

Chapter 4 The Institution of Industrial Conglomerates

§ 1. The Industrial Conglomeration Phenomenon

The American Economy Revolution brought with it a number of fundamental changes in the character of American businesses after 1750. These changes first appeared in the larger cities such as Philadelphia. By the 1830s, when the industrial revolution began in urban areas, relationships between proprietor-employers and wage-laborer employees had taken on conflict-prone customs still common today. It is worthwhile to review this development because the present-day institution of uncivic free enterprise in the United States was born out of *these* changes, not out of capitalism. Its development went hand in hand with the development of industrial conglomerates in the U.S. Industrial conglomerates of the class employing 50%+ of laborers today are not compatible with civic free enterprise because the latter requires more of business institutions. Specifically it requires institution of a different kind of internal business governance; namely institution of the Enterprise-of-enterprises conglomerate.

An *industrial conglomerate* is an aggregation of divers industrial enterprise activities under the governance of some agency of sovereignty. The members of an industrial conglomerate might or might not be bound together by a social contract. If they are not then these individuals are not constituted as a united Community, although they do form a peculiar mini-Society¹. An *Enterprise* is the common Object of all the individual instantiations of personal enterprises carried out by a group of people associated with each other in a united Community. If these personal enterprises are also economic enterprises (i.e., enterprises carried out for purposes of obtaining income revenue) then the Enterprise is called an *Enterprise-of-enterprises*. The Enterprise-of-enterprises model is key to the theory of civic free enterprise and so it is necessary to discuss: (1) the institution of industrial conglomerates following the 1750 Economic Revolution in the U.S.; and (2) what is required for an industrial conglomerate to be re-made into an Enterprise-of-enterprises. The former is discussed first; the latter discussion occupies much of the rest of this treatise.

Industrial enterprise is industry directed at an economic enterprise. The entrepreneurs who gather together in an industrial conglomerate are people who are seeking to obtain a revenue income from their individual activities. Thus, industrial conglomerates are commercial entities as a whole in relationship to Society but are also characterized in terms of individual commercial transactions between the people who work in the industrial conglomerate and an artificial person established by a law or legal convention for purposes of legally personifying the business entity. For example, if you have a job with Acme Gadgets that pays you a wage or salary for performing the work you do, the exchange of your labor services in return for the wages or salary paid to you is a commercial transaction between yourself and "the company." Acme Gadgets is the name given by convention to an artificial person "for whom" you are said to work. It doesn't matter if "Acme Gadgets" is General Motors (a public stock corporation) or Kuhlman Motors (a small family-owned used car business in Iowa). Both are entities personified by a legal convention.

Industrial conglomerates were rare in colonial America prior to the Economy Revolution. The great majority of all businesses were sole proprietorships worked by members of the proprietor's household – i.e., members of his family, apprentices, and indentured servants. Apprentices and indentured servants were not economic entrepreneurs because they received no wages but, rather, lived with the "master of the business" who provided them with food, clothing, shelter, and, in some cases, saw to it that apprentices received at least a rudimentary education in reading. The absence of revenue income for these people is why they were not *economic* entrepreneurs.

¹ Refer to the glossary for the technical distinction between a Community and a Society.

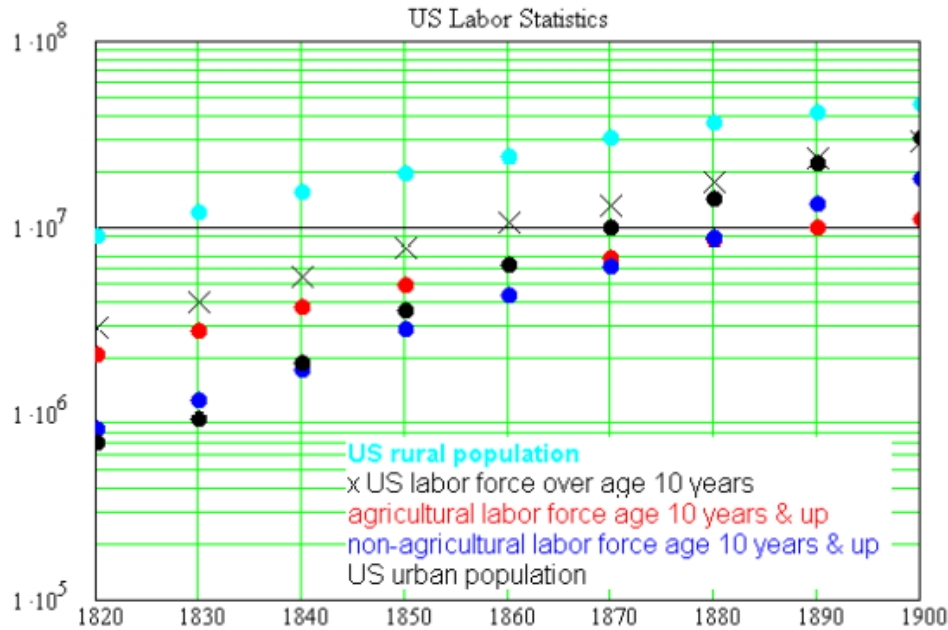


Figure 1: U.S. population and labor force statistics from 1820 to 1900. Source: Bureau of the Census (1949) Series B 13-17, D 1-5.

After the Economy Revolution nonfamily apprentices and indentured servants had largely disappeared from American commerce by the year 1800, replaced by wage-laborers. They were, of course, economic entrepreneurs who received income revenue from their employers and wide-scale appearances of industrial conglomerates accompanied this fundamental change in the U.S. labor force. The distinction between what the Bureau of Labor Statistics and the Census Bureau call nonemployer business establishments and employer business establishments² was first necessitated by this change in the American business environment.

It is easy to form a misconception from the writings of historians that industrial conglomerates came to dominate the U.S. economic environment very rapidly with the onset of the American industrial revolution in the 1830s. Many historians and other authors pay such single-minded attention to the effects of the revolution in urban areas that one can easily forget or neglect the fact that for many decades the rural population of America remained much larger than the urban population³. Figure 1 graphs the U.S. rural and urban populations, the total U.S. workforce, and its agricultural and non-agricultural labor forces from 1820 to 1900. The immediate effects of the industrial revolution were not felt, or felt only to a very small degree, by the majority of Americans until around 1880 when the non-agricultural workforce population caught up with that of the agricultural labor force. This is because the characteristics of rural vs. urban industrial conglomerates were generally quite different. It is also very easy to form misconceptions about the nature of the industrial conglomerates themselves and their character after the onset of the industrial revolution. Let us examine this economic history more closely.

² The BLS and the Census Bureau distinguish between 'establishments' and 'firms'. An establishment is a business in a single physical location at which business is conducted or services or industrial operations are performed. A firm is a business organization under a single management and may include one or more establishments [Bureau of the Census (1990), pg. 519].

³ An urban population is a population consisting of 2,500 or more people living in an incorporated city or town or in an unincorporated place with prescribed boundaries delineated by the Census Bureau. The rural population consists of all people not living in a designated urban area.

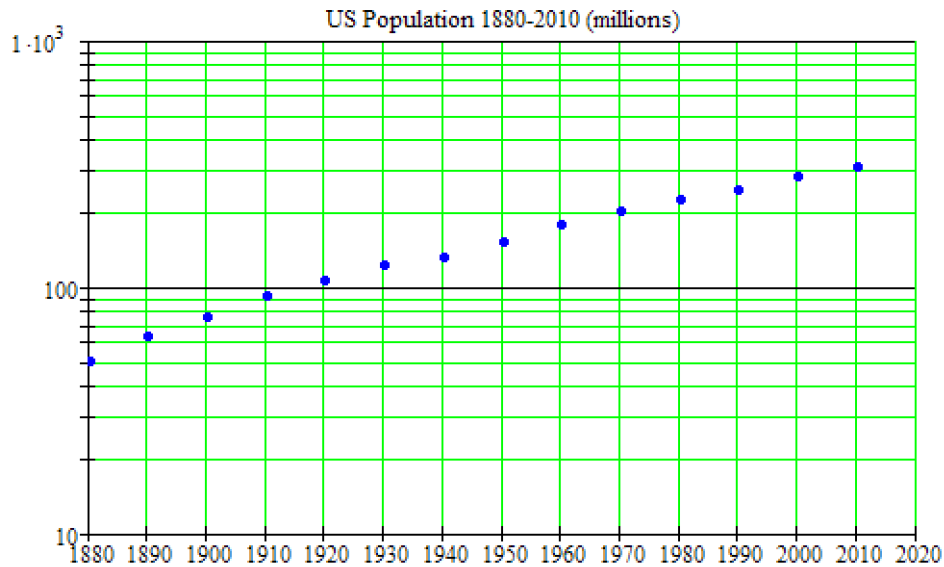


Figure 2: U.S. population from 1880 to 2010. Source: Bureau of the Census (2011), table 1, pg. 8

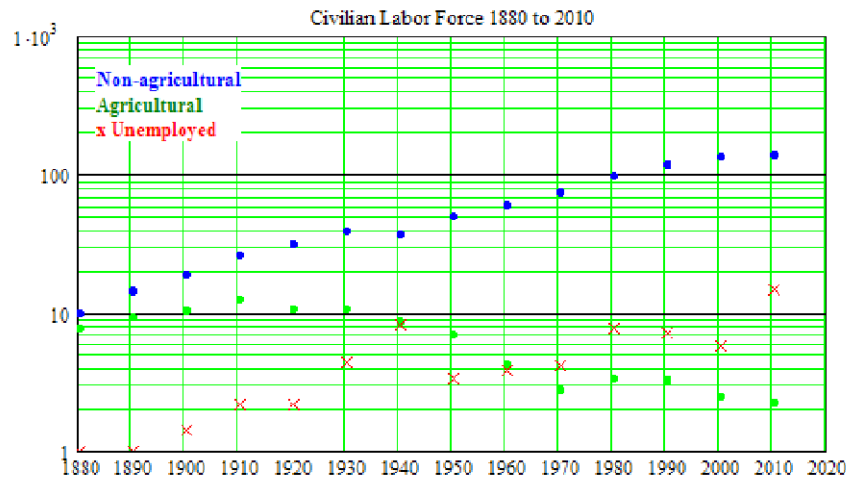


Figure 3: U.S. civilian non-agricultural and agricultural labor force (in millions) from 1880 to 2010. Source: Bureau of the Census (1976), Series D 16-17, 85, Bureau of the Census (2011) table 586, pg. 377, table 602, pg. 386.

§ 2. Myths of the American Industrial Revolution

Americans today live in the aftermath of a century of social liberalism movements, beginning with the 'humanist' movement early in 20th century and continuing with the socialist movement provoked in the 1930s Great Depression, popular social liberalism in the 1960s and early 1970s, and a social reactionary backlash that began in the late 1970s and continues to this day. Today it is accurate to say that an ongoing conflict of opposing political ideologies dominates American politics. The two major factions in this conflict are well-meaning people and each faction strives to correct what they see as injustices in American Society. Neither faction takes into account all of the injustices born of uncivic free enterprise, and the reforms championed by each faction

would perpetrate additional injustices or perpetuate present ones. Furthermore, each faction has long engaged in campaigns of political propaganda so relentlessly that falsities contained in them have passed into what has to be called myth – 'urban legends' in regard to the American industrial revolution and its aftermath. There can be no just resolution of the conflict, no just redressing of present injustices, and no necessary political and economic reforms that can meet the challenges America faces until the myths of a century of misleading propaganda are dispelled by factual understanding of what transpired in American business and economics during and after the American industrial revolution.

The most prominent myths alleged to have been the most prominent effects of the industrial revolution have to do with the "urbanization of America" and its effect on the American civilian labor force. Figure 1 provides relevant labor force statistics from 1820 to 1900. Figure 3 provides the statistics over the period from 1880 to 2010. In order for these figures to be properly taken into context, they must be viewed within the context of the overall U.S. population, which figure 2 provides. It was not until *after* 1880 that the non-agricultural workforce population finally exceeded the agricultural workforce population. Economically, America cannot be said to be "urbanized" until 1910 when the agricultural workforce population began to decline. 1910, non-coincidentally, was near the start of the heyday period of the American "progressivism" movement.

Another thing to note from this data is the increasing percentage of the U.S. population participating in the labor force from 1880 to 2010. In 1880 the civilian labor force made up 47.3% of the noninstitutional population [Bureau of the Census (1976), D-13]. In 2010 this percentage was 64.7% [Bureau of the Census (2011), table 586]. In comparison, 44.4% of the population was in the labor force in 1820 and the steady rise in this percentage did not begin until 1880 [Bureau of the Census (1949), Series D-3]. Taken together, these figures indicate a significant change in the economic environment of the U.S. after 1880 that prompted a greater fraction of the population to enter the workforce. Census Bureau statistics indicate that the principal phenomenon immediately responsible for this rise in the civilian labor force was a rise in the percentage of women in the noninstitutional population joining the workforce [Bureau of the Census (1976) Series D 11-13]. Propaganda-induced urban legend, on the other hand, paints the industrial revolution landscape from its inception to now with the same brush. That gives a false impression because there are at least two qualitatively different periods.

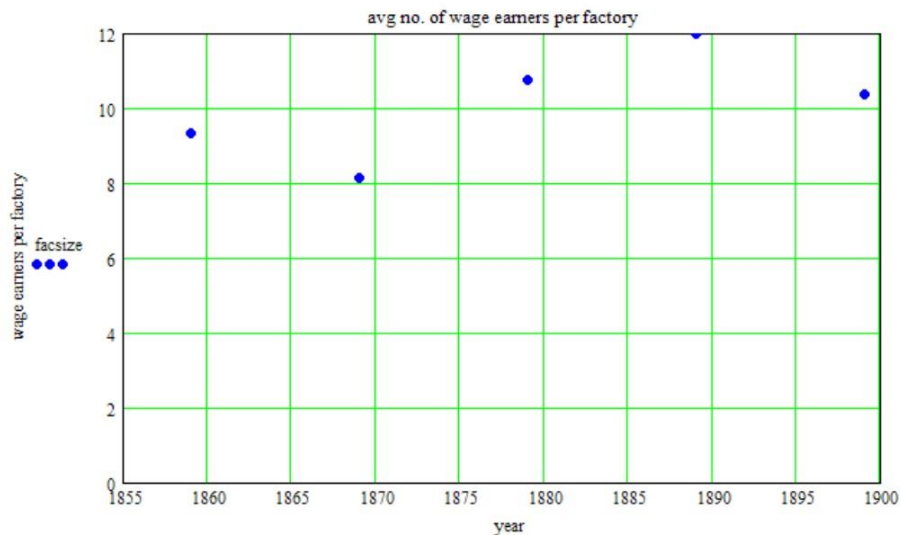


Figure 4: Average number of wage earners per factory from 1859 to 1899. Source: Bureau of the Census (1949), Series D 1, 4.

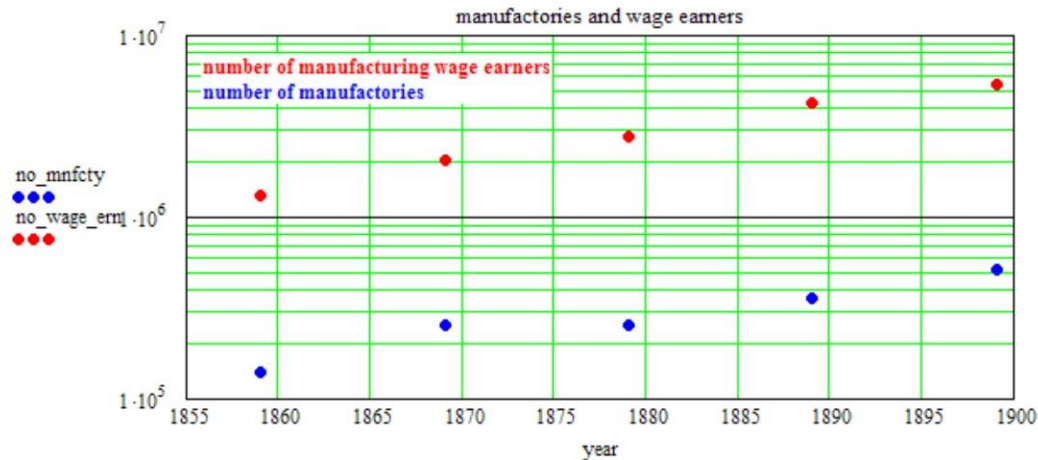


Figure 5: Number of manufacturing establishments and number of wage earners employed by them from 1859 to 1899. Source: Bureau of the Census (1949), Series D 1, 4.

