In Figure 5.8, the hierarchy of the manufacturing department has seven levels. The production manager, at level 7, reports to the CEO. In contrast, both the research and development and the sales functions have only three levels in their hierarchies. Why? Like the organization as a whole, each function also follows the principle of minimum chain of command when designing its hierarchy. Each function chooses the fewest number of hierarchical levels it needs to operate effectively and achieve its goals. The manufacturing function typically has many levels because each manager at each level needs to exert tight control over their subordinates to keep production costs to a minimum. The sales department has fewer levels because supervisors use standardization, such as written reporting requirements and output controls that measure the amount salespeople sell, to monitor and control their behavior. Direct personal supervision is not required because managers can look at the numbers.

The R&D function also usually has few levels of managers, but for a different reason. Personal supervision on a continuing basis is superfluous in R&D: The tasks of scientists are complex and even if managers continually monitor researchers, they cannot evaluate how well they are performing because years may pass before significant research projects come to fruition. In an R&D context, control is generally achieved by scientists working in small teams, where they can monitor and learn from each other. This is why there is often another level of horizontal differentiation inside an organization—within a function or department, many kinds of task-oriented groups or teams are common.
Figure 5.9 shows the horizontal differentiation of the R&D function into project teams. Each team focuses on a specific task, for example, developing different product, although the different teams are likely to share their problems and discoveries. The use of teams also provides a way to keep the span of control small, which is necessary when tasks are complex and interrelated—as they are in R&D. Moreover, in an R&D setting, informal norms and values develop to standardize behavior, and the “informal” organization becomes an important means of linking R&D teams to each other and to other functions.

Increasing horizontal differentiation thus increases vertical differentiation within an organization because many subunit hierarchies come into being. But horizontal differentiation avoids many of the problems of tall hierarchies because the development of numerous subunit hierarchies allows the organization to remain flat. Nevertheless, the problems associated with horizontal differentiation such as the development of divergent subunit orientations (see Chapter 4) can lead to additional coordination and motivation problems. Managers can control these problems by making wise choices concerning centralization, standardization, and the influence of the informal organization. (In Chapter 6 we discuss the coordination of activities between subunits.)

Centralization

As the hierarchy becomes taller and the number of managers increases, communication and coordination problems grow. Managers begin to spend more and more time monitoring and supervising their subordinates and less time planning and goal setting, and organizational effectiveness suffers. One solution to this problem is to decentralize authority because now less direct managerial supervision is needed. When authority is decentralized, the authority to make significant decisions is delegated to people throughout the hierarchy, not concentrated at the top. The delegation of authority to lower-level managers reduces the monitoring burden on top managers and reduces the need for “managers to monitor managers.”

One organization that took steps to decentralize authority and flatten its structure because of declining performance was breakfast cereal maker Quaker Oats when it realized that competitors like Kraft and Heinz were forging ahead with new innovative product ideas and it was being left behind. Its then CEO, Robert Morrison, decided the problem was that the organization’s structure put authority in the wrong place—with corporate managers above the level of the heads of its different food divisions, rather than with the
heads of the food divisions themselves. So he took action. First, he eliminated the entire upper level of management—even though they were competent executives. Then he reorganized reporting relationships to decentralize authority to the division heads, who now reported directly to him, and he made them responsible for the food products under their control. As a result, he both flattened and decentralized control in the organization.

Coca-Cola Enterprises, the bottling arm of the soft-drink giant, faced a similar problem in the 2000s. Summerfield Johnston, who was then CEO, noted his company’s inability to respond quickly to the changing needs of the different regions in which Coke is bottled. Johnston decided that centralized control (regional operations were controlled from the Atlanta head office) was hurting the bottling operations. Because of the long chain of command, many problems that the regions were experiencing were being dealt with slowly, and managers at the head office were often unaware of the problems that people faced on the front line. Johnston redesigned the management hierarchy. He fired over 100 managers at company headquarters and eliminated several levels in the hierarchy. He then decentralized control over operations to the vice presidents in charge of each of its 10 regional units, each of whom was given the responsibility to streamline regional operations and cut costs.

Decentralization does not eliminate the need for many hierarchical levels in a large and complex organization. However, it enables even a relatively tall structure to be more flexible in its responses to changes in the external environment because it reduces the amount of direct supervision required.

**Standardization**

Managers can also gain control over employees by standardizing their behavior to make their actions predictable. The use of standardization reduces the need for personal control by managers and the need to add levels in the hierarchy because rules and SOPs substitute for direct supervision and face-to-face contact. Recall from Chapter 4 that managers standardize activities not only by creating detailed work rules but also by socializing employees into organizational norms and values. As subordinates’ tasks become increasingly standardized and controlled by means of rules and norms, the amount of supervision required lessens, and a manager’s span of control can be increased. Salespeople, for instance, are typically controlled by a combination of sales quotas that they are expected to achieve and written reports they are required to submit after calling on their clients. Managers do not need to monitor salespeople directly because they can evaluate their performance through those two standardized output controls. Standardization also allows upper-level managers to delegate responsibility more confidently when subordinates have clearly specified procedures to follow.

