9.5	6.9	a/
Wisconsin	3.9	a/	a/	a/
Canada	54.0	a/	a/	a/
Newfoundland	3.0	a/	a/	a/
All Other	15.3	22.2	48.3	41.3
Total	100.0	100.0	100.0	100.0

Source: Census of Manufactures. "Paper and Pulp", "Ink, printing", "Printers' Supplies", "Engravers' Materials"; and Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States. 1933.

a/ Not among the chief sources of supply

In view of many qualifying factors which need not be entered into here, these percentages should be regarded as only rough approximations. It may be concluded, nevertheless, that the ratio of "cost of material" to "value of products" in the Graphic Arts Industries as a whole has remained fairly constant since 1929.

Value and Sources of Machinery and Equipment

Table XVIII presents the kind, value, and origin of the printing machinery and equipment used by the Graphic Arts Industries in 1929 - the last year in which any considerable purchases were made.

A breakdown by states of the 1929 values is not available. It may be noted, however, that the States of Illinois and New York, followed closely by Connecticut, New Jersey and Ohio, supplied the widest variety of machinery and equipment. In 1929 the total value of these products for the United States was approximately $70,000,000.

For the year 1933 the Census of Manufactures reported the value of such machinery and equipment at slightly more than $15,000,000, of which nearly 60 per cent (about $8,600,000) originated in the States of New York, Illinois and Ohio.

TABLE XVIII

Value and Sources of Printing Machinery and Equipment, Used, 1929 a/

Machinery	States	Total Value (thousands)
Typesetting Machines	California, Illinois, Iowa, New York, Ohio	$19,000
Bookbinding Machinery	Connecticut, New York, Pennsylvania, Rhode Island	4,000
Printing Presses		
Cylinder	Connecticut, Illinois, Massachusetts, Michigan, New Hampshire	11,000
Rotary	Illinois, Kentucky, Massachusetts, Michigan, Ohio	9,000
Web	Connecticut, New Jersey, New York	7,000
Other Types	Illinois, Indiana, Maryland, New Jersey, Ohio	9,000
Miscellaneous Printing Machinery	Illinois, New Jersey, New York, Ohio, Pennsylvania	10,000

Source: Census of Manufactures, "Machinery."

a/ Does not make allowance for exports, but by far the largest part of the printing produced in the United States is sold domestically.

CHAPTER IV

PRODUCTION AND DISTRIBUTION

The great majority of the products under the Graphic Arts Code are sold direct to the retailer or the consumer, with but few wholesale intermediaries.

Value of Production in Each State

The approximate value of products produced in each State by those Graphic Arts Industries under the Code is given in the following table.

TABLE XIX.

Value of Products, by States a/
(In thousands)

State	1929	1931	1933
New York	$779,244	$623,066	$434,891
Illinois	378,504	280,865	185,156
Pennsylvania	279,691	220,719	147,958
Ohio	218,502	178,587	124,051
California	152,697	128,593	89,337
Massachusetts	149,293	117,396	85,418
Michigan	104,069	73,244	47,166
Missouri	88,399	67,034	46,675
New Jersey	62,546	54,720	40,771
Indiana	53,887	41,324	27,899
Texas	53,400	41,284	28,197
Minnesota	53,136	47,356	35,295
All Other States	555,743	452,885	316,587
Total	$2,929,111	$2,327,125	$1,609,401

Source: Census of Manufactures, "Printing and Publishing," "Lithographing" and "Engraving."

a/ Establishments with value of products less than $5,000 not included. It should be noted that these figures include the value of products of those newspaper establishments under the separate Code for the Daily Newspaper Publishing business. Figures for 1934 are not yet available.

Volume of Production in Each State

The impossibility of establishing any yardstick by which volume can be gauged for the 31 Industries under the Graphic Arts Code has already been explained.

Value and Volume of Products Shipped Out of Each State

No precise figures are available showing the value and volume of products shipped out of each state. The only way such information could be procured would be to ascertain from each of the 40,000 Graphic Arts establishments its sales outside the state in which it is located.