Another popular urban legend is that post-industrial revolution America became very quickly dominated by giant firms (often presumed to be factories and mills). In point of fact this is untrue during all of the 19th century. Figure 4 provides data on the average number of workers in manufactory establishments from 1859 to 1899. Figure 5 provides data on how many of these establishments there were and how many people were employed by them. Referring to figure 1, in 1899 the non-agricultural labor force population was around 19 million workers and so roughly 27% of U.S. non-agricultural workers were employed by these establishments, which numbered 512,000 establishments in 1899. However, as figure 4 shows, the average number of workers per establishment is just slightly over 10 people. There were a few giant firms in 1899 – examples include the Carnegie Steel Company, Standard Oil, and a few railroad companies – but in fact the great majority of companies were small businesses, and corporations were still new phenomena in America. The phenomenon of 'mega-corporation' domination is a 20th century phenomenon.

It is unfortunate for analysis that the Census Bureau did not start publishing data on the numbers of firms according to the number of the firm's employees and the fraction of the civilian labor force employed in these firms until 1990. Figure 6 presents data on the number of firms classified according to the size of the workforce. Figure 7 presents data on what percent of the labor force is employed by size class. Firm classes are defined as

Class 1: 0 to 4 paid employees	Class 4: 20 to 99 paid employees
Class 2: 5 to 9 paid employees	Class 5: 100 to 499 paid employees
Class 3: 10 to 19 paid employees	Class 6: 500 or more paid employees.

One thing that stands out in this data is that although the number of Class 6 firms ranges only from about 14,000 to 18,000 firms throughout this period, those firms account for around 47% to slightly over 50% of the employed workforce. In contrast, there are 3 to 4 million Class 1 firms but these employ only around 5% of the workforce. To put these figures in perspective, in 1910 the steel and railroad industries employed about 3 million workers [Wolman (1924), Table IV, pp. 125-132] out of a non-agricultural labor force population of 25.8 million [Bureau of the Census (1949), Series D 4] or about 12% of the total non-agricultural workforce. These figures make it very clear that between the first and last decades of the 20th century significant changes took place in the nature of American industrial conglomerates. What will come to light later in this treatise is that this was due to legislation and attitudes born of uncivic free enterprise.

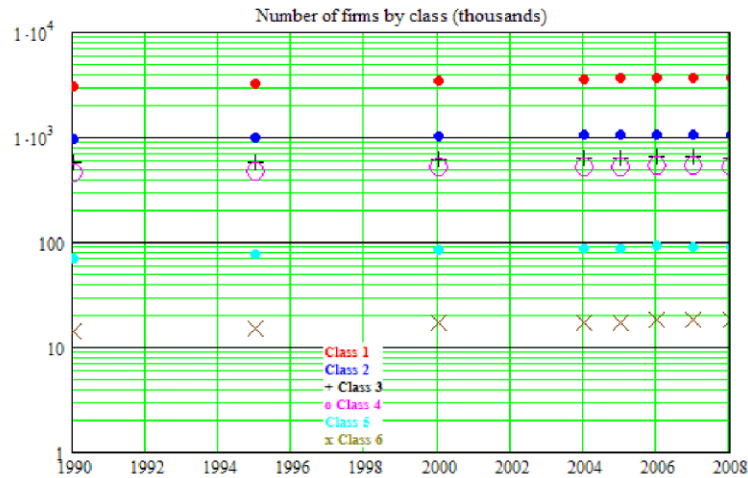


Figure 6: Number of firms by employee size classes from 1990 to 2008. Class 1 = 0 to 4 employees; class 2 = 5 to 9 employees; class 3 = 10 to 19 employees; class 4 = 20 to 99 employees; class 5 = 100 to 499 employees; class 6 = 500 or more employees. Source: Bureau of the Census (2011) table 762, pg. 504. The data is in thousands of firms. Class 6 is the 'mega-corporation' class.

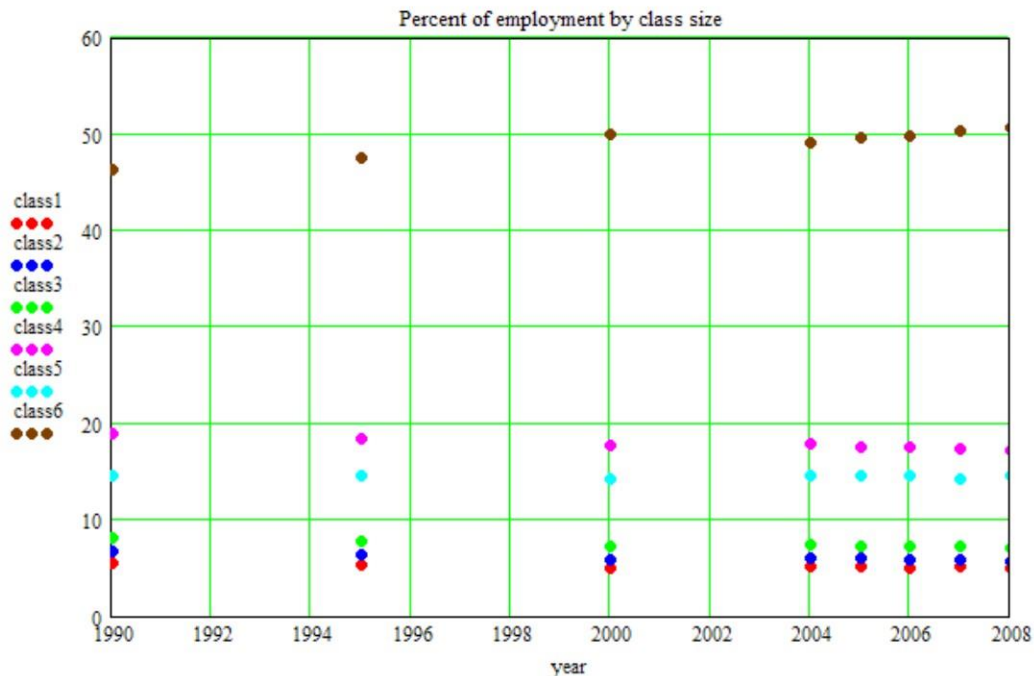


Figure 7: Percent of labor force employed by class size of employing firms from 1990 to 2008. Class 1 = 0 to 4 employees; class 2 = 5 to 9 employees; class 3 = 10 to 19 employees; class 4 = 20 to 99 employees; class 5 = 100 to 499 employees; class 6 = 500 or more employees. Source: Bureau of the Census (2011) table 762, pg. 504. Today 'mega-corporations' employ 50% of the labor force.

Social-liberalism dogma asserts that injustices in American Society primarily came about from the actions of "capitalists" as this term is misused in the propaganda picture of capitalism painted by Marx and Engels. The data presented here suggests this dogma of social-liberal propaganda is non-factual and unjust. History had many more Mr. Fezziwigs than it did Ebenezer Scrooges.

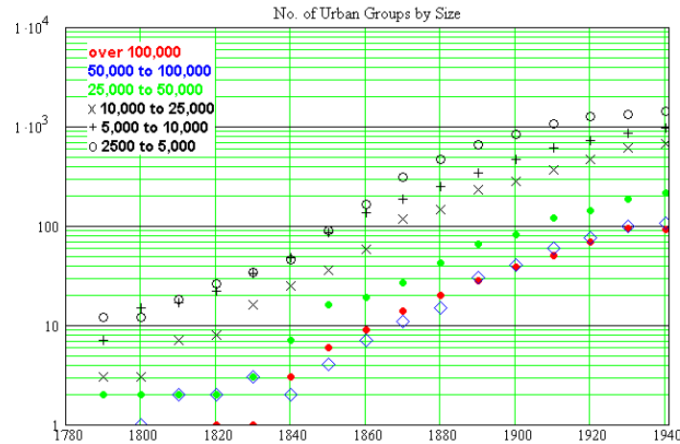


Figure 8: Number of U.S. urban groups by city population size from 1780 to 1940. Source: Bureau of the Census (1949) Series B 147-158.

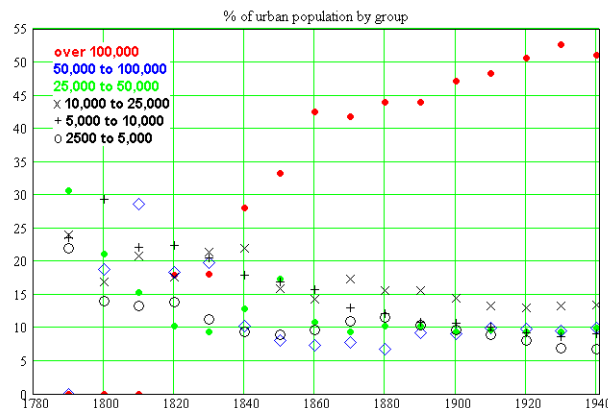


Figure 9: Percent of urban population by urban group size from 1780 to 1940. Source: Bureau of the Census (1949) Series B 147-158.

Another popular misconception of the American industrial revolution is that it *caused* a re-concentration of population from rural to urban. Indeed, this is what many people mean when someone refers to the 'urbanization' of America. The question is: Did the industrial revolution *cause* urbanization or did *urbanization* cause the revolution? Or were these phenomena *both* the effects of something else, some *other* factor or factors? Popular myth holds that the revolution was not only *a* causal factor but *the* causal factor. However, the veracity of this myth not only can be but must be questioned because the idea of a "revolution" is the idea of some sort of change. Will we say a change caused itself? In socio-economic phenomena that notion is an ontological absurdity because a change is not a substantial thing; it is a happening.

Figure 8 provides data on the number of urban areas according to the size of the population in these cities. Figure 9 provides data on the percent of the urban U.S. population distribution among cities of various sizes. Both graphs demonstrate that there was indeed growth in the number of urban places, variations in the percentage of the U.S. population who lived in urban places, and a concentration of population in the largest cities. Now, some of this must undoubtedly be attributed to simple population growth. Note in figure 9 that decrease in the 50,000-to-100,000 population group is accompanied by growth in the greater-than-100,000 group. Obviously if a city population in the first group grows for a long enough time it will eventually cease to be in the

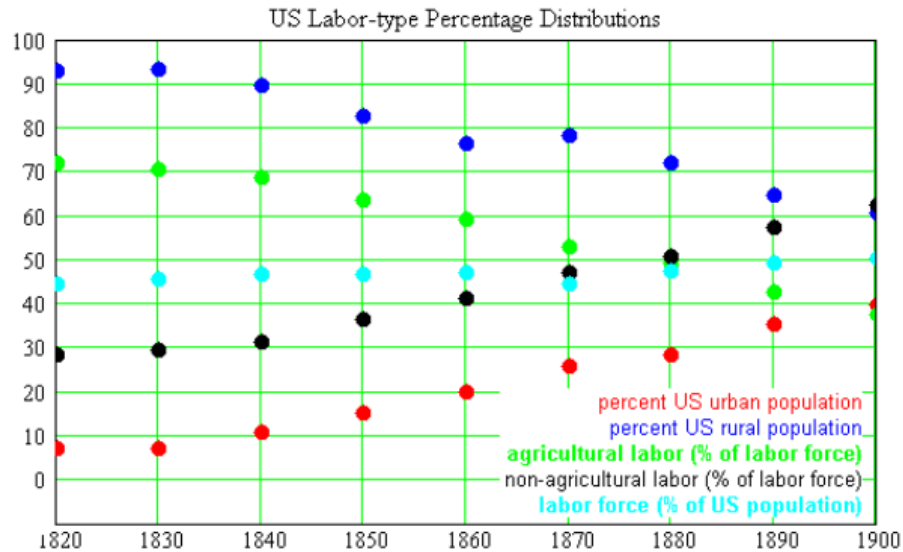


Figure 10: U.S. Labor-type percentage distributions from 1820 to 1900. Source: Bureau of the Census (1949) Series B 13, 16-17, D 1, 4-5.

50,000-100,000 group and join the greater-than-100,000 group. It takes no industrial revolution for that to happen. Any factor or set of factors that makes it possible for a particular area to support a growth in its population can have this effect. Figure 8 clearly demonstrates more or less monotonic growth in the number of all classes of urban places. Figure 9 equally clearly demonstrates that the clustering of populations was quite a complex happening because no population size group demonstrates a simple natural growth process such as is found in, e.g., many animal populations in wilderness areas under stable environmental conditions. The figures in and of themselves provide no immediate evidence that an industrial revolution was even happening.

Telling evidence that an industrial revolution – a fundamental change in people's industries – was in fact taking place can be seen in figure 10, which graphs the percentage distributions in the two main Labor-types of industries, agricultural and non-agricultural industries. Prior to 1830 the distributions of agricultural and non-agricultural Labor percentages was more or less static. After 1830 it is clearly demonstrated that agricultural Labor as a percent of the labor force undergoes a monotonic decline while that of non-agricultural Labor begins a monotonic increase. At the same time, the percentage of rural population undergoes a non-monotonic decrease while the urban population begins to monotonically increase. All of this happens while the percentage of the U.S. population in the labor force remains more or less static. *This* is what empirically marks the real *Dasein* of a revolution (fundamental change) and because the change is in the qualitative nature of people's industries it is an *industrial* revolution. An industrial revolution phenomenon did in fact happen in America and it began in or around 1830. All else merely illuminates the *Existenz* of this revolution. **The American industrial revolution caused nothing.** It was an *effect* of some underlying set of partial causes. The scientific challenge is to try to identify as many of these as possible and determine which of the multiple partial causes produced the main effects.

§ 3. Industrial Conglomeration

As more people shifted their personal industries from agricultural to non-agricultural labor this implies an accompanying shift favoring town and city concentration in the place where labor was performed. In pre-1830 America, most people were 'cottage industrialists' and cottage industries

could be carried out in rural or urban areas equally well because the principal aim of these industries was to supply goods to the household itself rather than to merchandize these products. However, as the population continued to grow in the older eastern parts of the country, arable farmland became less available with the result that a greater percentage of the population was forced to turn to non-agricultural industry in order to obtain a consumption revenue needed to support people's individual and household welfares. In the townships of colonial America, most households had their own plot of land to fully or partially supply their food-stock requirements. As the townships became more populated, land for this purpose became unavailable for more people and so merchandizing became more essential. A natural consequence of this was that people had to turn to specialized divisions of labor to obtain consumption revenues and, with this, industrial conglomeration of labor began displacing cottage industry. Adam Smith wrote,

As it is the power of exchanging that gives occasion to the division of labor, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market. When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment for want of the power to exchange all that surplus part of the produce of his own labor, which is over and above his own consumption, for such parts of the produce of other men's labor as he has occasion for.

