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The American CEO in the Twentieth Century: Demography and Career Path

Richard S. Tedlow
Courtney Purrington
Kim Eric Bettcher

This paper is part of an ongoing research project designed to develop quantitative information on the demography and career path of the CEOs of the largest American corporations in the twentieth century. The paper presents both qualitative and quantitative information concerning such matters as the CEO's birthplace, family background, education, work experience, and other variables.

I. Why This Research Matters

The goal of the research project on which this paper is based is to bring the individual business executive to the forefront in the study of American business history. This objective is achieved through the construction of an original data set concerning the CEOs of major American corporations and through biographical sketches that bring these data to life.

Speaking generally, there has been a clear trend in the study of the history of American business among scholars (if not among authors targeting a general audience) toward the examination of the corporation, especially the large corporation, as an institution, and away from the study of the individuals who run it. To understand why this trend has taken place, we need to say a word about the history of business history.

In the beginning, there were the "robber barons." This was the name affixed to the great industrialists and financiers of the era from the Civil War to the early twentieth century by author Matthew Josephson.[1] He described the dozen or so most famous businessmen of that era—Vanderbilt, Morgan, Gould, Rockefeller, and Carnegie, among them—as greedy, rapacious buccaneers who placed a tax on honest, hardworking Americans in order to amass their immense and ill-gotten gains. They were strangers to any principles of moral conduct. This was a life-

[1] Matthew Josephson, *The Robber Barons: The Great American Capitalists, 1861-1901* (New York: Harcourt, Brace and World, 1934).

long view for Josephson. The book in which he first popularized it was published in 1934 in the depths of the Great Depression. His message fell on fertile ground.

After World War II, during which the United States had served (in Franklin D. Roosevelt's sonorous phrase) as the "Arsenal of Democracy," big business was in much better repute. The careers of nineteenth-century businesspeople looked different when viewed through the perspective of World War II, post-War prosperity, and anti-Communism from the way they did during the depression. The robber barons of the nineteenth century "morphed" (to use the modern word) into "industrial statesmen"—the men who built America and put it in a position to defend freedom around the world.

The leading proponent of the "industrial statesmen" view was an incredibly prolific historian at Columbia University named Allan Nevins. A biographer of John D. Rockefeller, Henry Ford, and numerous others, Nevins found the tycoons of the nineteenth century to be not only necessary, but desirable for the nation's healthy development. Nevins and Josephson exchanged views directly in the pages of the *Saturday Review* in 1954. These became the two poles that anchored many other studies of America's business past.[2]

The ethics of American business is a topic well worth study and discussion. However, the "robber baron versus industrial statesman" argument had severe shortcomings as a gateway to knowledge. First, it could easily (and in fact did) degenerate into a shouting match between those who believed businessmen were "good fellows" or "bad fellows." Second, the debate did not invite the debaters to deepen their knowledge about what businesspeople actually did. Third,

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[2] "Should American History Be Rewritten: A Debate Between Allan Nevins and Matthew Josephson, *Saturday Review,* February 6, 1954, pp. 7-9, 47-49. See also Thomas C. Cochran, "The Legend of the Robber Barons," *Pennsylvania Magazine of History and Biography,* Vol. 74 (July, 1950) pp. 307-321 and Peter d'A Jones, *The Robber Barons Revisited* (Lexington, MA: Heath, 1968).

few, if any, historians are trained as moral philosophers. The "robber baron" discussion thus pushed historians away from what they were best at and moved them into an area in which they were no more than dilettantes.

The historian most responsible for putting an end to this debate and rescuing business history as a vibrant field of intellectual inquiry has been Alfred D. Chandler, Jr. The focus of Chandler's work for over six decades has been the role of the modern, large corporation in the transformation of economic activity from coordination by the market to management by executives. His best-known book, *The Visible Hand*, captures the essence of his views in its title. The planned, purposeful activities of human managers supplant Adam Smith's "invisible hand" of impersonal market forces in Chandler's world.[3]

Chandler bequeathed to the study of business history a set of questions which would yield progressively more knowledge as research intensity increased. His questions invited, indeed demanded, the use of the tools and insights of other academic disciplines, especially economics, sociology, and business strategy. Because of his familiarity with those fields, Chandler has had an important impact on them. Chandler has forced economists to take history seriously. He is probably cited by more scholars outside of the history profession than any other historian.[4]

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[3] Alfred D. Chandler, Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press, 1977).

[4] For the breadth and depth of Chandler's impact, see Thomas K. McCraw, "Introduction: The Intellectual Odyssey of Alfred D. Chandler, Jr." in *idem., The Essential Alfred Chandler: Essays Toward a Historical Theory of Big Business* (Boston: Harvard Business School Press, 1988) pp. 1-21. See also Jonathan Hughes, "Big, Rich and Useful," *The New York Times,* May 6, 1990, Sec. 7, p. 26; "*Scale and Scope:* A Review Colloquium," edited by Steven W. Tolliday with contributions from Alfred D. Chandler, Jr., Roy Church, Albert Fishlow, Neil Fligstein, Thomas Hughes, Jürgen Kocka, Hidemasa Morikawa, and Frederic M. Scherer, *Business History Review,* Vol. 14, No. 4 (Winter 1990) pp. 690-735; Richard R. John, "Elaborations, Revisions, Dissents: Alfred D. Chandler, Jr.'s, *The Visible Hand* after Twenty Years," *Business History Review,* Vol. 71, No. 2 (Summer 1997) pp. 151-200.

What, then, are the new set of questions which have displaced the robber baron debate through the work of Chandler and his school? To be brief, they are: (1) Prior to the 1840s there were no big businesses by modern standards. By 1900 there were many. Why did this change take place? (2) Why is it that businesses grew large only in some industries? (3) What were the similarities and differences between the growth of big business in the United States and in other nations?

These three questions have stood at the center of the study of business history for the last quarter century. They are wholly different from the robber baron debate. They ask not whether John D. Rockefeller was a good or bad man, but rather why Standard Oil grew to dominate refining while no similar firm dominated apparel. They demand a discussion of markets and hierarchies. When did some industries migrate to firms dominated by salaried managers reporting to salaried managers often with a minimal equity interest in the company? What organizational difficulties were encountered along the road to big business? How were agency problems managed?

The manager rather than the market stands at the center of Chandler's world. Although managers are vital, Chandler has not chosen to undertake in a systematic fashion an analysis of who the people were who managed the big businesses he studies or of how they came to hold their positions.

The English historian G. Kitson Clark has said: "[D]on't guess, count. And if you can't count, admit that you are guessing."[5] Chandler has done a great deal of counting. Industry by

[5] Clark's remark is cited in Peter Novick, *That Noble Dream: The "Objectivity Question" and the American Historical Profession* (Cambridge, Eng.: Cambridge University Press, 1988) p. 8. Clark's observations on

industry, he has counted the number of large and small firms. He has concluded that it is no accident that some industries are dominated by big businesses while others are not. Big business provides competitive advantage when economies of scale and speed of throughput in vertically integrated companies managed by salaried executives result in greatly reduced costs. These cost savings can be passed along to customers, resulting in market dominance; and these savings can also be shared with owners, resulting in great wealth for the first movers in scale industries.

A key source for both *The Visible Hand* and *Scale and Scope*[6] was a list of the largest nonfinancial companies ranked by assets in the United States in 1917.[7] This list has its own history, and there are plentiful methodological issues surrounding it. But its most important characteristic is that it exists. Its existence allowed Chandler to analyze the companies on it, grouping them by industry. The magisterial achievement of *The Visible Hand* was in part an extended commentary on Chandler's analysis of this 1917 list.

What we have undertaken in *The American CEO in the Twentieth Century: Demography and Career Path* is to bring the people back in to the mainstream of the study of business history. We do this not by taking a step backward to the "robber baron versus industrial statesman" shouting match of old. Rather, we want to build on the work Chandler has done; draw on

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methodology are interesting and well worth a look. G. Kitson Clark, *The Making of Victorian England* (London: Methuen, 1962) pp. 1-27. Novick adds a charming cautionary remark to quantification by historians:

> In fact, I tried to count and failed. Some time ago, I spent the better part of two years coding the evaluative language used in thousands of historians' book reviews, punching IBM cards, and attempting to correlate the language employed with dozens of other variables having to do with historians' generation, field, status, etc. It was a total waste of time, producing nothing intelligible and permanently dampening my enthusiasm for introducing quantitative rigor into intellectual history.

Novick, *Dream,* p. 8, n. 7.

6 Alfred D. Chandler, Jr., *Scale and Scope: The Dynamics of Industrial Capitalism* (Cambridge, Harvard University Press, 1990) pp. 631-732.

7 This list was originally published by Thomas R. Navin, "The 500 Largest American Industrials in 1917," *Business History Review,* Vol. 44, No. 3 (Autumn 1970) pp. 360-386. For Chandler's use of and comments on this list, see *Visible Hand,* p. 569, n. 1 and pp. 503-513.

insights from economics, sociology, and the business academy; and serve as a resource for scholars seeking to learn more about who has managed the managerial enterprises of the twentieth century and the mechanisms by which these people got their jobs.

Our project is composed of case examples in addition to a wealth of aggregate data. Because of the nature of academic life, and more specifically the funding of scholarly projects, our research has the potential to establish itself as the standard source for years to come. We have made every effort to create as accurate a database as possible, exploiting sources in localities around the United States. (This has been particularly challenging for the 1917 executives as opposed to our comparison group from 1997.) We believe that, although interpretations we offer will obviously be subject to debate, the findings themselves could form the basis for discussions about the history of business leadership in the American business corporation for many years to come.

We should make clear at this point that gathering historical statistics on the background of America's business leaders for scholarly rather than polemical purposes is not original with us. Although the "robber baron versus industrial statesman" dichotomy received the lion's share of attention in the press and in academia for years, there have also been disinterested, less polemical attempts to describe and analyze the history of business leadership.[8]

Best known among these efforts is the work of William Miller and his colleagues Frances W. Gregory and Irene D. Neu at the Research Center in Entrepreneurial History at Harvard University. Miller, who had established his reputation with *The Age of Enterprise,* co-authored

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[8] For a review of such studies, see Walter A. Friedman and Richard S. Tedlow, "Statistical Portraits of American Business Elites: A Review Essay," *Business History* (forthcoming).

with Thomas C. Cochran,[9] proposed to Arthur H. Cole that a project be funded to gather data on "a moderately large number of men who were Presidents, Board Chairmen … or otherwise in power in a select group of some 200 of the largest business corporations in the United States, approximately from 1890 to 1920" which would illustrate the types of men who "came into control" of large American corporations. At first, Cole did not "enthuse" about the idea; but he was won over and Miller's study was awarded the necessary financial support.[10] What eventuated was to prove some of the most important work of the Research Center.

Miller, Gregory, and Neu demonstrated that the Horatio Alger legend of "rags to riches" could not be accepted uncritically. Their research changed the context in which scholars viewed a figure such as Andrew Carnegie. Before their work, Carnegie was commonly seen as the "most typical figure of the industrial age."[11] After it, he was described by leading historians as "in every way exceptional."[12] Both descriptions are overstatements but the latter view is closer to the truth than the former. Miller, Gregory, and Neu deserve a lot of credit for this advance in our understanding of America's past.

Moreover, the research of these three scholars[13] has proven remarkably durable. It is used as a point of comparison half a century after its publication. In a 1999 essay, for example,

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[9] Thomas C. Cochran and William Miller, *The Age of Enterprise: A Social History of Industrial America* (New York: Macmillan, 1942)
[10] The Research Center in Entrepreneurial History at Harvard University, Box UAV 367.299 Entrepreneurial History, Research Center In. Harvard University Archives, Forms and Form Letters. Correspondence and Papers, MOS, Letter of 23 Oct. from William Miller to Arthur H. Cole; and letter of 4 Dec. 1946 from Arthur H. Cole to William Miller. We are grateful to Walter A. Friedman for bringing this correspondence to our attention.
[11] See, for example, the widely-used text book by Samuel Eliot Morison and Henry Steele Commager, *The Growth of the American Republic* (New York: Oxford University Press, 1942) Vol. II. The quoted phrase appears on page 134.
[12] Stanley Elkins and Eric McKitrick, *The Hofstadter Aegis: A Memorial* (New York: Knopf, 1974) p. 305.
[13] The essays of Miller, Gregory, and Neu have been collected in William Miller, ed., *Men in Business: Essays on the Historical Role of the Entrepreneur* (New York: Harper and Row, 1952).

Peter Temin describes Miller's studies as among "the most well-known." Miller, in Temin's words, "demonstrated that the leaders of American business around 1900 were overwhelmingly native-born Protestants from good families. The absence of women and people of color was not considered unusual enough to merit discussion." Miller found the make-up of the political elite to be similarly constituted.

Temin proceeded to replicate Miller's study for modern business leaders. He

> confirmed that the CEOs of the *Fortune* 500 companies in 1996 were still white, male and mostly native-born Protestants from good families …. It is not surprising that the business elite in 1900 lacked women, African Americans and Asian Americans. The surprise is that this is still true today.

Temin's surprise resulted from two circumstances. The first was that the composition of the nation's population had changed a lot in the past century. The second was that Temin found evidence that the composition of the political elite had in fact changed to reflect population far more closely than was the case in the business world. There are a host of researchable issues stimulated by these observations.[14]

It is our hope that our investigation of the people who led American business during the twentieth century will build on work already done, open up research topics for other scholars, and broaden our knowledge of the history of the United States. This project, to repeat, is designed to bring people back into the study of American business history in a useful and sophisticated fashion.

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[14] Peter Temin, "The Stability of the American Business Elite," *Industrial and Corporate Change,* Vol. 8, No. 2
(June 1999) pp. 189-210; quotations are found on pp. 190-191.

II. The Data: An Overview

The first generation of chief executives of America's largest corporations after the "robber barons" is remarkably obscure, not only to the educated public but to scholars as well. Everyone in the nation knew the names of the tycoons of the last quarter of the nineteenth century. Their names are familiar down to the present day. By contrast, political leaders of that era are known only to academic historians who specialize in the subject. To be specific, 99 out of 100 people reading this page have heard of Carnegie, Rockefeller, Morgan, and a select few of the other titans. But how many know who was president of the United States in 1882, 1886, 1890, or 1895?[15] Probably not many. Business was big; government small.

By the second decade of the twentieth century, these proportions were reversed. In 1917, the first year of our data, the President of the United States was Woodrow Wilson, a name known to many today. If we were to ask who the chief executives were in 1917 of United States Steel (the nation's largest firm of which Carnegie steel was a component part); Standard Oil (Rockefeller's company); or J.P. Morgan and Company, blank looks would result. And if we provided the names, only one, J.P. Morgan, Jr., would be familiar; and the reasons are obvious. He shared the name, if not the stature, of his father. Elbert H. Gary, chief executive of U.S. Steel, would be known to very few people outside of Gary, Indiana, which was named after him. And the CEO of Standard Oil in 1917, Alfred Cotton Bedford, is a name that would ring a bell for next to no one.

When American business leadership made a transition from the charismatic to the bureaucratic in the first two decades of the twentieth century, the attention paid to the leaders

[15] Chester A. Arthur, Grover Cleveland, Benjamin Harriman, and Grover Cleveland again.

themselves greatly diminished.[16] Even the historians who deplored the conduct of the robber barons found in them a certain romance. In Richard Hofstadter's words, "for the most part they were parvenus; but they were also men of heroic audacity and magnificent exploitative talents—shrewd, energetic, aggressive, rapacious, domineering, insatiable."[17] Matthew Josephson himself became interested in the robber barons after writing some essays about the "men who ruled America" in the 1920s. He came to "consider the money men of the twenties as mere epigones compared with their mighty forbears, the economic dinosaurians who flourished during the latter part of the nineteenth century...."[18]

In their best-selling textbook of seven decades ago, *The Rise of American Civilization*, Charles and Mary Beard discussed eleven tycoons who were "dominant figures looming in the foreground" of the American scene between the end of the Civil War and the turn of the century.[19] Table One shows the dates of birth and death of these tycoons and, where appropriate, the date they retired from active business.

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[16] Discussions of charisma must begin with Max Weber, *Economy and Society* (New York: Bedminster, 1968 ed.). But these discussions do not end there, because "if there is one thing over which writers on charisma tend to agree, it is that Weber provided a highly stimulating but frustratingly abstruse discussion. His work was often more suggestive of what is interesting and important in charisma than a definitive exposition." Alan Bryman, *Charisma and Leadership in Organizations* (London: Sage, 1992) p. 23. For a skillful use of Weber's concept of charisma in contrast to bureaucracy in modern business, see Nicole Woolsey Biggart, *Charismatic Capitalism: Direct Selling Organizations in America* (Chicago: University of Chicago Press, 1989). See also Rakesh Khurana, *Searching for a Corporate Savior: The Irrational Quest for Charismatic CEOs* (Princeton, N.J.: Princeton University Press, 2002).
[17] Richard Hofstadter, *The American Business Tradition and the Men Who Made It* (New York: Vintage, 1974 ed.) p. 213.
[18] Josephson, *Barons*, p. 4.
[19] Charles and Mary Beard, *The Rise of American Civilization* (New York: Macmillan, 1930), pp. 163-210.

Table 1

Birth and Death Dates of Eleven Business Leaders

	Date of Birth	Date of Retirement	Date of Death
Phillip D. Armour	1832		1901
Andrew Carnegie	1835	1901	1919
William A. Clark	1839		1925
Jay Cooke	1821		1905
Jay Gould	1836		1892
Edward H. Harriman	1848		1909
James J. Hill	1838	c. 1912	1916
Collis P. Huntington	1821		1900
J.P. Morgan	1837		1913
John D. Rockefeller	1839	c. 1899	1937
Cornelius Vanderbilt	1794		1877

Source: Charles A. and Mary R. Beard, *The Rise of American Civilization* (New York: Macmillan, 1930) pp. 172-173.

Although one can debate the merits of how well this list represents nineteenth-century industrialists and financiers,[20] it is instructive to note that the eleven men in Table 1 were no longer actively conducting business by the mid-1910s. Many others like Mellon, Duke, Havemeyer, and the Moore brothers, had either died, retired, or were semi-retired chairmen, no longer directing the daily affairs of their corporations.

As these men retired or died off, it began to dawn on their contemporaries that they would have no successors. Otto H. Kahn, of Kuhn, Loeb & Company, said in 1911 of Edward H. Harriman that “His death coincided with what appears to be the ending of an epoch in our

[20] Perhaps Henry Clay Frick should be substituted for the copper millionaire Clark or Thomas Mellon for the financier Cooke.

economic development. His career was the embodiment of unfettered individualism."[21] In this respect, Harriman's battle with James J. Hill and J. P. Morgan for control of the Northern Pacific in 1901 (Harriman was allied with Rockefeller interests) can be seen as the last clash of the giants of nineteenth-century business. Shortly before his death on March 31, 1913, J.P. Morgan observed that "American business must henceforth be done in glass pockets."[22] When Morgan himself died, Frank A. Vanderlip, President of the National City Bank, wrote to his predecessor James Stillman, himself one of the nation's wealthiest men, that "there will be no other king; ...Mr. Morgan, typical of the time in which he lived, can have no successor, for we are facing other days."[23]

Historians and journalists have generally agreed with this assessment. "As the barons of nineteenth century business retired," Robert H. Wiebe has written, "their successors appeared to have come from a smaller mold."

> No one ranked William C. Brown of the New York Central with the Vanderbilts, or George Gould and John D. Rockefeller, Jr., with their fathers; nor did the fastidious Elbert Gary of U.S. Steel compare as a public personality with...Andrew Carnegie.... The emphasis in business was shifting from the man to the company, from ingenuity to training, from an ideal of competition to a matter-of-fact belief in cooperation and stabilized profits.[24]

Writing in 1963, Hofstadter was even more blunt: "Once great men created fortunes; today a great system creates fortunate men."[25] As we have already seen, Josephson turned his attention

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[21] Quoted in Martin J. Sklar, *The Corporate Reconstruction of American Capitalism, 1890-1916: The Market, the Law, and Politics* (Cambridge, Eng.: Cambridge University Press, 1988), p. 16, n. 12.
[22] Quoted in Chandler, *et al., Management,* p. 2-67.
[23] Sklar, *Reconstruction*, p. 16, n. 12.
[24] Robert H. Wiebe, *Businessmen and Reform: A Study of the Progressive Movement* (Chicago: Quadrangle, 1962), pp. 17-18.
[25] Richard Hofstadter, *Anti-Intellectualism in American Life* (New York: Random House, 1963), p. 236.

to nineteenth-century businessmen because their successors were "epigonal"—that is, they were dwarfed by their predecessors in terms of grandeur.

