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# **Army Active Component (AC)/Reserve Component (RC) Force Mix: Considerations and Options for Congress**

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## **AC/RC Mix: Considerations for Congress**

Determining the appropriate mix of AC and RC forces is complex, with many factors affecting the process. Of these, utilization, readiness, effectiveness, cost, and risk are generally considered the major elements in developing the AC/RC force mix. These factors are all linked to the ability of the specified military forces to meet national security requirements in a budget constrained environment. However, there are other factors often considered with respect to AC/RC mix, particularly with respect to the National Guard. These factors are discussed briefly as well, under the heading “Other Considerations.”

### **Utilization**

A key driver of Army force structure, both AC and RC, is the anticipated future demand for Army units. What will they be used for? How quickly will they need to respond? For how long will they

be needed? Answering these questions involves assumptions about likely threats to national interests, how frequently the United States will deploy Army units in response to those threats, and what type of mission they will need to conduct when responding to those threats. Given those broad parameters, several factors should be considered in determining how much of the “demand” can be met with AC forces and with RC forces.

## **Missions**

The missions anticipated for Army units play a key role in determining the number and types of units the Army maintains in its force structure. If AC and RC units of the same type are identical in capability and availability, they can be used in precisely the same manner and, consequently, this factor would have limited applicability to AC/RC mix considerations. However, some observers argue AC and RC units are not identical in terms of availability and, at least in some circumstances, are not identical in terms of capability; hence, they are not always interchangeable for mission planning purposes. For example, AC Army units are usually considered better positioned to respond to crises requiring immediate action because they are more readily available; that is, they typically require less notification, preparation and train up time prior to deployment than similar RC units.<sup>51</sup> RC Army units tend to be preferred for missions that permit a substantial train up period; for example, as reinforcements for an initial response force or as part of a periodic rotation for a long term mission. Additionally, given policy constraints on the length of RC activations (discussed more below), AC units are often preferred for “forward presence” missions overseas, such as the main Army forces in Europe and South Korea. More controversial is the contention that AC and RC units of the same type are not identical in terms of their capability. (See footnote 23) Some argue that AC units are superior to their RC counterparts in certain respects, and are therefore better suited for certain missions—most notably high intensity combat or “combined arms maneuver.”<sup>52</sup> The reverse of this argument—that some RC units are better suited to certain missions (such as homeland defense, disaster response, and missions with a close civilian analogue)—is also advanced.

## **Access to the Reserve Components**

Historically, one of the barriers to use of the RC was the limited circumstances under which they could legally be ordered to active duty. The principal activation authorities in effect after World War II—today known as Full Mobilization and Partial Mobilization Issues—limited reserve activations to times of war or situations where a national emergency had been declared by Congress or the President. In 1976, a new authority, now known as Presidential Reserve Callup Authority, allowed the President to activate reservists for missions without a declaration of

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<sup>51</sup> Several factors relate to this: more rapid assembly of an active personnel (versus the time it takes to invoke activation authorities for reservists and assemble the personnel); the full-time nature of active duty allows AC soldiers to maintain a higher state of training readiness (whereas reserve soldiers typically need at least some post-mobilization training); the location of AC units on bases which have support activities to enable deployment (whereas RC units frequently have to travel some distance to arrive at such a base); and, more AC units are forward deployed and may thus be located closer to the crisis location.

<sup>52</sup> The Army’s doctrinal definition of combined arms maneuver is “the application of the elements of combat power in unified action to defeat enemy ground forces; to seize, occupy, and defend land areas; and to achieve physical, temporal, and psychological advantages over the enemy to seize and exploit the initiative. It exposes enemies to friendly combat power from unexpected directions and prevents an effective enemy response.” Department of the Army, Army Doctrinal Publication 3-0, *Unified Land Operations*, October 10, 2011, p. 6, available here: [http://armypubs.army.mil/doctrine/DR\\_pubs/dr\\_a/pdf/adp3\\_0.pdf](http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/adp3_0.pdf) .

emergency, though the duration of this type of activation was limited, as was the number of reservists who could be activated at any given time. Subsequent amendments expanded the scope of this authority significantly. The FY2012 National Defense Authorization Act added two new activation authorities: one to permit activation of reservists for up to 120 days to respond to disasters, and another to permit activation of reservists for up to one year for “preplanned mission in support of a combatant command.” This latter authority opens the door for activations in support of more routine military missions, rather than the crisis or “contingency” focus of the other authorities. These activation authorities are summarized in **Appendix E**.

