



The Single-Salary System for Military Personnel: An Analysis of Second- and Third-Order Effects

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Abstract

This report presents our findings on identifying and prioritizing the potential second- and third-order effects of the Department of Defense (DOD) moving to a single-salary system (SSS) for military compensation. We identified more than 25 potential effects in six broad areas: housing and food arrangements, retention and separation pays, changes in the dependency ratio, family and dependent benefits, income support programs, and other effects. The report provides information, for each effect, on the number of people potentially affected, budget costs, and potential risks to readiness, based on an extensive literature and policy review and conversations with subject-matter experts from across DOD and the services. We recommend that DOD undertake additional analysis in the areas of housing and food arrangements and retention and separation pays. We also recommend that DOD consider the potential effects of an SSS on military marriage rates and the dependency ratio. We provide a number of topics for further research that will help DOD think through the implications of moving to an SSS.

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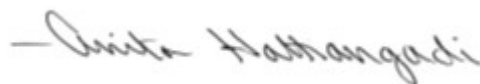
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Cover image credit: 190318-N-KK394-0008 Mayport, Florida (March 18, 2019). Homes at Bennett Shores East, an onbase military housing community at Naval Station Mayport. (U.S. Navy photo by Mass Communication Specialist 2nd Class Anderson W. Branch)

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Executive Summary

The director of the 13th Quadrennial Review of Military Compensation (QRMC) asked CNA to carry out three tasks:

1. Identify potential second- and third-order effects of a move from the current pay and allowances system for regular military compensation to a single-salary system (SSS).
2. Prioritize these potential effects to determine which are most important for further research and analysis.
3. Develop study designs for analyzing the selected second- and third-order effects.

This report presents our findings and recommendations regarding these tasks. We identified more than 25 potential effects in six broad areas: housing and food arrangements, retention and separation pays, changes in the dependency ratio, family and dependent benefits, income support programs, and other effects. For these potential effects, we report information on the number of people potentially affected, budget costs, and potential risks to readiness, based on an extensive literature and policy review and conversations with subject matter experts from across the Department of Defense (DOD) and the services. We also highlight potential research questions that could form the basis for additional empirical work on the effects of a move to an SSS on cost and military readiness, as well as policy changes that may be needed to mitigate these effects.

We recommend that DOD undertake additional analysis in the following areas:

- **Housing and food arrangements**—including onbase and offbase housing, overseas housing, and military meals programs
- **Retention and separation pays**—including Continuation Pay (CP), Selective Reenlistment Bonuses (SRBs), Nondisability (Involuntary) Separation Pay, Voluntary Separation Pay, and Disability Severance Pay

Each of these policies affects a relatively large number of people. Housing and food arrangements affect every servicemember, the retention pays (CP and SRBs) affect 100,000 or more members, and the separation pays affect several thousand each year. Each also has potentially large budgetary impacts—several billion dollars per year for housing and food arrangements, and several hundred million dollars annually in the case of retention and separation pays. Finally, these policies involve potentially substantial risks to member nutrition, family support, and retention, and thus military readiness. Other, lower priority

policies affect fewer people, have smaller budget implications, and/or pose risks to readiness that are more limited.

We also recommend that DOD consider the potential effects of an SSS on military marriage rates and the dependency ratio. Military retention rates are higher for married servicemembers than for single members, which may be at least partially because of the difference in basic allowance for housing (BAH) rates for members with and without dependents. An SSS that eliminates BAH and the with-dependent compensation advantage may have important implications that cut across the other high-priority policy areas of housing, retention, and ultimately military readiness.

In addition, we include a set of research study ideas for analyzing the highest priority effects. These ideas include the following:

- Funding alternatives for privatized housing operations under an SSS
- Estimating how an SSS could affect marriage rates and retention
- Alternative methodologies for incorporating housing costs into an SSS
- Adapting overseas housing benefits to an SSS
- Effects of an SSS on demand for military meals programs
- Efficiencies of moving to lump-sum, flat-amount SRBs

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Introduction

The 13th Quadrennial Review of Military Compensation (QRMC) is considering whether the US military should move from its current regular military compensation (RMC) structure to a single-salary system (SSS). The RMC that most servicemembers receive is a four-part system of pay and allowances:¹

1. **Basic pay** – a salary that depends on a servicemember’s rank and years of service (YOS). Basic pay is about 56 percent of RMC for enlisted members and 70 percent for officers.
2. **Basic allowance for housing (BAH)** – an allowance that depends on rank, location, and dependent status to offset housing costs for members who do not receive government-provided housing. BAH makes up about 30 percent of the typical enlisted member’s RMC and about 22 percent for officers.
3. **Basic allowance for subsistence (BAS)** – an allowance that depends on enlisted/officer status (and is higher for enlisted members) to offset members’ meal costs. BAS makes up 7 percent of RMC for enlisted members and 3 percent for officers.
4. **Tax advantage (TA)** – tax savings resulting from the fact that BAH and BAS are not taxable at the state or federal level. The tax advantage makes up about 6 percent of RMC for both enlisted members and officers.²

Although this RMC structure has been a central component of US military compensation since the late 1940s, policy-makers are concerned that it may be overly complex, making it difficult for servicemembers to understand the full value of their compensation, and inequitable in some respects, such as the differential treatment of members with and without dependents. There is also some sentiment that the current RMC system does not adequately embody the

¹ Percentages of RMC are from authors’ calculations based on information from the Office of the Under Secretary of Defense for Personnel and Readiness, Directorate of Compensation’s Selected Military Compensation Tables, January 1, 2018, “Detailed RMC Tables for All Personnel,” and “Military Personnel by Pay Cell” [1]. Percentages may not sum to 100 due to rounding error.

² We based these calculations on “Detailed RMC Tables for All Personnel” from the Compensation Green Book (dated 1-Jan-2018). For each enlisted paygrade, we multiply the value of the TA by the number of members in that rank, and then sum over paygrades to get the total TA dollar value for enlisted. We do the same for other compensation components to get the total dollar value of RMC for enlisted, and the percentage is then TA divided by RMC. We do a similar, separate calculation for officers. In both cases, TA comprises 6 percent of RMC [1].

principle of “equal pay for equal work” or provide sufficient performance incentives for servicemembers.³

As a result, the FY 2017 National Defense Authorization Act (NDAA) mandated that the Department of Defense (DOD) study whether the current RMC system should be converted to an SSS [6]. According to the NDAA, an SSS would involve the following:

- Elimination of BAH and BAS
- Pay table changes specifying the pay levels, by grade and YOS, required to
 - Achieve pay comparability with the civilian sector
 - Effectively recruit and retain a high-quality All-Volunteer Force
- Cost-of-living (COL) adjustment, using the same adjustment system that DOD currently uses worldwide for civilian employees
- Necessary adjustments to the military retirement system, including the retired pay multiplier, to ensure that servicemembers are situated similarly to where they would otherwise be under the new Blended Retirement System (BRS).

The NDAA also specifies a cost containment objective, so that a new SSS would result in at most “minimal” additional costs to the government compared with the current RMC system.

In addition to basic pay and housing and subsistence allowances, the US military provides a variety of special and incentive pays for service in particular environments and circumstances. These include hazardous duty pay, family separation pay, and special pays for hard-to-staff positions and occupations. Although converting from the current system to an SSS probably would not change the nature of these pays very much, to the extent that the value of some of these pays is tied to RMC components, their costs may change under an SSS.

Moving to an SSS would represent a substantial change to US military compensation policy. The potential benefits of such a change could include reduced complexity and increased transparency of military compensation, and improvements in both compensation equity and incentives. Potential disadvantages of an SSS could include high transition costs to the new system and perhaps higher long-term compensation costs as well. To understand better the implications of moving to an SSS, the director of the 13th QRMC asked CNA to:

1. Identify potential second- and third-order effects of a move from the current pay and allowance RMC system to an SSS.
2. Prioritize these potential effects for further research and analysis.
3. Develop study designs for analyzing the selected second- and third-order effects.

³ See, for example, discussions on a military SSS in the First (1967), Third (1976), and Seventh (1992) QRMCs, and in the 1976 Defense Manpower Commission Report [2-5].

Defining second- and third-order effects

According to the FY 2017 NDAA, the direct (or first-order) effects of implementing an SSS include changes to the pay table, implementation of a locational CoL adjustment, and modifications to the military retirement system. Beyond these first-order effects, a number of nondirect potential effects must be identified to ensure that appropriate legislation and regulations can be adopted to mitigate them. Such nondirect effects could include potential budgetary cost increases, impacts to servicemembers and their families, or risks to readiness caused by adverse effects on recruiting, retention, or servicemember morale. It is these nondirect potential effects of adopting an SSS that we define as second- and third-order effects.

Approach

Identifying potential effects

Our first task was to identify potential second- and third-order effects of a move to an SSS. We began by conducting brainstorming sessions with CNA staff members who have both military experience and research backgrounds in manpower, personnel, and compensation issues. We also conducted an extensive literature review of policy documents, including the Military Compensation Background Papers and the DOD Financial Management Regulation (FMR). These efforts focused on identifying aspects of compensation policy that could be affected by the first-order changes involving elimination of BAH and BAS, increased basic pay, and changes to the retirement system. We held discussions with a number of subject matter experts (SMEs) in military compensation in the Air Force, Army, Navy, and Marine Corps, and with Defense Finance and Accounting Services (DFAS).⁴ From these documents and discussions, we identified over 25 potential second- and third-order effects in six broad areas: housing and food arrangements, retention and separation pays, changes in the dependency ratio, family and dependent benefits, income support programs, and other potential effects. For each policy effect, we conducted an extensive literature review to estimate the number of people affected, budgetary impacts, and risks to readiness.

Prioritizing potential effects

Once we identified the set of potential second- and third-order effects, our second task was to prioritize the set and identify a subset of sufficient significance that require more detailed

⁴ Throughout this effort, we coordinated with the Institute for Defense Analysis (IDA), who is conducting a study on the first-order effects of an SSS, to prevent overlap between the two studies.

empirical analysis. In consultation with the project sponsor and SMEs, we developed criteria to establish priorities among our identified effects. The policy-related criteria are as follows:

1. *Number of people affected:* How many servicemembers does the policy or program affect? Is it a “niche” policy applying to a small group? Does it affect many or most servicemembers? Does it affect servicemembers’ dependents? Also, will a move to an SSS create large compensation windfalls or losses for some groups?
2. *Budget impacts:* What will be the potential impact of eliminating BAH and BAS, or of increasing basic pay, on the budgetary cost of the program or policy?
3. *Risks to readiness:* What will be the potential impacts on readiness-related manpower outcomes, such as recruiting and retention? Will the impacts, or the policy changes needed to mitigate adverse impacts, have consequences for servicemember incentives or morale?

We consider these first three criteria—number of people affected, budget impacts, and risks to readiness—to be the driving factors in prioritizing the effects. Research studies on policies that affect large numbers of servicemembers and their dependents, that have a high potential increase in budget, and/or for which there are important potential risks to readiness (especially with respect to the availability of personnel and flexibility to deploy or assign them as needed) should have the largest payoff in terms of understanding the potential effects of an SSS and developing policies that can mitigate potential cost increases or adverse readiness effects.

We consider the following two criteria to be somewhat less important than the first three, but we do consider them where appropriate:

- *Feasibility of policy change:* What kind of policy changes may be needed to mitigate any second- or third-order effects? How feasible or difficult will it be to implement such changes? Do changes require modification to service-level or DOD policies? Will congressional action be required?
- *SME inputs:* Which effects do SMEs believe to be the most likely to occur, and to have the largest effects?

Finally, we also consider two research-related criteria, bringing the total number of criteria to seven:

- *Feasibility of measuring impacts:* Will researchers be able to collect the data and information needed for an empirical study on the policy or program in question?
- *Availability of existing research or information:* How much research exists on the policy that can inform what we expect the second- and third-order effects to be? A policy that is well studied may be lower priority for further research, unless there are research

gaps that need to be filled to inform the design of appropriate policy and legislation for an SSS.

Organization of the report

This report summarizes our findings from identifying and prioritizing the second- and third-order effects of moving to an SSS. The first section of this report presents our recommendations for the highest priority effects requiring further analysis. These effects involve housing and food arrangements, and retention and separation pays. For each policy program, we discuss the second- and third-order effects, and we provide information about the number of people affected, potential budgetary impacts, potential risks to readiness, the feasibility of making needed changes to the policy, and the existing research literature on the topic. We also recommend that DOD consider the potential effects of an SSS on military demographics—specifically, marriage rates and the dependency ratio. We suggest a number of questions raised by the potential adoption of an SSS that could form the focus of a future research study or studies. The second section of the report summarizes the study ideas for analyzing the highest priority effects. The third section of the report describes other second- and third-order effects that we consider lower priority for further research and analysis.

Highest Priority Effects

In this section, we present and discuss the highest priority second- and third-order effects identified by our policy and literature reviews and our SME discussions. For each effect, we provide information about the number of people affected and possible budgetary impacts and risks to readiness. Because estimates of the number of people affected, budget impacts, and assessments of potential risks to readiness are based on policy and literature reviews and SME discussions, they should be considered rough estimates only. Harder numbers or more precise risk assessments will require more detailed empirical analysis.

We organize the effects into three broad categories: housing and food arrangements, retention and separation pays, and changes in the dependency ratio.

Housing and food arrangements

The most important effects requiring further study involve housing and meal programs for servicemembers. Current housing and meal programs are predicated on the existence of BAH and BAS, so eliminating these allowances will require a substantial redesign of these arrangements. In terms of number of people affected, housing and meal arrangements in one way or another affect every servicemember, and housing arrangements affect dependents as well. Budgetary effects are potentially large, and the potential risks to readiness, which may include adverse impacts on housing and food availability and quality (perhaps leading to negative effects on morale, nutrition and health, and/or willingness to deploy) are probably the highest of any of the policies we considered.

Onbase family housing

All active component (AC) servicemembers receive some sort of housing provision or subsidy from the military. Members receive either BAH, privatized housing benefits, or an in-kind housing benefit in the form of military-provided housing [7-8].

Number of people affected and budget costs

According to the Selected Military Compensation Tables report published by the Office of the Under Secretary of Defense for Personnel and Readiness (OUSDP&R), about 480,000 AC servicemembers live in onbase, military-provided housing (not including those in privatized, or PPV, housing). Because of service requirements for junior enlisted without dependents to live on base, about 355,000 of these are living in bachelor housing, leaving roughly 125,000 AC

servicemembers with dependents living in onbase, military-provided housing; these are the servicemembers receiving housing as an in-kind benefit [1].⁵

Provision of onbase family housing to servicemembers living in the United States has undergone substantial change in the last two decades because the military has privatized almost all of its US military family housing. Since 1996, over 200,000 units of such housing have been privatized under the Military Housing Privatization Initiative (MHPI). Under MHPI, housing ownership and management are transferred to private developers, usually for a 50-year period. In exchange, the project owners agree to rent the homes to AC servicemembers at the BAH rate with no additional out-of-pocket cost [9]. MHPI contracts require that the private partners operate the housing with many of the rules of military-owned housing. For example, servicemembers are entitled to rent units sized according to their paygrades and their number of dependents. Servicemembers with dependents can choose whether to reside in MHPI housing or private-sector housing. Either way, they receive monthly BAH payments. In general, choosing to live in MHPI housing is voluntary.

A 1999 RAND report stated that, as of the late 1990s, DOD was paying nearly \$10 billion annually for onbase housing, while a 2002 CNA study reported that the Navy's cost of providing family housing was \$1.1 billion in FY 2001 [10-11]. However, the FY 2019 budget request for the Family Housing Program was only \$60 million [12]. Much of military spending for onbase family housing has been transferred elsewhere in the budget because of the privatization initiative.

Risks to readiness

The importance of housing arrangements to military readiness is widely recognized. According to a 2002 CNA report, for example,

Military leaders know that ensuring servicemembers a high quality of life (QoL) is central to the cultivation and maintenance of a capable force. Improvements in QoL [including housing quality and affordability] are believed to increase overall satisfaction with the military and to improve recruiting, retention, and readiness. [11]

A 2003 CBO report summarizes some of the benefits of spending on QoL programs (including housing), which include promoting military readiness and cost-effectively attracting and retaining servicemembers. According to the report, QoL programs such as subsidized family housing can promote readiness because

⁵ These numbers come from the authors' calculations from the Selected Military Compensation Tables, January 1, 2018, "Detailed RMC Tables for All Personnel" and "Military Personnel by Pay Cell," provided by the Office of the Under Secretary of Defense for Personnel and Readiness, Directorate of Compensation [1].

deployed service members who feel that their families are taken care of may perform their jobs more effectively. Moreover, quality-of-life programs that encourage experienced people to remain in the military or that attract high-quality recruits could be said to enhance readiness. [7]

Therefore, any changes to military housing policies that affect the level of housing affordability and quality to servicemembers may have effects on overall readiness as well.

It is also possible that changes to military housing arrangements could affect readiness in specific locations by affecting servicemembers' willingness to take assignments in those locations. Some SMEs with whom we spoke expressed concern that, in the absence of BAH, servicemembers might be less willing to relocate to areas with high costs of living unless a locality adjustment to basic pay were introduced as a part of a new SSS.

Housing-related issues in moving to an SSS

Although there is a substantial research literature on military housing, a number of housing-related issues could warrant further study as part of an SSS assessment.

Equity issues. A move to an SSS will create issues with respect to how to deal with individuals in different housing situations. Currently, there is a degree of equity in military housing arrangements in that every servicemember, whether receiving housing directly or BAH, receives some sort of housing benefit.⁶ If BAH were eliminated (and no other mitigating policy changes were enacted), an inequity would be introduced because those living in military-provided housing still would be receiving the in-kind benefit, but those living in MHPI housing or off base who are no longer receiving BAH would receive no housing subsidy. Some specific equity-related considerations follow:

- How will single servicemembers who live on base, in barracks, or on ships and do not receive BAH be treated under an SSS? Will such servicemembers receive the same salary as those now receiving BAH (living in MHPI housing or off base)? If so, single members in military-provided housing could receive a large compensation windfall. Under an SSS, will charges be introduced for those living in barracks or on ships?
- How will dual-military couples be treated? There is something of an advantage for such couples living in MHPI housing or off base because both members receive BAH, while those living in onbase, military-provided family housing receive only one house. Moving to an SSS may disadvantage dual-military couples receiving BAH.

⁶ It is worth noting that current military housing arrangements also have a degree of inequity. A 1997 CNA study on Navy housing reported that separate administration of onbase family and bachelor housing and offbase allowances resulted in significantly different housing benefits to servicemembers within the same paygrade, depending on where they lived. The 25 percent of Navy families who were living on base received 40 percent of the budgeted Navy housing resources for families at the time [13].

Demand for onbase family housing. Another set of issues concerns how an SSS might affect the demand for onbase housing. Some research suggests that servicemembers in the past (before the widespread availability of MHPI housing) preferred onbase family housing to receiving BAH; the economic benefit of onbase housing was perceived by members to be greater than that provided by BAH payments. Servicemembers at the time did not view the noneconomic benefits of onbase family housing (e.g., acculturation of junior personnel, fostering military values, or support for families of deployed servicemembers) to be nearly as important as the perceived benefit gap between BAH and onbase family housing [10, 14]. It may be worth revisiting these studies to assess the extent to which these preferences still hold. If they do, it may be the case that, under an SSS that eliminates BAH (and includes a cost-of-living adjustment), servicemembers and their families may see little compelling reason to live on base. The result could be decreased demand for onbase family housing. Without a CoL adjustment, however, demand for onbase housing in areas with high living costs might remain at current levels or even increase under an SSS.