To some degree, all this is not quite fair. Henry Ford was as much an advocate of slashing prices and cutthroat competition and he was as much an opponent of organized labor as was Andrew Carnegie. By the same token there were salaried middle managers in the large companies in more mature industries such as transportation and textiles by 1880.[26]

On the other hand, as a broad generalization, the transition from buccaneer to bureaucrat does not seem unreasonable to assert. There have indeed been scores of great entrepreneurs during the twentieth century in America. But not even Sam Walton in 1990 or Bill Gates in 2000 occupied the center of national attention to the extent that Rockefeller did in 1890 or Carnegie in 1900. No one has possessed such great wealth in liquid form, "untrammeled and untaxed,"[27] when compared to the American economy as a whole since the moguls of the Gilded Age.

Perhaps most important, American businessmen in the twentieth century were not able to pursue wealth with such an absence of social restraint as did their nineteenth-century forbears. The antitrust laws have stood as a powerful check on the imperial CEO, as key "center" firms[28] like Standard Oil, American Tobacco, Alcoa, and IBM discovered. Laws governing labor relations have reined in many businesses. Regulations concerning the purity of food products

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[26] The standard quantitative study of American business leaders in the 1870s is Frances W. Gregory and Irene D. Neu, "The American Industrial Elite in the 1870s: Their Social Origins," in Miller, ed., *Men In Business,* pp. 193-211.

[27] Josephson, *Barons*, p. v.

[28] See Robert Averit, *The Dual Economy: The Dynamics of American Industry Structure* (New York: Norton, 1968) and Thomas K. McCraw, *Prophets of Regulation: Charles Francis Adams, Louis D. Brandeis, James M. Landis, Alfred E. Kahn* (Cambridge: Harvard University Press, 1984).

came into being in the early 20th century. More recently, environmental regulations have proven an increasing force in a wide variety of industries.[29] Even in the putative era of deregulation, which began during the Carter Presidency, the scope and impact of certain kinds of government regulations, including laws governing health, safety, securities trading, and the environment, have increased.

A major motivating factor for this research is our belief that all this does not mean that the CEOs of America's major corporations became unimportant. Because of the multiple pressures brought to bear on the corporation in the early 1900s, pressures which have increased in intensity through the century, they have remained vital to the successful functioning of their firms.

We believe that these CEOs were important in the development of American business and society. The first task we set for ourselves was to find out who the CEOs of the 200 largest industrial companies in the United States were in 1917. This was more than might be expected. Reporting requirements were minimal at the time, and corporate governance was in flux. Titles were often used more loosely than today. We were therefore forced in some cases to look at the workings of companies about which not much is known, rather than at the titles of executives, to find out who was really in charge.

In order to identify the chief executive, we constructed a definition of what the powers and responsibilities of the CEO were. For our purposes, the chief executive performed the following functions in 1917:

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[29] See Forest L. Reinhardt and Richard H. K. Vietor, *Business Management and the Natural Environment: Cases and Text* (Cincinnati: South-Western, 1996) and Forest L. Reinhardt, *Down to Earth: Applying Business Principles to Environmental Management* (Boston: Harvard Business School Press, 2000).

1. He planned for the future;
2. He allocated resources to make it possible for those plans to become reality;
3. He monitored performance; and,
4. He recruited and promoted personnel.

Obviously, no single individual did all these things by himself for any business larger than a small shop. But the chief executive was the man who had the final say on the most important of these decisions. It was he who stood at the apex of the corporation, making decisions that could neither be delegated nor appealed. It was he who coordinated the business. It was he who had not only the power to veto new proposals, but the vision and knowledge to initiate them.[30] Since a company can have more than one CEO in a year, we arbitrarily selected one day (December 31) in 1917. The CEO on that day was the man (and they were all male) who was counted in our database.

Having identified our CEOs, we asked a set of questions about them designed to shed light both on their demographics and on the path they took to the top. Our questions were motivated both by our own research and by selected studies of corporate leadership by scholars in a variety of disciplines over a period of decades.[31]

The leaders of America's largest corporations in 1917 were predominantly generalists. As a group, they had had a remarkable variety of experiences prior to attaining the leadership of their respective firms. They were experienced not only in manufacturing, marketing, control,

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[30] See Robert Aaron Gordon, *Business Leadership in the Large Corporation* (Washington, D.C.: The Brookings Institution, 1945), pp. 75 and 67–93 *passim*. See also the definition of CEO written by Roberto Goizueta shortly before he assumed that position at Coca-Cola. This document is in the authors' possession.

[31] For a review of this literature, see Friedman and Tedlow, "Statistical Portraits."

finance, and human resource management. They also were experts in organization. They had learned through apprenticeship rather than through formal schooling how to manage a profit-making organization, the largest of which employed more people than most governments.

The average CEO in 1917 was born in 1862 (see Chart 1. Please note: the Charts and Maps of the data are assembled in Section 6 of this manuscript). As mentioned previously, he was in all cases a male caucasian. His parents were more likely than not to be of upper-class background (see Chart 2). As Chart 2 also shows, we were able to identify only 11 CEOs whose fathers could be categorized as "workers." The fathers of 55, by contrast, were "company executives." Only 20, in a rural nation, had fathers who were farmers.[32]

The CEO was almost always Protestant. Almost two-thirds of our sample were either Episcopalian or Presbyterian. A mere seven percent were Roman Catholic. Seven CEOs were Jewish. (See Charts 3 and 4.)

Relative to the population of the nation as a whole, Episcopalians are over-represented and Roman Catholics are under-represented. We do not wish here to engage in the long-standing debate concerning Protestantism and capitalism.[33] Our belief is that the under-representation of Roman Catholics can be explained by the general prejudice against them in much of the United States during the nineteenth century.

We do think it noteworthy that seven Jews appear in our sample. Unlike gender or race, being Jewish did not disqualify a candidate from being a CEO, although it doubtless represented

[32] Not until 1920 did the U.S. Census classify more than 50% of the population as living in urban rather than rural territory; and even then, the definition of "urban" was a town with a population of as small as 2,500.

[33] The classic statement in this voluminous literature is Max Weber, *The Protestant Ethic and the Spirit of Capitalism* (New York: Schribner's, 1957 edition).

an added roadblock the height of which depended upon the industry in question and the region of the country in which the industry was located.

Our CEOs were predominantly born in the Northeast, as Maps 1 and 2 indicate. When compared with the population as a whole in 1860 (recall that our average CEO in 1917 was 55 years of age, and we are using the census year of 1860 as our reference point), we see some results that are surprising and others that are not. Table 2 provides the population of the states which produced the most CEOs in 1917.

Table 2

CEOs in 1917 and Population Statistics for 1860

State	% of CEOs in 1917 Sample	Population in 1860 (in 000)	% of U.S. Population
New York	15%	3,881	12%
Pennsylvania	14%	2,906	9%
Ohio	11%	2,340	7%
Massachusetts	9%	1,231	4%
Illinois	5%	1,712	5%
Wisconsin	4%	776	2%
North Carolina	2.1%	993	3%
Georgia	1.6%	1,057	3%
Alabama	1.6%	964	3%
Virginia[1]	1.1%	1,220	4%
Tennessee	.53%	1,110	3%
South Carolina	.53%	704	2%

[1]The fifty counties that comprise West Virginia seceded from Virginia in 1861, the same year Virginia seceded from the Union as the Civil War began. West Virginia was admitted to the Union as a state in 1863. If West Virginia were combined with Virginia in this Table, the two states together would have accounted for 2.6% of our sample of CEOs in 1917. The combined population of the states in 1860 was 1,597,000, equal to 5% of the nation's population.

Source: U.S. Census and 1917 Data Base

Maps 1 and 2 tell a powerful story. Most immediately striking is the difference between North and South. Four of the 11 states which seceded from the Union in 1860 and 1861 produced no CEOs in 1917 at all. These four states – Arkansas, Louisiana, Mississippi, and Florida – had a combined population in 1860 of 2,075,000, or 6.6% of the nation as a whole. New Orleans, at the mouth of the Mississippi River, was and had long been one of the nation's great commercial centers. It was the largest city in the South and the sixth largest city in the United States in 1860 with a population of 169,000. Boston, the nation's fifth largest city, had eight thousand more residents than New Orleans. But Boston produced four CEOs for our sample (Boston's suburbs produced four more); and New Orleans none. New Orleans was three-and-a-half times the size of Pittsburgh, which contributed 3.5% of our executives (5% counting the suburbs).

The eleven states which seceded to form the Confederacy had a population of about nine million in 1860 and produced 14 CEOs in our sample. New York City, with a population of about 814,000, produced 15. Canada, with a population of 3.2 million, produced seven. Thus, you had a slightly better chance of becoming the CEO of one of America's 200 largest industrials in 1917 if you were born in Canada than if you were born in the South. Here we see another illustration of the price the South paid for the attempt to secede.

Within the North, there are also observations and patterns which require explanation. New York's performance is not surprising, but what explains Pittsburgh? With 7 CEOs, it was the second most productive city in our sample. However, with a population of 49,000 in 1860, it was less than a tenth the size of Philadelphia, which barely made it on the map.

Commerce means, among other things, a certain cosmopolitanism and also a familiarity with the rudiments of business. Commerce breeds a respect for numbers. In the precocious, it encourages the desire to master bookkeeping. In the genuinely clever, it opens eyes to the importance of transportation expenses in a continental nation fertile with minerals and with farm commodities which have an unfavorable ratio of weight and bulk to value. It also alerts the entrepreneurially minded to the vital need for information about markets and the movement of goods. It is, in other words, no accident that John D. Rockefeller began his business life as a bookkeeper in Cleveland and Andrew Carnegie as a telegrapher in Pittsburgh.

We so take it for granted that the city is the center of business life that perhaps we neglect to ask why that is. The process of the "boss's office" being moved from a room adjoining the factory to a downtown building has rarely been documented nor its importance sufficiently appreciated.[34]

Precisely why did John D. Rockefeller move from Cleveland to New York? There is no oil in Manhattan. Why did Carnegie move from Pittsburgh to New York? There are no steel mills in Manhattan. Was it because of proximity to capital? The answer to that is negative. Both men and a large number of other manufacturers grew their businesses through retained earnings without the help of Wall Street. Was it the social whirl? Neither cared for it or participated in it. Perhaps for them and for many others it was this element of cosmopolitanism which they first tasted in the smaller cities of the hinterland. Perhaps the better question is not why did they move to New York but rather what could have kept them away from it. That latter

[34] See Alfred D. Chandler, Jr., *Strategy and Structure: Chapters in the History of the American Industrial Enterprise* (Cambridge: MIT Press, 1962) and (with Stephen Salsbury), *Pierre S. du Pont and the Making of the Modern Corporation* (New York: Harper and Row, 1971) to see when and why this decision was made at Du Pont.

question makes George Eastman, whose home remained Rochester, more difficult to understand than either of them.

A final comment on the birthplaces of our CEOs. Eighteen of them were born outside of the United States. One can not know whether this percentage is large or small without a point of comparison. However, it is difficult to imagine that any other industrialized nation had half as many foreign nationals serving as CEOs of their largest firms. Could the proportion have been that high in Japan, Germany, Italy, France, Russia, or Britain? It seems hardly possible. In most of the rest of the world, large businesses were (and in many cases still are) centered on the family unit. The chance of foreigners running large corporations is not great.

Another appropriate point of comparison would be between the situation in 1917 and today. With so much talk of the globalized borderless world of new technology, one would expect a higher percentage of CEOs of major American companies to be born abroad now than earlier in this century. With free trade in so many categories, it will be intriguing to learn if there is free trade among CEOs. Maps 3 and 4 show preliminary findings of birthplaces of men who were CEOs of America's 200 largest corporations in 1997. Chart 5 provides the ages of those men in 1997.

One would also expect the United States to be more open to foreigners than other nations for a number of reasons. First, there is a tradition of easy entry into the U. S. followed by full citizenship in a matter not of decades or even years but months. Compare American practices to Swiss. Second, English has become through the course of the twentieth century the second language of many non-English speaking nations. In some special cases such as India, it is the first language among some classes of the population. The language barrier is thus obviously lower than it would be elsewhere.

Third, there have been some high profile breaches in the traditional native Protestant background of the CEOs of major corporations. In 1917, Du Pont may have believed itself more a professionally – than a family – managed firm; but the professionally trained managers happened to be members of the du Pont family. The same was true of the firm's CEO in 1945 and 1965. But in 1974, a Jewish lawyer (perhaps a better description would be a man who was neither a chemical engineer nor an Episcopalian) Irving Shapiro became the CEO of this firm, in which a large amount of the du Pont family's wealth was still invested. Another family firm in the United States, the Ford Motor Company, promoted an Englishman to CEO in 1993.[35] Three years ago, the CEOs of both General Electric and General Motors were Roman Catholic. Preliminary findings indicate to us that Catholics are not as under-represented as they once were in the American executive suite (see Charts 6 and 7). If the United States can continue to nurture clusters in which future CEOs grow and combine those domestic clusters with an openness to the rest of the world's population, this would seem to constitute a noteworthy competitive advantage in comparison with nations which more sharply restrict the set of people from which they draw their corporate leadership.

Poor people, as Andrew Carnegie once remarked, go to work early in life. By and large, our 1917 CEOs were not from poor families; and even those who were, managed to get more formal education than the average American. One-quarter were college graduates; and almost

[35] The Englishman, Alexander Trotman, became an American citizen. His successor as CEO, Jacques Nasser, was born in Lebanon and brought up in Australia. "Driving Change: An Interview with Ford Motor Company's Jacques Nasser," *Harvard Business Review,* March-April, 1999. We refer to Ford as a family firm because the family retains control of 41% of the voting stock.

10% attended graduate school, far above national averages (see Chart 8). "To get a good job," it used to be said, "get a good education." Perhaps a more accurate statement would be that to get a good education it is important to come from a family that can afford your postponing your first job.

The colleges the 1917 executives attended were mostly in the Northeast. Technical knowledge would appear to have been at a premium, judging from the importance of MIT and Lehigh as seen in Chart 9. Preliminary findings reported in Chart 10 indicate not only a geographical broadening of colleges attended for the 1997 CEOs but also a relative decrease in schools that specialize in engineering. The high number of CEOs in the 1997 group (see Chart 11) who attended Harvard graduate schools reflects its business school (see Chart 12).

Some of our CEOs attended small "commercial colleges" which dotted the landscape, especially in the North. Andrew Carnegie learned double-entry bookkeeping the old-fashioned way, from a tutor in Pittsburgh. John D. Rockefeller (who, like Carnegie, was a "robber baron" not in our sample but who, also like Carnegie, is illustrative for this point) invested $40 in a three-month course at E. G. Folsom's Commercial College where he studied double-entry bookkeeping, among other courses. (The curriculum included at least one lecture on ethics, delivered by a clergyman.) Folsom had a chain of seven such colleges in 1855.[36]

These educational experiences of Carnegie and Rockefeller are mentioned because they show two methods by which ambitious young men could learn accounting, aptly called the "language of business." One was through a type of apprenticeship as in Carnegie's case.

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[36] Ron Chernow, *Titan: The Life of John D. Rockefeller, Sr.* (New York: Random House, 1998) p. 44; Allan Nevins, *Study in Power: John D. Rockefeller, Industrialist and Philanthropist* (New York: Scribner's, 1953) Vol. I, p. 10. Both Rockefeller and Carnegie enjoyed and excelled in mathematics.

Another was, like Rockefeller, to attend a commercial college. George Eastman, who is in our sample, probably learned bookkeeping at his father's knee. His father was the author of business books and for a short time the proprietor of a commercial college in upper New York State.[37]

No member of our 1917 sample attended what today are the big name business schools associated with major universities. The Wharton School of Commerce and Finance at the University of Pennsylvania, the first such institution, was not founded until 1881. It was followed by Tuck at Dartmouth in 1900 and the Harvard Business School in 1908. Such institutions came to serve both an educational and a credentialing function, freeing an individual with entrepreneurial aspirations from reliance on family connections or a powerful mentor for advancement. As these institutions became more meritocratic, the business system as a whole could as well. If we look at the year 1917, these schools came too late. But the seeds were being sown for the idea that general management, not solely abilities in specific functional areas, was a teachable subject in a classroom environment.[38]

It is also worth noting that consulting to companies had its beginnings at about the same time the business schools were being founded. The first consultants were engineers, but the most prominent of these sought to broaden his purview to general management. In 1911, Frederick W. Taylor published *The Principles of Scientific Management,* perhaps the most influential such

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[37] Elizabeth Brayer, *George Eastman: A Biography* (Baltimore: Johns Hopkins, 1996) pp. 15-17.

[38] Companies themselves had begun educational programs prior to the turn of the century. However, such programs were aimed at functional expertise, such as, for example, learning how to sell. The matriculants were not being trained to become top executives. See, for example, Walter A. Friedman, "John H. Patterson and the Sales Strategy of the National Cash Register Company, 1884 to 1922," *Business History Review,* Vol. 72, No. 4 (Winter, 1998) pp. 552-584.

book ever written.[39] Taylor soon thereafter taught at the Harvard Business School. Other management books of the "how to" variety began appearing in the 1910s.

What is striking about Chart 13 is not that eight percent is a low figure for military service for our 1917 CEOs but rather that it is high. Almost all of the sample were too young to have fought in the Civil War, and the Spanish-American War lasted a mere matter of months. Before the outbreak of World War I the United States had a large navy but maintained a tiny army. A 55-year-old American in 1917 had to have gone out of his way to have seen military service. The experience of our 1997 sample indicates how much more warfare there was in the twentieth century compared to the nineteenth (see Chart 14).

Almost all our 1917 CEOs married as Chart 15 shows, and the great majority of them had children. They were family men who, as Chart 16 suggests, were familiar with family business. Indeed, just over a quarter of our CEOs had family connections to the firm which made them part of our sample.

Chart 17 is among the more lopsided of our findings. Our 1917 CEOs were overwhelmingly Republicans. The results here are as emphatic as Map 1 (which shows they were from the Northeast, Middle Atlantic states, and Mid-West) and as Charts 3 and 4 (which show that almost all of them were Protestant). There are a number of reasons for this confluence of traits.

To begin with, for most of the period between the first election of Lincoln in 1860 and the first election of Franklin D. Roosevelt in 1932, the Northern states from the Atlantic Coast

[39] Frederick W. Taylor, *The Principles of Scientific Management* (New York: Harper and Brothers, 1911); Daniel Nelson, *Frederick W. Taylor and the Rise of Scientific Management* (Madison: Madison University of Wisconsin Press, 1980). For a good overview of the global impact of Taylorism, see Thomas P. Hughes, *American Genesis: A Century of Invention and Technological Enthusiasm, 1870-1970* (New York: Viking, 1989).

west to Minnesota and Iowa were Republican. This was almost invariably true on the Presidential level, with New York and Ohio being somewhat less reliably for the GOP than their neighbors. Adherence to the Republican Party was less consistent on the state and local level. New York City, for example, with its flood of immigrants organized into a bloc by the efficient Tammany machine, was a Democratic redoubt. But this was not the party of wealthier New Yorkers. Franklin Roosevelt himself was a Republican in college.

Southerners, on the other hand, were consistently Democrats on the Presidential level from Lincoln through F.D.R. with some exceptions, such as 1928 when the Democrats nominated the Catholic anti-prohibitionist Alfred E. Smith. The Civil War cast a long shadow indeed.

To be from the North and to be of the middle class or higher meant that there was a good chance your politics were going to be Republican. All of these traits were taken almost for granted as requirements for the privilege, power, and responsibility involved in the management of one of the nation's large corporations. If you aspired to such a position but you did not have the requisite traits, you had to think hard about making a change.

You could move to the North. You could switch political affiliation. The one representative in our sample from Texas supported a Republican for election to the House of Representatives, apparently in order to facilitate access to federal capital to develop the port of his home city, Galveston.[40] Our database also includes a veteran of the Army of Northern Virginia who was a Republican in 1917.[41] You could convert to another religion. "Most Americans," according to H. L. Mencken, "when they accumulate money climb the golden spires

[40] The executive is John Sealy, Jr., President of the Magnolia Oil Company.
[41] The executive is H. Rieman Duval, CEO of the American Beet Sugar Company.

of the nearest Episcopal Church."[42] Our statistics indicate that reversing this order—climbing the spires to better the chances of ascending in the business world—might not have been a bad idea at the turn of the century. Of course, an African-American could not change the color of his skin even if he wanted to;[43] nor could a woman become a man. And these groups, as we have mentioned, were left out. They have no representation in our 1917 sample.

The discussion of the data above delineates who was in and who was out when it came to consideration as chief executive officer of the large American corporation. Once it was determined that you were "in," how long did it take and what routes were followed to become CEO?