The lowering of legal barriers to reserve activations has contributed to the increased use of reservists in recent decades and eased the concerns of senior defense officials that reservists will be available when needed. Still, when considering whether to use reserve forces in a given role or for a particular mission, the reserve activation authorities place constraints on defense officials that do not exist for active forces. In particular, there are statutory limits on the number of reservists that may be activated, and the length of time that they may be ordered to active duty. Since 2007, there have also been DOD policy limitations on the frequency and duration of reserve activations that are stricter in certain respects than the statutory limits (discussed in the next section). Finally, in considering the use of reserve units for specific roles and missions, defense planners must take into account the time it takes to invoke activation authorities for reservists, notify affected units, assemble their personnel, and conduct post-mobilization training.

### **Deployment to Dwell (AC) and Mobilization to Dwell (RC) Ratios<sup>53</sup>**

During World War II, Army units typically deployed for the duration of the conflicts; thus, units and their personnel could spend three to four years deployed in combat zones. A different approach was used starting with the Korean War, when individuals were rotated in and out of theater on a periodic basis. During the Vietnam conflict, soldiers were rotated in and out of the deployed unit for a one year “tour of duty” and then returned home. While this policy addressed the issue of spending an extended period in combat, it also created a great deal of turbulence which some cited as having had an adverse impact on unit cohesion and discipline.

With the advent of the All-Volunteer Force and the growth of military families, separating soldiers from their families for extended periods raised concerns about impacts on retention. When it became apparent to military leadership that operations in Iraq and Afghanistan would span many years, DOD established a deployment policy for the Active and Reserve components. In 2007, the Secretary of Defense established a “deployment-to-dwell” policy for AC forces—which remains in effect today—indicating that the planning objective would be one year of deployment followed by two years at home station. He also limited RC activations to a maximum of one year (excluding individual skill training and post-mobilization leave), and set the “mobilization to dwell” planning objective for RC units at one year mobilized followed by five years demobilized.<sup>54</sup> These dwell time policies are typically expressed by the ratios of 1:2 and 1:5.

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<sup>53</sup> Information from this section is taken from Secretary of Defense Memorandum, “Utilization of the Total Force, January 19, 2007.

<sup>54</sup> Memo from Secretary of Defense Robert Gates, “Utilization of the Total Force,” January 19, 2007, available here: <http://www.armyg1.army.mil/MilitaryPersonnel/Hyperlinks/Adobe%20Files/OSD%20Memo%20dtd%2020070119%20-%20Utilization%20of%20the%20Force.pdf>

In addition to the differences in ratios, another key distinction between the two policies is that the deployment-to-dwell ratio for AC units is tied only to time deployed, while the mobilization to dwell ratio for RC units is tied to time mobilized, which can include both pre-deployment training and deployment time. For example, a one-year mobilization for an RC unit might include three months of train up followed by a nine-month deployment. These differences in policy for AC and RC units play a critical role in comparative cost estimates which use a deployed unit cost approach (discussed later in the report).

### **Key Questions Related to Utilization**

- What are the major threats to which Army units will be expected to respond? How fast will the Army be expected to respond and with what types of units? How long will operations last? How long will units be expected to remain in a deployed status. Will units need to conduct multiple deployments in order to meet sustained demands?
- Are there any roles or missions for which either AC or RC forces are clearly more capable than their counterpart, and therefore might be the preferred force of choice? How does this determination align with current AC and RC force structure?
- Should statutory limits in reserve activation authorities be modified? Should they allow more reservists to be activated, and for a longer period of time, than currently allowed?
- Should the DOD policy on “deployment-to-dwell” ratios be modified for active and/or reserve personnel? If so, what should those ratios look like? Are they sufficiently robust to meet projected national security obligations? Do they allow sufficient rest time between deployments so that recruiting and retention remain at acceptable levels?

