A.G. Bedeian. Organizations: Theory and Analysis
Dryden Press, 1983., New York

Organization design, the particular arrangement or composition of an organization's structure, is a key managerial decision.[1] Awareness of the importance of organization design dates back beyond the beginning of written history. Most historians, however, generally date the first recognized attempts at systematically studying development and design of organization structures to the last two decades of the nineteenth century. At that time, increased interest in organizations was paralleled by growing economic and industrial development of the United States and Western Europe. The forces of expanding technology and commerce, paired with new advances in transportation and communication, dramatically increased the scope and complexity of business undertakings. For the first time in history, problems of managing large-scale organizations became widespread as industrial and commercial enterprises began to replace individual proprietors and partnerships as the usual forms of business. An unprecedented increase in the size of production facilities resulted in previously unexperienced problems of waste and inefficiency. These problems necessitated formulation and investigation of new concepts for design of organizations. The problems encountered were beyond the capacity of single individuals to solve.

Realizing this fact, the present chapter has two purposes. First, it begins with a historical overview of the origin of organization design, briefly comments on the contributions of the so-called classicists, and then turns attention to Weber's theory of bureaucratic organization. Second, building on this background, the reader is provided with a succinct review of the fundamental structural ("skeletal") characteristics of formal organizations. Basic structural arrangements that have been traditionally followed in the design of organizations are described. Emphasis at this point is on structural patterns that managers can design and that are formal ("official") by definition. While it is realized that informal ("unofficial") practices generally emerge spontaneously in any well-established enterprise, organization designers do not implement unofficial reporting relationships or the accompanying informal norms that concentrate more authority in certain positions than formally intended.

Early Development of Organization Design

As suggested in the introduction to this chapter, the origins of organization design may be traced to the application of technological principles to manual work. Interest in organizations and organizing was a natural

[1] Parts of the following discussion have been taken from Arthur G. Bedeian, "Historical Development of Management," in *Encyclopedia of Professional Management*, ed. Lester R. Bittel (New York: McGraw-Hill, 1978), pp. 645-650.

outgrowth of an increasing worldwide trend towards industrialization. Technological developments — including the telegraph, the introduction of continuous process machinery, the refinement of interchangeable parts manufacture, and related mass manufacturing techniques — paired with new advances in transportation and communications, increased the scope and complexity of business enterprises. The economic and industrial growth that ensued fostered development of the factory system as manufacturing progressed from unit to mass production methods. The resulting emergence of large factories in basic industries such as iron, steel, and petroleum necessitated significant changes in the design of organizations.[2] In the words of one historian, "The technical achievements and the development of the factory system started a trend that changed the empirical and 'rule of thumb' approach of typical owner-managers of industry. Problems developed which could not be solved without planning systematic relationships of work methods and effective organization."[3] In economies or sectors dominated by the new large enterprises, salaried managers of a few modern companies made decisions previously exercised by the owner-managers of thousands of small firms.

By the turn of the century, the United States had become a major manufacturing center requiring new and efficient methods for dealing with the problems of organizational complexity. Between 1880 and 1910 alone, the number of businesses of sufficient size and stability to be listed with Dun & Bradstreet, a leading financial reporting service, doubled to total over 1,500,000.[4] During this same period, manufacturing output for the first time increased at a rate surpassing population growth, expanding from 32 percent of the nation's total commodity output in 1860, to 53 percent in 1900. This burst of industrialization was reflected in several areas: the number of miles of railroad track operated jumped from 30,626 in 1860, to 266,185 in 1910, an increase of 769 percent; pig iron production rose from 821 long tons in 1860, to 27,304 long tons in 1910; and the number of wage earners employed in manufacturing increased over fivefold, from 1,300,000 in 1860 to slightly above 7,000,000 in 1914. At the same time, this expansion increased the need for improved communication to efficiently serve large markets. The number of miles of telegraph wiring soared from 50,000 miles of wire in 1860, to over 1,600,000 miles in 1915. By 1879, three years after Alexander Graham Bell patented the telephone, telephone exchanges had been established in virtually every state and territory. In 1886 transatlantic cable service was inaugurated, and by 1901 introduction of the "wireless" made it possible to communicate with areas halfway around the world. In short, the decades after 1860 marked the United States' transition from an

