

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

Results from the 2025 BAH Adequacy Survey

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Abstract

The Office of the Under Secretary of War for Personnel & Readiness contracted with CNA to answer the following compensation policy questions: Do current Basic Allowance for Housing (BAH) adequacy standards (for housing size, type of home, etc.) and sampling methodologies result in BAH rates commensurate with actual servicemember choices? If not, why? CNA developed and administered the BAH Adequacy Survey to determine the extent to which BAH helps servicemembers secure their basic housing needs. The vast majority (84 percent) of BAH recipients are not living at their BAH standard and nearly half of BAH recipients overspend their BAH by 5 percent or more. Incongruencies between perceptions of BAH adequacy and reported costs indicate that BAH recipients' understanding of BAH does not align with policy; they consider BAH inadequate even when it covers their spending. Based on our study, we provide recommendations aimed at improving servicemember housing experiences and future iterations of the BAH Adequacy Survey.

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January 2026

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Executive Summary

The Basic Allowance for Housing (BAH) is a fundamental component of military pay provided by the US Department of War (DOW) that compensates active duty servicemembers for housing costs in the 50 US states when government quarters are unavailable or when servicemembers prefer and are eligible to reside off base. Despite a steady rise in BAH rates and significant recent research showing that the BAH methodology for rate-setting procedures results in a BAH sufficient to meet set BAH standards, servicemembers continue to report housing costs in excess of BAH [1-6].

Previous studies have focused on improving BAH methodology to measure the cost for set housing standards accurately [1, 6]. However, very few data have been collected on servicemember housing expenses and the drivers behind servicemember housing choices. The Office of the Under Secretary of War for Personnel & Readiness (OUSW-P&R) contracted with CNA to answer the following fundamental compensation policy questions: Do current BAH adequacy standards (e.g., housing size, type of home) and sampling methodologies result in BAH rates commensurate with actual servicemember choices? If not, why?

CNA developed the BAH Adequacy Survey to determine the extent to which BAH helps servicemembers secure their basic housing needs. The survey was designed to collect data from servicemembers and provide a baseline for BAH rate adequacy and to address the fundamental policy questions by answering the following four questions:

1. Are servicemembers living in homes above or below BAH adequacy standards, on-base housing standards, and average civilian standards?
2. What household and personal factors beyond servicemembers' military compensation (e.g., total household income, number of school-aged dependents) influence housing budgets and housing choices? Do housing availability and commute times affect housing choices?
3. Are servicemembers renting or purchasing homes?
4. What are servicemembers paying for housing and utilities? How do their costs compare to their BAH rate?

The BAH Adequacy Survey

CNA designed the BAH Adequacy Survey based on a review of previous research, existing surveys, and meetings with Service compensation leads. The survey includes questions on respondents' demographics, current residence, commute, housing costs, housing preferences, and views on BAH. To ensure representation across geographic areas, a stratified random sample of BAH recipients in each military housing area (MHA) was selected to participate in the survey from April to June 2025. The survey achieved an overall response rate of 24 percent, but more than 10,000 respondents were excluded from participating based on their answer to a location screening question, resulting in 50,255 completed surveys. The target completion rate of 15 percent was still exceeded; however, completion rates for enlisted Army, Marine Corps, and Navy personnel fell below the target. CNA applied sample and post-stratification weights to ensure that survey results represent the population of BAH recipients.

Survey results

Are servicemembers living in homes above or below standards?

BAH standards are designed to reflect the choices of comparable civilians in terms of costs and number of bedrooms. Analysis of the survey data reveals that most off-base BAH recipients (84 percent) are not living at standard. We find that BAH recipients are spending more on mortgages and rent than comparable civilians. We further find that BAH recipients choose housing with more bedrooms than comparable civilians and therefore more bedrooms than are allotted to them in BAH standards. BAH recipients also choose housing with more bedrooms than comparable servicemembers living in on-base housing. They are also more likely to live in single-family homes than their on-base counterparts and comparable civilians and therefore more likely to live in single-family homes than is indicated by their BAH standard.

What factors beyond military compensation influence housing budgets and housing choices?

Most BAH recipients (87 percent) live off base. Of those, most (63 percent) do not have an option to live on base, but only 21 percent of those individuals indicated that they would live on base if it were an option, implying that BAH recipients prefer aspects of civilian housing or lifestyle. Those who choose to live on base cited amenities and access to medical care as the main reasons for choosing on-base housing, and those who choose to live off base cited privacy and perceived quality of on-base housing as reasons for choosing to live off base. BAH recipients who live off base cited commute (76 percent) and affordable

housing (74 percent) as the top reasons for choosing a neighborhood. Cost (83 percent), number of bedrooms (54 percent), and size of residence (46 percent) are the top reasons for choosing a specific home.

Are servicemembers renting or purchasing homes?

BAH is designed to cover rental costs rather than mortgages, but BAH recipients living off base are nearly as likely to purchase a home (48 percent) as to rent one (52 percent). BAH recipients with a spouse or partner are approximately twice as likely to purchase a home as those without a spouse or partner. Other factors that increase the odds of homeownership are being an officer, number of dependent children, serving in the Air Force or Marine Corps, having a dual-income household, and number of completed years of active duty service.

How do servicemembers' costs compare to their BAH rate?

BAH is designed to cover approximately 95 percent of typical housing expenditures, including rent, electricity, heating fuel, and water and sewer. After including an expected 5 percent cost share, nearly half of servicemembers still overspend their BAH by an additional 5 percent or more. The amount by which they overspend BAH increases with career progression, homeownership, family size, and household income. More than half of servicemembers who overspend their BAH are living in homes above their BAH standard, and nearly half of BAH recipients living off base have increased housing costs because they have purchased homes. Among those who rent homes within their BAH standard, 24 percent overspend BAH by 5 percent or more.

How do costs align with perceptions of BAH adequacy and overall satisfaction?

Overall, 70 percent of respondents are dissatisfied with BAH, and just 10 percent of survey respondents feel that BAH fully covers their basic monthly housing expenses. BAH rate satisfaction and perceptions of BAH adequacy are correlated but often incongruent with servicemember-reported cost data. Among those who report that BAH does not cover their monthly expenses, 46 percent reported monthly costs less than BAH. Among those who believe that BAH covers their expenses, BAH satisfaction is midway between neutral and somewhat satisfied (3.5). Furthermore, those who perceive BAH as inadequate to cover their expenses are more dissatisfied than those who perceive BAH as fully covering their expenses.

The incongruencies between perception and actual reported costs indicate that BAH recipients may expect BAH to cover more expenses than policy allows (e.g., home maintenance, pet rent). An alternative explanation could be that servicemembers believe that they are entitled to a higher standard of living than what their BAH rates can afford, despite being based on comparable civilian choices.

BAH perceptions and adequacy

BAH Perception	Mean Satisfaction (Scale: 0 to 5)	BAH Differential (BAH – Cost)	Reported Costs at or Below BAH
Does not cover	1.8	–\$440***	46%
Sometimes covers	2.2	\$108***	70%
Typically covers	3.0	\$390***	80%
Fully covers	3.5	\$327***	75%

Source: BAH Adequacy Survey conducted by CNA.

Note: *** Difference is statistically significant from zero at $p < .01$.

Recommendations

We found that servicemember housing choices do not align to average civilian housing standards and that servicemembers across MHAs and BAH profiles frequently spend above or below BAH rates. We provide the following recommendations aimed at improving servicemember housing experiences and future iterations of the BAH Adequacy Survey:

- We recommend that the Office of the Secretary of War (OSW) develop improved messaging on BAH policy and rates, including standardized educational materials explaining BAH in everyday language as well as the costs and benefits of homeownership. We also recommend that OSW publish BAH rates with separate rent and utilities allowances.
- If the goal is to align BAH policy with servicemember housing choices rather than with average comparable civilian housing expenditures as is codified in current law, we recommend that Congress weigh whether it is appropriate for BAH rates to exceed average civilian housing costs significantly.

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- Independent of legal considerations,¹ we recommend that OSW close the gap between servicemember housing choices by adopting on-base housing standards for bedroom allocation and reducing residence types to two options (multi- and single-family dwellings) or dispensing with residence types completely. We also recommend that OSW investigate a dynamic model for establishing BAH rates that responds to the unique needs in local markets to align BAH rates better with the costs experienced by servicemembers.
- We recommend that OSW, Congress, and/or the Services improve the quality of on-base housing by sponsoring a study to assess complaints of privatized and unaccompanied housing quality and allocate funding for improving base housing targeted at the areas identified for quality improvement.
- If OSW executes another iteration of the BAH Adequacy Survey, we recommend the following improvements to the instrument and administration: offer a paper or text-based option or investigate implementing a QR code, revise the location screening question, refine questions for homeowners, and expand the survey to include partial BAH, BAH-differential, and BAH Reserve Component.

¹ By law (37 USC 403), BAH housing standards are based on adequate housing for civilians with comparable income levels. Changing bedroom allocations to align with on-base standards would require a change to BAH regulations [7].

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Basic Allowance for Housing Background

The Basic Allowance for Housing (BAH) is a fundamental component of military pay provided by the US Department of War (DOW) that compensates active duty servicemembers for housing costs in the 50 US states when government quarters are unavailable or when servicemembers prefer and are eligible to reside off base. Since their inception, military housing allowances have undergone multiple transformations to reflect housing costs better and ensure that servicemembers receive fair compensation. In this section, we provide a summary of the history and development of BAH and how various external factors have influenced changes in BAH over time.

Origins of military housing allowances

The foundation for providing military housing can be traced back to ratification of the Third Amendment in 1791, but housing allowances began in the late 19th century when the US military housed its personnel primarily in on-base government quarters, including barracks and officer housing. As the military expanded and the availability of on-base housing could not meet the demand, rental allowances were established. The first legislative act that authorized a cash quarters allowance specifically was in 1878. The rental allowance expanded from Army officers to all officers and eventually to enlisted personnel in 1915 [8].

“No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.”

The Third Amendment to the Constitution

In 1949, the Basic Allowance for Quarters (BAQ) was introduced in the Career Compensation Act of 1949 and replaced the rental allowance terminology. BAQ was initially set at 75 percent of the housing costs of civilians (defined as the Federal Housing Administration median) in comparable income groups. BAQ was adjusted several times from its inception through the 1970s [8]. From the Dependents Assistance Act (DAA) of 1950 through its expiration in 1973, junior enlisted (E-1 through E-4) BAQ was graduated based on paygrade and number of dependents,² and BAQ rates were increased 14 percent in 1952 to account for higher costs of living. The Act of July 10, 1962, changed the enlisted BAQ system for E-4s (with more than four years of service) through E-9s from a graduated structure based on number of dependents to a structure based only on

² A military dependent is a person who has a relationship with a military sponsor and is entitled to certain benefits. Dependents can include the spouse, children (by birth, adoption, or marriage) under age 21, children over age 21 if they are unable to support themselves because of mental or physical disability, and parents of a military member if they are reliant on the military member for more than half of their support [9].

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dependent status (whether or not there were any dependents), which established parity between the BAQ entitlement status of enlisted members and officers [8]. The Act of September 28, 1971, changed the within-grade differential BAQ structure from the DAA to the dependent status structure for paygrades E-1 to E-4 [8].

In the 1970s, housing costs in the US began to diverge significantly by region. Because the BAQ did not account for regional variations in housing costs, the out-of-pocket housing costs of servicemembers assigned in high-cost regions increased, which caused some servicemembers to refuse assignment to high-cost regions [8]. In 1980, DOW supplemented the BAQ with the Variable Housing Allowance (VHA) program. VHA was designed to address discrepancies in housing costs for those living in higher cost areas. Initially, VHA was based on what servicemembers reported paying for housing. Using this rate-setting process, VHA program costs grew by 48 percent in the first three years because of increases in the number of servicemembers receiving VHA and increases in housing costs [10].

These increases led to several revisions to the program, including a rate freeze for fiscal year 1984 and caps on total monthly housing allowance (BAQ plus VHA). In 1985, the BAQ and VHA calculations were separated. BAQ was set at 65 percent of the national median housing cost of servicemembers by paygrade, and VHA was set at the difference between the local median housing cost and 80 percent of the national median housing cost by paygrade [8]. Until 1998, VHA and BAQ were set based on annual surveys on the amount that servicemembers were paying for housing. If allowances were set too low, servicemembers would reduce their housing expenses by living below standards [11]. Their

reduced housing expenses led to further reductions in rates when they reported lower rents in subsequent years. The same phenomenon could have also occurred in the opposite direction, resulting in rates above standard rental rates [11].

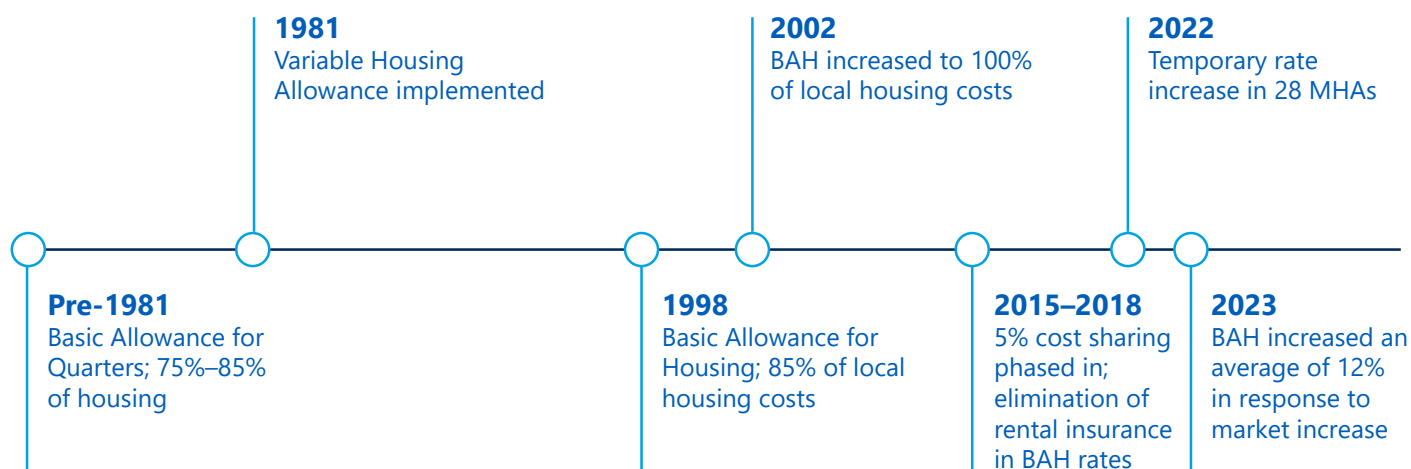
Introduction of BAH

In the late 1990s, the expenditure-based dual BAQ and VHA system was criticized for being inequitable and unable to keep up with housing cost growth, with servicemembers' contributions to their housing expenses rising above 20 percent [8]. In response, in 1998 DOW introduced BAH as a single comprehensive housing allowance system to replace BAQ and VHA [8]. A timeline of the evolution of BAH is shown in Figure 1.

BAH is an untaxed allowance to cover housing costs for servicemembers based on the servicemember's paygrade, dependent status, and geographic duty station. By law, BAH rates are based on the cost of adequate housing for civilians of comparable incomes in the same geographic area and are updated yearly along with basic pay [7]. DOW interprets this rate as the local median rental cost for a given housing unit type, or "housing profile," in a suitable neighborhood³ plus the average cost of utilities [12]. Initially, BAH rates included rental insurance in rate calculations and a 15 percent out-of-pocket cost for the servicemember [8]. From 2001 to 2005, the 15 percent cost share was phased out, and BAH was set to cover full housing costs. In response to budget constraints, DOW implemented cost-saving measures in the BAH system from 2015 to 2019 as part of a broader effort to reduce defense spending [8]. From 2015 to 2019, servicemembers were subject to a 1 percent cost-sharing increase each year, culminating in cost sharing of 5 percent

³ Rental costs for mobile homes, efficiency apartments, furnished units, income-subsidized complexes, age-restricted facilities, seasonal units, and housing in high-crime neighborhoods are excluded from BAH calculations.