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<sup>55</sup> Department of Defense, Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, as amended through July 16, 2014, p. 214, available at [http://www.dtic.mil/doctrine/new\\_pubs/jp1\\_02.pdf](http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf).

<sup>56</sup> There is a separate, though similar process, for reporting readiness for a unit’s “assigned mission,” as an assigned mission may vary somewhat from what the unit was designed to do.

## Effectiveness

As discussed above, the Defense Readiness Reporting System (DRRS) is designed to assess the ability of units to “execute their missions, plans, and individual tasks based on their capabilities reflecting demonstrated performance in training and operations.”<sup>65</sup> Logically then, readiness levels should correlate strongly with actual unit performance during exercises and operational missions. However, CRS was unable to find any studies which attempted to determine the extent of this correlation. There does not appear to be any systematic assessment of unit performance during the wars in Iraq and Afghanistan that would be suitable for comparing unit effectiveness between AC and RC units.

The National Defense Authorization Act for FY2012 included a provision requiring the Department of Defense to submit a report “setting forth an analysis of the costs of a sample of deployable units of the active components of the Armed Forces and the costs of a sample of similar deployable units of the reserve components of the Armed Forces.” DOD submitted this report to Congress on December 20, 2013, and it was subsequently evaluated by the Government Accountability Office (GAO). The GAO assessment of the DOD report included the following statement:

Second, the report does not consider or comment on the effectiveness of either active- or reserve-component units when compared to each other. DOD officials told us that there are differences across the services in the way that reserve-component units are employed, so it would be difficult to generalize about their relative effectiveness. The officials told us that it is a generally accepted principle that in most cases, similar active and reserve units should have comparable levels of effectiveness after completing sufficient training; however, they added that data for measuring active- and reserve-unit effectiveness are limited and inconsistently collected. Because the report does not include a discussion of active- and reserve-unit effectiveness, the extent to which the unit-cost comparisons presented in the report can be used to inform force-mix decisions is limited.<sup>66</sup>

The “generally accepted principle” discussed above that “similar active and reserve units should have comparable levels of effectiveness after completing sufficient training” makes intuitive sense, but it does raise some pertinent questions. For example:

- What is meant by “sufficient training”—the amount of training that AC and RC units currently receive during the ARFORGEN process or something different?

### Differences in AC and RC Experience

Two of the P-level metrics—qualified in duty position and senior level personnel—consider whether the grade (rank) of a given individual corresponds to the doctrinally required grade of the position they occupy in a unit. The required grade for the position is essentially a proxy for required experience level. This is reasonable given that military grade is closely tied to years of military service (experience); but years of active military service normally produce more military experience than do years of reserve military service, given that active service is full-time and reserve duty is often part-time. Additionally, civilian experience is not captured at all by these metrics.

Hence, a lieutenant colonel or master sergeant with 18 years of active military service will have substantially greater military experience than a lieutenant colonel or master sergeant with 18 years of reserve service. This differential is not captured by the relevant P-level metrics. On the other hand, the lieutenant colonel or master sergeant with 18 years of reserve service may also have 18 years (or more) of civilian experience that is equivalent to or superior to that of his active duty counterpart. This differential is not captured either.

<sup>65</sup> AR 220-1, para 2-5(c).

<sup>66</sup> <http://www.gao.gov/assets/670/665181.pdf>

- Do RC units currently receive “sufficient training” prior to deployment to make them comparable in effectiveness to AC units? If not, how much additional training, and what types of training, would be required to make RC units comparable to AC units in effectiveness?
- Do variations in AC and RC training practices disadvantage RC units? If so, are there ways to align RC training practices more closely with AC practices so as to provide more comparable levels of training?
- What impact, if any, do differences in the military and civilian experience of AC and RC personnel play in the comparative effectiveness of AC and RC units?

### Key Questions Related to Effectiveness

- Are AC and RC units with the same readiness levels equally effective in exercises and operational missions?
- Are there certain missions or types of units where AC units are more effective than RC units due to training or experience differentials, and vice-versa?
- Does AC and RC unit effectiveness vary by echelon (i.e., company, battalion, and brigade)? If so, are there ways to mitigate these differences?