Chart 18 shows that the average CEO in 1917 had been employed by the company he was running for almost a decade before becoming the boss. The difference of more than two years between mean and median in this Chart is noteworthy. The mean is 10.2 years. But there were as many CEOs who had worked for their firms for less than eight years as there were who had worked for more than that period. The reason for the divergence between mean and median is the high number, over a third, who had either founded the firms of which they were CEO or who had been appointed CEO without having worked for the firm previously.

Chart 19 adds a dimension to our understanding of the climb up the ladder. Fourteen percent of our sample founded the firm of which they were CEO, and another 14% could be considered virtual founders. These were the merger and acquisition specialists who played such

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[42] Mencken is quoted in Peter Collier and David Horowitz, *The Rockefellers: An American Dynasty* (New York: Signet, 1976) pp. 36-37.

[43] Interestingly enough, one of the wealthiest African-Americans of the *ante-bellum* United States, William Alexander Leidesdorff, was light-skinned and "passed" as white during his business career. Juliet E. K. Walker, "Racism, Slavery and Free Enterprise: Black Entrepreneurship in the United States before the Civil War," *Business History Review,* Vol. 60, No. 3, (Autumn, 1986) pp. 343-382.

a pivotal role at the turn of the century. Slightly less than a tenth of the sample were "professionals," such as lawyers.

Indicative of the new era into which the corporation was moving is that 43% of our CEOs were "company men." These executives would by the 1950s be called "organization men" in William H. Whyte's well-known book.[44] Our CEOs of 1917 had worked for their firms for a long time. Climbing the corporate ladder rung by rung was not new at mid-century. Chart 19 shows that an additional fifth of our sample became CEOs because they were successful managers in other firms. By 1917, there was, in other words, a clear premium placed on knowledge of management as a skill distinct from but encompassing the functional specialties of marketing, manufacturing, and finance.

[44] William H. Whyte, *The Organization Man* (New York: Simon and Schuster, 1956).

III: Assumptions and Speculation

We would like to offer five assumptions which drive our research. We would then like to speculate about issues to which we have not yet been able to turn our attention. We believe that both these assumptions and speculations offer opportunities for further research.

Assumptions

I. People matter. While acknowledging that the "resource dependence"[45] view of the firm provides an important perspective and a brake on the "great man" theory of history, we find it impossible to look at business history without concluding that different people facing similar situations make different decisions.

II. Because people matter, we must know as much about them as we can in order to understand the behavior of firms. This knowledge includes their demographics, psychographics (i.e., life style), and even individual psychology. Such factors form the prism through which these people view the world.

III. The most important person in the corporation is the chief executive officer. He or she can make decisions no one else can.

IV. Because the CEO is so important to understanding the firm, one must understand the mechanisms through which an individual becomes CEO. How do you place yourself in the set of people evoked for consideration at the time of succession?

V. The mechanism of CEO selection has changed over time. Since history is the study of change over time, history is important.

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[45] The classic statement of the resource dependent view of the firm is Jeffrey Pfeffer and Gerald R. Salancik, *The External Control of Organizations: A Resource Dependent Perspective* (New York: Harper and Row, 1978). See also Clayton M. Christensen, *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Boston: Harvard Business School Press, 1977) pp. 101-124.

Speculation

I. We would expect that the age of the CEO would decrease as the pace of technology increases. The successful firm must change more quickly than its predecessors to meet new challenges, and the transformations should render experience of less value than it would be in a more stable world. (Preliminary findings do not, however, indicate that the age of the CEO of the major firm is decreasing.)

II. We would expect a democratization, especially in the United States, of people considered for and selected as the CEO. With financial and competitive pressures being such as they are, it is to be expected that Boards of Directors and executive search firms will cast a wider net in finding leaders who can achieve results. This appears to be taking place with regard to some traits such as religion rather quickly, but not nearly as quickly with regard to others such as race and gender.

"Capital," in the words of a former President of Mexico, "has no heart." It has no prejudices either. We would expect meritocracy to increase and Boards of Directors and investors to insist that CEOs be chosen on the basis of their ability to increase shareholder wealth rather than on their nationality, religion, race, or gender. This is all the more true if "globalization" is more than a mere buzzword. We should expect to see free trade in CEOs as well as in commodities.

IV. Biographical Studies: Five Examples

As examples of the kind of biographical sketches that can be written from the data and sources we have assembled, we outline below profiles of five executives. Each of the five executives exemplifies one of the categories proposed in Chart 19 for the backgrounds of our CEOs. These categories are: A. Company man (these are "organization men" who worked their way up the corporate ladder over the course of years); B. MSOC (these "managerial successes at other companies" are men who were chosen as CEO because of their abilities as managers); C. entrepreneur (by which we mean founder); D. professional (these are people such as lawyers or accountants); and E. M&A specialist (someone who put two or more companies together and ran the merged entity). Bedford is our company man; Wilson the MSOC; Eastman the entrepreneur; Gary the professional; and Wood the M&A specialist. A sample essay on Bedford follows the five short sketches.

IV. A. <u>Alfred C. Bedford,</u> Standard Oil of New Jersey

- Leader of the world's largest petroleum company

- Born in Brooklyn, 1864
- Father emigrated from England; father was a partner in Tiffany & Co. and later represented Waltham Watch Co. in Europe
- One brother; married; two sons
- Baptist; trustee of Emmanuel Baptist Church in Brooklyn

- Studied at Adelphi Academy, Brooklyn, and also in London, Germany, and Switzerland
- Did not attend college
- Started employment as junior stock clerk for a dry goods merchant in New York; promoted to stock clerk
- Joined the company of Charles M. Pratt, a family friend, which was being acquired by Standard Oil; under Pratt's tutelage, advanced from office boy to general manager (in 1889) of a subsidiary
- By this time was familiar with sales, accounting, finance, and production
- Protégé of Henry H. Rogers

- Joined Standard Oil Board of Directors in 1907; two cousins were on the board
- Helped plan the breakup of Standard Oil after the 1911 Supreme Court decision
- Promoted to vice president of Standard Oil of New Jersey in 1911
- Became president and chief executive upon predecessor's death in 1916

- One of the organizers of the U.S. Chamber of Commerce; founder of the American Petroleum Institute
- Chairman of the Petroleum Committee of the Council of National Defense during World War I
- Conservative in approach to corporate growth; sought to build industry stability
- Unlike Rockefeller, Rogers, et al., he understood the value of good relations with the press and government

- Died in office in 1925

IV. B. Thomas E. Wilson, Wilson & Co.

- Was chief executive of two "big five" meatpacking companies

- Born in London, Ontario, 1868; moved with family to Chicago
- Father a manager in the oil industry; parents of Scotch-Irish ancestry; married; two children
- Graduated from high school, but family could not afford college for him
- Religion unknown; mason

- Started as a clerk for the Chicago, Burlington & Quincy Railroad
- Soon joined Nelson Morris & Co., a "big five" meatpacking company; became superintendent of repair work
- Headed purchasing department of a plant; also learned production and sales
- Rose to general manager, then vice president of Morris & Co. in 1906, president in 1912
- Had spent 26 years with the company; anticipated that a grandson of the founder would take over

- Resigned in 1916 to become chief executive of Sulzberger & Sons, another family-run big five company, now under new ownership and seeking executive talent; received salary of $250,000 and generous stock options
- Sulzberger & Sons was renamed Wilson & Co.; the company prospered while Morris & Co., under family management, faltered and was acquired by Armour & Co.
- Played important roles in organizing the American Meat Packers Association and the National Livestock and Meat Board
- Sought accommodation with government, the public, and labor, in contrast to industry pioneers and oligopolists Armour, Morris, and Swift
- Promoted research and innovative products

- Retired as chief executive to become chairman in 1934; died in 1958

IV. C. George Eastman, Eastman Kodak

- Founded a company and pioneered the creation of the popular photography industry

- Born in Waterville, NY, 1854
- Father ran a business school in Rochester; youngest of four children; never married
- Father died when he was seven years old; family left in debt
- Episcopalian

- After seven years public schooling, quit to work as an office boy in an insurance firm
- Knew accounting from an early age
- Joined another insurance firm, eventually becoming partner
- Became clerk, then assistant bookkeeper at a bank
- Began experimenting in photography as a hobby; patented photographic inventions
- By 1880 was running his own company producing dry plates for photography; left his bank job the next year
- Devised a simple, inexpensive camera called the Kodak, which used roll film; was personally involved in product design, production, marketing, and advertising
- Company grew into a major industrial corporation under the control of Eastman and Henry Alvah Strong, his partner and financier

- Invested heavily in research; advocated a learning organization characterized by continuous improvement
- A master of mass marketing, created the market for an entirely new product

- Remained involved with the company until late in life; committed suicide in 1932 when health was failing

IV. D. <u>Elbert Henry Gary,</u> United States Steel

- Headed the world's first company with a capitalization exceeding $1 billion; was the first industrial leader with the title of "chief executive officer"

- Born on a farm near Wheaton, IL, 1846
- Father a pioneer farmer and justice of the peace, mother a teacher; third of seven children; married twice, two daughters (His first wife died. He was not divorced.)
- Methodist

- Studied law while working in uncle's law firm
- LL.B., Union College of Law (Northwestern U.)
- Practiced law in Chicago; formed a law firm with his brother
- Founded a bank in Wheaton
- County judge of DuPage County; mayor of Wheaton
- Authority on corporate law; general counsel for railroads and industrial corporations

- Incorporated Consolidated Steel & Wire Co., American Steel & Wire Co.
- Helped organize Federal Steel in 1898 (merger of Illinois Steel, Minnesota Iron Co., and others); appointed first president by J. P. Morgan; moved to New York
- Helped organize U.S. Steel in 1901; chairman of executive committee
- Became chairman of board of directors in 1903, replacing Charles Schwab as effective head of the company

- Emphasized public relations: published the company's reports; became friends with President Roosevelt; played an important role in avoiding dissolution of the company in federal anti-trust suit (unlike American Tobacco and Standard Oil)
- Views on competition differed from Schwab and others: maintained price stability; did not undercut competitors; coordinated prices in the industry through the "Gary Dinners" and the Pittsburgh Plus system
- Followed dominant-firm strategy: earned profits, but sacrificed market share
- Bought up ore reserves to discourage new entrants into the industry
- Not knowledgeable about production; not an innovator; did not invest aggressively in new plant capacity after construction of Gary, Indiana, steel works

- Died in office in 1927

IV. E. <u>William Madison Wood,</u> American Woolen Co.

- Founded the world's largest textile company

- Born in Edgartown, MA, 1858; raised in New Bedford
- Father a sailor; parents were poor immigrants from the Azores; second of 10 children; married, four children
- Episcopalian

- Left school at age 12 when father died; went to work as cash boy in dry goods store; studied at night at home
- Office boy in counting room of a New Bedford textile mill for three years; transferred to manufacturing
- Learned accounting and financial principles in a banking house
- Paymaster and manager's assistant for six years at mills in Fall River
- Assistant to manager of Washington Mills at Lawrence
- Married at age 30 to a daughter of Frederick Ayer, the mill's wealthy owner
- As treasurer since 1895, developed a system of cost accounting that made an important contribution to the survival of the mills

- With Charles R. Flint, consolidated eight companies, including Washington Mills, into the new American Woolen Co., in 1899
- Headed the company as treasurer, became president in 1905

- Established a successful combination in an unlikely industry, without any monopoly of patents or raw materials, with only 20% of market share
- Succeeded with companies in which previous managers had failed; standardization and low costs were key
- Acquired other plants and invested in new plants and latest machinery

- Resigned in 1924, having lost control of the company and in poor health; committed suicide in 1926

V. Sample Essay: Alfred C. Bedford

Alfred Cotton Bedford, the chairman and chief executive of Standard Oil of New Jersey from 1916 to 1925, is an even more obscure figure today than is his contemporary, Judge Elbert H. Gary, CEO of U.S. Steel. Unlike Gary, he does not have an industrial city named after him. Neither has he been the subject of a major biography.[46] In his era, however, Bedford was widely regarded as a business statesman and was the leader of the largest petroleum company in the world. He set the broad policy direction for much of a period in Jersey Standard's history that was later characterized as the "resurgent years."[47] He was one of the organizers of the U.S. Chamber of Commerce and served as its vice president and chairman of its Executive Committee. He also founded the American Petroleum Institute, which was patterned after the American Iron and Steel Institute. Finally, he was chairman of the Petroleum Committee of the Council of National Defense. A trade journal editorial claimed that his role in World War I as head of the United States Petroleum War Board "evoked the famous declaration from…Lord Curzon that the allies floated to victory on a sea of oil."[48]

Both Gary and Bedford operated under constraints unimaginable to Andrew Carnegie and John D. Rockefeller in the 1880s and 1890s. The regulatory reach of government in the "progressive era" in which Bedford took office was much more expansive than in the "gilded

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[46] There have been full-scale biographies of John D. Archbold, Bedford's immediate predecessor, and Walter Teagle, his successor. See Austin L. Moore, *John D. Archbold and the Early Development of Standard Oil* (New York: Macmillan, 193-); Bennett H. Wall and George S. Gibb, *Teagle of Jersey Standard* (New Orleans: Tulane University Press, 1974).

[47] George S. Gibb and Evelyn H. Knowlton, *History of Standard Oil Company (New Jersey): The Resurgent Years, 1911-1927* (New York: Harper & Bros., 1956).

[48] *The Oil and Gas Journal*, "Death of A. C. Bedford Unexpected," September 24, 1925, p. 22. Curzon's remark was made at a "victory" dinner for the Inter-Allied Petroleum Conference at Lancaster House in November 1918. See also Ernest Davenport and Sidney Cooke, *The Oil Trusts and Anglo-American Relations* (New York: Macmillan, 1923), p. 29, in which Curzon is quoted as saying, "…on a wave of oil."

age." The public had little tolerance for unchecked business power. By the early 1900s, the Standard Oil Company was perhaps the most popular target of reformers. The secrecy of the company's decision making at its 26 Broadway headquarters fed suspicion. Bedford was rather conservative in his policies toward corporate growth, and he shared Gary's sensitivity to public perceptions. Each sought to build industry stability and devoted "full attention to matters lying outside the confines of his own company."[49] Bedford, in contrast to Rockefeller, understood the value of good public relations.[50] This was an outlook in part born out of his role in the unsuccessful defense of the Standard Oil Trust in the antitrust suit brought against it by the U. S. Department of Justice between 1906 and 1911.

Bedford is typically overlooked and treated as a transitional figure in histories of the company. He is completely overshadowed by Rockefeller and other entrepreneurial founders who organized and built Standard Oil into the world's largest oil company.[51] His accession to the office of chief executive, however, marked the advent of a new generation of oil executives that had not played a significant leadership role in organizing and building the Standard Oil Company. Following the breakup of the holding company ordered by the Supreme Court in 1911, John D. Rockefeller and his brother, William, officially retired.[52] By the end of 1917, the other nine "family" members of the 1882 Standard Oil Trust Agreement, John D. Archbold,

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[49] Gibb and Knowlton, *Standard Oil,* pp. 253, 258.

[50] The lack of sensitivity of the robber barons to public approval and duty is discussed in Richard S. Tedlow, *Keeping the Corporate Image: Public Relations and Business, 1900-1950* (Greenwich, CT: JAI Press, 1979), pp. 4-5.

[51] See Ida Tarbell, *The History of the Standard Oil Company* (New York: Macmillan, 1904); Allan Nevins, *Study in Power: John D. Rockefeller: Industrialist and Philanthropist* (New York: Scribner, 1953); Ron Chernow, *Titan: The Life of John D. Rockefeller, Sr.* (New York: Random House, 1998).

[52] Although president until 1911, John D. Rockefeller was no longer actively managing the company after 1899. John Archbold was the *de facto* chief executive.

Benjamin Brewster, Henry Flagler, Oliver H. Payne, Charles M. Pratt, Henry H. Rogers, and William G. Warden had died.

The task of running the company fell to Bedford just before the United States entered World War I. By the time his tenure was ended by his death in 1925, the U.S. Government was actively supporting an "open door" policy of equal access to Middle East oil resources by a consortium of American interests led by Standard Oil of New Jersey. This support would never have been forthcoming during the presidencies of Theodore Roosevelt and William Howard Taft. By this time, however, the Progressive movement had run its course. The political climate had dramatically changed by the end of Woodrow Wilson's second administration.[53] European diplomats and oil industry figures marveled at the reverse course in American policy toward big oil interests, only seven years after the breakup of Standard Oil. "Washington Officials," they noted in amazement, "began to think, talk and write like Standard Oil officials."[54]

Under Bedford's leadership during the war, close collaboration between the oil industry and the federal government was critical in bringing about this change. Wartime cooperation moderated the climate of suspicion surrounding big oil and made possible a course of mutual accommodation between government and company interests overseas after the war. Helping to cement those ties was a mutual recognition of the strategic need for cooperation following

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[53] The list of studies of the rise and fall of progressivism is very long. The most stimulating starting point, despite its age, is Richard Hofstadter, *The Age of Reform: From Bryan to F.D.R.* (New York: Random House, 1955), chapter vii. A book which exercised a notable impact on much succeeding work is Robert H. Wiebe, *Businessmen and Reform: A Study of the Progressive Movement* (Chicago: Quadrangle, 1962).

[54] Daniel Yergin, *The Prize*, pp. 195-196. See also Davenport and Cooke, *Oil Trusts*. These authors note: "The government took up diplomatic arms against Great Britain–necessarily in defense of Standard Oil. There was a remarkable coincidence in the national and commercial interests."

European attempts to carve out spheres of influence in the Middle East and elsewhere as well as fears that domestic oil resources would soon be inadequate to supply the nation's needs.[55]

Bedford was the prototypical company man of his era. He spent almost his entire career working at the same firm. His career path provided him with knowledge of all the major functions of an oil company. Like many Standard Oil executives, he was also a "family man."[56] His cousin, Edward Thomas Bedford (1849-1931), began his career as a salesman for Charles Pratt & Co. and later promoted Robert Chesebrough's vaseline petroleum jelly.[57] (Chesebrough's firm was part of the Standard Oil Trust). Edward later ran the Thompson & Bedford Co., an eastern marketing arm for Standard Oil's lubricants. He also established several companies that marketed Standard Oil products overseas, including Bedford Petroleum Co., Bedford *et Compagnie,* and the Colonial Oil Co. He was elected to the Standard Oil Board in 1903 and later organized and was president of Corn Products Refining Co. Edward's brother, Frederick H. Bedford, was also a member of the Standard Oil Board.

Personal and Family Life

Unlike many other oil industry chief executives of his era, A. C. Bedford was not born or raised near Titusville, Pennsylvania, the birthplace of the petroleum industry.[58] These men

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[55] See Gibb and Knowlton, *Standard Oil*, pp. 284-317; A. A. Fursenko, *The Battle for Oil: The Economics and Politics of International Corporate Conflict Over Petroleum, 1860-1930* (Greenwich, CT: JAI Press, 1990), pp. 177-215.
[56] For example, Walter Teagle, Bedford's successor as chief executive, was the grandson of Rockefeller's first partner, Maurice Clark. He was also the son of John Teagle, a Rockefeller competitor who later sold out to Standard Oil in 1901.
[57] See *National Cyclopaedia of American Biography*, "Edward Thomas Bedford," vol. 22, p. 67; Ralph Hidy and Muriel Hidy, *Pioneering Big Business, 1882-1911* (New York: Harper, 1955), pp., 317-19, 324, 490.
[58] There were seven oil chief executives in 1917 born or raised in the Titusville, Pennsylvania, region in this study: John Wesley Van Dyke, President of Atlantic Refining Co.; William Larimer Mellon, President of Gulf Oil Corp.;

typically grew up alongside the fledgling oil industry. They were children of oil industry managers, and in many cases their initial work experience was in the Pennsylvania oil fields before they subsequently founded their own companies elsewhere. Bedford, by contrast, was born in Brooklyn, New York, on November 5, 1864.[59] This "accident" of birth did not prove disadvantageous to his prospects for joining the oil industry, however, since the Standard Oil headquarters were moved from Cleveland to New York in 1885. By 1900, Titusville was no longer the Mecca of the oil world.

Like many other chief executives in 1917, Bedford was raised under fairly prosperous circumstances. He was the son of Alfred Bedford, a native of England who immigrated to the United States in 1844.[60] His father was a partner in Tiffany & Co. and later was the European representative of the Waltham Watch Co. in London, where he died in 1912. Bedford had one sibling, a brother named Henry.

Bedford's educational background was about average when compared to his executive peers and therefore far more extensive than that of the typical American. He attended the Adelphi Academy of Brooklyn and was also privately educated in London, Germany, and Switzerland.[61] While a college education was easily within the economic means of his family, he chose not to pursue it.

