

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Business Incorporations in the United States, 1800-1943

Volume Author/Editor: George Heberton Evans, Jr.

Volume Publisher: UMI

Volume ISBN: 0-87014-048-5

Volume URL: <http://www.nber.org/books/evan48-1>

Publication Date: 1948

Chapter Title: Fields of Corporate Enterprise

Chapter Author: George Heberton Evans, Jr.

Chapter URL: <http://www.nber.org/chapters/c0676>

Chapter pages in book: (p. 66 - 74)

CHAPTER 8

Fields of Corporate Enterprise

The Major Industrial Categories

In Chart 20 similarities between the incorporation data of this study and the figures on corporations reporting for income tax purposes are observable. The diagrams, supplemented when necessary by the percentages in Tables 22 and 23 and the basic purpose data (App. 4), reveal other points. The three state series for each of the major (one-letter) industrial categories resemble one another closely. Incorporations in agriculture, construction, and the miscellaneous group were few and these categories can be disposed of promptly. The construction group is the only one that cannot be dismissed without comment. The New Jersey series reflects a fair amount of activity in this industry during the 'eighties, which is largely attributable to the chartering of railroad construction companies.

Both the Ohio and the Pennsylvania series for finance have falling trends until the late 'nineties—to be explained on slightly different grounds. In the case of Pennsylvania the downward movement was caused chiefly by a drop in the number of building and loan associations chartered. In Ohio, building and loan incorporations declined from 1875 to 1878. After 1879 this decline—by no means uninterrupted—was relative rather than absolute until in the middle 'nineties incorporations of building and loan associations became negligible both absolutely and relatively. The reason the New Jersey financial series does not have a similar trend is perhaps because it does not contain figures for building and loan associations. (The data were not given in the New Jersey sources that had to be used for the compilation of the incorporations by that state.) The upward trend in all three state series, beginning about 1900, is not unexpected.

The fluctuations prior to 1890 in the incorporation of companies that supply services (other than public utility services) were due largely to the incorporation of amusement companies in New Jersey and Ohio. Hotel incorporations in New Jersey were also substantial. For 1890-1930 the slowly rising trends of the series in this category are worthy of note.

The fairly horizontal trends of the three mining series on Chart 20 are less interesting than the bulges in the curves. The three largest bulges are: the one for New Jersey that reached its peak in 1881, reflecting gold and silver mining activity; the one for Ohio that reached its peak in 1887, reflecting natural gas discoveries and attempts to exploit them; and the one for Pennsylvania

that reached its peak in 1917, reflecting expansion in the coal mining industry during the war. The minor movement in the Ohio series that matches this Pennsylvania episode was also caused by activity in the coal industry. The other minor wave-like movements in the Ohio series reflect activity in either the petroleum and natural gas producing industry or coal mining.

As might be expected, the three state series for wholesale and retail trade are dominated by an upward trend. The low percentages for the first portion of the Pennsylvania series may seem somewhat surprising. As mentioned in the preceding chapter, the incorporation of wholesale trading enterprises under general law was first authorized in June 1895; companies organized to carry on retail trade could not be incorporated under general law until July 1901. Nevertheless, four companies incorporated before 1895 had, in accordance with the descriptions in the charter abstracts, to be classified as trading concerns. The Pennsylvania trade series rises in 1895 and jumps substantially in 1901; thereafter it keeps pace with the other two series.

Public utility incorporations continued the downward trend shown in Table 11, chiefly because the corporate form entered other fields, such as trade and the services. In Pennsylvania the upsurge that reached a peak in 1913 is explained largely by certain state legal provisions, discussed in the latter part of this chapter.

Complementing the declines in the financial and public utilities series, incorporations in manufacturing rose until approximately the early 'nineties. The falling per-

TABLE 25
Business Incorporations
Percentage Distribution by One-Letter Industrial Categories
New Jersey, Ohio, and Pennsylvania

	NEW JERSEY			OHIO					PENNSYLVANIA		
	1880-1889	1890-1899	1900-1907	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1890-1899	1900-1909	1910-1919
Total	100	101	99	102	101	100	99	99	100	101	98
Mining & quarrying	8	5	6	9	8	9	7	4	8	8	9
Manufacturing	50	54	46	45	48	45	36	28	48	41	30
Public utilities	15	10	7	18	13	9	4	4	22	16	16
Trade (wholesale & retail)	3	9	11	5	10	12	20	23	1	11	16
Service	5	7	7	7	8	8	10	10	1	5	6
Finance	9	9	13	15	10	12	16	23	19	15	16
Construction	6	4	5	1	2	3	4	5	1	3	3
Agriculture	1	1	1	1	1	1	1	1	0*	1	1
Unallocable	3	2	3	1	1	1	1	1	0*	1	1

* Less than .5 per cent.
Percentages were computed from data in Appendix 4.

centages that set in during the 'nineties are associated with the rising trends in trade, service, and finance.

A few final comments concerning incorporations grouped according to the one-letter categories are in order. Manufacturing incorporations have constituted a large percentage of all charters granted each year since 1875. In contrast, incorporations for agricultural, construction, and miscellaneous purposes have constituted small percentages of the annual totals. The charters granted wholesale and retail trading enterprises have greatly increased; charters issued for public utilities have declined as a percentage of the total (Table 25).