### Cost

A key consideration for policymakers when considering AC/RC mix is their comparative cost. Which are less expensive: AC units or RC units? From one perspective, the answer appears obvious: an RC unit *that is not activated* is inherently less expensive than a similar AC unit, because the large majority of RC personnel only perform military duty part-time, whereas AC personnel perform military duty full-time. This difference also affects comparative training and equipment maintenance costs. Additionally, even when an RC unit *is activated*, its cost should be roughly equivalent to a similar AC unit, as comparable AC and RC units have nearly identical equipment and personnel authorizations. Various studies have approached the issue of AC/RC costs from this perspective, and come up with different determinations of the size of the cost differential. The differences hinge on three principal factors: (1) the range of costs being considered, (2) the apportionment of those costs between the AC and RC, and (3) assumptions about how often RC units will be in an inactive status versus an active status. Each of these points is discussed below. Additionally, some studies have approached AC/RC costs from a different perspective, one that focuses on the different “outputs” associated with those costs. From this perspective, RC units are not always less expensive than AC units, and in some cases they can be more expensive, because multiple RC units are needed to match the output of one AC unit. This perspective is summarized below as well.

### Which Costs Do You Count?

An important factor in evaluating AC and RC costs relates to which costs to count. When comparing Army, Army Reserve, and Army National Guard costs, some analyses look only at personnel costs, or only at personnel costs plus operations and maintenance costs. This disregards other costs, such as military procurement, research and development, and construction costs. A more expansive approach looks at the “top-line” budget figure for the Army, the Army Reserve, and the Army National Guard. However, even this approach is not comprehensive as it omits

certain costs covered by DOD, such as those associated with health care and commissaries. It also excludes military-related costs covered by other agencies, such as the costs of Veterans' Affairs educational, disability, and survivor benefits, or the Treasury Department's contributions towards military retirement, concurrent receipt, and the Medicare-Eligible Retiree Health Care fund. Including more costs obviously increases the total cost of both AC and RC forces, and the way in which these costs are apportioned to the active component and the reserve component can significantly affect their comparative cost.<sup>67</sup>

## **How Should These Costs be Apportioned Between the Active and Reserve Components?**

Another challenge associated with determining comparative AC and RC costs revolve around how to apportion certain costs. Certain costs can be apportioned to their respective component more easily because they are provided through separate budgetary accounts. For example, the active Army, Army Reserve, and Army National Guard each have their own appropriations for personnel costs and for operations and maintenance costs. (Although even within these accounts, there are some shared costs that are difficult to allocate.)<sup>68</sup> Other costs are more difficult to apportion. For example, procurement of major weapons systems and equipment for the reserve components is done primarily via the active component account.<sup>69</sup> A research and development (R&D) account exists only for the active component, although the reserve component benefits from it. Apportioning the costs from these accounts to the respective components poses substantial challenges; but attributing all of the costs to the active component—particularly those spent to purchase reserve component equipment—distorts the comparative cost of active and reserve component forces.<sup>70</sup> Additionally, the reserve component benefits from certain activities conducted and funded largely by the active component—for example, developing doctrine, building and operating bases, and running most military schools. Attributing these costs exclusively to the active component likewise alters the comparative cost calculation. Finally, some costs are difficult to apportion between the active and reserve components due to the lack of research on the most appropriate way to do so. For example, if one wished to consider veterans' benefits in the calculation of comparative active and reserve costs, one obstacle would be the limited understanding of the extent to which active and reserve personnel use these benefits, a

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<sup>67</sup> For more information on how different counting methodologies affect total cost, see *Eliminating Gaps in DOD Data on the Fully-Burdened and Life-Cycle Cost of Military Personnel: Cost Elements Should be Mandated by Policy*, Washington, DC, January 7, 2013, [http://ra.defense.gov/rfpb/\\_documents/RFPB\\_Cost\\_Methodology\\_Final\\_Report\\_7Jan13.pdf](http://ra.defense.gov/rfpb/_documents/RFPB_Cost_Methodology_Final_Report_7Jan13.pdf). See pages 12-22, and Appendix B, Slides 16-17.