[2] Alfred D. Chandler, Jr. "The United States: Seedbed of Managerial Capitalism," in *Managerial Hierarchies: Comparative Perspectives on the Rise of the Modern Industrial Enterprise*, ed. Alfred D. Chandler, Jr. and Herman Daems (Cambridge, Mass.: Harvard University Press, 1980), pp. 9-40; Oliver E. Williamson, "The Modern Corporation: Origins, Evolution, Attributes," *Journal of Economic Literature* 19 (1981): 1537-1568.

[3] John F. Mee, "A History of Twentieth Century Management Thought" (Ph.D. diss., Ohio State University, Columbus, Ohio, 1959), p. 17.

[4] Thomas C. Cochran, *Business in American Life: A History* (New York: McGraw-Hill, [illegible]), p. 146.

agricultural and commercial-mercantile to an industrial-capitalistic economy.[5] Concomitantly, cultural and economic conditions had created an unprecedented need for an increased understanding of the nature and character of organizations.

Henry R. Towne: A Beginning

Improvements in the prevailing methods of work and organization during this era were principally initiated by men actively engaged in industrial enterprises. The person most often referred to as the first to propose a rational and systematic science of management (*and hence organization*) was Henry R. Towne (1844-1924), president of the Yale and Towne Manufacturing Company, who in 1886 presented a paper titled "The Engineer as Economist." His comments, delivered at a meeting of the American Society of Mechanical Engineers (ASME), stressed the importance of management as a field of independent study, equal to that of engineering. Noting the almost complete lack of management literature, the virtual absence of a medium for the exchange of administrative ideas and experience, and the total absence of management associations, Towne urged that ASME serve as a center for the development and study of industrial management. Such a suggestion was considered nothing less than revolutionary. Indeed, as described by Urwick at the time and for many years afterwards, "a large and influential section of the [ASME] membership continued vehemently to deny that there could be a science of management or, if there could, that it was any concern of an engineering society."[6] Towne's presentation was, above all, an appeal for the acknowledgment and nurturing of such a science.

Frederick W. Taylor: Birth of Scientific Management

While Towne's presentation is recognized as marking the beginning of the search for a science of management, the birth of **scientific management** is generally credited to Frederick W. Taylor (1856-1915). His book, *The Principles of Scientific Management,* published in 1911, seriously questioned the traditional role of management. Synthesizing and refining the ideas and concepts developed in his earlier writings and experiments, Taylor envisioned a "mental revolution" in which the concerns both of management and of the worker would be based on a philosophy of "mutuality of interests." He conceived of management's new duties as

[5] Alan R. Pred, *The Spatial Dynamics of U.S. Urban-Industrial Growth, 1800-1914: Interpretive and Theoretical Essays* (Cambridge, Mass.: M.I.T. Press, 1966), pp. 16-22.

[6] Lyndall F. Urwick, *The Golden Book of Management* (London: Newman Neame, 1956), p. 25.

involving: (1) development of a true science of managing complete with clearly stated laws, rules, and principles that would replace the old rule-of-thumb methods; (2) scientific selection, training, and development of workers (in the past workers were randomly chosen and often untrained); (3) enthusiastic cooperation with workers to ensure that all work performed is done in accordance with scientific principles; and (4) equal division of tasks and responsibilities between the worker and management. Taylor was resolutely committed to eliminating the inefficient and wasteful practices of the past and to transcending what, at the time, appeared to be insolvable conflicts of interest between labor and management, believing that the interests of employers and employees could be made to coincide.[7] According to Taylor's doctrine, increased productivity and expansion of output resulting from improved methods of organization were to be shared so that there would be both an increase in wages for labor and an increase in profits for investors. As Maier, borrowing from the language of game theory, has so aptly put it, "Taylorism promised an escape from zero-sum conflict, in which the gain of one party could be extracted only from the equal sacrifice of the other."[8]