However, in spite of the absence of this itemized information, it is patent that the Graphic Arts Industries as a whole are predominantly interstate. Figures covering the number of establishments in each state, already presented, show that nearly 75 per cent of all Graphic Arts establishments are concentrated in 12 states, and 50 per cent in 6 states, whereas their products are sold - for the most part direct - to nearly 150,000 retail establishments throughout the country. When to those establishments are added the many thousands of consumers who buy Graphic Arts products, such as job printing, newspapers, periodicals, labels, tickets and coupons, etc., direct from the producers by mail and otherwise, the preponderantly interstate nature of the Graphic Arts Industries becomes still more apparent.

The following tabulation presents specific evidence as to the interstate nature of the principal industries under the Graphic Arts Code:

Commercial Relief Printing Industry.- Statements by Messrs. J. J. Deviny and Elmer Koch 1/ indicate that this Industry is probably 50 per cent interstate by number of firms, and over 80 per cent by volume of business. The following reasons are given for this view: (1) Nearly all the large printing centers, i.e., New York, Philadelphia, Baltimore, Chicago, St. Louis, Kansas City, etc., are located close to state borders, so that even small firms with relatively few customers do business across state lines; (2) all large and many medium size concerns do a considerable mail-order business of an interstate character; (3) individual firms of large size and combinations of small firms are employing salesmen with increasing frequency to get business from cities and small towns located in other states. Thus, salesmen for Chicago and Kansas City firms operate as far West as the Pacific Coast.

Non-Metropolitan Newspapers.- All newspapers, except those of the most limited circulation, have subscribers in states other than those in which they are published.

Periodicals.- The same situation is evident here as in the case of non-Metropolitan newspapers. It should be noted, too, that New York City, the predominant periodical publishing center is located close to the state border, and, hence, periodicals with even a very limited circulation which are published in New York tend to circulate beyond state lines.

1/ Mr. Deviny is Executive Vice President and Mr. Koch Executive Secretary of the United Typothetae of America, the National Code Authority of the Commercial Relief Printing Industry.

Book Manufacturing.- The situation is not so clear here, as the geographical distribution of book printing plants follows closely along the lines of their customer, the Book Publishers. However, it should be realized that the books printed by Book Manufacturers, largely concentrated in New York City, Boston, and Philadelphia, are subsequently sold across state lines.

Lithographic Printing.- Most lithographing products have a wide interstate distribution. A good example is furnished by the Bank and Commercial Stationery Industry, which makes sales to nearly 25,000 banks scattered throughout the United States.

Engraving.- There is a wide interstate sale of the products of engraving manufacturers. 1/ Social stationery, engraved cards and the like are carried by many thousand stationery, book and department stores located in every state. The production of engraved securities is largely an interstate business, according to a statement of the secretary of this Industry's Code Authority. 2/

Service Industries.- The approximately 900 establishments in this group sell type, lithographic plates, mounting and finishing services and the like to nearly 40,000 firms under the Graphic Arts Code, and also to many thousand plants in other industries which conduct printing operations for their own use. With such a wide distribution of customers, the weight of evidence is strong that most of these service Industries have interstate sales.

Most of the products of the National Product groups are also widely distributed in interstate commerce. Labels, Dry Transfers and Textile and Hosiery packing have many thousand retail outlets in the garment, hosiery and kindred trades. The sale of tickets and coupons is estimated by the secretary of the Ticket and Coupon Manufacturers' Council to be over 90 per cent interstate. 3/ It should be pointed out, too, that playing cards produced by 7 firms, and Church envelope systems manufactured by approximately 25 concerns, are, in the

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1/ The following statement was made at a public Hearing on the Steel and Copperplate Engraving Industry, held on April 3, 1934, by Mr. Theodore Isert, Secretary of the Engraved Stationery Manufacturers Association, which later became the National Code Authority of the Industry. Mr. Isert said: "I think almost the entire United States is a competitive area in our line of business. There are very few concerns which do a strictly local business. They almost all do interstate business, or practically all. Many of them do business in half the states in the Union..." See Transcript of Hearing, pp. 28 and 29.

2/ Mr. A. M. Ferry. Mr. Ferry is also Secretary of the Association of Bank Note Companies, and is well qualified to speak on matters relating to the Industry.

3/ Mr. Charles Conradis. Mr. Conradis has had many years' experience in trade association work in the Ticket and Coupon Industry, and is Executive Secretary of the Ticket and Coupon Manufacturers' Council, the National Code Authority of the Ticket and Coupon Industry.

case of the former, distributed to many thousand retail establishments throughout the country and in the case of the latter are sold to a large proportion of the 250,000 Churches and religious institutions located in every State.