William Sponsler Rheem, President of Standard Oil Co. of California; John Howard Pew, President of Sun Co.; Elgood Chauncey Lufkin, President of Texas Co.; Robert Dix Benson, President of Tidewater Oil Co.; and William Lyman Stewart, President of Union Oil Co. of California. John D. Rockefeller himself was born in upper New York State and raised in Cleveland, which was not far from Pennsylvania's oil region.

[59] One source, *National Cyclopaedia of American Biography*, "Alfred Cotton Bedford," vol. 23, p. 13, mistakenly claims he was born on November 5, 1862. Bedford was one of 17 industrial chief executives in this study born in what is now New York City (seven in Brooklyn alone). His age of 53 in 1917 was also fairly typical for a chief executive of a major industrial corporation (mean of 54.7 years).

[60] *National Cyclopaedia of American Biography*, "Alfred Cotton Bedford," vol. 23, p. 13.

[61] *Oil Paint and Drug Reporter*, "Obituaries," September 28, 1925, vol. 108, no. 13, p. 20.

Bedford married Edith Kinsman Clarke on January 8, 1890, and the marriage proved lifelong. The couple had two sons.[62] Like his two predecessors as chief executive of Standard Oil, as well as his mentor, Charles M. Pratt, Bedford was an active Baptist. It is unknown whether he was raised Baptist, or was an adult convert after he joined Standard Oil.[63] He became a trustee of the Emmanuel Baptist Church in Brooklyn.

Career Path

After completing his European education in 1881, Bedford returned to New York. His first employer was E. S. Jaffray & Co., a dry goods merchant.[64] He started out as a junior stock clerk and was soon promoted to stock clerk. In this capacity, he learned about inventory management. He also gained some sales experience.

During his nine months at the company, Bedford learned a noteworthy lesson about the importance of building long-term trust in a business relationship. He saw the approval accorded a salesperson who successfully pawned off obsolete merchandise on a customer. Bedford observed, however, that the customer never came back. He concluded that seeking short-term

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[62] *Who Was Who*, vol. 1, p. 77.

[63] It is unlikely that he was raised a Baptist, given the English birthplace of his father. His cousin, Edward, was a member of the Congregational church. John Archbold was strictly raised as a Methodist. His father was a Methodist minister. He was a pew holder and trustee at the St. Paul's Methodist Episcopal Church in New York in the 1880s (see Moore, *Archbold*, pp. 298-99). Later, he apparently converted to the Baptist faith although he maintained close contacts with Methodism. Only two other chief executives of the 200 largest industrials ranked by assets were Baptists in 1917.

[64] *The Oil and Gas Journal*, "Death of A. C. Bedford Unexpected," September 24, 1925, pp. 21, 144. Several other sources give conflicting ages for Bedford's first job as either 18 or 19. The source used here is most internally consistent with other details of his career.

gain at the expense of a customer was myopic. The way to build a business was to treat each transaction as though it were part of an iterated relationship:[65]

> This incident burned certain truths into my mind. It taught me that it is fatal to palm off on a customer something he doesn't want, that you have to be as zealous about the welfare of your customer as about your own, that you must inspire and deserve his confidence by advising him frankly and faithfully what you believe will best suit his purposes and enable him to make a satisfactory profit. Once you establish such relations with a customer, you rivet him to you "with hooks of steel." Your business, run on these lines, will grow.

Later, as vice president of Jersey Standard, Bedford directed Walter Teagle, who headed the company's Canadian affiliate, Imperial Oil, not to enter into oil contracts with small Canadian producers that would disadvantage them. Bedford instead insisted on the principle of mutuality of benefit.[66]

Bedford soon found the opportunities for advancement limited at E. S. Jaffray and began to search for work elsewhere. He wrote to his father seeking advice on whether to join a flour company. His father suggested that he contact Charles M. Pratt, a family friend.[67] Pratt advised Bedford not to join the flour firm. Soon after this inquiry, Pratt offered Bedford a position at Charles Pratt and Company, which was in the process of being acquired by Standard Oil. Bedford was assigned to the Bergen Point Chemical Works, a Pratt subsidiary, as an office boy in April 1882.[68] There he learned bookkeeping and accounting principles. Pratt served as Bedford's mentor, gradually increasing his responsibilities. Pratt also involved him with his

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[65] Bertie C. Forbes, *Men Who Are Making America* (New York: B. C. Forbes Publishing Co., 1917), p. 23
[66] Henrietta Larson and Kenneth Porter, *History of Humble Oil & Refining Company* (New York: Harper, 1959), p. 43.
[67] Forbes, *Making America*, p. 23.
[68] *Oil Paint and Drug Reporter*, "Obituaries," September 28, 1925, p. 20; *Who Was Who*, Vol. 1, p. 77.

philanthropic activities. Later, when Pratt's son ran Bergen Point, Bedford was his assistant. Bedford became general manager of the subsidiary in 1889.

In addition to his involvement in the manufacturing operations of Standard Oil, Bedford acquired additional skills and general management training while helping to run the widespread interests of the Pratt family and of Henry H. Rogers.[69] As a result, he became familiar with several business functions, including accounting, finance, and production. During this time, he distinguished himself as a highly capable administrator. He also became a "protégé of the Pratt family and Henry H. Rogers."[70] His experience working for highly regulated utility companies served as a useful training ground for later working with the federal government.

In 1907, Bedford was asked by H. H. Rogers to join the Standard Oil Board of Directors. Surprised by the offer, Bedford replied that he was not an "oil man," someone with a detailed knowledge of the operational side of the business. The other board members were much older, company owners, and pioneers in the oil industry. Rogers responded, "You have had a broad, practical, general business experience and that is what we want."[71]

There are several reasons why Bedford became a company insider. First, he was a professional administrator trained in various functions. Second, he was a Standard "family man" and had proven himself trustworthy to both Pratt and Rogers. Third, he had administrative and public speaking talents that were needed in the battle for the hearts and minds of the American public as Standard Oil defended itself against federal antitrust charges. Finally, the older

[69] *Oil and Gas Journal*, "Death of A. C. Bedford Unexpected," p. 24. Bedford was treasurer and director of the Long Island Railroad; secretary and director of the Ohio River Railroad; and president of the Portland General Electric Co., Self Winding Clock Co., and the Pratt & Lambert Varnish Co. He was also a director of several public utilities and a coal company.
[70] Hidy and Hidy, *Pioneering Big Business*, p. 319.
[71] Forbes, *Making America*, p. 25.

generation of Standard Oil executives were ill prepared, in terms of their own business experience and mindset, to handle a rapidly changing business environment in which the company was the subject of state and federal lawsuits and increased muckraking scrutiny in the newspapers and magazines. By 1906, the company was besieged by what Henry M. Flagler called "a spasm of virtuous frenzy."[72] Following two decades of bad press and government investigations, the company directors were gradually learning the value of good public relations. The days of doing whatever was necessary to drive all competitors out of business and maintain a monopoly were over.

In their exhaustive study of Standard Oil from 1882 to 1911, Ralph and Muriel Hidy gave these reasons for Bedford's promotion to chief executive officer:

> Above all others in that group, he perceived that conditions of business had changed and that measures should be adopted to win public confidence. Perhaps it was his awareness of public interest, as well as his early experience in public utilities, which determined his selection….[73]

Although Bedford was the protégé of H. H. Rogers, the two were opposites in managerial styles and temperament. Rogers, like the other Standard directors, could not fathom the public mood. He was a cutthroat competitor who was adventurous and speculative. "In an era of freebooting," in the words of one author, "Rogers distinguished himself for daring, rapacity, intrigue, and a total lack of business scruples."[74] Historian Allan Nevins described him as having a "lunar dualism—dark on one side, bright on the other."[75]

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[72] Correspondence from H. M. Flagler to John Archbold, March 5, 1906, Archbold papers. Quoted in Moore, *Archbold*, p. 263.
[73] Hidy and Hidy, *Pioneering Big Business*, p. 319.
[74] Justin Kaplan, *Mr Clemens and Mark Twain* (New York: Simon and Schuster, 1966), p. 379.
[75] Nevins, *Study in Power*, vol. II, p. 283.

> At one moment he was genial and talkative; the next, frigid, sarcastic, or jeering. He passed in an instant from democratic cordiality to freezing hauteur; from beguiling kindness to cutting harshness or blazing anger; and each mood was natural. Wall Street called him "Hell Hound Rogers," yet Mark Twain could write that he was a saint on earth. He paid for Helen Keller's education, was a patron of the arts, and loved to be the brilliant center of an intellectual circle.[76]

Next to Rockefeller, Rogers had the worst public image of all the Standard Oil executives. This in part reflected his contempt for government investigations, as illustrated in the following exchange:[77]

> Q. You are a member of the firm of Charles Pratt & Co., are you not? A. Yes, sir.
>
> Q. That firm is one of the Standard Oil Company's affiliated firms, is it not? A. I don't know that I understand your question.
>
> Q. You ship under the Standard Oil Company's rates, don't you? A. I don't really know whether we do or not.
>
> Q. Are you a member of the Standard Oil Company? A. If I was, I think that is a personal question.
>
> Q. What? A. I don't know but that is a private matter of mine.

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[76] Nevins, *Study in Power*, vol. 1, p. 271. Twain wrote to Rogers on March 4, 1894, "You have saved me and my family from ruin and humiliation. You have been to me the best friend a man ever had…." See Lewis Leary, *Mark Twain's Correspondence with Henry Huttleston Rogers* (Berkeley: University of California Press, 1969).

[77] Testimony of H. H. Rogers in *Report of the Special Committee on Railroads Appointed Under a Resolution of the Assembly Feb. 28, 1879, to Investigate Alleged Abuses in the Management of Railroads Chartered by the State of New York* (Albany, NY: 1880), III, p. 2604.

Standard Oil epitomized the "soulless" corporation.[78] While both Standard Oil and U. S. Steel held dominant market shares in their respective industries, the two companies differed markedly in their management of public and governmental relations.[79] Theodore Roosevelt and the general public viewed Standard Oil as a "bad trust."[80] Standard Oil made no secret of its unconcern with "fair competition." Competitors returned Standard's hostility in full measure.[81] As a member of the Standard Oil Board, Bedford became highly familiar with the workings of the company. He was frequently assigned to travel abroad as a representative of the company. He was also asked to reorganize and develop its natural gas holdings.[82] Bedford gained even greater understanding of how the entire company was run because he played a leading role in preparing evidence for the appeal of its antitrust conviction to the Supreme Court. Concerning this work, Bedford observed, "It was an invaluable experience for me to rub shoulders with these men daily at such an eventful time. I drank in the business and financial wisdom they had accumulated during several decades of activity…."[83]

Following the 1911 Supreme Court decision, Bedford, who had been elected Standard's treasurer in 1910, played a prominent role in carefully planning the breakup of the complex and highly integrated operations of the holding company. Instead of a dramatic decline in the shares

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78 See Roland Marchand, *Creating the Corporate Soul: The Rise of Public Relations and Corporate Imagery in American Big Business* (Berkeley: University of California Press, 1998). See also Richard S. Tedlow, "Remembering Roland Marchand," *Business History Review,* vol. 72, no. 1 (spring 1998), pp. 114–122.
79 Microsoft trial judge, Thomas Penfield Jackson, compared the company to Rockefeller's Standard Oil monopoly. See *New York Times*, February 23, 2000. It doubtless never crossed his mind to compare Microsoft to U. S. Steel.
80 For Theodore Roosevelt and the issue of "good" and "bad" trusts, see Theodore Roosevelt, *Theodore Roosevelt: An Autobiography* (New York: Da Capo, 1985 ed.), pp. 575–589; William H. Harbaugh, *The Life and Times of Theodore Roosevelt* (London: Oxford University Press, 1975), pp. 380–384; Lewis J. Gould, *The Presidency of Theodore Roosevelt* (Lawrence, Kansas: University Press of Kansas, 1991), pp. 212–218.
81 Tarbell, *Standard Oil.*
82 *National Cyclopaedia*, vol. 23, p. 13l.
83 Forbes, *Making America*, p. 25.

in the successor companies, the share prices actually doubled or even tripled. During the 1912 presidential election, Roosevelt sharply attacked Standard Oil: “The price of the stock has gone up over one hundred percent, so that Mr. Rockefeller and his associates have actually seen their fortunes doubled…. No wonder that Wall Street’s prayer now is: ‘Oh Merciful Providence, give us another dissolution.’”[84]

The breakup of the company created new opportunities for career advancement for men like Bedford. In 1911, a major problem facing the Standard Oil executives was “the allocation of human talent” across thirty-four new companies.[85] In 1911, Bedford was promoted to vice president of Standard Oil of New Jersey.[86] Jersey Standard was the largest of the new Standard companies. However, the antitrust defeat cost it much of its domestic production, marketing, and transportation facilities, and it became primarily a refining company with extensive marketing operations abroad.

Career as CEO

Following Archbold’s death, Bedford became president and chief executive on December 26, 1916. He immediately changed Standard's approach to public relations, announcing that, “I mean to keep my door wide open to every person having a legitimate call upon my attention.”[87] In newspaper interviews, Bedford called for an end to the era of “business recrimination” by the

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[84] Nevins, *Study in Power,* vol. 2, p. 383.
[85] Wall and Gibb, *Teagle,* p. 81.
[86] *The Lamp; 75th Anniversary of Jersey Standard* (New York: Standard Oil Company of New Jersey, 1957), p. 22.
[87] Forbes, *Making America*, p. 20.

public, government, and press. B. C. Forbes called Bedford "an apostle of the doctrine of publicity."[88]

Bedford's "open door" style stood in sharp contrast to Archbold, someone "whose methods of leadership were patterned on those of his mentor, J. D. Rockefeller."[89] Under Archbold, the company's relationship with the press and government were defensive. He blamed what he viewed as unjust accusations in "yellow journals," like *Hearst's Magazine*, and "political demagogues" for the public's hostility toward his company.[90] In contrast Bedford openly courted the press and understood the importance of "managed news." In 1917, he hired the publicist Ivy Lee as a consultant for the company and as his speechwriter. Lee was someone who "possessed a keen appreciation of the need of the press for real news, and he indulged in no recriminations or debates."[91]

On March 22, 1917, four months after Bedford became president, Woodrow Wilson sent Bernard Baruch, then a member of the Advisory Commission of the Council of National Defense, to Standard Oil headquarters.[92] Baruch sought industry support for securing an adequate oil supply for the United States and its soon-to-be allies.[93] One day after Baruch asked him to organize an advisory committee on oil and become its head, Bedford accepted. He

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[88] Forbes, *Making America*, p. 20.
[89] Hidy and Hidy, *Big Business*, p. 326.
[90] Gibb and Knowlton, *Standard Oil,* p. 252.
[91] Gibb and Knowlton, *Standard Oil,* p. 254. Lee was a former journalist at the New York *Journal*, *World*, and *Times*, who served as a publicist for the Pennsylvania Railroad. He joined the personal staff of the Rockefellers in 1915 following the Ludlow Massacre in Colorado. See Ray Eldon Hiebert, *Courtier to the Crowd: The Story of Ivy Lee and the Development of Public Relations* (Ames, IA: Iowa State University Press, 1966).
[92] Gibb and Knowlton, *Standard Oil,* p. 238. See also Robert Cuff, *The War Industries Board: Business-Government Relations During World War* (Baltimore, Johns Hopkins University Press, 1973) and Jordan Schwarz, *The Speculator: Bernard Baruch in Washington, 1917-1965* (Chapel Hill, NC: University of North Carolina Press, 1981).
[93] *Oil and Gas Journal*, "Death of A. C. Bedford Unexpected," p. 144.

informally organized a committee even before Wilson asked Congress to declare war on April 2, 1917.[94]

Bedford shrewdly recognized that his company's active support for the war effort would improve its public image.[95] Even more critical, he recognized that government support would be necessary after the war as the company competed against Royal Dutch Shell and other rivals for control over the petroleum reserves in the Middle East, Latin America, and the Far East.[96] The efforts of U.S. oil producers under Bedford's leadership were vital in the allied war effort. By June 1917, after Germany had launched unrestricted submarine warfare, Britain, France, and Italy had largely exhausted their petroleum supplies. The task of coordinating and supplying the Allied demand for oil largely fell upon Bedford's committee.

His chairmanship of the National Petroleum War Service Committee demanded so much of Bedford's time that he was unable to give Standard Oil's business the attention it required. He made an organizational change in November 1917 to secure the help he needed. He became chairman and chief executive officer and appointed Walter Teagle as president. This move, patterned after the organizational structure at U.S. Steel, was designed to allow Bedford more time to devote to the war effort and to concentrate primarily on broad policy issues affecting the company. Like James Farrell at U.S. Steel, Teagle was primarily responsible for company operations as president:[97]

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[94] The War Industries Board was created the following month. In July 1917, the Advisory Commission and its organization of industrial committees were converted into the War Industries Board.
[95] Wall and Gibb, *Teagle,* p. 120.
[96] See Glyn Roberts, *The Most Powerful Man in the World: The Life of Sir Henri Deterding* (New York, Covici-Friede, 1938).
[97] "Teagle Was Organizing Genius as a Boy," *National Petroleum News,* December 12, 1917. See also "Why Standard Oil Co. of New Jersey Organized and Made New Executive," *Oil Paint and Drug Reporter,* November 26, 1917, p. 54E.

> With the accession of Mr. Teagle to the presidency of the Standard, Mr. A. C. Bedford becomes chairman of the board and chief executive officer. The change will give Mr. Bedford more time and greater opportunity to devote himself to the development of the big policies of management, while Mr. Teagle will give himself to the details of operation.
>
> This new departure, which required a change in the by-laws of the company, was taken at the suggestion of Mr. Bedford, and is a development of corporation management which he has been planning for some months. It was occasioned by the tremendous growth of corporate detail and by the increasing complexity of American business life.

Bedford and Teagle worked well together even though they sometimes differed in their views.[98] Bedford was more restrained in his approach toward foreign expansion and more cautious regarding competition. He was inclined to listen to Jersey Standard's Legal Department. Teagle was an "oil man," a strategist with a keen understanding of the details of the operations side of the oil business. He was sometimes frustrated by the cautious approach taken by Jersey Standard toward expansion and growth. He also viewed competition somewhat differently. While Bedford may have been overly conservative about growth, Teagle may have underestimated the domestic constraints under which his company had to operate. Other "oil men" within the company and industry did not fully appreciate the importance of the new public posture that the times required businessmen to adopt and mistakenly regarded Bedford as a mere figurehead.[99]

Under the changed circumstances of the postwar period, Jersey Standard reaped the benefits of Bedford's accomodationist approach. As former Standard affiliates, independents, and Royal Dutch Shell began invading its domestic and foreign markets, the company reintegrated upstream and acquired a large source of crude oil when it bought a 50% stake in

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[98] Wall and Gibb, *Teagle,* p. 120.
[99] Gibb and Knowlton*, Standard Oil,* p. 254.

Humble Oil & Refining Co. in 1919.[100] Humble eventually grew to become the largest producer of crude oil in the United States.[101] In another instance, Jersey Standard's ambitions were allied with the policy of the U. S. Government against the San Remo agreement of April 1920, which, among other things, divided the oil resources of Mesopotamia (Iraq) between British and French interests.[102] The agreement stood in the way of Jersey Standard's own plans to develop the area. Jersey Standard sought and received strong diplomatic support from the State Department. Eventually, the Red Line Agreement of 1928 was signed, dividing the oil resources of most of the Middle East among British, French, and U.S. interests in the form of the Turkish Petroleum Company. The American share of this company (23.75%) was vested in the Near East Development Corporation, which was organized by five American oil companies with the encouragement of the U. S. Government.

Bedford served as chairman until his death on September 21, 1925, at the age of 60. At his funeral, Lewis Pearson of the Irving Bank Columbia Trust Co. eulogized him as follows:[103]

> From an inconspicuous start, he rose to the command of one of the greatest business organizations in the world. And in acquiring the mastery of his own business, he came to a real and vital understanding of the mechanism by which the modern world carries on its affairs. No one man did more to persuade industry of the need for public understanding…. [H]e led by personal example, and the prestige of his own great industry was a powerful factor in convincing others of the wisdom of an altered attitude toward the public. He realized [that] business, as a whole must adopt a policy of taking the public into its confidence.… He impressed upon those about him the conviction that industry could attain its greatest efficiency and its greatest possibility only when it secured intelligent public support for its proper development.

[100] Larson and Porter, *Humble Oil,* pp. 70-77.
[101] *The Lamp: 75th Anniversary of Jersey Standard*, p. 24.
[102] Gibb and Knowlton*, Standard Oil,* pp. 284-308; Yergin, *Prize,* pp. 196-206.
[103] "High Tributes Paid Late A. C. Bedford," *New York Times,* November 9, 1925, p. 19.