Although the groundwork of Taylor's philosophy had been laid several years earlier, it was not until late 1910 that it began to receive widespread publicity. It was at this time that a number of Eastern railroads petitioned the Interstate Commerce Commission for an increase in their freight rates to offset recent wage hikes. Louis D. Brandeis (later Associate Justice U.S. Supreme Court), representing the opposing Eastern Shippers' Association, brought together a group of engineers in an attempt to have them agree upon a title to designate the principles and philosophy of Taylor's work. The term scientific management is said to have originated at this meeting.

As principal attorney for the freight shippers, it was Brandeis' strategy to prove by expert testimony that by adopting the methods of scientific management, the railroads could considerably reduce their costs while further increasing wages without increasing their rates. To this end, Brandeis presented a parade of expert witnesses, including Henry R. Towne, Henry L. Gantt, Frank B. Gilbreth, and Harrington Emerson. The high point of the hearings was reached with Emerson's testimony that the railroads could save at least $1 million a day through application of scientific management. Such testimony had great appeal to the world press. The resulting widespread publicity served to provide the attention and support scientific management had previously lacked. Eventually even Lenin, writing in *Pravda,* told the Russians they should put scientific management into effect, too.[9]

[7] Stephen J. Wood and John E. Kelly, "Taylorism, 'Responsible Autonomy,' and Management Strategy," in *The Degradation of Work?* ed. Stephen J. Wood (London: Hutchinson, 1982), pp. 74-89; John E. Kelly, *Scientific Management, Job Redesign and Work Performance* (London: Academic Press, 1982), pp. 1-29.

[8] Charles S. Maier, "Between Taylorism and Technocracy: European Ideologies and the Vision of Industrial Productivity in the 1920s," *Journal of Contemporary History* 5, no. 2 (1970): 31.

[9] Nikolai Lenin, "The Urgent Problems of the Soviet Rule," *Bulletin of the Taylor Society* 4, no. 3 (1919): 35-38. (Reprinted from *Pravda,* April 28, 1918.)

The work of numerous other pioneers, such as Lyndall F. Urwick, Luther H. Gulick, James D. Mooney, and Alan C. Reiley, paralleled that of Taylor, contributing to the emergence and growth of organization theory.[10] While it is not our intent to completely review the historical development of this movement, two other authors, Henri Fayol and Max Weber, merit mention not only because of the special character of their contributions, but because of the lasting significance of their work.[11]

Criticisms of Classicists

Before proceeding further, it would perhaps be best to first comment on the extensive criticism that has been directed at the work of the early (often called "classical") organization theorists. In addition to other criticisms, their work has been attacked as being too simplistic, as advancing "principles" that are really nothing more than "proverbs," and as reflecting a promanagement bias.[12] While in certain instances these criticisms are undeniably true, it should be realized that much of what we take for granted today was new a half-century ago and far from obvious. As a result, these early writers had very little alternative but to rely upon their past experience as a basis for the logic of their statements. With improved vision of hindsight it is easy to be critical. However, organization research as we know it today was nonexistent. Evaluated from this perspective, there is no question that the views of these early contributors were remarkably accurate and, in many instances, are still valid today. The influence of such classicists as Taylor continues to be keenly felt. In this respect, the insights of these early theorists are not to be minimized. Indeed, a great many management consulting firms continue to make a handsome living by pointing out the "simple" proverbs first formulated by the so-called classicists.

Henri Fayol: Emergence of Administrative Theory

Like those of Taylor, the ideas of Henri Fayol (1841-1925) have had a lasting impact on the development of organization theory as a science. His views remain important not only because of his enormous influence on

[10] Lyndall F. Urwick, *The Elements of Administration* (New York: Harper & Row, 1943); Luther H. Gulick and Lyndall F. Urwick, eds., *Papers on the Science of Administration* (New York: Institute of Public Administration, Columbia University, 1937); James D. Mooney and Alan C. Reiley, *Onward Industry!* (New York: Harper & Bros., 1931).