Products Sold to Wholesalers

As the Graphic Arts Industries as a whole are essentially a custom manufacturing group, with the products made to special order and comparatively few of them manufactured in advance of sale, few graphic-arts products are sold through wholesalers. The overwhelming bulk are made up on direct order by the customer, or through retail establishments for subsequent resale to the ultimate consumer.

There are, of course, exceptions to this rule. Certain periodicals and newspapers, for example, sell to wholesalers, who, in turn, distribute to newstands and retail stores. There are wholesale dealers in maps, greeting cards, playing cards, and thrift systems produced by the ticket and coupon industry. Even these industries are by no means confined to this method of distribution. The total value and volume of products sold to wholesalers and by them to retailers is exceedingly small in comparison with the value and volume sold either to retailers or to customers direct.

Products Sold to Retailers

While there are relatively few wholesalers handling the products of the Industries under the Graphic Arts Code, it is estimated from Census of Distribution figures that over 175,000 retail establishments handled Graphic Arts products in 1929 and over 130,000 in 1933. News dealers, stationery stores, stores selling general merchandise, circulating libraries and the like make up the general total. Among these establishments in 1933 were nearly 60,000 drug stores, over 20,000 cigar stores, 14,000 jewelry stores, over 12,000 dry goods stores, and the same number of variety (5 and 10 cent stores.)

Exports

In comparison with the value of domestic production, the value of exports of Graphic Arts products is negligible. They are confined to maps and charts, playing cards, lithographically printed matter (except post cards) and other printed matter. The following table shows these exports for 1929, 1931, 1933, and 1934, by value. Volume data are not available.

TABLE XX

Exports

Product	1929	1931	1933	1934
Maps and charts	$280,015	$80,897	$33,866	$41,626
Lithographically printed matter (except post cards)	2,851,045	2,143,938	1,386,900	1,478,733
Playing cards	705,881	387,617	225,384	266,274
Other printed matter	9,044,681	9,624,765	6,335,237	7,015,932
Total	$12,881,622	$12,237,217	$7,961,387	$8,802,565

Source: Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States.

Advertising

The Graphic Arts Industries produce more advertising for other industries and accept more advertising from other industries than they use themselves. This does not mean that Graphic Arts groups do not advertise, and advertise extensively. It simply means that in comparison with the amounts spent for advertising by manufacturers of food and tobacco products, drugs, and other types of consumer goods, the total advertising bill for the Graphic Arts Industry is small.

The type of advertising probably most frequently used is direct by mail. This is particularly characteristic of the Commercial Relief Printing group, in which the facilities for printing circulars, handbills, leaflets, etc., are close at hand. Periodicals likewise use this form of appeal to a considerable degree. Advertising is used in periodicals, especially in trade-association publications. Newspapers proclaim their "virtues" in their own advertising columns and occasionally in those of other newspapers. Radio advertising is little used.

Shift in Centers of Production

On the basis of Census of Manufactures data, it can be stated that there have been no marked shifts in production centers between 1929 and 1935 for any of the Industries under the Code. Figures showing the number of establishments by states do not indicate any marked change in the comparative ratio of firms in one state to those in another between 1929 and 1935, nor has there been any noteworthy shift in the value of their products.

Productive Capacity

Considering the Industries under the Code as a whole, from the data available, it would be impossible to make even a worthwhile guess as to the productive capacity of the Industry. So far as productive capacity utilized is concerned, authentic data are likewise not available.

CHAPTER V

TRADE PRACTICES

Pre-Code Practices

Destructive price cutting was the dominant unfair trade practice prior to the approval of the Code, and this practice was participated in by practically all the 31 Industries under the Code.

To a much less degree the following other unfair trade practices also existed: (1) inaccurate advertising, (2) misrepresentation of competitor, (3) secret rebates, (4) appropriation of design, (5) discriminatory discounts, (6) unfair selling terms, and (7) improper bids.

Practices Prevalent

After the Code was approved it became apparent that certain of the trade practices which had been sanctioned in the Code under the provisions relating to accounting and cost finding not only carried within themselves the seeds of abuse, but were being applied in certain cases in a detrimental way. Thus, a price determination schedule submitted by the Commercial Relief Printing Industry and later approved, was found on examination to contain the opportunity for inequities between one section and another and between large and small concerns. Discrimination has also been claimed against Code Agencies in the matter of approving Cost Systems as required by the Code.