There are some sorts of industry, even of the lowest kind, which can be carried out nowhere but in a great town. A porter, for example, can find employment and subsistence in no other place. A village is by much too narrow a sphere for him; even an ordinary market town is scarce large enough to afford him consistent occupation. In the lone houses and very small villages which are scattered about in so desert a country as the Highlands of Scotland, every farmer must be butcher, baker and brewer for his own family. In such situations we can scarce expect to find even a smith, a carpenter, or a mason within less than twenty miles of another of the same trade. The scattered families that live at eight or ten miles distant from the nearest of them must learn to perform themselves a great number of little pieces of work, for which, in more populous countries, they would call in the assistance of those workmen. Country workmen are almost everywhere obliged to apply themselves to all the different branches of industry that have so much affinity to one another as to be employed about the same sort of material. [Smith (1776), pp. 15-16]

As a population becomes more concentrated, on the other hand, this practical necessitation shifts for lack of materials and resources an individual or household requires in order to be self-sustaining economically. For example, a person cannot supply himself with leather for making his own leather goods if he does not have his own livestock from which to obtain that leather. In addition, as Smith also pointed out, division of labor reduces the cost to the consumer of goods he can obtain by barter and exchange relative to the cost, in time and in materials, he would incur if he did try to produce for himself all those goods that satisfaction of his welfare requires. It has been conjectured by some authors that the impetus for the American industrial revolution was the War of 1812, during which manufactured goods from Great Britain were unavailable in the United States. This conjecture is dubious considering that the American industrial revolution did not actually begin until 1830. Population growth per square mile in the eastern parts of the country, on the other hand, made an industrial revolution in America inevitable. According to census data, between 1800 and 1830 the population in New England multiplied by 1.58×, in the Middle Atlantic states of Pennsylvania, New York, and New Jersey by 2.56×, and in the South Atlantic states by 1.59×. Between 1830 and 1860 these multipliers were 2.5×, 5.3×, and 2.3×, respectively. U.S. average population per square mile rose from 6.1 in 1800 to 7.4 in 1830.⁴

⁴ One should bear in mind that: (1) New England had the smallest land area of these regions; (2) the South Atlantic states had the largest land area; and (3) a sizable percentage of the southern population consisted of slaves. It is therefore quite natural that the industrial revolution took hold sooner in the northern states.

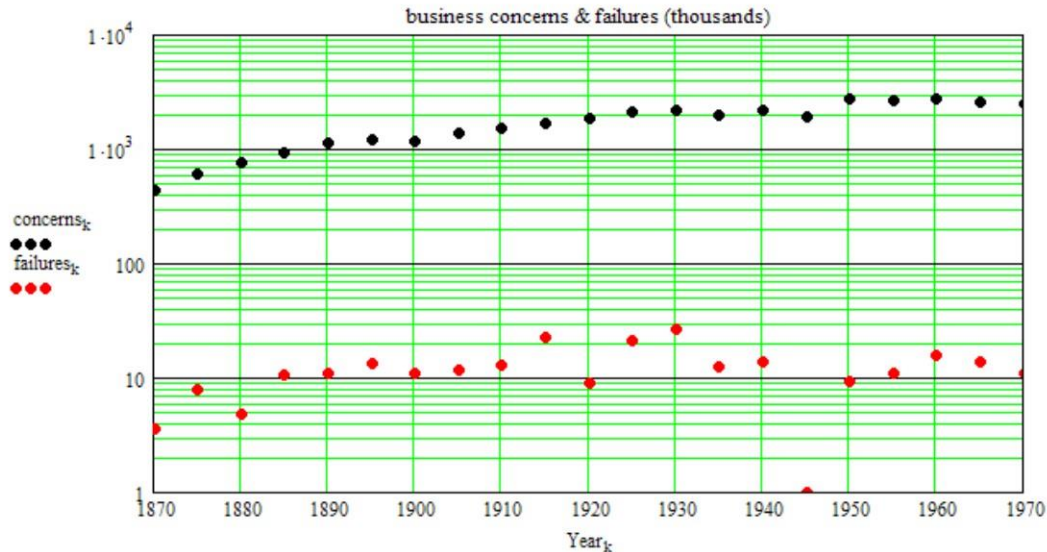


Figure 11: Number of non-farm business concerns and business failures from 1870 to 1970. Figures are in thousands and are tabulated from business entities that sought commercial lines of credit. The figures exclude farmers, financial companies, insurance companies, real estate companies, railroads, terminals, amusements, and many small one-man services but include manufacturers, wholesalers, retailers, building contractors, public utilities, water carriers, motor carriers, and airlines. For reference, the number of business concerns in 1857 was 204,000 and the number of business failures was 4,932. Source: Bureau of the Census (1976) Series V-20, 24.

Polanyi took issue with Adam Smith in regard to what Smith called "man's propensity to barter, truck, and exchange one thing for another," arguing that "up to Adam Smith's time that propensity had hardly shown up on a considerable scale in the life of any observed community" [Polanyi (1944), pg. 45]. Insofar as this "propensity" is presumed to be an innate human instinct, Polanyi was correct because there is no such instinct. However, Smith didn't claim it was an instinct and the intellectual *Personfähigkeit* of *H. sapiens* makes him a generalist who is able to adapt and accommodate himself to changes in his situation and environment. Economically, Polanyi's objection is irrelevant. When American circumstances favored change, Americans made one and made industrial conglomerates a prominent feature of it. Figure 11 presents census data (in thousands of businesses) on the number of American business entities ("concerns") from 1870 to 1970 as well as on the number of business failures. There are no reliable similar statistics for prior to the Civil War, but for reference the number of business concerns in 1857 was 204,000 and the number of business failures was 4,932 according to the source cited. By 1870 the number of business concerns had more than doubled from the year 1857 and there is little reasonable doubt that the growth rate from 1830 to 1857 was likewise exponentially rapid.

These figures can be combined with census data on the non-agricultural workforce to obtain an estimate of the number of people who worked in these firms on the average. Figure 12 shows the computed estimates from 1870 to 1970. Comparing these estimates with the previous estimates of the number of wage earners per factory in the manufacturing industry, we see that the estimate of figure 12 of around 13 to 16 workers per firm is actually a little higher than the estimate of factory workers per firm in figure 4 (around 9.5 to 12 workers/manufactory). Given the manner of how these estimates are computed, it can be concluded beyond reasonable doubt that the great majority of industrial conglomerates (and not just manufactories) were relatively small business concerns up until the 1950s. After 1950 there was a sudden and sharp increase in the workforce size employed on the average by industrial conglomerates.

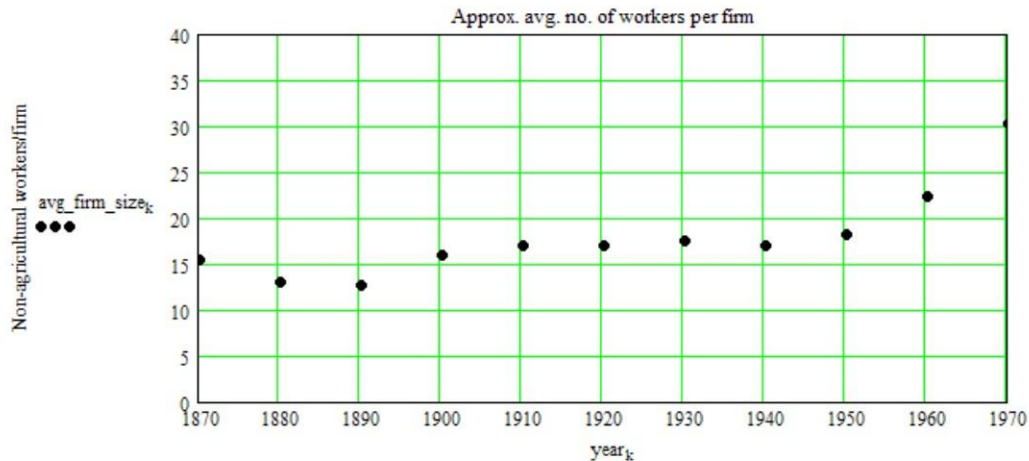


Figure 12: Approximate number of workers per firm from 1870 to 1970 computed as the population of the non-agricultural labor force divided by the number of concerns. The figure is approximated because the number of concerns data does not include all types of business entities. However, the average computed is a sufficiently reasonable approximation for typical businesses. Source: Bureau of the Census (1976) Series D-16, 17, V-20, 24.

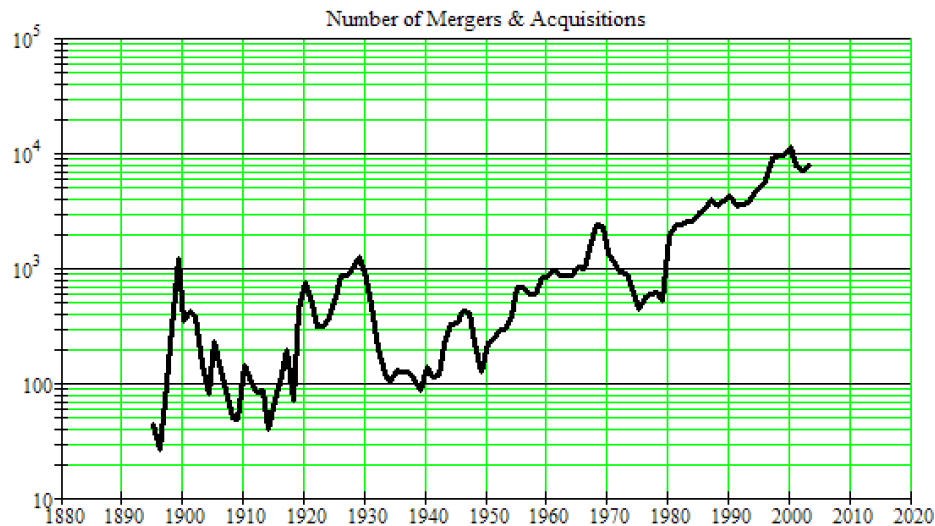


Figure 13: Mergers and acquisitions in the U.S. from 1895 to 2003. Sources: Bureau of the Census (1976) Series V-38, and various editions of the Bureau of the Census *Statistical Abstracts* (1979, 1981, 1988, 1990, 1998, 2004-05).

These figures establish the fact that up until the 1950s the small business was the prevalent form of industrial conglomerate in the United States. In the 20th century there were, of course, a smaller number of large conglomerates (class 6 having more than 500 employees in the firm) and by the 1990s these large firms had come to dominate labor employment in the United States (figure 6). The corporation form of business had its first great expansion in the years from around 1870 to 1910 but, unfortunately, data is lacking as to the percentage of the urban workforce they employed. However, the record of mergers and acquisitions in the U.S. (figure 13) combined with the data of figure 12 implies that this dominance was most likely a post-1950 phenomenon because mergers and acquisitions create larger business firms and annihilate smaller ones.

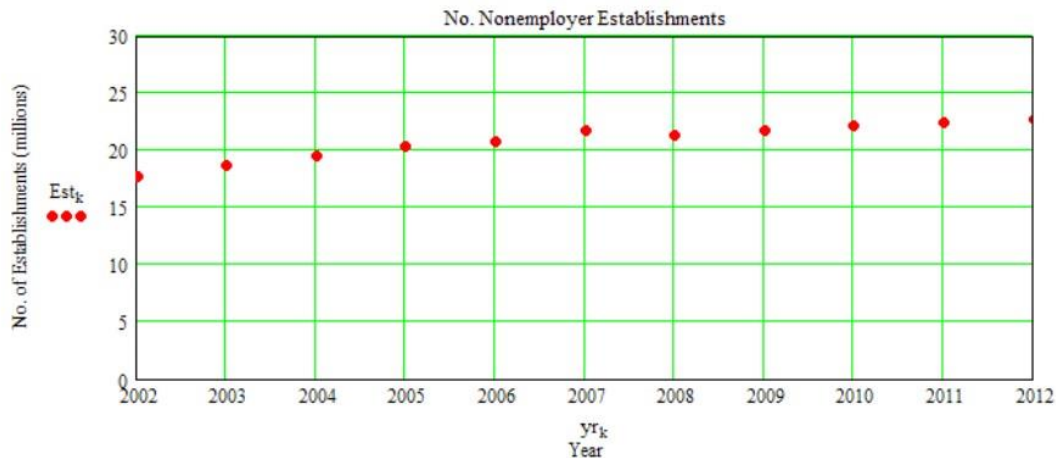


Figure 14: Number of nonemployer business establishments (in millions) from 2002 to 2012. Source: U.S. Census Bureau Censtats data base, <http://censtats.census.gov>, publication date 2015.

One thing that can be potentially misleading about Census Bureau data on firms is that the method used by the Bureau to report class 1 business firms does not include firms with no paid employees (so-called 'nonemployer firms'). This category includes family owned and operated businesses and still constitutes, as it has since colonial times, the largest single category of business firm. Figure 14 provides recent Census Bureau data for this category of establishments. Note that the data is reported in *millions* of establishments. By comparison the number of firms depicted in figure 6 totals slightly over 6 million firms in 2008 compared to slightly over 21 million nonemployer establishments that same year.

Data on nonemployer firms is collected from information provided by the Internal Revenue Service and differs from census data on self-employed workers because the latter excludes the incorporated self-employed. Figure 14 is a more accurate representation of people who operate their enterprises without joining with others in an industrial conglomerate. This group makes up the majority of American businesses but, according to the Census Bureau, these establishments average less than 4% of all sales and receipts nationally. Presumably this small piece of the monetary pie is likely the reason this group is almost completely ignored by the Census Bureau and other business data sources; perhaps nothing better exhibits economic theory's divorce from the social atoms of the economy and Society than the ignorance of this group by these sources. When politicians extol the virtues of "the small businessman" to gain popular support for acts of legislation they favor, the group represented by figure 14 is *not* who they mean. Usually their legislation does not benefit these 20+ million true small businesses and quite often works to their disbenefit. These politicians use propaganda to exploit the widespread ignorance of economics that prevails in the United States. The same can be said of executive branch agencies.

Industrial conglomeration spread more rapidly in the north (i.e., New England and the Middle Atlantic states) than in the Old South because there was more population growth per square mile in the north than in the south. However, this does not mean industrial conglomeration was wholly absent in the southern states. Historians Morison & Commager wrote,

It is an error to suppose that manufacturing was unknown in the South before the Civil War. As early as 1810 the value of textile products in North Carolina surpassed that of Massachusetts, and by 1860 the South had some fifteen percent of the manufacturing establishments of the country turning out about eight percent of the total produce. [Morison & Commager (1930), pg. 628]

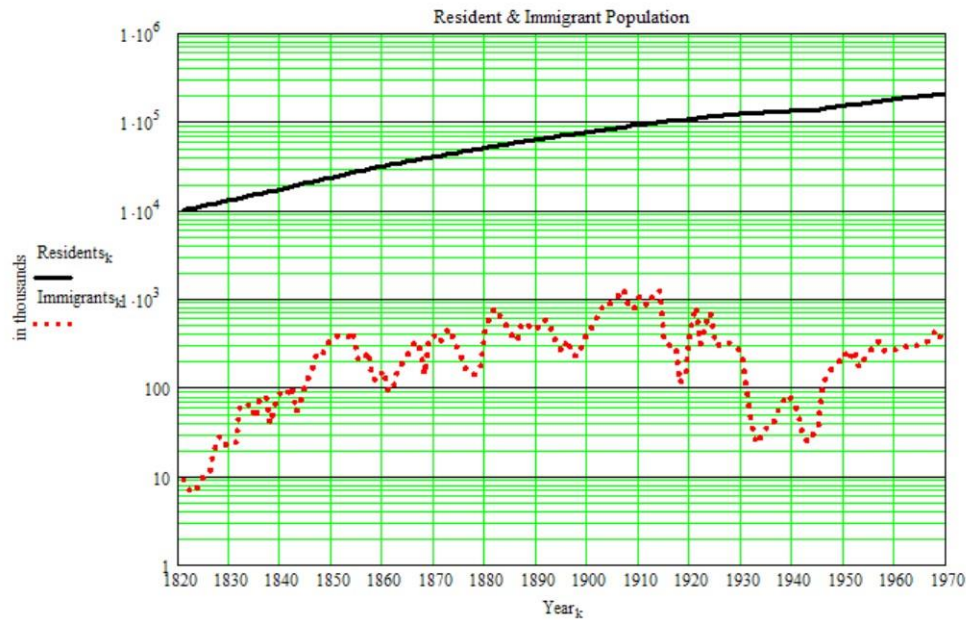


Figure 15: Resident population of the U.S. and number of immigrants (in thousands) from 1821 to 1970.
Source: Bureau of the Census (1976) Series A-7 and C-89.