The Secondary Industrial Categories

As Agriculture, a one-letter category, has no subdivisions, incorporations in it are not discussed here; nor are the secondary (two-letter) categories of Trade and Construction. The latter industry can be dismissed with a few remarks in appropriate places, since only two subdivisions were utilized. Trade incorporations presented more difficulties. The reason they are not discussed is that the tally of incorporations in this field is deemed somewhat less reliable than the two-letter tallies of the other industrial groups.

Incorporations in the two-letter mining categories of New Jersey, Ohio, and Pennsylvania (App. 4 and Table 26) reveal contrasts that might have been predicted by one reasonably well acquainted with both industrial life in these three states and the activities of promoters procuring corporate charters from them. Many New Jersey incorporations had to be placed in the unallocable mining group because the descriptions of their corporate objectives were either too vague or too comprehensive to warrant assignment to other two-letter categories. Many New Jersey mining companies of that period were doubtless organized to function outside the state on properties inadequately explored, and

their promoters wanted broad corporate powers so that they could take advantage of any and all opportunities. In Pennsylvania, coal mining is the chief field for incorporation. In Ohio it shares the dominant position with petroleum and natural gas production. In New Jersey metal mining is the largest mining subgroup; on occasion, for example in 1881, it completely eclipsed the other groups. There was a parallel metal mining movement in Ohio in the early 'eighties.

To discuss all of the two-letter manufacturing subgroups would flood the text with details. Accordingly, the only two-letter manufacturing categories treated are those that in any one of the years under study contained a number of incorporations equal to at least 7½ percent of total charters granted manufacturing enterprises. Industries that from an incorporation point of view were important throughout the period as well as both those that had an important position and lost it and those that grew from insignificance to prominence are included. The rule, however, excluded a few interesting cases. For the most part they are new industries that developed rapidly, but in which incorporations did not total the minimum percentage (7½) of manufacturing charters granted by the state.

No one industry dominates the manufacturing incorporations of any one of the three states (Table 27). In the New Jersey section of Table 27 there are seven subgroups, in the Pennsylvania section, eight, and in the Ohio section, ten. The differences in the number of subcategories are not surprising. The Ohio data, covering the longest period and extending to the most recent date, contain the largest number of subgroups that qualified for inclusion in Table 27. The Pennsylvania data are for more recent years than the New Jersey and cover a slightly longer period; the Pennsylvania section has one more two-letter category.

Six two-letter manufacturing categories are common to the three states: Food and kindred products; Printing, publishing, and allied industries; Chemicals and allied products; Stone, clay, and glass products; Iron and steel and their products; Machinery (except electrical). One subgroup, Textile-mill products, is to be found in both the New Jersey and the Pennsylvania figures. The Ohio section contains percentages for four manufacturing subgroups that do not appear for either of the other states: Furniture and finished lumber products; Electrical machinery; Automobiles and automobile equipment; and Transportation equipment (except automobiles). The Pennsylvania section contains only one manufacturing subgroup, Beverages, that does not appear for either of the other states. Since it may be of interest to some readers to record the first dates when incorporations in the categories of Table 27 became

TABLE 26
Mining and Quarrying Incorporations
Percentage Distribution by Two-Letter Industrial Categories
New Jersey, Ohio, and Pennsylvania

	NEW JERSEY			OHIO					PENNSYLVANIA		
	1880-1889	1890-1899	1900-1907	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1890-1899	1900-1909	1910-1919
Total	100	100	101	100	100	101	100	100	99	100	101
Metal mining	37	28	23	9	2	2	1	1	1	1	1
Coal mining	4	9	9	25	22	26	34	34	56	61	73
Crude petroleum & natural gas production	1	3	8	47	56	56	49	54	16	16	13
Nonmetallic mining & quarrying	12	19	15	5	9	4	6	4	21	17	10
Unallocable	46	41	46	14	11	13	10	7	5	5	4

Percentages were computed from data in Appendix 4.

sufficiently numerous to warrant inclusion, Table 28 was compiled.

Incorporations in the two-letter subgroups of the public utility category are more like those previously given for mining than those just discussed for manufacturing (Table 29). While no single subgroup dominates New Jersey public utility incorporations, charters granted

Ohio section of Table 29 was made revealed long cycles in each series representing a subgroup. Although these cycles do not coincide, there is also a long wave in total public utility incorporations, largely because incorporations in transportation bulk large in total public utility incorporations. Consequently, the total moves much as the transportation subgroup does. Since long cycles are

TABLE 27
Percentages of Total Manufacturing Incorporations that Fitted into Certain Two-Letter Industrial Categories
New Jersey, Ohio, and Pennsylvania

	NEW JERSEY			OHIO					PENNSYLVANIA		
	1880-1889	1890-1899	1900-1907	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1890-1899	1900-1909	1910-1919
Food & kindred products	4	5	5	7	11	9	9	9	7	7	10
Beverages	a	a	a	a	a	a	a	a	4	4	3
Textile-mill products	6	5	5	a	a	a	a	a	6	9	12
Furniture & finished lumber products	a	a	a	6	5	5	3	4	a	a	a
Printing, publishing, & allied industries	6	8	6	11	10	8	7	8	8	8	7
Chemicals & allied products	9	8	8	7	7	7	8	9	7	7	7
Stone, clay, & glass products	8	5	8	5	9	9	6	5	10	11	6
Iron & steel & their products	12	7	9	17	11	11	10	9	19	11	9
Electrical machinery	a	a	a	1	3	3	4	6	a	a	a
Machinery (except electrical)	12	9	10	13	10	11	13	10	7	8	9
Automobiles & automobile equipment	a	a	a	0	0 ^b	2	6	5	a	a	a
Transportation equipment (except automobiles)	a	a	a	6	6	3	2	1	a	a	a

Percentages were computed from data in Appendix 4.