According to Compliance data, the following unfair trade practices still persist to a greater or less degree:

1. Selling below cost (over 65 per cent of all complaints of violation of the trade practice provisions of the Code are directed against this practice).

2. Inaccurate advertising.

3. Filing improper bids

4. Granting discriminatory discounts.

5. Appropriation of design.

It cannot be said that any of the above practices, except perhaps the first, are prevalent as measured by the number of complaints made. They are listed as indicating that such practices still exist.

Price Cutting

In the distribution of bank and commercial stationery products - a predominantly interstate business - the price structure of the Industry was almost completely demoralized by the price-cutting tactics of a single large member who started a price war in a

certain locality. All firms in that locality had to meet his lower prices in order to retain business. Soon customers of firms in other localities demanded the same lower prices, and firms in such localities had to accede or lose their customers. In this way what started as a purely local practice spread to all regions of the country.1/

The example cited above indicates how the price of an individual member of industry tends to affect the prices of all members. Another instance of a similar character may be cited. There are a number of large printing firms in Chicago and other mid-west centers who by virtue of power presses and high-speed equipment can offer speedy service at low prices. These firms, through salesmen, actively bid for and secure business from points as far off as the Pacific Coast. Local printers in order to meet this competition have to lower their own prices. It may be added that this is not a case of destructive price cutting, as the firms in question pay Code wages and are not selling below cost.2/

Trade-Marked Products

While a large proportion of the products of the Industry are copyrighted, including in this category newspapers, periodicale of all types, maps, and the like, only a small proportion are trade-marked. Under this heading are playing cards, certain types of decalcomanias, etc.

1/ This example is based on a verbal statement by C. A. Parker, made when he was Secretary of the Code Administrative Agency of the Bank and Commercial Stationery Industry.

2/ This example was cited in a verbal statement by Mr. J. J. Deviny, Executive Vice President of the United Typothetae of America, the National Code Authority of the Commercial Relief Printing Industry.

CHAPTER VI

EFFECT OF THE CODE ON INDUSTRY

It would be presumptious to make any categorical statement as to the effect of the Code upon the 31 Graphic Arts Industries as a unit. Some of them have undoubtedly benefited; other, according to the statements of their Code Authority secretaries, claim that the Code has had little effect.1/ With a Code having the flexibility of the Graphic Arts Code, it is obvious that its provisions are better designed to fit the needs and solve the problems of some of its constituent industries than others.

Printing Activity and Hours of Work

There are certain yardsticks which supply indirect evidence that the Code is fulfilling its purpose in reducing hours and raising wages. For instance, in book and job printing plants, there has been an increase in the index of printing activity from a low point of 55.2 in March, 1933, to a high point of 72.4 in December, 1934.2/ During this period the average weekly hours in book and job printing increased only from 36.4 to 37.3.3/ Thus, an increase in the index of printing activity of approximately 31 per cent between these two periods was accompanied by an increase in average weekly hours of only about 3 per cent. Employment rose meanwhile from an estimated total of 100,400 to 117,000 - an increase of 17 per cent.3/ Granted that a number of other factors enter into the situation, the inference may nevertheless be drawn that the hour provisions of the Code have had the effect of keeping down hours and spreading employment. A similar situation, it may be added, exists in the newspaper and periodical fields where increases of 38 per cent in the index of activity for the former and of 30 per cent for the latter, for the period March, 1933 to December, 1934,4/ were accompanied by a decline of 7 per cent in weekly hours worked.5/

Wages

With respect to wages, Bureau of Labor Statistics data show that between March, 1934 (just after the Code went into effect) and December, 1934, there was an increase of roughly 4 per cent in the hourly wage of employees in the Printing and Publishing Industries. The average weekly payroll showed increases of about 7 and 13 per cent respectively during this period.6/

Profits

Under the Code there has been an increase in profits in the Graphic Arts Industries. Comprehensive profits data for the current year are not available. The following figures, although they apply to a sample of 30 presumably relatively large companies, may nevertheless be taken as an indication of recent trends in the Graphic Arts Industries.