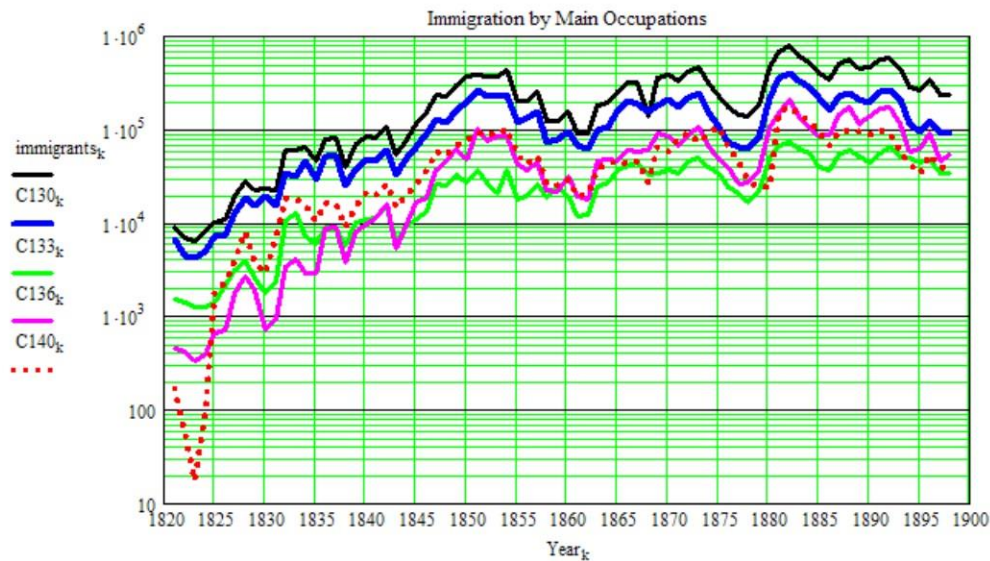


Figure 16: Total immigration, number of immigrants categorized by the three largest occupation groups, and number of immigrant children under 15. Source: Bureau of the Census (1976) Series C-89, 130, 133, 136, and 140. C130 = 'No Occupation' group consisting of dependent women and children and immigrants who did not report their occupation; C133 = 'Skilled' workers; C136 = 'Laborers' (unskilled workers); C140 = minor children under age 15. The data is graphed in terms of absolute numbers of people.

One of the other popular myths of the American industrial revolution is that low-wage unskilled immigrant laborers were deliberately "imported" by "the capitalists" in order to replace "expensive American laborers." The implication of this myth is, of course, that immigrants were "exploited" by "the capitalists" as part of a grand conspiracy. The myth also requires that these

unnamed "capitalists" were able to manipulate U.S. immigration policy during the industrial revolution. This is a conspiracy theory that is most often associated with individuals who have advocated socialist political ideologies and tend to be radically critical of "capitalism." Let us examine the statistics on immigration during the 19th century when the industrial revolution was happening. Figure 15 presents the data on the total resident U.S. population (excluding Americans living overseas or on active duty in the armed forces outside of the United States), and on the total number of immigrants from 1821 to 1970. Figure 16 breaks down immigration by Census Bureau 'occupation group' categories. Only the three largest categories (after 1831) plus children under age 15 are graphed in the figure. Statistics for the other categories are provided by Bureau of the Census (1976) Series C 120-137. The figure data covers the great majority of immigrants.

Turning to figure 15, the first thing to note is that immigrants comprise only a small fraction of the total U.S. resident population. In no year does the number of immigrants rise above about 1.5% of the resident population and in most years it is significantly smaller than this. Alarmist outcries raised after World War I that America was being "swamped" by immigrants was ignorant drivel⁵. Immigration levels were a significant fraction of the year by year *change* in U.S. population (20% to as much as 55% of the change) in the decades after 1850, and because many immigrants settled in the largest cities, such as New York City, it could seem like a flood to the local inhabitants and to people who thought that only what happened in the large cities was of any significance to American Society⁶. In fact no national "swamping of America" by immigrants has ever happened (with the obvious exception of colonial times when almost all Americans were immigrants).

The next thing to note about figure 15 is that from the 1830s until World War I immigration is characterized by a gradually increasing number of immigrants with a geometric growth rate of roughly 2.3% per year. This compares to the approximately 3% per year geometric growth rate in immigration from 1950 to 1970. Riding on top of this underlying trend are four discernible 'pulses' of increased immigration: 1845 to 1854; 1864-1875; 1880-1893; and 1903-1914. The 1845 pulse follows a step up in immigration from 1825-1837, a period covering the construction of the Erie Canal to the Panic of 1837 [Skrabec (2012), pp. 23-36]. The immigration pulse from 1845-1854 is coincident in time with the occurrence of European crop failures and political crises [*ibid.*, pp. 39-42]. The next two pulses occurred during the American Long Recession of 1865-1896 (see figure 17). The 1864-75 pulse began near the end of the war prosperity enjoyed by the Union during the Civil War and ended during the great depression of 1873-78 following the Panic of 1873 [Skrabec (2015), pp. 90-93]. The 1880-1893 pulse occurred during a period of strikes beginning with the Great National Railroad Strike of 1877 [*ibid.*, pp. 93-95] and continuing until the Panic of 1893 [*ibid.*, pp. 107-109]. These were periods of high unemployment and in the case of the 1880-93 pulse also coincided with expansion of child labor in the U.S. [*ibid.*, pp. 96-98].

⁵ It was also bigoted drivel. In 1922 Arthur Sweeney wrote, "We are being swamped with the offscourings of Europe. Those at the lower end of the intellectual scale have brought us their social customs, their language, their political ideals. They cannot assimilate our ideals. . . . They cannot become citizens in the highest meaning of that word. . . . We do not need the ignorant, the mentally feeble, the moron" [Sweeney (1922), "Mental tests for immigrants," *North American Review*, May, 1922, pg. 611]. The immigrants he refers to as "ignorant, mentally feeble, and moron" are those who came from anywhere but Britain, France, Germany, or Scandinavia – in other words, he was referring to the great majority of immigrants. Sweeney's bigoted ethnocentrism was adopted wholesale by the Progressive Education Movement in the 20th century and led to a pernicious system of institutionalized bigotry in American public education that still exists today [Wells (2013), chap. 15]. Every national, religious, and ethnic group of immigrants since 1750 have had to face and overcome widespread bigotry. Bigotry and unconscious institutionalized bigotry have been and continue to be the most pernicious forms of Un-American injustice, violating the American social contract and hindering both equality of opportunity and religious liberty. Both are deontological crimes.

⁶ That group included most of the members of the Progressive Education Movement in the 20th century.

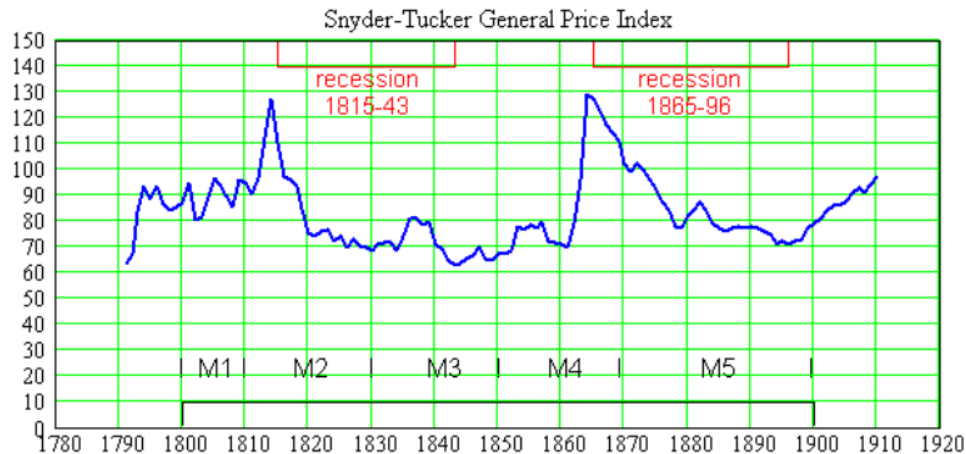


Figure 17: The Snyder-Tucker General Price Index. This index was the forerunner of today's Consumer Price Index. Annotations on the graph delimit the recession of 1815-43 and the Long Recession of 1865-96.

Neither high unemployment nor expansion of child labor is consistent with the speculation that immigration was being manipulated to "bring in cheap foreign labor." In the former, the cost of labor is already depressed, and in the latter child labor was cheaper than adult immigrant labor. It is true that the labor crisis of the 1880s, which pitted labor unions against the owners of large conglomerates, provided a possible incentive for immigration chicanery but two factors argue against the supposition. The first is the fact that unskilled labor became unionized by the Knights of Labor, the second is the way in which the large companies employed strikebreakers and the courts to break the strikes and, along with them, the unions. As for the 1903-14 pulse, this era saw a mix of short term 'boom and bust' cycles in the U.S. The speed with which the situation switched from the one to the other makes it unlikely that any band of immigration conspirators could have kept up with events.

A more credible way to explain figure 15 is the explanation that has become a cliché; namely, that foreigners simply saw America as a "land of opportunity" in comparison to conditions in their home countries. To the extent that Americans upheld their social contract with regard to equal opportunity and liberty of enterprise, America was indeed a land of opportunity for many in terms of bettering their personal welfare. A factor favoring this hypothesis over conspiracy theories can be seen in the make up of immigration depicted in figure 16. The figure graphs total immigration, immigration by Census Bureau 'occupation groups' and child immigration from 1821 to 1898. Throughout this period, one-half of all immigrants consisted of dependent women and children and immigrants who declared no specific occupation (this is the 'No Occupation' group, so-called by the Census Bureau). After 1825 about one-fourth of all immigrants were minor children (children less than 15 years of age). After 1850 a quarter of all immigrants were laborers (unskilled workmen) and even at its peak in the early 1850s the number of laborers did not exceed 100,000 workmen – a small fraction of the U.S. urban workforce, which then numbered 3 million wage earners (figure 1).

It is true that when many immigrants arrived in America they were hindered by local bigotry due to personal as well as institutionalized bigoted behaviors. To this extent many Americans and American institutes perpetrated violations of the American social contract. It is also true that many immigrant minor children entered the child labor workforce after arriving in the United States. Perhaps the most famous child laborer of the 19th century was Andrew Carnegie, who went to work as a bobbin boy in a Allegheny City, PA, cotton factory at age thirteen [Carnegie

(1920), pp. 33-36]. The story of Carnegie's teenage years provides a noteworthy self-report for how an individual's personal welfare interests and Duties to personal society oriented the enterprise of an individual. Saying America was a land of opportunity is not to say it was a land of perfect opportunity. Along with many benefits of capitalism there were and are manifold disbenefits of uncivic free enterprise in the institution of American industrial conglomerates. How and why did the latter originate and evolve? Here it is found that the roots lie in a combination of mimesis (a form of satisficing behavior) and individual Duties-to-self.

§ 4. The Evolution of Uncivic Free Enterprise in America

The socio-economic roots of uncivic free enterprise in America were planted prior to the industrial revolution by the American Economy Revolution of 1750 to 1800. The consequence was an establishment of habits and business maxims that prevented many industrial conglomerates from forming as civic Enterprises-of-enterprises. Why did the commercial environment evolve this way? This is the question now to be examined. There are two interrelated aspects to be considered: a social aspect and an economic aspect.

Every industrial conglomerate is a peculiar mini-Society and shares a number of basic characteristics found in its parent Society. Indeed, much of what Toynbee found in regard to Societies on the scale of nations and civilizations is also found in industrial conglomerates. There is what mathematicians call a "fractal" character of empirical self-similarity in Societies. By this I mean there are many social phenomena occurring at the scale of nations that are found to be repeated on the smaller scales of states or provinces, counties, cities, neighborhoods, various institutes (governments at various levels, schools, political parties, etc.), and individual business concerns. The reason for this self-similarity is because the natures of Societies at every scale are determined by the nature of the same causative agents; namely, people who comprise them and live in interaction with one another. Indeed, this "fractal" character of businesses and commerce is the natural character that makes a real science of economics possible.⁷ Like nations, business concerns are founded, last for a time during which they face various challenges, and eventually break down and fall. One should not be misled by the fact that the same names are often passed from one industrial conglomerate to a successor conglomerate: the entities called U.S. Steel and Hewlett Packard are not the same business entities as the ones originally founded by J.P. Morgan and by Bill Hewlett and Dave Packard. They are different commercial mini-Societies and in most ways the entities presently bearing these names would not be recognizable by those founders. The names provide only a false continuity, rather as if modern day Iran were to call itself Persia.

Industrial conglomerates form, and people associate with one another in them, because each entrepreneur providing his labor services to the firm seeks to serve his own special interests, particularly his welfare interests, which constitute the means to servicing his or her Duties-to-self and Duties to others in his personal society. What is peculiar about an industrial conglomerate is that, for everyone associated in one, achieving personal success in pursuit of individual special interests necessitates cooperations among the members of this mini-Society. Whether these cooperations are civic or uncivic depends entirely on the institution of the business entity and whether or not the members are bound to one another by any sort of social contract compact beyond the general one that binds together the overall Society in which these members are

⁷ The concept of a fractal is of quite recent origin. The term was introduced by Mandelbrot in 1977 as a new idea in geometry and to date its concept has been confined to this specialized sub-field of mathematics. Most of its applications have been narrowly confined to computer graphics applications. Despite the fact that Mandelbrot suggested some limited application examples for economics [Mandelbrot (1983), pp. 334-340], application of the idea in broader contexts has been extremely slow to catch on because of the gap separating academic practice of mathematics and application of mathematics to natural phenomena.

embedded.

This, in its turn, depends crucially on: the population size of the firm; how it is internally governed; whether it contains within itself mini-mini-Societies and, if so, whether relationships between its mini-mini-Societies are civic or uncivic; and the extent to which the mini-Society of the firm is socially ungranulated or granulated.⁸ In general, success, non-success, or failure of the firm depends on these factors. The pertinence of the empirical data presented above is pertinence in relationship to success vs. failure. Much of what follows in the later chapters is aimed at discussing and explaining the natures of these factors and how they promote or hinder the success of firms and the welfares of people associated in it. As go the successes and failures of the firms participating in the economy of a nation, so also goes either the success of that nation or its social breakdown and eventual disintegration and fall.

This thesis, that a Society and its economy are strongly interdependent, was stressed by both Polanyi and Weber. Unfortunately, though each author stressed this interdependency, I think I must also remark that neither Polanyi (1944) nor Weber (1922) adequately followed up on it. I think it is not out of place to say now what later chapters of this treatise will show, namely, that the successes of firms and of the economy in a Society cannot be sustained in the long run unless the entrepreneurs cooperating within their firms develop and follow special maxims of reciprocal Obligations and attend to what in chapter 3 we saw Mill call "distant interests" peculiar to their industrial conglomerate. Discussing what these distant interests are occupies a significant fraction of the later chapters and leads to the theory of what I have called the Enterprise-of-enterprises.

To understand the origins of uncivic free enterprise in America, these considerations of social-natural sociology must be joined to historical economic and financial considerations in the history of business in America. There are several historical periods characterized by economic situations prevailing in each. I begin these discussions with the periods from 1750 on into the 19th century.