There also could be differential geographical effects of an SSS on onbase housing demand. The elimination of BAH (if not accompanied by some sort of location adjustment to basic pay) could, for example, increase the demand for onbase housing in locations with high CoL.

Military housing management. A move to an SSS may require changes to the way military housing is managed. One issue, already mentioned, is the potential need to establish a system of rents or charges for military-provided housing (barracks, ships' quarters, etc.).

There also may be implications for the management of MHPI housing. Currently, MHPI contracts stipulate that the maximum rent that can be charged is based on the BAH rate. The contracts have no stipulations for what would happen if BAH were eliminated. Under an SSS, new procedures for setting maximum MHPI rents would have to be established. If MHPI contracts are renegotiated to allow private partners to charge market rents, the demand for onbase housing (which, as noted, in the past has depended on a perceived "benefit gap" between BAH and in-kind housing) could fall dramatically.⁷ Permitting private partners to charge market-level rents also could impose hardships for some servicemembers, especially junior members with large families. Alternatively, a resolution involving continued explicit

⁷ The extent to which BAH sets a ceiling on rents in all military housing markets is not clear. In some markets, private partners provide rent discounts to military families living in MHPI housing, with these families effectively paying less than their BAH rate in rent. In these locations, MHPI housing rents already are at market level; the market level of those rents is now below the ceiling established by the BAH rate. This may be because BAH rates have risen relative to local rents or because the quality of privatized housing has fallen over time. In such locations, elimination of BAH may have less effect on MHPI rents than locations where the market rental rate is still above the BAH rate. We do not have firm estimates of the amount of MHPI housing being rented at essentially market rates, although there is some evidence that these discounts may be significant and fairly widespread. In other locations, however, there are long waiting lists for newer and larger MHPI homes, suggesting a shortage of such homes because market rental values are higher than the ceiling established by the BAH rate.

rent subsidies could prove costly for the partnerships or the military. In any case, an SSS would require that every MHPI contract be renegotiated, which could be an administratively difficult and costly task. MHPI partnerships are legal agreements, and the private partners and their bondholders have economic interests that are different from the military's [15].

Although this would be a much more radical military housing policy change, DOD may want to consider whether it should be providing subsidized housing at all. Current policy determines the level of need for onbase housing based on such considerations as the degree to which a presence is needed and the suitability of local community housing (in terms of minimum standards of affordability, location, features, and physical condition). Multiple research studies have found, though, that the cost of providing in-kind family housing may outweigh the benefits. A 1997 CNA study estimated that the cost to the government of providing family housing for soldiers exceeded their valuation of it by 25 to 40 percent [13]. A 2002 CNA study found similar results for the Navy (note that these valuations predate MHPI and might be different under an MHPI framework) [11]. If the cost of providing family housing exceeds the benefits to servicemembers and the military, it may make sense for DOD to stop providing it, at least to the extent that it now does [16]. DOD-provided housing (and/or MHPI ventures) still may be efficient in austere, isolated locations where housing markets are thin [7].

Offbase housing

Offbase housing is currently subsidized at BAH rates for those servicemembers who live in MHPI housing or who rent or own homes in the local community surrounding the installation or duty location. Because housing prices vary substantially across the country, BAH compensation also varies substantially. For example, the 2019 BAH tables for servicemembers with dependents show allowance rates for E-5s ranging from \$813 per month at Fort Chaffee/Fort Smith, Arkansas, and at Johnstown, Pennsylvania, to \$4,368 per month at San Francisco, California [17]. Because of this range of housing costs, it will probably be necessary to institute some sort of locality pay as part of an SSS to provide servicemembers with the geographic equity currently provided by BAH.

Number of people affected and budget costs

About 770,000 AC servicemembers received BAH in FY 2017 (which includes members living on base in MHPI housing, so not all of these are living off base) [1]. Thus, a large percentage of the military population will be affected by any change to offbase housing policy. Since junior enlisted without dependents are typically required to live on base, mid-career and senior enlisted, and officers, are overrepresented in the offbase military population. The size of the offbase military population also tends to vary geographically, depending on the extent to which an onbase presence is needed, the suitability of local community housing, and whether local

housing can accommodate the base's needs. In terms of budget costs, an estimated \$21 billion was expected to be paid out in BAH benefits in FY 2019 [18].

Risks to readiness

The risks to readiness with respect to offbase housing are the same as for onbase housing: housing quality and affordability, and the security that a servicemember's dependents are taken care of, influence overall satisfaction with the military, as well as recruiting, retention, willingness to accept assignments, and, therefore, readiness.

Offbase housing issues

A move to an SSS could affect offbase housing policy in a number of ways.

Demand for offbase housing. The counterpart to any potential decline in onbase housing demand under an SSS could be an increase in demand for offbase housing. DOD may want to consider methods for meeting any increased demand. Policy options might include enhancing programs that help servicemembers to find offbase housing (as recommended in a 1999 RAND report), an expansion of government-leased housing programs, or contracting with private-sector construction and housing companies to build low-cost housing near military installations [10]. As long as such efforts cost less than expected BAH payments (\$21 billion in FY 2019), and do not result in a change in QoL-related aspects of housing, they may be cost-effective.

Impacts to local housing markets. An increase in demand for offbase housing also might affect local housing markets in areas with military installations, especially in areas close to the base. The type and size of any potential effects could be a subject for further research. For example, an increase in demand for offbase housing might force servicemembers into (or give them incentives to find) lower quality housing. Members moving to high-cost locations (where local economy rates may be higher than current BAH rates—for example, the DC area, New York City, or San Francisco) might be forced to live farther away from the base to find affordable housing, perhaps in less-desirable (e.g., higher crime, poorer amenities) neighborhoods that involve longer commutes (which could affect readiness). If an increase in demand for offbase housing thus changes the extent to which there is suitable housing in the local community for the increased number of servicemembers who want it, a further effect might be that members and their families reassess the benefits of onbase housing relative to living off base.

Local housing markets also could be affected by the elimination of BAH because, according to some of our SME discussions, BAH rates may help to set a standard for rents in areas around military bases, giving servicemembers a sense of how much they should be paying for rent and giving landlords a sense of how much they can and should be charging. Without BAH, areas near military bases may see a spike in rents if landlords find it easier to raise them. This

potential effect may be especially important in isolated areas where military housing demand is a relatively large share of total housing demand.

Also, it might be worthwhile to investigate potential reactions of local communities to any housing market changes in terms of attitudes to the military or willingness to serve (which could affect readiness).

Location-based pay adjustments. In addition to those already discussed, a number of other considerations may result from the elimination of BAH that could be addressed by implementing some form of location pay, such as the following:

- In some cases, DOD is allowed to pay members a BAH rate that is different from their current duty station (e.g., if their dependents are living in a different location). How would such a policy be implemented in the absence of BAH? Would members be given a choice of locational pay adjustments?
- How would a new SSS handle servicemembers on short-term moves or those who have to make multiple moves in relatively quick succession?

Effects on younger servicemembers. Changes in housing arrangements could have especially important effects on younger servicemembers. For example, would a reduction or even elimination of onbase housing options subject younger servicemembers to being taken advantage of in local housing markets due to financial immaturity?

Overseas housing

Servicemembers stationed in US territories and abroad who are not assigned to military-owned housing currently receive Overseas Housing Allowance (OHA). OHA is a dollar-for-dollar reimbursement for actual housing costs up to a predetermined maximum amount. Servicemembers must document their rental expenditures to obtain compensation. Maximum OHA rates are calculated for each overseas area based on actual servicemember housing expenditures, with the maximum rental rate set at the 80th percentile of servicemember rents. Approximately 52,000 servicemembers receive \$1.5 billion annually in OHA benefits [19-20].

An SSS that eliminated BAH but retained OHA could create an inequity between servicemembers living overseas and those living in the US. If all servicemembers are subject to the same basic pay table, those living overseas would essentially be receiving two housing benefits under an SSS—the amount of the old BAH that is incorporated into the new basic pay, and payments under the continued OHA. Resolving this inequity would require elimination or revision of OHA policy, and/or a separate basic pay table for servicemembers living overseas. OHA has been designed specifically to encourage servicemembers living overseas not to skimp on housing quality in locations where much of the housing stock may be significantly below US standards [20]. It is unclear how these features of OHA would be retained under an SSS, but it

will be important to do so to ensure that servicemembers living overseas do not suffer a decline in QoL. QoL declines could have adverse effects on retention and readiness (by, for example, reducing members' willingness to take overseas assignments).

Some servicemembers who live overseas can be assigned to military-owned housing. Again, under an SSS that incorporated BAH into basic pay, these members would essentially be receiving two housing benefits. DOD may have to consider establishing rents for military-owned overseas housing to eliminate this inequity.

Military meal programs

Servicemembers entitled to basic pay also are entitled to government-provided provisions, which take the form of either BAS or subsistence-in-kind (SIK). BAS recipients must pay for any government-provided meals consumed. Historically, SIK was provided using a "meal card"; however, in recent years, servicemembers receiving SIK can record their receipt of the benefit using their Common Access Card (CAC).

Number of people affected and budget costs

All AC servicemembers—1.3 million people—receive either BAS or SIK. Enlisted members are entitled to a daily ration of three meals to meet a prescribed basic daily food allowance, except when entitled to per diem or BAS instead. Although BAS (unlike BAH) is not intended to support family subsistence, the reality is that servicemembers with dependents who receive BAS will use the benefit to supplement family income and food budgets, so the subsistence policy will indirectly affect dependents as well.

In terms of budget costs, DOD spent \$4.3 billion in FY 2015 on BAS payments to servicemembers. With respect to SIK, we could find only fragmentary evidence on services' spending. The Navy spent \$270 million on ashore galleys (including costs to run and staff the facilities) in FY 2016, while the Air Force in FY 2008 spent \$128 million on food service contracts (not including facilities and manpower costs), so the total for all services would appear to be on the order of several hundred million dollars annually [21-22]. Actual SIK costs vary by location and take into account all of the costs of preparing each meal.

Risks to readiness

Risks to readiness with respect to subsistence programs involve servicemember nutrition and health, and family support. A loss of BAS, or significant changes to SIK programs, could affect levels of affordable subsistence for both servicemembers and their dependents.

Subsistence-related issues

Subsistence-in-kind (SIK). Perhaps the biggest question with respect to military meal programs under an SSS is, What happens to SIK? Currently, all members receive some form of

food subsidy, but, if BAS were eliminated, SIK recipients still would be receiving a benefit, which would introduce an inequity into military compensation unless some other policy change was enacted to mitigate it. Would SIK be eliminated? Would a minimal level of SIK be continued for the following groups?

- *Bootcamp:* Servicemembers going through basic training still will require SIK due to their tight schedules, lack of a CAC, and so on.
- *Servicemembers in school/training:* How will members in school be treated? Will they have access to SIK meals?
- *Deployed servicemembers:* Members in the field or at sea still will probably require some form of SIK. If BAS is integrated into basic pay, some form of charges might have to be introduced for meals in the field or at sea (as is done now for naval officers at sea). Alternatively, SIK in the field or at sea could be continued as a nonmonetary benefit of being deployed, which could promote readiness by positively affecting willingness to deploy.⁸ For members on field duty, a system of post-duty charges for meals ready-to-eat (MREs) may have to be instituted, and a definition of “field conditions” would have to be developed for the purpose of establishing such charges. Implementing these changes could increase the administrative burden.

Dining facility management. In the absence of BAS (except for the cases described above), it seems that SIK for other servicemembers may have to be eliminated because of equity concerns. This raises a number of questions:

- Will SIK be replaced by something else, perhaps a “pay dining for all” system that institutes charges for meals in military dining facilities?
- How would such a system affect the demand for military meals and dining facility services? Would food demand become less predictable and harder to plan for? Currently, under the meal card/CAC system, members receiving SIK eat at military dining facilities in predictable ways. If charges were established for meals, would member dining patterns change? Would they change differently during the week than on weekends? Would servicemembers skip meals to save money? Would more of them try to buy food and cook at home more often? What effects would these behavioral changes have on the ability to plan and manage dining facility operations? Would there be increased instances of food spoilage or shortages? What effects would these changes have on member nutrition?
- Will there be an effect on the requirement for dining facilities? There is some evidence that military dining facilities currently are underutilized [21-22]. Should DOD think

⁸ This approach would benefit primarily servicemembers’ dependents because household disposable income would increase while the servicemember is away, and this additional income could be passed on to dependents.

about keeping an onbase meal option for members, perhaps something like dorm-style meal plans, especially for lower ranking enlisted servicemembers living on base or members stationed in remote locations with limited offbase dining options?

Commissaries and the PX system. An SSS that eliminates BAS (and BAH) could have effects on commissaries and the Post Exchange (PX) system as well. Elimination of SIK meal programs could increase commissary and PX use. The nature of post-BAH housing arrangements also could affect demand for commissaries and PXs. For example, how would a decline in demand for, or elimination of, onbase housing affect demand for commissaries and PXs? Would it decline, or would it be maintained by members living off base who continue to use commissaries and PXs as low-cost alternatives to shopping in town?

Effects on younger servicemembers. As with housing, changes in food arrangements could have especially important effects on younger servicemembers. For example, is it more cost-effective to provide meals to younger servicemembers than to rely on them to feed themselves properly? With fewer young people owning and driving cars, will there still be some demand for onbase meal options even if SIK is eliminated, if younger members prefer using close-by dining facilities to going off base for food [23]?

Summary of housing and food arrangements

Table 1 summarizes the second- and third-order effects, number of people affected, budgetary cost, and risks to readiness for housing and meal programs.

Table 1. Housing and meal policies for further analysis

Policy or program	2nd- and 3rd-order effects	Number of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Onbase (Family) Housing	Housing affordability, quality, demand	125,000 SMs plus dependents (not incl. MHPI)	\$60M (not incl. MHPI); \$10B (incl. MHPI)	Depends on demand change	Recruiting, morale issues, retention
Offbase Housing		Up to 770,000 SMs, plus reservists, dependents	\$20B (BAH payments)	Cost of rolling BAH TA into BP (\$3B-\$4B)	
Overseas Housing		52,000 SMs receiving OHA plus those in military housing	\$1.5B (OHA payments)	Depends on policy specifics	

Policy or program	2nd- and 3rd-order effects	Number of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Military Meal Programs	Food affordability, quality, demand	All SMs receive either BAS or SIK	\$4.3B (BAS payments) plus SIK cost—several hundred million	Cost of rolling BAS TA into BP (\$750M); also depends on what happens to SIK	SM nutrition, health, ability to deploy

Source: CNA.

Note: SM = servicemember; TA = tax advantage; BP = basic pay.

^a Potential cost change under the assumption that no mitigating policy changes are enacted.

References for housing and food arrangements

The Effect of the BAH Changes on Privatized Family Housing, Volume 1: Theory and Overall Results, by Glenn H. Ackerman and S. Alexander Yellin, 2018, CNA, DRM-2018-U-017673-1Rev. This report examines the effects of planned BAH reductions on Navy privatized housing. The study finds that most Navy public-private venture (PPV) locations did not actually receive a reduction when compared to local rents. Most locations received increases, but a few did receive excessive reductions. BAH changes relative to local rents had a statistically significant effect on occupancy rates for military families in privatized housing.

Ashore Galleys and Alternatives, by Ralph Huntzinger, Maryann Shane, and Ronald Filadelfo, 2017, CNA, DRM-2017-U-015001-1Rev. This study analyzes ashore galley operations at 42 installations using data for FY 2016. The analysis finds that average costs of providing a daily ration to entitled sailors vary widely by installation, with the cost at some locations being substantially higher than the per diem rate. The study also compares the costs of current galley operations with those of alternative arrangements, finding that maintaining current operations would be cost-effective for most ashore galleys.

Evaluating Which Housing Allowance System Is Best for U.S. Territories: A Comparison of OHA and BAH, by Glenn H. Ackerman, Alan J. Marcus, Veronica De Allende, and Dan D. Steeples, 2013, CNA, DRM-2013-U-004233-1REV. This paper analyzes the implications of changing the housing benefit paid to military servicemembers in US territories from the current OHA system to the BAH system used in the 50 states. The study found that switching from OHA to BAH would often result in lowering the housing allowances paid to active duty servicemembers, while raising the allowances paid to activated Guard and Reserve members.

Military Families and Their Housing Choices, by Kristie L. Bissell, Robert L. Crosslin, and James L. Hathaway, 2010, Logistics Management Institute (LMI), HCS80T2. This is an analysis of survey and other data on AC servicemembers, their housing choices, and their satisfaction with their housing arrangements. Findings include the following: most military families are living in their preferred housing choice; the most important factors in housing choice in order

of importance are affordability and building equity, quality and condition of the residence, security and safety, and neighborhood quality; and those who own their residences reported higher levels of satisfaction than servicemembers living in other housing types.

Military Compensation Reform in the Department of the Navy, by Michael L. Hansen and Martha E. Koopman, 2005, CNA, CRM D0012889.A2/Final. This study relies on a literature survey to assess the extent to which major, existing Navy compensation tools align with the Navy's goals and principles. The analysis focuses on basic pay, BAH, military housing, Selective Reenlistment Bonuses (SRBs), Enlistment Bonuses (EBs), sea pay, Assignment Incentive Pay (AIP), retirement pay, the Thrift Savings Plan (TSP) and TSP matching, health care, Voluntary Separation Pay (VSP), and quality-based compensation.

Military Compensation: Balancing Cash and Noncash Benefits, by Carla Tighe Murray, 2004, Congressional Budget Office (CBO). This issue brief provides an overview of the military compensation package, including cash compensation and noncash benefits, such as health care, housing and childcare, and retirement pay. It discusses issues surrounding the current mix of compensation.

Return on Investment of Quality-of-Life Programs, by Michael L. Hansen, Jennie W. Wenger, and Anita U. Hattiangadi, 2002, CNA, CRM D0006807.A2/Final. This study measures the retention benefits of several of the Navy's quality-of-life (QoL) programs—Morale, Welfare, and Recreation (MWR) programs, Navy-provided housing, Navy-provided childcare, and Family Service Centers (FSCs)—and compares these benefits with the costs of providing the programs. The study finds that most QoL programs have a strong, positive impact on satisfaction with the Navy, and several (e.g., use of MWR programs, military family housing, and Child Development Centers) have positive and statistically significant effects on retention.

An Evaluation of Housing Options for Military Families, by Richard Buddin, Carole Roan Gresenz, Susan D. Hosek, Marc Elliott, and Jennifer Hawes-Dawson, 1999, RAND, MR-1020-OSD. This report analyzes survey and Census data to understand how military members select housing and decide where to live, to compare those decisions with those of their civilian counterparts, and to predict how members might respond to changes in housing policies and options. The study found that military members at the time viewed the economic benefit of military housing as greater than that of the various housing allowances. Nonmonetary benefits of military housing, such as acculturation of junior personnel, support for families of deployed members, or fostering military values, were found to be of less value to members.

