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CHAPTER 6

Large, Medium, and Small Business Corporations

To get a clearer idea of the various movements that combine to make up total incorporations, the figures for charters issued were divided into three groups on the basis of an index of the size of the corporation, that is, capital stock.¹ As might be imagined, capital stock is not entirely satisfactory as a criterion of size. But it is the only criterion common to the data from the various sources and is a fairly good rough indicator of relative size. A corner grocery store would not be expected to incorporate with a million dollars of capital stock, nor would a large railroad company be likely to have only a hundred thousand dollars of authorized capital stock. It is not contended that a given capital stock represents any particular absolute investment.² It is argued merely that a corporation with, say, \$100,000 of capital stock is smaller in general than one with a million dollars. There is no attempt to say how much smaller or to make any precise statement about the absolute values of the capital assets involved.

Tests of correlation between the authorized capital stock and the size of a company seem to justify the use of authorized capital stock as a rough indicator of relative size. Three samples of Pennsylvania incorporations were drawn—for 1889, 1902, and 1916. The earliest and the latest of these years were determined by the progress that had been made in tabulating the charters of Pennsylvania enterprises. The in-between year, 1902, represents approximately the midpoint of the 1889–1916 span. The companies comprising each sample, 225, were looked up in the Bradstreet book of commercial ratings, published three years after the year for which the sample was drawn. Not all of the companies in each sample were found in the rating books, but, for each of those found, Bradstreet's "estimated pecuniary strength" was used as the index of size to correlate with the authorized capital stock.

Since the details of these tests are given in Appendix

5, the above brief description and a summary of the results will suffice here. In general, each of the three linear correlation coefficients between the two measures of size was fairly high when ungrouped data were used and a few items that had undue weight had been eliminated. The results obtained from ungrouped data were supplemented by a test on grouped data. After the details of many incorporations had been examined, it was decided arbitrarily to call a company small if its authorized capital stock was less than \$100,000. A medium-sized corporation was defined as one with an authorized capital stock of \$100,000–1,000,000, and a large company one with \$1,000,000 or more. The corporations used for the ungrouped correlation test were then classified into these three size groups. About 82 percent were found to belong in the same size group on the basis of either criterion—authorized capital stock or Bradstreet's "estimated pecuniary strength".

As indicated in the preceding chapter, the definitions of large, medium, and small corporations are difficult to defend. They are arbitrary for any one point in time, and it is hard to justify the use of the same rigid criteria over a long period. The most defensible classification would perhaps be based upon: (1) the determination of values that at one point in time would divide the chartered enterprises into three groups containing the same number of items; (2) the extension, forward and backward, of these values, using some price index to determine the degree to which the class limits should be revised. Such a procedure was ruled out because of the large number of incorporations and the difficulty of procuring a satisfactory price index for the adjustment. For the initial determination of the class limits, resort was had to judgment based upon observation of a large number of companies; the decision to keep these intervals uniform over time was a practical necessity.

In many states small incorporations outnumber the medium and large by far; and they fluctuate in number less from year to year, partly because the limits of the size groups are rigid. Assume, for example, that the dividing line between large and small (for the sake of simplicity, the medium-sized group is excluded) is always \$100,000. Companies that expect to do comparable volumes of business may organize in a period of prosperity with authorized capital stock of, say, \$125,000, but in a depression with only \$75,000. In prosperity they would be classed as large, but in depression as small. Though the peaks in small incorporations may

¹ In Chapter 2, certain Maryland incorporations were classified into five size groups (see Ch. 2 and supplementary tables in Appendix 2).

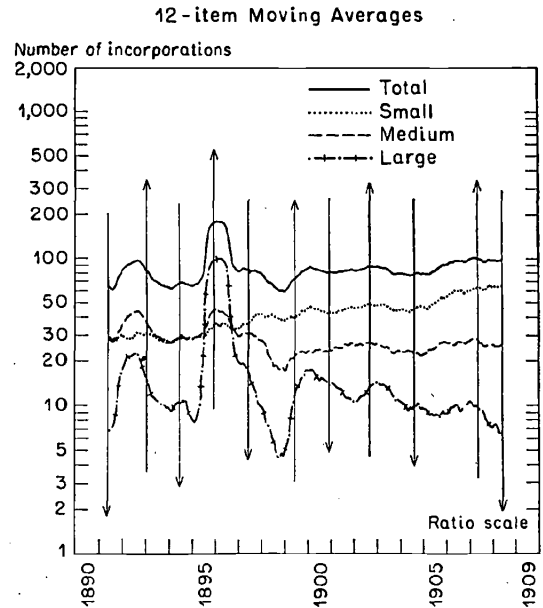
² The U. S. Census Office has at various times expressed unwillingness to use capital stock as an index of size, but apparently it was thinking in terms of an indicator of the absolute amount of actual investment. See, for example, *Twelfth Census of the United States* (Washington, D. C., 1902), VII, Manufactures, Part I, p. cii, Sec. 13. Capital stock figures, however, have been used in other studies to indicate relative size. D. H. Macgregor, for example, in his *Enterprise, Purpose & Profit*, p. 133, used capitalization figures—for lack of anything better—to distinguish large and small enterprises.

thus be scaled down somewhat and the troughs filled up somewhat, it is believed that some valid statements can be made about the variations in the chartering of large, medium, and small companies.