§ 4.1 The Economy Revolution: 1750-1800

I briefly touched upon some aspects of the pre-1750 character of American commerce in § 4 of chapter 2. Some additional remarks concerning the character of urban social-economy in this period are pertinent in understanding what transpired during the Economy Revolution. Colonial Americans brought with them a familiar "business model" that had already existed in England long before the first colonists set foot on American shores. For example, Reading was already one of Adam Smith's "great towns" in the 16th century, filled with numerous small proprietorship businesses. Although there were a few larger business concerns in colonial America (e.g. in the seafaring and commercial fishing trades of New England), the great majority of urban colonial businesses were set up and operated as sole proprietorships. Each business had an owner (called 'the master of the business') and many also had a labor force comprised of apprentices, indentured servants, family members, and, in some cases, slaves. Governance of these early industrial conglomerates was legally and practically vested in the 'master.' Its labor force was generally not comprised of wage-earners because family members, indentured servants, and slaves did not receive wages in exchange for their work. Rather, as a group they comprised the master's household. Although governance of the business followed the monarchy governance model colonials brought with them from Great Britain, this governance was in most cases paternalistic. Salinger wrote,

"Paternalism" best describes the master-servant relationship in early Pennsylvania. Although the term is often criticized as being too vague to be useful, it implies a number of

⁸ Refer to the glossary for the explanations of the terms granulated socialization, granulated Society, and granulated society. I introduced the concept of a granulated Society in Wells (2012), chap. 10.

concrete yet potentially contradictory relationships. Inequality permeated the master-servant relationship, but this did not prevent the expression of mutual concern and human warmth. Moreover, although servants were members of the master's household, the power relations were always clear. And while masters and servants worked side by side, masters controlled virtually every aspect of their servants' lives. The relationship between servant and master was different from that between employee and employer, for the lives of these people "were intertwined, for better or for worse," and no doubt from the servants' perspective, it was often for the worse⁹. As Eugene Genovese has argued, the subordination of one group to another in a system of unfree labor renders it fundamentally a class relationship, although a complex and ambiguous one. . . . Genovese's model cannot be adapted wholesale to the servant experience in Pennsylvania, but it does provide important insights into the master-servant relationship. Although early Pennsylvania society was organized around the household, it would be a mistake to assume that a family orientation replaced a class structure. Masters and servants worked and ate together, and often slept in the same room, but inherent in the relationship was the constant reminder of the vertical ordering of society. [Salinger (1987), pg. 25]

It is important to note Salinger's remark about 'the vertical ordering of Society' because this aspect of customary folkways was preserved during the Economy Revolution and later became one of the unthinking presuppositions of the organization of corporations as this developed in the later 19th century. It was and is no less than one of the principal presuppositions of tradition and habit underlying the evolution of uncivic free enterprise in America.

America's urban system of indentured servitude had been primarily a response to chronic labor shortages in the colonies throughout the latter half of the 17th and first half of the 18th centuries. (This same chronic shortage had also been a principal economic factor in the institution of slavery in the colonies). As indentured servants completed their terms of service they preferred to join the westward migration of the population and establish their own farms or businesses as independent proprietors. This left a labor vacuum in the urban, and especially the larger city, areas that more indentured servant immigration was used to fill. However, after 1750 and especially during the 1760s, increasing population had produced a surplus of available laborers who lacked the start up capital to establish themselves with their own farms or businesses. This situation was exacerbated by severe recession and inflation that followed the end of the Seven Years' War (known as the French and Indian War in America). Skrabec tells us

The recession of 1762 was the first truly American recession affecting all the colonies. It was a classic type of recession, created by war and inflation . . . This war drained colonial and British treasuries. To continue to pay for the war, colonial governments created an excess of paper money that was not backed by gold or silver. This fiat currency . . . ended up creating war inflation as too much paper money drove up the price of the goods available for purchase. Inflation during the war was at its highest in Massachusetts . . . Prices for New England commodities, such as molasses, rum, and fish, increased 44 percent from 1755 to 1762. . . .

The war initially created an economic boom in the colonies. The colonies generally profited from the war by selling their wares for higher and higher prices while the colonial governments sunk into deep debt. But the colonial governments' use of unbacked paper money and deficit spending created an inflationary spiral while the war spending

⁹ Salinger's last comment in this sentence is her socio-political opinion for which she provides no facts in support of her view. True as it might be for slaves, there is quite ample room to doubt it was true in the majority of cases for indentured servants. It is certain that there were cases of abusive masters. Many of these are documented in court records from the time and some of them did involve brutality to the point of outright murder [Ashby (1997), pp. 10-16], but to go from these relatively few documented cases to the blanket statement Salinger makes is an unsubstantiated leap.

continued. The end of the war in 1762 brought a contraction in the colonial economy. War spending stopped and the paper money in circulation began to depreciate. . . .

The recession of the 1760s lasted most of the decade. . . . After the war, Massachusetts imposed huge taxes on the population. Real estate taxes in Boston were raised to more than 60 percent. . . . Britain would soon launch a number of new governmental acts, imposing new taxes on the colonies to pay for the war just as the colonies were in the middle of this deep recession. The combination of high taxes and economic recession made the postwar period very painful for New England traders, craftsmen, and shop owners as well as the planters of the southern colonies. This colonial middle class would never fully recover and would be part of the movement supporting independence in 1776. [Skrabec (2015), pp. 17-19]

The combination of inflation, recession, and taxation negatively impacted the welfare of most colonists, including the rural population who lacked species (gold or silver money) to pay for the commodities they needed and whose paper currency was rendered increasingly worthless by depreciation of its buying power. Proprietors could not afford to maintain indentured servants in their households and, instead, turned to employing wage-laborers because, being desperate themselves, these people were willing to accept employment on whatever terms they could get. It was not a matter of "capitalist greed"; everyone was seeing their personal welfares threatened and, as is human nature, individuals' Duties-to-themselves and to the closest members of their personal societies (i.e., their families) trumped all other considerations. The situation in Philadelphia is a good if somewhat extreme example of what was going on throughout the colonies. Salinger wrote

The continuing decline of unfree labor [indentured servants and slaves] in the post-revolutionary period, a decline that began at the end of the Seven Years' War when the supply of indentured servants was high, was primarily the effect of demand.¹⁰ The city's employers shifted from the consistent use of bound labor to that of wage labor. In the 1760s, for the first time in the colony's history, Philadelphia did not suffer from the pressures of a labor shortage. Employers were no longer required to purchase labor in three-to-four-year packages or for the life of the worker. From a growing population of poor and unemployed, Philadelphia employers could hire and fire workers as economic necessity dictated. The labor picture in Philadelphia changed. Instead of labor shortage, which had created incentives for the system of unfree labor, there was labor surplus, which began to render such a system obsolete.

The labor surplus was created by a combination of factors. The port city's population grew markedly after the end of the Seven Years' War. From about 22,000 people in 1765, the city mushroomed to nearly 32,000 ten years later. However, this population spurt was accompanied by an increase in the number of poor and unemployed residents, because while the city grew, the economy developed unevenly and many laborers were affected negatively. For an increasingly large segment of the population, the economic outlook was grim. . . . The depression forced a number of businesses to close. [Salinger (1987), pp. 148-149]

The changeover from bound labor to wage-earner labor was accompanied by a changeover that profoundly affected moral customs in American Society as the employer-employee economy institution formed. This change altered social relationships between the employer and the wage-

¹⁰ Salinger means the demand for jobs by unemployed non-capitalist entrepreneurs in the city. She is not quite correct in saying the situation was "primarily" the result of this demand because currency depreciation and taxation, accompanied by inflated costs of operating their businesses and reduced prices for the goods and services they provided, were also primary factors affecting how capitalist proprietors tried to deal with their situations. Salinger's phrasing of this remark makes it sound more one-sided than it was. The fact is that *all* Americans were caught in a "perfect storm" of economic hardship.

earners. In effect, it amounted to people making radical reformations of their personal societies that were accompanied by an overall weakening or even outright abandonment of reciprocal Duties-to-others that had been part of the mores of American Society from the beginning of the colonies. Here it is important to remember that all reciprocal Duties are grounded in self-interests that serve one's Duties- to Self and to chosen members of a person's personal society. They form when civic cooperation serves these interests; but when personal circumstances are altered so that conflicts of interests develop, reciprocal Duties – because they are not fundamental – tend to be the first to give way. They *do* give way if conflicting interests are not transformed into differing *congruent* interests. This did not happen during the Economy Revolution.

All human beings are satisficing problem solvers, and in the harsh economic conditions of the Economy Revolution, abandonment of reciprocal Duties between employer and employee was the easiest moral solution for many city employers. The old social customs had been based on paternalistic traditions established long before in England, which had themselves been modeled on the Monarch-subject precedents of England's old feudal system. It really is no accident or mere language custom that British subjects called their king "Sire." It is a polite if subtle way to remind a king that the filial devotion of his subjects is purchased at the price of paternal Duties expected of him. When paternalism came into conflict with the welfare of the employer's family and person, it was paternalism that gave way. Salinger described the change thusly:

Master craftsmen would let their workmen go when demand was low, leaving them to find work where they might. Under the paternalistic system, when owners were forced to sell their bound workers during hard times, the burden rested on the master, not the servant. Besides the lack of job security, wage labor brought another disadvantage to the worker. If business was slow, the master probably paid the journeymen last. . . . When capital was scarce, labor often went uncompensated. Employers gained flexibility with the advance of the system of wage labor, but employees had to worry about their next job and whether and how they would be paid. . . .

More dramatic, as wage labor rose, were changes in the character of the colonial workplace. In the colonial shop, the master craftsman labored alongside his servants or slaves, perhaps an apprentice or two, and an occasional journeyman. Stability resulted because it took four to five years for a servant to work out his indenture term and even longer for the apprentice to learn a craft. . . . The unfree workers of the city were forced to share the workbench with their artisan owners, but the relationship was stable and, by eighteenth-century standards, long lasting.

When the master left the workbench to his employees, labor relations in Philadelphia changed markedly. The early colonial labor market encouraged the city's master craftsmen to rely heavily on skilled bound workers, both indentured servants and slaves. As the eighteenth century progressed, this coercive, paternalistic labor arrangement revealed increasing social conflict. However, relations among free workers, masters, and journeymen were based on shared goals. A mutuality existed . . . because for artisans belonging to a trade carried with it more than working at a craft. It meant a sense of obligation, and masters and journeymen were bound "in service to themselves, each other, and the community." Workers did not work just to earn a living; they internalized a collective "trade identity and commitment to the community in which they labored." . . .

The traditional outlook, in which this mutuality and communal spirit dominated, began to collapse during the late colonial period. The accumulative, entrepreneurial spirit replaced the "moral economy," and social responsibility in economic activity was lost. Individual acquisitiveness replaced the ideal of the good of the community. It is impossible to say precisely when this new ethos emerged and then dominated, but it seems to have coincided with the decline of unfree and subsequent rise of wage labor and to have been tied to an economic barometer. Indeed, craft organizations appeared and demanded to be heard in the late colonial period. [*ibid.*, pp. 160-163]

One must take Salinger's frequent expressions of her personal moral judgments – such as her remark about "the accumulative entrepreneurial spirit" (a remark implying avarice suddenly came to dominate the motives of most business proprietors) – with a grain of salt. It is beyond reasonable doubt that some merchant-proprietors in Philadelphia and elsewhere exhibited avariciousness, but to imply they all did is a baseless and bigoted implication. Setting aside impugned motives, it is true that the change in community moral customs she describes did in fact occur. This change marks nothing less than the appearance of uncivic free enterprise in colonial America and it is beyond reasonable doubt that this phenomenon was born of conditions that resulted from the general economic hardships that provoked the Economy Revolution.

§ 4.2 Outcomes of Post-Revolution Socio-economic Reequilibration

Although Salinger's description of Philadelphia is useful as a particularly graphic example of ways employer-employee relationships developed in America's largest city during the Economy Revolution, it is a mistake to assume her description applies to how these relationships developed elsewhere in the United States. In large urban areas like Philadelphia, most people are strangers to one another and, after the household relationship broke down, it was much easier for employers and employees to disregard each others' welfare situations outside of the workplace. To put it another way, the interaction experiences of the people involved were less intimate and this tends to promote either loose or non-existent person-to-person bonding in individuals' self-definitions of their personal societies (figure 18). Because people do not know each other as well in large urban areas, social granulation and even the failure to form Community relationships based on some tacit social contract are favored by the inevitable stereotyping individuals employ in interpreting one another's interpersonal transactions. Employees are more prone to stereotype the employer as a mathematical entity ("the boss") while employers are more prone to do the same with employees ("the hired help"). The situation in smaller urban areas is otherwise because small town populations do more frequently interact and stereotypes are more empirically based and less abstract in their conceptualizations. More simply put, people know each other better.



Figure 18: Example illustration of an individual's personal society.

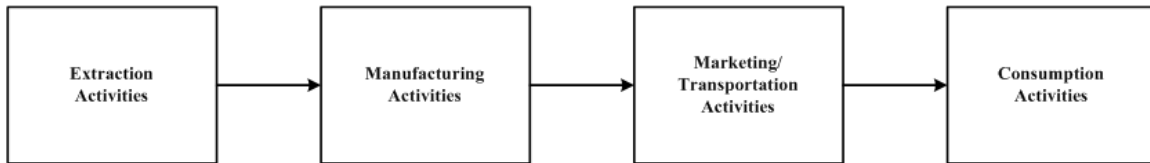


Figure 19: Economic activities model of a single complete economic transaction.

The same sorts of socio-economic hardships – recession, inflation, high taxation, depreciation of fiat currency, and scarcity of specie – were occurring throughout the colonies and early United States. There were major economic panics and recessions in 1792, 1796-97, and 1807-09 as well as another war with Great Britain in 1812. Conflicts of interests between capitalist entrepreneur employers and wage-laboring non-capitalist entrepreneur employees were frequent and widespread. But how people tried to resolve these conflicts depended very much on population-size-determined social dynamics. A Mr. Fezziwig was far more likely to be found in a city of 2500 people than in Philadelphia because he would meet and interact with employees and their families more often and in more places – at church, at the town meeting, at the vegetable market, at the local dances, at the 4th of July celebration, etc. Socio-economic reequilibration during and after the Economy Revolution was far more a matter of social dynamics than of economics *per se*.

One thing this means is that the nature of commercial and economic reequilibration nationally depended more on the sizes of the urban places (figure 8) than on the percentage distribution of the urban population according to city size (figure 9). Another factor is that the urban population in 1850 was still much smaller than the rural population. The spread of new traditions and habits of commerce was oriented much more by this factor than the rather dog-eat-dog example presented by Philadelphia above. This fact tends to be overlooked by historians and sociologists, who have traditionally focused their attention only on the big cities and neglected small towns. It simply isn't true that East Nottingham, PA, wanted to be like Philadelphia or Pittsburgh. It can reasonably be doubted that Philadelphia wanted to be like Philadelphia as matters developed.

Even so, developments in one place did not happen in isolation from developments in other places. Economic events in one place can and do register effects in other places. I have called this communication of effects the *Enterprise-protein* schema of macroeconomics and will discuss this model in more detail later. One important factor in this communication of effects is due to four fundamental economic activities found in every complete economic transaction. Figure 19 is a simple mathematical representation of the economic activities linkages leading to the final action of consumption by an end customer. These activities are empirical Objects of theoretical economics and their formal real-explanations are provided in the Glossary.

What is frequently called "the bounty of nature" is actually not immediately bountiful. The "bounty of nature" has to be in some way harvested, mined, or, more generally, extracted. Extraction activity examples include mining, fishing, agriculture, and, in today's "information age," so-called "data mining."

Generally speaking, these extracted commodities in raw form are not vendible to a broad market. They have to be altered in some way and combined with other commodities, and this is called manufacturing. Manufacturing activity examples include assembly processes, fabrication processes, and refining processes. When the raw commodity is data, the manufacturing activity subsists in collating and contextualizing it, and this can in general be called "knowledge engineering." The writing of books, publication of newspapers, authoring of journal papers are examples. Even creative literature (fiction) can be so regarded inasmuch as commercially successful fiction must "ring true to life" to some considerable degree or it will fail to attract interest by a readership market. This is true even of children's cartoons and fantastic movies, the fictitious 'social atoms' of which are human-like characters. Ziegler wrote,

The character in a story has these three things – a physical body, an inner consciousness, and a time and place. As a human being he has them *in total*. In total, however, he is no more than a case history for a sociologist or a psychologist or a historian. And this is where the artistry of the writer makes its entrance. This is the pleasure and fun of the writer – to select from these three elements and to create from the person's chaotic world some meaningful unity. [Ziegler (1968), pg. 60]

Does it need to be said that the ability to do what Ziegler describes requires knowledge that comes from somewhere and the writer is the "knowledge engineer" who refines and assembles it?