[11] This development is well summarized in Daniel A. Wren, *The Evolution of Management Thought*, 2nd ed. (New York: John Wiley & Sons, 1979).

[12] See Lyndall F. Urwick, "Why the So-Called 'Classicists' Endure," *Management International Review* 11, no. 1 (1971): 3-14.

succeeding generations of organization theorists but also because of the continuing validity of much of his analysis. Although aware of Taylor's theories, Fayol worked independently in France during the same period that scientific management was developing in the United States. Whereas Taylor approached organization study from the workshop level, Fayol approached the subject from the viewpoint of upper-level administration. Writing in 1916 in his classic work "Administration Industrielle et Générale" (not translated and made available in the United States until 1930), Fayol was the first author to classify the study of management according to functional areas (that is, planning, organizing, commanding, coordinating, and controlling). It is perhaps most notable that this system of classification is still used today as the foundation for a host of introductory management texts and as a framework for innumerable company and university development programs. Of particular relevance to the present discussion is Fayol's stress on the importance of organizing, defining it to include all activities associated with creating a business and with those human and material resources necessary for successful functioning. While this definition is certainly broader than that most commonly used today and contains many elements typically considered to be part of personnel or human resource administration, it reflects an appreciation of the significance of proper organization in accomplishing business goals.

An industrialist with an outstanding record as General Director of the Commentry-Fourchambault Collieries (now part of the Le Creuzet-Loire Group), Fayol was also among the first authors to advance a set of general management principles. Arguing that the task of management should be approached in a spirit of scientific inquiry, Fayol was of the opinion that these principles could be distilled from experience by reason. Many of the principles Fayol developed, such as "division of work," "unity of command," "span of control," and the "scalar chain," are more than just principles of management as the following sections will indicate; they are principles of organization.

In retrospect, the concepts and ideas developed by Fayol have clearly had an impact on current thinking. The enduring nature of his contributions to management and organization theory, in general, is perhaps best indicated by the fact that debate still continues on questions that were first formally addressed by Fayol some sixty years ago.[13]

Max Weber: Bureaucracy as the Ideal

Whereas Taylor's and Fayol's primary attention had been directed toward the practical problems of organizing for effective goal accomplishment, the concern of Max Weber (1864-1920) was with the more fundamental

[13] For example, see Daniel S. Brown, "The Chain of Command: What is Happening to It?" *Leadership & Organization Development Journal* 1, no. 4 (1980): 23-27.

issue of how organizations are elaborated and sanctioned. Although Weber, a German sociologist, published most of his work at the turn of the century, his ideas remained virtually unknown to English-speaking theorists until they were translated beginning in the late 1920s. Primarily prescriptive (normative) in nature, Weber's writings strike an interesting contrast with the practitioner-oriented recommendations offered by Taylor and Fayol. The general thrust, and lasting contribution, of Weber's work was an outline of the systematic requirements (characteristics) of rational organization (bureaucracy).

In reviewing Weber's work it is important to emphasize four points:

1. *Weber did not use the term bureaucracy (that is, government by bureaus) in the disparaging, emotionally-tinged sense of red tape, endless lines, and rule-encumbered inefficiency.* Rather, he used it as a descriptive, noncritical label referring to what he regarded as the most modern and efficient organization yet developed.[14] In Weber's words,

Experience tends universally to show that the purely bureaucratic type of administrative organization — that is, the monocratic variety of bureaucracy — is, from a purely technical point of view, capable of attaining the highest degree of efficiency and is in this sense formally the most rational known means of carrying out imperative control over human beings. It is superior to any other form in precision, in stability, in the stringency of its discipline, and in its reliability. It thus makes possible a particularly high degree of calculability of results for the heads of the organization and for those acting in relation to it. It is finally superior both in intensive efficiency and in the scope of its operations, and is formally capable of application to all kinds of administrative tasks.[15]

2. *To Weber, bureaucracy was a mental construct, an idealized type of organization that did not exist in reality.*[16] Bureaucracy was a standard or model to be used not only in constructing organizations but in assessing (through comparison) their relative performance. In this regard it should be noted that Weber's basic model is hypothetical in nature rather than factual. Many criticisms of Weber's work are invalid due to a failure to recognize this fact. The idealized type of organization described by Weber was not meant to be a working model nor to correspond to administrative components as they are found in reality.