Figure 1. BAH timeline



Source: CNA-generated based on [8].

of the national average housing cost by paygrade in 2019 [8]. In addition, rental insurance was removed from the BAH calculation in 2015 [8]. Cost sharing has remained at 5 percent since 2019.

The COVID-19 pandemic brought new challenges to the housing market, with surging rental prices in many areas because of housing shortages and increased demand. The annual BAH adjustment process was designed to ensure that BAH rates kept pace with inflation and housing market changes through an annual data collection and rate review for approximately 300 military housing areas (MHAs)⁴ each year. However, during this record-breaking housing market inflation period, DOW authorized temporary BAH increases⁵ for 56 military housing areas (MHAs) in 2021 and 28 MHAs in 2022 to respond to sudden spikes in housing costs. In 2023 BAH rates were increased an average of 12.1 percent

to account for the inflationary housing market trends [14]. After the increase, BAH accounted for about one-third of regular military compensation (RMC) for a median enlisted servicemember (an E-4 with dependents) and about one-fifth of RMC for a median officer (an O-3 with dependents) [15].

Setting BAH rates







Since the inception of BAH in 1998, rental rates for BAH have been based on a set of six standard housing profiles (housing type and number of bedrooms) known as anchor points. Anchor points are established based on the housing choices of civilians with comparable incomes [12]. The six anchor points and the paygrades assigned to them are listed in Table 1. BAH rates for military paygrades and dependent status not assigned to an anchor point are determined by interpolating between anchor points [12].

⁴ An MHA is the group of zip codes that make up the housing market around one or more military installations.

⁵ A temporary adjustment to BAH can be made if the current rates for adequate housing for civilians differ from BHA rates by more than 20 percent. The temporary adjustment is in effect only until the effective date of the next rate-setting cycle.

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Table 1. BAH anchor points

Housing Type	Paygrade Without Dependents	Paygrade with Dependents
 1-bedroom apartment	E-4	NA
 2-bedroom apartment	O-1	NA
 2-bedroom townhome	O-1E ^a	E-5
 3-bedroom townhome	O-3E ^a	E-6
 3-bedroom single-family home	O-6	W-3
 4-bedroom single-family home	NA	O-5

Source: [12].

Note: E-4 anchor points represent the minimum housing standard and apply to E-1 to E-3 paygrades. BAH for officers ranked above O-7 is capped at a standard rate and does not increase with added rank.

^a O-1E and O-3E indicate officers with prior enlisted service.

BAH calculations include more than rent. DOW recognizes that servicemembers incur additional expenses related to utilities. DOW uses data from the Census Bureau’s American Community Survey (ACS) to determine the average cost for electricity, gas, heating fuel, and water and sewer for each housing type in each MHA. These costs are added to the housing profile for each anchor point, ensuring that servicemembers are not undercompensated for these necessary living expenses.

One of the critical features of the BAH system is the annual adjustment process. Each year, DOW conducts a comprehensive survey of housing costs in 300 MHAs across the US. Market researchers and economists from a BAH contractor work with local Military Housing Offices (MHOs), Office of the Secretary of War (OSW) economists, and Service

compensation policy experts to gather samples of local rental cost data from a wide variety of sources, including commercial subscription databases, local real estate professionals, multiple listing services, and trusted online listing platforms (e.g., Zillow, apartments.com). These data go through extensive quality control processes to account for adequacy and suitability thresholds (excluding unsuitable housing types, high-crime neighborhoods, environmental hazards, and other factors). The ACS and regional Consumer Price Index are then used to estimate and adjust average utility costs to current year costs [12]. Once housing cost data are finalized, they are run through a hybrid regression model that identifies and mitigates the effects of data abnormalities or statistical uncertainties. This data collection process results in a BAH rate that includes the cost for renting an available, suitable home and basic utilities.

BAH rates are calculated for every zip code in the US. Zip codes, clustered into counties, are grouped by housing cost (determined using Department of Housing and Urban Development (HUD) median rental rates) into 39 county cost groups (CCGs). The costs collected for the MHAs within the CCGs are used to set BAH rates for the CCG. As for MHAs, BAH in CCGs is allocated based on rank and dependent status [12].

Privatized housing

In 1996, DOW began a process to privatize almost all (99 percent) of the homes on military installations in the US [16]. This process included the construction of new housing, refurbishment of some existing housing, and demolition of housing not suitable for continued occupancy. Since its inception, public private venture (PPV) housing has faced accusations of poor housing conditions and lack of oversight and accountability [17].

Military members choosing to live in privatized housing can be charged only up to their BAH amount for a home that meets their housing profile. DOW policies require that servicemembers living in privatized housing be responsible for the gas and electricity that they consume. If the house is metered to measure household utility consumption, they may be billed by the local utility company or property manager, and servicemembers are provided a utility allowance from their BAH to help pay these bills [18].

The housing owners set maximum rent to an amount equal to the tenant's BAH less 110 percent of the average cost of gas and electricity for the type of unit in which the resident lives [19]. To meet expected housing requirements, the new privatized housing consists primarily of three- and four-bedroom housing. Five-bedroom units may be available, and

some older, smaller housing units may be rented to military members at below-BAH rates.

Unlike the determination of BAH rates, which do not include the number of dependents (only paygrade and dependent status), assignment to military family housing is made based on paygrade and number of dependents [20]. This assignment policy continued after implementation of housing privatization. As a result of the different policies, a servicemember whose grade and dependent status justify a BAH based on a two-bedroom rental rate can be assigned to a three- or four-bedroom privatized house on base if they have the requisite number of dependents.

Future of BAH

The September 22, 2022, Secretary of War memo "Taking Care of Our Servicemembers and Families" lists "securing affordable basic needs" as a top priority for DOW and specifically mentions BAH as an area for review. In recent years, DOW has explored ways to improve the calculation of BAH, including the use of more advanced data analytics and housing market analysis tools to ensure that BAH rates remain accurate and equitable during dramatic shifts in the housing market [1]. The fourteenth Quadrennial Review of Military Compensation (QRMC) released in January 2025 described three courses of action (COAs) for BAH reform to reduce the volatility and improve the transparency of BAH: (1) tweak BAH to smooth BAH updates using HUD median rent estimate data, (2) consolidate BAH to combine the six current housing profiles into four (one, two, three, and four bedrooms) to align with market reality, and (3) overhaul BAH by eliminating the use of housing profiles and tying BAH rates directly to housing costs of civilians of comparable incomes using data from the ACS [1].

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After reviewing the study findings and COAs, QRMC recommended moving forward with the following changes to BAH:

- Reduce BAH rate volatility by expanding the application of an existing BAH regression smoothing model, which was incorporated in the 2025 rate-setting process.
- Implement an additional quality control for when the current methodology may result in data anomalies by adopting a floor rate beneath which BAH estimates cannot fall, which will be done in 2026.
- Update the housing profile method to the number of bedrooms approach and update the interpolation tables. Implementation of this change is scheduled to begin in 2027 for the 2028 BAH rates [1].

The history of BAH reflects the ongoing efforts of DOW to ensure that servicemembers receive fair and adequate compensation for their housing needs even when there are fluctuations in the housing market. BAH has evolved to reflect variation across MHAs, servicemember paygrades, and dependent status. BAH continues to play a vital role in the compensation and overall well-being of US servicemembers, ensuring that they have access to adequate housing wherever they are stationed across the US.

The BAH Adequacy Survey

Despite a steady rise in BAH rates and significant recent research showing that the BAH methodology for rate-setting procedures results in a BAH sufficient to meet set BAH standards, servicemembers continue to report housing costs in excess of BAH. BAH may be insufficient to cover servicemembers' set housing standards, or servicemembers may be choosing housing above their standard, causing them to overspend BAH. Some conflicting findings on BAH adequacy are presented in Table 2.

Previous studies have focused on improving BAH methodology to measure the cost for set housing standards accurately, which led to methodology improvements such as servicemember residency pattern-targeted data collection within each MHA and an objective high-crime area identification system [12]. However, BAH housing standards have not been updated since they were established in 1998, and very few data have been collected on

servicemember housing expenses and the drivers behind servicemember housing choices. The Office of the Under Secretary of War for Personnel & Readiness (OUSW-P&R) contracted with CNA to answer the following fundamental compensation policy questions: Do current BAH adequacy standards (e.g., housing size, type of home) and sampling methodologies result in BAH rates commensurate with actual servicemember choices? If not, why?

CNA developed the BAH Adequacy Survey to determine the extent to which BAH helps servicemembers secure their basic housing needs. The survey was designed to collect data from servicemembers and provide a baseline for BAH rate adequacy by answering the following four questions:

1. Are servicemembers living in homes above or below BAH adequacy standards, on-base housing standards, and average civilian standards?

Table 2. Conflicting opinions on BAH

BAH Is Sufficient	BAH Does Not Cover Servicemember Costs
<ul style="list-style-type: none"> • BAH recipient housing standards are comparable to or exceed civilian housing standards [2-3] • BAH rate is higher than what comparable civilians pay for rent and utilities [1, 3, 6] 	<ul style="list-style-type: none"> • Active duty family respondents continue to pay much more than the expected cost share to secure housing [4] • 59.4% of families off base are paying more than \$251 a month out of pocket for housing [5] • BAH housing profiles do not align with select Army member choices [2] • Privatized on-base housing standards are higher than BAH standards [1, 6]

Source: CNA.

2. What household and personal factors beyond servicemembers' military compensation (e.g., total household income, number of school-aged dependents) influence housing budgets and housing choices? Do housing availability and commute times affect housing choices?
3. Are servicemembers renting or purchasing homes?
4. What are servicemembers paying for housing and utilities? How do their costs compare to their BAH rate?

Developing the survey instrument

During August and September 2024, the CNA study team met with Service compensation and personnel leads from the Army, Air Force, Navy, Marine Corps, and Coast Guard⁶ to document service-level BAH concerns, identify installations where BAH recipients have reported housing challenges, and seek feedback on the marketing, distribution, and design of the BAH Adequacy Survey.

Service-level concerns

In our discussions with Service representatives, one common theme emerged: they frequently resolve the concerns of local MHOs⁷ and servicemembers by providing education on BAH policy and rate-setting procedures. For example, they frequently provide information and education about the fact that anchor points in BAH policy are tied to rank rather than to number of dependents. BAH concerns are escalated through the chain of command with servicemembers reporting concerns to their local MHO. An MHO representative can route the concern

to a regional Service BAH representative, national headquarters representative, and finally OUSW-P&R.

Representatives from two of the services indicated that recruiters and Reserve Officers' Training Corps (ROTC) staff face housing challenges in locations with no on-base housing options, low market availability, or high rental prices.

Other enterprise-wide concerns included the implementation of cost sharing, the condition and maintenance of privatized on-base housing, requests for family stability and the Exceptional Family Member Program (EFMP),⁸ and the need for a reassessment of the definition of utilities included in BAH rates (mobile phones rather than landlines and the need for home internet). Representatives specified that the BAH Adequacy Survey must request detailed information on utilities.

Service representatives also shared concerns about rental market rates being raised in response to BAH rates, particularly in small markets where military housing demand is sizable enough to affect housing prices.⁹ BAH rates are set in January of each year and are calculated to include both rent and utilities. Representatives opined that rent prices (which do not include utilities) are raised annually to match BAH rates (including rent and utilities); when servicemembers move midyear, rent prices (not including utilities) are already set to the current BAH rates (including utilities). If this situation occurs, servicemembers end up contributing more than their expected cost share for utilities.

Although the survey does not directly address servicemember education on BAH policy and rates, it does ask about BAH satisfaction. Using the survey data, we can identify the relationship between

⁶ Space Force did not respond to our requests for meetings.

⁷ MHOs are the points of contact for servicemembers and their dependents for all housing programs.

⁸ EFMP provides support to servicemember families that have members with special medical or education needs.

⁹ A 2002 analysis by CNA found that changes in BAH rates in select markets had little effect on rental prices [11].

servicemembers' housing choices, the BAH standard for their grade and dependent status, and their family size. The survey explicitly and directly asks about servicemember utility costs, including landlines versus mobile telephones and home internet service. As designed, the survey does not address concerns about rental rates rising to meet BAH because it does not ask about increases in rental rates over time.

Installation-level concerns

We asked each Service representative to identify installations with housing challenges and discuss the sources of those challenges. Sources of BAH rate concerns fell into six categories: overall market volume, specific anchor point or BAH profile housing type volume (primarily affecting junior enlisted personnel in rural areas¹⁰), remote locations, locations where seasonal rentals dominate the market, areas adjacent to metropolitan areas with high costs of living,¹¹ and overall rate inadequacy. Figure 2 lists the concerns of specific installations. These concerns were those voiced to study team members and may not reflect the full set of concerns or be representative of each Service as a whole.

Survey content

Service representatives supported the survey goals and planned content that we discussed. One highlighted that the only mechanism for resolving the disconnect between BAH adequacy and servicemember housing choices is to ask the servicemembers how they feel about BAH adequacy and why they make the housing choices that they do.

The following factors in housing preference were mentioned by all Service representatives: housing

type, schools, servicemember commutes, and partner employment or commutes. Other preferences that were unique to individual services (as identified by Service representatives) included the following: market availability, crime statistics, access to public transportation, garage access, access to shopping (especially fresh produce and markets), and access to medical care.

We consulted existing surveys both to identify gaps in data already being collected from servicemembers and to ensure that results from the BAH Adequacy Survey would be comparable with survey data collected from civilians. Other surveys that we consulted include the following:

- ACS
- American Housing Survey
- Status of Forces Survey (SOFS)
- Military Lifestyle Survey
- Military Family Support Programming (MFSP) Survey

Survey testing

CNA conducted extensive internal testing of the Qualtrics version of the survey with 11 staff testers (several of whom are former active duty military or active duty spouses) completing a total of 48 potential respondent profiles with varying household characteristics and living arrangements (on and off base, different dwelling types, renters and mortgage holders). Respondents were asked to provide either estimates or exact responses to questions concerning utility expenses. The primary goal of this activity was to obtain an accurate time

¹⁰ Rural and small town residences are primarily detached single-family homes and mobile or manufactured homes [21].

¹¹ Although BAH rates in metropolitan MHAs will reflect the cost of housing in the metropolitan area, servicemembers working in areas adjacent to metropolitan MHAs may work in lower cost MHAs but choose to live in the more expensive metropolitan area.

Figure 2. Installation-level concerns

Overall market volume	<ul style="list-style-type: none"> • Marine Corps Recruiting Command, 4th Marine Corps District, Columbus, Ohio • Eglin Air Force Base/Hurlbert Field, Florida • Altus Air Force Base, Oklahoma • Marine Corps Base Camp Pendleton, California^a • Marine Corps Air Ground Combat Center Twentynine Palms, California
Anchor volume	<ul style="list-style-type: none"> • Fort Hood, Texas • Cannon Air Force Base, New Mexico • Frances E. Warren Air Force Base, Wyoming
Remote area	<ul style="list-style-type: none"> • Fort Irwin National Training Center, California • Marine Corps Mountain Warfare Training Center, Bridgeport, California
Seasonal rentals	<ul style="list-style-type: none"> • Naval Support Activity Panama City/Tyndall Air Force Base, Florida • Naval Air Station Pensacola, Florida (high transient population)
Metropolitan area	<ul style="list-style-type: none"> • Joint Base Lewis-McChord, Washington • Fort Hamilton Army Base, New York
Rate	<ul style="list-style-type: none"> • Naval Air Weapons Station China Lake, California • Navy ROTC, University of Idaho/Washington State University, Moscow, Idaho

Source: Service compensation leads.

^a The specific concern at Camp Pendleton is market saturation, which is driving servicemembers to move away from the base and face long commute times.

estimate for completing the survey, but testers were also encouraged to evaluate and comment on the instrument's utility. Feedback was incorporated into the survey instrument to improve and streamline the respondents' experiences.