In a majority of cases, a commodity's place of origin and the marketplace for this commodity are not the same place. The commodity must be moved to where a market for it is found and the market must be informed of its existence and availability. Marketing/transportation activity examples include trucking, retailing, banking, Internet service providing, and advertising.

The aim and final purpose of all commerce is consumption of vendible commodities by an end user. A commodity that no one wants to use or consume is a contradiction in terms. Consumption activities are activities that "use up" (consume) vendible goods as wealth-assets.

I introduce this model here in order to make the point that every person engaged in commerce of any sort is part of a network of other people whose activities can and do affect his personal situation. For the most part, any particular individual is not aware of most of the other people in this network and is not aware of what their activities and situations are. The individual's practical *commercial* Society is much wider than his immediate *personal* society. A consequence of this is that what would be distant interests of his if he were cognizant of events and situations occurring elsewhere within this great network are not interests by which he actually determines his own activities and objective maxims. Unintentional conflicts of interests within the network therefore do arise frequently, and these hinder and disrupt a Society's economic dynamics.

I also introduce this model to illustrate how richly complex commercial economies are. This complexity introduces incentives for industrial conglomeration because there is only so much that one individual can accomplish by himself. Indeed, those same incentives are at work in the institution of all Societies. Thomas Paine expressed this in a way hardly to be improved upon:

[Let] us suppose a small number of persons settled in some sequestered part of the earth, unconnected with the rest; they will then represent the first peopling of any country or of the world. In this state of natural liberty, society will be their first thought. A thousand motives will excite them thereto; the strength of one man is so unequal to his wants, and his mind is so unfitted for perpetual solitude, that he is soon obliged to seek assistance and relief of another, who in his turn requires the same. Four or five united would be able to raise a tolerable dwelling in the midst of a wilderness, but one man might labor out the common period of his life without accomplishing anything; when he had felled his timber he could not remove it, nor erect it after it was removed; hunger in the meantime would urge him from his work, and every different want call him a different way. Disease, nay even misfortune would be death, for though neither might be mortal, yet either would disable him from living and reduce him to a state in which he might be said to perish rather than to die.

Thus necessity, like a gravitating power, would soon form our newly arrived emigrants into a society, the reciprocal blessings of which would supersede and render the obligations of law and government unnecessary while they remained perfectly just to each other; but as nothing but heaven is impregnable to vice, it will unavoidably happen that, in proportion as they surmount the first difficulties of emigration which bound them together in a common cause, they will begin to relax in their duty and attachment to each other; and this remissness will point out the necessity of establishing some form of government to supply the defect of moral virtue. [Paine (1776), pp. 251-252]

By the time commercial industrial conglomeration began, the people already lived in a social and political Society in which, as Paine put it, they had already surmounted 'the first difficulties which bound them together in a common cause'. Now, an industrial conglomerate is a Society within a Society (a mini-Society). What had been lost during the Economy Revolution was that sense or awareness of common cause and those commitments of 'duty and attachment to each other' of which Paine wrote. As Santayana said, "The moment . . . that society emerges from the early pressure of the environment and is tolerably secure from primary evils, morality grows lax" [Santayana (1896), pg. 17]. The entrepreneurs banding together in industrial conglomeration for the most part were not conscious that their joint endeavors constituted a special form of Society but they were aware that their joint enterprises had to be collectively governed in some way. The question was how, and this question was answered by customary habit rather than by undertaking a fresh look at what it was they were collectively striving to do. By satisficing reasoning, they adopted a very old model with which people were very familiar: the institution of the industrial conglomerate was predicated on governance according to a monarchy/oligarchy proprietor model.

Their analogy for organizing the institution followed quite easily from the earlier experience of the "master and servants" organization that preceded the Economy Revolution – an organizing maxim that itself had followed centuries earlier from the example of the feudal system in England prior to the invention of capitalism there. Inasmuch as the principal difference coming out of the Economy Revolution was the change from indentured servant/apprentice labor to wage-earning labor, the evolution from the earlier organization to the industrial conglomerate was such a small step it is unlikely people gave it any thought until they were actually caught up in the new system. Not understanding that their joint enterprises constituted a new form of mini-Society – or even that there was any such thing as a mini-Society – the satisficing nature of human problem solving led almost immediately to a hierarchical organization of the conglomerate homologous to what had characterized monarchical government for millennia. In the place of a king there was set the entrepreneur-founder whose capital investment procured the land, building, and most furnishings of the business' physical facilities. In the place of the king's subjects there were the wage-earning non-capitalist entrepreneurs. Epistemologically it is not at all surprising that the organization took on casually and almost at once what Montesquieu had called "the principle of monarchy":

The intermediate, subordinate, and dependent powers constitute the nature of monarchical government; I mean of that in which a single person governs by fundamental laws. I said the intermediate, subordinate, and dependent powers. And, indeed, in monarchies the prince is the source of all power, political and civil. These fundamental laws necessarily suppose the intermediate channels through which the power flows . . .

The most natural, intermediate, and subordinate power is that of the nobility. This in some measure seems to be essential to a monarchy, whose fundamental maxim is, no monarch, no nobility; no nobility, no monarch [Montesquieu (1748), vol. I, pp. 15-16].

A monarchical government supposes, as we have already observed, pre-eminences and ranks, as likewise a noble descent. Now, since it is the nature of honor¹¹ to aspire to preferments and titles, it is properly placed in this government.

Ambition is pernicious in a republic. But in a monarchy it has some good effects; it gives life to the government, and is attended with this advantage, that it is in no way dangerous because it can be immediately checked.

It is with this kind of government as with the system of the universe, in which there is a power that constantly repels all bodies from the center and a power of gravitation that

¹¹ Montesquieu defined 'honor' as "the prejudice of every person and rank" and held that it took the place of "political virtue" [*ibid.* pg. 24]. Of the fifteen dictionary definitions of 'honor', his usage means "exalted rank or place." Hence, a king's principal *hirdmen* who are the basis of his power constitute the 'noble' class.

attracts them to it. Honor sets all the parts of the body politic in motion and by its very action connects them; thus each individual advances the public good while he only thinks of promoting his own interest. [*ibid.*, pg. 25]

There are several differences between political government of a nation and governance of a business entity. But nonetheless there are a great many basic homologues too. A business entity does not have to become very populous before a monarch-nobility-commoners hierarchy appears in the homologous form of proprietor → manager/foreman → non-supervisory laborer. The proprietor is the monarch, managers and foremen are the nobility and gentry, and non-supervisory laborers are the commoners. There is, I think, a deep irony in the fact that Americans had rejected monarchy governance in politics but embraced it in business – and by so doing almost certainly guaranteed the emergence of uncivic free enterprise in American Society.

Montesquieu discussed the role of 'the clergy' in monarchical political government in terms of the "checking of ambition." In commercial mini-Society there is, of course, no 'clergy' element in its nobility. Rather, that role is assumed by the political government of the general Society that the industrial conglomerate is embedded within. As Bloom remarked, "politics is the authoritative arena of effective good and evil" [Bloom (1987), pg. 365] and, as such, the governance institution of any Society in one way or another fulfills Montesquieu's 'clergy' function by establishing who will arbitrate what is to be regarded as effectively good or evil. And, just as dark age Europe saw tensions develop between its monarchs and the clergy, America saw tensions develop between business proprietors and the state and general governments. These continue to be felt today and are institutionalized by those who claim "free enterprise" is "a private and consensual system of production and distribution in a competitive environment *that is free of government interference.*"

People who hold to this explanation of 'free enterprise' and are quick to excoriate 'government interference' frequently present their views in a manner that seems to suggest they think their explanation of 'free enterprise' is akin to some sort of natural law or moral imperative. In point of fact, the form that the institution of industrial conglomerates assumed following the Economy Revolution was and is nothing but a mere convention. Like all conventions, there are consequences, both for good and for ill, that follow from the conventional starting point. Further, this convention is a *political* convention because *politics is the art of bringing Order to and maintaining it in a Society*. The convention Americans adopted for industrial conglomeration is not the only one possible *nor is it one that is congruent with the survival of a Republic*.

The ability to reason using metaphors and similes is one of the most powerful and important capacities of human nature. It is also a capacity grounded in subjective judgment – i.e., the ability belongs to the process of reflective judgment and arises from inferences of analogy [Wells (2009), chap. 7 § 3.1] – and because of this it is the source of mistakes and errors that arise in the natural schema of judgmentation. The organization of industrial conglomerates by analogy to the monarchical system of government made it very easy to evolve a habit of looking at employees as if they were serfs and to regard employment as a means of procuring labor as a commodity. When it is remembered that in the days before the Economy Revolution apprentices and indentured servants were dependent members of the proprietor's household, a habit of thinking of employees as if they were serfs was an easily satisficing maxim of thinking because it barely differed from how serfs had been regarded in feudal England at the time of the Norman conquest. For example, in 1085 William the Conqueror commissioned what was, in effect, a vast property tax assessment covering his entire kingdom. It was completed in 1086 and came to be called "the Domesday book" because it could no more be appealed than the Church held the judgments of Doomsday could be appealed. In it is found thousands of tax assessments similar to the following:

In WELL [near Alford] Tonni had 1 carucate of land to the geld. [There is] land for 3 ploughs. Rauemer, Gilbert's man, has 2 ploughs there, and 4 sokemen on 2 bovates of this

land and 12 villans with 1 plough and 1 mill [rendering] 15s and 1½ acres of meadow and 22 acres of woodland. TRE worth £8, now £7. [Alecto Ltd. (2003), pg. 922]

A "plough" was roughly 120 acres of arable farmland. A "villan" was a villager. The 12 villans assessed to the landlord Rauemer were his serfs and they were counted as part of his taxable property. A sokeman was a free tenant farmer renting his land from the local landlord; the rent his 4 sokemen paid to Rauemer was also part of his tax assessment. His net assessment came to £7, a large amount of money in 1086 (it has been estimated that £1 in 1275 equated to £12,000 today).

It is not my point here that employers consciously regarded employees as serfs. They did not. Serfdom in England had vanished before the American colonies had ever been established and it was a tenet of American Society that Americans were (with the exception of African slaves) free men and women. But what precisely did "free" mean? Americans interpreted this in a somewhat narrow political context that included a so-called "naturalistic theory" of pseudo-economics put forth by a British vicar, Joseph Townsend, in his 1786 *A Dissertation on the Poor Laws*¹². It can be fairly said that the *laissez faire* doctrine of political economy and the idea of social Darwinism in economics were both born of his very antisocial essay. Townsend regarded human beings as being governed by a specious "law of nature" that came to be called "the theorem of the dogs and the goats." His so-called "theorem" was itself based on an anecdote of something that never in fact happened – which means that the so-called "science" based on it is uttermost hogwash. But implications derived from it became official British government policy and, in quick order, also came to be codified by court rulings and legislation in the United States. Townsend's basic maxim was

"Hunger will tame the fiercest animals, it will teach decency and civility, obedience and subjection, to the most perverse. In general it is only hunger which can spur and goad [the poor] on to labor; yet our laws have said [the poor] shall never hunger. The laws, it must be confessed, have likewise said they shall be compelled to work. But then legal constraint is attended with much trouble, violence, and noise; creates ill-will and can never be productive of good and acceptable service; whereas hunger is not only peaceable, silent, unremitting pressure, but, as the most natural motive to industry and labor, it calls forth the most powerful exertions; and, when satisfied by the free bounty of another, lays lasting and sure foundations for goodwill and gratitude. The slave must be compelled to work but the free man should be left to his own judgment and discretion; should be protected in the full enjoyment of his own, be it much or little; and punished when he invades his neighbor's property." [Polanyi (1944), pp. 118-119]

One could not be blamed for wondering what Vicar Townsend's congregation was like.

Townsend's thesis says in effect that a free man is free to starve to death if he chooses, and if he does not choose to do so he will be "grateful" for whatever "the free bounty of another" bestows on him in exchange for his labor. If you "allow" me to paint your house in exchange for permitting me to go through your garbage can for scraps of food, according to Townsend I will be grateful to you for this bounty and you will be gracious for having given me the opportunity.

Don't hold your breath waiting for me to be grateful.

Townsend's "dogs and goats" principle is a principle that envisions Society living in a state of nature. What he advocated was the use of passive coercion by employers to bend employees to their will. His presentation, however, was artful enough so as to seem to not violate the fundamental condition of every social contract; namely, "that the association will defend and protect with its whole common force the person and goods of each associate in such a way that

¹² <http://socserv2.socsci.mcmaster.ca/econ/ugcm/3ll3/townsend/poorlaw.html>; accessed April 3, 2015.

each associate can unite himself with all the other associates while still obeying himself alone." If I did accept your offer of paint-your-house in exchange for dumpster diving for scraps, I am indeed obeying myself alone. But that does not mean I am united with you in any civic bond. It might only mean I decided it was imprudent to kill you and raid your refrigerator. The first line of the quotation above in which hunger is said to teach "decency and civility, obedience and subjection" stands in utter contradiction with human nature. Vicar Townsend was a social moron.

Polanyi acidly remarked,

Hobbes had argued the need for a despot because men were *like* beasts; Townsend insisted that they were *actually* beasts and that, precisely for that reason, only a minimum of government was required. From this novel point of view, a free society could be regarded as consisting of two races: property-owners and laborers. The number of the latter was limited by the amount of food; and as long as property was safe, hunger would drive them to work. No magistrate was necessary for hunger was a better disciplinarian than the magistrate. To appeal to him, Townsend pungently remarked, would be "an appeal from the stronger to the weaker authority." [Polyani (1944), pp. 119-120]

One should not miss the implication standing in the shadow of the "as long as property was safe" clause. The egregious fallacy in Townsend's pseudo-naturalism is that a Society will continue to exhibit domestic peace in the long run while a great number of its people live under economic subjugation. A Society basing its institution of economics and commerce on the "dogs and goats" principle is a Society that can and must look forward to eventual social breakdown, violent and deadly civil war, and inevitable disintegration. Property is not and can never be "safe" under the state-of-nature principle of Townsend's "dogs and goats" idea. As Rousseau wrote,

If I took into account only force, and the effects derived from it, I should say: "As long as a people is compelled to obey, and obeys, it does well; as soon as it can shake off the yoke, and shakes it off, it does still better; for, regaining its liberty by the same right as took it away [i.e. the 'right of might'], either it is justified in resuming it, or there was no justification for those who took it away." But the social order is a sacred right which is the basis of all other rights. Nevertheless, this right does not come from nature and must therefore be founded on convention. [Rousseau (1762), pg. 2]

Such was the queerly antisocial convention taken up by economic and political theorists at the close of the 18th century in Great Britain and the United States. Not every capitalist entrepreneur in the urban places of America adopted this creed; especially in the smaller cities and towns, it can be doubted if more than a tiny few did. But it did set in motion the development of antisocial maxims, legislation, and court decisions that in time tended to produce economic class divisions in American Society and habits of behavior in industrial conglomerates that institutionalized what came to be miscalled "the conflict between capitalism and labor" by Marxist propaganda.

§ 4.3 The Corporation Form of Industrial Conglomerates

Although proprietorships have always been the dominant form of industrial conglomerate in terms of numbers of establishments, the industrial revolution escalated the numbers in a special class of industrial conglomerate; namely, the corporation. Prior to the beginning of the industrial revolution, the corporation entity was rare and there were only a tiny number of them. After 1855 this form of industrial conglomerate greatly expanded in numbers. Again, this form of business entity was invented in Great Britain and the British model was mimicked in America.