Housing Benefits: Shifting to Private Sector Provision, by Glenn H. Ackerman, Alan J. Marcus, George Tolley, Peter Bernstein, and Robert Fabian, 1997, CNA, CRM 97-25. This report studies one alternative option for providing housing benefits to military members, privatizing the military housing stock and paying all Navy families an increased housing allowance. This approach would have allowed military families to choose where they wanted to live and would

have provided them the means to afford more options than they had under the existing system (as of 1997). The study recommended using rent differential payments to increase the purchasing power of servicemembers for housing in the private sector, and predicted that privatization would have little effect on local rents.

Housing Benefits: Baseline Analysis, by Glenn H. Ackerman, Alan J. Marcus, and Christine Baxter, 1997, CNA, CRM 97-26. This report examines Navy housing processes (including family housing, bachelor housing, and offbase allowances) and describes the current state (as of 1997) of housing benefits, including costs, conditions, processes, and value to servicemembers. It identifies options and alternatives to the current system, and evaluates these options. The study finds that the separate administration of onbase family housing, onbase bachelor housing, and offbase allowances resulted in inequities, providing substantially different housing benefits to servicemembers within the same paygrade, and that the value of military-provided housing to servicemembers was lower than the government's cost to provide it.

Housing Benefits: Analysis of Public-Private Authorities, by Glenn H. Ackerman, Robert I. Dodge III, and Alan J. Marcus, 1997, CNA, CRM 97-27. This publication analyzes use of public-private authorities to create alternatives to traditional military housing construction and operation. The study suggests that use of differential rent payments combined with the sale and outlease of existing resources would be a highly cost-effective mechanism to improve housing benefits for servicemembers and save money for the military.

Issues for further research—housing and food arrangements

A research study or studies into the second- and third-order effects of a move to an SSS on military housing could address questions, such as the following:

- How are housing quality and affordability related to overall satisfaction with the military, recruiting, and/or retention?
- How might a move to an SSS affect housing quality and affordability under different implementation scenarios?
- In the absence of BAH, with its locality-based adjustments, will servicemembers be less willing to relocate to high cost-of-living areas?
- How will dual-military couples be treated under an SSS?
- Under an SSS that eliminates BAH, will demand for onbase family housing decrease? Will any such effect vary by location (isolated areas versus high-cost, densely populated areas, for example)?
- Under an SSS, will charges have to be introduced for those living in barracks or on a ship? How would such a system be implemented, and what would it cost?

- If BAH is eliminated, how will MHPI rents be set? Will providers be allowed to charge market rents? How will the demand for onbase housing be affected under alternative policies for setting rents?
- Will there be an increase in demand for offbase housing under an SSS? What policy changes should be considered to meet any increased demand: Enhance programs that help servicemembers to find offbase housing? Expand government-leased housing programs? Contract with private-sector construction and housing companies to build low-cost housing near military installations?
- How would an increase in demand for offbase housing affect local housing markets in areas with military installations? Would servicemembers be forced into lower quality housing options? How would local communities react to increased demand for local housing from military members?
- Would elimination of BAH affect housing rents or costs in areas near military bases? If so, does this effect vary by location (e.g., isolated versus more densely populated)?

Possible data sources for conducting a study or studies on military housing include service-level readiness, installations, and facilities commands. Also, information about servicemember perceptions of, or preferences for, different policy alternatives under an SSS could be collected using interviews, focus groups, or surveys.

A research study or studies into the second- and third-order effects of a move to an SSS on military meal programs could address questions that include the following:

- Would SIK be eliminated under an SSS? Would a minimal level of SIK be continued for some groups (e.g., those in bootcamp, deployed, or in school)? Would elimination of SIK result in changes in the proportion of members with dependents?
- Should SIK be replaced by a system of pay dining for all that institutes charges for meals in military dining facilities? Should the military continue to have onbase dining options (dorm-style meal plans) for those who want them? How would such systems be implemented, and what would the costs be?
- What would be the effect of pay dining for all, or alternative food distribution systems, on the demand for military meals and dining facility services? Would food demand become less predictable and harder to plan for? What would be the effect on requirements for dining facilities?
- How would an SSS that eliminates BAS and BAH affect commissaries and PXs?
- Should the military make special provisions under an SSS to ensure that younger servicemembers are not adversely affected by changes to housing and food arrangements? What steps should be taken?

Data sources for conducting a study or studies on military meals programs could include service-level readiness, installations, and facilities commands, perhaps supplemented by servicemember interview, focus group, or survey data.

Retention and separation pays

After housing and meals, the next most important area for further study is retention and separation pays. These programs and policies are important force-shaping tools used to ensure that the military has the right personnel levels across paygrades, experience levels, and occupations. As a result, setting appropriate levels of these pays is an important readiness issue. Also, these pays affect relatively large numbers of servicemembers and have a substantial budgetary cost. Each will be affected by a move to an SSS because levels of these pays under current policy are typically set as a multiple of basic pay. Under current policy, the levels of these pays will increase under an SSS that raises basic pay. It will be important to study further the potential impact on the levels and distributions of these payments, and what policy changes may be needed to address any impacts to cost and readiness.

Continuation Pay (CP)

CP is a mid-career one-time bonus paid to servicemembers who have completed a minimum YOS requirement and agree to serve for an additional four years. CP is a component of the new Blended Retirement System and is intended to maintain current retention profiles by offsetting some of the 20 percent decrease in the value of the defined-benefit portion of retirement pay under BRS. CP is tied to RMC because the amount is a multiple of the servicemember's current basic pay [24-25]. As specified in Title 37 of the United States Code (U.S.C.), Section 356, the services can set CP anywhere from 2.5 times to 13 times basic pay, can vary the minimum YOS needed to qualify for CP from 8 to 12 YOS, and can vary the minimum required additional service obligation from three to four years. Currently, the services are setting these parameters at the minimum, or most restrictive, levels: 2.5 times basic pay at 12 YOS, with four years of obligated service [26].⁹

Number of people affected and budget costs

In 2017, there were approximately 64,000 AC servicemembers with 12 YOS who were eligible for CP under current policy, including about 50,000 enlisted members, and 12,500 officers [1]. Given their average basic pay levels and the current CP multiplier of 2.5, an upper-bound estimate of potential spending on CP is about \$700 million. Actual spending on this program,

⁹ The exception is Army reservists, for whom the multiplier is currently set at 4 times basic pay, and who can qualify for a CP bonus at 11 YOS rather than 12.

however, will be less because not all eligible members will receive CP. For example, FY 2018 budget estimates projected that the Air Force and Army would spend about \$340 million on CP bonuses in that year (the Navy did not include CP payment estimates in its budget request), suggesting a total DOD budget for CP of about \$500 million [27-28].

Using the OUSD (P&R) military compensation tables, an SSS that fully rolls BAH, BAS, and the tax advantage into basic pay would result in approximately a 60 percent increase in basic pay, on average, for servicemembers with 12 YOS [1]. This suggests a potential increase in CP payments under an SSS of \$300 million per year, if no other policy changes are implemented to mitigate this increase.¹⁰

Risks to readiness: Retention

Two recent studies have tried to predict the retention effects of CP. Huff et al. (2018) found that the CP policy options available to the Navy should be “more than sufficient” to counteract declines in retention caused by the reduction in defined-benefit retirement pay under BRS [24]. Asch et al. (2017) also found that the BRS policy as a whole, including CP, should be able to support force levels and experience mixes that are close to pre-BRS levels, for each of the services. This study also calculated the CP multipliers that would be needed to maintain pre-BRS force structures. It found that, for enlisted personnel, CP multipliers set at or near the minimum of 2.5 should be sufficient to maintain force levels. For officers, however, they estimated that CP multipliers would have to be set at a much higher level (10 to 12) to maintain pre-BRS retention rates [25]. This would represent an increase in CP payments to officers of more than 300 percent relative to current policy. A move to an SSS would increase eligible officer basic pay, and thus CP bonus payments (assuming no counteracting policy changes), by roughly 40 percent, which might mitigate some, but not all, of this potential officer under-retention. At the same time, a move to an SSS that resulted in increased CP payments to enlisted members could result in retention rates that are higher than needed to maintain current enlisted force structures, even at the minimum multiplier levels. This raises the question of whether a move to an SSS could exacerbate a potential imbalance in retention rates between enlisted members and officers.

Feasibility of a policy change

Because CP bonus parameters are currently set at their lowest, most restrictive levels, it may be relatively difficult to change the policy to mitigate any cost increases or manage retention effects due to a move to an SSS. A change to the law would be needed to reduce the minimums.

¹⁰ See Appendix A for additional details on the estimation of this budget effect.

Selective Reenlistment Bonus (SRB)

Authorized under Title 37, U.S.C., Section 308, SRB is a monetary payment to provide incentives for the reenlistment of enlisted servicemembers in critical skill specialties with high training costs and/or demonstrated retention shortfalls [29]. These payments are linked to RMC because the bonus amount received by an eligible servicemember is a multiple of his or her basic pay in the Air Force and Navy, and for some SRB recipients in the Army. In the Marine Corps, and for other Army SRB recipients, the payment is a flat dollar amount that is not a multiple of basic pay. For servicemembers whose bonus is a multiple of basic pay, the multiplier is set by service policy as a function of military occupation, specific skills and qualifications, and YOS (in the Air Force and Navy, or as a function of rank in the Army). Each of the services establishes maximum bonus amounts that apply to both a single bonus (\$100,000 in the Air Force, Navy, and Marine Corps and \$90,000 in the Army), and the lifetime total of SRB payments a servicemember can earn (\$200,000 in the Air Force, Army, and Marine Corps; in the Navy, a limit of three bonuses, one in each YOS “zone” over the course of a Navy career) [30-36].¹¹

Number of people affected and budget costs

SRB is a sizable program in terms of both the number of servicemembers affected and the budgetary cost. According to DOD’s Military Compensation Background Papers, on average, about 83,000 members annually received a total of about \$653 million in SRB payments in FY 2013 through FY 2015, the three most recent years for which data were available [29]. Budget estimates for FY 2017 and FY 2018 suggest that the program was expected to grow to about 96,000 recipients per year (roughly 9 percent of the AC enlisted force) and over \$1 billion in payments [27-28, 37-38].

How much might SRB payments increase under an SSS? OUSD-P&R’s Selected Military Compensation Tables report contains a “Detailed RMC Table for All Personnel” that breaks down average RMC by basic pay, BAH, BAS, and the tax advantage, for personnel in each paygrade. The table suggests that fully incorporating BAH, BAS, and the tax advantage into basic pay would require an average 80 percent increase in basic pay for enlisted servicemembers [1]. This figure suggests, in turn, an upper-bound estimate for the increase in

¹¹ For the purposes of determining SRB payment amounts, each service divides YOS into zones. For example, the Air Force and Marine Corps define Zone A as 17 months to 6 YOS, Zone B as 6 to 10 YOS, Zone C as 10 to 14 YOS, Zone D as 14 to 18 YOS, and Zone E as 18 to 20 YOS. The Navy has three zones, corresponding to the Air Force and Marine Corps Zones A, B, and C. The Army defines four zones corresponding to specific ranks for SRB payments that are a multiple of basic pay, and it defines five zones (corresponding to 1 to 2, 2 to 3, 3 to 4, 4 to 5, and 5+ YOS) for flat-amount SRB payments.

SRB payments on the order of \$400 million to \$650 million (taking into account that Marine Corps and some Army SRBs will not automatically increase because they are set as flat amounts and not as multiples of basic pay), depending on whether we use the FY 2013 through FY 2015 actuals or the FY 2017 through FY 2018 budget estimates as a baseline SRB cost.¹² Note that this is an upper bound because the annual and lifetime limits on SRB payments would hold down costs and are not accounted for here.

Risks to readiness: Retention

In terms of risks to readiness, the primary effect of changing SRB levels would be effects on retention of military personnel in occupations with personnel shortages. The second- and third-order effects of an SSS on SRB retention effects would probably be low, however. Without further policy changes, the effects would be an increase in SRB payments (to those servicemembers in the Air Force, Army, and Navy whose payments are a multiple of basic pay), which would be expected to increase retention in those occupations and skill sets to which SRBs are targeted [39-40]. Nevertheless, SRBs are an important force-shaping tool for the services, and payments need to be set at the right level to ensure the amount of retention needed in key occupations.

Relatively simple policy changes that could mitigate an increase in SRB payments due to the adoption of an SSS would involve decreasing the SRB multipliers, or fully moving all the services to flat-dollar-amount SRBs as the Marine Corps has done. Flat-amount SRBs could be easier for the services to plan for and easier for servicemembers to understand. If DOD and the services consider such policies, it may be wise to conduct surveys or focus groups of servicemembers to measure the extent to which such policy changes could generate morale declines or unhappiness with the new compensation system.¹³

Nondisability (Involuntary) Separation Pay

Nondisability (Involuntary) Separation Pay (authorized by Title 10, U.S.C., Section 1174) provides a lump-sum payment to eligible active and reserve component servicemembers. Eligible servicemembers are those who are to be involuntarily discharged or denied continuation of service for which they volunteered, and who have completed at least 6, but less than 20 YOS (and are thus ineligible for retirement). This separation pay is linked to RMC because the amount of the payment is a multiple of the servicemember's annual basic pay at discharge (at full rate, it is 10 percent of annual basic pay multiplied by YOS; under some circumstances, separating servicemembers are eligible for separation pay at half of that rate).

¹² See Appendix A for additional details on the estimation of this budget effect.

¹³ A 2003 CNA study used Navy survey data to predict that a 1-point increase in the SRB multiplier would produce about the same increase in the reenlistment rate as a 3 percent increase in basic pay [41].

Between FY 2006 and FY 2016, an average of about 17,000 servicemembers per year received payments totaling, on average, \$567 million annually [29-30].

A move to an SSS that increases basic pay to fully compensate servicemembers for loss of BAH, BAS, and the tax advantage would result in a 66 percent increase in basic pay for servicemembers with at least 6 but less than 20 YOS. This pay increase suggests potentially a \$375-million annual increase in the cost of nondisability separation payments if no offsetting legislative or policy changes are enacted [1].¹⁴ These costs could be mitigated by changing the law to reduce the 10 percent multiplier, or to make the payments a flat-dollar amount rather than a multiple of basic pay, although DOD may want to investigate the potential reaction of servicemembers to such a policy change before implementing it.

Little information is available about the relationship between involuntary separation policy (including pay) and military recruiting and retention [42]. One recent research study by Asch et al. (2016) compared the cost-effectiveness of alternative means of military personnel reductions, including using involuntary separation authorities alone versus using packages of voluntary and involuntary incentives and authorities. It concluded that increased use of voluntary separation authorities could be an important tool in achieving future personnel reductions in a cost-effective manner [43].

Voluntary Separation Pay

Servicemembers who agree voluntarily to separate from the AC who have at least 6 but less than 20 YOS may be offered Voluntary Separation Pay. The services are provided temporary authority to make such payments under Title 10, U.S.C., Section 1175a, as an additional force-shaping tool and to minimize involuntary separations. This authority is currently scheduled to end on December 31, 2025 [29-30]. Some research studies have concluded that Voluntary Separation Pay can be a useful force-shaping tool that may be more efficient than involuntary separations in separating senior personnel from the military before they reach retirement age [42-43].

The link between Voluntary Separation Pay and RMC is more indirect than for some of the other policies we consider because service secretaries have some discretion in setting payment levels. However, the maximum amount a servicemember can receive (four times the full amount of Nondisability (Involuntary) Separation Pay that a member of the same paygrade and YOS would receive) does depend on the member's monthly basic pay rate [29].

According to the DOD's financial report for FY 2018, \$70.6 million was spent on voluntary separation payments in FY 2017, and \$61.6 million was spent in FY 2018 [44]. Because of the

¹⁴ See Appendix A for additional details on the estimation of this budget effect.

services' discretion in setting voluntary separation pay levels, it is unclear whether or how much these payments would necessarily increase under an SSS.

Disability Severance Pay

Disability Severance Pay (Title 10, U.S.C., Section 1212) is a special lump-sum payment to servicemembers separated from active service because of physical disabilities that are substantial enough to impair their ability to perform military duties, but not severe enough to seriously impair their civilian earning capacity. This payment is intended to assist such personnel in transitioning out of the military and into civilian life [29-30, 45].

Disability Severance Pay is a multiple of the servicemember's monthly basic pay at the time of discharge. The formula is two times monthly basic pay, multiplied by YOS.¹⁵ Between FY 2012 and FY 2015, an average of just under 9,000 servicemembers received nearly \$300 million per year in Disability Severance Pay [29]. A move to an SSS could result in an increase in payments of \$200 million or more per year (again, depending on whether members are fully compensated for loss of allowances and tax advantages, and assuming that no counteracting policy changes are implemented).¹⁶

Summary of retention and separation pays

Table 2 summarizes our findings on the potential effects of moving to an SSS on these pays in the areas of personnel numbers, budget cost, and readiness risks.

Table 2. Retention and separation pay policies for further analysis

Policy or program	2nd- and 3rd-order effects	No. of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Continuation Pay	Increase in payments	64,000 SMs	\$500M	\$300M	Retention imbalance between officers and enlisted
Selective Reenlistment Bonus	Increase in bonuses	96,000 enlisted	\$1B	\$400M-\$650M (upper bound)	Retention imbalance across enlisted occupations
Nondisability (Involuntary) Separation Pay	Increase in payments	17,000 SMs	\$570M	\$400M	Ability to shape force – achieve appropriate separation levels

¹⁵ Servicemembers with less than 3 YOS are treated as if they had served 3 years; those who incurred the disability in the line of duty while serving in a combat zone, and who have less than 6 YOS, are treated as if they had served 6 years for the purpose of setting Disability Severance Pay.

¹⁶ See Appendix A for additional details.

Policy or program	2nd- and 3rd-order effects	No. of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Voluntary Separation Pay	Unclear – service discretion		\$71M		
Disability Severance Pay	Increase in payments	7,500 SMs	\$220M	\$175M	

Source: CNA.

Note: SM = servicemember.

^a Potential cost change under the assumption that no mitigating policy changes are enacted.

References on retention and separation pays

Estimating the Retention Effects of Continuation Pay, by Jared Huff, Mikhail Smirnov, Gregory Schell, and James Grefer, 2018, CNA, DRM-2018-U-017177-Final. This study uses a dynamic modeling approach to analyze the retention impacts of the lump-sum CP that sailors can receive in the middle of their careers under the Blended Retirement System. The analysis finds that CP should be able to offset the retention decline that results from some of the other retirement changes, including the 20 percent decrease in retired pay.

The Blended Retirement System: Retention Effects and Continuation Pay Cost Estimates for the Armed Services, by Beth J. Asch, Michael G. Mattock, and James Hosek, 2017, RAND, RR1887. This report studies the effect of the Blended Retirement System on AC military retention and reserve component (RC) participation. It includes findings on CP rates and cost, and it presents BRS retention and cost findings for each of the armed services. The results suggest that the BRS can, in principle, support a steady-state force and experience mix that are quite close to the current forces for enlisted personnel and officers in each service but that current CP multipliers are insufficient to maintain retention levels for officers.