We have seen that an organization can control its members and their activities in different ways, ranging from personal control by managers in the hierarchy, to control through formalization and standardization, to informal control by means of norms and values. Structuring an organization to solve control problems requires decisions about all the different methods of control. The structure of every organization reflects the particular contingencies it faces, so every organization has a structure that is somewhat different. Nevertheless, some generalizations can be made about how organizations fashion a structure to control people and resources effectively.

First, managers increase the level of vertical differentiation, paying particular attention to keeping the organization as flat as possible and to maintaining an appropriate balance between centralization and decentralization. Second, they increase horizontal differentiation and thereby also increase vertical differentiation. Third, they decide how much they can use rules, SOPs, and norms to control activities. The more they can use them, the less they will need to rely on direct supervision from the managerial hierarchy, and the need for managers and for additional levels in the hierarchy will be reduced.

Organizational design is difficult because all these decisions affect one another and must be made simultaneously. For example, managers very often start out by designing an organic structure (see Chapter 4) with a flat hierarchy and rely on norms and values rather than on rules to control organizational activities. Very quickly, however, as the organization grows, they are forced to add levels to the hierarchy and to develop rules and SOPs to maintain control. Before managers realize it, their organization has a mechanistic structure, and they face a new set of control problems. Organizational structure evolves and has to be managed constantly if an organization is to maintain its competitive advantage.
Managerial Implications

Authority and Control

1. Managers must control the organizational hierarchy and make sure it matches the current needs of the organization. Periodically, managers should draw a new organizational chart of their organization or department and measure (a) the number of current employees, (b) the number of levels in the hierarchy, and (c) the size of the span of control of managers at different levels.

2. Using that information, managers should consider whether the hierarchy has grown too tall or too centralized. If they find the hierarchy has grown too tall, they should combine managerial positions and eliminate levels in the hierarchy by reassigning the responsibilities of the eliminated positions to managers in the level above or, preferably, by decentralizing the responsibilities to managers or employees in the levels below.

3. If managers find the hierarchy does not provide the control they need to maintain adequate supervision over people and resources, they should consider how to increase organizational control. They may need to add a level to the organizational hierarchy or, preferably, use an alternative means of control, such as increasing standardization or decentralization or making better use of the norms and values of the informal organization.

4. Managers should periodically meet in teams to consider how best to design and redesign the hierarchy so that it allows the organization to create the most value at the lowest operating cost.

The Principles of Bureaucracy

Around 1900, Max Weber (1864–1920), a German sociologist, developed principles for designing a hierarchy so it effectively allocates decision-making authority and control over resources.27 Weber’s interest was in identifying a system of organization or an organizational structure that could improve the way organizations operate—that is, increase the value they create and make them more effective.

A bureaucracy is a form of organizational structure in which people can be held accountable for their actions because they are required to act in accordance with rules and standard operating procedures. Weber’s bureaucratic organizing principles offer clear prescriptions for how to create and differentiate organizational structure so that task responsibility and decision-making authority are distributed in a way that maximizes organizational effectiveness. Because his work has been so influential in organizational design, it is useful to examine the six bureaucratic principles that, Weber argued, underlie effective organizational structure. Together these principles define a bureaucracy or bureaucratic structure (see Table 5.1).

**Principle One:** A bureaucracy is founded on the concept of rational-legal authority.

<table>
<thead>
<tr>
<th>TABLE 5.1 The Principles of Bureaucratic Structure</th>
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<td>Principle One: A bureaucracy is founded on the concept of rational-legal authority.</td>
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<td>Principle Two: Organizational roles are held on the basis of technical competence.</td>
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<td>Principle Three: A role’s task responsibility and decision-making authority and its relationship to other roles should be clearly specified.</td>
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<td>Principle Four: The organization of roles in a bureaucracy is such that each lower office in the hierarchy is under the control and supervision of a higher office.</td>
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<td>Principle Five: Rules, standard operating procedures, and norms should be used to control the behavior and the relationship between roles in an organization.</td>
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<td>Principle Six: Administrative acts, decisions, and rules should be formulated and put in writing.</td>
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Rational-legal authority is the authority a person possesses because of his or her position in an organization. In a bureaucracy, obedience is owed to a person not because of any personal qualities that he or she might possess (such as charisma, wealth, or social status) but because of the level of authority and responsibility associated with the organizational position the person occupies. Thus we obey a police officer not because he or she wears an impressive uniform and carries a gun but because that person holds the position of police officer, which brings with it certain powers, rights, and responsibilities that compel obedience. In theory, a bureaucracy is impersonal. People’s attitudes and beliefs play no part in determining the way a bureaucracy operates. If people base decisions and orders on their personal preferences instead of on organizational goals, effectiveness suffers.

Weber’s first principle indicates that choices affecting the design of an organization’s hierarchy should be based on the needs of the task, not on the needs of the person performing the task. Thus subordinates obey the CEO because of the authority and power vested in the position, not because of the individual currently filling it. For a bureaucracy to be effective, however, the distinction between positions and the people who hold them must be clear: People are appointed to positions; they do not own them.