^a This category did not contain in any one year as much as 7½ percent of the total incorporations for manufacturing purposes in the given state.

^b Less than .5 percent.

TABLE 28
Years in which Annual Incorporations in Certain Manufacturing Industries First Equaled or Exceeded 7½ Percent of the Total Annual Manufacturing Incorporations
New Jersey, Ohio, and Pennsylvania

MANUFACTURING INDUSTRY	SYMBOL FROM TABLE 19	NEW JERSEY	OHIO	PENNSYLVANIA
Food & kindred products	BA	1881	1883	1893
Beverages	BB			1897
Textile-mill products	BD	1887		1888
Furniture & finished lumber products	BI		1892	
Printing, publishing, & allied industries	BK	1883	1881	1889
Chemicals & allied products	BM	1881	1881	1892
Stone, clay, & glass products	BP	1881	1882	1888
Iron & steel & their products	BQ	1881	1881	1888
Electrical machinery	BS		1922	
Machinery (except electrical)	BT	1881	1881	1888
Automobiles & automobile equipment	BU		1917	
Transportation equipment (except automobiles)	BV		1881	

Based on data in Appendix 4.

transportation companies were a relatively large percentage of the total throughout the period. Another feature of the New Jersey section of the table is the importance of the miscellaneous group, which includes gas, electric light, power, water, bridge, and turnpike companies. Annual incorporations in the communications field, though few, have a very interesting long cycle (Chart 21A). Study of the annual data from which the

TABLE 29
Public Utility Incorporations
Percentage Distribution by Two-Letter Industrial Categories
New Jersey, Ohio, and Pennsylvania

	NEW JERSEY			OHIO					PENNSYLVANIA		
	1880-1889	1890-1899	1900-1907	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1890-1899	1900-1909	1910-1919
Total	99	100	100	101	100	100	100	100	100	100	100
Transportation	43	47	50	56	57	52	66	77	11	10	15
Communication	13	9	9	7	20	29	7	6	9	13	4
Others*	43	44	41	38	23	19	27	17	80	77	81

Percentages were computed from data in Appendix 4.

* The unallocable group, ccg, is part of this group. For New Jersey it constitutes 8% of all public utility incorporations of the 80's, 11% of the 90's, and 14% in 1900-07. For Ohio, similar figures for the successive decades beginning with the 80's are 2, 1, 2, 1, and 1 percent. For Pennsylvania, similar figures for the successive decades beginning with the 90's are 3, 5, and 3 percent.

treated below, further comment on these series is postponed. In the Pennsylvania section of the table, the miscellaneous category clearly dominates the total public utility group; it also shows a long wave when annual figures are studied.

Among the two-letter service categories, incorporations in the amusement field were a large, though generally declining, percentage of total charters granted (Table 30). Next largest was the group of incorporations that had as their objective the supply of domestic and

personal services—hotels, laundries, etc. Charters granted corporations in this group were especially numerous in Pennsylvania from 1888 to 1903. Incorporations of automobile repair shops and garages were remarkably similar for all three states.

Incorporations in the two-letter financial categories are summarized in part in Table 31. Though all two-letter financial categories are not represented, the most important are. Real estate companies and building and loan associations together have dominated financial incorporations in Ohio and Pennsylvania. In both states the figures, when expressed as percentages of the

TABLE 30
Incorporations of Companies Supplying Services
Percentage Distribution by Two-Letter Industrial Categories
New Jersey, Ohio, and Pennsylvania

	NEW JERSEY			OHIO					PENNSYLVANIA		
	1880-1889	1890-1899	1900-1907	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1890-1899	1900-1909	1910-1919
Total	100	100	100	100	100	99	100	100	100	100	100
Domestic & personal	21	16	23	10	16	20	20	20	69	28	24
Business	19	29	20	13	12	10	12	13	1	10	10
Auto repair, etc.	0	*	2	0	0	3	12	16	0	3	17
Amusement	48	35	29	63	55	45	41	35	24	40	36
Other	12	20	26	14	17	21	15	16	6	19	13

Percentages were computed from data in Appendix 4.
* Less than .5 percent.

TABLE 31
Percentages of Total Incorporations of Financial Enterprises
that Fitted into Certain Two-Letter Industrial Categories
New Jersey, Ohio, and Pennsylvania

	NEW JERSEY			OHIO					PENNSYLVANIA		
	1880-1889	1890-1899	1900-1907	1880-1889	1890-1899	1900-1909	1910-1919	1920-1929	1890-1899	1900-1909	1910-1919
Commercial banks, etc.	9	1	0	8	21	22	6	2	1	*	6
Building & loan associations	3	1	*	82	46	7	4	4	57	27	40
Real estate	75	74	70	5	27	56	73	69	36	55	42

Percentages were computed from data in Appendix 4.
* Less than .5 percent.

total, move inversely. The percentages for building and loan associations in New Jersey are very small because the sources from which New Jersey incorporations were compiled did not contain complete information on charters granted those institutions. Since the long waves in annual incorporations of building and loan associations are discussed below, they are merely mentioned at this point.