<sup>68</sup> See comment later in the paragraph about activities funded by active accounts which are utilized by the RC. The reverse is also true in some cases.

<sup>69</sup> There is a reserve component procurement account known as the National Guard and Reserve Equipment Account (NGREA), which is used for upgrading existing equipment and procuring new equipment; however, this account is fairly small in comparison to the main active component procurement accounts.

<sup>70</sup> Reserve component procurement funding can be identified through the NGREA account and the "Procurement Programs (P1-R) Reserve Components" budget appendix document. However, this does not account for the costs of equipment transferred ("cascaded") from the active to the reserve components. Procurement costs are often ignored in AC and RC cost comparisons, but this can be a critical variable, especially when using the Deployed Unit Cost Approach. Under the Deployed Unit Cost Approach, multiple RC units may be needed to sustain the same output as one AC unit. If this is the case, then the procurement costs associated with equipping multiple RC units can have a very significant impact on comparative cost calculations.



problem compounded when one considers that many military personnel serve in both an active and a reserve capacity during their careers.

### How Often Will Reserve Units Be Activated?

Another key factor in determining comparative AC/RC costs relates to the frequency with which the RC unit is used. If RC units cost less than AC units when not activated, and about the same as AC units when activated, then the comparative costs will vary based on how frequently the RC unit is activated. Or, to put it another way, RC units will cost the least if they are never activated, cost the same as AC units if they are continually activated, and fall somewhere in between based on their ratio of active to inactive time. Thus, an RC unit that is activated for one year out of every two years will be more expensive than one activated for one year out of every three years. Likewise, an RC unit that is activated for one year out of every two years will be more expensive than one activated for nine months out of every two years. These ratios, often referred to as “deployment-to-dwell ratios,” became an increasingly important part of understanding RC costs due to the large scale rotational deployment of RC units to Iraq and Afghanistan, and due to the desire of many policymakers to continue using RC units for operational missions in the future.<sup>71</sup> They also play an important role in determining the “boots on the ground” output metric discussed below.

### What is the Most Appropriate Way to Measure the “Output” of the Cost “Inputs”?

A major change in how AC and RC costs are discussed today comes in the area of correlating the “input” of cost (dollars) with various “outputs.” Perhaps the most common “output” used historically in AC/RC cost comparisons has been personnel, as when Lieutenant General Jeffrey Talley, Chief of the Army Reserve, noted that the Army Reserve provides “nearly 20% of the Army’s trained Soldiers and units, for just six percent of the Army budget.”<sup>72</sup> A somewhat different formulation compares budget share and the number of personnel in each component, resulting in a “cost per person” metric. For example, for FY2015 the Army has requested about \$120 billion in budget authority. Of this, about \$98 billion is for active component accounts, and \$22 billion for reserve component accounts.<sup>73</sup> The proposed end strength of active component

<sup>71</sup> See the new activation authority granted by the 2012 National Defense Authorization Act, codified at 10 USC 12304b, discussed in **Appendix E**.

<sup>72</sup> Statement by Lieutenant General Jeffrey Talley before the U.S. Senate Armed Services Committee, April 8, 2014, p. 5, available here: [http://www.armed-services.senate.gov/download/talley\\_04-08-14.pdf](http://www.armed-services.senate.gov/download/talley_04-08-14.pdf). Another example of this approach was provided in a 2012 National Guard Bureau posture statement: “The National Guard currently provides 35-40% of the Army and Air Force operational force for less than 7% of the base defense budget....” National Guard Bureau, *2012 National Guard Bureau Posture Statement*, page 7, <http://www.nationalguard.mil/portals/31/Documents/PostureStatements/2012%20National%20Guard%20Bureau%20Posture%20Statement.pdf>.