Ratio Charts 14-19 show the twelve-month moving averages of total incorporations in each of six states and similar moving averages of the number of incorporations in each of the three size groups (see Ch. 5, note 1). In preparation for writing the rest of this chapter, these graphs were supplemented by similar ones for Florida, Massachusetts, Pennsylvania, Texas, and Virginia, which are not reproduced here since they do little more than confirm the observations derived from the six. The reader is warned to use with caution the moving averages based on the number of large incorporations. Some of these series were computed from very few incorporations. But it seemed better to compute and plot the small averages than to omit them. Their appearance on the charts makes possible a quick grasp of the relation between the numbers in the three size groups. Moreover, a few more observations of broad movements become feasible.

The amplitudes of the cyclical movements of the series representing the three size groups vary directly with the size of the incorporation, especially in periods of intense incorporating activity. At these times, it is strikingly clear that the rate at which large companies

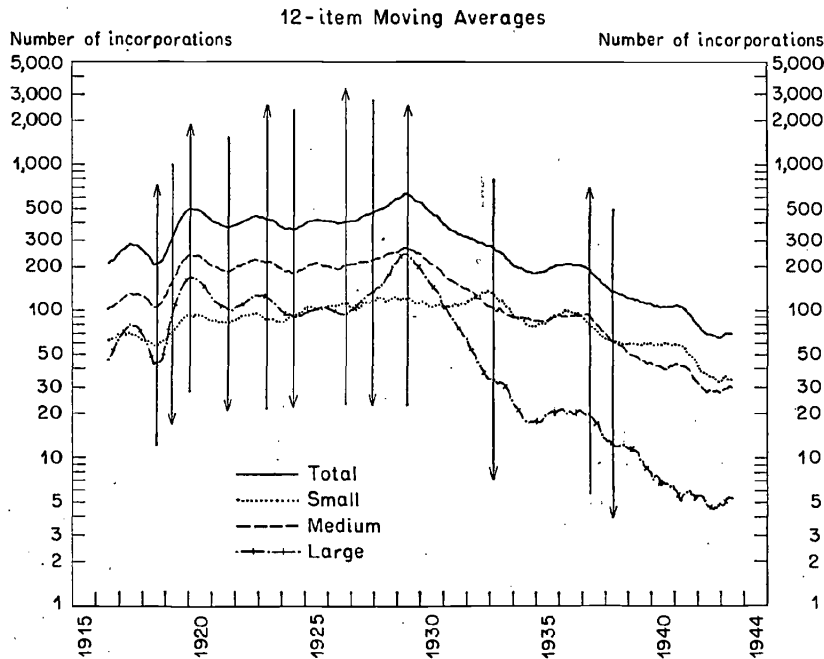
CHART 14
Colorado Business Incorporations
by Size Groups
1891 - 1908



Source of monthly data: Colorado section of Appendix 3.

are chartered greatly exceeds that for medium-sized companies, which in turn is higher than that for small

CHART 15
Delaware Business Incorporations by Size Groups
1916 - 1943



Source of monthly data: Delaware section of Appendix 3.

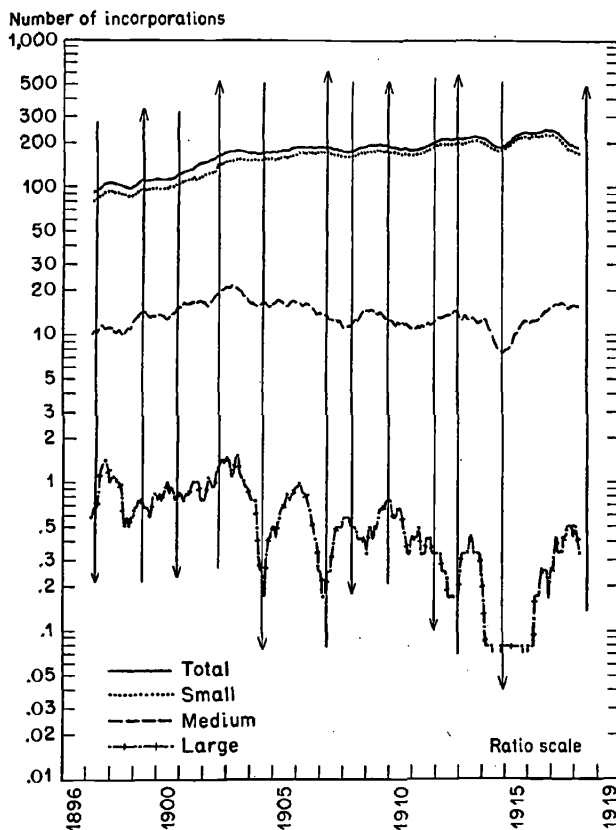
Ratio scale

companies. The relations are clearest in the Colorado chart for 1895-96 when a metal mining boom occurred. A similar pattern characterizes the Texas data for 1900-02 when an oil boom occurred.