Workforce Downsizing and Restructuring in the Department of Defense: The Voluntary Incentive Separation Payment Program Versus Involuntary Separation, by Beth J. Asch, James Hosek, Michael G. Mattock, David Knapp, and Jennifer Kavanagh, 2016, RAND, RR1540. This study assesses the effectiveness of alternative levels of Voluntary Separation Incentive Pay (VSIP), considers the effects of a change in the formula used to compute VSIP, and quantifies the cost of VSIP relative to the cost of involuntary separation. The authors find that increasing the VSIP cap is a cost-effective means to draw down military personnel levels while avoiding involuntary separations, especially if combined with Voluntary Early Retirement Authority (VERA).

Cash Incentives and Military Enlistment, Attrition, and Reenlistment, by Beth J. Asch, Paul Heaton, James Hosek, Francisco Martorell, Curtis Simon, and John T. Warner, 2010, RAND,

MG950. This study provides an empirical analysis of the enlistment, attrition, and reenlistment effects of bonuses, applying statistical models that control for such other factors as recruiting resources, in the case of enlistment and deployments in the case of reenlistment, and demographics. Results indicate that enlistment and reenlistment bonuses were important contributors to the success of the Army and the Marine Corps in meeting their recruiting and retention objectives during a period of heavy deployment.

The Case for Voluntary Separation Pay, by Michael L. Hansen and Thomas A. Husted, 2005, CNA, CRM D0011959.A2/Final. This study combines data analysis and literature reviews to examine separation pay options that would allow the Navy to selectively separate personnel in a cost-effective manner. The results indicate that targeting incentives, both to those who would not otherwise leave and to the least productive employees, is critical to success. Targeting too aggressively, however, will dramatically reduce the number eligible for separation incentives, which can provide servicemembers with some leverage in setting the amount of compensation they require and reduce the cost-effectiveness of VSP. Also, separation pay needs to be set high enough to provide adequate incentives for personnel to leave active duty. Finally, DOD and the services must ensure that servicemembers not be provided incentives to reduce their productivity in order to become eligible for early separation.

An Analysis of Military Disability Compensation, by Richard Buddin and Kanika Kapur, 2005, RAND, MG-369. This study reviews the goals and effectiveness of current policies for compensating veterans with service-connected disabilities. It identifies trends in veterans' disabilities, compares the military disability system with that used by civilian firms, and describes the effect of military disability on civilian labor market outcomes.

The Navy Survey on Reenlistment and Quality of Service: Using Choice-Based Conjoint To Quantify Relative Preferences for Pay and Nonpay Aspects of Naval Service, by Amanda B. N. Kraus, Diana S. Lien, and Bryan K. Orme, 2003, CNA, CRM D0008416.A2/Final. This study developed and implemented a choice-based conjoint (CBC) survey of sailors' preferences for pay and other quality-of-service (QOS) factors. The survey items considered were increases in basic pay, sea pay, and the selective reenlistment bonus (SRB) multiplier; different payment methods for the SRB; matching payments to thrift savings plan contributions; second-term obligation lengths; second-term assignment guarantees; different amounts of time doing work that uses training and skills; changes in promotion schedules; restrictions on contacting detailers; guaranteed time for voluntary education; changes in shipboard living space; and options for housing during in-port sea duty. The survey results indicate that nonpay factors play a substantial, measurable role in guiding sailors' reenlistment intentions. The two highest impact QOS improvements are location and duty-type assignment guarantees.

Why Do Pay Elasticity Estimates Differ? by Michael L. Hansen and Jennie W. Wenger, 2002, CNA, CRM D0005644.A2/Final. This study examines potential sources of variation in the *pay elasticity of reenlistment*, which measures the percentage change in reenlistment associated with a 1 percent increase in pay. It concludes that most of the variation in the literature results from differences in statistical methods, and not from any changes in the actual behavior of Navy personnel. The authors estimate an elasticity of 1.5 for Navy enlisted personnel.

Issues for further research—retention and separation pays

Research studies into the second- and third-order effects of a move to an SSS on retention or separation pays could address questions that include the following:

- What is the current distribution of these pays, by paygrade, YOS, military occupational specialty (MOS)/rating/designator, skill group, etc.?
- Are current levels of these pays adequate to achieve desired levels of retention and separation? Overall? By such categories as experience level, occupation, etc.?
- How would an SSS affect the amount and distribution of retention and separation payments? How would these amounts and distributions change under various scenarios for implementing an SSS, including integrating allowances into basic pay, implementing a CoL adjustment, and/or fully compensating servicemembers for the loss of tax advantage?
- What would be the effects on retention and separation rates, overall and by group (experience level, occupation) of these retention and separation pay distributions?
- How should policy be reset under an SSS to achieve desired levels of retention and separation? To minimize cost growth? How should basic pay multipliers be revised? Should DOD move to flat-dollar amounts for these pays, as the Marine Corps has done for SRBs?
- Should DOD consider increasing the importance of retention pays in the overall compensation package through increases in SRBs or other incentive pays, rather than through an increase in basic pay alone?
- Should DOD consider permanently instituting a Voluntary Separation Pay under SSS?

Data for conducting a study or studies on retention and separation pays should be available from military personnel data sources, such as the Defense Manpower Data Center (DMDC), and/or the services, again supplemented by servicemember interview, focus group, or survey data to measure perceptions, preferences, and potential reactions to policy changes. An important consideration in determining which studies to prioritize is that, because CP is so new, the availability of data on the program is likely to be limited for a few years, although it still should be possible to conduct a study.

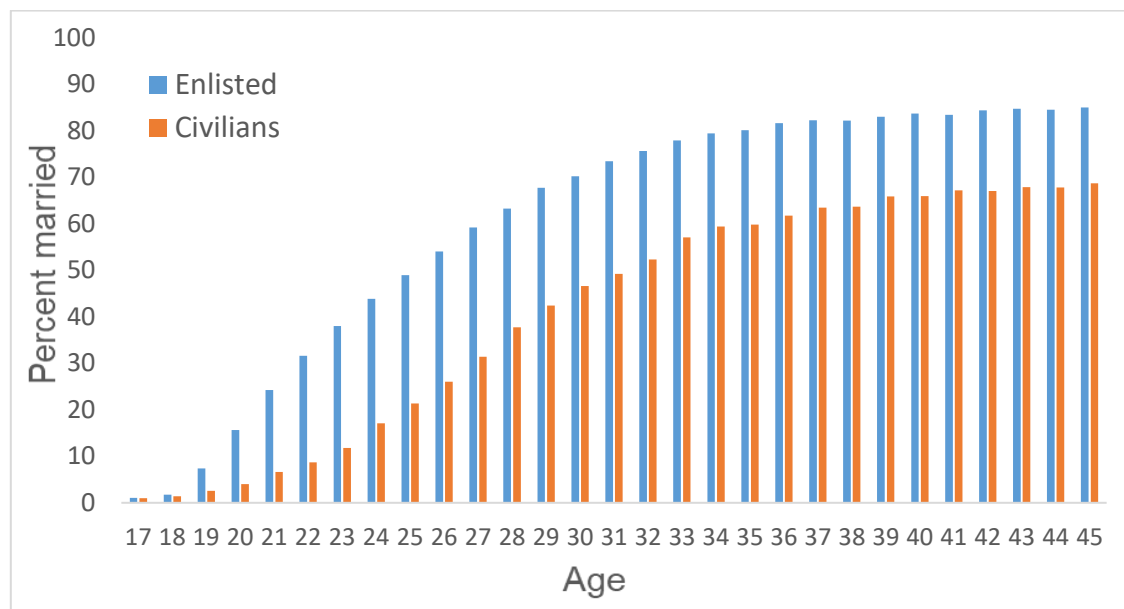
Changes in the dependency ratio

There is a significant social science research literature showing that people’s family decisions (especially marriage) are sensitive to their financial situation and compensation level [46-49]. Therefore, another potential effect of an SSS could be to change incentives for servicemembers to marry and/or have children or dependents. Because servicemembers with dependents reenlist at higher rates, a change in the percentage of servicemembers who are married or have dependents could have important effects on retention as well [50].

BAH provides incentives for servicemembers to marry at younger ages than civilians because of the higher with-dependents rate. Currently, the BAH payment differential between single and married members ranges from 4 to 28 percent depending on rank (averaging 17 percent for enlisted and 13 percent for officers). This BAH differential results in an RMC differential of about 5 percent for married enlisted members and 1 percent for married officers [1].

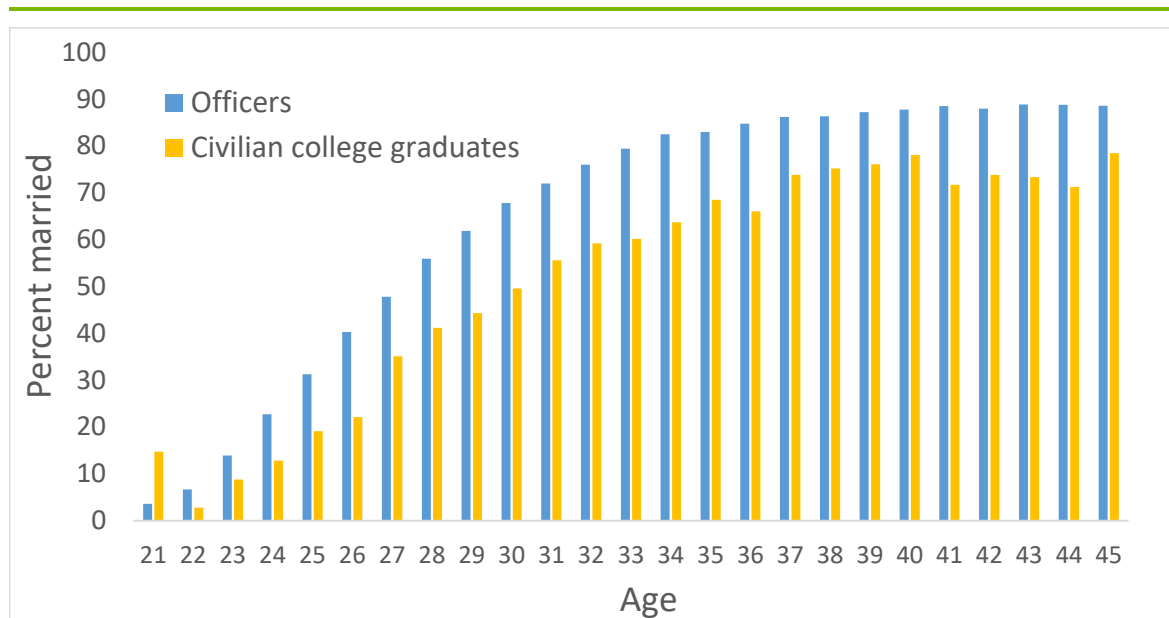
When recruits come into the military, most are single (in 2018, about 93 percent of E-1s were single, as were 74 percent of O-1s) [1]. However, compared to civilians, servicemembers—both enlisted and officers—generally marry at younger ages and at higher rates [51]. To illustrate, Figure 1 and Figure 2, respectively, show the percentages of enlisted members and officers who were married at the end of FY 2017 by age, compared with their civilian counterparts.

Figure 1. Marriage rates for enlisted, compared with civilian counterparts



Source: [51].

Figure 2. Marriage rates for officers, compared with civilian counterparts



Source: [51].

Some of this behavior may be driven by incentives provided by higher BAH and RMC for married servicemembers and by the fact that marriage allows younger servicemembers to move out of bachelor housing and begin receiving BAH. Survey evidence has shown that, at least in the past, very few servicemembers prefer to live in bachelor housing, and a higher percentage of homeowners tend to be satisfied with their housing than those living in military housing [10, 14].

Marriage behavior of servicemembers may matter for military readiness, in part because married servicemembers tend to reenlist at higher rates than do single servicemembers.¹⁷ A CNA study on Marine retention, for example, showed that Marines with dependents were less affected by long deployments than were those without dependents; more deployments and increases in deployment lengths reduced reenlistment rates for first-term Marines without dependents [50]. This raises the possibility that an SSS that eliminates BAH and the with-dependents pay advantage could adversely affect retention rates by lowering the marriage rate and reducing the proportion of servicemembers with dependents. The effect that an SSS would have on retention rates would depend on how it is implemented. Two examples follow:

¹⁷ It may also be that the military attracts people who have a relatively high preference for marriage.

- Would an SSS incorporate BAH into basic pay at the higher with-dependents level? This might have the effect of increasing the retention rate of members without dependents, but at a relatively high budgetary cost.
- If BAH were incorporated into basic pay at the lower without-dependents level, there would be budgetary savings, but potentially at the cost of lower retention rates for married servicemembers.

Demographic shifts also could have implications for some of the other policies and effects we considered. Consider the following questions:

- How would changes in the dependent share affect the demand for onbase or offbase housing? If fewer servicemembers are married, will it become worthwhile for DOD to invest in improving bachelor housing?
- If BAH were incorporated into basic pay at less than the with-dependents level, would retention or other incentive pays, such as SRBs or CP, have to be increased to counteract adverse retention effects? If so, by how much?
- Would shifts in the dependent share affect the attractiveness of voluntary separation pay as a force-shaping tool?

References on changes in the dependency ratio

“The Economic Foundations of Cohabiting Couples’ Union Transitions,” by P. Ishizuka, 2018, *Demography* 55 (2): 535-557. This study uses survival analysis with monthly data from the Survey of Income and Program Participation from 1996 through 2013 to test alternative theories of how money and work affect whether cohabiting couples marry or separate. Analyses support marriage bar theory: adjusting for couples’ absolute earnings, increases in wealth and couples’ earnings relative to a standard associated with marriage strongly predict marriage.

“The Effects of the Great Recession on American Families,” by Daniel Schneider, 2017, *Sociology Compass* 11 (4). This study reviews recent social scientific research on the effects of the Great Recession on American families. The Great Recession was marked by historic rates of unemployment and foreclosure and caused substantial household economic hardship and widespread economic uncertainty. The research review indicates that the recession had modest effects on marriage and cohabitation, but significant negative effects on fertility.

“Money, Marriage, and Children: Testing the Financial Expectations and Family Formation Theory,” by Christina M. Gibson-Davis, 2009, *Journal of Marriage and Family* 71 (1): 146-160. Using data from the Fragile Families and Child Wellbeing Survey, this work examines how gains in earnings and income are associated with marriage and subsequent

childbearing for low-income couples. Using change models, results indicate that positive changes in earnings, controlling for baseline levels of earnings, were associated with greater odds of marriage. Cohabiting couples who became poor were associated with a 37 percent decrease in marriage likelihood. Neither earnings nor income was affiliated with additional fertility. Results are consistent with the Financial Expectations and Family Formation theory, which posits that positive economic circumstances are necessary for marriage but are not associated with subsequent childbearing.

Revisiting Financial Issues and Marriage, by Jeffrey P. Dew, 2008, in *Handbook of Consumer Finance Research*, edited by Jing Jian Xiao, New York: Springer-Verlag, 281-290. This work examines recent research pertaining to the association between financial issues and marriage. These studies show that financial issues relate to marriage formation, marital quality, and marital stability (i.e., divorce). Specifically, financial stability is associated with a greater likelihood of marriage. Further, behaviors that financial practitioners would label “sound financial management” (e.g., higher value of financial assets, or lower consumer debt) are positively associated with marital quality and stability.

Marine Corps Retention in the Post-9/11 Era: The Effects of Deployment Tempo on Marines With and Without Dependents, by Aline O. Quester, Anita U. Hattiangadi, and Robert W. Shuford, 2006, CNA, CRM D0013462.A1/Final. This study focuses on the post-9/11 relationship between deployment tempo and retention, especially on differences in responses for Marines with and without dependents. The authors found that, at least for career Marines and officers, high deployment tempo had little negative effect of reenlistment/continuation decisions. Officer retention actually increased with total days deployed or deployment to Iraq or Afghanistan. We found, however, that increases in deployed days lowered reenlistment rates for first-term Marines—particularly those without dependents.

Study Ideas for Highest Priority Effects

This section of the report presents study designs for analyzing the selected second- and third-order effects in the highest priority areas of housing and food arrangements, changes in the dependency ratio, and retention and separation pays.

Funding alternatives for privatized housing operations under an SSS

Eliminating BAH would create legal, contractual, and rent-setting difficulties for the military's privatized housing projects. This study will assess alternatives to the current operational funding of privatized housing under an SSS that eliminated BAH.

In this study, analysts familiar with MHPI housing issues would develop alternative proposals for pricing MHPI housing rents to keep them affordable to military families. The study team then would meet with SMEs from the military and privatization partner organizations to obtain their assessment of each alternative. The team also would analyze data and conduct economic analyses to assess the feasibility and long-term ramifications of each alternative.

Effects of an SSS on marriage rates and retention

This effort would assess the extent to which, under an SSS, elimination of the pay gap between servicemembers with and without dependents could affect marriage rates and retention. The study would consider questions that include the following: (1) To what extent are higher reenlistment rates for married servicemembers due to the pay gap that results from BAH differences between married and unmarried members (i.e., those without dependents)? (2) How would the pay of married and single members change under various scenarios for implementing an SSS? (3) What effects would these pay changes have on servicemember marriage rates, and how would this affect the proportions of married and single members in the force? (4) What effect would a change in the married and single proportions in the force have on retention rates, and how would such effects vary by servicemember characteristics? (5) How much would retention pays, such as SRBs or CP, have to be increased to counteract any adverse retention effects of moving to an SSS?

The study team would review social science and demography literature to assess the relationship between marriage rates and compensation in the civilian sector. The team also would review military manpower and personnel literature for information about the relationships between marriage rates, compensation, and retention rates in the military. Although there is some evidence that military service may be attractive to those who choose to marry early, other evidence suggests that the military incentives for marriage also play a role. Informed by these reviews, the study team would conduct data analyses using military manpower and personnel data provided by DMDC. The data analysis would estimate the size of pay changes for married and single servicemembers under different scenarios for SSS implementation, and the relationships between pay changes, marriage rates, and retention rates, and between retention pays and retention levels.

Alternative methodologies for incorporating housing costs into an SSS

The current methodology used to calculate BAH is contractually expensive and produces highly variable and sometimes inaccurate results [9]. It also would be very difficult to incorporate it into a locality component of an SSS. This study would develop alternative methodologies that use existing government housing and demographic datasets to create more cost-effective and accurate housing cost estimates. Such a methodology could be easily adapted to support an SSS.

The project would use publicly available data from the US Department of Housing and Urban Development and the US Census Bureau to create algorithms for estimating housing allowances appropriate for military servicemembers at US locations. It would match these estimated allowance levels to BAH rates and to General Schedule (GS) locality pay rates to check for overall consistency. It also would check the statistical accuracy of the estimates by examining occupancy rate changes of military families in privatized family housing. Given aggregate occupancy data, the study would verify its results by analyzing whether servicemembers “vote with their feet” in accordance with the algorithm’s cost predictions.

Adapting overseas housing benefits to an SSS

Servicemember families stationed overseas are assigned to military housing or receive OHA. Neither alternative fits easily into an SSS. Currently, families who are assigned to military housing do not receive any housing allowance. However, an SSS must include some component for housing cost. Should these families be forced to pay rent for their military housing, and is this proper if they are assigned to the housing without their consent?

OHA is a variable housing allowance that reimburses servicemembers dollar-for-dollar for their actual rent and utility costs up to a specified maximum amount. This maximum amount is typically reviewed and adjusted every 6 months because of currency fluctuations. These unique characteristics may make it difficult to incorporate into an SSS.