<sup>73</sup> The total requested budget authority for the Army in FY2015 is \$120.2 billion. Of this, appropriations accounts dedicated to the USAR are approximately \$7.4 billion (Reserve Personnel, Army; Medicare Eligible Retiree Health Care Fund, Reserve, Army; Operations and Maintenance, Army Reserve; and Military Construction, Army Reserve), while accounts dedicated to the ARNG are approximately \$14.8 billion (National Guard Personnel, Army; Medicare Eligible Retiree Health Care Fund, Army National Guard; Operations and Maintenance, Army National Guard; and Military Construction, Army National Guard). See Office of the Under Secretary of Defense (Comptroller), National Defense Budget Estimates for FY2014, April 2014, Table 6-7, “Inyears, DOD TOA, Budget Authority, and Outlays by Appropriation Account,” available here: [http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2015/FY15\\_Green\\_Book.pdf](http://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2015/FY15_Green_Book.pdf)

soldiers is 490,000, while the proposed end strength for reserve component soldiers is 552,200 (350,200 ARNG and 202,000 USAR).<sup>74</sup> Using this approach, the cost per active soldier could be calculated at \$200,000 per year and the cost per reserve soldier could be calculated at \$40,000 per year, leading to a statement indicating that reserve soldiers costs one-fifth as much as an active-duty soldier.

This approach has been criticized for how costs are allocated between the AC and RC. (See previous section, “How Should These Costs be Apportioned Between the Active and Reserve Components?”) It has also been criticized for lacking a strong relationship to work performed. That is, even if AC soldiers cost five times more than RC soldiers (using the above example), they also are on duty more often, train more often, and deploy for operational missions more often, potentially resulting in more “bang for the buck.” Alternative approaches, therefore, attempted to look at cost in relation to a metric of usage.

### *Individual Member Cost Approach*

One such approach sought to “develop a means to compare the use of active versus guard and reserve forces per dollar spent.”<sup>75</sup> The authors developed two alternative methods: the first was based on projected AC and RC personnel costs over an individual’s full career, including deployments, and into retirement (a “life-cycle” cost approach). This method used the number of deployments as its output metric. The second method calculated AC and RC personnel costs over the course of the year, and used days of duty performed as its output metric.

According to the authors, the life-cycle cost method estimated the lifetime cost of an AC servicemember at nearly \$2.4 million, and the RC servicemember at about \$790,000. “In terms of ‘usage,’ this works out to \$336,000 per deployment ‘opportunity’ for the active member and \$198,000 for a member of the reserves.” In this analysis, reserve personnel cost about 60% of what active personnel cost per deployment. The authors’ concluded that “In essence, this analysis shows that reserves are a good deal because the military services only have to pay for them when they are needed. Because their retirement is deferred—not paid out until age 60—it is much less expensive than for active members...However, there are limitations to this assessment too. Utilization of the force is more encompassing than simply being deployed.”<sup>76</sup>

The second method, which focused on cost per day of duty performed, estimated that AC personnel would perform 275 days of duty per year, that “statutory” reservists would perform 39 days of duty per year, and that “busy” reservists would perform 120 days of duty per year. It then estimated the compensation that each of these three servicemember types would receive over the course of the year, and divided that by days of duty performing. The result was an estimated “cost per duty day” in FY2005 of \$261.52 for AC personnel, \$284.35 for statutory reservists and \$237.30 for busy reservists. Using this method then, reserve personnel cost between 91% (busy

<sup>74</sup> See Army FY2015 Budget Overview, March 2014, slide 7, available here: <http://asafm.army.mil/Documents/OfficeDocuments/Budget/budgetmaterials/fy15//overview.pdf>

<sup>75</sup> John D. Winkler and Barbara Bicksler, "Chapter 10: The Cost of the Reserves," by Jennifer C. Buck in *The New Guard and Reserves* (San Ramon, CA: Falcon Books, 2008), p. 178, [http://www.sainc.com/reports/pdf/New\\_Guard\\_Reserve.pdf](http://www.sainc.com/reports/pdf/New_Guard_Reserve.pdf).