If allowance is made for the narrowness of the amplitude of the fluctuations in the number of small incorporations attributable to the rigidity of the class limits, it would still seem reasonable to assert that cyclical fluctuations in business affect the number of large in-

CHART 16
Illinois Business Incorporations
by Size Groups
1897 - 1918

12-item Moving Averages



Source of monthly data: Illinois section of Appendix 3.

corporations most and the number of small incorporations least. The chart for Delaware is particularly interesting since for about half of the period covered the average number of charters granted large and small companies is roughly the same. The curves for the number of small and large incorporations are entwined from 1916 to 1930, and the series for large incorporations has a wider amplitude.

If one ignores series built upon a very few items, the peaks and troughs in the waves of incorporations occur

almost simultaneously in the three size groups. One of the interesting exceptions is the increase in the number of medium-sized Ohio corporations around 1877, which is associated with the chartering of numerous building and loan associations.

The data for the eleven states for which total incorporations can be classified by size revealed that in seven (Florida, Illinois, Massachusetts, Ohio, Pennsylvania, Texas, and Virginia) small incorporations constituted a very large proportion—in many cases well above 90 percent—of the total (see Charts 16 and 19 for Illinois and Ohio incorporations plotted by size groups).³ Furthermore, each series representing the number of medium-sized incorporations in these seven states contains many more items than the series for large incorporations. Though the Pennsylvania figures do not conform closely to what might be called the typical size pattern, the state nevertheless belongs with the other six.

In Colorado, Delaware, Maryland, and New Jersey, small incorporations have not occupied as commanding a position as in the seven states, doubtless because of the liberality of the corporation laws. The size pattern of Colorado incorporations was greatly affected, at least before the beginning of the 20th century, by the number of large companies. Large Colorado incorporations, in turn, were dominated by mining companies, many of which were chartered with capital stock of a million dollars or more.⁴ In the early 'nineties, except during the two periods when many charters were granted, the small and medium-sized incorporations were roughly the same percentage of the total. Then the number of medium-sized incorporations increased more rapidly. By the turn of the century Colorado was moving toward the typical size pattern in which small incorporations constitute a large percentage of total charters granted, medium-sized incorporations a much smaller percentage, and large incorporations the smallest.

In Delaware in many of the earlier years under study,

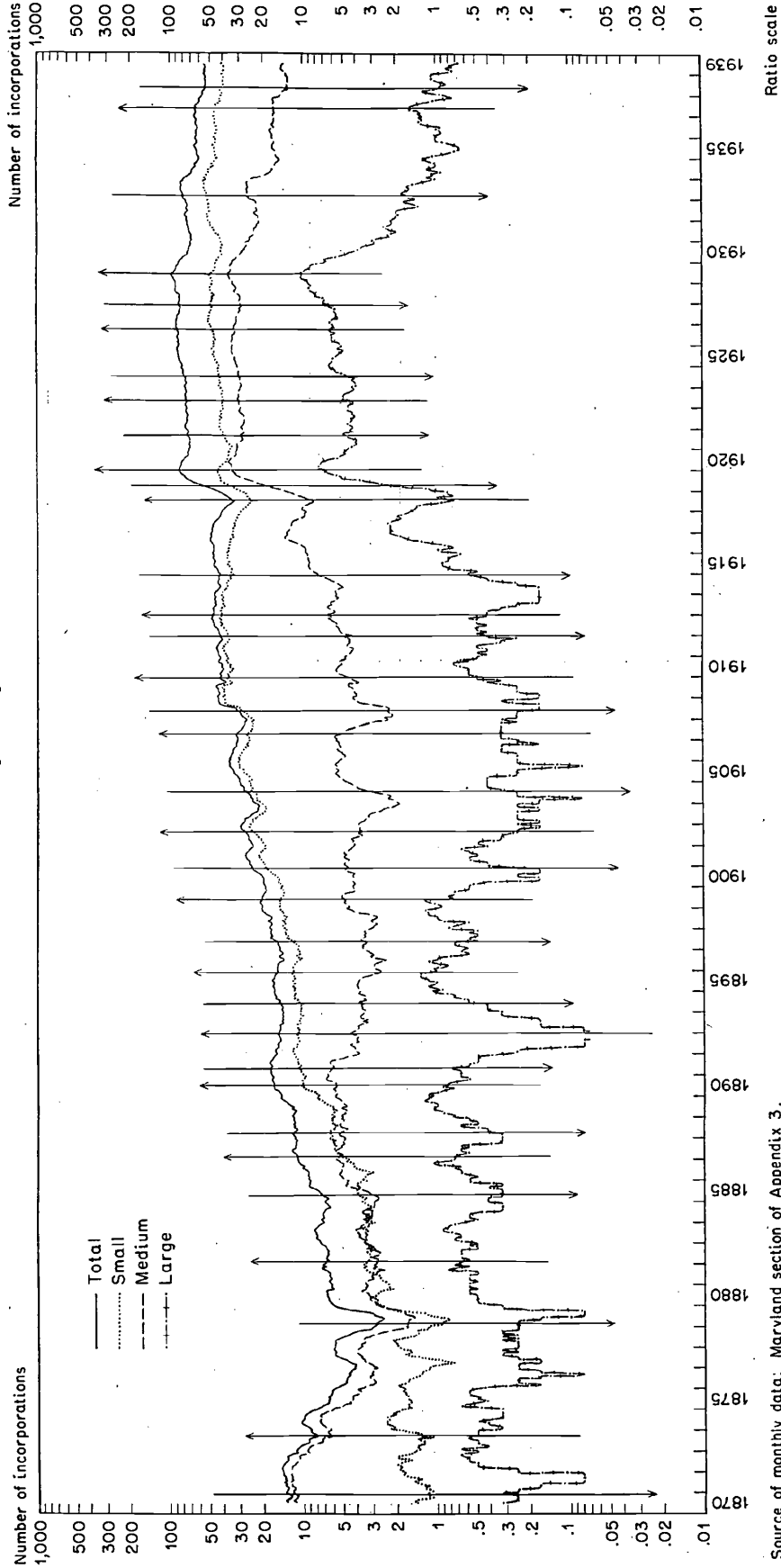
³ Compare what Macgregor says concerning British joint-stock companies: "Over the period 1919 to 1925, of all companies registered, only 2.6 per cent. had a capitalization over £200,000, while more than 67 per cent. were capitalized below £10,000" (*op. cit.*, p. 133).