VI. Charts and Maps

Chart 1

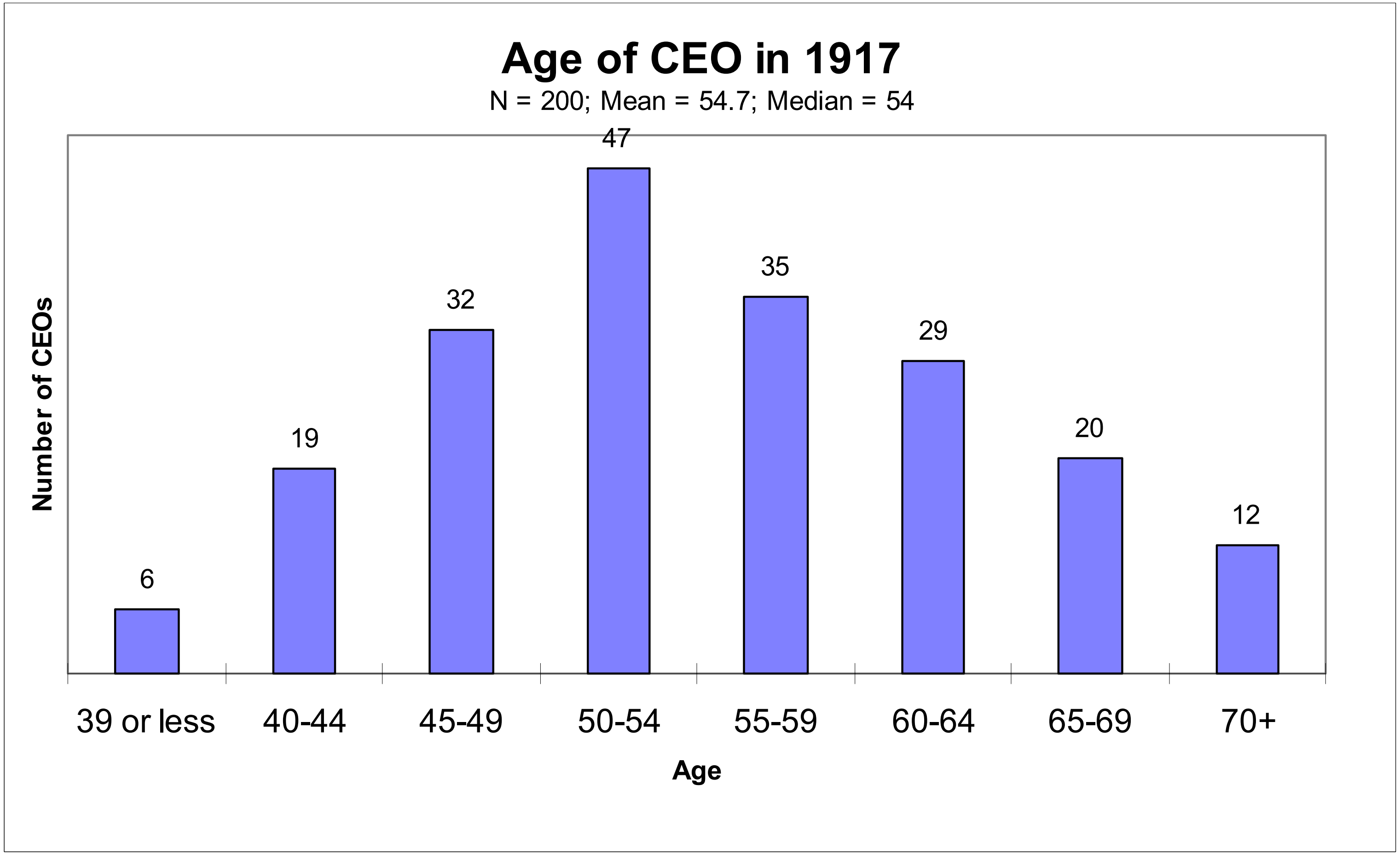
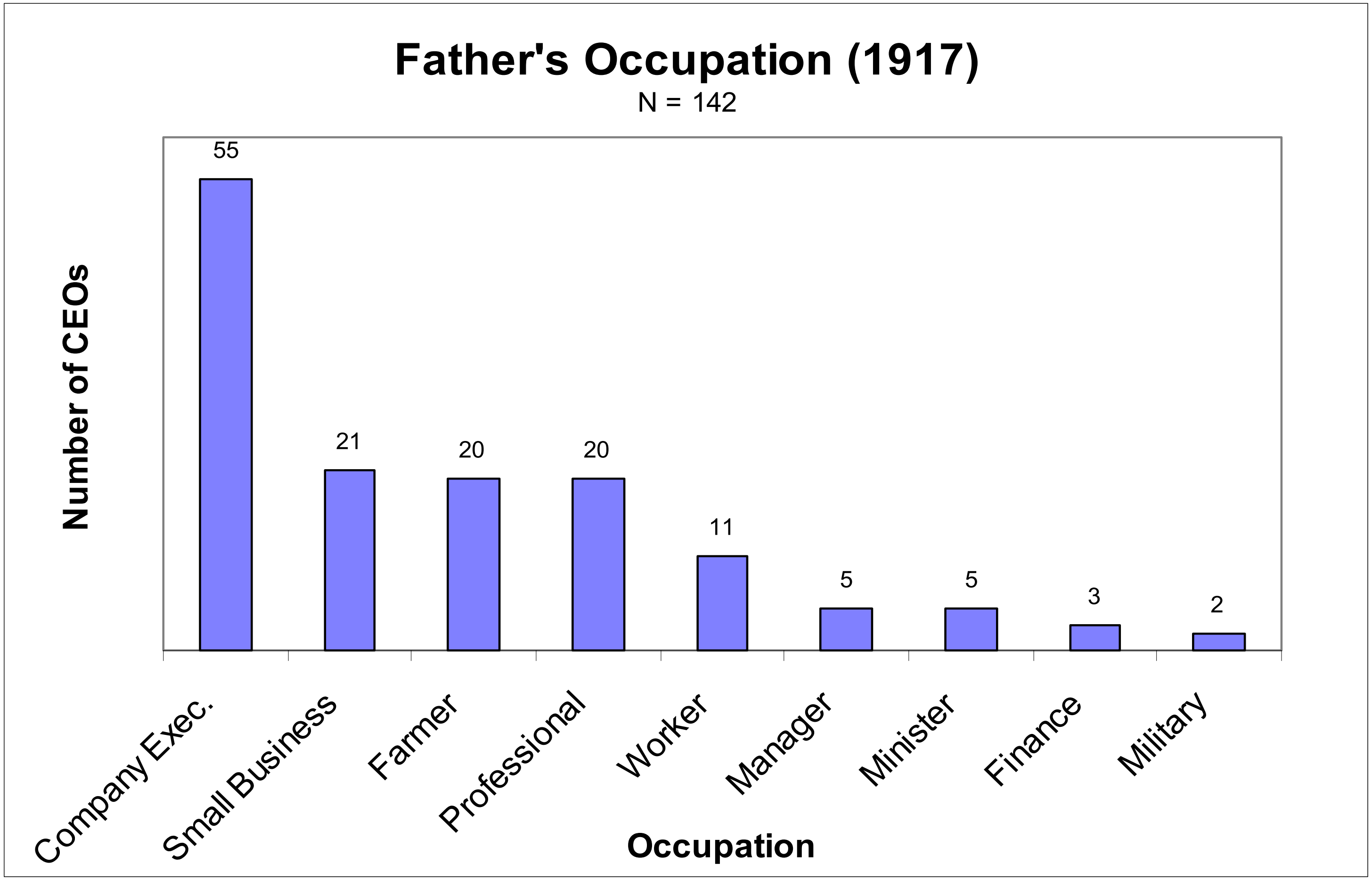

Age of CEO in 1917
N = 200; Mean = 54.7; Median = 54
Number of CEOs
6
19
32
47
35
29
20
12
39 or less
40-44
45-49
50-54
55-59
60-64
65-69
70+
Age

Chart 2



Father's Occupation (1917)
N = 142
Number of CEOs
55
21
20
20
11
5
5
3
2
Company Exec.
Small Business
Farmer
Professional
Worker
Manager
Minister
Finance
Military
Occupation

Chart 3

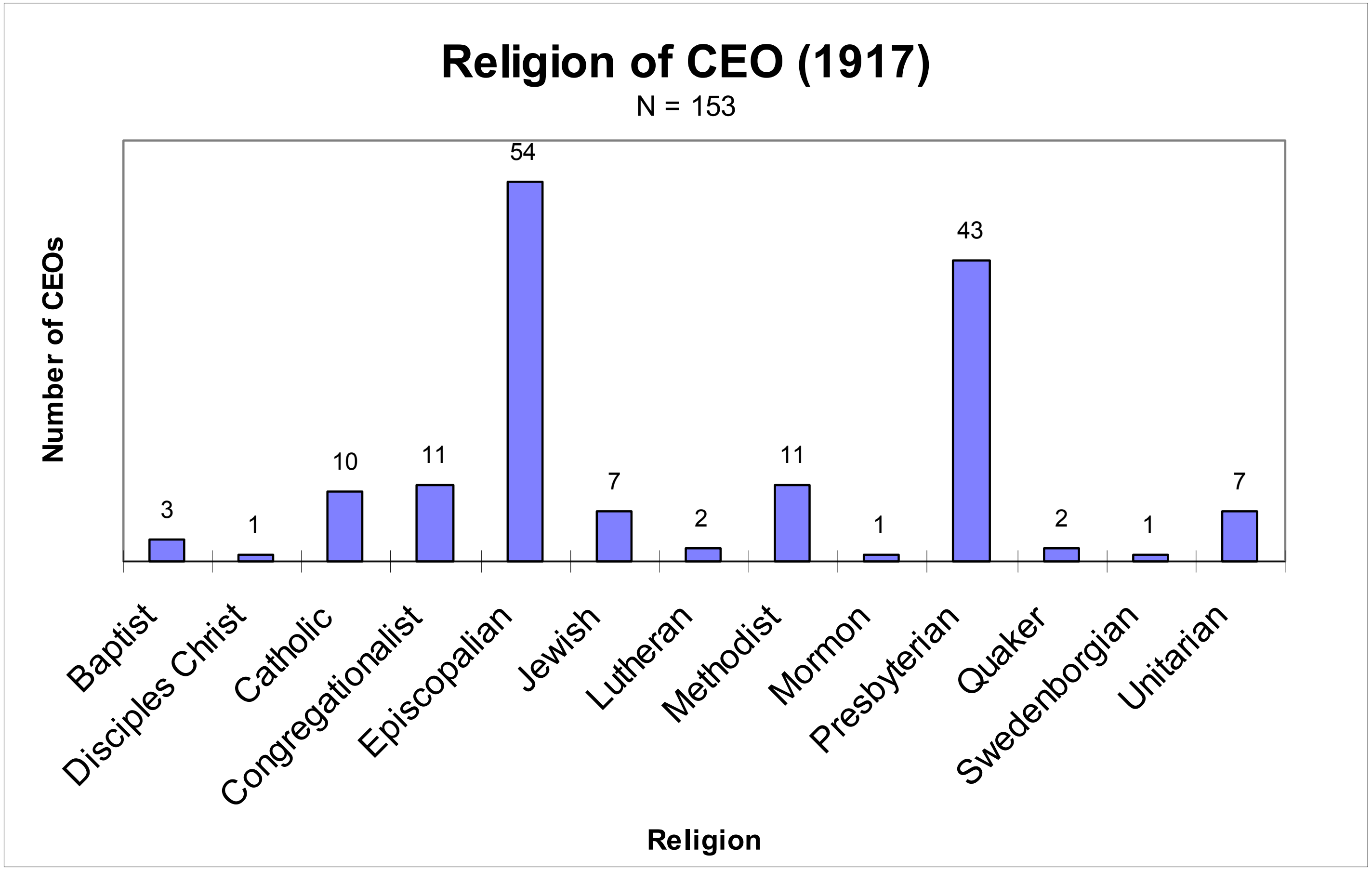
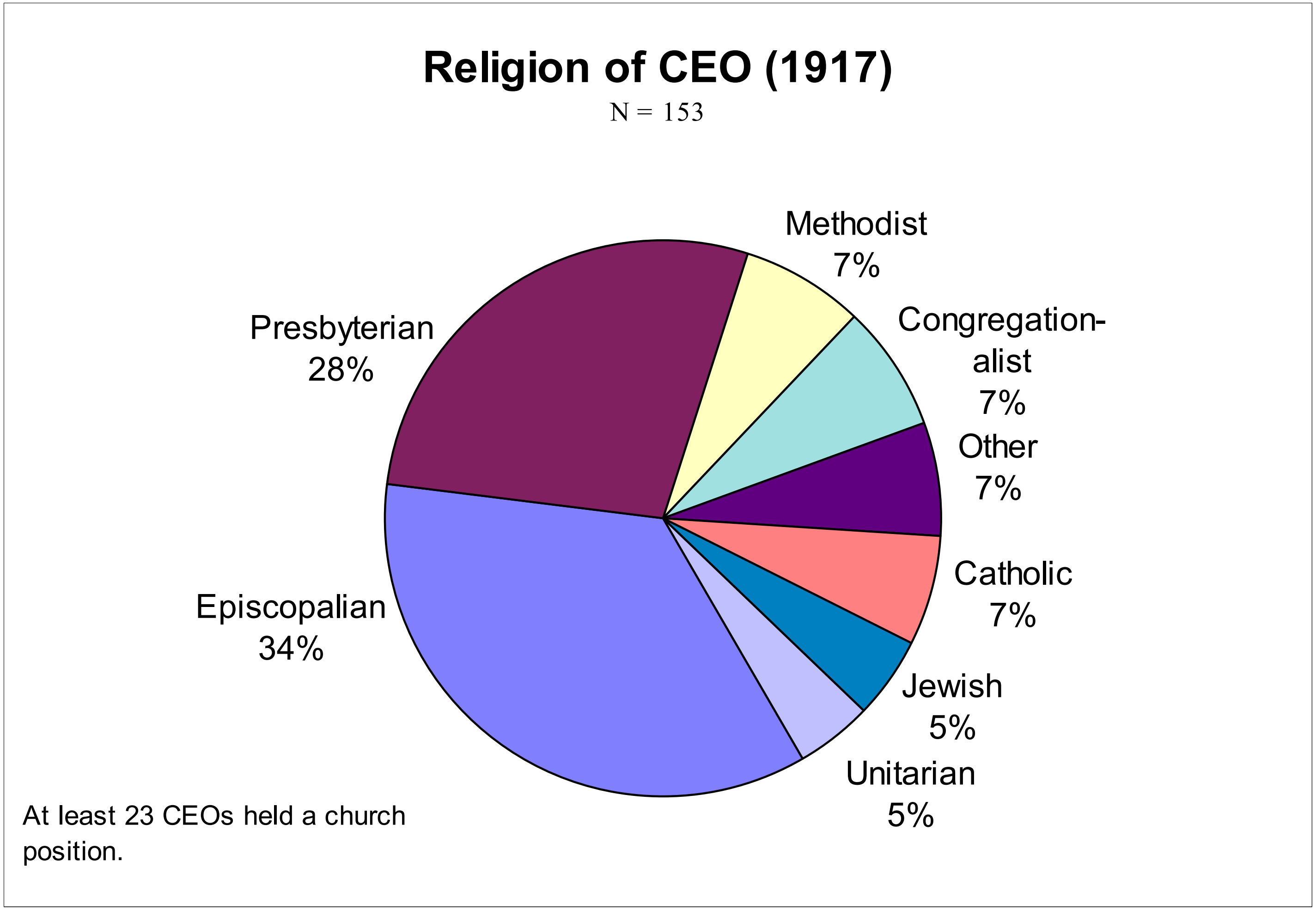

Religion of CEO (1917)
N = 153
Number of CEOs
Religion
3
1
10
11
54
7
2
11
1
43
2
1
7
Baptist
Disciples Christ
Catholic
Congregationalist
Episcopalian
Jewish
Lutheran
Methodist
Mormon
Presbyterian
Quaker
Swedenborgian
Unitarian

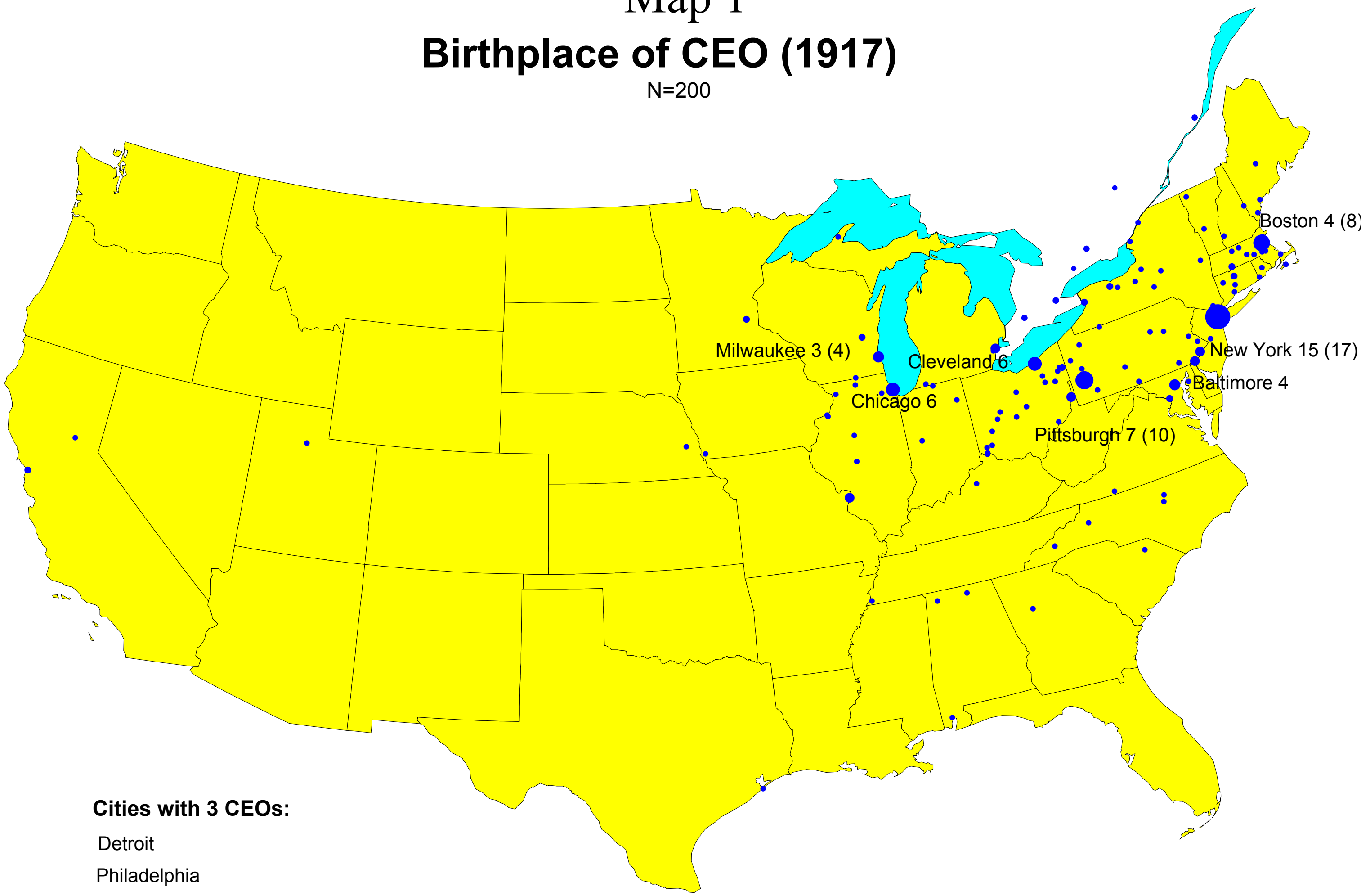
Chart 4


Religion of CEO (1917)
N = 153
Methodist
7%
Congregation-
alist
7%
Other
7%
Catholic
7%
Jewish
5%
Unitarian
5%
Episcopalian
34%
Presbyterian
28%
At least 23 CEOs held a church
position.