**Principle Two: Organizational roles are held on the basis of technical competence, not because of social status, kinship, or heredity.**

In a well-designed hierarchy, people occupy roles because they can do the job, not because of who they are or who they know. Although this principle seems self-evident and the logical way to run an organization, it has often been ignored. Until 1850, for example, an officer’s commission in the British Army could be bought by anybody who could afford the price. The higher the rank, the more the commission cost. As a result, most officers were rich aristocrats who had little or no formal army training, and many military disasters resulted from this system. Today, in many organizations and industries, so-called old-boy networks—personal contacts and relations—and not job-related skills influence the decision about who gets a job. The use of such criteria to fill organizational roles can be harmful to an organization because talented people get overlooked.

Picking the best person for the job seems an obvious principle to follow. In practice, however, following this principle is a difficult process that requires managers to view all potential candidates objectively. People must always remember that holding a role in an organization in a legal sense means their job is to use the organization’s resources wisely for the benefit of all stakeholders, not just for personal gain.

Weber’s first two principles establish the organizational role (and not the person in that role) as the basic component of bureaucratic structure. The next three principles specify how the process of differentiation should be controlled.

**Principle Three: A role’s task responsibility and decision-making authority and its relationship to other roles in the organization should be clearly specified.**

According to Weber’s third principle, a clear and consistent pattern of vertical differentiation (decision-making authority) and horizontal differentiation (task responsibility) is the foundation for organizational effectiveness. When the limits of authority and control are specified for the various roles in an organization, the people in those roles know how much power they have to influence the behavior of others. Similarly, when the tasks associated with various roles are clearly specified, people in those roles clearly know what is expected of them. Thus, with those two aspects of a person’s role in an organization clearly defined, a stable system emerges in which each person has a clear expectation and understanding of the rights and responsibilities attached to other organizational roles. In such a stable system all individuals know how much their supervisor can require of them and how much they can require of their subordinates. People also know how to deal with their peers—people who are at the same level in the organization as they are and over whom they have no authority, and vice versa.
Clear specification of roles avoids many problems that can arise when people interact. If, for example, some task responsibilities are assigned to more than one role, the people in those roles may have to fight over the same set of resources or claim responsibility for the same tasks. Is sales or marketing responsible for handling customer requests for information? Is the head of the army or the head of the air force responsible for invasive operations in enemy territory? The military is a vast bureaucracy in which the division of labor among the armed services is continually being negotiated to prevent such problems from emerging.

A clear pattern of vertical (authority) and horizontal (task) differentiation also cuts down on role conflict and role ambiguity.29 Role conflict occurs when two or more people have different views of what another person should do and, as a result, make conflicting demands on the person. The person may be caught in the crossfire between two supervisors or the needs of two functional groups. Role ambiguity occurs when a person’s tasks or authority are not clearly defined and the person becomes afraid to act on or take responsibility for anything. Clear descriptions of task and authority relationships solve conflict and ambiguity problems: When people know the dimensions of their position in the organization, they find it easier to take responsibility for their actions and to interact with one another.

Principle Four: The organization of roles in a bureaucracy is such that each lower office in the hierarchy is under the control and supervision of a higher office.

To control vertical authority relationships, the organization should be arranged hierarchically so people can recognize the chain of command.30 The organization should delegate to each person holding a role the authority needed to make certain decisions and to use certain organizational resources. The organization can then hold the person in the role accountable for the use of those resources. The hierarchical pattern of vertical differentiation also makes clear that a person at a low level in the hierarchy can go to someone at a higher level to solve conflicts at the low level. In the U.S. court system, for example, participants in a court case can ask a higher court to review the decision of a lower court if they feel a bad decision was made. The right to appeal to a higher organizational level also needs to be specified in case a subordinate feels that his or her immediate superior has made a bad or unfair decision.

Principle Five: Rules, standard operating procedures, and norms should be used to control the behavior and the relationship among roles in an organization.

Rules and SOPs are formal written instructions that specify a series of actions to be taken to achieve a given end; for example, if A happens, then do B. Norms are unwritten standards or styles of behavior that govern how people act and lead people to behave in predictable ways. Rules, SOPs, and norms provide behavioral guidelines that can increase efficiency because they specify the best way to accomplish a task. Over time, these guidelines should change as improved ways of doing things are discovered. The goal is constant progress to meeting organizational goals.

Rules, SOPs, and norms clarify people’s expectations about one another and prevent misunderstandings over responsibility or the use of power. Such guidelines can prevent a supervisor from arbitrarily increasing a subordinate’s workload and prevent a subordinate from ignoring tasks that are a legitimate part of the job. A simple set of rules established by the supervisor of some custodial workers (Crew G) at a Texas A&M University building clearly established task responsibilities and clarified expectations (see Table 5.2).

Rules and norms enhance the integration and coordination of organizational roles at different levels and between different functions. Vertical and horizontal differentiation breaks the organization up into distinct roles that must be coordinated and integrated to accomplish organizational goals.31 Rules and norms are important aspects of integration. They specify how roles interact, and they provide procedures that people should follow to jointly perform a task.32 For example, a rule could stipulate that “Sales must give