[14] For the record, the word "bureaucracy" was coined by Frenchman Vincent de Gournay in 1745. See Fred Riggs, "Shifting Meanings of the Term 'Bureaucracy'," *International Social Science Journal* 31 (1979): 563-584.

[15] Max Weber, *The Theory of Social and Economic Organization*, ed. and trans. Alexander M. Henderson and Talcott Parsons (New York: Oxford University Press, 1947), p. 337. (Originally published 1922.)

[16] Max Weber, *The Methodology of the Social Sciences*, ed. and trans. Edward A. Shils and Henry H. Finch (Glencoe, Ill.: Free Press, 1949), p. 90. (Originally published 1904-1917.)

3. *Weber's idealized type of organization is based on "legal" authority as contrasted with that which rests on either "tradition" (custom) or "charisma" ("the gift of grace").*[17] As developed by Weber, legal authority stems from normative rules and controls that are formally enacted to govern the affairs of an organization in the rational pursuit of specific goals. Certain individuals (managers) are given the authority to interpret and enforce these rules and controls by virtue of the position they have been assigned. In the purest type of exercise of legal authority, obedience is not owed to a person such as a traditional chief or a charismatic leader, but to the impersonal authority of an office. Thus, in such systems the prerogatives of authority adhere to specific positions rather than to individual persons. Familiar examples of legal authority structures are the military, popularly elected office holders, government bureaus, colleges or universities, and business firms (especially those above a certain size).

The nature of legal authority is a particularly interesting aspect of Weber's analysis. Although unquestionably autocratic, Weber's bureaucratic system does not allow the exploitation of subordinates (as in organizations to which Weber was reacting). A superior's orders must always fall within a prescribed legal framework that restricts managerial prerogatives to legitimate job-essential bounds, assuring equal treatment for all.

4. *The need Weber identified for an efficient system of organization is inherently culture free.* Reliance on rationality and legalism, the idea of equality of citizens, and the vast services offered in a modern state, makes some form of expert administration inevitable. In addition, large size, sophisticated technology, and geographical dispersal of members each contribute to the bureaucratization of organization. Government agency bureaucratization has been followed by business corporations, trade unions, churches, service organizations, and voluntary associations. What is especially important in reading Weber, and what is not often understood, is that the use of the bureaucratic system coincided with the failure of earlier types of administrative organizations lacking precision and stability. "Thus, for example, tax farming, whereby local collectors worked for a percentage of the take, was displaced by bureaucracies staffed with full-time salaried officials; and inside contracting, whereby owners of equipment and materials contracted with foremen for labor, gave way to modern hierarchies."[18] Viewed in this light, the efficiencies attributed to bureaucracies become understandable when compared to the administrative practices which have preceded them. Today, *all* organizations of any size are bureaucratized to some degree.

[17] Weber, *Theory of Social and Economic Organization*, p. 328. See also Max Weber, "The Three Types of Legitimate Rule," trans. Hans Gerth, *Berkeley Journal of Sociology* 4 (1958): 1-11. (Originally published 1922.)

[18] Marshall W. Meyer, "Organizational Structure As Signaling," *Pacific Sociological Review* 22 (1979): 484.

Characteristics of Bureaucracy

At several points in his writings, Weber identified the distinctive characteristics of his idealized bureaucracy.[19] As conceptualized, it is the acceptance of these characteristics that determines the effectiveness of this type of organization. These essential characteristics have been summarized nicely by Wren:[20]

1. Labor is divided so that the authority and responsibility of each member are clearly defined and legitimatized as official duties.
2. Offices or positions are organized in a hierarchy of authority resulting in a chain of command (the scalar principle).
3. All organization members are to be selected on the basis of technical qualifications through formal examinations or by virtue of training or education.
4. Officials are appointed, not elected (with the exception, in some cases, of the chief of a whole unit—for example, an elected public official).
5. Administrative officials work for fixed salaries and are "career" officials.
6. The administrative official is not an owner of the unit being administered.
7. The administrator is subject to strict rules and controls regarding the conduct of official duties. These rules and controls are impersonal and uniformly applied in all cases.