1/ Mr. A. H. Ferry, Secretary of the Code Authority for the Securities and Bank Note Engraving and Printing Industry made a verbal statement to this effect.
2/ United Typothetae index shifted to 1929 base by NRA.
3/ Bureau of Labor Statistics, Trend of Employment.
4/ Index of newspaper advertising lineage constructed by NRA from data published in Media Records; index of magazine advertising lineage constructed by NRA from data published in Printers Ink.
5/ Bureau of Labor Statistics, Trend of Employment.
6/ Basic data from Bureau of Labor Statistics, Trend of Employment. Figures for the Industry as a whole obtained by combining "Book and Job" and "Newspaper and Periodicals" groups.

Table XXI

Changes in Corporation Profits in the Printing and Publishing Industry, 1933 to 1934

Year	1933 (thousands)	1934 (thousands)	Per Cent Change 1933 to 1934
Net Profits a/	$ 5,978	$ 13,488	+ 125.6
Net Worth b/	206,843	174,820	- 15.5
Per Cent Return	2.9	7.7	+ 165.5

Source: National City Bank Letter, April, 1935, p. 58.

a/ Net profits are shown after depreciations, interest, taxes, and other charges and reserves, but before dividends.

b/ Net worth includes book value of outstanding preferred and common stock and surplus account at beginning of each year.

A survey conducted by the Texas Zone Agency of the Commercial Relief Printing Industry late in 1934 shows that about 77 per cent of Texas printers have enjoyed an increase in their volume of business, averaging from 20 to 25 per cent, and that approximately 80 per cent of this group reported an increase in profits averaging about 35 per cent.

Price Cutting

Reports from such localities as San Francisco and Pittsburgh indicate that the Code is serving to halt price cutting in those regions, and that in other sections of the country - New York City and North Carolina, for example - adequate cost-finding systems are being installed, which should result in a greater measure of price stabilization.

CHAPTER VII

TRADE ASSOCIATION HISTORY AND LABOR ORGANIZATIONS

Cooperative organization in the Graphic Arts Industries is strong, and there are now approximately 30 trade associations functioning, there being at least one for each industry under the Code.

U. T. A. and N. E. A.

The two largest and oldest associations are the United Typothetae of America, and the National Editorial Association. The former was organized in 1887 as an association of commercial printers. Its membership at the end of March, 1935, was about 5,000 1/ with headquarters in Washington, D. C. The National Editorial Association was organized in 1885 as an association of newspaper publishers, although now its membership includes some job printers. In July, 1933, it had 7,729 members, 2/ with headquarters in Chicago.

The former association is largely decentralized, having 17 zone and 126 regional agencies, while the latter has a regional branch in each of the 48 states. These two associations act as Code Authorities for approximately 35,000 establishments out of some 41,000 in the Graphic Arts Group.

Other Associations

Other trade associations of importance are the Periodical Publishers' Institute, the Book Manufacturers' Institute, the Lithographers' National Association and the Engraved Stationary Manufacturers' Association. Their Boards of Directors constitute the Code Authorities of their respective industries.

Relationship Between Labor and Management

Skilled employees in the Graphic Arts Industries are quite strongly unionized, particularly in the relief-printing field, where there has been considerable trouble between labor and management. This applies especially to the Metropolitan Districts in the North, where the principle of collective bargaining is generally recognized.

Competitive and Regional Groups

Not only do a number of industries under different process groups in the Graphic Arts Code compete with one another, but associations - both national and regional - in the same process group also compete. The following are outstanding examples of competition within the same process group:

1. Code Agencies of Zone 16 (New York City) and Zone 17 (Chicago) with Zone 5 (all southern states except Texas) and Zone 8 (Texas). These are zone offices in the Commercial Relief Printing Industry. The first two zone agencies represent the view-point of the metropolitan centers as against

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1/ Verbal statement of its Executive Vice President, John J. Deviny.

2/ Estimate of Kenneth Baldridge, Vice President of N.E.A., at Public Hearing on Graphic Arts Code held September 18, 1933 (Volume 1, Page 72, Transcript.)

those of the more predominently rural South. The former represent regions where there is an abundant labor supply as contrasted with regions where labor is scarce. The two southern zones claim that the New York and Chicago printers dictated the classified wage scales in the Code, which rob them of price advantages.

2. United Typothetae of America vs. National Editorial Association. - The N. R. A. represents rural newspapers chiefly, and many of these operate small commerc 1 relief-printing plants. The U. T. A. on the other hand, while represe ing many small establishments, is claimed to be dominated by large concern . Hence, there is a clash of interests involved between large and small concerns.