The Rise of the Corporation in Certain Industries

To discuss and present graphically all incorporation series for the three-letter categories of Table 19 would

make the trees obscure the woods. Accordingly, a few categories were picked to show when the corporation attained an established position in various industrial fields. First, each Ohio three-letter category in which annual incorporations equaled or exceeded 15—a number chosen more or less arbitrarily—was singled out. This step eliminated industrial categories in which throughout the period 1872-1930 incorporations were very few. Each selected series and the similar industrial series for New Jersey and Pennsylvania were then plotted on roughly drawn charts. (Ohio incorporations were used as the base because they cover the longest period.) From 73 preliminary charts those in which the series of the three states showed somewhat the same development—32 in all—were chosen for further study. The charts thereby excluded were chiefly those for highly localized industries. For example, the chart showing rubber tire manufacturing was eliminated because of this lack of parallelism, a parallelism that could scarcely be expected since Ohio is the home of rubber manufacture. Charts presenting the miscellaneous categories were also excluded.

The full industrial data are presented in Appendix 4 in order that anyone can similarly chart the progress of incorporations in other industries. The 32 charts revealed such information as the following. The corporation attained prominence during the 1880's in the manufacture of heating apparatus and in the electric light and power industry; into the latter field it was introduced very rapidly. By the early 'nineties it was common in the manufacture of dairy products, bricks and tiles, and general industrial machinery, and toward the end of the decade in hotels, drug manufacturing, and stone, sand, and gravel quarrying. During the closing years of the 19th century many automobile manufacturers and local truckers and haulers were incorporated.

Laundries, auditoriums, and paint manufacturing establishments had on occasion been organized as corporations at least as early as the 'seventies, but not until the first decade of the 20th century were there many corporations in these types of enterprise. The manufacture of confectionery might be said to have progressed by 1910 to the point where the corporation was a suitable form of business organization, but the date might better be put between 1910 and 1920. In that decade the corporate form was taken up by advertisers and by manufacturers of bakery products, nonalcoholic beverages, and metal-working machinery.

An increase in incorporations reflects both growth in the size of business units and the development of industries themselves. Series for industries in which incorporations rose during the 1920's illustrate the two features. For example, the rise of footwear manufacturing incorporations is doubtless due to the growth of

CHART 21
Long Cycles in Incorporations
New Jersey, Ohio, and Pennsylvania, 1872-1930