Weber's writing on bureaucracy and the arguments it has stimulated continue to exert a significant influence on the development of organization theory. It should be emphasized again that Weber described an idealized hypothetical structure. The extent to which Weber's ideal type adequately describes real organizations is the subject of a wealth of research. Results of this research have underscored certain dysfunctional consequences of bureaucracy.

Dysfunctional Consequences of Bureaucracy

As noted, Weber considered bureaucracy to be the most efficient and rational means of organization because of its stability and reliability, the calculability of results that it permits, and its wide applicability. Subsequent research, however, has shown that the accomplishment of these functions is often not without certain undesirable effects or dysfunctions. Thompson

[19] Adapted from Max Weber, *From Max Weber: Essays in Sociology*, ed. and trans. Hans H. Gerth and C. Wright Mills (New York: Oxford University Press, 1946), pp. 196-204; Weber, *Max Weber*, pp. 329-336.

[20] Adapted from Wren, *The Evolution*, pp. 251-252.

Max Weber considered bureaucracy to be one of the world's greatest social inventions. However, over the years bureaucracy has become synonymous with "dynamic inaction, bold irresolution and creative nonresponsiveness." Rare is the manager who cannot relate a painfully funny account of bureaucratic harassment — like the time a company was ordered to show cause, through endless forms and correspondence, why it should not be denied a government research grant for which it had not applied. Other celebrated boondoggles include:

- One large drug company spends $15 million a year filling out 27,000 government forms, thus adding about $.50 to the price of each prescription.
- Several years ago the governor of a southern state nominated to a state job a man who had been dead for 2 years.
- The Food and Drug Administration took 11 years to decide how many peanuts should be required in peanut butter.
- Due to the foresight of the Board of Education of financially strapped New York City, at the current rate of consumption the city's schools have enough rubber softballs in warehouses to last students 23 years, enough magnets on hand for 32 years, and enough wooden beads sufficient to outfit kindergartens until the year 2626.

Source: Adapted from Robert Levy, "Tales from the Bureaucratic Woods," *Dun's Review* (March 1978), pp. 94-96. Reprinted with the special permission of *Dun's Review*, March, 1978 Copyright 1978, Dun and Bradstreet Publications Corporation.

has termed the study of the consequences of these dysfunctions "bureaupathology," and has suggested that such negative outcomes result from what may be called "bureaupathic behavior."[21] Examples of this malady have been reported in several studies.

Merton, for instance, has noted that, while bureaucratic rules and impersonality produce a high degree of reliability and calculability of results, over the long run such conformity can be detrimental.[22] Specifically, Merton suggests that over time: (1) rules often take on a symbolic significance of their own and, as a consequence, become ends rather than

[21] Victor A. Thompson, *Modern Organization* (New York: Alfred A. Knopf, 1961), pp. 23-24.

[22] Robert K. Merton, "Bureaucratic Structure and Personality," *Social Forces* 18 (1940): 560-568.

means to ends; and (2) such devotion to rules often leads to situations in which past decisions are blindly repeated with no appreciation or concern for changed conditions, and no provisions made for alternatives not previously defined. As a result, excessive inflexibility leads to the fostering of ineffectiveness and the likelihood of more or less serious maladjustments. As an example of an apparent **ends and means inversion,** Merton cites the requirement, in the early stages of World War II, that naval officers carry calling cards, even when destined for combat in the South Pacific. And Bernt Balchen, Admiral Byrd's pilot on his famous flight over the South Pole, was denied citizenship by the Bureau of Naturalization on the grounds that he violated the requirement of five years' continuous residence in the United States, even though he was on a ship flying the U.S. flag and serving as an invaluable member of a U.S. expedition. Within an administrative setting, employees frequently accuse budget personnel of believing the organization exists for the purpose of promulgating budgeting procedures rather than for achieving general organizational goals. From the perspective of those outside the budgeting office, means appear to be inverted into ends. A more recent, and somewhat more humorous, example of this inversion is an incident involving a high-ranking Brazilian government official and a group of native Brazilian Indians. Appearing at the time scheduled for their appointment with the official, the Indians were refused entry because they wore no neckties. Huddling for a moment and pondering the situation, the Indians announced that no government representative would be allowed in their village without feathered headdress and body paint.