The chief examples of competition among different process groups are as follows:

1. Securities and Bank Note Engraving and Printing vs. Lithographic Printing. - There is keen competition for business between the makers of engarved securities and the producers of lithographed securities.

2. Photo-Lithographing vs. Commercial Relief Printing. The cheaper process of photo-lithographing has made large inroads on relief printing, particularly in the case of small orders in which the unit cost is high. Thus the two processes have become highly competitive.

3. Steel and Copperplate Engraving vs. Commercial Relief Printing. While these two groups do not usually compete for the same class of business, there are sufficient borderline cases to supply keen competition in such products as greeting cards, and certain types of stationery. 1/

Labor Organizations

The development of trade unions in the Graphic Arts Industry dates from 1852, when the International Typographical Union was formed. In its early years the union was the only one in the field and embraced all crafts in the Printing Industry. Beginning in 1890, however, a movement toward the establishment of unions in the various crafts was started, so that today there are seven unions in the Printing Industry. Five of these combined to form the International Allied Printing Trades Associations, an alliance whose chief function is the issuance and control of the union label of the allied printing trades.

1/ The above cases are based on verbal statements of the secretaries or other officials of the Code Authorities and Code Administrative agencies concerned.

TABLE XXII

Trade Union Membership 1929 a/

Union	Date Organized	Membership
International Typographical Union	1852	77,000
International Printing Pressmen and Assistants Union	1889	45,000
International Brotherhood of Bookbinders	1892	14,000
Amalgamated Lithographers	1882	5,906
International Plate Printers, Die Stampers and Engravers Union	1892	1,000
Total		142,906

Source: Bureau of Labor Statistics. Handbook of American Trade Unions. (Number 506) 1929 ed.

a/ Only the five unions in the International Allied Printing Trades Association are listed. The other two unions - Photo-engravers and Electrotypers and stereotypers - are primarily in branches of the Graphic Arts Industry not covered by the Graphic Arts Code.

Present Financial Condition Compared With 1929, 1931, 1933

Of the 31 industries covered by the Graphic Arts Code, some were much more seriously affected by the depression than others. Large extremes occurred in this respect with the Securities and Bank Note Engraving Industry, which showed a 60 per cent decline in sales between 1929 and 1933, while the Stationery and Business Forms Industry over this same period showed gains in sales of over 53 per cent. 1/ Both of these are unusual cases, cited simply as evidence of the difficulty of appraising the financial condition of the Industry as a whole in 1934 as against 1929, 1931, and 1933.

Tables XXIII and XXIV give the latest available financial data for "Printing, Publishing, and Allied Industries" as reported by the Bureau of Internal Revenue.

1/ Code Applications of the Industry.

TABLE XXIII

Net Profits And Net Deficits Of Corporations
In The Printing, Publishing and Allied Industries a/

	Net Profits of Companies Reporting Net Income		Net Deficits of Companies Reporting No Net Income		Net Profits or Deficits of All Companies Reporting Income Data	
Year	Number of Returns	Amount (thousands)	Number of Returns	Amount (Thousands)	Number of Returns	Amount (Thousands)
1929	7,331	$ 290,295	3,839	$ 43,523	11,170	+ $ 246,772
1930	6,098	222,822	5,271	50,122	11,369	+ 172,700
1931	4,593	124,156	6,810	66,043	11,403	+ 58,116
1932	2,155	66,551	9,510	87,972	11,665	- 21,421

Source: Bureau of Internal Revenue, Statistics of Income:
+ indicates profit, - indicates deficit. Later data not available.

a/ "Net Profits" - or "Net Deficit" - consists of total compiled receipts(see Table XXIV, footnote "c") Less statutory deductions.