<sup>76</sup> *Ibid.*, 179-80. Note that the National Defense Authorization Act for FY2008 contained a provision which permits certain reservists to draw retired pay as early as age 50, while maintaining the age for access to the military health care system at 60.

reservists) and 109% (statutory reservists) of what active personnel cost per day of duty performed. The authors state, “The bottom line of this analysis is that the more days reservists serve, the less costly they are to use...in other words, a busy reservist is cheaper than a statutory one. However, this analysis reveals an unanticipated result. The more full-time benefits added to the cost of a reservist, such as TRICARE for Life health care accrual, the more expensive a part-time reservist is relative to his or her availability.”<sup>77</sup>

### *Deployed Unit Cost Approach*

Still, at a time when U.S. forces were deploying to Iraq and Afghanistan at a fairly high rate, these individual member cost methods were also critiqued. From this perspective, the key issue was not the relative cost of an AC or RC soldier per duty day, but the relative cost of maintaining a *continuous unit presence in an overseas theater*. The costing models developed for this “deployed unit cost approach” included two variables that profoundly affected comparative cost calculations: the deployment-to-dwell ratio for AC and RC forces and, for RC forces, the amount of time devoted to pre-deployment training.

This approach appears to have been developed first by Jacob Klerman and published in *Rethinking the Reserves*.<sup>78</sup> In chapter 5 of this monograph, the author reviews several previously published works and identifies the comparative cost of the RC when not activated at 20-30% of AC forces, and 100% of AC forces when activated.<sup>79</sup> The author then estimates the number of RC units and AC units required, according to various deployment-dwell ratios, to maintain one unit “boots on the ground (BOG)” continuously in a given deployment location. The estimate is three for AC units and eight for RC units, assuming that AC units deploy 12 months out of 36 and that RC units train for three months and deploy for nine months out of 72. “Thus, according to policy guidance, we need 3.0 (=36/12) AC units in the force to keep one unit BOG...and 8.0 (=72/9) units in the [reserve] force to keep one unit BOG. Thus, the ratio of RC to AC units is slightly less than 3 (~2.7 = 8.0/3.0).”<sup>80</sup> These rotation estimates are based on DOD guidelines established in 2007 and still in effect today.<sup>81</sup>

Combining the average costs of AC and RC units when deployed and non-deployed, with the number of units required to sustain one unit “boots on the ground,” the author generates a “cost per unit of BOG” metric. Under the DOD rotation policy guidelines (12:36 for AC; (9+3)/72 for RC), he concludes that in peacetime, the relative cost of RC units is 67% of AC units. In wartime, the relative cost of RC units is 101%. Subsequently, the author manipulates some of the key variables—deployment-to-dwell ratios, the proportion of the reserve component involved in deployments, and the relative cost of RC units when not deployed—to generate a table illustrating a range of potential relative costs. These range from a low of 58% to a high of 141%.

The more favorable cost comparisons for reserve units under this approach generally involve:

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<sup>77</sup> *Ibid*, 180-81.

<sup>78</sup> Jacob Alex Klerman, *Rethinking the Reserves*, RAND, Arlington, VA, 2008, <http://www.rand.org/pubs/monographs/MG757.html>. RAND, *Rethinking the Reserves*, 2008.

<sup>79</sup> *Ibid*, pp. 57, 59.

<sup>80</sup> *Ibid*, 58.

<sup>81</sup> Secretary of Defense Memorandum, “Utilization of the Total Force, January 19, 2007.

- Activating reserves less frequently;
- When activated, lengthening their deployments (one year BOG instead of nine months BOG) while holding AC rotation policy stable;
- Reducing the amount of RC train up time from three months to two (hence, generating 10 months BOG for the RC unit); and
- Using the lower estimates of RC relative costs in peacetime.

The less favorable cost comparisons for reserve units under this cost approach generally involve:

- Activating reserves more frequently;
- Intensifying the rotation of AC units (for example, one year deployed out of every two) while holding RC rotation policy stable; and
- Using the higher estimates of RC relative costs in peacetime.

### **Key Questions Related to Cost**

- Which costs are being considered? Which costs are being omitted?
- How are these costs being allocated to AC and RC forces?
- How do policymakers expect AC and RC forces to be used in the future?
- What are the most appropriate ways to measure the “output” of AC and RC forces in relation to their cost?
- What types of units generate a cost advantage if maintained in the RC? What types of units generate a cost advantage if maintained in the AC? How does that align with current force structure allocations?
- Should AC and RC “deployment-to-dwell” ratios be modified?
- Can RC pre-deployment training be shortened without adverse effects on performance?