⁴ For example, at the peak of incorporations in May 1892, 39 of 43 incorporations with a capital stock of a million dollars or more were for mining, and at the peak in January 1896, of 343 large incorporations 340 were for mining. For the total figures on large incorporations, see the original data in the Colorado section of Appendix 3. The count of mining companies was based upon statements of corporate objectives in the sources cited there.

At the peak of incorporations in May 1892, 39 of 87 mining incorporations had a capital stock of a million or more, and at the peak of incorporations in January 1896, 340 of the 389 (*ibid.*).

CHART 17
Maryland Business Incorporations by Size Groups
1870 - 1939

12-item Moving Averages



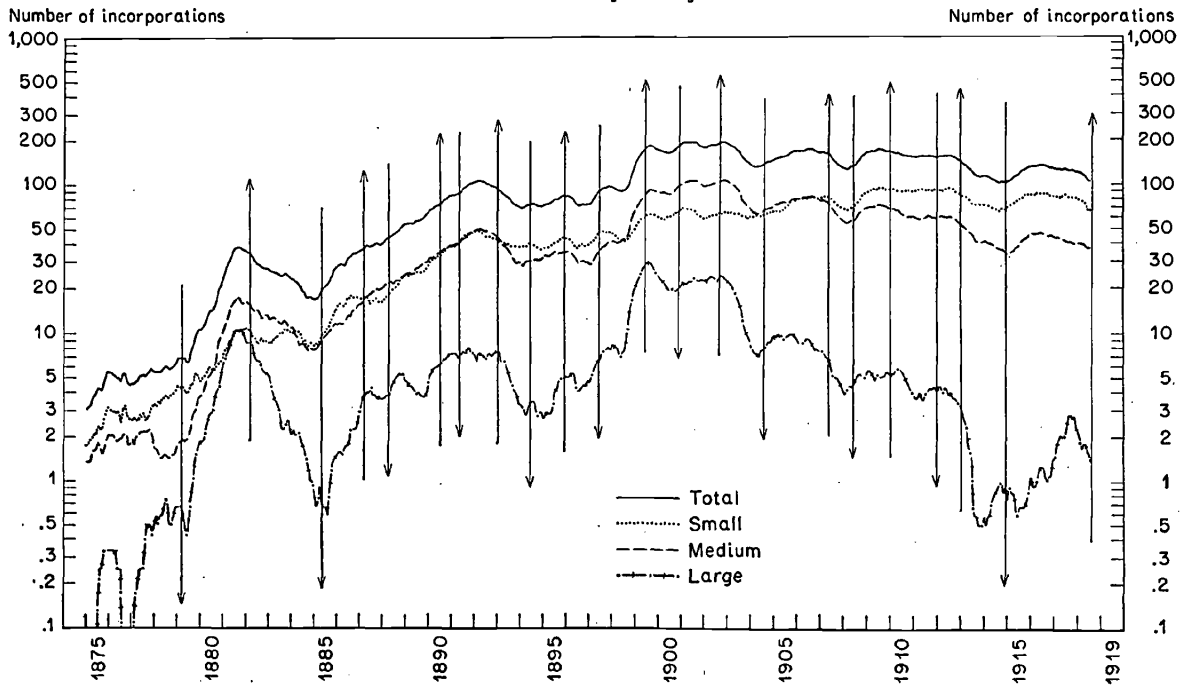
Source of monthly data: Maryland section of Appendix 3.