Reducing nonresponse

Response rates for surveys of active duty forces have declined in recent years as surveys have become more frequent. The Office of People Analytics (OPA) reports a decline in response rates from 40 percent to 15 percent between 2004 and 2018 [22]. Table 3 describes methods for improving response rates that we considered for the BAH Adequacy Survey.

Table 3. Methods for improving response rates

Method	Description	Used?
Outreach	Provide a public affairs package for communication outreach to increase awareness and specify the impact of the survey [22].	Yes
Motivating and varied recruitment and reminder emails	Vary the formality and language of recruitment and reminder messages, time them for success [22], and craft them in a way that appeals to respondents' sense of altruism [23-24].	Yes
OUSW-P&R logo	Incorporate an official logo or seal to increase respondents' willingness to participate in a survey [23-24].	No
Distribution from DOW email	Recipients may be wary of opening the survey recruitment email because of either safety concerns with emails originating from an unrecognized sender or survey fatigue.	No
Paper or text distribution	One of the greatest barriers to response rates for junior enlisted servicemembers is irregular access to their government email [25].	No
Incentives	Active duty servicemembers are limited to incentives of \$20 per activity and \$50 for all activities each year. Reported response rates from the Active Duty Spouse Survey indicated that a \$5 incentive for junior enlisted spouses resulted in an increase in response rate from 9 to 14 percent. ^a	No

Source: CNA-derived from [22-25].

^a Communication from OPA during the Paperwork Reduction Act conference June 26, 2024.

Although we investigated the use of all these methods for combatting nonresponse, we were able to implement only two: outreach and motivating and varied recruitment and reminder emails. These efforts are described in the following sections. We were unable to secure permission to use the OUSW-P&R logo or to send emails through the survey platform from a government email address. Study funding was insufficient to implement paper surveys or offer monetary incentives, and there are no current repositories of servicemember mobile phone numbers that would allow text distribution of a survey. We did investigate the option of providing a coupon for the commissary as an incentive for

participation in the survey, but promotions are typically required to apply to all customers rather than only a select sample. Further exploration of these methods may improve response rates if the survey is repeated in the future.

Outreach

Outreach materials were designed to encourage selected servicemembers to open and respond to the survey recruitment email and to communicate the importance and impact of their response. The outreach materials did not include an invitation to participate in the survey and were not recruitment materials. They were intended for distribution to

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a broad DOW audience. The suite of outreach materials included the following, available in their entirety in the survey package delivered in December 2024 [26]:

- Newsletter articles
- Frequently asked questions (FAQs)
- SmartDocs statement
- Social media content
- A flier

We prepared newsletter articles that the Services and local installations could post to paper or online bulletins. The articles included a brief description of the survey and emphasized that the information collected would be confidential. A link to the FAQs posted on the Defense Travel Management (DTMO) website was included in both articles.

The survey FAQs provided additional details about the survey that were not included in other outreach materials. The FAQs described the intent of the survey, CNA's role, privacy protections, and the process for recruitment; provided the survey control number; and explained that the results of the survey would be provided to OUSW-P&R Military Personnel Policy at the conclusion of the study.

SmartDocs is the email process used by the Defense Finance and Accounting Service (DFAS) to send notifications to military members, retirees, and federal civilian employees. Like the newsletter articles, the SmartDoc statement included a description of the survey, described the process for recruitment, and emphasized the confidentiality of the survey. SmartDocs cannot contain active links, so the statement did not contain a link to the FAQs but did point recipients to their location on the DTMO website.

Figure 3. BAH Adequacy Survey social media graphic



Source: CNA.

We developed two short (fewer than 280 characters) and two long social media texts along with the Figure 3 graphic for posting on a variety of social media platforms. All posts encouraged servicemembers to check their email to see whether they had been selected to participate in the survey. The longer texts included a link to the FAQs.

At the request of an installation housing office, we prepared a printable flier announcing the survey. The flier used the same image and themes as the graphics designed for the social media posts, encouraged respondents to check their email for an invitation, and included a QR code for the FAQs.

We also oversampled to account for low response rates. The next section describes the sampling plan that we developed to ensure MHA-level representation.

Sampling plan

Our potential respondent universe is all active duty servicemembers who received full BAH in the DFAS Active Duty Pay file in June 2024.¹² BAH recipients are assigned to geographic MHAs typically based on assigned duty station. MHA and CCG populations range from very small (N=4, CCG 650) to very large (N=37,542, Norfolk/Portsmouth, Virginia). We anticipated an overall response rate similar to that of the SOFS (around 15 percent). The goal of our study was to provide MHA-level results. To obtain a

sufficient sample in MHAs with a small population (small MHAs),¹³ we conducted a census of all BAH recipients in those MHAs. In MHAs with a large population (large MHAs), we drew a stratified sample with BAH housing profile (type of home assigned by rank and dependent status), Service, and dependent status as stratifying variables. BAH recipients in small MHAs account for 13 percent of all BAH recipients. Target sample sizes (shown in Table 4) were designed to detect differences in mean responses with 95 percent confidence and a 5 percent margin of error within each MHA.

Table 4. Survey sample

Housing Profile	Census Small MHAs	Sample Large MHAs	Sample Total	Expected Respondents	Universe
1-bedroom apartment	12,728	40,522	53,250	7,988	155,194
2-bedroom apartment	7,332	15,841	23,173	3,476	66,118
Midpoint between a 2-bedroom apartment and townhome/duplex	5,246	31,234	36,480	5,472	123,665
2-bedroom townhome/duplex	13,698	38,777	52,475	7,871	162,326
3-bedroom townhome/duplex	24,320	48,773	73,093	10,964	212,072
3-bedroom single-family detached home	13,368	26,844	40,212	6,032	114,893
4-bedroom single-family detached home	4,185	7,176	11,361	1,704	32,797
Total	80,877	209,167	290,044	43,507	867,065

Source: CNA.

¹² June 2024 was the most recent DFAS file available to our study team because Defense Manpower Data Center was experiencing staffing shortages and hardware upgrades in late 2024.

¹³ Small MHAs are those in which a 15 percent response rate would not yield sufficient responses to detect a meaningful difference in BAH sufficiency at the degree of accuracy described. There are 248 MHAs classified as small MHAs, with a range of 4 to 2,187 BAH recipients per MHA and an overall total of 80,877 BAH recipients in all small MHAs.

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In addition to our base sample, we drew a supplemental sample from large MHAs.¹⁴ The supplemental sample was used to replace participants in the initial sample who left service, did not have a valid email address on file with Defense Manpower Data Center (DMDC), or had an email address that was undeliverable during survey recruitment.

Recruitment

Initial survey recruitment emails (wave 1) were sent to 290,044 BAH recipients (14,556 of which were pulled from the supplemental sample to replace missing emails from DMDC). A second wave of 6,563 emails was drawn from the supplemental sample to replace undeliverable emails from wave 1 (wave 2).¹⁵ Wave 2 emails were staggered behind wave 1 until the fourth reminder. The schedule for each wave is shown in Table 5.

Recruitment and reminder emails were customized for enlisted personnel and officers and by Service. The reminder emails used a variety of text and emphasis to engage with recipients [26]. The emails appealed to recipients' Service pride and their sense of humor and provided statistics from other research to emphasize the importance of participation. Although the magnitude of the response decreased with each successive reminder, we continued to see responses through the survey close.

Completion rates

The overall response rate for the survey was 24 percent with a total of 69,679 responses, but that number includes respondents who did not meet screening criteria to participate in the survey, did not consent to participate, or did not provide the demographic information vital to our analysis (rank, residence zip code, and dependent status). Of the

Table 5. Survey timeline

Action	Wave 1	Wave 2
Initial recruitment email: BAH Adequacy Survey participation	04/21/2025	04/29/2025
Reminder 1: Your voice on BAH matters	04/29/2025	05/07/2025
Reminder 2: Show your [Service] pride!	05/07/2025	05/17/2025
Reminder 3: BAH, BAH, BLAH/Because you're busy	05/17/2025	05/23/2025
Reminder 4: BAH survey is closing soon	06/05/2025	06/05/2025
Final reminder: Deadline tomorrow	06/19/2025	06/19/2025
Survey close	06/21/2025	06/21/2025

Source: CNA.

¹⁴ Because we already planned to survey all members in small MHAs, we were not able to draw a supplemental sample for servicemembers in small MHAs.

¹⁵ The total number of servicemembers contacted to participate in the survey was 290,044. Those with missing or invalid email addresses are not included in the 290,044 and were replaced with servicemembers with similar characteristics from the supplemental sample.

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69,679 responses, 12,755 were excluded based on screening criteria: not serving in an active duty status in a branch of the military, not currently receiving BAH, or not located in the continental US (CONUS). The primary exclusion factor was location, with 10,642 respondents answering “No” to the question “Is your current duty station in CONUS, Alaska, or Hawaii?” In contrast, only 1,369 respondents indicated that they were not currently receiving BAH. Because of the time delay between pulling our sample and executing our survey, it is difficult to know how many of the excluded respondents moved to an outside of CONUS duty station versus how many simply misread the survey question. Because of the volume of respondents excluded based on this question and the number of reset requests that we received in the survey inbox due to respondents misreading this question, we sent a recapture email with a new survey link to the respondents who were initially excluded based on location.

With 50,255 completed surveys, we exceeded our overall target completion rate of 15 percent; however, some individual subgroups fell short of that target. Table 6 shows completion rates by Service for officers and enlisted personnel. Army, Marine Corps, and Navy enlisted personnel had the lowest response rates, whereas the Coast Guard and Space Force had the highest overall response rates.

The distribution of responses across Service and rank is not reflective of the population or our study sample. To address nonresponse bias, we employed both sample and post-stratification weights. The calculation of the survey weights is explained in the next section.

Survey weights

Survey weights for the BAH Adequacy Survey are the product of two component weights: sample weights and post-stratification weights. **Sample weights**

Table 6. Completion rates by Service and rank group

Service	Enlisted			Officer			Service Completion Rate
	Sample	Complete	Completion Rate	Sample	Complete	Completion Rate	
Air Force	82,174	17,499	21%	24,264	5,945	25%	22%
Army	54,116	4,757	9%	22,340	3,654	16%	11%
Coast Guard	17,407	4,638	27%	4,710	1,809	38%	29%
Marine Corps	20,689	1,974	10%	6,610	1,140	17%	11%
Navy	40,364	5,685	14%	14,289	2,719	19%	15%
Space Force	1,295	343	26%	1,786	532	30%	28%
Total	216,045	34,896	16%	73,999	15,799	21%	17%

Source: CNA.

are necessary to ensure that the sample of recruited individuals is representative of the population across key attributes (e.g., MHAs) by accounting for differences in the probability of selecting participants into the sample. Because motivation and ability to participate in the survey can vary across the sample, **post-stratification weights** address nonresponse bias by adjusting the sample of survey respondents to ensure that it aligns with key demographics of the population of BAH recipients.

Sample weights

Sample weights were calculated using two key attributes: (a) MHA and (b) BAH housing profile. The weight was calculated for each possible MHA–BAH profile combination, using the inverse of the probability of selection based on DMDC data, as follows:

$$\text{sample weight}_{a,b} = \frac{1}{(\text{sample count}_{a,b} / \text{population count}_{a,b})}$$

Note that in MHAs with small populations (in which the total number of BAH recipients was too few to allow a 15 percent response rate and still obtain a sufficient sample), sample weights were set to 1 because we invited all BAH recipients in these MHAs to participate in the survey.

Post-stratification weights

Nonresponse bias is problematic when the distribution of respondents does not align with the distribution of the known population. Table 7 shows characteristics of the survey respondents in comparison to the population. Survey respondents

were more likely to have dependents; be of higher rank; be Air Force, Space Force, or Coast Guard members; and fall in low- or high-cost MHAs than the population of BAH recipients.

To correct for nonresponse bias, we applied post-stratification weights. Post-stratification weights were calculated based on relative median BAH rate of the respondents' duty station MHA or CCG¹⁶ (c), Service (d), rank group (e), and dependent status (f). The weight is calculated as follows:

$$\text{post-stratification weight}_{c,d,e,f} = \frac{1}{\sum \text{sample weights}_{c,d,e,f} / \text{population count}_{c,d,e,f}}$$

In the section of the paper on survey respondents, we provide comparisons of servicemember demographics for the raw (unweighted) and weighted responses.

Data cleaning procedures

Our survey design employed branching methodology and intentionally limited text entry fields to reduce the need to code and clean collected data. However, we did apply deductive imputation and logical limits to some survey items. A full listing of these actions is in Appendix B. In this section, we focus on our two major efforts to ensure the quality of the survey data included in our analysis: identifying outliers and processing write-in and missing responses for respondent duty station.

Outliers

We used Tukey's fences to determine outliers for cost data within each MHA.¹⁷ Tukey's fences use

¹⁶ Sample sizes in some MHAs and CCGs were insufficient to calculate post-stratification weights at the MHA level.

¹⁷ We used residential zip code to assign residences to MHAs for purposes of identifying outliers or calculating costs within an MHA. We used duty station to determine BAH rates because BAH rates are set by duty station. Servicemembers receiving BAH can choose to live in an MHA outside of their duty station MHA, making trade-offs between commute, cost, and other personal choice factors.

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Table 7. Respondent and population characteristic comparisons

Characteristic	Respondents (n=50,255)	Population (n=867,065)	Over- or Under-Representation ^c
Duty station MHA cost			
Low	28%	22%	+
Medium	36%	36%	NA
High	33%	30%	+
Unknown ^a	3%	12%	-
Service			
Army	17%	32%	-
Air Force and Space Force ^b	48%	27%	+
Coast Guard	13%	4%	+
Navy	17%	27%	-
Marine Corps	6%	10%	-
Rank group			
E-1–E-4	11%	24%	-
E-5–E-6	38%	39%	-
E-7+	20%	14%	+
O-1–O-3, WO-1–WO-5	16%	15%	+
O-4+	15%	9%	+
Dependent status			
Dependents	76%	67%	+
No dependents	24%	33%	-

Source: CNA, DMDC June 2024, and BAH Adequacy Survey 2025.

^a There are BAH recipients in DMDC and in the BAH Adequacy Survey for whom we cannot identify a duty station and duty station MHA. These respondents will not be included in any comparisons between housing costs and BAH.

^b Space Force is combined with Air Force because of the low number of enlisted Space Force respondents (n=343).

^c + or - is shown if a binomial test indicates that the respondent distribution is not equal to the population value at $p = 0.05$.

the interquartile range (IQR) and a set multiplier to determine outliers such that any values that fall outside the range (Quartile 1 – α *IQR, Quartile 3 + α *IQR) are set to missing. Tukey’s fences allow adjustment of the multiplier (α) to modify the level of leniency in outlier detection, unlike the standard IQR method, which uses a fixed multiplier of 1.5 [27-28]. We opted for an initial multiplier of 4 because

our data have small sample sizes and narrow IQRs and we wanted to reduce the probability of falsely identifying real values as outliers.

For many MHAs, the minimum fence fell below \$0, but only a small number of rent and mortgage values were excluded from the analysis because they fell below the minimum fence. Most values that were excluded from the analysis were over the MHA maximum

limit, which ranges from \$1,075 (Montgomery, Alabama) to \$13,840 (Honolulu County, Hawaii)¹⁸ for rent and \$1,374 (Lansing, Michigan) to \$17,258 (Denver, Colorado) for monthly mortgage payments. Although the lower bound on these numbers seems low, they are appropriate values for MHAs with a low cost of living. A review of the excluded cost values led us to believe that they are yearly costs, missing a decimal point, or, in the case of mortgages, the mortgage balance or total value of a home. Because most of the excluded values were so extreme and appeared to be erroneous data rather than true outliers, we set them equal to missing.¹⁹ Counts of excluded values are provided in Appendix C.