Map 1

Birthplace of CEO (1917)

N=200



Cities with 3 CEOs:

Detroit

Philadelphia

St. Louis

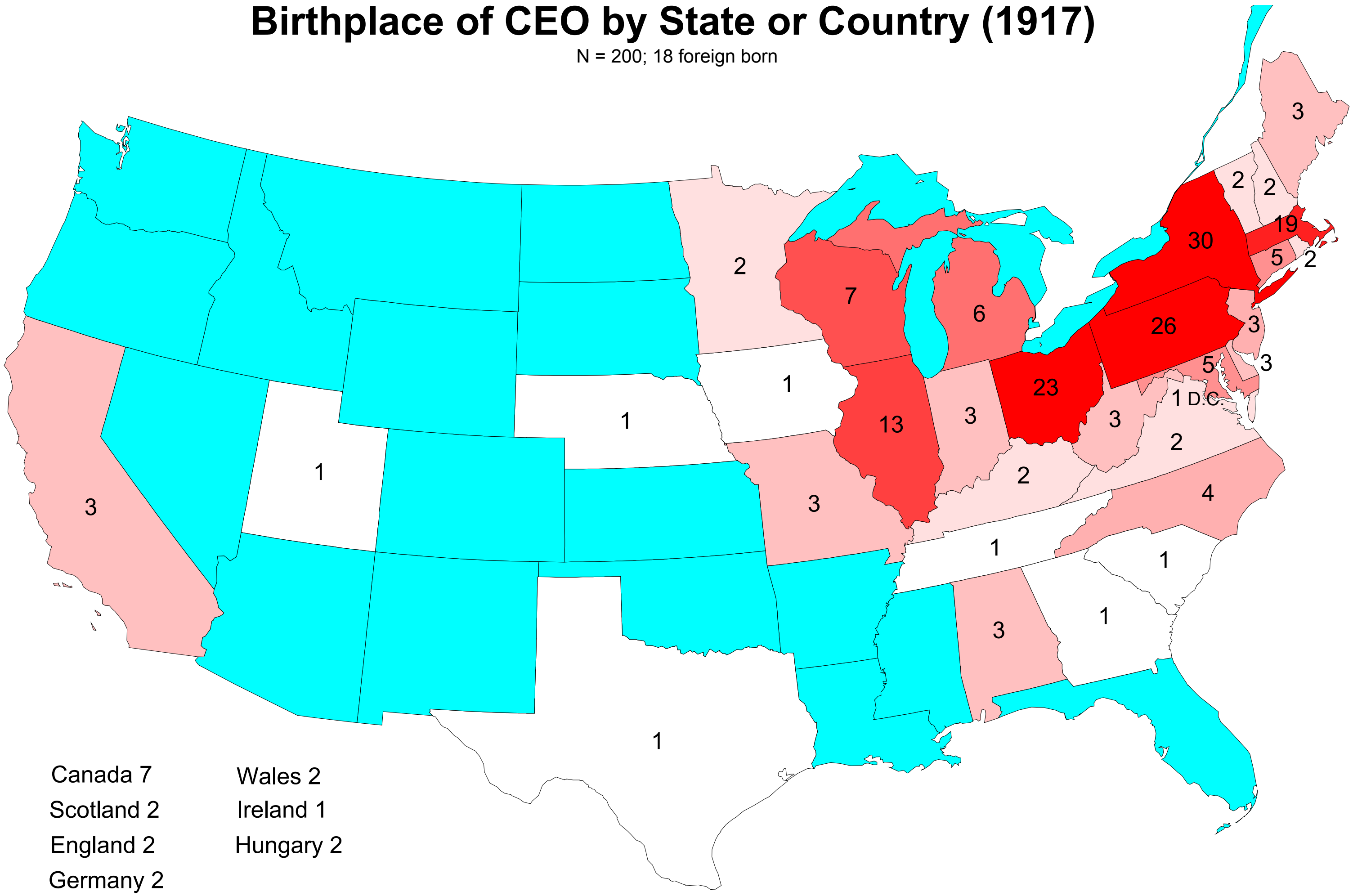
Wheeling

Wilmington

Map 2

Birthplace of CEO by State or Country (1917)

N = 200; 18 foreign born



Map 3

Birthplace of CEO (1997)

N=200

Map 4

Birthplace of CEO by State or Country (1997)

N = 200; 12 foreign born

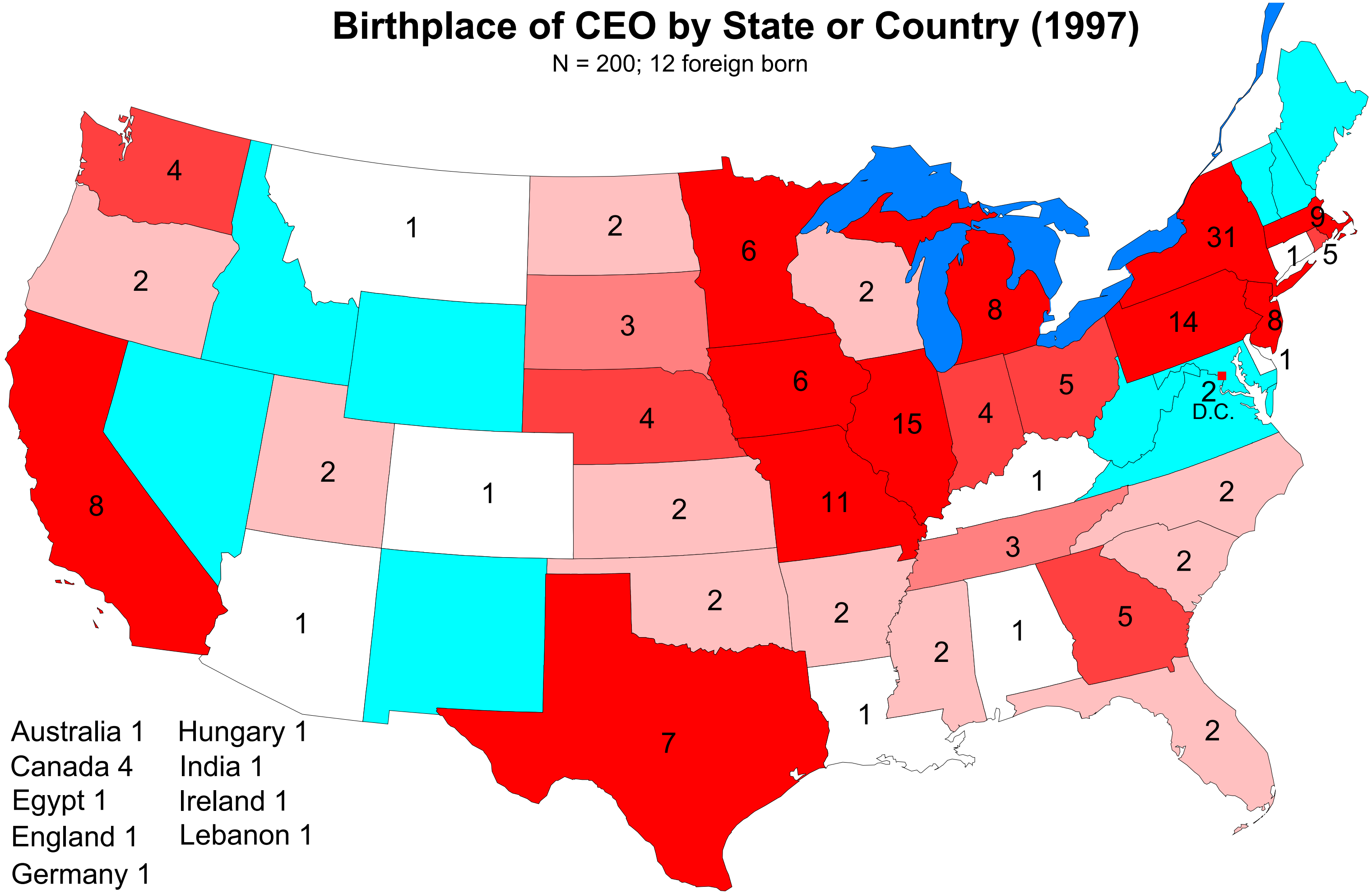
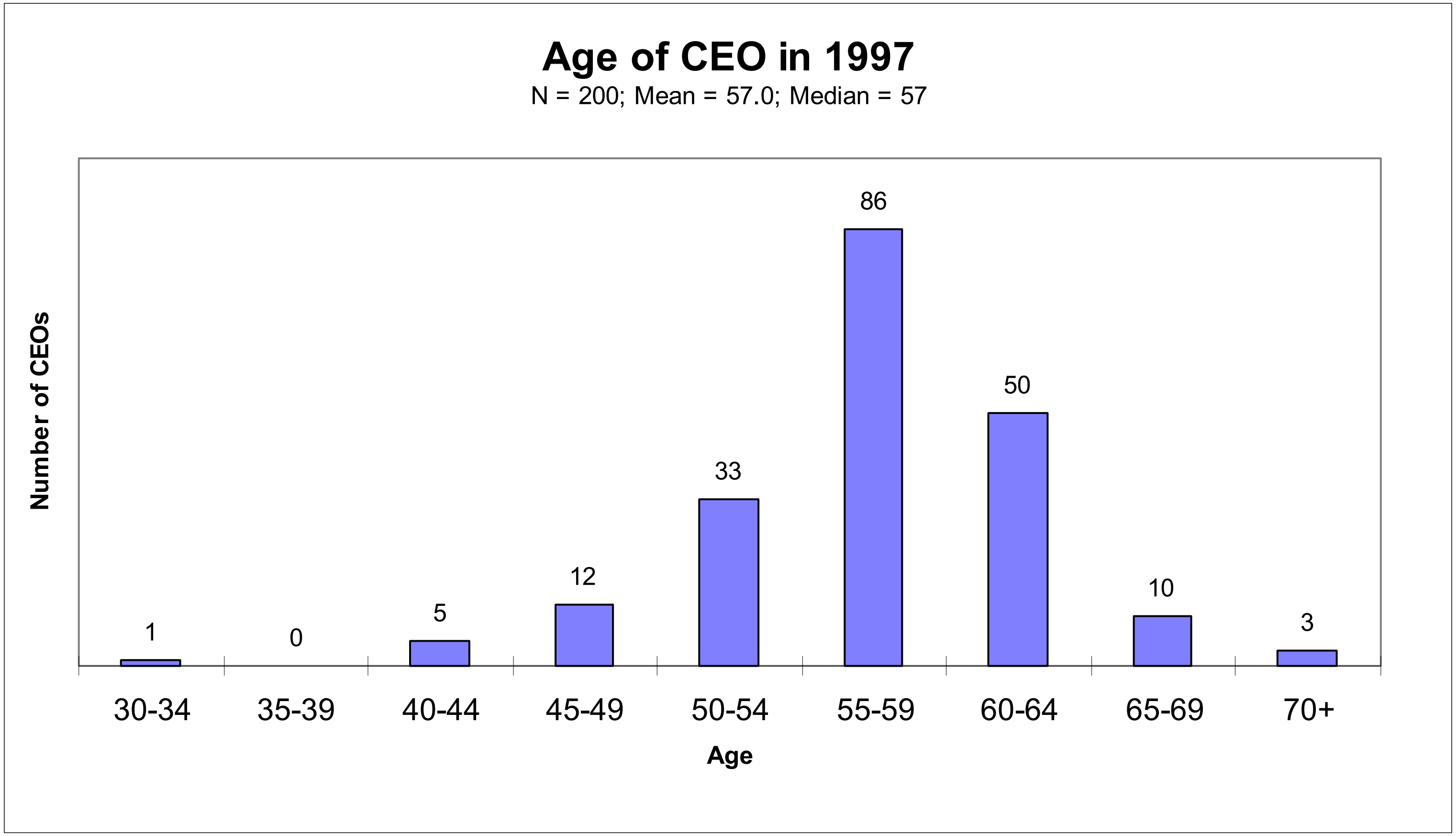


Chart 5



Age of CEO in 1997
N = 200; Mean = 57.0; Median = 57
Number of CEOs
1
0
5
12
33
86
50
10
3
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70+
Age

Chart 6

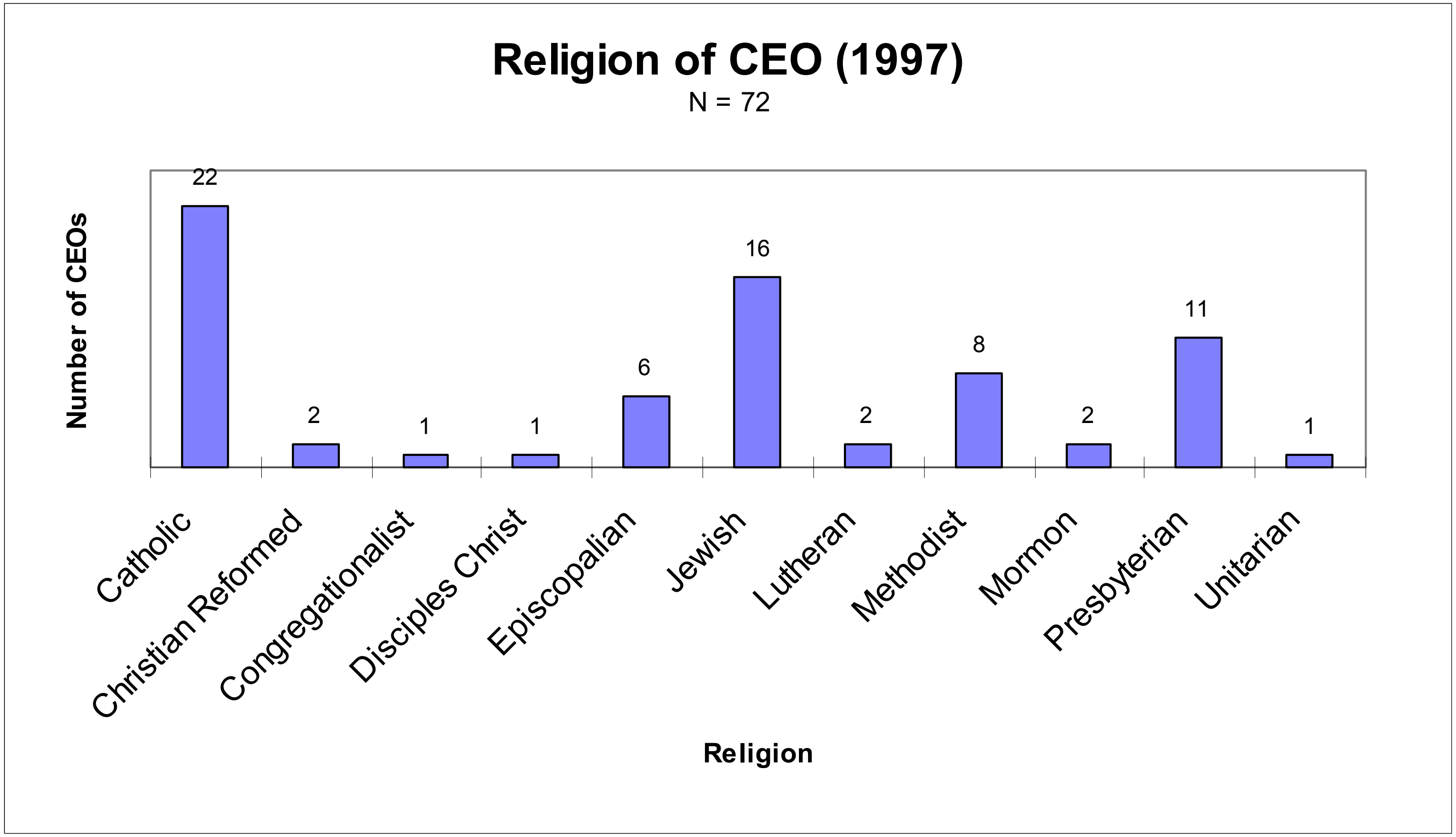

Religion of CEO (1997)
N = 72
Number of CEOs
22
2
1
1
6
16
2
8
2
11
1
Catholic
Christian Reformed
Congregationalist
Disciples Christ
Episcopalian
Jewish
Lutheran
Methodist
Mormon
Presbyterian
Unitarian
Religion

Chart 7

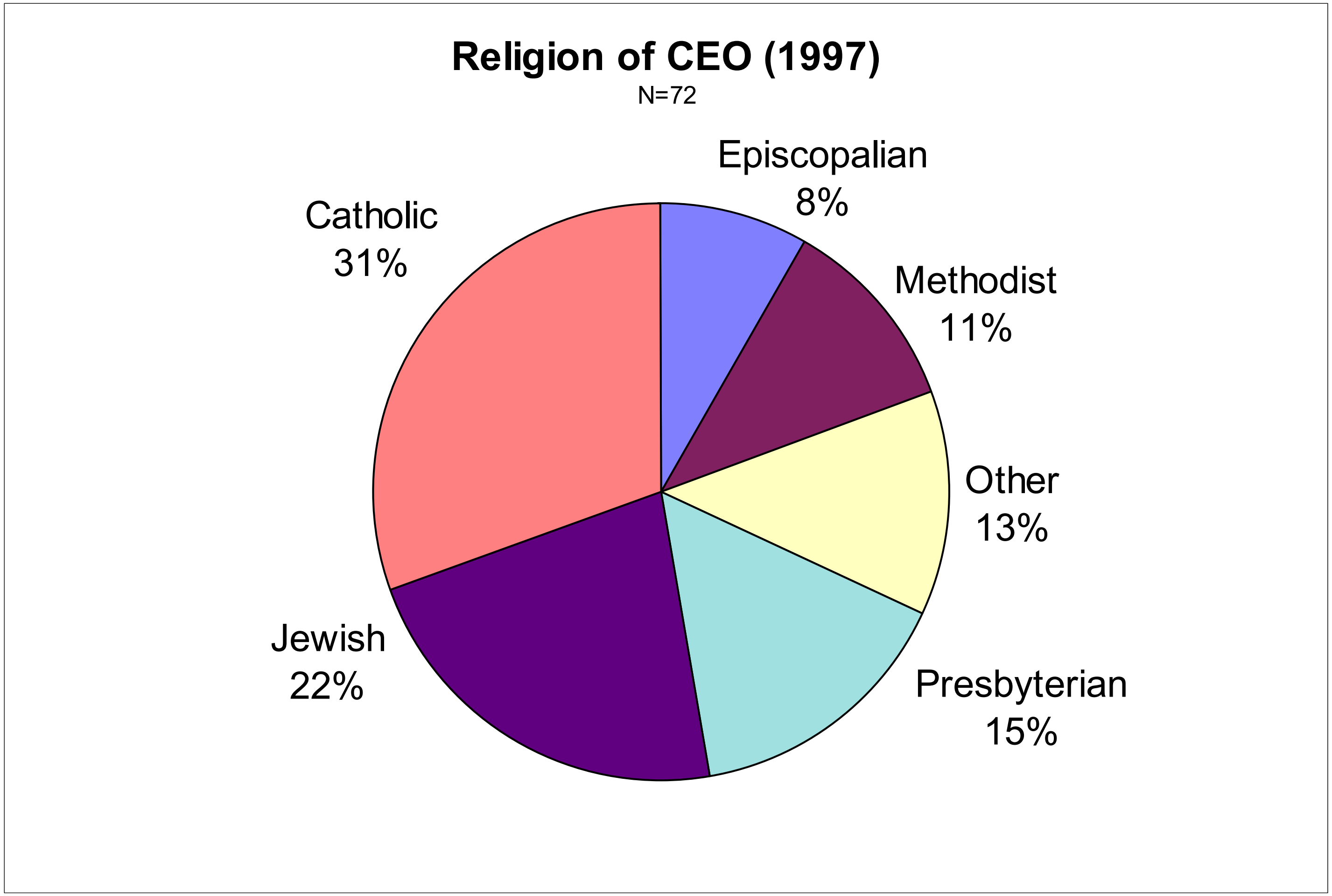
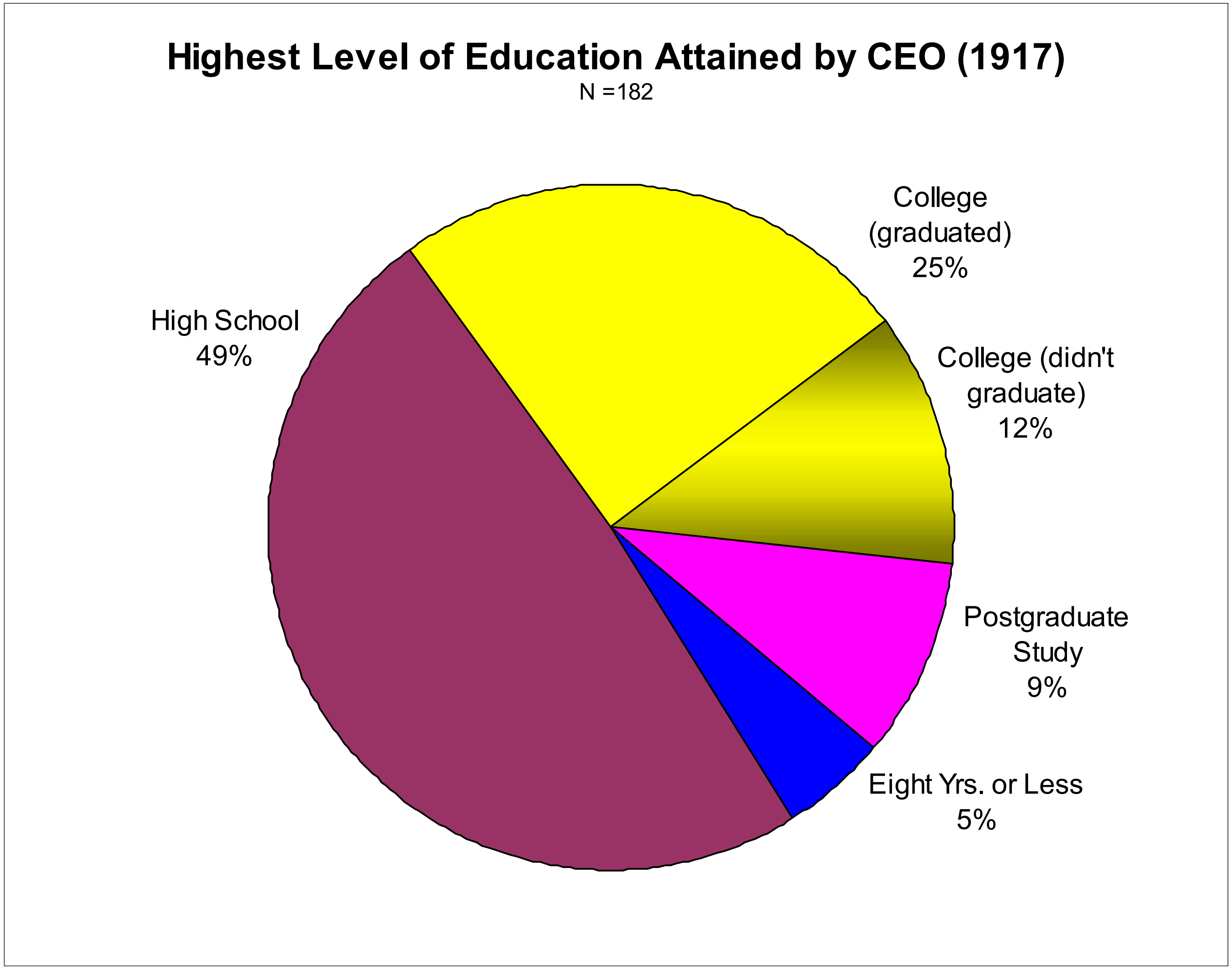

