At its most basic, organizational structure is the configuration of the hierarchical levels and specialized units and positions within an organization, and the formal rules governing these arrangements (Rainey, 1997, p. 170). Other writers on organizations argue that performance evaluation and reward systems are additional key elements of organizational structure and must be designed carefully to promote the organization’s objectives. This appendix describes some of the principles of organizational design that are relevant to the MHS.¹

ALLOCATION OF DECISION RIGHTS

There are trade-offs involved in deciding whether to decentralize or centralize decision authority and how to organize subunits—for example, around products, functions, or geography. The private sector has tended to move to decentralized decisionmaking and product- or client-oriented organization, apparently to take advantage of information and other technologies and to respond to competitive pressures for timeliness and quality.

Lacking the kind of pressure for economic survival that private-sector firms face, DoD activities (and the activities of many other public organizations) have kept to more traditional approaches

¹This appendix draws on several texts on organizations in the public and private sectors. Those texts are Rainey (1997), Brickley et al. (1996), Milgrom and Roberts (1992), and Gortner et al. (1997). See also Jensen and Meckling (1992) and Bloom and Milkovich (1998).
characterized by greater centralization of authority and functional organization. One obvious reason is that change is risky (it might backfire) and threatens job security; without strong incentives, risk-averse public employees resist change.

It is also possible that other considerations make decentralized, customer-oriented organizational structures less desirable in the public sector. An obvious consideration that carries more weight in public organizations is public accountability. Private firms can weigh the expected monetary cost of fraud or bad decisions against the monetary gains of decentralized decisionmaking; public organizations have to consider the potentially high political cost of decentralizing authority.

In allocating the authority to make decisions, it is useful to differentiate among the following steps in a decision-making process: initiation of proposals, choice of the decision to be implemented, implementation, and monitoring. Initiation and implementation are elements of decision management, whereas choice and monitoring are elements of decision control.

To avoid the consequences of improperly aligned incentives or conflicts of interest, decision control and decision management are often separated. Decision management is decentralized to take advantage of specialized information at lower levels and decision control is centralized to make sure the decisions are consistent with broad organizational goals. However, there are situations that call for centralized decision management, for example, when significant innovation is called for and lower-level managers lack the necessary expertise and information to initiate change. Similarly, when decisions require local information not readily available to central managers, they are delegated to local managers.

The optimal allocation of decision rights in an organization depends on a complex set of factors. Those identified in the literature include the following:

- **Location of specialized knowledge needed to manage cost effectively.** If unit managers have important knowledge that cannot be easily communicated to higher levels, decisionmaking is likely to be decentralized.
• **Technological change that renders existing specialized knowledge obsolete.** Unless knowledge of new technologies can be easily transferred to lower-level managers, decisions involving choices of technology will be centralized.

• **Benefits of rapid decisionmaking.** Centralized decisionmaking tends to be slower because it requires more communication.

• **Training and motivation (incentives) of workers and managers at different levels.** Decentralized management requires well-trained and motivated local managers.

• **Requirements for and costs of coordination across subunits within the activity, as well as communication of information up and down the management hierarchy.** If information transfer is poor, central managers will not be able to make well-informed decisions and communicate them effectively. If considerable coordination across units is required, decisions may be made at higher levels.

• **Ability to monitor decisions and outcomes.** If management cannot easily observe decisions made at lower levels, they may prefer to keep more decisionmaking authority.

One additional factor that is important in public organizations is the ability to change existing constraints. For example, the factors just listed may lead to a strategy that fully decentralizes operational decisions and allows the low-level manager to freely allocate his resource mix subject to an overall budget constraint, or perhaps an output target. If laws and regulations that limit resource flexibility remain in place, decentralization becomes less beneficial, and therefore a constrained cost-benefit analysis may show that a more-centralized strategy is best.

Outsourcing is an important element of the allocation of decision rights. In determining an organizational structure, outsourcing decision and processing authorities (that is, contracting them out) are assigned. What to outsource and to whom to outsource it are typi-

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2 Activities may be given both a budget and output target, but in practice one or the other must be flexible—oftentimes it is the budget constraints, which are altered through reprogramming.
cally assigned to whomever has authority over the production process, but some contracting requires highly specialized skills and generally is assigned centrally. Increasingly, simpler contracts (including spot market purchases) can be handled at low levels and even larger purchases are authorized locally, even though they may be purchased centrally to obtain discounts.

**PERFORMANCE EVALUATION**

Outcomes are monitored to determine how individuals and units in the organization are performing and to provide a basis for rewards. Centralized and decentralized organizations monitor performance as part of their continuous improvement processes, and decentralized organizations rely on monitoring to ensure that local decisions are consistent with corporate goals. Effective performance evaluation requires that the organization establish clear goals and develop meaningful measures of them.

It is important to monitor all outcomes that are valued, not just the ones that are the target of reform. At a minimum, these include measures of the quantity of output as well as its quality and production cost.

There is a growing realization that monitoring quality is critical in managed-care organizations that have strong incentives for efficiency, for example. Health-care quality is a good example of an outcome that is difficult to measure. Its importance is indicated by the vast sums of money that have been and are being spent on developing quality measures.

Objective measures are preferred over subjective measures to ensure fairness and to avoid so-called influence costs (costs that are incurred when managers and workers try to influence outcomes, measures, or decisions), but subjective measures are often also required.

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3 Health-care quality typically is defined to mean both technical (clinical) quality and quality as perceived by the patient (which includes the components of customer service).
Performance measures are assessed against some standard and a number of issues are to be considered in determining what standard to use in a particular situation. Benchmarking is a form of relative performance standard; it works well when the benchmark reasonably could apply to the organization being evaluated.

The critical importance of monitoring is emphasized repeatedly in the organizational literature and it is clear that the return to investment in information systems or other methods of data collection is generally thought to be high in the private sector. Because information collection and inappropriate performance measures are costly, the design of the systems and measures should be done carefully to support the organization’s strategy and modified as that strategy changes over time.

INCENTIVES AND REWARDS

Scholars agree that well-designed incentives are key to success, but they disagree about which kinds of rewards are most effective: material rewards (for example, incentive pay) or nonmaterial rewards (for example, improvements in working conditions); extrinsic rewards (given by others to the individual) or intrinsic rewards (feelings of accomplishment); or individual or group rewards. The possibilities are seemingly endless.

The economics literature tends to emphasize material rewards, which have the advantage of being tangible so that it is clear when a reward has been earned and given. A few management experts believe that monetary rewards in particular are ineffective and potentially counter-productive. Certainly, they are counter-productive if they are not designed properly. Furthermore, there are situations in which none of the feasible incentives are efficient; in these cases, straight salary is preferred.

The evidence suggests that incentive pay is less effective when the outcomes to be rewarded are uncertain, the influence of workers and

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4Prendergast (1999) comprehensively reviews the theoretical and empirical economics literature on incentives.

5Zajac and Westphal (1994) find in an empirical study of 400 large corporations that “maximal” incentives are not always optimal.
managers on these outcomes is difficult to detect, and personnel are risk-averse or unresponsive to rewards. In this regard, studies of public employees suggest that they are more risk-averse than other employees but respond well to intrinsic rewards such as recognition. This is fortunate because public organizations typically are constrained in their use of extrinsic rewards such as bonuses.