Selznick, in his study of the Tennessee Valley Authority, has provided evidence to indicate that delegation of authority, while necessary for the growth of an organization beyond a certain size, also results in certain unintended consequences.[23] More specifically, while the delegation of authority is intended to increase operational effectiveness by providing for the exercise of specialized competencies, it also stimulates a divergence of interests and the internalization of specific subunit goals rather than overall organizational goals. Consequently, this divergence, or **bifurcation** of interests, is often the basis for conflict among organization subunits. Obviously, such differences in orientation are not conducive to accomplishing primary goals of an organization as a whole. Unfortunately, such subunit rivalries (based upon vested interests) seem to be a common element in a great many organizations. A typical example can be found in many, if not most, universities where conflicts over which department is going to offer what courses often result in unnecessary duplication of subject offerings, as well as the unnecessary expenditure of resources.

Gouldner, in his classic study of "General Gypsum Corporation" (a pseudonym), has suggested that, although bureaucratic rules are intended

[23] Philip Selznick, *TVA and the Grass Roots: A Study in the Sociology of Formal Organizations* (Berkeley: University of California Press, 1949), pp. 155-179.

Table 3.1 Characteristics, Functions, and Dysfunctions of Bureaucracy

Characteristics	Functional Consequences	Dysfunctional Consequences
Clearly defined and legitimized duties	Control	Rules assume symbolic significance
Chain of command	Precision	Means-ends inversion
Established employee selection procedures	Stability	Excessive inflexibility
Appointed officials	Discipline	Bifurcation of interests
Careers and fixed salaries	Reliability	Internalization of subunit rather than overall organizational goals
Impersonal and uniform application of rules and controls	Calculability of results	Subunit conflict
	Intensive efficiency	Promotes worker apathy
	Broadened operations	
	Widespread applicability	

to counter work apathy, they actually contribute to it.[24] This seeming paradox occurs because rules not only define unacceptable behavior, they also serve to specify a *minimum* level of acceptable performance. Thus, to paraphrase Gouldner, it is possible once rules have been defined for workers to *remain* apathetic, for they now know just how *little* they can do and still remain secure. Within an educational setting, statements such as "all students must attend at least 50 percent of the classes during a term to pass" or "the minimum requirement for graduation is a C average on all course work undertaken" are excellent illustrations of this phenomenon in that they clearly define minimum levels of acceptable behavior. Therefore, rules may be functional in one sense, but in another (unintended) sense they permit participant involvement without requiring emotional commitment. Unfortunately, a typical administrative response in such circumstances is to enact additional bureaucratic rules (such as mandatory class attendance) and, in turn, further aggravate an already poor situation.

There have been numerous other criticims of Weber's work. As is the case with the classicists, the validity of much of this criticism can hardly be questioned. This should not, however, overshadow the fact that Weber's pioneering work, like that of Taylor and Fayol, has stimulated a wealth of further analysis and research into the nature and intricacies of organization. In this respect, the early works of Weber, Taylor, Fayol, and the other classicists, although technically unsophisticated by contemporary standards, remain landmarks in the study of organization theory and analysis. The characteristics, functions, and dysfunctional consequences of bureaucracy identified in the present discussion are summarized in Table 3.1.

[24] Alvin W. Gouldner, *Patterns of Industrial Bureaucracy*, (Glencoe, Ill.: Free Press,), pp. 174-175.