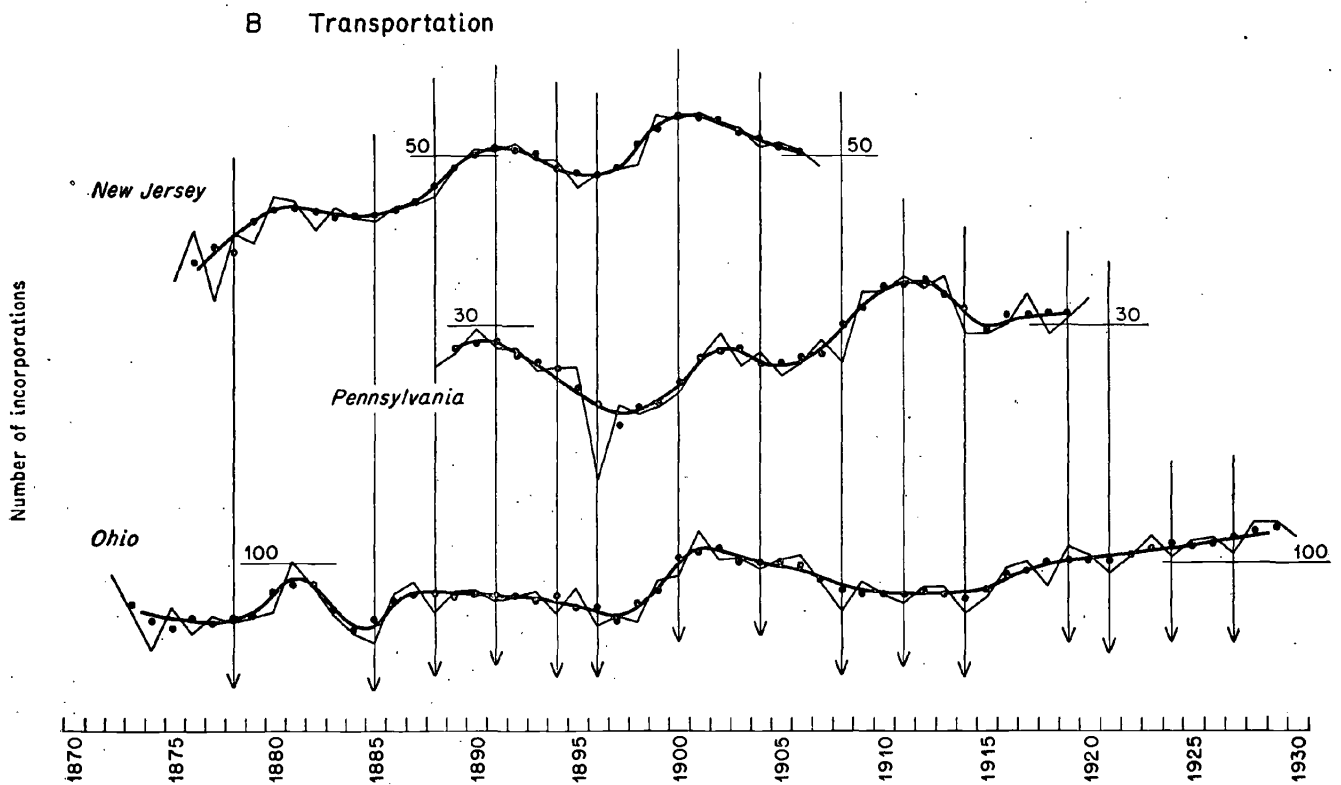
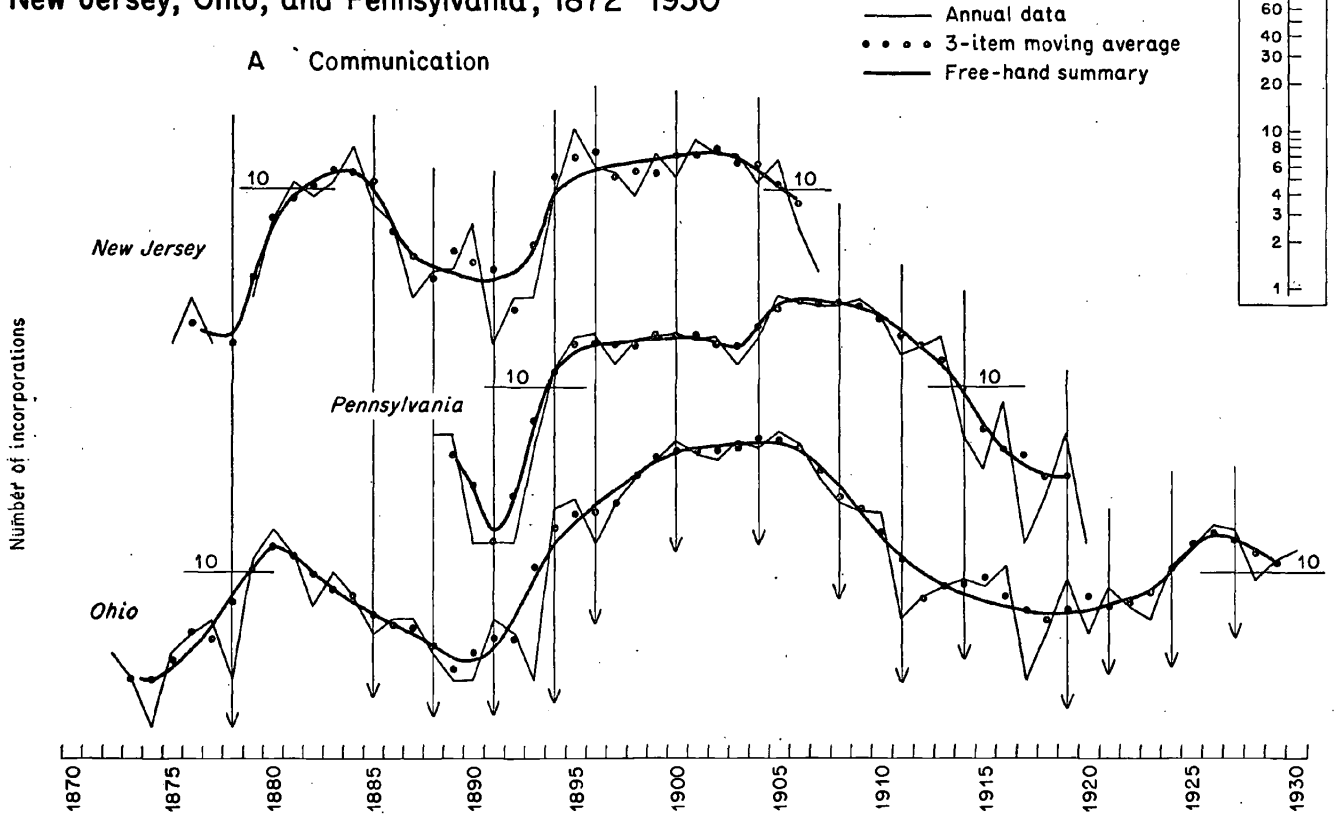