Religion of CEO (1997)
N=72
Episcopalian
8%
Catholic
31%
Methodist
11%
Other
13%
Jewish
22%
Presbyterian
15%

Chart 8



Highest Level of Education Attained by CEO (1917)
N =182
College (graduated) 25%
College (didn't graduate) 12%
Postgraduate Study 9%
Eight Yrs. or Less 5%
High School 49%

Chart 9

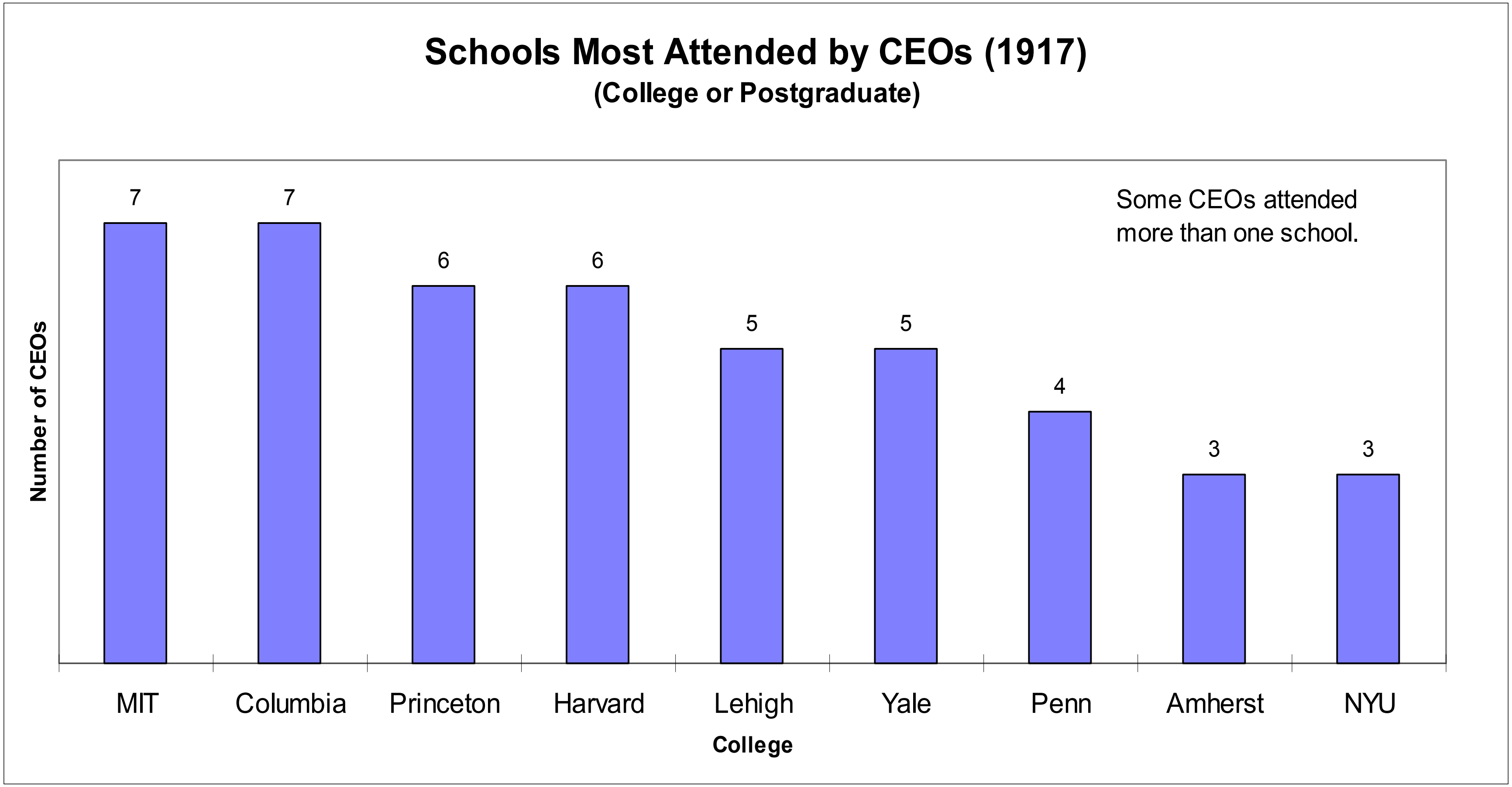
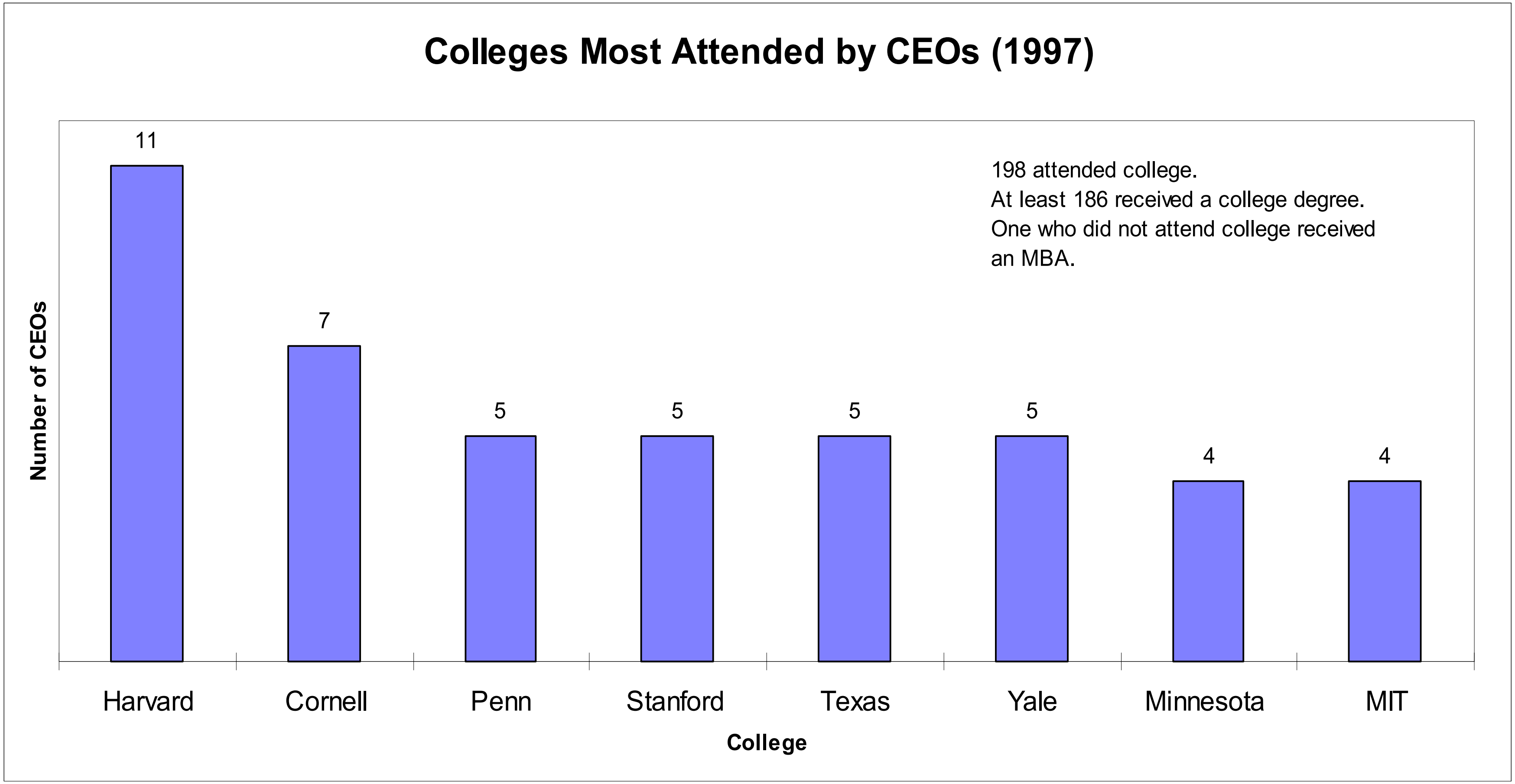
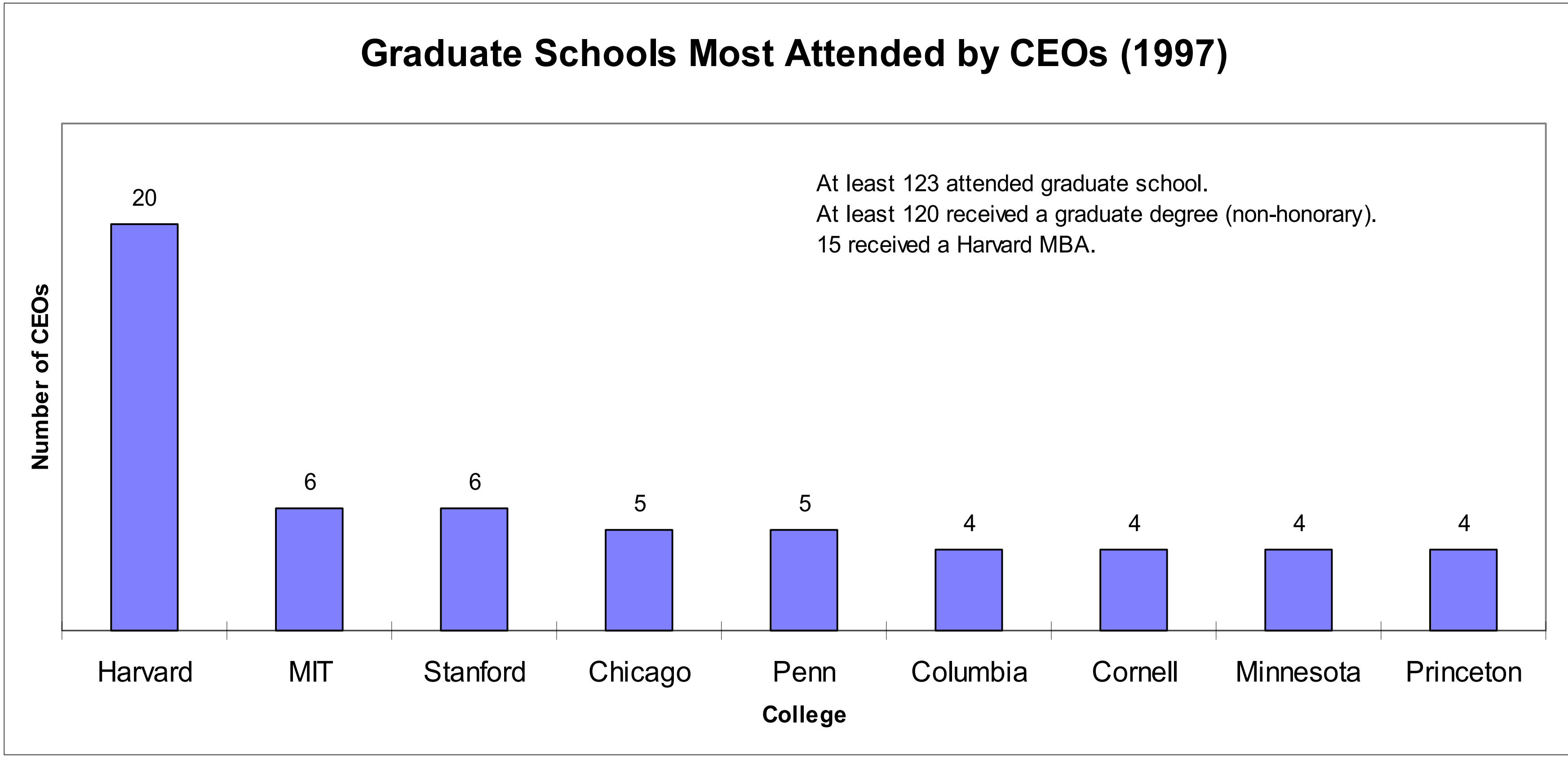

Schools Most Attended by CEOs (1917)
(College or Postgraduate)
Some CEOs attended more than one school.
Number of CEOs
7
7
6
6
5
5
4
3
3
MIT
Columbia
Princeton
Harvard
Lehigh
Yale
Penn
Amherst
NYU
College

Chart 10



Colleges Most Attended by CEOs (1997)
11
7
5
5
5
5
4
4
198 attended college.
At least 186 received a college degree.
One who did not attend college received
an MBA.
Number of CEOs
Harvard
Cornell
Penn
Stanford
Texas
Yale
Minnesota
MIT
College

Chart 11



Graduate Schools Most Attended by CEOs (1997)
At least 123 attended graduate school.
At least 120 received a graduate degree (non-honorary).
15 received a Harvard MBA.
Number of CEOs
20
6
6
5
5
4
4
4
4
Harvard
MIT
Stanford
Chicago
Penn
Columbia
Cornell
Minnesota
Princeton
College

Chart 12

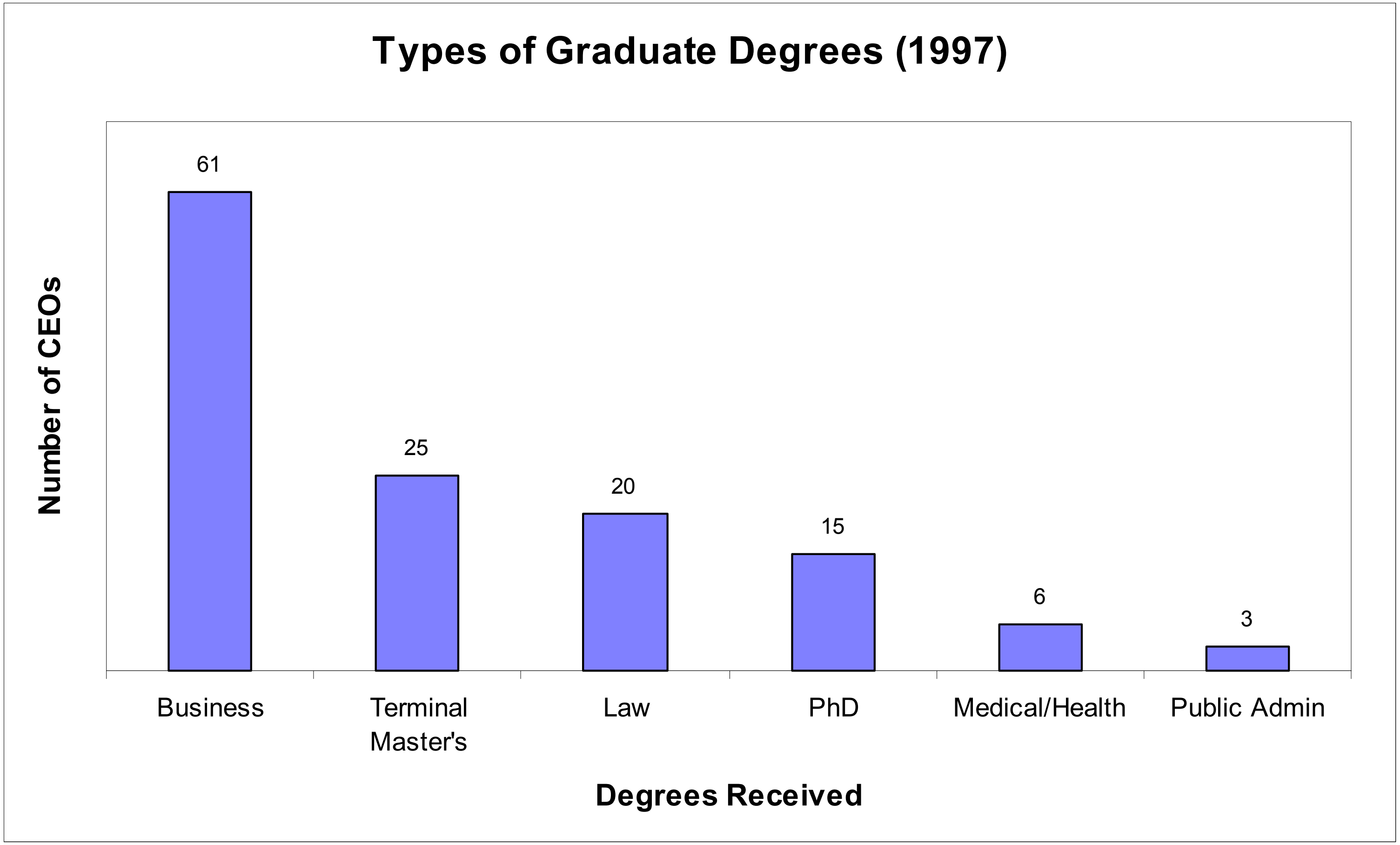

Types of Graduate Degrees (1997)
Number of CEOs
61
25
20
15
6
3
Business
Terminal Master's
Law
PhD
Medical/Health
Public Admin
Degrees Received

Chart 13

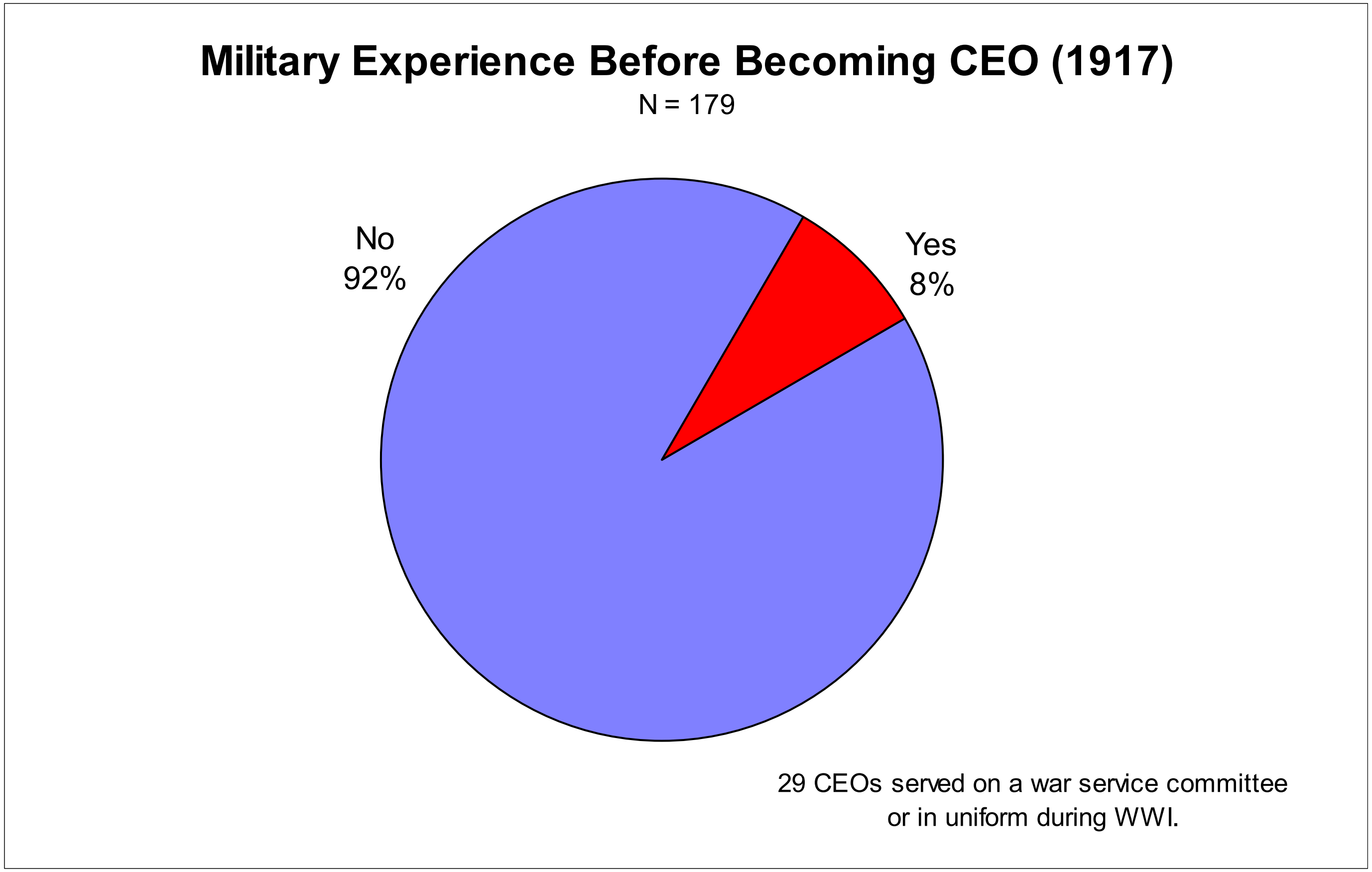

Military Experience Before Becoming CEO (1917)
N = 179
No
92%
Yes
8%
29 CEOs served on a war service committee
or in uniform during WWI.