Write-in and missing duty stations

In this section, we describe the steps that we took to process more than 5,700 write-in duty station names in which the respondent did not select an installation from the drop-down menu in the survey. We used Google's Places application programming interface (API) to search for the zip codes of the text installation names entered in the survey [29]. We ran each write-in installation text entry through the Places API, which included an internal text processing step to improve the search. For those entries for which no zip codes were returned from the API, we searched online manually. As a quality check, we generated the latitudes and longitudes from the zip codes and calculated the haversine distance²⁰ to check distance between the returned duty station zip

codes and residence zip codes. We found that there were 238 responses for which the duty station zip code from the Google Places API search was more than 100 miles away from the residence zip code.²¹ We were able to reassign duty station zip codes for 105 of the 238 entries by leveraging additional information about the residence location (e.g., when two different installation names were listed, when incorrect homeport location was provided for a US Coast Guard cutter or US Navy ship). The remainder that were not reassigned were left as is based on the initial installation to zip code matching. Next, we updated the duty station MHA assignments based on these updated zip codes.

In addition to respondents who wrote in duty station names, we also had respondents who did not provide any information for their duty station. For these respondents, we imputed installation MHA as the residence MHA if 75 percent or more of the respondents in a residential MHA listed their installation within the same MHA (n=3,297). After assigning the write-in duty stations to MHAs and imputing duty station MHAs based on residence MHAs, we were left with 1,137 survey respondents with no duty station MHA. These observations were excluded from any analysis involving BAH rates because BAH rates are calculated by duty station MHA.

¹⁸ Although the maximum rent limit is \$13,840, the maximum rent included in our analysis was \$9,300 in Camp Pendleton, California. Similarly, the maximum mortgage limit is \$17,258, but the maximum mortgage payment included in our analysis was \$13,000 in Washington, DC.

¹⁹ A comparison of the IQR before and after removing excluded values showed little change. The largest change was for rent, in which the Quartile 3 value increased by \$14. Most other changes were less than \$1.

²⁰ The haversine distance is the shortest distance between two points on a sphere using their latitudes and longitudes.

²¹ We used the 100-mile radius as a cutoff because it was cited in 32 CFR Ch I §100.6 as the "maximum distance a member of a Reserve component may travel involuntarily between residence and drill training site" [30].

Approach

In this section, we describe our approach to answering each of our research questions and the structure and presentation of results in this document. First, we describe our research questions and methods.

Methods

Table 8 provides a list of our research questions, the population included in our analysis, and the approach that we adopted to answer each question. After we discuss the answer to each of the separate research questions, we address the overarching question, “Do BAH adequacy standards and sampling methodologies result in BAH rates commensurate with actual servicemember choices?” by synthesizing the results of earlier questions and addressing whether BAH reflects servicemember housing choices. We compare off-base servicemember housing choices to BAH profiles, on-base housing, and housing consumption for comparable civilians. Finally, we establish baseline BAH adequacy by comparing the rental cost for housing profiles from our survey respondents to the BAH rates for the housing profiles, acknowledging that servicemembers may be living at their BAH standard for bedrooms and residence type but may be paying above or below BAH because of other amenities or location considerations.

For each of our research questions, we present national-level results but acknowledge that there is significant variation in servicemember characteristics, servicemember preferences, BAH rates, local housing costs, and market availability across MHAs. To address this variation, we also present results for each question for a set of 10 featured MHAs.

Featured MHAs

We split all MHAs (including CCGs) into three cost groups (low, medium, or high) using the median BAH for the MHA. In each cost group, we chose the three most populated MHAs to feature in this report. In addition, we included a tenth MHA, Key West, Florida, as a vacation-area MHA of special interest to our sponsor. Table 9 provides the number of responses and response rate for each of the featured MHAs. Our analysis of subgroups will be limited in some of the MHAs that have lower response rates, such as Fort Hood.

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Table 8. Research questions and statistical methods

Research Question	Population	Method
What are the factors for servicemembers choosing to live on or off base?	All survey respondents who had an option to live on base at their last permanent change of station	Logistic regression: dependent variable is choosing to live on base
Are servicemembers renting or purchasing homes?	Off-base survey respondents	Logistic regression: dependent variable is choosing to purchase a home
What are servicemembers paying for housing and utilities?	Off-base survey respondents, separate for renters and owners	Descriptive statistics, t-tests for differences between owners and renters
How does what servicemembers are paying for housing and utilities compare to their BAH rate?	Off-base survey respondents	Linear regression: dependent variable is cost differential between BAH rate and costs
Are servicemembers living in homes above or below BAH adequacy standards, on-base housing standards, and civilian standards?	All survey respondents, civilian comparisons from ACS (adjusted by education and age)	Descriptive statistics, t-tests for differences between key subgroups (owners/renters, dependents/no dependents)
What household and personal factors influence off-base housing budgets and housing choices?	Off-base survey respondents	Descriptive statistics, t-tests for differences between key subgroups (owners/renters, dependents/no dependents)
Do BAH adequacy standards and sampling methodologies result in BAH rates commensurate with actual servicemember choices?	All survey respondents	T-test: rate differential BAH rate and cost of renting housing profile, discussion of member choices

Source: CNA.

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Table 9. Featured MHAs

Cost Bracket	MHA	MHA Name	Sample of Installations	Responses	Response Rate
Low cost	TX286	Fort Hood, TX	Fort Hood	247	10%
	NC178	Camp Lejeune, NC	Camp Lejeune	465	18%
	TX279	El Paso, TX	Fort Bliss	203	8%
Medium cost	VA298	Norfolk/Portsmouth, VA	Naval Station Norfolk, Joint Expeditionary Base Little Creek-Fort Story	730	28%
	NC182	Fort Bragg/Pope, NC	Fort Bragg, Pope Army Airfield	333	13%
	CO046	Colorado Springs, CO	Fort Carson, Peterson Air Force Base, Schriever Air Force Base, US Air Force Academy	574	22%
High cost	CA038	San Diego, CA	Naval Base San Diego, Naval Air Station North Island, Marine Corps Air Station Miramar	657	23%
	DC053	Washington, DC, Metro Area	Joint Base Anacostia-Bolling, Joint Base Myer-Henderson Hall, Fort Belvoir	1,044	38%
	HI408	Honolulu County, HI	Joint Base Pearl Harbor-Hickam, Fort Shafter	692	26%
	FL069	Florida Keys, FL	Naval Air Station Key West	202	15%

Source: BAH Adequacy Survey conducted by CNA.

BAH Recipients and Their Homes

To put our survey results into context, we asked three types of descriptive questions on the following factors in the BAH Adequacy Survey: individual demographics, family demographics, and residence attributes. In this section, we discuss each set of descriptors and provide weighted and unweighted distributions for each.

Respondent attributes

The first screening question for the survey is, “In which branch of the military are you currently

serving in an active duty status?” Participants were required to answer the question to participate in the survey. Other individual demographics collected include rank, completed years of service, and current duty station. Table 10 provides the unweighted and weighted distributions, including the standard error (SE), by Service, rank group, and years of service. The unweighted percentages for Service and rank group were provided in Table 7 but are shown again for comparison to the weighted percentages.

Table 10. BAH Adequacy Survey respondent demographics

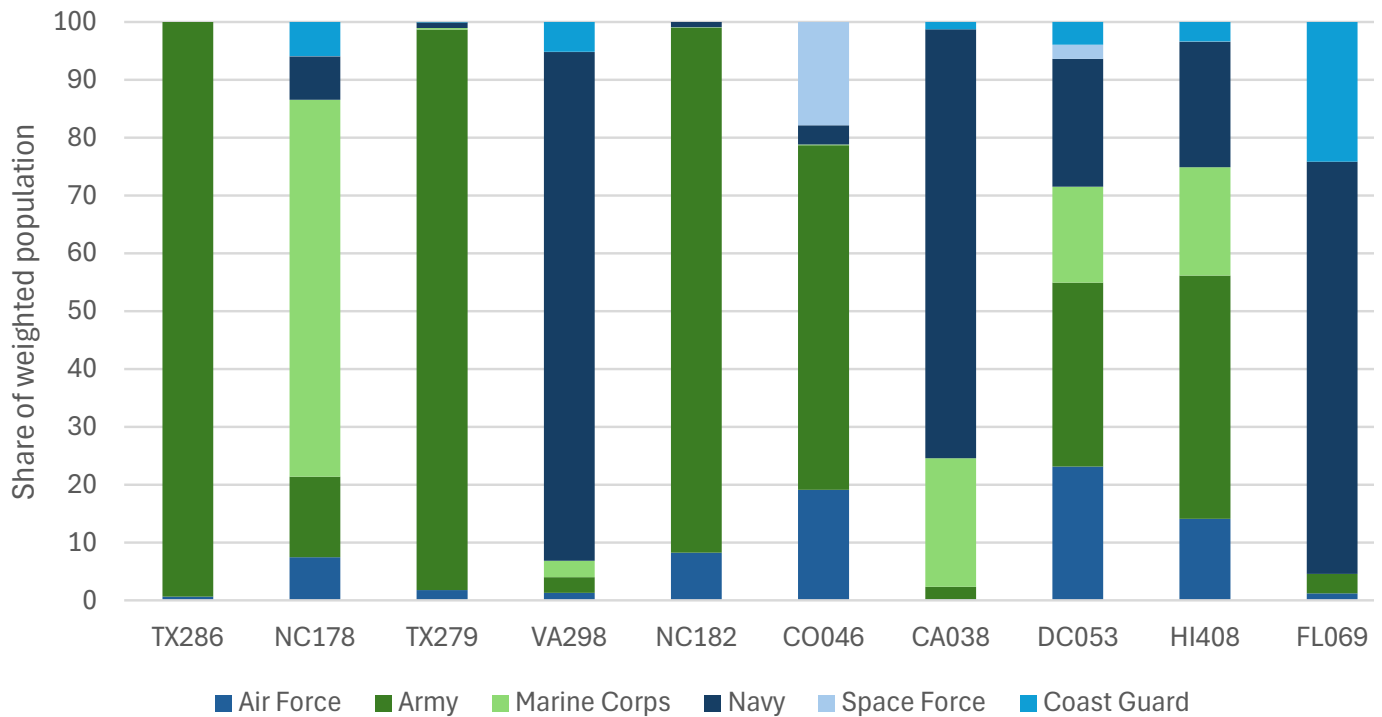
Demographic	Unweighted Percent	Weighted Percent (SE)
Service		
Air Force	46%	29% (0.25)
Army	17%	31% (0.10)
Marine Corps	6%	11% (0.17)
Navy	17%	21% (0.14)
Space Force	2%	1% (0.07)
Coast Guard	13%	7% (0.24)
Rank group		
E-1 to E-4	11%	24% (<0.01)
E-5 to E-6	38%	39% (<0.01)
E-7+	20%	14% (<0.01)
O-1 to O-3, WO	16%	15% (<0.01)
O-4+	15%	9% (<0.01)
Years of service		
2 or less	5%	9% (0.36)
3–5 years	14%	21% (0.41)
6–10 years	27%	29% (0.34)
11–20 years	43%	33% (0.23)
More than 20	9%	6% (0.10)
Not reported	3%	2% (0.12)

Source: BAH Adequacy Survey conducted by CNA.

Featured MHA respondent attributes

The featured MHAs provide representation across the Services, with three having primarily Army populations, three being primarily Navy, one being primarily Marine Corps, and Air Force having a smaller share of the population across five of the MHAs (Figure 4). The Coast Guard and Space Force are our smallest populations and have a sizable share in one MHA each.

Figure 4. Service representation in featured MHAs

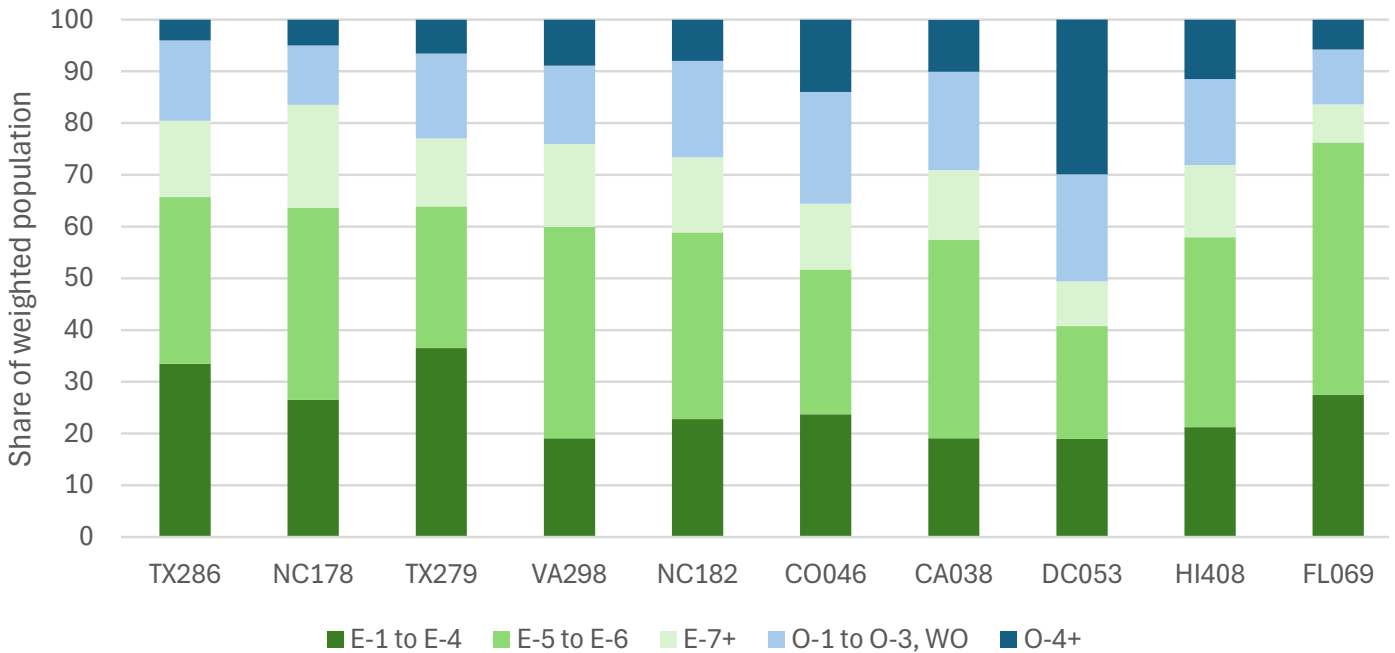


Source: BAH Adequacy Survey conducted by CNA.

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The distribution of rank groups across featured MHAs is shown in Figure 5. Except for the Washington, DC, metro area, there is little variation in the rank distribution across the featured MHAs. The DC metro area has a higher concentration of senior officers than the other featured MHAs do.

Figure 5. Rank group representation in featured MHAs



Source: BAH Adequacy Survey conducted by CNA.

Household demographics

Household demographics play an important role in housing decisions. We asked respondents a series of questions to identify the number, sex, and age of members of their household; their marital status; their spouse or partner’s employment status; and

their household income. Table 11 describes the household members of BAH recipients.

The bulk of BAH recipients (59 percent) are married, and 46 percent have one or more dependent children living in their residence.²² Seven percent live with an unmarried partner and 2 percent live with

Table 11. BAH Adequacy Survey household members

Household Members	Unweighted Percent	Weighted Percent (SE)
Lives alone	17%	23% (0.28)
Spouse	68%	59% (0.24)
Partner ^a	6%	7% (0.21)
Dependent children		
1	16%	14% (0.29)
2	22%	17% (0.26)
3	10%	8% (0.19)
4	4%	4% (0.16)
5	1%	1% (0.07)
6 or more	1%	1% (0.08)
Number unspecified	2%	2% (<.01)
Nondependent children	2%	2% (0.09)
Paid caregiver	<1%	<1% (0.02)
Roommates^b		
1	3%	3% (0.14)
2 or more	2%	2% (0.10)
Other family member	4%	4% (0.21)
Other	1%	1% (0.12)
Not reported	<1%	<1% (0.03)

Source: BAH Adequacy Survey conducted by CNA.