TABLE XXIV

Compiled Receipts, Total Assets, and Net Surplus of
Corporations in Printing, Publishing, and Allied Industries a/
(In thousands)

Year b/	Compiled Receipts c/	Total Assets d/	Net Surplus e/
1929	$ 2,874,792	$2,838,153	$ 771,360
1930	2,667,244	3,025,406	856,155
1931	2,269,058	3,033,984	856,465
1932	1,793,730	2,934,397	706,350

Source: Bureau of Internal Revenue, Statistics of Income. Later data not available.

a/ "Compiled Receipts" represent all active corporations whereas "Total Assets" and "Net Surplus" represent only corporations filing balance sheets with the Bureau of Internal Revenue. However, the corporations filing balance sheets are not identical for all years.

b/ Assets and surplus are reported as of the end of the year, or the fiscal year ending nearest to December 31.

c/ "Compiled Receipts" consists of gross sales, gross receipts from other operations interest received, rents received, profits from sale of capital assets, and other items of taxable income, and major items of non-taxable

 (Continued on following page)

TABLE XXIV (Cont'd)

income, - dividends from domestic corporations, and interest on governmental securities.

d/ All assets after deduction of such reserves as depreciation and bad debts, less surplus deficit.

e/ Surplus and undivided profits less deficit. For balance sheets with no par stock value, the net worth was tabulated with "Surplus and undivided Profits" by the Bureau of Internal Revenue.

Figures compared with those given in the above tables are not available for 1933 and 1934, but there are certain figures on the relief-printing group which might tend to indicate its economic position for 1934, as against the three previous periods. These consist of failures data and the comparison of value of products and current changes in the profits of 30 corporations already cited. Other indices follow:

1. Index of Printing Activity. With a base of 100 for 1929, the index of printing activity stood at 67.4 for the year of 1934, which is materially lower than the 78.0 index for 1931, but higher than the 65.0 index for 1932 and the 59.9 index for 1933. 1/

2. Index of Employment. Employment in the Printing and Publishing Industries stood at 81.2 in 1934 (1929=100), this again being larger than in 1932 and 1933, but below the index figure of 90.3 in 1931. 2/

3. Payroll Index. The payroll index in the Printing and Publishing Industries which stood at 100 in 1929, declined to 64.4 in 1934, this being lower than for any year since 1929 except 1933, when it stood at 57.8. 3/

4. Index of Newspaper Advertising Lineage. With 1929 reckoned at 100, the index of newspaper advertising lineage stood at 62.1 in 1934, this being greater than the 56.2 index of 1933 and 61.4 index in 1932, but below the index for 1931, which stood at 65.2. 4/

1/ United Typothetae index shifted to 1929 base by NRA.

2/ Basic data from Bureau of Labor Statistics, Trend of Employment. Bureau of Labor Statistics index for "Book and Job" and "Newspaper and Periodical" groups multiplied by Census base figure and adjusted by NRA to 1933 Census totals.

3/ Basic data from Bureau of Laboe Statistics, Trend of Employment. Figures for the Industry as a whole obtained by combining "Book and Job" and "Newspaper and Periodicals" groups.

4/ Index computed by NRA from figures published in Media Records.

5. <u>Index of Magazine Advertising Lineage</u>. This index stood at 59.9 in 1934 (1929=100) as against 46.0 in 1933, 52.1 in 1932 and 71.2 in 1931. 1/

6. <u>Index of Cost of Magazine Advertising Lineage</u>. This index stood at 55.3 in 1934 (1929=100) as against 45.6 in 1933, and 56.6 in 1932 and 31.7 in 1931. 2/

While it is not claimed that these indices bear a direct relation to the financial position of individual firms in the Industry, they do supply indirect evidence of the fact that a large proportion of the Industry is economically better off than in 1933 and better in most respects than in 1932.

1/ Index computed by NRA from figures published in <u>Printers Ink</u>.

2/ Index computed by NRA from figures published by Denney Publishing Company.

CHAPTER VIII

EXPERTS ON THE GRAPHIC ARTS INDUSTRIES

In each of the 31 industries under the Code there are one or more men with sufficient background and experience in their particular industry to qualify as experts. While these names can all be furnished on request, it is believed that for present purposes the following names selected from key industries will prove sufficient.

1. E. W. Palmer, Chairman National Graphic Arts Coordinating Committee. Mr. Palmer has for a number of years been head of the Kingsport Press, Kingsport, Tennessee, one of the largest book-printing establishments in the country. He played a prominent part in the discussions and conferences held in connection with the Public Hearings on the Graphic Arts Code, being particularly active in behalf of the interests of book manufacturers. As chairman of the highest governing board of the Graphic Arts Industry, he is a qualified expert on the Code as a whole. He can be reached at committee headquarters in the Tower Building, Washington, D. C.