CHAPTER 6

CHART 18

New Jersey Business Incorporations by Size Groups
1875 - 1918

12-item Moving Averages



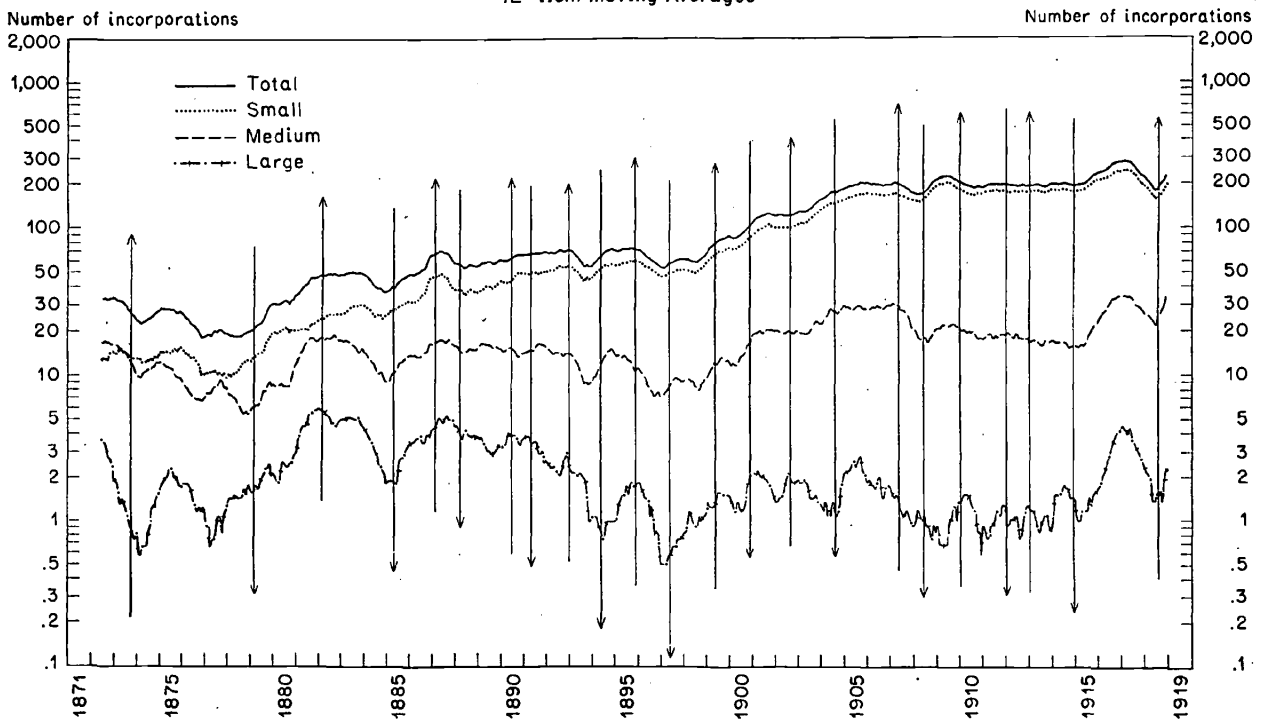
Source of monthly data: New Jersey section of Appendix 3.

Ratio scale

CHART 19

Ohio Business Incorporations by Size Groups
1872 - 1918

12-item Moving Averages



Source of monthly data: Ohio section of Appendix 3.

Ratio scale

small incorporations were less numerous than those of either of the other size groups. Not until after 1930 did the small incorporation assume relatively large importance, and even then it did not surpass the medium-sized; in this period large incorporations fell to a relatively insignificant proportion of the total. If the trend of recent years continues, the size pattern of incorporations by Delaware will approach the pattern of the seven states discussed above. In New Jersey from 1875 to 1907 small and medium-sized incorporations were approximately the same percentage of total incorporations; fewer large companies were incorporated. Between 1907 and 1918 the small incorporation became the dominant type, gradually moving from about one-half to roughly 65 percent of the total. In this state, likewise, the typical pattern of size relationships was apparently being approached by 1918. It is unfortunate that there are no post-1918 data to compare with those for Delaware and Maryland.