Chart 14

Chart 15

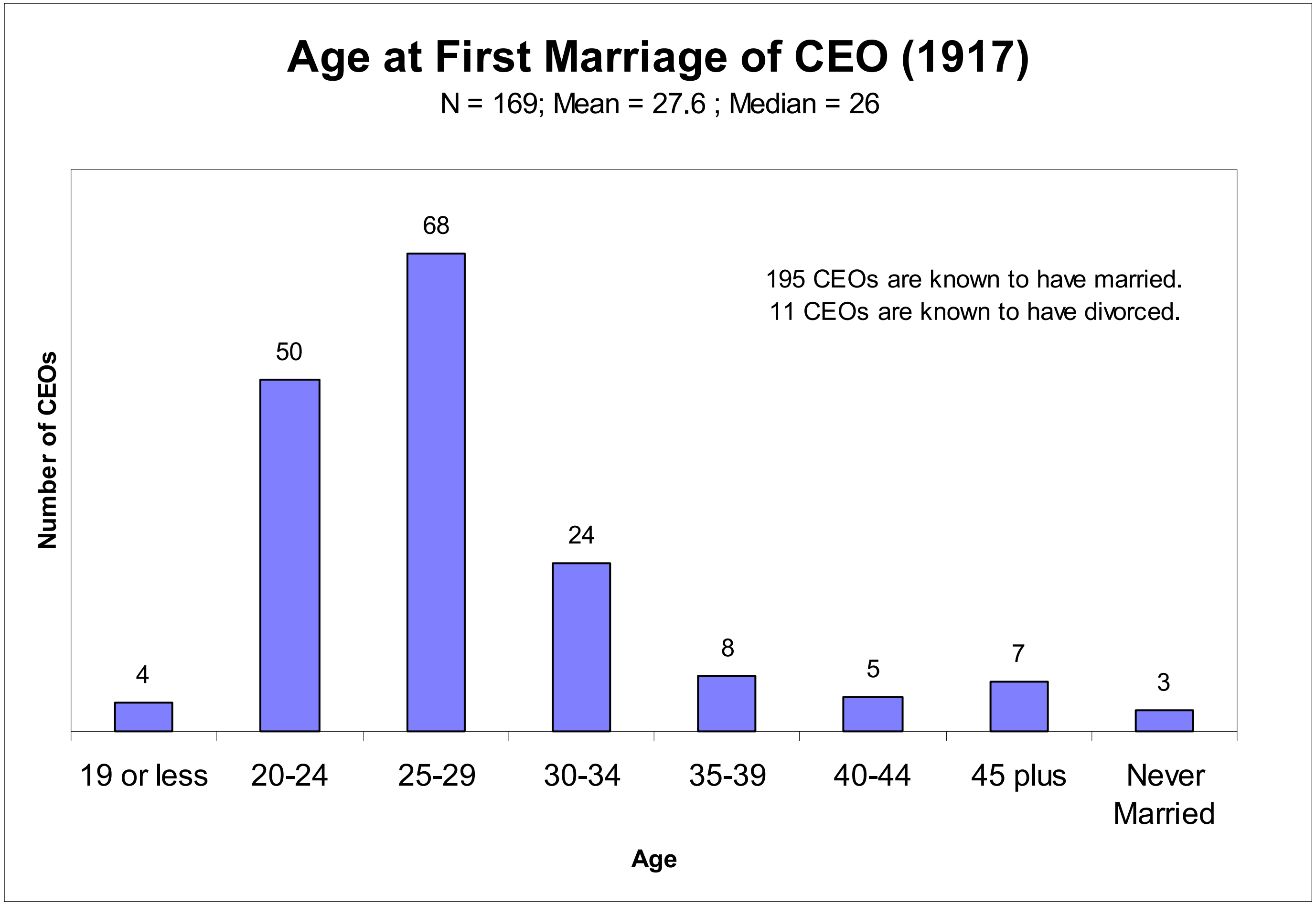
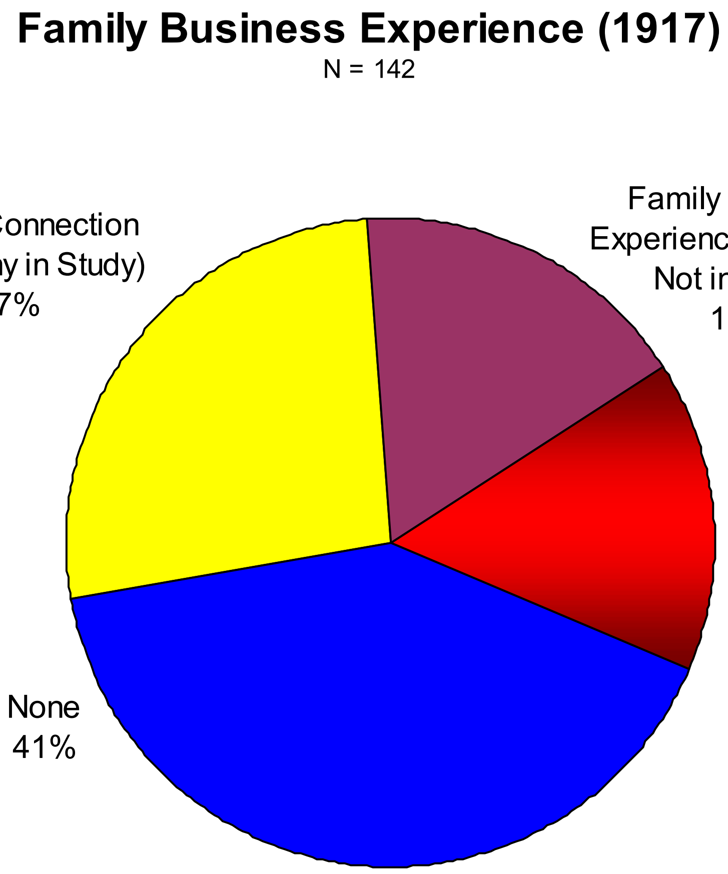

Age at First Marriage of CEO (1917)
N = 169; Mean = 27.6 ; Median = 26
195 CEOs are known to have married.
11 CEOs are known to have divorced.
Number of CEOs
4
50
68
24
8
5
7
3
19 or less
20-24
25-29
30-34
35-39
40-44
45 plus
Never Married
Age

Chart 16



In addition, 9 CEOs (of 24 with family business experience, same industry) had a family connection with a company acquired by the company in the study.

Chart 17

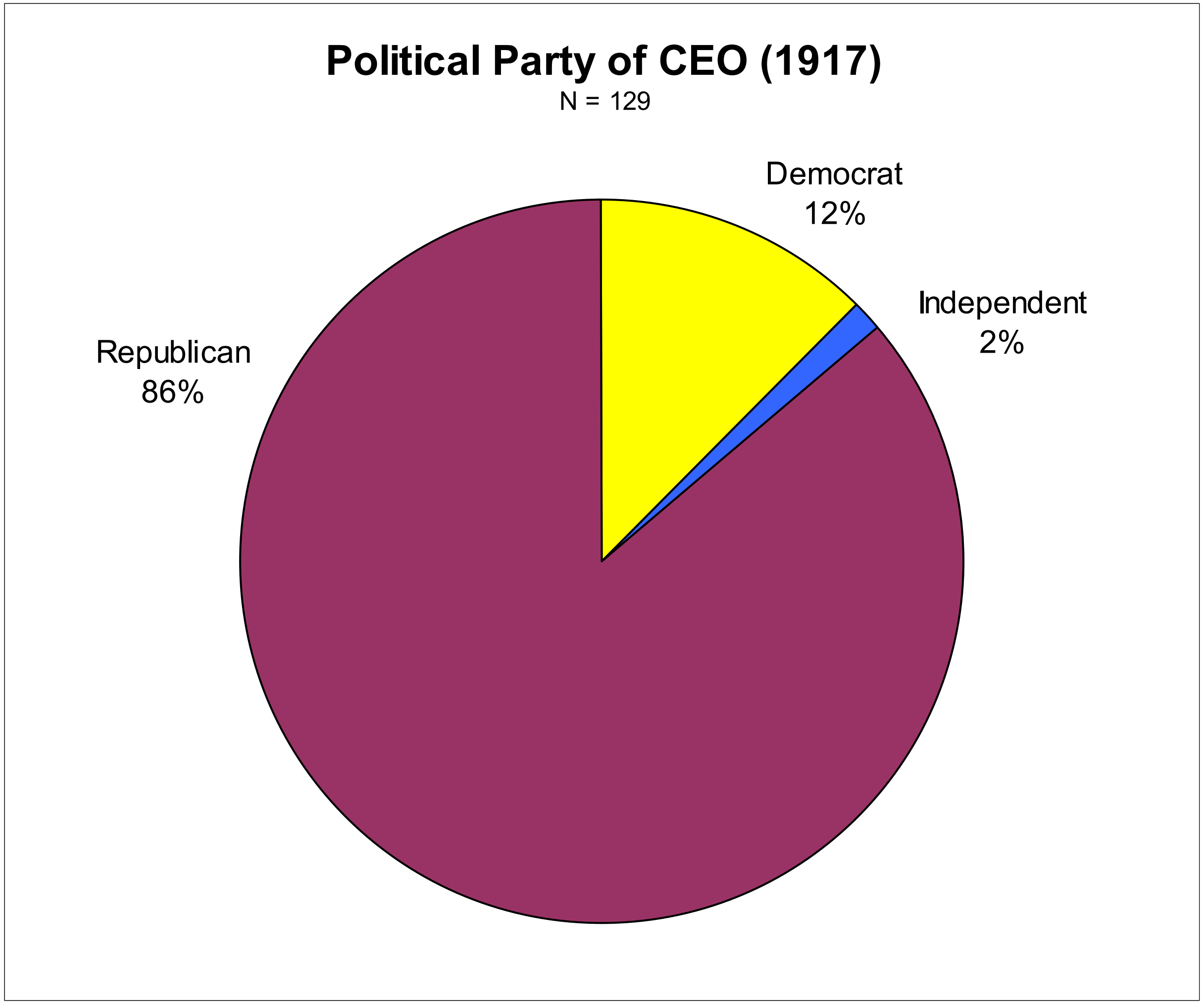

Political Party of CEO (1917)
N = 129
Democrat
12%
Independent
2%
Republican
86%

Chart 18

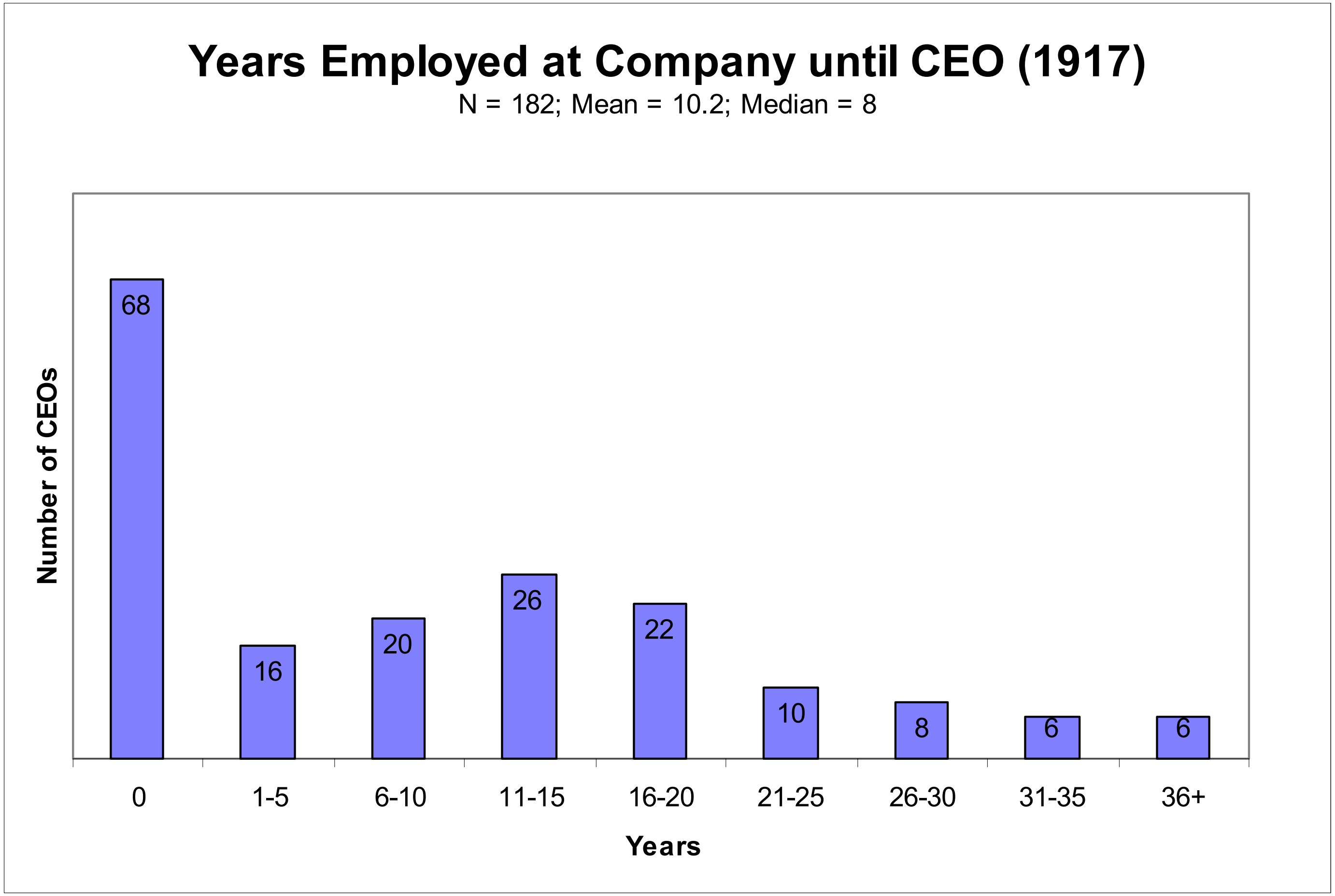
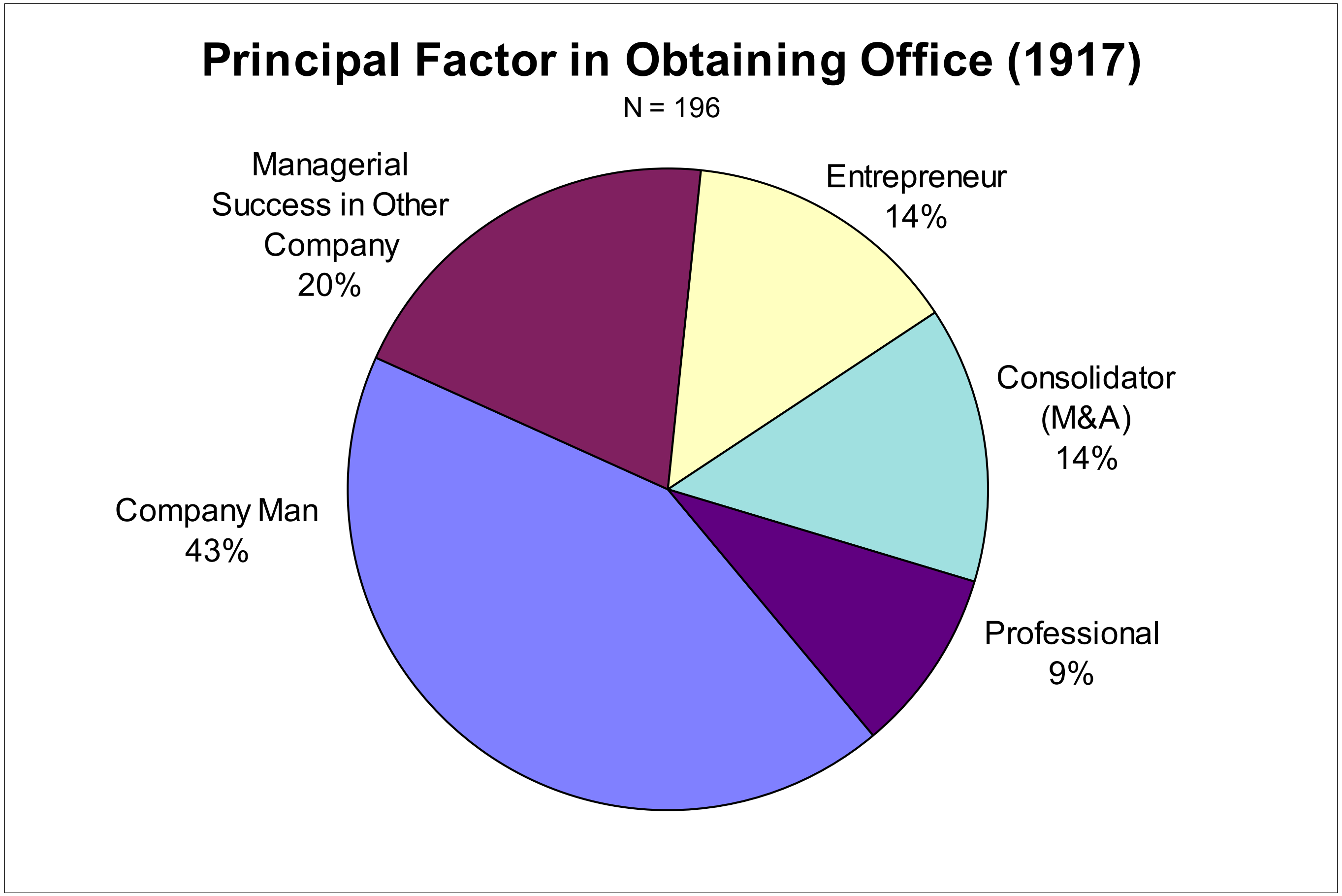

Years Employed at Company until CEO (1917)
N = 182; Mean = 10.2; Median = 8
Number of CEOs
68
16
20
26
22
10
8
6
6
0
1-5
6-10
11-15
16-20
21-25
26-30
31-35
36+
Years

Chart 19


Principal Factor in Obtaining Office (1917)
N = 196
Managerial Success in Other Company
20%
Entrepreneur
14%
Consolidator (M&A)
14%
Company Man
43%
Professional
9%