^a We do not know the share of the population that has an unmarried partner, but after weighting based on other characteristics, we do know that the result was a population with a larger share of unmarried partners.

^b BAH standards are designed so that servicemembers should not need to have a roommate, but we observe that some servicemembers choose to live with a roommate.

²² The Services set their own requirements for when a member without dependents can move off base, but across all Services, members of all ranks with dependents are often authorized to live off base.

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nondependent children. Less than 5 percent live with one or more roommates, and 4 percent live with non-children family members.

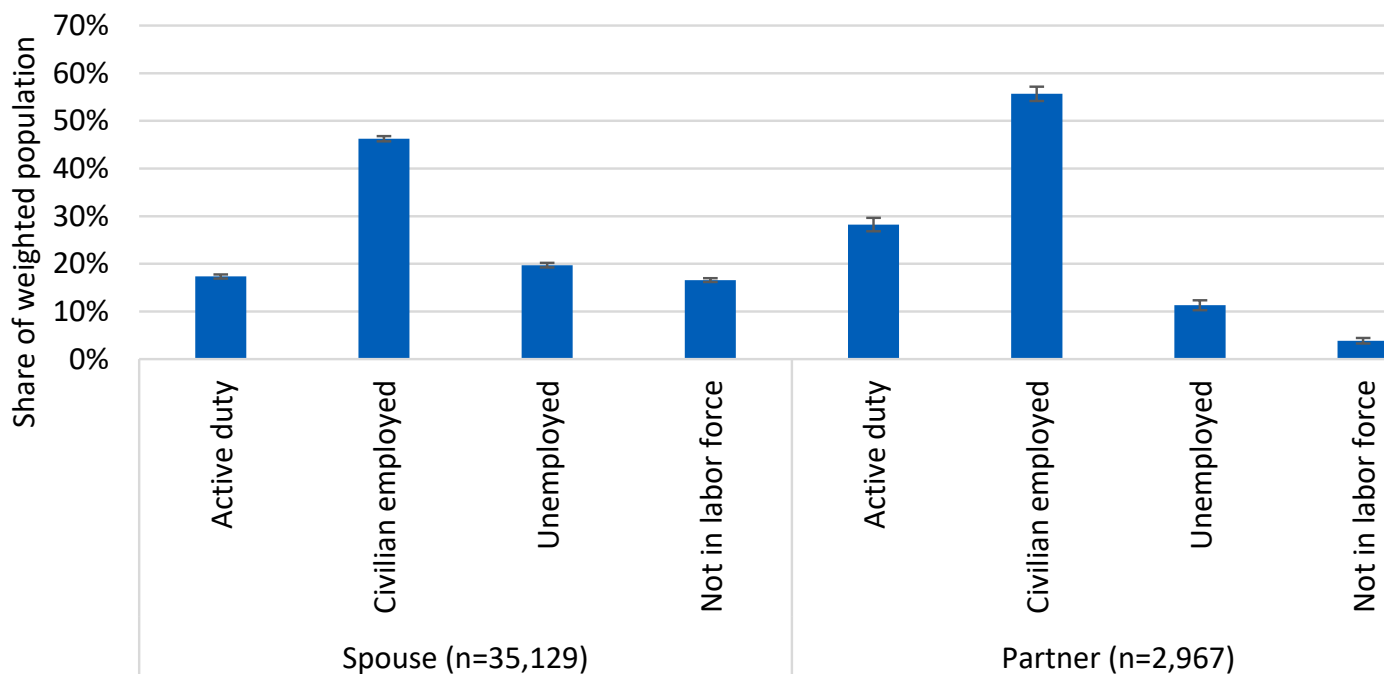
According to DOW, married officers accounted for 65 percent of the officer community and married enlisted personnel accounted for 45 percent of the enlisted population in 2023 [31]. BAH recipients diverge from these numbers, with 61 percent of enlisted personnel and 60 percent of officers being married.

Spouse and partner employment contributes to household income and provides servicemembers with additional resources to dedicate to housing. Overall, 45 percent of BAH recipients live in a dual-income household (either an employed spouse or an employed partner), with 13 percent of them being dual-military households. Figure 6 shows the breakout of active duty military, civilian employed, unemployed, and non-employment-seeking spouses and unmarried partners.

unemployed, and non-employment-seeking spouses and unmarried partners.

We examined the family demographics (number of dependent children, years of service, rank) that might be related to living in a dual-income household using regression analysis. The results are presented in terms of odds ratios (ORs) that represent how many times more likely an individual with a given demographic characteristic is to live in a dual-income household than an individual without that characteristic. With every dependent child and year of completed service, the likelihood of living in a dual-income household increases (OR 1.14, $p < .001$ and OR 1.01, $p < .001$, respectively). Senior enlisted (E-7 to E-9) BAH recipients are more likely to live in dual-income households (OR 1.23, $p = .006$) than junior enlisted (E-1 to E-4 reference group) BAH recipients, with no other significant differences by rank group.

Figure 6. Spouse and partner employment



Source: BAH Adequacy Survey conducted by CNA.
Note: Whiskers on chart represent standard errors.

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The 2023 MFSP Survey found that 57 percent of active duty spouses were employed (39 percent full time and 17 percent part time), 22 percent of active duty spouses were unemployed and looking for work, and 17 percent of active duty spouses were unemployed and not looking for work [5]. The reasons most often cited for not seeking work were family responsibilities and child care availability and costs. These numbers differ from those in our survey because the MFSP Survey is a sample of respondents with military ties (e.g., military servicemembers, veterans, their families) and not necessarily active duty servicemembers.

To gain an understanding of additional income that servicemembers may have to contribute to household expenses, we asked survey respondents to identify

an income bracket for the 2024 taxable income of all members of their household. Asking the question in this manner was intended to allow easy recall of the taxable income reported on 2024 tax forms because the survey was administered in April, just after the deadline for filing. We intentionally asked this question last on the survey. If some respondents objected to offering this sensitive information, we did not want to lose data throughout the rest of the survey. As expected, it was the question with the highest rate of nonresponse, with 9 percent of respondents choosing not to answer it (Table 12).

Next, we turn from a description of servicemember household demographics to a description of the homes that BAH recipients are choosing.

Table 12. Taxable household income, 2024

2024 Taxable Household Income	Unweighted Percent (n=50,255)	Weighted Percent (SE)
Below \$25,000	1%	1% (0.18)
\$25,000-\$29,999	2%	3% (0.23)
\$30,000-\$34,999	3%	4% (0.24)
\$35,000-\$39,999	3%	6% (0.32)
\$40,000-\$49,999	9%	10% (0.27)
\$50,000-\$59,999	11%	12% (0.29)
\$60,000-\$74,999	15%	15% (0.27)
\$75,000-\$84,999	9%	8% (0.20)
\$85,000-\$99,999	10%	9% (0.20)
\$100,000-\$124,999	13%	9% (0.15)
\$125,000-\$149,999	7%	4% (0.10)
\$150,000-\$174,999	4%	3% (0.07)
\$175,000-\$199,999	2%	2% (0.06)
\$200,000-\$249,999	3%	2% (0.05)
\$250,000 and up	1%	1% (0.03)
Not reported	9%	11% (0.32)

Source: BAH Adequacy Survey conducted by CNA.

Residence description

In this section, we describe the residences of BAH recipients, independent of their BAH housing profile or set standards. We begin by assessing how many BAH recipients live in the same MHA as their assigned duty station. As mentioned in the earlier section on data cleaning procedures, we imputed installation MHAs for some survey respondents who did not provide an installation. Before imputing installation MHAs, 70 percent of BAH recipients lived and worked in the same MHA; after imputing installation MHAs, 76 percent of BAH recipients lived and worked in the same MHA (Table 13).

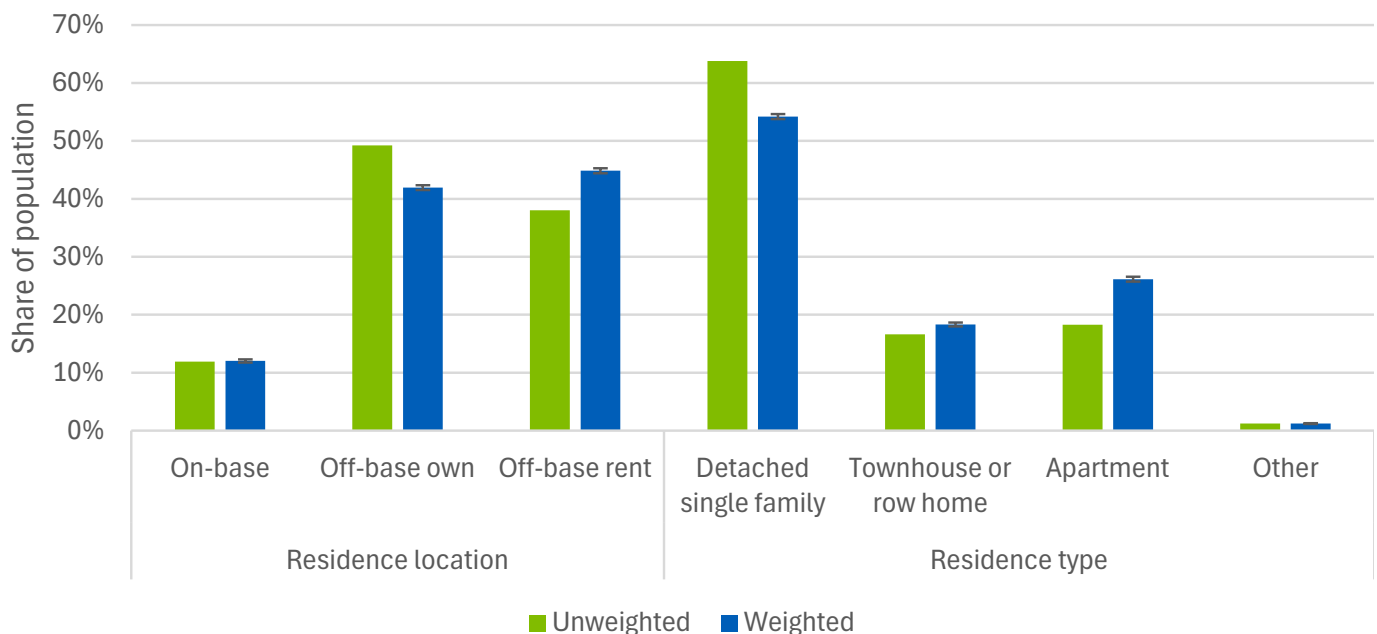
Table 13. Residence in relation to duty station

MHA Comparison	Unweighted Percent	Weighted Percent (SE)
Same MHA (raw)	78%	70% (0.25)
Same MHA (imputed)	85%	76% (0.21)

Source: BAH Adequacy Survey conducted by CNA.

Next, we provide details on residence location and type—on or off base and apartment or condo, townhome, or detached single-family home. Figure 7 shows that most BAH recipients (87 percent) live off base, and slightly more than half (54 percent) live in detached single-family homes. The green bars in Figure 7 represent the unweighted percent, and the blue bars represent the weighted percent, with whiskers on blue bars representing the standard error.

Figure 7. Residence location and type






Source: BAH Adequacy Survey conducted by CNA.

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The number of bedrooms in a residence is a primary driver of housing choice and housing cost. Table 14 shows the distribution of number of bedrooms by residence type. Three-bedroom homes make up the greatest share of servicemember homes (38 percent), followed by two- and four-bedroom homes (22 and 26 percent, respectively). Three- and four-bedroom homes are more likely to be single-family homes,

whereas two-bedroom homes are more likely to be apartments or condos. Note that although the lowest housing profile according to BAH standards is a one bedroom and the highest profile is a four bedroom, 2 percent of BAH recipients live in studio-style dwellings and 4 percent live in homes with five or more bedrooms.

Table 14. Bedrooms by residence type

Bedrooms	 Detached Single Family		 Townhome or Row Home		 Apartment or Condo	
	Unweighted Percent	Weighted Percent (SE)	Unweighted Percent	Weighted Percent (SE)	Unweighted Percent	Weighted Percent (SE)
0	<1%	<1% (0.02)	<1%	<1% (0.02)	1%	1% (0.12)
1	1%	1% (0.09)	<1%	1% (0.07)	7%	11% (0.35)
2	4%	5% (0.22)	4%	5% (0.23)	9%	12% (0.34)
3	31%	27% (0.39)	9%	9% (0.22)	2%	2% (0.10)
4	23%	17% (0.22)	3%	3% (0.14)	<1%	<1% (0.06)
5+	5%	3% (0.10)	<1%	<1% (0.04)	<1%	<1% (0.03)
Unspecified	1%	<1% (0.05)	<1%	<1% (0.01)	<1%	<1% (0.02)
Total	64%	54% (0.43)	17%	18% (0.33)	18%	26% (0.42)




Source: BAH Adequacy Survey conducted by CNA.

Note: As seen in Figure 7, 1 percent of survey respondents live in a dwelling described as "other:" either a mobile home, boat, recreational vehicle, or van. They are not included in the percentages provided in Table 14.

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Beyond the number of bedrooms, the number of bathrooms, number of available parking spaces, and amount of land may be factors in servicemember housing choices and affect housing costs. Distributions for these residence characteristics are provided in Table 15. Seventy percent of servicemembers live in a home with at least two bathrooms. Fourteen percent live in homes with no assigned parking spaces. For those not living in an apartment or condo, more than half (54 percent) live on a plot of land less than one-quarter of an acre.

Table 15. Number of bathrooms, number of parking spaces, and lot size

Residence Characteristic	Unweighted Percent	Weighted Percent (SE)
 Bathrooms (n=50,255)		
0–.5	<1%	<1% (0.06)
1–1.5	18%	26% (0.42)
2–2.5	59%	55% (0.45)
3–3.5	17%	13% (0.21)
4+	2%	2% (0.14)
Did not answer	<u>3%</u>	3% (0.14)
 Parking spaces (n=50,255)		
0	10%	14% (0.36)
1	25%	30% (0.44)
2	43%	37% (0.38)
3+	23%	19% (0.33)
Did not answer	<1%	<1% (0.02)
 Land ^a (n=31,885)		
≤.25 acres	34%	54% (0.69)
.26–.5 acres	14%	19% (0.51)
.51–1.0 acres	6%	9% (0.39)
1.01–9.99 acres	3%	5% (0.29)
10+ acres	<1%	<1% (0.04)
Did not know	10%	13% (0.52)

Source: BAH Adequacy Survey conducted by CNA.

^a This question was asked identically to the way it is asked on the ACS for comparability and asked only of those living in townhomes or single-family dwellings.

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Most military orders are for four years or less, making servicemembers a highly mobile population. Unsurprisingly, fewer than 4 percent of BAH recipients have lived in their current home longer than four years. The reduced time in residence is an important factor in costs for homeowners, especially when we compare costs with the civilian population for whom we do not know time in residence. Mortgage rates dropped to historic lows (below 3 percent) in 2021 before gradually rising in 2022 and 2023 (to the 6 to 8 percent range) [32]. BAH recipients and civilians who purchased homes three or more years ago (before rates rose in 2022) likely secured lower interest mortgages than those who have purchased homes more recently. Table 16 shows the length of time in residence for BAH recipients.

Table 16. Time in residence

Time in Residence	Unweighted Percent	Weighted Percent (SE)
<3 months	6%	6% (0.20)
3 to <6 months	4%	5% (0.26)
6 to <9 months	7%	8% (0.25)
9 to <12 months	8%	7% (0.20)
1 to <2 years	29%	33% (0.45)
2 to <3 years	23%	23% (0.37)
3 to <4 years	11%	9% (0.21)
4 to <5 years	5%	4% (0.14)
5 to <6 years	2%	1% (0.07)
6+ years	3%	2% (0.09)

Source: BAH Adequacy Survey conducted by CNA.