2. Ernest A. Gross, General Counsel to National Graphic Arts Coordinating Committee. Mr. Gross, before assuming his present position was with NRA as Counsel to the Deputy Administrator who conducted the hearings and conferences which brought the Graphic Arts Code into being. As such, Mr. Gross became thoroughly familiar with all viewpoints relating to the Codal provisions and since then has served as the channel through which the many problems of Code administration have reached NRA. His address is the same as Mr. Palmer's.

3. John J. Deviny, Executive Vice President, United Typothetae of America. Mr. Deviny has spent his entire working life in the Printing Industry, first as a plate printer in the Bureau of Engraving and Printing and later as its Assistant Director. In 1927, he became associated with the Miller Printing Machinery Company of Pittsburgh, but resigned to accept the position he now holds. The United Typothetae of America is both the National Trade Association of the Commercial Relief Printing Industry and the National Code Authority for that Industry. Its address is the Tower Building, Washington, D. C.

4. Kenneth M. Baldridge, President, National Editorial Association, joint Code Authority for the Non-Metropolitan and the Daily Newspaper Publishing groups. Mr. Baldridge has had many years of experience in the newspaper field as the publisher of newspapers in Iowa, and hence is admirably fitted to express the viewpoint of the small rural newspaper, the interests of which the National Editorial Association essentially represents. As Vice President of this organization Mr. Baldridge played a prominent part in all pre-Code deliberations and hence is familiar with the Code and the problems which it attempts to solve. His address is in care of the National Editorial Association at 126 North LaSalle Street, Chicago, Illinois.

5. J. Raymond Tiffany, Code Director, Book Manufacturers' Institute, the National Code Authority of the Book Manufacturing Industry. While Mr. Tiffany is a newcomer to the Institute, having been Code Director only since the latter part of 1934, he has had considerable experience in the book manufacturing and allied fields. His address is 100 East 42nd Street, New York City.

6. Walter D. Fuller, Periodical Publisher's Institute, the National Code Authority for the Periodical Publishing Industry. Mr. Fuller has for many years been associated with the Curtis Publishing Company and is now its president, and hence is familiar with all phases of periodical publishing. His address is either in care of the Institute, 232 Madison Avenue, New York, or at the offices of the Curtis Publishing Company, Independence Square, Philadelphia.

7. Maurice Saunders, Secretary National Association of Lithographers, National Code Authority for the Lithographic Printing Industry. Mr. Saunders has been in the lithographic printing business for many years and represented this Industry at the Public Hearings on the proposed Code. He also served on committees which assisted in formulating the labor and trade practice provisions of the Code. His address is 295 Madison Avenue, New York City.

8. Theodore Isert, Secretary, Engraved Stationery Manufacturers' Association, National Code Authority for the Steel and Copperplate Engraving Industry. Mr. Isert has been associated with a number of firms in this Industry and by virtue of his experience and knowledge of the engraving trade represented the association at all public hearings, conferences and meetings held in connection with the formulation of the Graphic Arts Code. His address is 1 East 57th Street, New York, New York.

9. The service group of industries can offer the following qualified experts:

a. Fred W. Hoch, Secretary, International Trade Composition Association, National Code Authority for the Trade Typesetting Industry. Mr. Hoch represented this group at pre-Code hearings and conferences and is thoroughly familiar with their Code problems. His address is 461 - 8th Avenue, New York, New York.

b. Albert Abrahams, Advertising Typographers of America, National Code Authority for the Advertising Typography Industry. Mr. Abrahams occupies the same relative position with respect to this group as does Mr. Hoch to the group just discussed. His address is 461 - 8th Avenue, New York, New York.

c. E. M. Diamant, Member of the National Code Authority for the Trade Mounting and Finishing Industry (Association of Mounters and Finishers). Mr. Diamant has been a member of this Industry for many years and is thoroughly familiar with its problems. His address is 110 East 42nd Street, New York, New York.

The other two service groups, i.e., Trade Lithographic Plate Making and Trade Binding and Paper Ruling, are very closely associated with the Lithographic Printing Industry and the Book Manufacturing Industry respectively, the Book Manufacturers' Institute acting as Code Authority for the latter. Hence, data on these two industries may be secured respectively from Maurice Saunders of the Lithographic Printing Code Authority and from Mr. Tiffany of the Book Manufacturers' Institute.