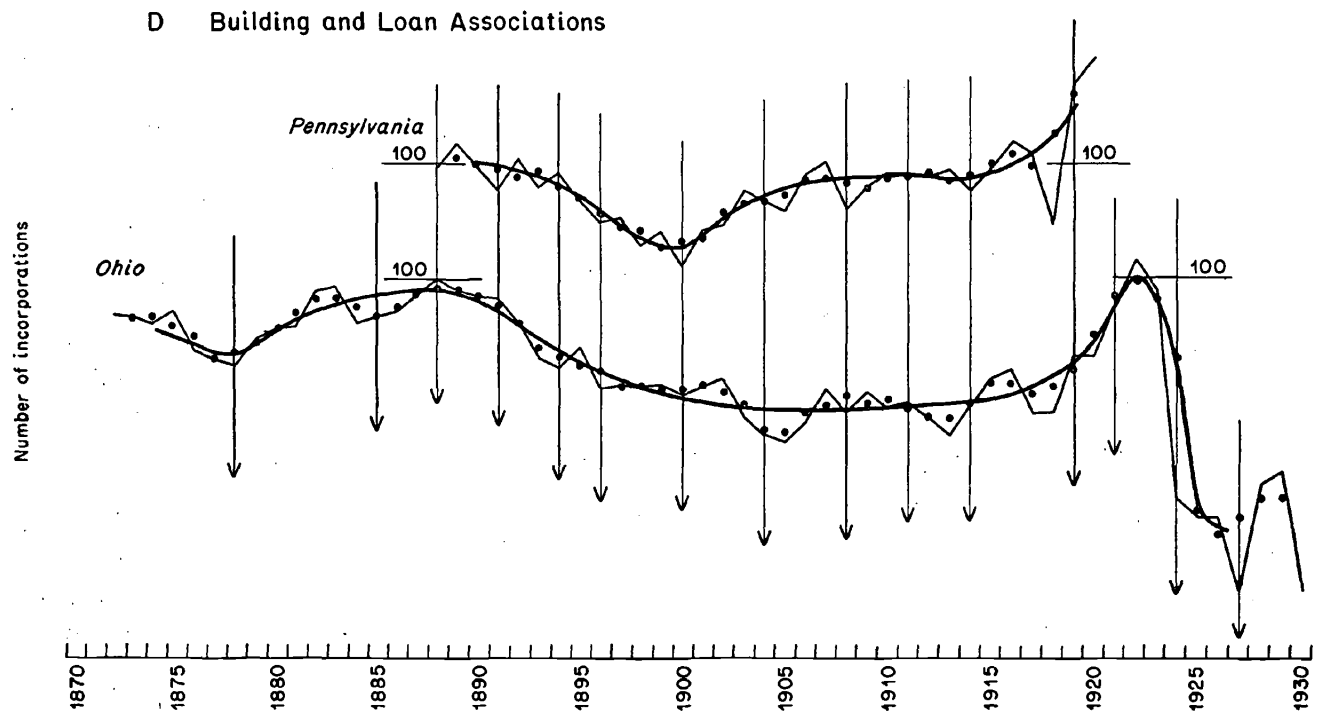
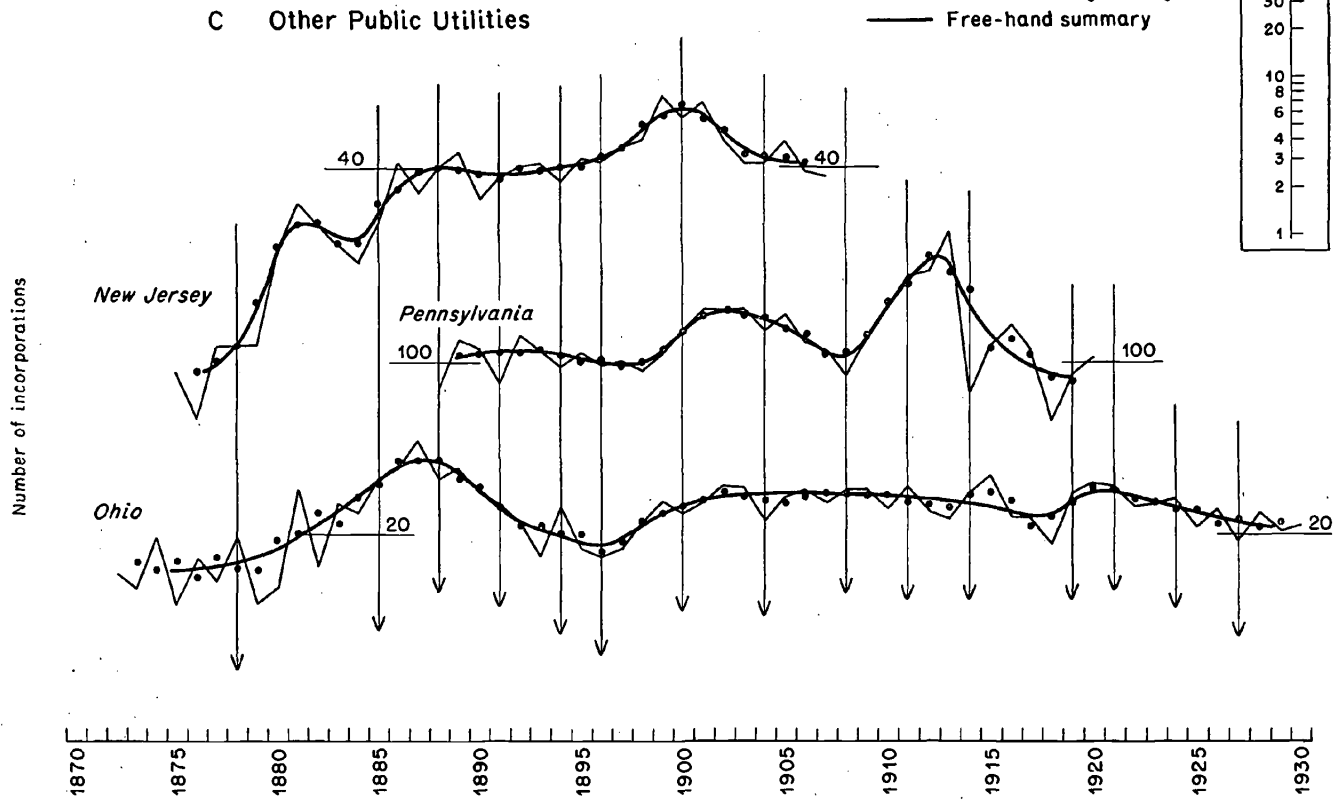


