Based on our review of previous studies and commentaries on the active/reserve mix, we found that the relevant issues can be aggregated into six major factors. In this chapter, we briefly describe those factors and indicate in general terms how they influence the ideal force mix. We also present our framework for considering the factors simultaneously. Subsequent chapters examine the individual factors more thoroughly.

**SIX FACTORS IN MAKING ACTIVE/RESERVE MIX DETERMINATIONS**

The six factors we identified are (1) social considerations, (2) political considerations, (3) readiness, (4) availability, (5) personnel flow, and (6) cost. Since social and political considerations are closely related, we discuss them below together; the same holds true for readiness and availability, which are also discussed together.

**Social and Political Considerations**

Reserve forces may have social and political utilities that differ from or complement active force utilities. To realize these utilities, we suggest that the proportion of the total Air Force supplied by the RC must exceed some critical mass.

These utilities are related to a number of considerations. There is a strong historical and constitutional presumption that at least part of the nation’s military forces should be provided by citizen-soldier
militias rather than regular forces. Although rooted in political concerns prevalent in the nation’s revolutionary period, reliance on militia forces may have contemporary benefits.

- Reservists are more fully integrated into the larger society than active-duty members, enabling them through personal contact to extend public awareness and trust of military institutions.
- Call-up of reservists for real-world employment is subject to stronger political checks and balances than the employment of active-duty forces, thus discouraging military involvement that lacks public support and broadening support for employments that are undertaken.
- Reserve units, especially those of the ANG, are less geographically concentrated than active units. (One might expect that the greater geographic representation of the RC would make it more demographically representative than the AC, but our analysis in Chapter Three did not find it markedly so.) Representativeness in any form contributes to public trust in government institutions.
- By increasing the number of veterans in the society, reserve forces increase the proportion of key public policy decisionmakers and influencers who have military experience and are thus more likely to take informed positions about military issues.
- ANG units provide an efficient and effective source of disciplined manpower to satisfy state missions (disaster relief, civil disturbance, etc.).

**Readiness and Availability**

Because reserve forces rely heavily on part-time participants who have full-time occupations, they are less available than active-duty forces. They may also be less ready than active-duty forces because of limited opportunities for training, particularly unit-sized training exercises that cannot be effectively compressed or segmented into weekend drill periods. In practice, these limitations apply more to Army, Navy, and Marine Corps reserve forces than to Air Force reservists, many of whom can effectively train in small aggregations (individuals or crews) and who can also be readily integrated into
active forces without involuntary unit call-ups. Nonetheless, active forces must remain large enough to meet rapid-deployment needs and to provide sustained involvement in operations that exceed statutory limitations on the duration of call-ups.

Active forces also face some readiness-limiting conditions. Turnover in active-duty flying squadrons is higher than in reserve squadrons because of rotations into and out of cockpit duties and to permit greater absorption of new pilots entering the rated force. RC pilots often have previous AC experience. As a result, AC pilots have on average less weapons system experience than their RC counterparts.

**Personnel Flow Considerations**

To meet their manpower needs, reserve forces rely heavily on a flow of trained and acculturated personnel from active-duty forces. It is unlikely that reserve forces could find sufficient qualified nonprior service (NPS) recruits to meet all their needs, given that nonprior service recruits generally must agree to an initial period of active duty for training lengthy enough to complete recruit and initial skill training. If the maximum acceptable nonprior service input to reserve forces can be determined and if active-force separation and reserve affiliation rates are known, an upper limit on the ratio of reserve to active forces can be determined.

**Cost**

Active and reserve force operating costs have often been compared on a per-unit or per-aircraft basis. That is, the operating costs of reserve units are compared with those of similar active units. This cost comparison approach assumes equal availability and employability of active and reserve units. Such an assumption is appropriate for employment of forces in major theater war (MTW) or some large-scale military operations other than war (OOTW) scenarios, where call-up of reserve forces can make them fully substitutable for active forces for many requirements (those that are compatible with statutory call-up limitations).

However, in most OOTW or smaller-scale contingency (SSC) scenarios, this cost comparison approach is not appropriate.
Sustained deployments, such as those related to peacekeeping in Bosnia or enforcement of no-fly zones in Iraq, generate demands that, given acceptable durations and frequencies of deployment, are different from MTW demands. Short of call-up, reserve forces face a limit on acceptable frequency and duration of employment that is much tighter than that of active forces. Thus, in meeting these demands, reserve forces are not fully substitutable for active forces. An appropriate cost comparison for OOTW and SSC scenarios must be based on outputs useful in these scenarios. A relevant output is the number of days per year that an aircraft with appropriate aircrews and logistic support can be deployed. The cost per output is then computed as annual aircraft operating costs divided by deployable aircraft days per year.

INTEGRATING THE SIX FACTORS

Figure 2.1 provides a scheme for integrating the six factors discussed above. The figure depicts a set of constraints on the proportion of the total force that is in the RC. Arrows on the boundary lines indicate the expected direction of the constraint. The figure suggests that some of these constraints might vary as a function of total force size. In subsequent chapters, we will indicate what we believe to be the approximate loci of these constraints in some contexts.

The figure depicts social and political considerations establishing lower-bound constraints on the proportion of the total force in the RC. Political utilities depend in part on the total force maintaining a visible presence, with either active or reserve forces, in local communities. As total force size decreases, reserve forces will be called upon to provide the presence, and they must therefore constitute, at minimum, a larger proportion of the total force. Thus, the political constraint is represented by a sloping line. The social constraint suggests that the reserve forces must occupy some minimum constant proportion of the force in order to influence the values and culture of the total force.

Readiness and availability considerations set upper bounds on reserve forces. We assume a constant demand for immediately and continuously available forces that must be met primarily by using active forces. As the total force becomes smaller, this constant de-
mand calls for an increasing proportion of the force to be supplied by the active component (represented by a sloping availability constraint line in Figure 2.1). As discussed above and in more detail later, there are generally no appreciable readiness differences between Air Force active and reserve forces. Thus, readiness does not constrain the mix.

The personnel flow constraint also sets an upper bound. The RC depends on a critical flow of human capital from the AC. There is some ratio of AC to RC size beyond which this critical flow can no longer be sustained. In the steady state, this ratio would not vary with total force size.

Taken together, these constraints form a feasible region in which a force mix would simultaneously satisfy the principles represented by the constraints. A specific force mix in the region can then be targeted on the basis of cost considerations. As mentioned above, re-
Reserve forces have been conventionally viewed as less costly than active forces, indicating that the force mix should be along the border formed by the upper-bound constraints. However, if reserve forces are found to be more costly than active forces in meeting OOTW and SSC demands (see Chapter Six), the direction in which cost considerations drive the force will depend on the need being met. It may be necessary for force-structure planners to choose between a larger, more reserve-intensive force that better meets MTW demands, and an equal-cost, smaller, more active-intensive force that better meets OOTW/SSC demands.

Note that we depict no feasible region at smaller force sizes. In this force size range, the goal of keeping reserve forces large enough to obtain political utilities might conflict with the goal of keeping enough active forces to meet rapid deployment demands. Similarly, it is possible that in some contexts the upper-bound personnel flow constraint will lie to the left of the lower-bound social constraint, so that there is no feasible region at any force size. When there is no feasible region, force-structure decisionmakers must make tradeoffs between conflicting principles.