Originally the corporation was a form of partnership business in which a usually small number of entrepreneurs joined together to capitalize a business that required large capital investment in

physical resources in order to operate. Early corporations in Great Britain were typically involved in public works projects, such as road construction, or involved high risk enterprises, such as trading companies like the East India Company or colonization ventures such as the Virginia Company. The capitalist entrepreneurs who formed them shared ownership of the company in unequal measure. The "share" of ownership by each investor was called his "stock in the company" and was registered by "stock certificates" – popularly called "stock shares" today. Forming a corporation usually required an act of legislation – by Parliament in Great Britain or by a state government in the United States – until the late 19th century. The early corporations were called "joint stock companies" in Great Britain.

Post-Economy Revolution America first learned how to financially deal with stock certificates by regarding them as financial instruments similar to bonds. Bonds, of course, are an alternate way to acquire money to finance a business entity through borrowing (debt financing). Stocks and bonds therefore both came to be called "securities." In the case of capitalist entrepreneurs who founded joint stock corporations, stocks did not represent borrowed money and there was no legal requirement that their capital would be returned to them at any time in the future.

If one of the partnering entrepreneurs desired to divest himself of his ownership in the company, he did so by selling his stock ownership to someone else. This gave rise to a form of financial enterprise – the broker – whose occupation consisted of arranging trades between those who wished to sell their securities and those who wished to buy them. Entrepreneur-brokers had, by the end of the 18th century in America, formed "securities exchanges" to simplify their task of finding buyers for sellers and vice versa. The oldest such exchange was probably the one founded in Philadelphia, but in 1792 an exchange was founded in New York City that was later called the New York Stock Exchange (NYSE) and became the largest such exchange in the world.

The earliest securities traded on the NYSE and other securities exchanges consisted primarily of government bonds for public works projects (such as canals) and capitalization stocks for banks, insurance companies, mining companies, and road construction companies [Buck (1992), pg. 18]. Until well into the 1850s corporations had what were by today's norms relatively small capitalizations on the order of at most 100,000 shares at as much as \$100 per share. Even so, the price of one share of stock was beyond the means of most people and stock capitalization prior to the 20th century was almost exclusively an enterprise engaged in by people who possessed large amounts of capital to invest. Table I illustrates how small the NYSE was up to 1840.

Table I
New York Stock Exchange Listings 1820-1840

Year	Number of Stocks Listed	Average Daily Trading Volume (shares)
1820	28	156
1825	69	1108
1830	58	456
1835	80	8475
1840	112	4266

Source: Stuart Banner (1998), "The origin of the New York Stock Exchange," *Journal of Legal Studies*, vol. 27, no. 1, pp. 113-140

One exception to this was Andrew Carnegie. The number of corporations increased as the industrial revolution progressed and, as it did, many of the shares in the new corporations were traded "on the street" (that is, not through a stock exchange) by speculators. Basically, one had to "know somebody who knew somebody" to "get in" on a stock investment opportunity¹³. Carnegie first became a capitalist entrepreneur in 1855 when he was around twenty years old. His father had just died and, as the oldest child, he was now the family breadwinner. He tells us,

Just at this time Fortunatus knocked at our door. Mr. Scott asked me if I had five hundred dollars. If so, he wished to make an investment for me. Five hundred cents was much nearer my capital. I certainly had not fifty dollars saved for investment, but I was not going to miss the chance of becoming financially connected with my leader and great man. So I said boldly I thought I could manage that sum. He then told me that there were ten shares of Adams Express stock that he could buy, which had belonged to a station agent, Mr. Reynolds of Wilkesburg. Of course this was reported to the head of the family that evening, and she [Carnegie's mother] was not long in suggesting what might be done. . . . Our house was mortgaged and mother brought back the five hundred dollars which I handed over to Mr. Scott, who soon obtained for me the coveted ten shares in return. . . . This was my first investment. In those good old days [1855] monthly dividends were more plentiful than now and Adams Express paid a monthly dividend. One morning a white envelope was lying upon my desk, addressed in a big John Hancock hand, to "Andrew Carnegie, Esquire." "Esquire" tickled me and the boys inordinately. At one corner was seen the round stamp of Adams Express Company. I opened the envelope. All it contained was a check for ten dollars upon the Gold Exchange Bank of New York. . . . It gave me the first penny of revenue from capital – something that I had not worked for with the sweat of my brow. "Eureka!" I cried. "Here's the goose that lays golden eggs." [Carnegie (1920), pp. 72-73]

Carnegie and his young friends were so awestruck by this that they formed an investment club to pool their money, "and for years afterward we divided our trifling investments and worked together almost as partners" [*ibid.*, pg. 74]. Dividends repaid his initial \$500 in about four years.

The stimulus for the corporation form of industrial conglomerate is found in the physical characteristics of new types of businesses that developed during the industrial revolution. I pointed out earlier that the *real* ground for saying there was an industrial revolution subsists in the changes in people's occupations from rural to urban workforces. Most historians and economists, however, have traditionally mistaken the physical aspects of business ventures for the "defining" trait of the revolution. In other words, they have characterized it in terms of processes and inventions, which are mere objects of appearance that co-appeared with the *social* phenomenon that was the industrial revolution. The usual benchmarks they use are:

- the change from hand processes to the use of machines;
- the development of new chemical manufacturing and iron production processes;
- improvements in water power efficiency;
- the use of steam power;
- the development of machine tools;
- the change from the use of wood fuels to bio-fuels such as coal;
- the adoption, after 1840, of steam transport;

¹³ This practice still exists today and is common in start-up companies whose principals purchase the services of specialists these corporations need by "stock for service" agreements. The stock involved in these kinds of arrangements is called a Class 144 stock, popularly known as a 'penny stock'. Penny stocks are not traded on an exchange. Usually the plan is that eventually the new corporation will be listed on an exchange and, at that time, the penny stocks are exchanged by the company for exchange-listed shares.

- after 1840, the development of large scale manufacturing of machine tools; and
- also after 1840, the increasing use of machinery in steam powered factories.

These developments significantly affect the nature of the work performed by wage-laborers, of course, but they do not provide causative explanations for why the revolution took place. For that one must analyze what welfare interests were affected by these inventions and how these were affected. Inventions produce economic opportunities *because of the ways people find to use these inventions*, not because of the inventions themselves. The real roots of all economic revolutions subsist in people's discoveries of new means of satisfying their welfare interests. Human beings are the causative agents of all revolutions. This is why focusing on job-skill training is a misguided focus in public education. Particular *job* skill demand waxes and wanes over time but *capital* skill education prepares people to be able to satisfy their welfare interests in the presence of ongoing changes in the means of satisfying welfare interests [Wells (2014), chap. 17, §6].

The amount of capital investment required was one motivating aspect for the corporation form of industrial conglomerate but does not by itself account for the widespread increase in popularity of this form of conglomeration. The significant development that provided the rest of the impetus came, again in Great Britain, with the passage of the Limited Liability Act of 1855. In the U.S. the example set by Britain was again quickly mimicked by the state governments; indeed, there arose a kind of competition among some states to attract business ventures by offering the most liberal limited liability laws for corporations. Previously capitalist entrepreneurs were personally liable for debts incurred by a corporation (because they were its owners). Mismanagement of the corporation by its "general partners" – by which I mean the capitalist entrepreneurs who were the chief managers or directors of the conglomerate – put the wealth-assets of *all* the investors at risk if the corporation failed and went bankrupt. This typically restricted capital investment in stock corporations to only those entrepreneurs who had exceptionally large amounts of capital – people who are usually called "the rich" – and to "investment banks" – the owners of which were also typically among those accounted as being "rich." The legend that "capitalists" are risk-taking entrepreneurs of exceptional boldness dates back to this situation and is factually rooted; most of those who claim this mantle of boldness for themselves do not merit it because of the passage of limited liability laws¹⁴. Unlimited liability requires bold risk-taking; limited liability does not.

After the enactment of limited liability laws capital investment in corporations came within the reach of more people of more modest means and attracted the interests of people who were willing to invest capital in divers ventures but did not have an interest in actually operating the businesses they invested in. There had been exceptions to the rule prior to enactment of limited liability laws – Carnegie was one of them – but these cases were relatively few in number. After these laws were enacted, they stimulated interest in stock speculation – that is, capital investment by people who saw their principal opportunity in the ability to trade stocks on the exchanges. It does not go too far to say that limited liability laws stimulated the growth of a significant new occupation class, namely, the occupation of "financial capitalist" entrepreneur.

Limited liability laws were not passed without heated controversy. Many lawmakers thought that such laws would "reduce the probity" of those who owned corporations. But these laws were also, correctly as it turned out, seen as a means to stimulate more investment in socially useful conglomerates such as railroads, telegraph companies, and construction firms able to accomplish major construction projects such as bridges, roads, large buildings, etc. The period after 1855 witnessed a rapid expansion in the number of corporations.

¹⁴ Corporate managers have never merited it. Only those capital investors who found a business without limited liability protection can legitimately claim this mantle. Such a person might also be a corporate manager in his corporation, but his claim to the mantle of boldness does not depend on holding this wage-laborer job.

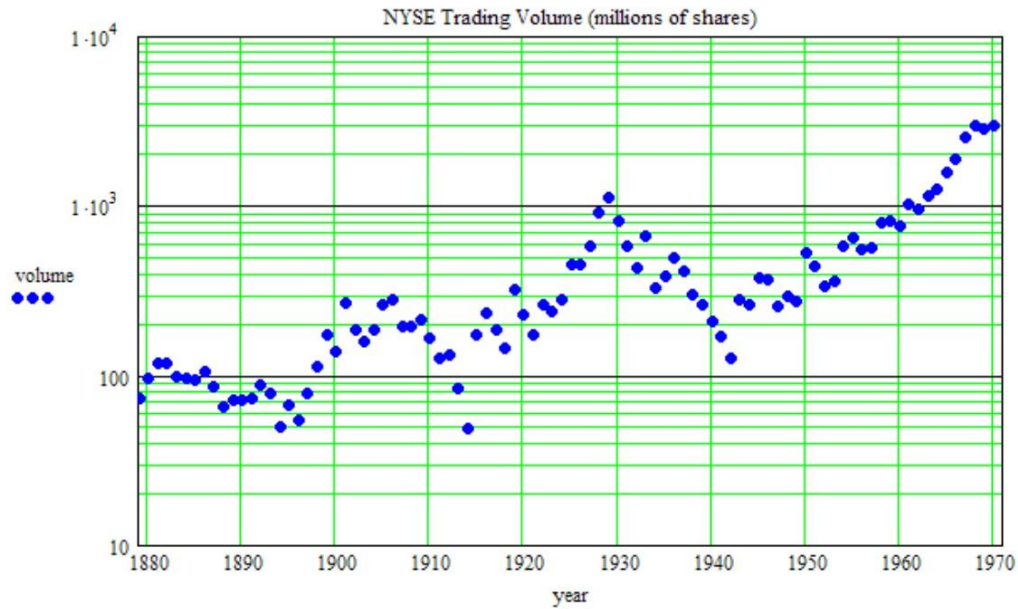


Figure 20: Annual trading volume (in millions of shares) on the NYSE from 1879 to 1970. Sources: Bureau of the Census (1976) Series X531, pg. 1004; Stedman (1905), pp. 473-474.

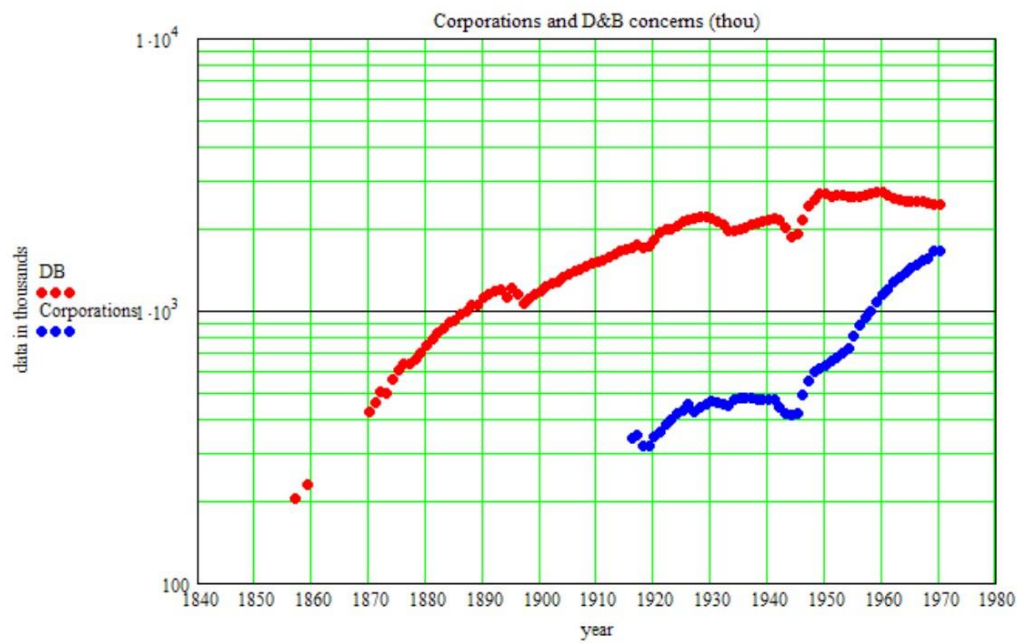


Figure 21: Number of U.S. corporations from 1916 to 1970 and number of Dun & Bradstreet business concerns from 1857 to 1970. The data is in thousands of industrial conglomerates. Source: Bureau of the Census (1976) Series V20, pp. 912-913, and V42, pg. 914.

This is reflected by a huge increase in the volume of stock trading on the stock exchanges. Figure 20 presents annual NYSE trading volumes from 1879 to 1970. There were about 305 trading days per year on the NYSE in the 19th century¹⁵, which puts the average daily trading

¹⁵ The NYSE did not abolish Saturday trading until 1952 [Buck (1992), pg. 168].

volume in 1900 at around 455,000 shares per day. This is about a hundredfold increase in trading volume from that of 1840 (table I). The volume increased about 55-fold from 1840 to 1879.

NYSE trading volumes do not tell us how many corporations there were. First, these volumes pertain only to corporations listed on the exchange (so-called 'public corporations') and not to corporations not listed on the exchange, the shares of which are closely held by the investors and are not publicly traded (so-called 'private corporations'). In the heyday of corporation formation in the mid to late 19th century, the stocks in a very large fraction of U.S. corporations was closely held. Any trading of these shares was done privately and shares were generally unavailable to the public. Carnegie's Adams Express investment is an example of this. Carnegie disliked "speculation" in the stock exchange and his Carnegie Steel Company, originally the Edgar Thomson Steel Works founded in 1872, was never publicly traded. He tells us,

I have never bought or sold a share of stock speculatively in my life except one small lot of the Pennsylvania Railroad that I bought early in life for investment . . . I have adhered to the rule never to purchase what I did not pay for, and never to sell what I did not own. . . . I further resolved not even to own any stock that was bought and sold upon any stock exchange. [Carnegie (1920), pg. 136]

In this connection it is important to understand there were and are two very distinct types of corporations: private corporations (like Carnegie's) and public corporations traded on one or more stock exchange (like General Motors). The difference between these types is profound. Private corporations are owned *as an item of property* – in the Critical meaning of the concept of an 'item of property' – by the capitalist entrepreneurs who own its stock because these entrepreneurs hold the right to *actually* possess, use, and dispose of the assets of the corporation. They are the proprietors of the corporation in the same way that the owner of, let us say, a barbershop is the proprietor of his shop. These corporations are directly descended from the same ownership conventions that were applied to merchants and shopkeepers prior to the Economy Revolution.