CHART 21 (CONCL.)
Long Cycles in Incorporations
 New Jersey, Ohio, and Pennsylvania, 1872-1930



Source of annual data: Appendix 4.

large scale enterprise; while the rise of incorporations in the manufacture of radios and of aircraft and parts, as well as in city and suburban bus lines, interstate and interurban busses, interstate motor freight carriers, and air transportation is due to the expansion of the economy along these lines.

Long Cycles

Study of the two-letter industrial categories revealed the presence of long cycles in the incorporations of certain types of enterprise. In Communications, for example, incorporations rose to a peak in the early 'eighties, fell to a trough in the early 'nineties, rose again to a high point soon after the turn of the century, reached another trough about World War I, then started on another long wave (Chart 21A). On this ratio chart annual incorporations are connected by fine lines; the three-year moving averages for each series are represented by dots; and a heavy line (drawn free-hand, using the moving averages as guides) depicts the broad movements. The data for the three states were disentangled by means of a sliding scale, and the troughs of business cycles are indicated to bring the long cycles out more clearly.

Three other ratio charts (presented as Chart 21 B, C, and D) were prepared in a similar manner to show incorporations in other fields characterized by long cycles. No attempt was made to examine all industrial categories for a long cycle, but those who are interested in this aspect of incorporations will find in Appendix 4 the necessary data. Long waves for the three states rarely coincide at either peaks or troughs, doubtless because of differences in the regional economies.

In some instances at least, the long wave is deceptive. Study of the composition of all transportation incorporations in Ohio revealed that the long waves were created by three large nonsimultaneous movements in three subfields. Railroad incorporations rose from 1875 to 1881, declined until 1898, then traced a minor wave-like movement that reached a peak in 1901 and became insignificant after 1907. Street railway incorporations, fairly numerous as early as 1886, rose to a peak in 1901, then declined and became negligible after 1912. The third outstanding subgroup of the transportation category, local trucking and warehousing, rose to importance about 1902, reached a peak in 1919, then fell off, though in 1930 it still bulked large in the total for the transportation field. About 1919 several other categories, most of which center around the automobile, became prominent—taxicabs, city and suburban bus lines, and interstate and interurban busses. Toward the very end of the period covered, incorporations for air transportation and for interstate and interurban motor freight carriers were fairly numerous. Thus Ohio incorporations in the transportation field are made up primarily of three major chartering movements: one in rail-

roads that reached a major peak in 1881; one in street railways that reached a peak in 1901 (railroads had a minor peak at the same time); and one in local trucking and warehousing that reached a peak in 1919. In the post-1919 period a wave of incorporations in another subgroup may have been in the making; but, partly because the data do not extend beyond 1930, no single three-letter category stands out as a prime mover.

The composition of the 'other public utilities' group in Pennsylvania was also examined to see whether the long cycles were a combination of single nonsynchronized outbursts of chartering in several subgroups. To some extent the results paralleled those yielded by the examination of Ohio incorporations in the transportation industry. The waves of incorporation in the 'other public utilities' of Pennsylvania are to be explained largely by the peak in water company chartering in 1901 and the peak in electric light and power chartering in 1913.

The long cycles in the number of building and loan association charters do not seem to be a combination of more or less independent chartering movements. It is possible, however, that, if the totals could be subdivided in several ways, one would find the combination of nonsynchronized outbursts noticed in the incorporations of Ohio transportation companies and in the incorporations of Pennsylvania 'other public utilities'. One division might be based on the types of real estate activities to be promoted by the newly organized associations—for example, the ownership of small urban houses, the construction or purchase of suburban houses, or the conversion of dwellings in the building of local shopping areas. If estimated incorporations for Pennsylvania building and loan associations for 1875-87 were plotted on Chart 21D, they would parallel the Ohio data in striking fashion.¹

Random Movements

Many large random movements in the various state series for total incorporations were explained, and others discovered, as the industrial data were worked. Frequently very brief, they reflect intense activity in an industry. Several have already been referred to since they were sufficiently large to dominate a state series and cause a significant 'bulge' in it. The Texas chartering episode of 1901, which was just a phase of the oil boom that had repercussions over a wide area, for example, was cited in Chapter 4. Table 32 gives Texas monthly incorporations in all fields and in oil. Items in the *Commercial & Financial Chronicle* of May 4 and June 1, 1901 that attest the feverishness of oil activity in Texas confirm the picture revealed by the number of charters granted.²

¹ See the Pennsylvania section of Appendix 3.

² LXXII, 842, col. 2, and 1054, col. 1.

TABLE 32
Oil Incorporations as a Percentage of Total Business Incorporations, Texas, 1901

INCORPORATIONS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
Total business	81	75	87	196	289	105	107	77	47	55	47	68	1,234
Oil	7	15	17	147	193	25	32	21	6	15	6	16	500
Oil as % of total	8.6	20.0	19.5	75.0	66.8	23.8	29.9	27.3	12.8	27.3	12.8	23.5	40.5

Based on reports of the Secretary of State of Texas (described in the Texas section of Appendix 3), which state briefly the purposes of each newly chartered company.

Incorporations in both Ohio and Pennsylvania reflect outstanding episodes in the natural gas field during the 'eighties (Table 33). In Pennsylvania borings for gas wells were numerous in 1883 and the early months of 1884. Gas drilling did not reach its peak, however, until May 1884, when an immense gas well was struck inside the limits of Pittsburgh.³ Incorporations for gas companies reached their peak the same year; unfortunately, these annual data cannot be divided into monthly figures. High-pressure gas was discovered in northwestern Ohio in November 1884, but the first big well in that area was not opened until January 1886. In central Ohio, large high-pressure gas discoveries were made in 1887.⁴ Gas company incorporations in Ohio reached their peak in April 1887.⁵

TABLE 33
Gas Incorporations, Ohio and Pennsylvania, 1880-1893

	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893
Ohio	2	4	5	12	18	55	76	176	30	31	41	25	21	14
Pa.	6	15	24	70	116	68	18	29	24	51	42	18	18	8

The numbers of producing and distributing companies were combined. The figures (from Appendix 4) are the sum of the data of two purpose categories, acb and ccb.