The Maryland chart can be divided into several more or less distinct sections. Through the 'seventies, incorporations of medium size dominated. They retained a high level through the 'eighties, though sharing the dominant position with small incorporations. From 1890 until about 1916, the size pattern was the typical one described above. But from 1916 through 1929 small companies declined in number while those of medium and large size increased appreciably. Thereafter the tendency was to revert to the typical size pattern.

To generalize about the trends of incorporations in the three size groups is not easy. Inasmuch as the small incorporations of many states are a very large percentage of total incorporations, it is clear that in general this trend in any given state is likely to be the same as that for the total series. Though from 1875 to 1929 incorporations as a whole and their largest component, small incorporations, were rising, the latter seem to have reached a peak later than the former—in 1932 rather than in 1929.

Concerning incorporations in the other size groups, generalizations are even more difficult to formulate. Perhaps it can be said that the trend in medium-sized incorporations is flat or inclined upward only slightly, but there are important exceptions. In Florida, Maryland, and New Jersey, each series representing medium-sized incorporations has a pronounced upward trend; and the corresponding series for Massachusetts shows a more than slightly upward trend during 1903-21.

Generalizations concerning the series representing large incorporations are complicated by the fact that some series rest upon few items. Moreover, at a maximum no more than eleven states could be studied and few of the series cover the full period 1875-1943. In an examination of large incorporations, one cannot take seriously the data for Florida, Illinois, and Texas. One

rather striking fact emerges from comparisons of the various series—the trend of large incorporations in New Jersey rises very sharply during the 'seventies and continues upward until about 1900. All or a part of this period is covered by the data for Colorado, Maryland, Massachusetts, Ohio, Pennsylvania, and Texas. In no one of these states is the trend for large companies upward. In Ohio and perhaps Pennsylvania one might say that the trend in large incorporations is downward. Though few would doubt that New Jersey was the chief home of the large corporation in this period, the extent to which it surpassed other states is surprising.

The figures on large New Jersey corporations in Chart 18 fail to disclose one feature with respect to size that should be noted here, although it interrupts the discussion somewhat. During the fifty-three years from 1846 through 1898 only twenty-five companies were chartered in New Jersey under general laws with a capital stock of more than \$20,000,000 and only five of these before the 'nineties—in 1881 and 1882. In the single year 1899, fifty were chartered. In Table 16 the names of the New Jersey companies with a capitalization of \$20,000,000 or more that were chartered under general laws between 1881 and 1902 are listed. These names stir memories of the large combines and enterprises that played a vital role in the development of the American economy. At the time some of these companies were organized, an intention to acquire almost complete control of the fields in which they were to operate was expressed. *The Commercial & Financial Chronicle*, for example, reported that the American Bicycle Co. would "control 95 percent of the bicycle-making industry in this country . . ."⁵ The American Hide and Leather Company, it was stated, "controls about 85 percent of the total upper-leather output of the country."⁶ In its article on the New Jersey charter for the American Ice Company, *The Commercial & Financial Chronicle* wrote: "The intention is said to be to bring under one control all the leading ice companies of the country."⁷ A report of the pending consolidation that led to the chartering of the United States Worsted Company read: ". . . nineteen worsted yarn spinners, including most of the largest spinners in the country, have agreed to enter the trust."⁸ There was no hesitation in these and many other instances to emphasize the monopolistic objectives or effects of the very large New Jersey corporations. Another New Jersey charter of the 1890's reflects the grandiose ideas of the period—that of the Electric Vehicle Company. This concern, which was somewhat smaller than those of Table 16, was chartered in September 1897 to manufacture, on its

⁵ LXVIII, 974 (May 20, 1899).

⁶ *Ibid.*, 925 (May 13, 1899).

⁷ *Ibid.*, 522 (March 18, 1899).

⁸ *Ibid.*, 1026 (May 27, 1899).

own and through certain subsidiaries, electrically driven automobiles; it adopted the policy of organizing trans-

portation companies in *every* state, each company being vested with the exclusive right to purchase for

TABLE 16
New Jersey Corporations with Authorized Capital Stock of \$20,000,000 or more Chartered under General Laws, 1881-1902