Publicly traded corporations do not have any actual owners in the Critical context of property because ownership of stock in these corporations does not convey to any shareholder the right to 'possess, use, and dispose' of any asset of the business. U.S. law does set up a legal fiction of ownership for these kinds of corporations, i.e., the shareholders are said to "own the company." However, this is a toothless pseudo-property right. Suppose you own shares of General Motors. Try going down to its corporate headquarters and giving its Chief Executive Officer (CEO) orders as to how to run "your" company. Or try to take some item of its inventory home with you. In the first case, you wouldn't get past the receptionist and security guards in the lobby. In the second, you'd end up in jail for trying to steal inventory. Some 'owner' you are. The corporation is not run by "its owners" (because there *really* aren't any) but, instead, by hired-help managers who might not own any shares of stock in the corporation at all. This is an aspect of the corporation I discuss in detail later when I explain what a stockholder actually owns. Carnegie himself wrote,

In the great corporation the shares are generally bought and sold upon the stock exchange and the real owners are unknown. All depends upon salaried officials who may or may not have a dollar in the enterprise. In the limited partnership, on the contrary, only shareholders can be members; the shares are not sold to outsiders and thus is insured the eye of the master over all. [Carnegie (1900), pg. 87]

No legal terminology in the U.S. distinguishes between these two different types of corporations but the difference between them could not be more profound in terms of both free enterprise and the industrial conglomerate as a mini-Society.

Analysis of the corporate landscape in America prior to 1916 is greatly hindered by a lack of

data on how many corporations there have been, and when, and whether or not these were publicly held or privately held corporations (in the context of these terms explained above). However, a rough upper bound on the number of corporations can be made from data on the number of 'business concerns' compiled by Dun & Bradstreet, the census data for the numbers of corporations after 1916 (figure 21 above presents this data), and the urban workforce population.

Dun & Bradstreet 'business concerns' are industrial conglomerates who are seekers of commercial credit. This classification *excludes* finance, insurance, and real estate companies, railroads, terminals, amusements and most one-man services; it *includes* manufacturers, wholesalers, retailers, public utilities, water carriers, motor carriers, and airlines [Bureau of the Census (1976), pg. 909]. D&B statistics thus include almost all corporations as well as most unincorporated employer-firms (industrial conglomerates employing and paying wage-laborers). The number of D&B business concerns therefore sets the ceiling on the number of U.S. corporations since these make up only a fraction of the number of D&B concerns.

From 1916 until 1945, roughly one out of every five D&B concerns was a corporation. It is a not-unreasonable proposition to hypothesize that this 1:5 ratio overestimates the number of corporations in the latter half of the 19th century, although this is not confirmed due to the absence of collected data from that period. The hypothesis is not-inconsistent with NYSE trading volumes from that period and implies that the number of corporations in 1857 was less than about 40,000 corporations, which is 360 times the number of NYSE-listed corporations in 1840. This number is twice as large as the estimate of 19,511 corporations in the year 1856 provided in Sylla & Wright (2012). The 1:5 ratio rule-of-thumb can serve as a loose upper bound on the number of U.S. corporations prior to 1945 but is almost certainly an overestimation¹⁶.

The new corporations could and frequently did have major effects on their local communities, most of these to the benefit of the community and some of them to the disbenefit of local citizens. But, with the exception of a few large conglomerates such as mining, steel, railroad, and large textile mill companies, corporations first appeared as relatively minor evolutions in business organization. Their core difference from proprietorships and partnerships was the legal and financial ramifications of limited liability, just as is the case today for S corporations and LLC corporations. Historians and socio-political essayists tend to give their attentions to the relatively few massive conglomerates, such as Carnegie's steel company or textile mill sweatshops, and this can make it seem as if the corporate form of industrial conglomerate took over and dominated the U.S. economy in the 19th and early 20th centuries. But that interpretation is a myth born of the "rock star celebrity" attention that gets paid to the largest industrial conglomerate corporations.

As figure 21 suggests, the phenomenon of corporation dominance of the U.S. economy was a post World War II phenomenon. It is true that uncivic labor conditions within most of the large corporations of the 19th century produced perpetuated injustices both in terms of employer-employee relationships and on the part of the state and general governments of the U.S. when these took sides in labor disputes and codified British-like laws prejudicial to labor unions. In the last decades of the 19th century and early decades of the 20th, unjust and uncivic conditions in the workplace did provoke serious labor disputes and violent strikes. But if these injustices had been as widespread as myth would have it, then the tiny fraction of the workforce who were actually unionized is a paradox. Figures 22 and 23 present pertinent union membership statistics.

¹⁶ It is an overestimation because its rate of growth in the number of corporations is inconsistent with the rate of growth in the U.S. non-agricultural labor force from 1859 to 1871 (figure 1). The upper bound estimate implies a roughly 5.9% per year growth rate in incorporations while the growth rate of the labor force was approximately 4.5%. With typically 5 to 20 employees per corporation, there would have had to have been widespread proprietorship business failures to free up enough wage-laborers to staff the corporations. Such a U.S. business failure episode did not happen between 1843 and 1871 [Skrabec (2015)].

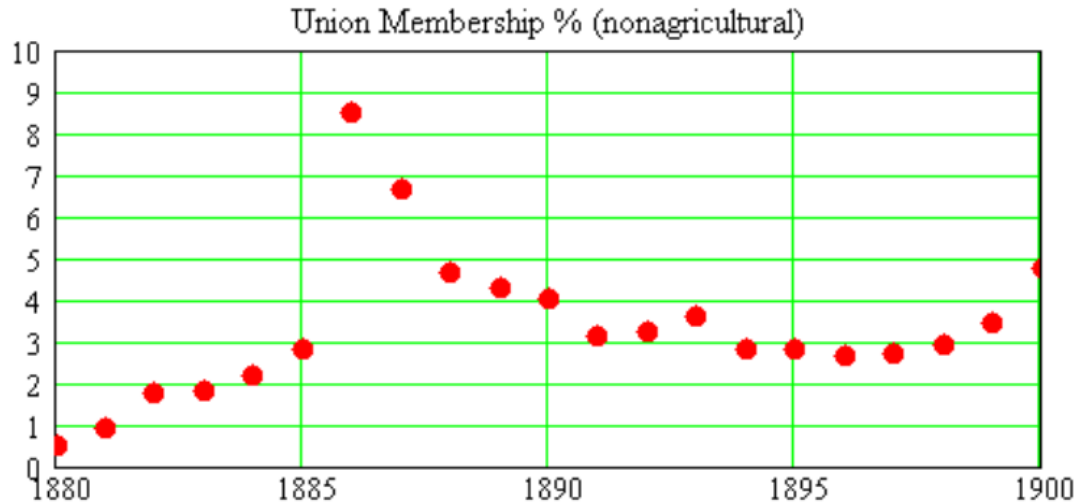


Figure 22: Union membership as a percentage of the U.S. non-agricultural labor force from 1880 to 1900.
Source: Wolman (1924), pg. 32.

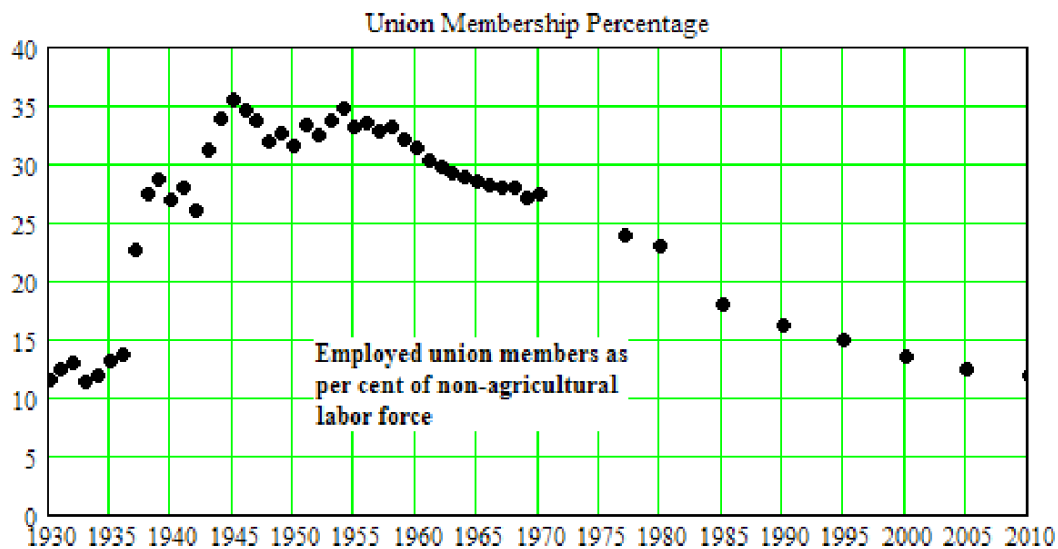


Figure 23: Employed union members as percentage of the non-agricultural labor force from 1930 to 2010.
Sources: Bureau of the Census (1976) Series D-927, 935; Bureau of Labor Statistics published in *The Times Almanac* 2008, pg. 747; Bureau of the Census (2011) Table 664.

Union membership rose from fewer than 100,000 in 1880 to 791,000 by 1900. From 1900 to 1930 union membership rose to 3.7 million members, peaking at 5 million members in 1920 [Bureau of the Census (1976) Series D-940, 941], a membership it did not see again until 1937. But large as these numbers are, union membership never exceeded 9% of the labor force from 1880 to 1900 and, at its peak in 1945, topped out at slightly above 35%. These figures suggest that uncivic conditions in American corporations did not become commonplace throughout the nation until the mid-1930s during the Great Depression.

There was a long term effect on the general commercial institution in the U.S., one related to the gradually increasing uncivic working environment, and it came in the form of an organization

paradigm that, almost unnoticed, passed into social custom. This was the proliferation of and increasing power wielded by that class of wage-laborers who are called managers. The paradigm began in the large corporations and its institutionalized practices evolved into an incompetent management practice known as Taylorism¹⁷. The paradigm and its practices institutionalized the hierarchy form of corporate organization that overwhelmingly dominates business organizations today. I discuss this unwholesome and counterproductive institution later in this treatise.

The manager wage-laborer occupation was not invented by the corporation form of industrial conglomeration. The planter aristocrats in the Old South had used overseers on their plantations in colonial times and manager positions existed in Great Britain in the 17th century. It was and is a side effect of increasingly large commercial organizations resulting from a concept of analogy based on the standard form of military organizations since antiquity. Non-corporation industrial conglomerates of even modest size frequently have an "office manager" of some kind who works for the proprietor of the business. But it was with the corporation form, and especially with the organization of large corporations such as Carnegie's, that the hierarchy of managers became entrenched as an institution of governance for the mini-Society of a commercial conglomerate. This form of organization is principally responsible for uncivic free enterprise within industrial conglomerates as well as for the mediocre capital-wasting performance of the majority of present day American corporations. I discuss both of these points in more detail later in this treatise, too.

It was a phenomenon of institution that is easily predictable as a consequence of monarchy/oligarchy governance of industrial conglomerates. I earlier quoted Montesquieu's remarks about how a social class of nobility empirically arises under monarchy to provide the infrastructure of a pyramidal hierarchy of rulers-and-ruled. The position and power of any monarch is maintained and his overall rule is sustained by the *hirdman* hierarchy of those Mill called 'the minor harpies' in a monarchical Society [Mill (1859), pp. 1-2]. In practical effect, this institution sets up what can properly be called a feudal Society of class divisions in every industrial conglomerate that uses it. It is a form of organizational institution that is thoroughly incompatible with Republican Society and civic free enterprise. The American Economy Revolution of 1750-1800 started the United States on the path to this state of socio-economic condition of uncivic free enterprise. The institution of corporations accelerated it. The institution of this convention opposes Enterprise-of-enterprises commercial organization and the establishment of civic free enterprise.

§ 5. Summary

The industrial conglomerate had been a rarity in America prior to the Economy Revolution. After the French and Indian War, a number of factors motivated the widespread establishment of industrial conglomerates in America. These factors included increases in population density and hard economic conditions of recession, fiat currency depreciation, and high taxation faced by all Americans. Industrial conglomeration was a urban phenomenon, however, and so the effects of this re-institution of American commerce were limited in reach and for the most part left rural America unaffected. These same factors also stimulated westward expansion of the U.S. after the Revolutionary War, and this expansion contributed to keeping the United States a rural nation until, in 1880, urban population finally exceeded rural population. The changeover from rural to urban began around 1830 and the start of this changeover marks the beginning of the American industrial revolution. With this revolution the extent and economic importance of the industrial conglomerate grew in proportion to the percentage growth in the American urban labor force.

¹⁷ Taylorism is named after Frederick Taylor whose booklet *Scientific Management* formalized most of its basic precepts [Taylor (1911)] and still serves as a kind of bible of incompetent management practices. Taylorism was thoroughly discredited by industrial psychology findings in the 1920s and '30s. It briefly passed out of favor in the 1960s and '70s and then reemerged in corporate America in the 1980s.

The industrial conglomerate was a profound socio-economic change, but the institution of the industrial conglomerate was the outcome of satisficing business establishment concepts that were based on extending long established traditional customs and conventions of ownership to this new form of economic association. Those ownership conventions were themselves based on a mimesis phenomenon; namely, the modeling of employer-employee relationships based on a monarchical form of business governance that had itself been the product of mimesis based on the old English feudal system that had prevailed prior to the emergence of capitalism in England beginning in the 15th century. Capitalism had become firmly established in England by the end of the 16th century [Durant & Durant (1961), pp. 46-50] and this institution came to America with the colonists.

The industrial conglomerate constitutes a special type of mini-Society embedded within the larger general Society within which its members live. The immediacy of their larger but still local Society affects how individuals view the nature of their relationships when they come into their associations in an industrial conglomerate. Everywhere in America industrial conglomeration adopted the monarchical governance form and continued to use ownership conventions of pre-Economy Revolution America. The nature of the business monarchy instituted depended as much on local mores and folkways as on local economic conditions. In the more numerous smaller urban places there were many social factors that tended to orient Mr. Fezziwig's behavior in the direction of that of a "kindly monarch." In the larger cities, where an employer's personal society excluded the great majority of other inhabitants, conflicts of interest between an employer and his employees could more readily result in satisficing actions as likely to produce a Mr. Scrooge as a Mr. Fezziwig. The matter is made still more complicated because one and the same employer might be a Mr. Fezziwig in his relationships with some employees, a Mr. Scrooge in his relationships with other employees, and a blending of both in his relationships with still other employees. Such an employer socially partitions his enterprise society into a mini-Community granule and one or more non-Community mini-Society granules.

It is, therefore, a mistake to presume that the social character of all industrial conglomerates was the same everywhere – an error that has often been made by social reformers as well as by professional economists. Local mores and folkways simply cannot be disregarded by economic theory. The fundamental conventions of ownership that developed in America oriented business evolution toward uncivic free enterprise, but the orientations varied from conglomerate to conglomerate and from place to place within American Society, producing local variations in how it was practiced. These variations affect the local mini-Society and also reciprocally interact with institutions and practices of government and politics.

The emergence of corporations as a new form of organization for industrial conglomerates was a significant occurrence in the latter half of the 19th century. New kinds of capital-intensive businesses, made possible by new inventions, were founded. The corporation provided a sort of safety net for capitalist entrepreneurs through enactment of limited liability legislation. Most of the early corporations were closely held by entrepreneurs who also managed the corporation and, other than for limited liability and legal differences between them, the corporation and the limited partnership were more or less identical in terms of ownership conventions. However, speculation made possible by the stock exchanges also led to a second kind of corporation in which the direct management of the corporation passed from the hands of shareholders and into the hands of hired manager wage-laborers. Although it was and is normally the case that the entrepreneur-founders of these corporations also constituted the "first generation" of the corporation's top managers, as these founders aged and retired from active management actual control of the corporation passed to non-founder professional managers whose personal welfare and other interests in the business were not the same as those of the founders. This resulted in subtle but important fundamental changes in the social-natural sociology and psychology of corporation mini-Societies. These changes accelerated the practices of uncivic free enterprise in the United States.

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