Commute time, shown in Table 17, is another significant factor when servicemembers are choosing a residence. We asked survey respondents to provide their average daily round-trip commute time using their most common form of transportation. On average, BAH recipients have a 47.7-minute round-trip commute each day, or a 23.9-minute one-way commute. When we examine the distribution of commute times, 79 percent of BAH recipients have a round-trip commute time of less than one hour per day.

Table 17. Location and commute time

Daily Round-Trip Commute	Unweighted	Weighted (SE)
Mean (in minutes)	48.7	47.7 (0.29)
Distribution		
30 minutes or less	41%	43% (0.42)
31 to 60 minutes	36%	35% (0.42)
61 to 90 minutes	14%	13% (0.31)
91 to 120 minutes	5%	5% (0.18)
More than 120 minutes	4%	3% (0.15)
Missing	1%	1% (0.09)

Source: BAH Adequacy Survey conducted by CNA.

Featured MHA residence description

There is considerable variation in residence characteristics across the featured MHAs. Table 18 shows the weighted survey means for residence description characteristics for the featured MHAs. The DC metro area has the highest concentration of BAH recipients who live outside of their duty station MHA and has the longest commutes, indicating that BAH recipients in the DC metro (DC053) choose housing that is farther from their duty station than BAH recipients in other MHAs. Fort Bliss (TX279)

has the lowest percentage of BAH recipients living off base, with nearly one-third of servicemembers choosing to live on base and two-thirds living off base. BAH recipients in Camp Lejeune (NC178) are the most likely to live in detached single-family homes, whereas those in Honolulu (HI408) and the Florida Keys (FL069) are least likely to live in single-family homes. The average bedrooms for BAH recipients is lowest in the Florida Keys (FL069) and San Diego (CA038).

Table 18. Featured MHA residence characteristics

Cost Bracket	MHA	MHA Name	Percent Same MHA	Percent Off Base	Percent Single-Family Homes	Mean Bedrooms	Mean Round-Trip Commute (Minutes)
Low cost	TX286	Fort Hood	95%	82%	63%	3.0	40.4
	NC178	Camp Lejeune	88%	89%	78%	3.0	49.6
	TX279	El Paso	95%	67%	68%	2.7	41.4
Medium cost	VA298	Norfolk/Portsmouth	89%	98%	57%	2.8	53.6
	NC182	Fort Bragg/Pope	89%	86%	67%	3.0	51.0
	CO046	Colorado Springs	95%	88%	63%	3.0	46.7
High cost	CA038	San Diego	91%	93%	30%	2.3	53.6
	DC053	Washington, DC, Metro Area	69%	93%	33%	2.6	67.0
	HI408	Honolulu County	97%	62%	25%	2.6	48.7
	FL069	Florida Keys	97%	77%	24%	2.0	30.4

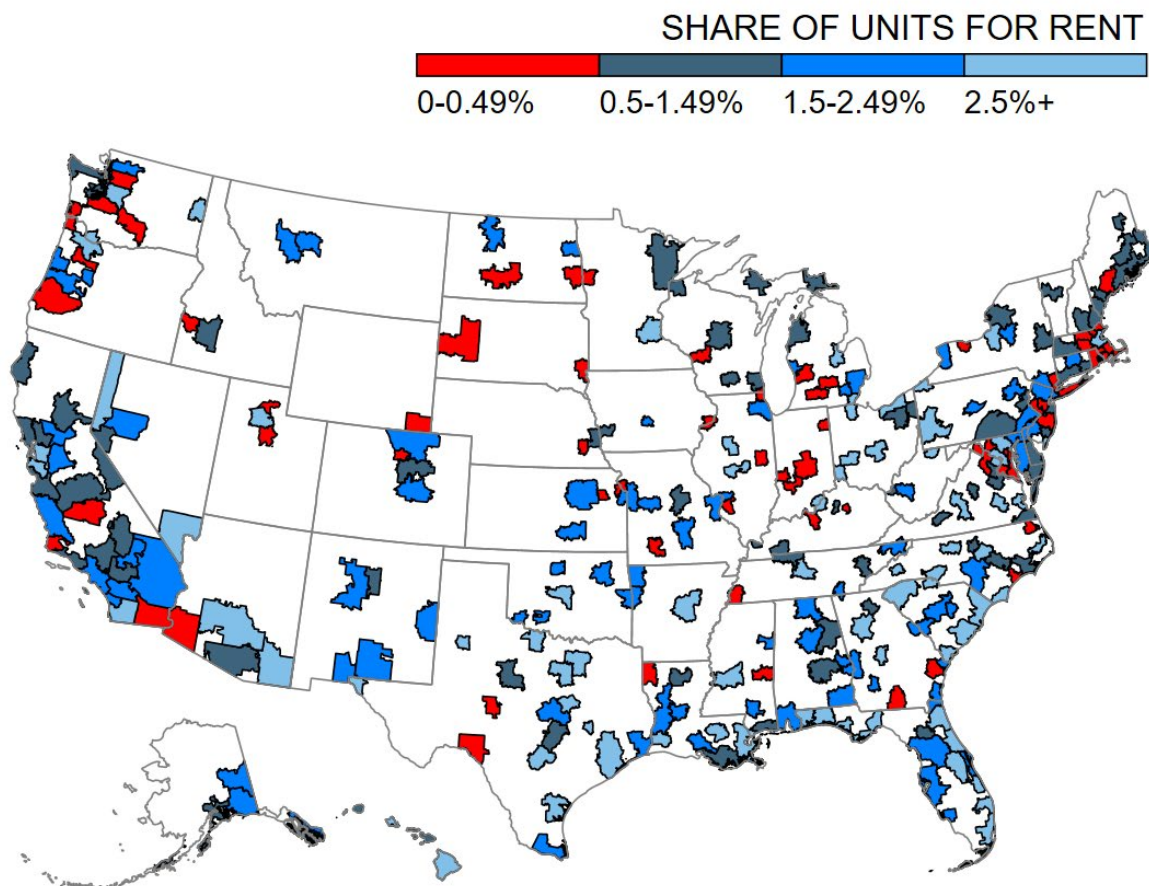
Source: BAH Adequacy Survey conducted by CNA.

MHA-level attributes: rental share, seasonality, and crime indexes

The ability to find suitable housing is one of many factors that may influence servicemember housing choices. Factors include both the availability and quality of on-base and off-base housing. In this section, we examine three factors that could influence housing stock and quality: rental availability, seasonality, and crime.

We first examine the available stock of rental units using 2018–2022 ACS data. When servicemembers seek housing, the availability of units for rent may influence the decision to live on or off base, the decision to rent or own, and even the costs of available units (costs may be inflated when supply is limited). Rental availability is measured as the total number of vacant units for rent divided by the total number of housing units in an MHA. Full details on how these attributes were mapped are available in Appendix E. Figure 8 displays the geographic distribution of rental availability of MHAs broken into four quantiles.

Figure 8. Housing availability: MHAs with low rental availability



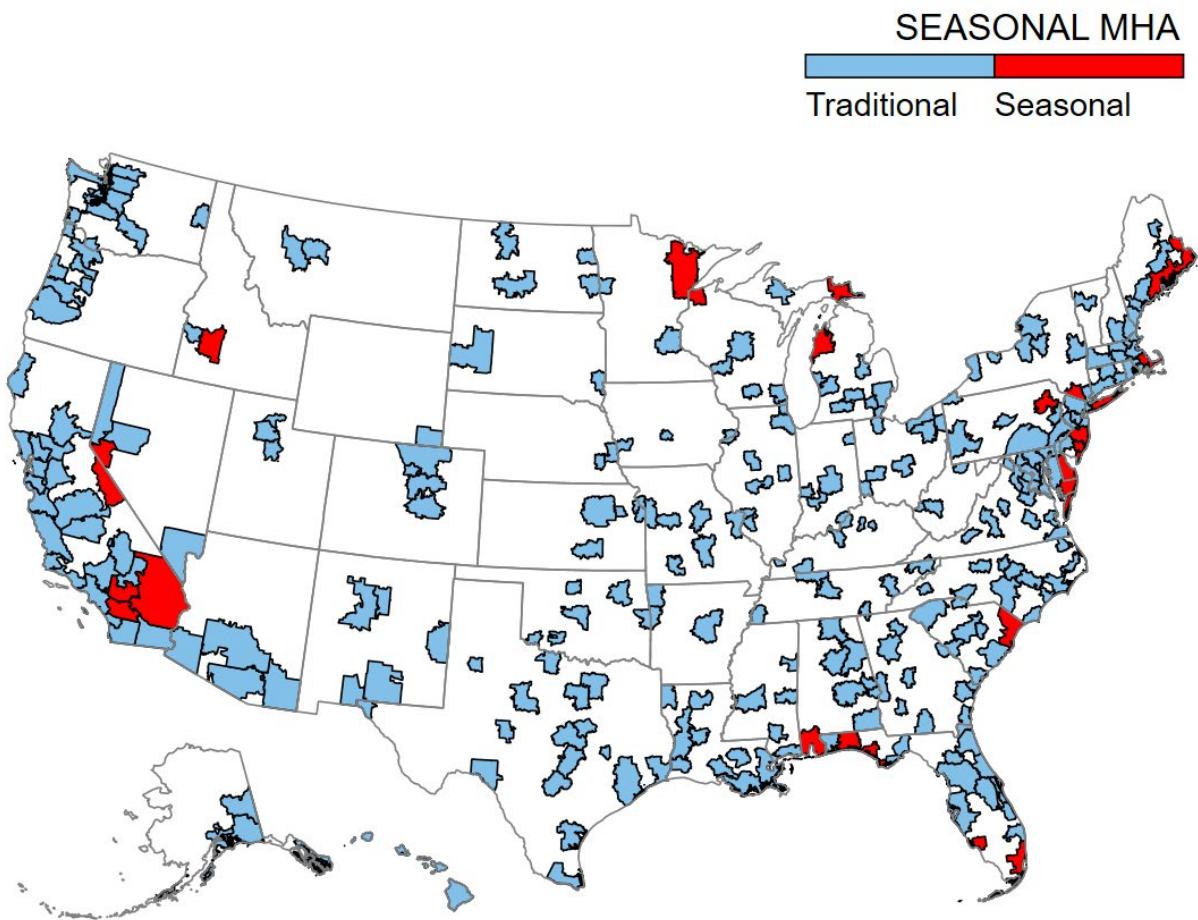
Source: CNA using 2018–2022 ACS data.

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We next identify MHAs in seasonal areas using 2018–2022 ACS data. Finding housing in areas with seasonal tourism may be difficult, particularly if the permanent change of station cycle aligns with peak tourism season. Seasonal MHAs are identified as having at least one public use micro area (PUMA)²³ where greater than 20 percent of housing stock is seasonal properties—vacant properties that are held

for recreational, occasional, or seasonal use (e.g., vacation homes, cabins, timeshares) [33]. Figure 9 shows where seasonal MHAs are distributed. Examples of seasonal MHAs include those that overlap with vacation areas such as the Florida Keys, Martha’s Vineyard, and Palm Springs. The full list of seasonal MHAs is included in Appendix F.

Figure 9. Rental availability: seasonal MHAs



Source: CNA using 2018–2022 ACS data.

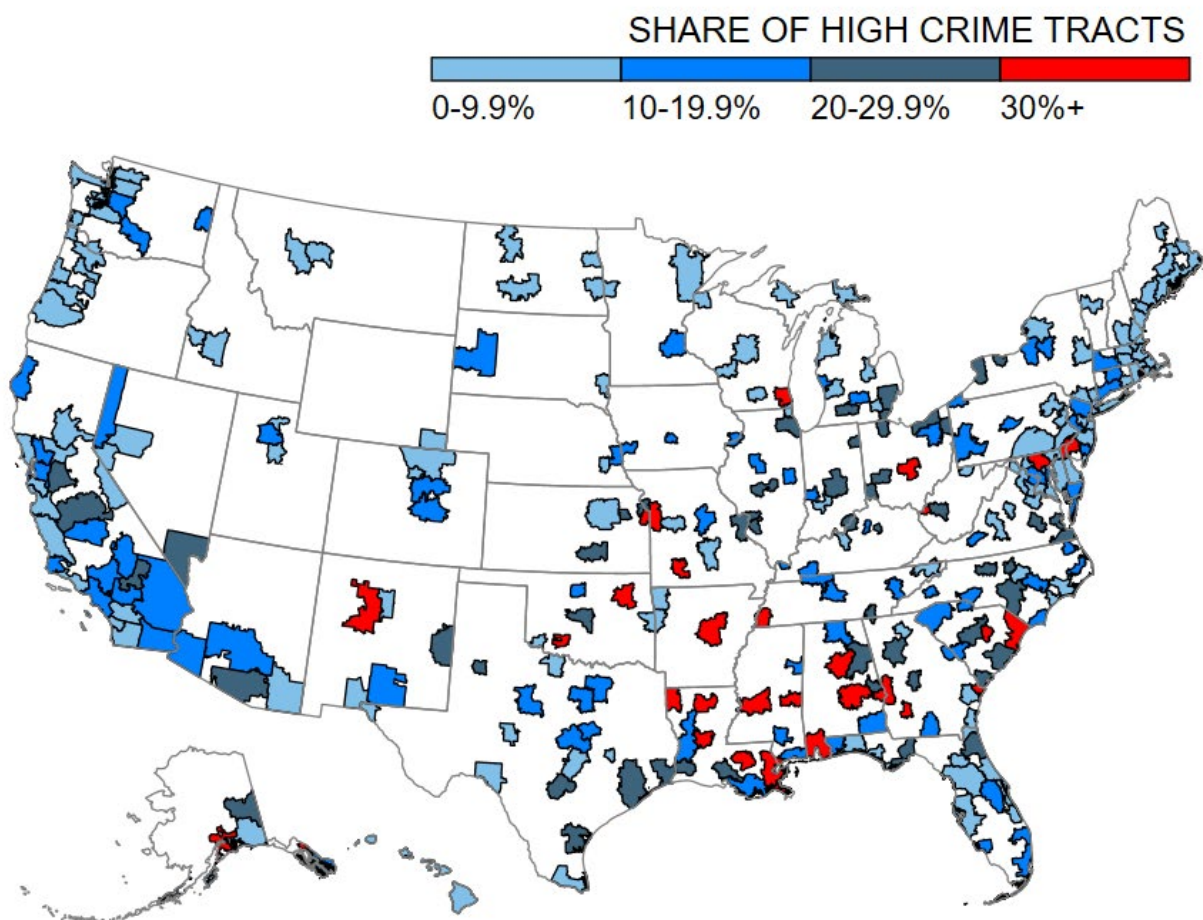
²³ PUMAs are geographical regions created by the US Census Bureau, each of which contains a minimum of 100,000 people. PUMAs are the smallest geographic unit for which ACS individual public use microdata samples can be aggregated. The 2020 census has 2,487 PUMAs.

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Finally, we examine MHA-level crime rates. Housing located in high-crime census tracts is excluded from BAH calculations because high-crime neighborhoods are deemed unsuitable for servicemembers. Although servicemembers are not prevented from living in these neighborhoods, areas with high crime may influence housing costs and decisions. We use the same approach to identify high-crime tracts that

Robert D. Niehaus, Inc. uses when excluding high-crime tracts from BAH sampling [34]. We use the 2022 CrimeRisk data²⁴ and create a weighted crime index based on the average sentence length.²⁵ High-crime tracts are those that have a weighted crime index that is greater than or equal to twice the national average. In Figure 10, we present the share of high-crime census tracts within each MHA.

Figure 10. MHAs by share of high-crime tracts



Source: CNA using 2022 CrimeRisk data.

²⁴ CrimeRisk data are based on the Federal Bureau of Investigation's Uniform Crime Report data and created by Applied Geographic Solutions.

²⁵ The index weights the following types of crimes: property crimes, murder, burglary, larceny, assault, rape, motor vehicle theft, and robbery. Sentence lengths are based on a 2018 report from the US Department of Justice [35].

Featured MHA housing availability

Table 19 presents the housing availability measures for our featured MHAs. In addition to the 10 featured MHAs, we include the 5 MHAs with the highest crime index and lowest share of rentable units.