	DATE OF FILING CERTIFICATE	AUTHOR- IZED CAPITAL STOCK (\$ MIL- LION)		DATE OF FILING CERTIFICATE	AUTHOR- IZED CAPITAL STOCK (\$ MIL- LION)
Gas Light Transportation Co.	May 1881	25.0	New England Electric Vehicle Transportation Co.	March 1899	25.0
New York, Susquehanna and Western Railroad Co.	June 1881	30.0	Panama Canal Company of America	December 1899	30.0
New York, West Shore and Buffalo Railway Co.	June 1881	40.0	Philadelphia Electric Co.	October 1899	25.0
Cosmopolitan Pipe-Protecting Co.	November 1882	40.0	Pressed Steel Car Co.	January 1899	25.0
Overland Railroad Construction Co.	April 1882	150.0	Railways and Light Company of America	September 1899	25.0
American Gas Investment Co.	June 1890	50.2	Republic Iron and Steel Co.	May 1899	55.0
American Tobacco Co.	January 1890	25.0	Royal Baking Powder Co.	March 1899	20.0
North American Co.	June 1890	50.0	Rubber Goods Manufacturing Co.	January 1899	50.0
American Sugar Refining Co.	January 1891	50.0	Scott-Janney Electric Co.	August 1899	30.0
National Lead Co.	December 1891	30.0	Sloss Sheffield Steel and Iron Co.	August 1899	20.0
Twin City Rapid Transit Co.	June 1891	20.0	Telephone, Telegraph and Cable Company of America	November 1899	30.0
United States Rubber Co.	March 1892	50.0	Union Bag and Paper Co.	February 1899	27.0
Union Typewriter Co.	March 1893	20.0	United Electric Company of New Jersey	May 1899	20.0
United States Cordage Co.	December 1893	34.0	United Fruit Co.	March 1899	20.0
American Securities Investment Co.	February 1896	20.0	United Fruit Co.	October 1899	20.0
American Malting Co.	September 1897	30.0	United Shoe Machinery Co.	February 1899	25.0
Glucose Sugar Refining Co.	August 1897	40.0	United States Cast Iron Pipe and Foundry Co.	March 1899	30.0
Marsden Company	February 1897	50.0	United States Flour Milling Co.	April 1899	25.0
American Linseed Co.	December 1898	33.5	United States Worsted Co.	April 1899	70.0
American Potteries Co.	December 1898	27.0	American Railways Co.	July 1900	25.0
American Tin Plate Co.	December 1898	50.0	American Sheet Steel Co.	March 1900	52.0
Federal Steel Co.	September 1898	200.0	American Snuff Co.	March 1900	25.0
International Silver Co.	November 1898	20.0	Carnegie Co.	March 1900	160.0
National Biscuit Co.	February 1898	55.0	Cosmopolitan Power Co.	April 1900	40.0
Standard Distilling & Distributing Co.	June 1898	24.0	Crucible Steel Company of America	July 1900	50.0
Amalgamated Copper Co.	April 1899	75.0	International Crude Rubber Co.	December 1900	30.0
American Alkali Co.	May 1899	30.0	Interoceanic Canal Co.	April 1900	100.0
American Beet Sugar Co.	March 1899	20.0	National Sugar Refining Company of New Jersey	June 1900	20.0
American Bicycle Co.	May 1899	80.0	National Telephone and Telegraph Co.	July 1900	50.0
American Car and Foundry Co.	February 1899	60.0	Siegel Copper Co.	April 1900	24.0
American Cereal Co.	February 1899	33.0	Allis-Chalmers Co.	May 1901	50.0
American Hide and Leather Co.	May 1899	70.0	American Can Co.	March 1901	88.0
American Ice Co.	March 1899	60.0	Consolidated Tobacco Co.	June 1901	30.0
American Plumbing Supply and Lead Co.	April 1899	35.0	Copper Range Consolidated Co.	December 1901	28.5
American Railways Co.	April 1899	25.0	Eastman Kodak Co.	October 1901	35.0
American Ship Building Co.	March 1899	30.0	George A. Fuller Co.	April 1901	20.0
American Smelting and Refining Co.	April 1899	65.0	Northern Securities Co.	November 1901	400.0
American Steel Hoop Co.	April 1899	33.0	Pacific Packing and Navigation Co.	July 1901	25.0
American Steel & Wire Company of New Jersey	January 1899	90.0	Pennsylvania Steel Co.	April 1901	50.0
American Woolen Co.	March 1899	65.0	Pocohontas Coal & Coke Co.	October 1901	40.0
American Writing Paper Co.	June 1899	25.0	United Electric Company of New Jersey	February 1901	20.0
Asphalt Company of America	June 1899	30.0	United States Cotton Duck Corporation	June 1901	50.0
Borden's Condensed Milk Co.	April 1899	20.0	American Steel Foundries	June 1902	40.0
Distilling Company of America	July 1899	125.0	Distillers Securities Corporation	September 1902	48.5
Electric Axle Light and Power Co.	July 1899	25.0	International Harvester Co.	August 1902	120.0
Electric Company of America	January 1899	25.0	International Nickel Co.	March 1902	24.0
Federal Printing Ink Co.	June 1899	20.0	North American Copper Co.	July 1902	20.0
General Carriage Co.	May 1899	20.0	Railway Steel-Spring Co.	February 1902	20.0
Havana Commercial Co.	March 1899	20.0	Railway Steel-Spring Co.	June 1902	27.0
Illinois Electric Vehicle Transportation Co.	May 1899	25.0	Rock Island Co.	July 1902	150.0
International Steam-Pump Co.	March 1899	27.5	United Copper Co.	April 1902	80.0
Jersey City, Hoboken and Paterson Street Railway Company	November 1899	20.0	United States Realty & Construction Co.	August 1902	66.0
Kentucky Distilleries & Warehouse Co.	February 1899	32.0	Western Telephone and Telegraph Co.	January 1902	32.0
National Enamel and Stamping Co.	January 1899	30.0			
National Steel Co.	February 1899	59.0			
National Tin Plate and Stamped Ware Co.	January 1899	20.0			