This study would examine the various alternatives and subsequent ramifications of an SSS for in-kind housing and OHA. It would address such questions as the following: What are the alternatives for adapting in-kind housing and OHA to an SSS? What are the costs of these alternatives? How will these alternatives incentivize and affect servicemember choices?

This study would require gathering aggregate manpower and economic data along with economic analysis and discussions with SMEs. It also would include a review of how private companies and other government agencies compensate personnel overseas.¹⁸

Effects of an SSS on demand for military meals programs

This study would assess the extent to which demand for military meals programs (subsistence in-kind, or SIK) would be affected under an SSS. It would address questions, such as the following: What would be the effect of replacing SIK with a “pay dining for all” system on the demand for military meals and dining facility services? If SIK is largely eliminated under an SSS, should the military continue to have onbase dining options (e.g., dorm-style meal plans) for those servicemembers who want them?

The study would use multiple methods to assess the effects of moving to an SSS on demand for military-provided subsistence. The study team would collect data on current military dining facilities from service-level readiness, installations, and facilities commands. These data would be supplemented by servicemember personnel data and interview, focus group, or survey data that would be collected by the study team. Data analysis and fieldwork would address such issues as servicemember perceptions of the introduction of meals charges, how servicemember dining habits might change under a pay dining system, and the level of demand for retaining onbase dining options if SIK were generally eliminated. The analysis would

¹⁸ This review would build on work done as part of an earlier CNA study, *The Single Salary System for Military Personnel: A Review of Existing Practices and Literature*. Foreign service (FS) officers stationed overseas, for example, are eligible for Overseas Comparability Pay (OCP) that helps ensure compensation parity between overseas and domestic FS officers. Civilians in the Department of State and the DOD also can be eligible for a Living Quarters Allowance (LQA), a nontaxable allowance intended to cover rent, utilities, taxes, and other fees, when stationed at a post abroad where the US government does not provide living quarters. In the private sector, although it is increasingly common for firms with a global presence to convert housing allowances into cash compensation, some sectors (e.g., the petroleum industry) still offer various overseas housing incentives [52].

consider how these variables might vary by servicemember characteristics (such as age, experience, rank, dependent status, and living onbase versus offbase). The study team would talk to personnel who currently oversee dining facility operations, as well as on-the-floor facility managers and people who record installation-level data at a variety of dining facility locations (remote versus densely populated locations, and well-used versus underused locations, for example). These data would serve as inputs to a simulation model that would predict how dining facility utilization would change under different scenarios for implementing an SSS.

Efficiencies of moving to lump-sum, flat-rate SRBs

The current SRB system calculates bonus amounts using a formula that includes basic pay and a bonus multiplier. A move to an SSS potentially would increase basic pay and could substantially increase bonus amounts unless a corresponding change is made to decrease the multiplier, which could lead to decreased interest in reenlistment. DOD may want to consider a simpler system involving lump-sum and/or flat-rate payments. Such a system could help to mitigate negative retention effects and allow more efficient SRB management.

In 2008, the Marine Corps moved to a flat rate SRB that severed the tie between SRB rate and basic pay. In doing so, the Marine Corps was able to offer flat-rate bonuses that increased the efficiency of budgeting with the limited money available and to market SRBs more directly by eliminating the need for eligible Marines to calculate their own bonus amounts. In recent years, the Army has started to offer its soldiers flat-rate SRBs in some occupations while retaining multiples in other specialties. In addition, the Marine Corps decided to pay all SRBs in lump-sum payments, thus eliminating the fiscal year execution “tail” in later fiscal years and improving effectiveness [53].

Regardless of whether DOD moves to an SSS, we believe this is an opportunity to investigate the possibility of moving SRBs to a lump-sum, flat-rate system. This analysis would help determine (1) the feasibility of moving to a lump-sum, flat-rate SRB system, (2) the implications to each service if SRBs moved to such a system, and (3) the benefits and drawbacks of moving to such a system. This analysis would help DOD and the services to better align SRBs to retention requirements to ensure that the services retain the right people.

Building on earlier CNA research, the study would review how the services execute the current SRB multiplier system and would compare and contrast across services to identify benefits and drawbacks of lump-sum versus annuity and flat-rate versus basic pay multiplier approaches [53-54]. The study team would meet with service-level SMEs to obtain their assessment of their respective SRB employment along with the perceived benefits and drawbacks. The team also

would assess the feasibility and long-term ramifications of moving to a lump-sum and/or flat-rate SRB model. This study would involve the following tasks:

- **Literature and policy review:** The study team would review previous literature on the relationship between SRBs and reenlistment rates and examine other research relevant to either the SRB program or the estimation of the effects of pay on retention and reenlistment, and then review policies determining service-level execution of SRBs.
- **Data analysis:** The study would develop prediction models for the effect of SRBs on reenlistments. The study team would create a dataset to estimate the impact of paying SRBs as lump sums versus annuity payments and as flat rates versus multiples of basic pay. The team would then analyze the expected gains from switching to a lump-sum and/or flat-rate payment plan. The study could exploit the “natural experiments” of the Marine Corps’ and Army’s moves to lump-sum and flat-rate bonuses as part of the estimation strategy.
- **Cost/benefit analysis:** The study team would evaluate the expected costs and benefits from moving to a lump-sum and/or flat-rate payment plan, based on the literature review, data analysis, and consultation with SMEs.

Lower Priority Effects

We consider the other identified effects to be of lower priority for further research than housing and food arrangements or retention and separation pays. These effects are lower priority for one of three reasons:

1. They affect relatively few servicemembers.
2. The budgetary costs are low.
3. We perceive the risks to readiness generated by the effects of an SSS on these programs to be relatively low.

Other retention and separation pays

Combat Zone Tax Exclusion (CZTE)

Servicemembers are eligible for the CZTE when they are either serving in a combat zone or providing direct support to military personnel serving in such an area [55]. CZTE is linked to RMC because the monthly exemption amount for officers is set at the highest rate of enlisted basic pay (that of Senior Enlisted Advisors, or SEAs), plus the value of any hostile fire or imminent danger pay the officer earned in the given month. There is no upper limit to the monthly exemption amount for enlisted members or warrant officers. In 2017, the maximum exclusion for a commissioned officer was \$8,390.10 per month (\$8,165.10 for SEA monthly basic pay, plus the maximum \$225 hostile fire/imminent danger monthly pay) [29-30, 56]. In 2018, these limits would apply only to officers in paygrade O-5 with 16 or more YOS, paygrade O-6 with 14 or more YOS, and paygrade O-7 and above. There were about 38,000 such officers in 2018, making up about 18 percent of all commissioned officers and about 3 percent of all AC military personnel [1].

The probable effect of a move to an SSS on CZTE would appear to be small. For enlisted members and warrant officers, basic pay currently is fully excluded under the CZTE, and BAH and BAS are non-taxable. Under an SSS, enlisted pay would increase the total amount of basic pay to cover the loss of BAH and BAS, but since BAH and BAS were non-taxable already, there would be no “lost revenue” from these portions of pay earned in a combat zone. The effects on the CZTE would therefore likely be zero sum—no loss to the government or to the individual service member—for enlisted members and warrant officers.

For commissioned officers, however, CZTE would potentially decline in value because of the cap on the maximum exclusion amount. As stated previously, the cap on the exclusion amount

for senior officers is based on the highest rate of enlisted pay plus the value of any hostile fire or imminent danger pay. Under an SSS, this exclusion cap would also increase, since the highest rate of enlisted pay would increase. Any senior officers whose monthly pay exceeds that of the exclusion cap would have that excess income subject to tax, but potentially at a lower tax rate since their tax rate would be based on taxable income. Overall, for senior officers, there may be a minimal increase in the excess income taxable due to the elimination of tax-free allowances.

More specifically, in terms of budget effects, exclusion of combat pay for all servicemembers has been estimated to result in average annual tax expenditures of \$600 million to \$700 million between FY 2018 and FY 2022 [57]. The average value of the CZTE benefit per servicemember in 2009, translated into 2017 dollars, was about \$7,000 per year, suggesting that about 80,000 to 100,000 servicemembers annually can be expected to receive CZTE [58]. If the number of affected officers is the same percentage of CZTE recipients as of all AC personnel, then perhaps only 2,500 to 3,000 officers per year are subject to the upper limits, earning a total of \$40 million to \$50 million from CZTE. In addition, if changes to basic pay under an SSS result in similar treatment of SEAs and officers, there should be little or no change in the percentage of officers subject to the upper limits.

Cadet and midshipman pay

Under Title 37, U.S.C., Section 203(c)(1), as amended by the NDAA for FY 2001, service academy cadets and midshipmen are entitled to monthly pay equal to 35 percent of the basic pay received by a grade O-1 officer with less than 2 YOS [29]. In 2018, that amount was \$1,087.70 per month [1]. Budget projections indicate that 12,800 cadets and midshipmen were expected to receive \$241 million in pay in FY 2017 [27-28, 37]. Under an SSS that fully integrated BAH, BAS, and the tax advantage into basic pay, O-1 basic pay would rise by 60 percent, on average. This suggests that an SSS in the absence of mitigating policy changes could result in increased budgetary cost of approximately \$140 million. Reducing the cadet/midshipman pay multiplier from its current 35 percent to the 20–25 percent range could counteract most or all of this cost increase, while leaving service academy attendees as well-off as they are now. Although there is some research that compares the cost and performance of accessing officers from different sources (the academies, Reserve Officer Training Corps (ROTC), and Officer Candidate School (OCS)), there appears to be no research on the relationship, if any, between cadet/midshipman pay and variables that might affect readiness, such as the number or quality of incoming or graduating academy attendees [59-60].

Accrued leave payment

Accrued leave payment (Title 37, U.S.C., Section 501) provides reimbursement for unused leave for a servicemember whose term of service is expiring. Each day of unused leave is valued at

one day's basic pay (the monthly basic pay rate divided by 30). Between FY 2006 and FY 2015, an annual average of about 160,000 servicemembers were paid an average of \$282 million per year in accrued leave payments [29-30]. A move to an SSS could result in increased accrued leave payments of \$200 million or more per year if the allowances and the tax advantage were fully incorporated into basic pay. The policy fix to mitigate this cost increase would have to involve valuing each day of unused leave at less than one day of the new, higher level of basic pay. It would be important to assess the feasibility of enacting such a policy and, if feasible, the extent to which such a policy would be resisted by servicemembers through surveys or focus groups.

Active duty Contract Cancellation Pay

Reserve servicemembers released involuntarily before the end of their active duty agreement may be entitled—under Title 10, U.S.C., Section 12312—to a special payment compensating them for the cancellation of the contract. Contract Cancellation Pay is linked to RMC because the amount of the payment is equal to the pay the servicemember would have received had the member completed the active duty contract (one month's basic pay, special pay, and allowances at release, multiplied by the number of months remaining on the contract) [29-30]. Because Contract Cancellation Pay already incorporates BAH and BAS, there should be little or no change to these payments under an SSS that incorporates BAH and BAS into basic pay. There will be a cost increase (of perhaps 10 percent), however, if the tax advantage also is rolled into basic pay.

Other housing policies

Family Separation Housing Allowance (FSHA)

Family Separation Housing Allowance (FSHA) is designed to partially reimburse servicemembers who incur extra expenses because they are involuntarily separated from their dependents. These expenses could include, for example, maintaining a home for dependents or communicating with the family. It addresses an inequity created between the treatment of these servicemembers and those who receive authorization to have their dependents accompany them [29].

There are two types of FSHA. The type that is relevant for understanding the effects of an SSS is Type I, which is intended to reimburse personnel who have to maintain two homes—one for themselves at the duty location, and a second for dependents. The amount of Type I FSHA is equal to the BAH without-dependents rate for that member's paygrade [29]. As a result, under an SSS that eliminates BAH, the amount of Type I payments will have to be reset, if the policy is retained at all.

Type I FSHA affects all members on unaccompanied tours with overseas family members, as well as their dependents. In FY 2015, DOD spent \$82 million on Type I payments to 27,400 military personnel [29].

With respect to readiness risks, it is possible that resetting the level of Type I payments (or eliminating the program altogether) could have effects on the willingness of servicemembers to volunteer for unaccompanied tours, or on the retention behavior of those assigned to such tours. There appears to be little current research on the effectiveness of FSHA payments on either willingness to deploy or retention, or on easing the economic burden for servicemembers who serve on unaccompanied tours. The research that does exist on FSHA uses receipt of the allowance as a measure of the burdens of deployment on servicemembers and their dependents [61-62].

Post-9/11 GI Bill housing stipend

Established in 2009, the Post-9/11 GI Bill provides educational benefits to a potentially large population: AC servicemembers, reservists, veterans, and dependents (because some benefits can be transferred). As part of the policy, eligible individuals are entitled to a monthly stipend to cover housing expenses while seeking a degree. We could not find clear information on exactly how many people are receiving the housing benefit, or how much is spent on it. The link between this policy and RMC is that the amount of the housing allowance is based on the BAH rate for E-5s with dependents (which varies by location, but averages \$1,650 per month in FY 2018). Under an SSS that eliminates BAH, the amount of housing benefit will have to be reset if the policy is to be retained.

Military readiness could be affected by a change to this policy if it provides incentives for individuals to join or stay in the military. One study reported that the housing allowance appears to be a major draw of the Post-9/11 GI Bill. A substantial number of focus group participants cited it as the most important improvement in the new GI bill relative to the older Montgomery GI Bill, especially increasing the ability of single recipients without children to attend school full time without working [63]. More recent studies, however, have found relatively small effects on recruiting and mixed effects on retention from the Post-9/11 GI Bill, [64-65].¹⁹

¹⁹ A 2017 CNA study estimated negative reenlistment effects of the Post-9/11 GI Bill at the Navy's Zone A decision point (17 months to 6 YOS), with little overall effect at Zone B (6 to 10 YOS) and Zone C (10 to 14 YOS) decision points. The transferability option appears to have mitigated part of the reenlistment decline. The study also estimated negative retention effects for officers up to 8 YOS, with positive retention effects for officers beyond 8 YOS [65].

Family and dependent benefits

An SSS also may have implications for aspects of military compensation that affect a servicemember's family and dependents. These include required support levels for dependents during marital separation prior to divorce, child and spousal support arrangements, especially those involving pay garnishment or involuntary allotment, and the division of retirement pay between former servicemembers and their former spouses. In addition, such policies as the Survivor Benefit Plan (SBP) and Advance Dependent Evacuation Allowance are linked to RMC and may be affected by a conversion to an SSS.

Support for dependents during separation prior to divorce

Moving to an SSS will have some effect on the guidance and regulations governing the amount of support servicemembers are required to provide dependents in cases of separation prior to divorce. Dependent support is linked to RMC because each of the services uses BAH, in some form, to set base minimum support to dependents prior to a court order or divorce agreement. The Army, for example, sets the interim support amount equal to a share of the BAH, Type II (also known as BAH Reserve Component/Transit, or RC/T) with-dependent rate [66]. BAH RC/T is a nonlocality housing allowance for servicemembers in particular circumstances, such as National Guard or reserve members on active duty for 30 or fewer days, or members in transit from locations where no prior BAH rate exists (such as overseas). BAH RC/T rates are set by the Secretary of Defense and do not vary by geographic location. Rates originally were set based on the old basic allowance for quarters (BAQ) policy, and they are revised annually according to national average housing cost growth [67]. In the Air Force, servicemembers are required to provide a share of the nonlocality BAH with-dependents rate. Those who fail to provide required support will have their BAH with-dependents rate terminated [68]. The Navy's interim support guide specifies support levels as a percentage of "gross pay," where gross pay includes basic pay and BAH but excludes BAS and special/incentive pays (such as hazardous duty pay, sea duty pay, foreign duty pay, or other incentive pays) [69]. The Marine Corps' interim financial support standards (*Marine Corps Manual for Legal Administration*, Chapter 15, "Financial Support of Family Members") base support levels on a share of BAH or Overseas Housing Allowance per requesting family member [70]. As a result, our SMEs told us that each of these policies would have to be modified under an SSS that eliminated BAH. Other than administrative costs of changing the policy, there should be no budgetary cost to DOD because dependent support is paid by the servicemember.

Number of people affected

The annual divorce rate for married, AC servicemembers has remained relatively stable at about 3 percent per year for at least the last decade [71-72]. In 2015, there were 22,598

divorces involving AC servicemembers. With each married servicemember responsible for an average of 2.4 dependents, an estimated additional 50,000 or more military dependents also are involved in military-related divorce cases annually [73]. So, there may be 70,000 servicemembers and their dependents who could be affected by a change in dependent support requirements each year.

Risks to readiness

The potential effects of a change in dependent support policy on readiness-related issues, such as morale or retention, are unclear. If, under an SSS, dependent support policies were modified to keep required support levels about where they are now, there might be little effect on morale or retention. The following questions might be worth considering, however:

- Are current levels of dependent support adequate?
- For servicemembers who are potential recipients of such support, does uncertainty about provision for dependents affect morale, willingness to deploy, or retention?
- Do any such effects differ by gender?
- If dependent support levels were raised under an SSS, would there be adverse morale or retention effects on providers of such support?

Child support and alimony—pay garnishment/involuntary allotment

A related issue with respect to an SSS involves child support and spousal support (alimony) arrangements. In general, our SMEs emphasized that divorce outcomes are controlled by state courts, which generally require a level of child and spousal support based on the total earnings of the divorcing parents (among other factors), where total earnings include all components of military compensation: basic pay, BAH, BAS, and special and incentive pays. As a result, the elimination of BAH and BAS under an SSS is likely to have little or no effect on state-imposed court orders for child and spousal support.

When it comes to involuntary garnishments from a servicemember's pay, however, according to DOD policy, only basic pay is currently subject to garnishment (even if a support order from a court of competent jurisdiction is presented to a military department). BAH and BAS are not subject to garnishment [30]. As a result, converting RMC to an SSS that folds BAH and BAS into basic pay would subject servicemembers to higher pay amounts subject to garnishment or involuntary allotment.

Number of people affected and budget costs

Some fraction of the 20,000 servicemembers per year who go through a divorce are among those who could potentially be affected by higher pay garnishments. Add to that number some

percentage of the number of never-married servicemembers supporting children.²⁰ It is not clear what percentage of divorced and never-married servicemembers will face pay garnishment or involuntary allotment, but a 1991 study reported that there were 4,575 unmarried Army soldiers who were receiving housing allowance solely for support of children and that 846 of those (18 percent) were subject to involuntary, court-ordered support [74].

Risks to readiness

In terms of risks to readiness, the extent to which there may be adverse morale or retention effects on child or spousal support providers facing larger pay garnishments is unknown and would have to be investigated. There also could be beneficial effects for servicemembers in dual-military couples who are recipients of support and who may be able to receive higher support levels under an SSS.

Retirement pay for former spouses

A third issue related to an SSS that could potentially affect divorced servicemembers and their dependents involves the division of retired pay between former servicemembers and their former spouses. The Uniformed Services Former Spouses' Protection Act (USFSPA), Title 10, U.S.C., Section 1408, authorizes the division of "disposable retired pay" for purposes of child support and/or alimony payments. Disposable retired pay is defined as the amount of retired pay payable to the member for the member's paygrade and YOS at the time of the court order, increased by the cost-of-living amounts granted to military retirees from the time of the divorce to the date the member retires [75]. Under an SSS, according to our SMEs, divorce cases still will involve division of this disposable retired pay. We would not expect either the nature of divorce decrees or the actual mechanics of the administration of justice in such cases to change very much. Some minor changes to USFSPA probably will be required, especially the definition of disposable retired pay, which would have to be updated to reflect the nature of the new SSS, but this would amount to little more than modifying some language in the law. Overall, the second- and third-order effects of an SSS on retirement pay for former spouses should be limited.