### **Risk**

The Army, as is the case with the other Services, cannot “afford” all of the resources it believes it needs—including force structure—to accomplish its assigned missions due to budgetary constraints. In order to convey the impact of perceived inadequate resources to decision makers, DOD uses the concept of risk. DOD describes risk as follows:

1. **Military and Political Risk:** Military risk encompasses the ability of U.S. forces to adequately resource, execute, and sustain military operations in the near- to midterm, and the mid- to longer term. In the international context, political risk derives from the perceived legitimacy of our actions and the resulting impact on the ability and will of allies and partners to support shared goals. In the domestic context, political risk relates to public support of national strategic priorities and the associated resource requirements in the near term, midterm, and long term.

2. **Operational Risk:** Operational risk is the ability of the current force to execute strategy successfully within acceptable human, materiel, financial, and strategic costs. Consideration

of operational risk requires assessing the Department's ability to execute current, planned, and contingency operations in the near term.

**3. Force Management Risk:** Force management risk is our ability to recruit, retain, train, educate, and equip the All-Volunteer Force, and to sustain its readiness and morale. This requires the Department to examine its ability to provide trained and ready personnel in the near term, midterm, and long term.

**4. Institutional Risk:** Institutional risk is the capacity of management and business practices to plan for, enable, and support the execution of DOD missions. It encompasses the ability to develop effective and efficient organizations and processes over the near term, midterm, and long term.

**5. Future Challenges Risk:** Future challenges risk is the Department's capacity to execute future missions successfully, and to hedge against shocks. Here most consideration is given to the Department's ability to field superior capabilities and sufficient capacity to deter/defeat emerging threats in the midterm and long term.<sup>82</sup>

While some of these risks might be less relevant to AC/RC force mix than others, military risk, operational risk, and future challenges risk are likely directly impacted by decisions related to AC/RC force mix. It should be noted that many of the current AC/RC force mix proposals and related policy debates do not fully explore the risks associated with force mix but instead focus on costs associated with AC and RC units. Perhaps a more fully developed risk assessment, in conjunction with associated cost assessments, might prove to be of greater utility to decision makers.

### **Key Questions Related to Risk**

- Why are the risks associated with AC/RC force mix proposals not given the same level of examination or discussion as are costs associated with AC and RC units?
- Are there specific elements of risk that Congress would like examined in greater detail as part of the AC/RC force mix process?
- As it pertains to force mix decisions, are there guidelines for decision makers when comparing cost savings and associated risks or are decisions made based on subjective criteria alone?

### **Other Considerations**

The above factors are all tied directly to the ability of the specified military forces to meet national security requirements. However, there are other factors often considered with respect to AC/RC mix, particularly with respect to the National Guard. Perhaps most notably, the United States' long tradition of a keeping a substantial military force structure in the reserve components can be traced to the ideological underpinnings of the nation's founding, which included a powerful aversion to professional military forces. In the colonial and founding eras, "standing armies" and a naval establishment were considered by many to be the principal threat to democratic sovereignty and individual liberty. In the event of military crisis, the preferred

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<sup>82</sup> The definitions of risk are taken from pages 90-95 of the February 2010 DOD Quadrennial Defense Review (QDR). The 2010 QDR notes DOD has used these definitions since 2001.

solution was to call on “citizen-soldiers”—members of the militia—to augment a relatively small professional force. This distrust of professional forces declined substantially in the aftermath of World War II, and some may find it anachronistic today, but such sentiments continue to undergird support for a robust reserve component vis-a-vis the active component. Additionally, since the advent of the All-Volunteer Force in 1973, policymakers have periodically raised concerns that the military was not adequately reflective of the U.S. population at large and was at risk of becoming isolated from it. The reserve components, while suffering from some of the same representational issues, are more geographically dispersed throughout the country, and its members normally live and work in the civilian world, thus providing a bridge of connection between the two worlds. Using the reserve components to solidify the link between the armed forces and the civilian population it serves may therefore be a consideration that policymakers wish to consider in AC/RC mix decisions.

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