Table 19. Availability measures: crime index, rent share, and seasonality for featured MHAs

MHA Group	MHA	MHA Name	Crime Index ^a	Rent Share ^b	Seasonal (Y/N)
Low cost	TX286	Fort Hood	17.1	2.5	N
	NC178	Camp Lejeune	18.5	3.0	N
	TX279	El Paso	2.1	2.6	N
Medium cost	VA298	Norfolk/Portsmouth	20.5	1.4	N
	NC182	Fort Bragg/Pope	21.3	2.3	N
	CO046	Colorado Springs	13.8	2.1	N
High cost	CA038	San Diego	2.7	2.5	N
	DC053	Washington, DC, Metro Area	17.4	2.7	N
	HI408	Honolulu County	1.2	2.7	N
	FL069	Florida Keys	0.0	4.2	Y
High crime	TN268	Memphis	57.3	—	N
	LA116	New Orleans	52.0	—	N
	GA072	Albany	45.9	—	N
	AL005	Montgomery	40.9	—	N
	GA075	Fort Benning	40.7	—	N
Low rent share	AZ016	Yuma	—	0.1	N
	TX278	Laughlin Air Force Base/Del Rio	—	0.2	N
	NJ204	Joint Base McGuire-Dix-Lakehurst	—	0.3	N
	GA080	Fort Stewart	—	0.3	N
	MA119	Nantucket	—	0.3	Y

Source: CNA using 2022 CrimeRisk data and 2018–2022 ACS data.

^a Listed as percent of tracts.

^b Listed as percent of units.

This concludes our description of the 50,255 BAH Adequacy Survey respondents and their homes.

Survey Results

As we discuss our survey results, we begin by providing nationwide results. We then present results for our 10 featured MHAs. In this section, we answer each of our research questions in turn. Before we address what members are paying for housing, we first discuss two housing decisions that have considerable impact on cost: choosing to live on or off base and choosing to rent or purchase a home when living off base. When choosing to live on base, servicemembers' costs for lodging at their assigned housing profile are capped at BAH rates.

Choosing to live on or off base

Most BAH recipients (87 percent) live off base. Of those, most (63 percent) do not have an option to live on base, but only about 21 percent of those individuals indicated that they would live on base if it were an option. However, these choices may differ across MHAs with different local housing markets. In this section, we examine the decision of BAH recipients to live on base versus off base and the factors that influence this decision.

We begin by examining the top reason that individuals choose to live either on base or off base, aggregated to the MHA level in Table 20. Across MHAs, amenities were the number one reason that servicemembers choose to live on base (N=213, 95 percent of MHAs with more than 10 survey responses), followed by commute to duty station (N=9). On-base amenities may include the commissary or exchange, fitness centers, pools, and playgrounds. Recreational amenities on base are often cost-inclusive.

There is more variability in the top-ranked reason for living off base. The most common reason for choosing to live off base was quality of on-base housing (N=103). Access to amenities, such as private or controlled access to pools, fitness centers, and community resources that are not available on base, was the second most common MHA-level reason for living off base (N=39), with privacy being the third most common reason (N=25). Other top factors include commute to duty station (N=13) and access to shopping, restaurants, and entertainment (N=13). Access to amenities and commute to duty station

Table 20. MHA-level top reason selected for living on and off base

Location	Top-Ranked Reason Among MHA to Live On/Off Base	Number of MHAs	Share of MHAs
On base	1. Access to amenities	213	95%
	2. Commute to duty station	9	4%
	3. Perceived personal safety	1	<1%
	4. Access to child care	1	<1%
Off base	1. Quality of on-base housing	103	46%
	2. Access to amenities	39	17%
	3. Privacy	25	11%
	4. Commute to duty station	13	6%
	5. Access to shopping, restaurants, and entertainment	13	6%

Source: BAH Adequacy Survey conducted by CNA.

Note: Only MHAs with 10 or more responses are included.

appear as top MHA-level factors for choosing to live both on and off base, but overall, most respondents who choose these factors live on base. The MHAs where access to amenities was chosen as a reason to live off base are small installations where fewer on-base amenities may be available. The MHAs where commute to duty station was chosen as a reason to live off base are in urban areas where on-base housing may not be conveniently located to the servicemembers' work location.

We next examined the individual-level factors that contribute to the decision to live on or off base using regression analysis. We restricted the sample to those who had a choice to live on or off base, and factors included individual attributes, MHA-level attributes, and the individual preferences that respondents ranked as most important to them.²⁶ The results are presented in Figure 11. Attributes are sorted based on effect size: factors that make a servicemember more likely to live on base are coded in green, and those that make a servicemember less likely to do so are coded in red. Results are presented as ORs, meaning that the coefficient represents how many times more likely an individual with a given attribute is to live on base than an individual without that attribute.

BAH recipients who selected access to medical care as a reason for living on base were nearly 21 times more likely to live on base than those who did not. This result likely reflects a niche population of individuals with specific medical needs, such as those in the EFMP who may receive priority for appropriate on-base housing. This did not appear as a top reason at the MHA level (Table 20) for any

MHA. Selecting access to amenities as a reason also was a major predictor of living on base; those who made this choice were more than 20 times more likely to live on base. Access to on-base amenities likely influences many individuals because it was the primary MHA-level reason for living on base.

On the opposite spectrum, valuing privacy and perceptions about the quality of on-base housing were the strongest predictors for living off base. They represent a prominent share of the population, as these are two of the top three MHA-level factors for choosing to live off base. Cost and access to shopping, restaurants, and entertainment also were strong predictors of living off base. Although data limitations prevent us from examining empirically the quantity and quality of on-base housing, the last two iterations of the MFSP Survey have found that lack of availability and poor on-base housing conditions are two of the top three reasons²⁷ that respondents choose to live off base [5].

Reasons for choosing to live on or off base at the featured MHAs

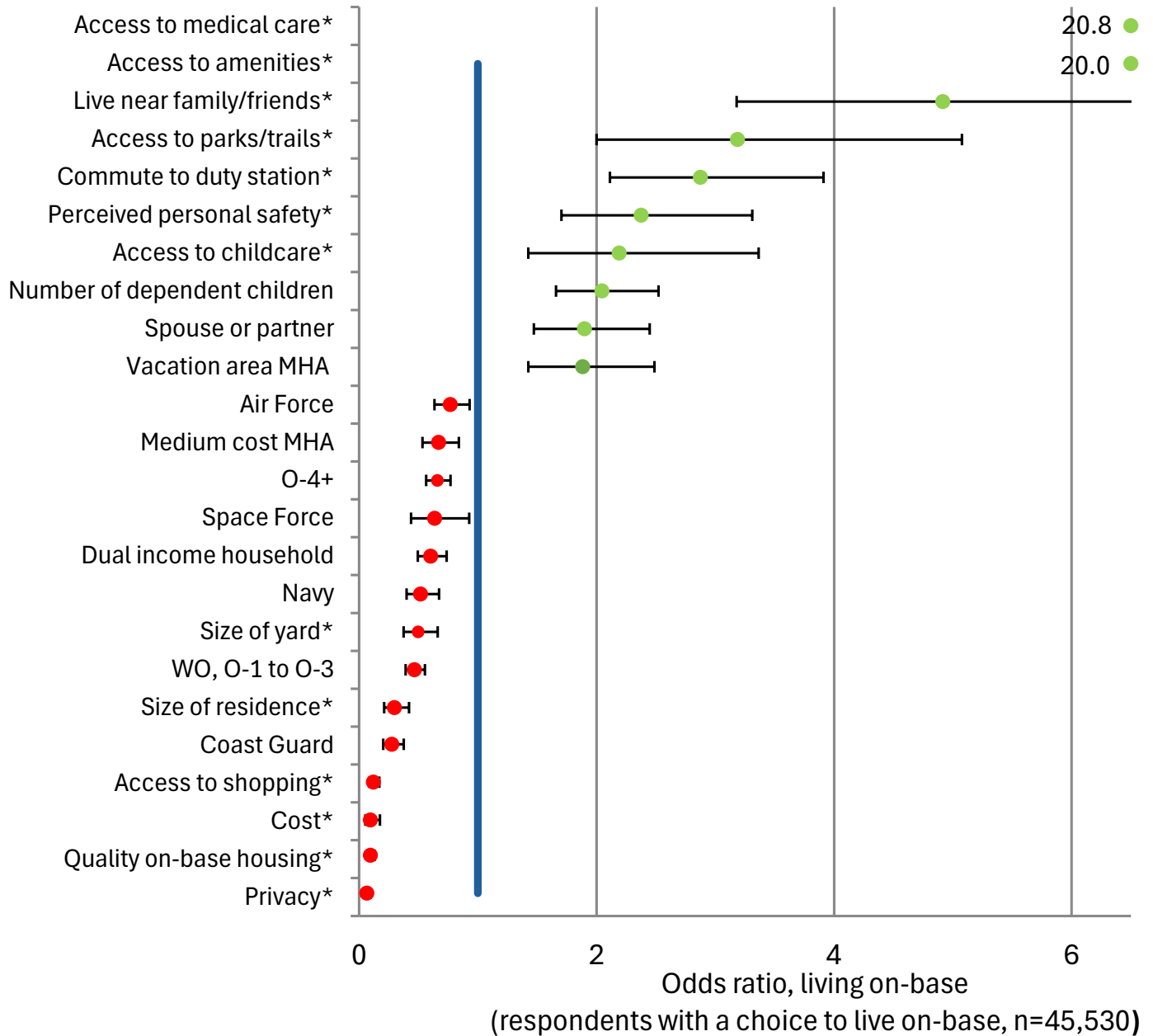
Figure 12 displays the share of respondents in featured MHAs who selected on-base housing quality as one of their top reasons for living off base and the share who selected amenities as one of their top reasons for living on base. Respondents at Fort Bragg (NC182) were more likely to choose safety (47 percent) and commute (43 percent) as reasons for living on base than amenities.

²⁶ Respondents were asked to rank order their top five reasons for choosing to live on or off base from a provided list.

²⁷ The third reason that MFSP respondents choose to live off base is a preference for homeownership.

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Figure 11. Factors influencing on-base versus off-base housing choice



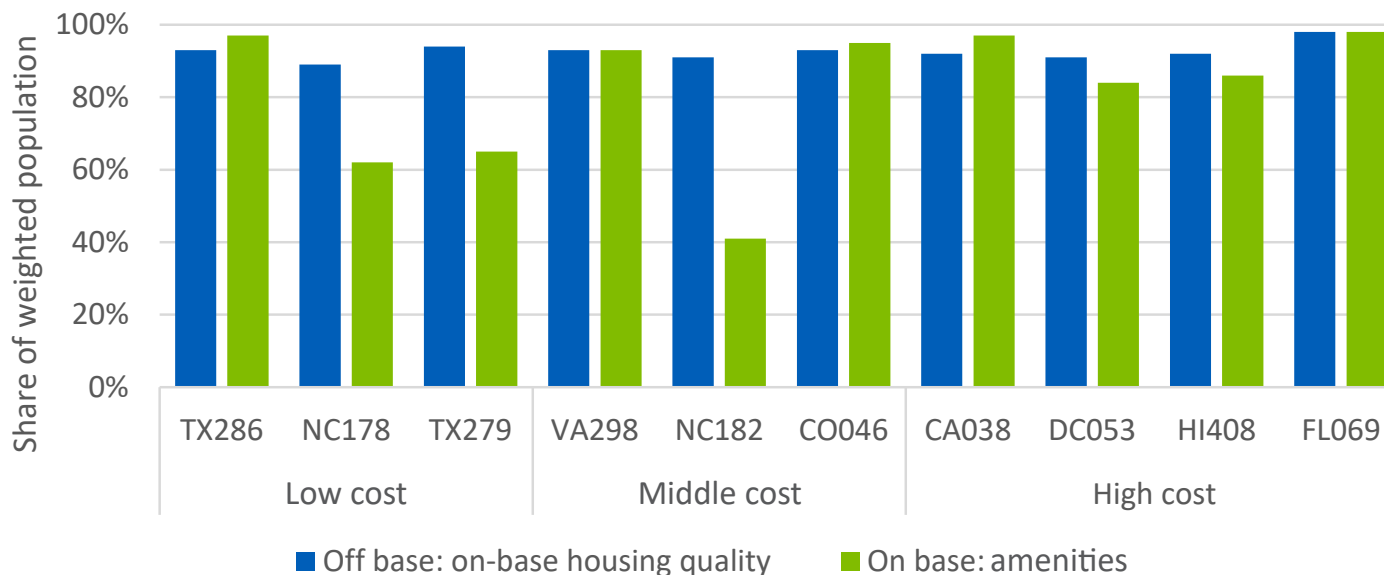
Source: CNA using BAH Adequacy Survey and ACS data.

* = Top 5 factor from survey.

Note: Insignificant factors not displayed in the figure include serving in Marine Corps, living in high-cost MHAs or unspecified MHAs, rank group of E-1 to E-4 or E-7 to E-9, MHA crime share, MHA rentable housing share, and ranking as a top factor desirable parking, spouse or partner commute, or schools.

Reference groups include serving in Army, rank group E-5 to E-6, and living in a low-cost MHA.

Figure 12. Featured MHAs: most frequently cited reason to live on base or off base



Source: BAH Adequacy Survey conducted by CNA.

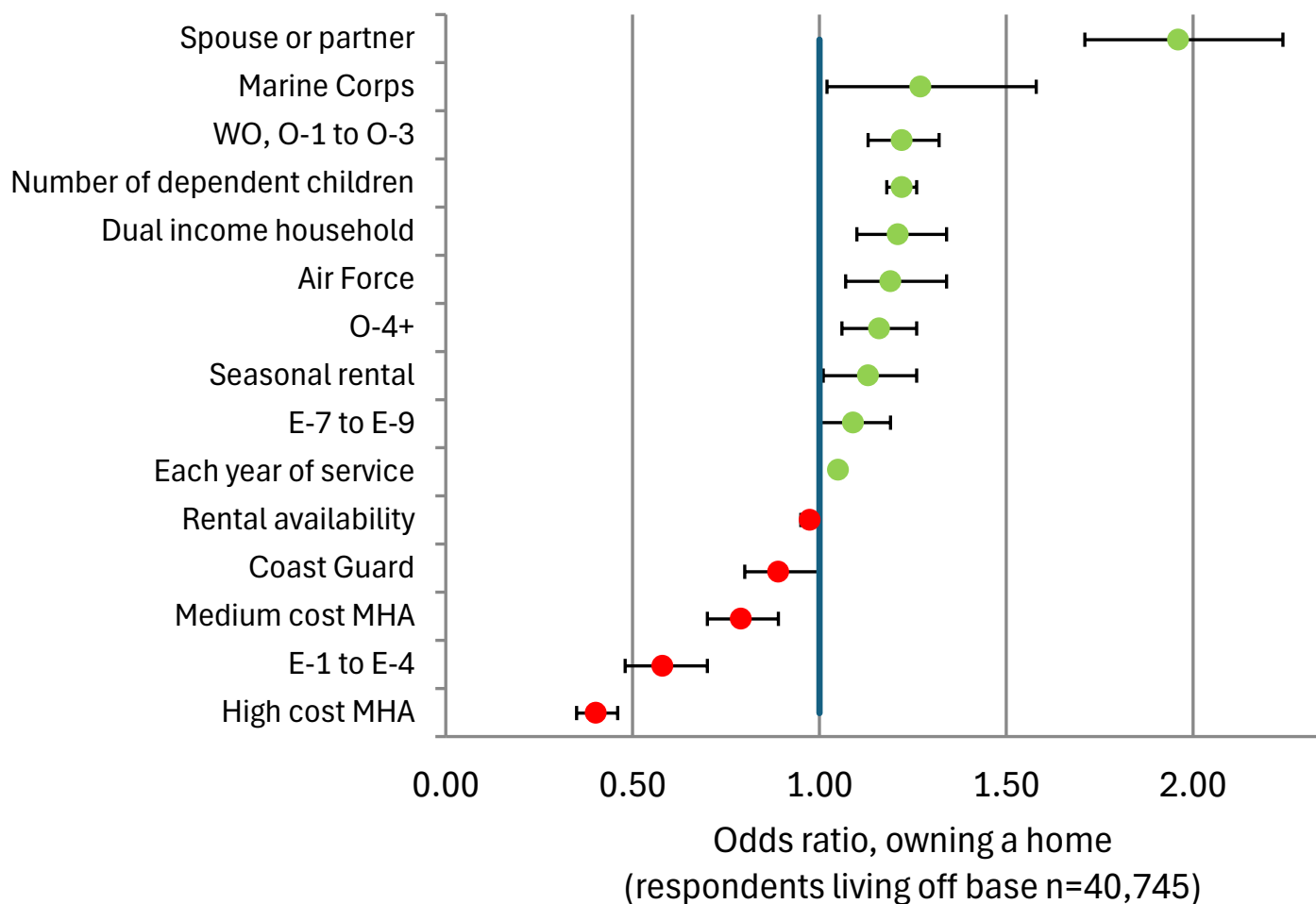
Are servicemembers renting or purchasing homes?