Survivor Benefit Plan (SBP)

DOD's SBP provides cash benefits to a surviving spouse (or other eligible recipient) of a former servicemember. SBP allows a military retiree to withhold a portion of his or her monthly retired pay to provide a monthly annuity payment to a designated beneficiary. The cost of this protection is shared among the former servicemember, the government, and (under certain

²⁰ In 2010, there were about 77,000 single AC servicemembers with children [71]. In 2016, there were 55,360 single AC servicemembers with children [73].

types of coverage) the beneficiary [76-77]. SBP is linked to RMC because the maximum benefit level is a percentage (55 percent) of retired pay, which depends on the former servicemember's basic pay history.

In FY 2017, 279,240 families received \$3.7 billion in benefits under SBP, while nearly 1 million former servicemembers made \$1.5 billion in contributions toward the program [78]. The degree to which these payments and costs would change under an SSS would depend on how retirement pay is handled. If retirement multipliers are reset to take into account the probable increase in basic pay under an SSS so that former servicemembers receive about the same level of retired pay as they do now, the effects on SBP are likely to be relatively small. If retirement pay under an SSS rises substantially, however, maximum SBP benefit levels and program costs could rise.

Advance Dependent Evacuation Allowance

A servicemember whose dependents are authorized or ordered to evacuate from a threatened area may be provided an advance of up to two months of basic pay (Title 37, U.S.C., Section 1006) and/or allowances, including BAH and BAS (Title 10, U.S.C., Section 1006). The amount of funds spent on these advances appears to have been small in recent years. The effects of moving to an SSS would seem to be rather small with respect to these advances since the services already have the flexibility to advance basic pay, and/or allowances, at their discretion. If RMC increases under an SSS (e.g., due to the incorporation of the tax advantage into basic pay), the amount of pay that could be advanced might increase somewhat.

Income support programs

The federal government and the states provide a number of income supplement programs that servicemembers or former servicemembers may qualify for under certain circumstances. In some cases, a move to an SSS that eliminates BAH and BAS and increases basic pay may affect eligibility for these programs because current program eligibility criteria may or may not include the allowances.

Supplemental Nutrition Assistance Program (SNAP) eligibility

SNAP is a federal nutrition assistance program, funded by the US Department of Agriculture (USDA), that provides assistance to eligible low-income individuals or families that live in the same household. To qualify for SNAP benefits, a household's gross income must be under 130 percent of the poverty line (\$1,732 a month for federal FY 2018), net income must be at or below the poverty line, and the value of all the family's assets must be at or below an asset limit (\$2,250 for households without an elderly member and \$3,500 for households with an elderly

member, as of October 2018) [79].²¹ More recently, states have been given a fair amount of flexibility to adopt broad-based categorical eligibility (BBCE), an eligibility criterion that has more generous gross income and/or asset limits than the federal guidelines. As of May 2018, 40 states, DC, Guam, and the Virgin Islands have implemented BBCE [80].²² In all cases, gross (and net) incomes are calculated *including* BAH and BAS cash payments. Income limits do not, however, include in-kind housing compensation or SIK [82].

Number of people affected and budget costs

A 2015 study using data from FY 2008 to FY 2012 found that just over 2 percent of AC servicemembers used SNAP, as did 9 percent of reservists and National Guard members, 7 percent of recent veterans, and 6.5 percent of long-term veterans [83]. These figures would correspond to about 31,000 AC servicemembers per year. All of these SNAP use rates are lower than the rate of SNAP use in the general population, which has ranged from 10 to 15 percent over the last decade [84].

Because SNAP is funded by the USDA, changes in servicemember eligibility will have little effect on DOD's budget, although it may have some effect on the federal budget. Whatever effect it has, however, is likely to be very small. According to the Government Accountability Office (GAO), in FY 2015, AC servicemembers spent about \$21 million in SNAP benefits at commissaries, compared with a total program budget of \$60 billion to \$70 billion (the actual amount of benefits *received* by servicemembers could have been higher, of course, but is still likely to make up a small amount of overall SNAP spending) [85].

Risks to readiness

For servicemembers who currently receive BAH, the effect on SNAP eligibility of a move to an SSS might be relatively small. If BAH and BAS were fully converted into basic pay and a locational cost-of-living adjustment were established, the monthly gross or net income levels that determine SNAP eligibility would probably change little, on average, even in high-cost locations, such as Alaska or Hawaii. One caveat might be if an SSS also incorporated the current tax advantage into basic pay so that average cash incomes—for both officers and enlisted combined—would be somewhat higher (perhaps 10 percent higher) than they are under the

²¹ For Hawaii and Alaska, the restriction is that income be less than 130 percent of *that state's* poverty line. For all other states and territories, the relevant cutoff is 130 percent of the poverty line for the 48 contiguous states and DC (Title 7, Code of Federal Regulations, 273.9).

²² A recent USDA rule states that "As of March 2019, 43 States have used this flexibility to expand categorical eligibility to households that receive non-cash TANF benefits" [81]. However, it appears that this number likely reflects 40 states plus DC, Guam, and the Virgin Islands, since previous USDA documentation included DC, Guam, and the Virgin Islands in its count of 43 states [80].

current system.²³ In that case, some servicemembers who would currently qualify for SNAP may not qualify under an SSS.

An even more important exception involves servicemembers who currently do not receive BAH but instead receive government-provided housing in kind. Such in-kind benefits are not currently counted as income for determining SNAP eligibility, but, under an SSS that converted these in-kind benefits into cash payments, they would count. As a result, a relatively larger percentage of servicemembers in government-provided housing who currently qualify for SNAP might lose those benefits in an SSS [82]. The effects of restricted access to food assistance on servicemember well-being have not been researched, nor have potential effects on morale or retention. Converting the in-kind benefit into cash under an SSS, however, would remove the inequity in program eligibility that currently favors those living in government-provided housing and disadvantages those living in MPHI housing, which could also affect servicemember morale.

Family Subsistence Supplemental Allowance (FSSA)

FSSA supplements servicemembers' BAS so that they are no longer eligible for SNAP. While originally intended for members living in the continental United States (CONUS), currently members are eligible if they qualify for SNAP, receive BAS, and live *outside* the continental US (OCONUS). Therefore, relatively few servicemembers receive benefits under FSSA—fewer than 200 in 2015 [85]. The allowance is not taxable and cannot exceed \$1,100 per month [30]. The overall budget for the program is very small; about \$75,000 per year was requested, on average, for FY 2018 through FY 2020 [86]. Under an SSS, eligibility requirements will have to be revised to account for the elimination of BAS and any OHA changes, but there likely will be little change to the overall program cost.

Unemployment Compensation for Ex-Servicemembers (UCX)

Under the UCX program, members who leave the military can receive up to 26 weeks of regular unemployment insurance (UI) benefits if they apply for and meet their state eligibility requirements. Eligibility requirements include having earned a sufficient amount in the base period (one year prior to application for benefits) [87]. UCX is linked to RMC because, according to the Code of Federal Regulations (Title 20, Part 614.2), the “federal military wages” that are counted as earnings for the purpose of determining UCX eligibility include “all pay and

²³ To calculate the increase in cash incomes, we multiply, for each paygrade, the value of the tax advantage by the number of servicemembers in that paygrade, and then sum over paygrades to get the total dollar value of the TA. We then divide the total value of TA by the total value of basic pay (not RMC) since cash income is what is relevant for SNAP program eligibility. These calculations reveal a 10 percent increase in basic pay resulting from incorporating the TA into basic pay. Note that this 10 percent increase is for enlisted and officers combined.

allowances in cash and in kind,” a definition that includes BAH, BAS, and the tax advantage based on paygrade at separation [88]. Most veterans who have completed their first active duty term will have earned enough to qualify for UCX [87].

Number of people affected and budget cost

The number of former servicemembers claiming UCX benefits fluctuates with the state of the national economy and changes in the size of the eligible veteran population. The number of claimants increased from 38,000 in 2000 to more than 70,000 in 2004, despite a strong economy, because the number of eligible veterans increased due to large-scale activation of reservists for the wars in Iraq and Afghanistan. The number of claimants climbed higher, to 91,000 in 2010, during the last economic recession. By 2016, the number of claimants had fallen to 34,000 [89]. The percentage of veterans collecting UCX benefits varies by service and component, and by demographic characteristics. Servicemembers who are younger, female, not white, who have earned a GED rather than a traditional high school diploma, and who served fewer years and specialized in occupations with transferable but less technical skills (supply, repair and maintenance, construction) are all more likely to receive UCX benefits after separation [90].

The services reimburse states for UCX (because services do not pay federal and state UI taxes for their servicemembers, as civilian employers do), so the UCX program has a direct impact on the DOD budget. As with the number of claimants, spending on UCX benefits varies with the national economy and the size of the eligible veteran population. UCX payments climbed from \$230 million in 2000 to \$630 million in 2004, and increased further to \$1 billion in 2011, before dropping to \$310 million in 2016 [87, 89].

The second- or third-order effects of an SSS on UCX payments are likely to be relatively small, depending on how DOD sets basic pay under a new RMC structure. If basic pay is set to fully compensate servicemembers for the loss of BAH, BAS, and the tax advantage, former servicemembers’ federal military wages should differ little under an SSS compared to their level now. As a result, UCX eligibility and DOD reimbursements to states for the program should not change much either. If basic pay increases under an SSS do not fully compensate members for the loss of allowances and tax advantage, however, UCX eligibility could be restricted because fewer former servicemembers would have earned a sufficient amount to qualify. Also, because UCX affects former servicemembers only, it seems unlikely that there would be substantial morale, retention, or other readiness effects on the military from any changes to UCX eligibility.

Supplemental Security Income (SSI) eligibility

SSI is a program that provides additional income to help cover basic needs for low-income individuals who are age 65 or older, blind, or disabled (including disabled children). AC

servicemembers or reservists who have a disabled dependent may be eligible for SSI. SSI eligibility for such servicemembers is linked to RMC because the program treats BAH differently depending on how the allowance is used. If a servicemember owns or rents a privately owned home, BAH is counted as earned income in determining SSI eligibility. If, however, BAH payments are used to pay for privatized (MHPI) housing, or if the servicemember lives on base in government-provided housing, BAH or the in-kind benefit is not counted as income for the purposes of determining SSI eligibility [91].

Number of people affected and budget costs

We could not find information on the number of AC servicemembers who currently receive SSI. Nationally, the families of about 1.7 percent of children in the United States (about 1.2 million children) receive SSI benefits. Families with incomes up to about 100 percent of the poverty level typically qualify for full benefits, and families with incomes between 100 and 200 percent of the poverty level can qualify for partial benefits [92]. If the percentage of military children with AC parents (just over 1 million in 2016) qualifying for SSI is about the same as for the US as a whole, it suggests that perhaps 17,000 military children of AC parents may be eligible for SSI. This number could be lower, however, if (as with SNAP) a lower percentage of military families receive SSI benefits compared with the population as a whole. Servicemembers with disabled spouses or other adult dependents also might qualify for SSI benefits.

SSI benefits average \$650 a month per child, so the amount of benefits paid to the families of AC servicemembers per year is likely no higher than \$140 million out of a total SSI budget of \$59 billion in 2017 (about 0.2 percent of total program spending) [92]. Because payments to AC servicemembers make up such a small part of the total SSI budget, the budgetary effects of an SSS on SSI are likely to be small.

The impact of losing benefits on the families of low-income servicemembers with disabled children could be substantial, however. Moving to an SSS that eliminates BAH could affect eligibility, especially for low-income servicemembers who live on base or in MHPI housing. Their BAH payments or in-kind benefits, which are not currently counted as income in the determination of SSI eligibility, would be converted into cash salary that would be counted as income, thus reducing the number of eligible families. The loss of benefits could adversely affect the ability of such families to care for their special-needs children, for example, if a parent currently providing care was forced to increase work-hours to make up for the income loss [92]. Since the number of servicemembers affected would likely be small (probably a few thousand at most), effects on morale, retention, or readiness to the military as a whole would probably be small, but the effects on affected families could be large.

Other potential effects

Two other effects of a potential move to an SSS include possible increases in monetary punishments under the Uniform Code of Military Justice (UCMJ) and the need to upgrade pay- and personnel-related information technology (IT) systems.

Fines and forfeitures under UCMJ

A move to an SSS could affect the amount of fines and forfeitures to which a servicemember could be subject under the UCMJ. Fines and forfeitures are tied, at least loosely, to a servicemember's basic pay because maximum fines and forfeitures are limited by a servicemember's basic pay in some cases but by total compensation (including BAH and BAS) in others. An SSS that eliminated BAH and BAS and increased basic pay might result in larger monetary punishments for some servicemembers in some cases.

Throughout the military justice system, as emphasized by our SMEs and by previous research, commanders and courts have considerable discretion in determining (1) whether a given infraction results in a nonjudicial punishment (NJP), a court-martial, or neither; (2) whether the maximum level of fine or forfeiture will be assessed as punishment; and (3) the exact amount of any fine or forfeiture if less than the maximum [93]. Forfeitures of pay and allowances are routinely ordered in NJP and court-martial sentences, although total forfeiture of all pay and allowances is only authorized in general courts-martial, and not for special courts-martial, summary courts-martial, or NJP proceedings [30]. In any case, courts have the discretion to specify forfeitures below maximum limits, and this discretion is used frequently. With respect to fines, maximum levels are set at a percentage of basic pay, and allowances (including BAH and BAS) cannot be subject to fine, so the maximum fine level would rise under an SSS that converted allowances into basic pay. Again, courts have the discretion to impose fines below minimums and to impose fines that are flat-dollar amounts rather than percentages of basic pay [94-95].

Because of this level of discretion in setting punishment by courts and commanders, moving to an SSS might not result in any increase in monetary punishments, at least at first. One of our SMEs believes that, over time, as servicemembers, commanders, and courts adjusted to the new, higher level of basic pay under an SSS, the distribution of fines might increase to some extent. The extent of any changes in the distribution of monetary punishments in NJP and courts-martial may be an issue that should be monitored if an SSS is adopted.

The number of servicemembers affected by an increase in maximum fines is likely to be small. Less than 5 percent of servicemembers each year are involved in NJP or court-martial proceedings, and only a fraction of these cases would be subject to any fine or forfeiture at all. Recent research confirms the rarity of NJP/court-martial cases, finding that about 2 percent of

Marines were involved in summary or special courts-martial; the average incidence of NJPs per Marine in the first two YOS is 0.2, and incidences of disciplinary procedures for Navy sailors are even lower [93, 96].

Upgrading personnel IT systems

SMEs indicated to us that implementing an SSS will almost certainly involve major changes to pay- and personnel-related information technology systems. Services with multiple IT systems handling different parts of their personnel systems may find it especially difficult and costly to update under an SSS. There may even be a need for DOD to move to a single, integrated, and standardized personnel IT system to implement an SSS, which could require the updating and integrating of dozens of legacy systems. We emphasize that these were concerns voiced by the Service-level SMEs with whom we spoke. We mention these insights as a consideration, but note that we did not review the Defense Integrated Military Human Resources System (DIMHRS), the Integrated Personnel and Payment System (IPPS), or the Services' individual pay systems, as that was outside the scope of our effort. As such, we did not evaluate the specific changes that would be necessary to integrate the legacy systems and are not making any concrete recommendations whether such changes are necessary or how they would best be achieved.

Summary of lower priority effects

Table 3 summarizes the lower priority effects, along with our findings about the potential effects of moving to an SSS on numbers of personnel, budget, and readiness.

Table 3. Lower priority effects

Policy or program	2nd- and 3rd-order effects	No. of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Pay of Cadets, Midshipmen	Increase in pay	12,800	\$241M	\$140M	None – number of cadets, midshipmen not likely to change
Combat Zone Tax Exclusion (CZTE)	Possible change in exemption limit	2,500 to 3,000 officers	\$30M	Little or none of officers, if SEA pay changes are similar	Little or none

Policy or program	2nd- and 3rd-order effects	No. of people affected	Current annual cost	Potential cost change^a	Risk to readiness
Family Separation Housing Allowance (FSHA)	Housing-relevant part (Type I) based on BAH-without	27,400 SMs	\$82M	Depends how benefit will be set under SSS (if retained)	Little – program has small impact on family budgets
Post-9/11 GI Bill Housing Stipend	Stipend based on BAH-with for E-5s	Potentially large (several million SMs, dependents, vets are eligible)	Difficult to estimate	Depends how benefit will be set under SSS (if retained)	Little – small recruiting, retention effects
Accrued Leave Payment	Increase in payments	160,000 SMs	\$284M	\$200M	Little – morale effects of change to pay formula
Active-Duty Contract Cancellation Pay	Increase in payments	Unknown number of reservists		Cost due to integrating TA into basic pay ^b	Little – morale effects of change to formula
Support for Dependents Prior to Divorce	Interim support depends on BAH; depends on how policy is reset	20,000 newly divorced SMs annually, plus dependents	None to DOD	None to DOD	Hard to assess – morale, retention effects from uncertainty about dependent provision
Child Support & Alimony Pay Garnishment/ Involuntary Allotment	SMs could be subject to larger garnishments	Difficult to estimate – some % of divorced SMs, unmarried SMs, plus dependents	None to DOD	None to DOD	Some morale effects – some SMs subject to higher garnishments; others receiving more support
Retirement Pay-Former Spouses	Small – divorce case outcomes won't change much	20,000 former spouses per year	None to DOD	None to DOD	Little or none

Policy or program	2nd- and 3rd-order effects	No. of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Survivor Benefit Plan (SBP)	Max. payment 55% of retired pay; depends on how retired pay reset	279,240 families receiving Nearly 1 million contributing	\$3.7B in payments \$1.5B in contributions	Depends on how retired pay set under SSS	Little or none
Advance Dependent Evacuation Allowance	Small – SMs can be advanced basic pay, allowances		\$678,000 requested (FY19)	Little or none	Little or none
Supplemental Nutrition Assistance Program (SNAP) Eligibility	Some SMs may lose eligibility; in-kind housing does not count toward income limits	30,000 SMs receiving	None to DOD (USDA program)	None to DOD; some reduced cost to federal government	Effects on SM nutrition – morale, retention effects (uncertainty about dependent provision)
Family Subsistence Supplemental Allowance (FSSA)	Some SMs may lose eligibility	Probably very small	\$50,000 to \$100,000 (very small)	Small reduction	Small overall Impact on affected families
Unemployment Compensation for Ex-SMs (UCX)	Depends on how basic pay is set under SSS – possibly little or none	34,000 new recipients (FY16)	\$310M (FY17)	Small if BAH, BAS, TA fully integrated into basic pay	Little or none
Supplemental Security Income (SSI) Eligibility	Some SMs could lose eligibility	17,000 (perhaps fewer)	None to DOD \$140 million in payments to SMs (at most)	None to DOD Small overall – payments to SMs small % of program budget	Little to none overall Larger impact on affected families

Policy or program	2nd- and 3rd-order effects	No. of people affected	Current annual cost	Potential cost change ^a	Risk to readiness
Fines and Forfeitures under UCMJ	Possibly small; courts have discretion to set monetary punishments	Fewer than 5% of SMs per year	None	None	Little or none

Source: CNA.