Constructed from the sources cited in the New Jersey section of Appendix 3.

operation and sale within its territory the product controlled by the Electric Vehicle Company.⁹

After 1902, incorporations of large companies in New Jersey began a long decline that reached a trough in 1913 (Chart 18). Charters for the biggest companies had been on the decline since 1899 (Table 17). The picture given by the New Jersey data is supplemented by more recent figures for Delaware. In the preparation of Table 18, nonpar shares were treated as shares of \$100 par value, though this method of handling nonpar shares may overstate the totals. From the composite picture gained from the two series it appears that there have been three outstanding periods in the chartering of very large enterprises: 1899, 1920, and 1929.

TABLE 17

Number of New Jersey Corporations with Authorized Capital Stock of \$20,000,000 or more Chartered under General Laws, 1880-1918

	NO.		NO.		NO.		NO.
1880	0	1890	3	1900	11	1910	0
1881	3	1891	3	1901	12	1911	3
1882	2	1892	1	1902	11	1912	4
1883	0	1893	2	1903	5	1913	2
1884	0	1894	0	1904	5	1914	0
1885	0	1895	0	1905	8	1915	0
1886	0	1896	1	1906	2	1916	0
1887	0	1897	3	1907	1	1917	0
1888	0	1898	7	1908	4	1918	1
1889	0	1899	50	1909	5		

Compiled from the sources cited in Appendix 3. As pointed out in the text, no companies of this size were chartered by New Jersey under general laws before 1881.

While large and very large New Jersey incorporations were decreasing from 1902 to 1913, large incorporations were increasing in Massachusetts, Pennsylvania, and Virginia. Large incorporations in these three states, however, were few except in Pennsylvania where the average increased from roughly 2 to 8 per month. In Florida, Illinois, and Texas after 1900 they were so few that they are hardly worth noting. But it may be pointed out that their trends in Florida and Texas are horizontal—provided in the case of Texas that allowance is made for the oil boom in 1901—and that the trend for Illinois large companies is downward. Unfortunately, data are not available for some of the more 'liberal' incorporating states for the first decade of the 20th century.

Few comments can be made on the trends in the chartering of large incorporations after 1910. The Maryland figures show a very interesting growth until 1929; and Massachusetts—and perhaps Pennsylvania

⁹ *Ibid.*, LXIX, 850 (Oct. 21, 1899). For the date of the charter and the amount of the originally authorized capital stock, see *Corporations of New Jersey. List of Certificates Filed in the Department of State From 1895 to 1899, Inclusive*. Compiled by the Secretary of State (Trenton, 1900), p. 167.

and Virginia—deserve attention because each has a rising trend during part of this period. Ohio, it should be noted particularly, has a flat trend from 1900 to 1918. After 1929 large incorporations in Delaware and Maryland declined markedly. In comparison with those in Delaware, however, total incorporations in Maryland have held up remarkably well, because the small incorporation has been much more important in the latter state.

TABLE 18

Number of Delaware Corporations with Authorized Capital Stock of \$20,000,000 or more Chartered under General Laws, 1916-1943

	NO.		NO.		NO.		NO.
1916	11	1923	67	1930	253	1937	11
1917	27	1924	55	1931	121	1938	5
1918	10	1925	103	1932	41	1939	4
1919	96	1926	104	1933	12	1940	2
1920	110	1927	166	1934	8	1941	0
1921	51	1928	343	1935	12	1942	2
1922	77	1929	619	1936	12	1943	4

Compiled from the sources cited in Appendix 3.

In studying trends in large incorporations one should observe the absolute number of charters granted by the different states. In later years Delaware stands out strikingly as a home of the large corporation. Here again it is unfortunate that there are not data for more states.

Summary

The relative amplitude of the wave-like movements in the various series on the number of incorporations is closely correlated with the size of the incorporation. The widest relative amplitude is associated with the large, and the narrowest with the small incorporation. The trend of small incorporations is upward and steep until 1918; from 1918 to 1932 the rate of growth decreases; after 1932 the trend has a negative slope. The trends for the medium and large incorporations are for the most part either horizontal or inclined upward only slightly. The trend in the incorporation of big companies is less astonishing when one realizes that many large companies were first incorporated as small business units. The growth of some of these small companies has sometimes entailed the taking out of new charters for the enlarged units, but frequently original charters, though doubtless in amended form, have remained in use. Incorporations of small companies in most states far outnumber those of medium or large companies. Only in states with so-called liberal incorporation laws is the generalization questionable. Between 1880 and 1944 there were three peaks in high finance—1899, 1920, and 1929.