The chartering of companies to mine gold and silver was a feature of Colorado incorporations in 1892 and 1896 (Table 34). Between 1891 and 1897 Colorado charters granted business corporations outside the mining field ranged from 461 to 571; total incorporations ranged from 738 to 1,841. It was thus the great variation in the number of companies created to engage in mining that produced the wide fluctuations in the number of charters granted by Colorado between 1891 and

1897. As would be expected, most of the mining enterprises were organized as gold and silver mining companies.

TABLE 34
Mining and Total Business Incorporations
Colorado, 1891-1897

	1891	1892	1893	1894	1895	1896	1897
Total business incorporations	738	1,164	822	829	1,164	1,841	990
Mining	223	593	312	368	690	1,324	508
Nonmining	515	571	510	461	474	517	482

Based on reports of the Secretary of State of Colorado (described in the Colorado section of Appendix 3), which briefly state the purposes of each newly chartered company. In some cases the company name was also used in determining the industrial objective.

The tabulation of water supply companies from the lists of incorporations published by the Secretary of State of Pennsylvania recorded a surge of water charters with a high peak in 1901; this is confirmed by the 1907 report by the Water Supply Commission. The peak of

PENNSYLVANIA WATER INCORPORATIONS, 1888-1907, ACCORDING TO TWO SOURCES

	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905 ^c	1905 ^d	1906	1907
Water Supply Commission ^a	33	62	41	27	71	64	38	58	40	38	30	50	101	153	118	116	104	71	7	30	32
Secretary of State ^b	33	61	42	28	74	63	41	52	35	37	31	50	101	151	87	90	97	83	2	22	27

^a Report of the Water Supply Commission of Pennsylvania, 1907 (Harrisburg, 1908), pp. 14, 15, and 16.

^b Compiled from reports described in Pennsylvania section of Appendix 3.

^c January to June.

^d June through December.

The discrepancies in the two sets of figures are not large in view of the fact that companies supplying water solely for manufacturing and power purposes were excluded from the water company count based upon the reports of the Secretary of State. In that count, water power companies were placed in the unallocable group of Other Public Utilities—Table 19, category ccg.

1901 seems to have developed because certain rights of eminent domain that attached to Pennsylvania water companies made it highly advantageous for speculators to acquire water company charters. The widespread seizure and holding of water supplies, which is reflected in incorporations, led to an alteration in the powers of water companies and to the establishment of the Water Supply Commission, whose control in 1905 caused a drastic reduction in water company charters. In the first five months of that year, 71 water companies were chartered according to the Commission, while only

³ Albert Williams, Jr., U.S. Geological Survey, *Mineral Resources of the United States, Calendar Years 1883 and 1884* (Washington, D. C., 1885), pp. 240-2.

⁴ Edward Orton, *First Annual Report of the Geological Survey of Ohio (Third organization)*, (Columbus, Ohio, 1890), pp. 105 and 229.

⁵ Combined monthly incorporations of producing and distributing gas companies in Ohio in 1887 were as follows: Jan., 7; Feb., 18; March, 24; April, 53; May, 25; June, 14; July, 7; Aug., 4; Sept., 4; Oct., 10; Nov., 8; Dec., 2. These data were compiled from the sources cited for the annual figures in Appendix 4.

seven were incorporated in the rest of the year when the Commission was functioning.⁶

The 615 charters Pennsylvania granted to electric light companies in 1913 have already been referred to, but some further description of the episode is not inappropriate since so many incorporations were involved.⁷ The incorporation of such a large number of electric light companies is reflected in contemporary journals and was probably due partly to a provision of an old Pennsylvania law that required the organization of a separate company for each township or municipality in which a lighting franchise was obtained.⁸ In conse-

⁶ For further information on the Pennsylvania water situation of 1901, see *Message of the Governor of Pennsylvania to the General Assembly, January 3, 1905* (1905), p. 15; *Message of the Governor of Pennsylvania to the General Assembly, Extraordinary Session, January 15, 1906* (Harrisburg, 1906), p. 1; *Penna. Laws, 1901*, No. 177, pp. 270-1, and *ibid.*, 1905, No. 109 and 236.

⁷ For data of this and adjacent years, see category cca in Pennsylvania section of Appendix 4.

⁸ *Pennsylvania Laws, 1874*, No. 32 (April 29, 1874), Sec. 34, clauses 1 and 3. See also news item, entitled 'Pennsylvania

quence of this law and an effort to consolidate the servicing of several localities, a group of related companies—often a holding company and its operating units—would be chartered at the same time. Perhaps, too, chartering activity in the electric light field at that time was stimulated by efforts to establish a Pennsylvania Public Service Commission with extensive powers of control. The law creating such a commission was enacted on July 26, 1913.⁹

These and similar random movements have from time to time caused bulges in incorporations, but on the whole they have warped neither the trend nor the cyclical movements unduly. They indicate, however, that most state incorporation series should be considered in the light of state business annals. Such a task would be far beyond the scope of this study, especially in view of the paucity of such annals.

Properties Consolidated', in *The Electrical World*, Vol. 61, No. 17 (April 26, 1913), pp. 903 and 904.

⁹ *Pennsylvania Laws, 1913*, No. 854.