Note: SM = servicemember.

^a Potential cost change under the assumption that no mitigating policy changes are enacted.

^b BAH and BAS already are included in contract cancellation pay for reservists.

References for other retention and separation pays

Combat Compensation and Continuation in the Active and Reserve Components, by Diana S. Lien, Molly F. McIntosh, and Darlene E. Stafford, 2011, CNA, CRM D0024937.A5/2REV. This study examines how servicemembers' retention is affected by the receipt of combat compensation, focusing on hostile fire pay (HFP) and combat zone tax exclusion. Results indicate that, for servicemembers with less than 6 years of service, the continuation effect of a hostile deployment is negative for the Army and Marine Corps and positive for the Air Force. For servicemembers with 6 or more years of service, the continuation effect of deploying is unambiguously positive. For all reserve components except the Marine Corps, those who have received any HFP have higher continuation rates than those who have not received the pay.

Risk and Combat Compensation, by Saul Pleeter, Alexander O. Gallo, Brandon R. Gould, Maggie X. Li, Shirley H. Liu, Curtis J. Simon, Carl F. Witschonke, and Stanley A. Horowitz, 2009, Institute for Defense Analyses, IDA Paper P-4747. This study focuses on combat compensation. It documents differences in combat-related compensation by paygrade and marital status, identifies factors that could be used to distinguish the level of risk to which members are exposed, and traces the development of the central features of US policy on provision of combat (or imminent danger) pays. An important finding is that there is considerable variation in the value of the CZTE depending on an individual's circumstances (marital status, filing status, family size, medical deductions) because the tax exclusion lowers the individual's income tax obligations and creates eligibility for various tax credits and deductions. The authors also find no correlation across countries within combat zones between casualty rates and average combat compensation. Therefore, they conclude, DOD's objective that compensation increase with increased danger or risk cannot be achieved within the current structure of CZTE.

Assessing Talent: The Foundation of a U.S. Army Officer Corps Strategy, by Casey Wardynski, David S. Lyle, and Michael J. Colarusso, 2010, Strategic Studies Institute. This

monograph, part of a series on Army officer talent management, focuses on the ways in which changing labor market conditions and generational preferences have shaped willingness to serve among potential officer prospects. The authors develop a theoretical framework for how the labor market for Army officers works, and present ideas for implementing improvements to the officer accession process. The authors discuss alternative sources for commissioning officers, trends in officer accessions, innovative marketing approaches, and ways of building flexibility into the accessions process.

An Evaluation of URL Officer Accession Programs, by Ann D. Parcell, 2008, CNA, CAB D0017610.A2/Final. This study attempts to identify the “best value” accession source among Unrestricted Line Navy officer accession programs. The three biggest officer accession programs are the Naval Academy, the Naval Reserve Officer Training Corps, and Officer Candidate School. The authors evaluate the Navy’s current practice of seeking to access officers from these three sources in roughly equal shares. Evaluation criteria include cost, likelihood of officers from different sources achieving certain career milestones, and racial, ethnic, and gender diversity. The evaluation sources show that no single accession source dominates in terms of providing best value with respect to these criteria.

References for other housing policies

Estimating the Retention Effects of the Post-9/11 GI Bill, by Omer Alper and Diana Lien, 2017, CNA, DRM-2016-U-014358-1REV. This study analyzes the relationships between the Post-9/11 GI Bill and sailor retention. The authors find negative reenlistment effects associated with the Post-9/11 GI Bill at the Zone A decision point, with little overall effect at Zone B and C decision points. The transferability option appears to have mitigated part of the reenlistment decline. Results also indicate negative retention effects for officers with up to eight years of service, with positive retention effects for officers beyond eight years of service.

Are Current Military Education Benefits Efficient and Effective for the Services? by Jennie W. Wenger, Trey Miller, Matthew D. Baird, Peter Buryk, Lindsay Daugherty, Marlon Graf, Simon Hollands, Salar Jahedi, and Douglas Yeung, 2017, RAND, RR1766. This study examines the two largest military education benefits, the Post-9/11 GI Bill and Tuition Assistance, with a focus on impacts on recruiting and retention and the potential for interactions between these benefits. Post-9/11 GI Bill benefits appear to play a small positive role in attracting potential recruits, but they have a small negative effect on continuation, which the transfer option appears to mitigate somewhat. Also, Tuition Assistance and Post-9/11 GI Bill benefits complement each other, as passage of the Post-9/11 GI Bill is associated with a small increase in Tuition Assistance use.

Service Members in School: Military Veterans’ Experiences Using the Post-9/11 GI Bill and Pursuing Postsecondary Education, by Jennifer L. Steele, Nicholas Salcedo, and James Coley, 2010, RAND, American Council on Education. This study examines students’

experiences using the Post-9/11 GI Bill during its first year of availability. Focus group participants described satisfaction with several aspects of the law. In particular, the monthly living allowance and book stipend, and coverage of tuition and fees at private institutions and public graduate programs. Study participants also described experiencing a number of challenges in using the new GI Bill, including the lack of an online accounting system that showed their total benefit balance, and delays in the arrival of tuition and living allowance payments.

References for family and dependent benefits

Military Benefits for Former Spouses: Legislation and Policy Issues, by Kristy N. Kamarck, 2018, Congressional Research Service, RL31663. This report provides a general discussion of legislative provisions and proposals relating to the military benefits for former spouses. It addresses such questions as the following: What benefits can former spouses of members or retirees of the uniformed services receive under law? What role do the services play in facilitating delivery of those benefits? What practical problems arise in the implementation of and service involvement in claims on those benefits? How does the current system for a divorce-related division of military retired pay work?

Military Survivor Benefit Plan: Background and Issues for Congress, by Kristy N. Kamarck and Barbara Salazar Torreon, 2018, Congressional Research Service, R45325. This report describes the categories of beneficiaries eligible for survivor benefits under the military Survivor Benefit Plan (SBP), the formulas used in computing the income level (including the integration of SBP benefits with other federal benefits), and the costs of SBP participation incurred by the retiree and/or the beneficiary.

An Assessment of the Military Survivor Benefit Plan, by James Hosek, Beth J. Asch, Michael G. Mattock, Italo A. Gutierrez, Patricia K. Tong, and Felix Knutson, 2018, RAND, RR2236. This study assesses the military's Survivor Benefit Plan. It discusses SBP participation and available benefits, how SBP compares with similar plans in public organizations and private companies, and how large a contribution SBP makes to survivors' incomes. The report also considers the feasibility of having SBP provided by commercial sources. The authors conclude that SBP is well structured to provide benefits to survivors of servicemembers who die on duty and military retirees. Using commercial sources to provide survivor benefits appears feasible, and the advisability of doing so would depend on a cost-benefit analysis of military versus private provision.

"The Demographics of Military Children and Families," by Molly Clever and David R. Segal, 2013, *The Future of Children* 23 (2): 13-39. This study reviews government data sources and academic and nonacademic research to identify demographic trends that distinguish today's military families. The authors report that, compared with civilians, servicemembers marry younger and start families earlier. Military families also move much more frequently

than civilians do, and they are often separated from their families for months at a time. Despite steady increases since the 1970s in the percentage of women who serve, the armed forces are still overwhelmingly male, meaning that most military parents are fathers. Overall, military families are a strikingly diverse population with diverse needs, and the authors conclude that the best policies and programs to help military families and children must be flexible and adaptable.

Families Under Stress: An Assessment of Data, Theory, and Research on Marriage and Divorce in the Military, by Benjamin R. Karney and John S. Crown, 2007, RAND, MG-599-OSD. This report provides an empirical and theoretical foundation for discussions of the effects of military service on military marriages and about the most effective ways of addressing the needs of military families. The study looks at the accumulated research and theory on military marriages to understand better how and why military marriages succeed or fail. The authors also use service personnel records to assess how rates of transition into and out of marriage within the military have changed since the onset of the global war on terror, and how the length of time deployed affects the likelihood that a married servicemember will subsequently end his or her marriage. The authors find that, over a period when demands on the military have increased markedly, rates of marital dissolution have increased only gradually. They also find that marriages of female servicemembers are at several times higher risk of dissolving than are the marriages of male servicemembers, and the marriages of enlisted members are at higher risk than are the marriages of officers.

References for income support programs

The Supplemental Nutrition Assistance Program (SNAP) and Military Families: Who Qualifies and Where? by Peggy Golfin, Danielle Angers, and Chris Gonzales, 2018, CNA, DRM-2018-U-018862-Final. This study determines state and District of Columbia eligibility requirements for Supplemental Nutrition Assistance Program benefits in order to identify which military allowances and in-kind benefits count toward eligibility. It provides estimates of the number of AC servicemembers who would be eligible for SNAP, and the number of servicemembers serving in the United States who would be eligible for the Family Subsistence Supplemental Allowance (FSSA) if it were reinstated. The study found that no single servicemember would qualify for SNAP in any Military Housing Area or paygrade and that no servicemember above the paygrade of E-7 would qualify. While fewer in numbers, members who live on base and receive quarters-in-kind (that is, they do not receive BAH) are far more likely to be eligible for SNAP than their peers who have dependents and do not live on base because the in-kind benefit is not considered income for SNAP purposes. The authors estimate that far fewer servicemembers would be eligible for FSSA than SNAP.

Policy Basics: The Supplemental Nutrition Assistance Program (SNAP), Center on Budget and Policy Priorities, 2018. This brief report provides a summary of SNAP eligibility

requirements, the application process, amounts received by beneficiaries (according to household size), program costs, changes in the size of caseloads over time, and information about special features of the program.

A Quick Guide to SNAP Eligibility and Benefits, Center on Budget and Policy Priorities, 2018. This brief report provides a summary of SNAP eligibility and benefit calculation rules.

DOD Needs More Complete Data on Active-Duty Servicemembers' Use of Food Assistance Programs, by Brenda S. Farrell, 2016, Government Accountability Office, GAO-16-561. This report assesses the extent to which active-duty servicemembers and their families have access to food assistance programs and any variations in eligibility for these programs. It also assesses the extent to which DOD has identified the servicemembers' use of these programs. The report recommends that DOD revise surveys of servicemembers to (1) collect and analyze more complete data and, if warranted, implement such actions as assigning department-level responsibilities for monitoring food assistance and (2) coordinate with USDA to access its usage information.

“Supplemental Nutrition Assistance Program (SNAP) Use Among Active-Duty Military Personnel, Veterans, and Reservists,” by Andrew S. London and Colleen M. Heflin, 2015, *Population Research and Policy Review* 34: 805-826. This article uses American Community Survey public-use data to examine current Supplemental Nutrition Assistance Program use by military service status: active-duty personnel, recent veterans, long-term veterans, and reserve/guard members. The authors document low but nontrivial levels of participation among active-duty personnel (2.2 percent), higher but still moderate levels of SNAP use among veterans (7.1 percent for recent veterans and 6.5 percent for long-term veterans), and the highest level of use among members of the reserve/guard (9.0 percent). Levels of SNAP use among active-duty personnel, veterans, and reservists are lower than those observed in the national population. Findings also suggest that leaving active-duty military service results in a substantial and relatively immediate reduction in food-related resources for many recent veterans and their families.

Transitioning From the Military to the Civilian Workforce: The Role of Unemployment Compensation for Ex-Servicemembers, by Elizabeth Bass and Heidi Golding, 2017, Congressional Budget Office. This report describes the use of unemployment benefits among servicemembers who have recently transitioned to the civilian workforce. It provides information on how program costs and numbers of beneficiaries have changed since 2000.

Demographic Profiles of Those At-Risk of Collecting Unemployment Compensation for Ex-Servicemembers, by Shannon P. Desrosiers, Elizabeth S. Bradley, and Lauren R. Malone, 2014, CNA, DRM-2014-U-007559-6Rev. This report examines the characteristics of recently transitioned servicemembers who are most at risk of collecting Unemployment

Compensation for Ex-servicemembers (UCX) after separation. The authors find that, across the services, members more likely to be at risk of collecting/applying for UCX are those who served fewer years or are younger, female, nonwhite, or Hispanic as well as those without either a formal high school diploma or an AFQT score above 50. We also find that servicemembers with transferable, but not technical, skills have the hardest time finding work (e.g., service/supply soldiers or repair/maintenance, operator, service, or construction sailors).

Prior Research on Veteran Unemployment and Unemployment Insurance Benefits, by Shannon Phillips, Laura Kelley, and Diana Lien, 2012, CNA, DRM-2012-U-001291-Final. This report reviews veteran unemployment patterns and durations, and discusses how unemployment insurance benefits affect job match quality and unemployment duration. It also summarizes differences by state in the provision of unemployment insurance benefits.

SSI: A Lifeline for Children with Disabilities, by Kathleen Romig, 2017, Center on Budget and Policy Priorities. This report provides basic information about the Supplemental Security Income (SSI) program as it relates to families caring for children with disabilities. It includes information on eligibility requirements, participation, eligibility reviews, and effects on poverty levels and adult outcomes of recipients.

References for fines and forfeitures under UCMJ

Waivered Recruits: An Evaluation of Their Performance and Attrition Risk, by Lauren Malone, Neil Carey, Yevgeniya Pinelis, and Dave Gregory, 2011, CNA, CRM D0023955.A4/Final. This study examines ways in which the services can minimize the risk of misconduct separation and early attrition among waived recruits by identifying recruit characteristics associated with negative outcomes that can be used as an additional screen. The study found that waived recruits are not inherently risky and often perform better than Tier II/III recruits. The authors argue that the services could still minimize the “riskiness” of the waived population by targeting additional screening or mentoring to recruits with waiver combinations associated with early attrition.

An Analysis of Navy JAG Corps Future Manpower Requirements, Part 2: Office of the Judge Advocate General (OJAG), Embedded Supervisory Judge Advocates (SJAs), Naval Justice School (NJS), and Reservists, by Neil Carey, Don Birchler, Veronica De Allende, and Jim Gasch, 2008, CNA, CRM D0017792.A2/Final. This study investigates whether the JAG Corps—including officers, enlisted, civilians, and reservists—has enough personnel, and the right kind of personnel, to fulfill its essential missions, both currently and going forward. The study team documented work performed by JAG Corps personnel and used this information to calculate the JAG Corps’ future personnel requirements.

Conclusion

This report presents our findings with respect to identifying and prioritizing potential second- and third-order effects of moving to an SSS, and provides some ideas for study designs that could be used to analyze the highest priority effects. We identified more than 25 potential effects in six broad areas:

1. Housing and food arrangements
2. Retention and separation pays
3. Changes to the dependency ratio
4. Family and dependent benefits
5. Income support programs
6. Other effects

After conducting an extensive literature and policy review and holding discussions with SMEs across the services and DOD, we recommend that DOD consider additional analysis in the following three areas: housing and food arrangements, retention and separation pays, and potential changes to the dependency ratio. Housing and food programs affect every servicemember and their dependents, have large potential budget impacts, and affect readiness by their influence on servicemember QoL, family support, and nutrition. Although retention and separation pays directly affect smaller numbers of servicemembers, they have a substantial budgetary impact and a large potential effect on readiness because they are important force-shaping tools influencing rates of retention and separation. Changes to military marriage rates may have important implications for retention rates, and for some of the other high-priority policies, especially housing and retention and separation pays. In this report, we have posed several questions related to these programs that deserve further inquiry, thought, and analysis. We suggest several study ideas related to these three broad areas, such as the following:

- Funding alternatives for privatized housing operations under an SSS
- Estimating how a move to an SSS could affect marriage rates and retention
- Alternative methodologies for incorporating housing costs into an SSS
- Adapting overseas housing benefits to an SSS
- Effects of an SSS on demand for military meals programs
- Efficiencies of moving to lump-sum, flat-amount SRBs

Appendix A: Budget Effects

This appendix provides additional detail about the budget change estimates for compensation policies that are tied to basic pay. Under an SSS, basic pay is expected to increase to compensate for the loss of BAH, BAS, and possibly the tax advantage, depending on specifics of implementation. We estimate differences in budget effects based on three potential SSS implementation scenarios:²⁴

- Scenario 1 – Increase basic pay by an amount equal to the current allowance level, on average.
- Scenario 2 – Fully compensate servicemembers for loss of tax advantage, on average.
- Scenario 3 – Incorporate geographic cost-of-living adjustment. Assume that, on average, 20 percent of basic pay is converted into a location adjustment that is not included in determining retention or separation.

Continuation Pay (CP)

We suggested that, under an SSS, a potential increase in CP payments of \$300 million per year could be expected if no other policy changes are implemented. This estimate was based on an estimated current spending level of \$500 million per year, combined with a calculation that an SSS that fully rolls BAH, BAS, and the tax advantage into basic pay would result in approximately a 60-percent increase in basic pay, on average, for eligible servicemembers (those with 12 YOS). In this subsection, we detail how we calculated this estimated increase in basic pay.

Table 4 presents RMC levels for servicemembers with 12 YOS, by paygrade, based on OUSD P&R's 2018 Selected Military Compensation Tables report [1]. The table also provides an estimate of the percentage basic pay increases under each of the three scenarios. For example, for E-4s with 12 YOS, under scenario 1, yearly basic pay would increase from the current level of \$31,164 to \$51,695 (adding in the \$16,098 BAH payment and \$4,433 BAS payment), a 66-percent increase. Under scenario 2, the \$3,452 tax advantage also would be added into basic pay, for a total of \$55,147, a 77-percent increase. Under scenario 3, 20 percent of basic pay would instead be allocated as a geographic cost-of-living adjustment, so the new, higher basic pay level would be \$44,118, a 42-percent increase over the original \$31,164.

²⁴ These scenarios have been developed by the Institute for Defense Analyses (IDA) as summarized in its memo, "Key Elements in Analysis of Potential Salary Systems," Mar. 6, 2019.

Table 4. RMC and basic pay increases under the three scenarios for members with 12 YOS

Grade	Basic pay (12 YOS)	BAH	BAS	Tax advantage	Increase in basic pay		
					Scenario 1	Scenario 2	Scenario 3
E-4	\$31,164	\$16,098	\$4,433	\$3,452	66%	77%	42%
E-5	\$39,732	\$19,019	\$4,433	\$4,802	59%	71%	37%
E-6	\$45,324	\$21,474	\$4,433	\$5,026	57%	68%	35%
E-7	\$50,244	\$22,417	\$4,433	\$4,170	53%	62%	29%
E-8	\$54,468	\$23,580	\$4,433	\$4,136	51%	59%	27%
W-1	\$54,528	\$18,543	\$3,053	\$3,643	40%	46%	17%
W-2	\$58,488	\$22,476	\$3,053	\$3,895	44%	50%	20%
W-3	\$64,116	\$23,953	\$3,053	\$4,409	42%	49%	19%
W-4	\$70,512	\$25,084	\$3,053	\$6,282	40%	49%	19%
O-1	\$46,920	\$17,563	\$3,053	\$4,105	44%	53%	22%
O-2	\$59,460	\$19,559	\$3,053	\$4,977	38%	46%	17%
O-3	\$78,960	\$23,456	\$3,053	\$5,150	34%	40%	12%
O-4	\$88,848	\$27,691	\$3,053	\$7,526	35%	43%	14%
O-5	\$92,292	\$30,523	\$3,053	\$9,499	36%	47%	17%
O-6	\$96,888	\$32,039	\$3,053	\$10,012	36%	47%	17%

Source: OUSD P&R, Selected Military Compensation Tables, 2018.

Table 5 applies the percentage increases under each scenario to CP for each rank. Because CP is a multiple of basic pay, CP levels will rise by the same percentage as basic pay.

Table 5. Continuation pay levels under the three scenarios

Grade	No. (12 YOS)	Continuation Pay (CP) level			
		Current	Scenario 1	Scenario 2	Scenario 3
E-4	414	\$6,491	\$10,767	\$11,486	\$9,189
E-5	9,712	\$8,276	\$13,161	\$14,161	\$11,329
E-6	28,897	\$9,442	\$14,839	\$15,886	\$12,709
E-7	10,523	\$10,467	\$16,061	\$16,929	\$13,543
E-8	236	\$11,347	\$17,183	\$18,044	\$14,435
W-1	647	\$11,360	\$15,859	\$16,618	\$13,295
W-2	1,056	\$12,185	\$17,503	\$18,315	\$14,652
W-3	286	\$13,358	\$18,984	\$19,903	\$15,922

Grade	No. (12 YOS)	Continuation Pay (CP) level			
		Current	Scenario 1	Scenario 2	Scenario 3
W-4	25	\$14,691	\$20,553	\$21,862	\$17,490
O-1	274	\$9,776	\$14,071	\$14,927	\$11,941
O-2	408	\$12,388	\$17,099	\$18,136	\$14,509
O-3	2,411	\$16,451	\$21,974	\$23,047	\$18,437
O-4	8,843	\$18,509	\$24,913	\$26,481	\$21,185
O-5	622	\$19,227	\$26,222	\$28,201	\$22,560
O-6	16	\$20,185	\$27,496	\$29,582	\$23,665

Source: OUSD P&R, Selected Military Compensation Tables, 2018.

Table 6 aggregates the CP levels from Table 5 to estimate the percentage increase in CP payments under each of the three scenarios.

Table 6. CP payments (millions of dollars)

	Upper bound	Better estimate	Percentage increase
Current	\$716	\$500	
Scenario 1	\$1,070	\$746	49%
Scenario 2	\$1,139	\$795	59%
Scenario 3	\$911	\$636	27%

Source: CNA (authors' calculations).

The “upper bound” estimate of \$716 million in current CP payments is based on all eligible servicemembers from column 1 in Table 5. This estimate represents an upper bound because not all eligible servicemembers actually actually receive a CP payment. The “better estimate” uses the \$500 million figure based on 2018 DOD budget estimates as the current level of spending on CP payments. Table 6 suggests that CP payments could increase from 27 percent (\$136 million under the better estimate) to 59 percent (nearly \$300 million under the better estimate) depending on how an SSS is implemented.

Selective Reenlistment Bonuses (SRBs)

As enlisted members are eligible for SRBs, Table 7 shows RMC levels for enlisted servicemembers. The table also provides, for each enlisted rank, estimates of the percentage basic pay increases under each of the three scenarios.

Table 7. RMC and basic pay increases under the three scenarios for enlisted members

Grade	No.	Basic pay	BAH	BAS	Tax advantage	Increase in basic pay		
						Scenario 1	Scenario 2	Scenario 3
E-1	21,846	\$19,660	\$14,321	\$4,433	\$2,597	95%	109%	67%
E-2	73,748	\$22,036	\$16,518	\$4,433	\$2,975	95%	109%	67%
E-3	186,019	\$23,749	\$16,184	\$4,433	\$3,039	87%	100%	60%
E-4	247,533	\$28,423	\$16,098	\$4,433	\$3,452	72%	84%	48%
E-5	222,859	\$35,169	\$19,019	\$4,433	\$4,802	67%	80%	44%
E-6	158,192	\$43,899	\$21,474	\$4,433	\$5,026	59%	70%	36%
E-7	90,793	\$53,884	\$22,417	\$4,433	\$4,170	50%	58%	26%
E-8	26,939	\$63,095	\$23,580	\$4,433	\$4,136	44%	51%	21%
E-9	10,125	\$80,043	\$25,202	\$4,433	\$5,873	37%	44%	15%
Total	1,038,054					71%	83%	46%

Source: OUSD P&R, Selected Military Compensation Tables, 2018.

According to Table 7, under scenario 1 (BAH and BAS incorporated into basic pay), enlisted basic pay would be expected to increase by an average of about 71 percent. Under scenario 2 (tax advantage also incorporated into basic pay), the expected overall increase would be about 83 percent, while under scenario 3 (reducing basic pay by 20 percent and allocating it to location pay), the expected increase would be about 46 percent.

Because all SRB payments in the Navy and Air Force (and some in the Army) are multiples of basic pay, we can use these expected overall basic pay increases to calculate estimates of the expected increase in SRB payments under the three SSS implementation scenarios. Table 8 presents these calculations, using the 2017 DOD budget estimates as the current spending level.

Table 8. SRB payments (millions of dollars)

	AF	Navy	Army	Marine Corps	Total	Percentage increase
Current	\$245	\$259	\$403	\$79	\$986	
Scenario 1	\$419	\$442	\$594	\$79	\$1,534	56%
Scenario 2	\$448	\$473	\$627	\$79	\$1,627	65%
Scenario 3	\$358	\$377	\$527	\$79	\$1,341	36%

Source: CNA (authors' calculations).

Note that the different SRB policies across the services will affect cost differences by scenario. Because the Marine Corps pays SRBs in flat amounts rather than as a multiple of basic pay, increases in basic pay will have no direct effect on SRB payouts. In the Army, a fraction of SRB payouts are flat amounts, so Army SRBs will not face the full percentage increase in payments. Here, we assume that Army SRBs will grow at two-thirds the rate of basic pay increase indicated in the last column of Table 8. In the Air Force and Navy, because SRB payments are a multiple of basic pay, those payments will increase at the same rate as basic pay. The "total" column of Table 8 provides overall estimates of SRB payments, currently (using the FY 2017 and FY 2018 budget estimates as the baseline SRB cost) and under each of the three scenarios. These SRB payment increases range from an estimated \$355 million under scenario 3 to \$641 million under scenario 2. Again, this estimated cost increase represents an upper bound because it does not incorporate the effects of lifetime or annual limits on SRB payouts.

Non-Disability Severance Pay

Servicemembers with between 6 and 20 YOS are eligible for Non-Disability Severance Pay. Table 9 summarizes the value of RMC components for those servicemembers, by rank, and includes the basic pay increase for each rank under each SSS implementation scenario.

Table 9. RMC and basic pay increases under the three scenarios for members with 6-20 YOS

Rank	No. (6 to 20 YOS)	Basic pay	BAH	BAS	Tax advantage	Change in basic pay		
						Scenario 1	Scenario 2	Scenario 3
E-1	143	\$19,660	\$14,321	\$4,433	\$2,597	95%	109%	67%
E-2	66	\$22,036	\$16,518	\$4,433	\$2,975	95%	109%	67%
E-3	593	\$23,749	\$16,184	\$4,433	\$3,039	87%	100%	60%
E-4	17,797	\$28,423	\$16,098	\$4,433	\$3,452	72%	84%	48%

Rank	No. (6 to 20 YOS)	Basic pay	BAH	BAS	Tax advantage	Change in basic pay		
						Scenario 1	Scenario 2	Scenario 3
E-5	134,349	\$35,169	\$19,019	\$4,433	\$4,802	67%	80%	44%
E-6	149,716	\$43,899	\$21,474	\$4,433	\$5,026	59%	70%	36%
E-7	70,863	\$53,884	\$22,417	\$4,433	\$4,170	50%	58%	26%
E-8	10,890	\$63,095	\$23,580	\$4,433	\$4,136	44%	51%	21%
E-9	453	\$80,043	\$25,202	\$4,433	\$5,873	37%	44%	15%
W-1	2,273	\$52,620	\$18,543	\$3,053	\$3,643	41%	48%	18%
W-2	5,740	\$60,612	\$22,476	\$3,053	\$3,895	42%	49%	19%
W-3	3,128	\$73,174	\$23,953	\$3,053	\$4,409	37%	43%	14%
W-4	548	\$87,227	\$25,084	\$3,053	\$6,282	32%	39%	12%
O-1	1,577	\$38,890	\$17,563	\$3,053	\$4,105	53%	64%	31%
O-2	4,001	\$54,383	\$19,559	\$3,053	\$4,977	42%	51%	21%
O-3	40,778	\$70,283	\$23,456	\$3,053	\$5,150	38%	45%	16%
O-4	34,236	\$89,866	\$27,691	\$3,053	\$7,526	34%	43%	14%
O-5	13,081	\$106,597	\$30,523	\$3,053	\$9,499	31%	40%	12%
O-6	449	\$131,887	\$32,039	\$3,053	\$10,012	27%	34%	7%
Total	490,681					55%	66%	33%

Source: OUSD P&R, Selected Military Compensation Tables, 2018.

According to Table 9, basic pay for servicemembers who are eligible for Non-Disability Severance Pay would be expected to increase by 55 percent under scenario 1, by 66 percent under scenario 2, and by 33 percent under scenario 3. Table 10 provides estimates of the effects of these basic pay increases on Non-Disability Severance Pay payouts.

Table 10. Non-Disability Severance Pay payments (millions of dollars)

	Payments	Percentage increase
Current	\$567	
Scenario 1	\$879	55%
Scenario 2	\$940	66%
Scenario 3	\$752	33%

Source: CNA (authors' calculations).

According to Table 10, Non-Disability Severance Pay would increase from the baseline of \$567 million (based on average payments from FY 2006 to FY 2016) by \$312 million under scenario 1, by \$373 million under scenario 2, and by \$185 million under scenario 3.

Disability Severance Pay

All servicemembers are potentially eligible for Disability Severance Pay. Table 11 shows estimates of basic pay increases for all servicemembers under each of the three scenarios.

Table 11. RMC and basic pay increases under the three scenarios for all servicemembers

Rank	No.	Basic pay	BAH	BAS	Tax advantage	Change in basic pay		
						Scenario 1	Scenario 2	Scenario 3
E-1	21,846	\$19,660	\$14,321	\$4,433	\$2,597	95%	109%	67%
E-2	73,748	\$22,036	\$16,518	\$4,433	\$2,975	95%	109%	67%
E-3	186,019	\$23,749	\$16,184	\$4,433	\$3,039	87%	100%	60%
E-4	247,533	\$28,423	\$16,098	\$4,433	\$3,452	72%	84%	48%
E-5	222,859	\$35,169	\$19,019	\$4,433	\$4,802	67%	80%	44%
E-6	158,192	\$43,899	\$21,474	\$4,433	\$5,026	59%	70%	36%
E-7	90,793	\$53,884	\$22,417	\$4,433	\$4,170	50%	58%	26%
E-8	26,939	\$63,095	\$23,580	\$4,433	\$4,136	44%	51%	21%
E-9	10,125	\$80,043	\$25,202	\$4,433	\$5,873	37%	44%	15%
SEA	1	\$100,332	\$25,500	\$4,433	\$8,306	30%	38%	10%
W-1	2,540	\$52,620	\$18,543	\$3,053	\$3,643	41%	48%	18%
W-2	6,790	\$60,612	\$22,476	\$3,053	\$3,895	42%	49%	19%
W-3	5,487	\$73,174	\$23,953	\$3,053	\$4,409	37%	43%	14%
W-4	2,787	\$87,227	\$25,084	\$3,053	\$6,282	32%	39%	12%
W-5	777	\$104,791	\$24,888	\$3,053	\$7,854	27%	34%	7%
O-1	21,774	\$38,890	\$17,563	\$3,053	\$4,105	53%	64%	31%
O-2	25,929	\$54,383	\$19,559	\$3,053	\$4,977	42%	51%	21%
O-3	62,926	\$70,283	\$23,456	\$3,053	\$5,150	38%	45%	16%
O-4	43,567	\$89,866	\$27,691	\$3,053	\$7,526	34%	43%	14%
O-5	27,907	\$106,597	\$30,523	\$3,053	\$9,499	31%	40%	12%
O-6	11,464	\$131,887	\$32,039	\$3,053	\$10,012	27%	34%	7%
O-7	424	\$153,069	\$33,494	\$3,053	\$10,689	24%	31%	5%
O-8	429	\$175,898	\$33,326	\$3,053	\$11,399	21%	27%	2%
O-9	139	\$189,592	\$33,188	\$3,053	\$11,820	19%	25%	0%
O-10	40	\$189,601	\$33,487	\$3,053	\$11,688	19%	25%	0%
Total	1,251,035					65%	76%	41%

Source: OUSD P&R, Selected Military Compensation Tables, 2018.

Table 11 suggests that the level of basic pay increase for all servicemembers, on average, ranges from 41 percent under scenario 3 to 76 percent under scenario 2. Table 12 translates these basic pay increases into estimates of the increase in Disability Severance pay, using the estimated cost of \$302 million from FY 2016 as a baseline.

Table 12. Disability Severance Pay payments (millions of dollars)

	Payments	Percentage increase
Current	\$302	
Scenario 1	\$499	65%
Scenario 2	\$533	76%
Scenario 3	\$426	41%

Source: CNA (authors' calculations).

According to Table 12, Disability Severance Pay would increase by \$197 million under scenario 1, by \$231 million under scenario 2, and by \$124 million under scenario 3.

Appendix B: Focus Group Topics

As part of the study design task, the Director of the 13th Quadrennial Review of Military Compensation asked CNA for guidance in identifying information that may be needed to supplement existing data sources. This appendix summarizes potential question topics for surveys, focus groups, or interviews.

Housing

- Servicemember reaction to the following:
 - Introduction of charges/rent for those living in barracks (including overseas) or on a ship
 - Different options for treating dual-military couples under a single-salary system (SSS)
 - New procedures for setting maximum MHPI (privatized housing) rents under an SSS
 - Different options for reimplementing policies that currently allow members to receive a BAH rate that is different from their current duty station (for example, if dependents are living elsewhere)
- Servicemember/dependent preferences for, or valuation of, different housing options (onbase family, Military Housing Privatization Initiative, and offbase housing):
 - Currently
 - Under different SSS implementation scenarios (e.g., location pay versus no location pay)
 - By location (for example, low-cost versus high-cost areas)
 - Potential local community reactions to housing market changes brought about by elimination of BAH and associated changes to military housing policy
 - In terms of attitudes to the military, or willingness to serve

Food/subsistence

- Servicemember reaction to
 - Introduction of charges for meals in the field or at sea
 - Introduction of charges for meals in military dining facilities
- Changes in servicemember dining habits under a “pay dining for all” system (e.g., cook at home more often? Skip meals more often?).
- Servicemember preferences for a onbase (“dorm style”) meal plan option under an SSS that eliminated most subsistence in-kind (SIK) benefits
- Demand for PX and commissary services
 - If most SIK eliminated
 - If fewer members living onbase (e.g., to what extent would those living offbase still plan to use PXs and commissaries for shopping?)
- Preferences of younger servicemembers for onbase dining options
 - By characteristic (for example, transportation options – whether the member owns a car? Availability of public transit?)

Retention and separation pays

- Servicemember reaction to options for reducing pays tied to the level of basic pay (Continuation Pay (CP), Selective Reenlistment Bonuses (SRBs), (Non-Disability) Involuntary Separation Pay, and/or Disability Severance Pay (DSP))
 - Reducing the basic pay multipliers
 - For CP, ISP, and/or DSP, introducing caps (as with SRBs)
 - Moving to flat-dollar amounts (as the Marine Corps does with SRBs)

Other pays

- Officer reaction to more restrictive Combat Zone Tax Exclusion (CTZE) limits
- Cadet and midshipman reaction to reducing the basic pay multiplier that determines their stipends
- Servicemembers’ reactions to options for limiting increases in Accrued Leave Payment

- Reducing the current 1 day's pay per day of leave ratio
- More restrictive caps on the number of days that can be sold back
- Servicemembers' reactions to different options for resetting Family Separation Housing Allowance (FSHA) Type I payment levels if BAH is eliminated

Family and dependent benefits

- Servicemembers' reactions to
 - Options for resetting base minimum support levels (currently based on BAH) during separation prior to divorce. Reactions of support donors? Of support recipients?
 - Potentially higher amounts of pay subject to garnishment for child support and/or alimony

Income support programs

- Estimate of how many servicemembers receive SNAP, UCX, and SSI
- Servicemembers' reactions to, or effects on, family budgets if transfer of compensation from allowances to salary reduced eligibility for these programs
- Effects on/reactions of servicemembers receiving in-kind housing benefits or living in privatized housing (currently not counted as income in determining SNAP or SSI eligibility).

Other effects

- Servicemembers' reactions to potentially higher monetary penalties under UCMJ
- Reaction of judges or courts who set penalties to new, higher monetary penalty limits.

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Abbreviations

AC	active component
AIP	Assignment Incentive Pay
BAH	basic allowance for housing
BAQ	basic allowance for quarters
BAS	basic allowance for subsistence
BBCE	broad-based categorical eligibility
BRS	Blended Retirement System
CAC	Common Access Card
CBC	Choice-Based Conjoint
CoL	cost of living
CONUS	continental United States
CP	Continuation Pay
CZTE	Combat Zone Tax Exclusion
DFAS	Defense Finance and Accounting Services
DMDC	Defense Manpower Data Center
DOD	Department of Defense
EB	Enlistment Bonus
FMR	Financial Management Regulation
FSHA	Family Separation Housing Allowance
FS	foreign service
FSC	Family Service Center
FSSA	Family Subsistence Supplemental Allowance
GAO	Government Accountability Office
GED	Tests of General Educational Development
GS	General Schedule
HFP	hostile fire pay
IT	information technology
LQA	Living Quarters Allowance
MHPI	Military Housing Privatization Initiative
MOS	military occupational specialty
MRE	meal ready-to-eat
MWR	Morale, Welfare, and Recreation
NDAA	National Defense Authorization Act
NJP	nonjudicial punishment
OCONUS	outside the continental United States

OCP	Overseas Comparability Pay
OCS	Officer Candidate School
OHA	Overseas Housing Allowance
OUSD-P&R	Office of the Under Secretary of Defense for Personnel and Readiness
PPV	public-private venture
PX	post exchange
QoL	quality of life
QOS	quality of service
QRMC	Quadrennial Review of Military Compensation
RC	reserve component
RC/T	Reserve Component/Transit
RMC	regular military compensation
ROTC	Reserve Officer Training Corps
SBP	Survivor Benefit Plan
SEA	Senior Enlisted Advisor
SIK	subsistence-in-kind
SME	subject matter expert
SNAP	Supplemental Nutrition Assistance Program
SRB	Selective Reenlistment Bonus
SSI	Supplemental Security Income
SSS	single-salary system
TA	tax advantage
TSP	Thrift Savings Plan
UCMJ	Uniform Code of Military Justice
UCX	Unemployment Compensation for Ex-Servicemembers
UI	unemployment insurance
URL	Unrestricted Line
U.S.C.	United States Code
USFSPA	Uniformed Services Former Spouses' Protection Act
VERA	Voluntary Early Retirement Authority
VSIP	Voluntary Separation Incentive Pay
VSP	Voluntary Separation Pay
YOS	years of service

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