After deciding to live off base, because of either preference or a lack of available on-base housing, servicemembers must decide whether to rent or purchase a home. BAH has historically been designed to provide adequate rental housing and makes no provision for homeownership. However, there are benefits for servicemembers for buying homes through the Department of Veterans Affairs (VA) and the Servicemember Civil Relief Act. VA-backed mortgages allow financing 100 percent of a home’s value without private mortgage insurance and may have better rates than conventional mortgages. The Servicemember Civil Relief Act caps rates for home loans at 6 percent during time in service (and for one year after service). Although opportunity to build equity was not a significant factor in choosing to live off base, some servicemembers do see homeownership as an opportunity to build equity.

They may desire to return to the community around a duty station upon completion of their service, or they may be unable to find a suitable rental for their family and choose to purchase a home instead of finding temporary housing while waiting for a rental to become available.

We observed that 48 percent of BAH recipients living off base are homeowners. We examined the individual-level factors that contribute to the decision to purchase a home using a regression analysis. We restricted the sample for the regression to those who live off base. Factors in the regression included both individual attributes and MHA-level attributes. Some factors may be related to servicemembers’ desire to purchase a home (such as family size), whereas others may be related to servicemembers’ ability to purchase a home (living in a dual-income home). The results are presented in Figure 13. As in Figure 11, attributes are sorted and colored based on effect size and presented as ORs.

Figure 13. Factors in homeownership



Source: BAH Adequacy Survey conducted by CNA.

Note: Insignificant factors not displayed in the figure include serving in Navy or Space Force and MHA crime share. Reference groups include serving in Army, rank group E-5 to E-6, and living in a low-cost MHA.

Having a spouse or partner was the largest factor in homeownership, with those having a spouse or partner nearly twice (OR 1.96) as likely to own a home than those without a spouse or partner. Other factors that increase the odds of homeownership (shown in green) are being an officer, number of dependent children, serving in the Air Force or Marine Corps, having a dual-income household, and number of completed years of active duty

service. Factors decreasing the likelihood of owning a home are living in medium- or high-cost MHAs, serving in the Coast Guard, and being junior enlisted personnel. As rental availability in MHAs increases, the odds of homeownership decrease, but the effect is small, indicating that rental availability may be less of a factor in the decision to purchase a home than family demographics or household income.

Homeownership at the featured MHAs

Homeownership across the featured MHAs is presented in Table 21 and ranges from a low of 15 percent in Key West to a high of 72 percent at Camp Lejeune. In general, homeownership is lower in the high-cost MHAs than it is in the low- and medium-cost MHAs. Of the five MHAs with the lowest percentage of homeownership, two of them are high-cost MHAs (CA039, FL069), with only

Bloomington, Indiana (IN399) being a low-cost MHA. Two of the five MHAs with the highest percentage of homeownership are low-cost MHAs (KY110, LA115), with the remainder being medium-cost MHAs.

The decision to rent or purchase a home has a considerable impact on overall housing costs. In the next section, we provide details on how much BAH recipients are spending on housing and utilities. We present these costs separately for renters and owners.

Table 21. Featured MHA homeownership

MHA Group	MHA	MHA Name	Ownership Percent (SE)
Low cost	TX286	Fort Hood	56% (5.83)
	NC178	Camp Lejeune	72% (3.55)
	TX279	El Paso	50% (8.02)
Medium cost	VA298	Norfolk/Portsmouth	53% (3.21)
	NC182	Fort Bragg/Pope	58% (4.67)
	CO046	Colorado Springs	49% (4.13)
High cost	CA038	San Diego	33% (2.37)
	DC053	Washington, DC, Metro Area	37% (2.06)
	HI408	Honolulu County	29% (2.71)
	FL069 ^a	Florida Keys	15% (3.41)
Low homeownership	NC176	Outer Banks	3% (3.20)
	CA039	Monterey	6% (2.23)
	CA042	Humboldt County	11% (4.06)
	IN399	Bloomington	12% (7.97)
High homeownership	KY110	Fort Knox	80% (15.27)
	OH228	Cincinnati	80% (9.48)
	AL003	Huntsville	77% (3.87)
	OH232	Toledo	76% (12.24)
	LA115	Fort Polk	72% (7.73)

Source: BAH Adequacy Survey conducted by CNA.

^a Florida Keys has the fifth-lowest percentage of homeownership.

Note: To be included as low or high homeownership, an MHA had to have more than 10 survey responses.

What are servicemembers paying for housing and utilities?











The BAH Adequacy Survey asked respondents to provide costs for a variety of housing- and utility-related expenses. Because these expenses can be paid on a variety of schedules, we standardized costs to monthly rates for comparisons to civilian and BAH rates. Costs presented in this section are only for servicemembers living off base.

Monthly costs

Survey respondents provided a billing interval and a cost for mortgage values, water and sewer, and

homeowners' association (HOA) fees. We used the provided interval and cost to calculate a monthly average. Survey respondents reported monthly electricity and gas values for the most recent month (March to May 2025). We used state-level monthly gas and electricity consumption estimates from the 2020 Residential Energy Consumption Survey (RECS) [36] to account for seasonality in translating the most recent month's cost into a projected yearly cost. We then divided the cost by 12 to arrive at a monthly average. Table 22 shows how we adjusted reported utility costs to arrive at monthly utility costs. Costs above the black line are those included in BAH calculations.

Table 22. Calculating monthly household costs

Household Cost	Included in BAH?	Interval Reported	Adjustment
 Rent	Yes	Monthly	None
 Mortgage	Yes	Monthly or biweekly	Monthly average for biweekly payments
 Electricity	Yes	Most recent month	RECS adjustment to yearly value, monthly average
 Gas	Yes	Most recent month	RECS adjustment to yearly value, monthly average
 Heating fuel	Yes	Yearly	Monthly average
 Water and sewer	Yes	Varying	Monthly average
 Media	No	Monthly	None
 HOA	No	Varying	Monthly average
 Renter's insurance	No	Yearly	Monthly average
 Homeowners' insurances	No	Yearly	Monthly average

Source: CNA.

Housing

The primary driver for monthly housing expenses is rent or mortgage fees, making up 87 percent of monthly costs on average. We included only the rental costs for the 88 percent of renters (n=16,888) and 89 percent of homeowners (n=22,008) who were able to report the full cost of their rent and mortgage fees rather than just the portion of the rent or mortgage that they were responsible for

paying. If a respondent indicated that they were able to provide only a partial amount of their mortgage, we assumed that they had a nonstandard living situation that is not in line with BAH standards, such as living with roommates or renting a single room. The costs provided in Table 23 are by type of housing and calculated independent of servicemembers' BAH profiles.

Table 23. Rent and mortgage costs by residence type

Residence Type	Rent/ Own	Respondents	Mean	Median	Max Value
 1-bedroom apartment/ condo	Rent	3,218	\$1,194	\$1,400	\$5,500
	Own	71	\$2,081	\$2,200	\$5,750
 2-bedroom apartment/ condo	Rent	3,595	\$1,563	\$1,674	\$8,000
	Own	198	\$2,454	\$2,313	\$9,032
 2-bedroom townhome	Rent	1,169	\$1,652	\$1,700	\$6,500
	Own	312	\$2,311	\$2,209	\$7,100
 3-bedroom townhome	Rent	1,118	\$2,219	\$2,328	\$6,550
	Own	761	\$2,559	\$2,500	\$12,905
 3-bedroom single-family home	Rent	3,328	\$2,161	\$2,200	\$9,300
	Own	9,355	\$2,285	\$2,200	\$11,267
 4-bedroom single-family home	Rent	2,004	\$2,695	\$2,600	\$7,899
	Own	7,655	\$2,605	\$2,500	\$11,500

Source: BAH Adequacy Survey conducted by CNA.

Utilities

For most survey respondents, electricity was the most expensive utility, with monthly costs ranging from \$170 for a one-bedroom apartment to \$311 for a four-bedroom single-family home (see Table 24). Fewer respondents reported gas and heating fuel costs because these utilities are charged only if the respondent has either a gas or propane stove or heating system in their home. In addition, some rental units may have utilities included in the rental fees.

Table 24. Mean monthly utility costs by housing profile

Residence Type	Electric (n=32,445)	Gas (n=18,775)	Water and Sewer (n=29,024)	Heating Fuel (n=5,551)
1-bedroom apartment/condo	\$170	\$62	\$58	\$54
2-bedroom apartment/condo	\$198	\$65	\$68	\$62
2-bedroom townhome	\$233	\$75	\$89	\$63
3-bedroom townhome	\$236	\$86	\$84	\$69
3-bedroom single-family home	\$280	\$98	\$91	\$100
4-bedroom single-family home	\$311	\$97	\$106	\$101

Source: BAH Adequacy Survey conducted by CNA.

Costs not included in BAH

In addition to costs for rent or mortgages and the basic utilities included in BAH, servicemembers pay other housing expenses not accounted for in BAH. Renter's insurance may be required by some leasing agencies or may be purchased willingly by renters. Property insurances, including a basic homeowners' policy and flood and earthquake insurance, are likely included in mortgage payments, so they are not included here as additional costs. Renters and homeowners alike may pay HOA fees for living in communities and fees for the use of cable television, streaming services, internet access, and landline or mobile telephones. Monthly costs by residence type for these expenses are shown in Table 25. Although these costs are not part of the BAH calculation, they may be part of what servicemembers consider their housing costs.

Table 25. Other relevant costs not included in BAH by residence type

Residence Type	Renter's Insurance (n=12,273)	HOA Fees (n=9,165)	Media ^a (n=36,464)	Pet Rent (n=6,080)
1-bedroom apartment/condo	\$23	\$124	\$153	\$76
2-bedroom apartment/condo	\$29	\$237	\$173	\$71
2-bedroom townhome	\$22	\$208	\$181	\$112
3-bedroom townhome	\$25	\$173	\$216	\$113
3-bedroom single-family home	\$31	\$64	\$202	\$80
4-bedroom single-family home	\$34	\$57	\$220	\$83

Source: BAH Adequacy Survey conducted by CNA.

^a Includes cable television, basic streaming services, internet, landline telephones, and mobile telephones, including data service.

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There are other incidental household costs that servicemembers may include in their assessment of BAH adequacy that were not included in this survey. If the survey is executed again, adding questions to capture costs for parking, commuting, and garbage removal service would provide a more holistic view of servicemember costs.

Overall costs

The total of costs spent on rent or mortgage payments, BAH-included utilities, and non-

BAH-included utilities is likely the amount that servicemembers consider when asked about their housing expenses. Overall monthly housing costs for owners and renters by residence type are provided in Table 26. The additional costs for non-BAH-included expenses ranged from \$181 per month for a one-bedroom apartment renter to \$469 a month for a two-bedroom condo owner and represented an increase between 7 and 15 percent over BAH-covered housing costs.

Table 26. Overall monthly housing costs

Residence Type	Rent/ Own	Respondents	Monthly Costs Included in BAH Calculation ^a	Monthly Costs Not Included in BAH Calculation ^b	Percent Not Included in BAH Calculation
 1-bedroom apartment/ condo	Rent	2,986	\$1,353	\$181	12%
	Own	67	\$2,284	\$395	15%
 2-bedroom apartment/ condo	Rent	3,098	\$1,725	\$196	10%
	Own	176	\$2,840	\$469	14%
 2-bedroom townhome	Rent	1,009	\$1,857	\$234	11%
	Own	279	\$2,702	\$318	11%
 3-bedroom townhome	Rent	906	\$2,493	\$230	8%
	Own	663	\$2,906	\$304	9%
 3-bedroom single-family home	Rent	2,819	\$2,568	\$245	9%
	Own	8,119	\$2,694	\$209	7%
 4-bedroom single-family home	Rent	1,692	\$3,154	\$261	8%
	Own	6,705	\$3,060	\$232	7%

Source: BAH Adequacy Survey conducted by CNA.

^a Monthly costs included in BAH calculation include mortgage/rent, electricity, gas, heating fuel, and water and sewer.

^b Monthly costs not included in BAH calculation include HOA fees, rental and homeowners' insurances, media, and pet rent.

Monthly costs for the featured MHAs

Table 27 presents the BAH-included housing costs for our featured MHAs for both renters and owners. Reviewing the overall costs by residence type reveals that costs do not always increase as housing profiles grow. For instance, two-bedroom townhomes (THs) are cheaper than two-bedroom apartments (apts) in Camp Lejeune, and three-bedroom single-family homes (SFHs) are cheaper than three-bedroom THs

in El Paso and the DC metro area. The incongruity in costs may reflect more market availability, less preferred locations farther from transit or entertainment, or older, lower quality offerings for the lower cost housing profile.

Monthly housing costs in each MHA vary by housing type; therefore, we do not include the five most expensive or five least expensive MHAs.

Table 27. Monthly housing costs for featured MHAs

Cost Bracket	MHA	MHA Name	1-Bed Apt	2-Bed Apt	2-Bed TH	3-Bed TH	3-Bed SFH	4-Bed SFH
Low cost	TX286	Fort Hood	\$1,410	\$1,614	\$1,651	\$1,848	\$2,148	\$2,616
	NC178	Camp Lejeune	\$1,846	\$1,595	\$1,392	\$2,027	\$2,241	\$2,223
	TX279	El Paso	\$1,403	\$1,662	\$1,872	\$2,660	\$2,383	\$2,778
Medium cost	VA298	Norfolk/Portsmouth	\$1,894	\$2,343	\$2,450	\$2,782	\$2,812	\$3,374
	NC182	Fort Bragg/Pope	\$1,657	\$1,832	\$2,012	\$2,597	\$2,325	\$2,828
	CO046	Colorado Springs	\$1,993	\$2,191	\$2,351	\$2,877	\$2,993	\$3,761
High cost	CA038	San Diego	\$3,251	\$3,904	\$3,942	\$4,271	\$5,329	\$6,326
	DC053	Washington, DC, Metro Area	\$2,519	\$3,306	\$3,528	\$4,401	\$4,378	\$4,788
	HI408	Honolulu County	\$2,879	\$3,327	\$3,238	\$4,174	\$4,990	\$5,925
	FL069	Florida Keys	\$3,009	\$3,527	\$3,733	\$4,256	\$5,102	NA










Source: BAH Adequacy Survey conducted by CNA.

Comparison to BAH rates

We compared the cost of renting anchor point housing with and without dependents to BAH rates and comparable civilian costs. The BAH rates in Table 28 include the 5 percent cost share that servicemembers are expected to absorb out of their base pay.²⁸ Costs include rent, electricity, gas, heating fuel, and water

and sewer. Costs for homeowners and those renting on-base housing are excluded. A negative number means that servicemembers renting that housing profile with that dependent status spend more than the BAH rate for that housing profile and dependent status. For most anchor point housing profiles, BAH rates are sufficient to cover rental costs.

Table 28. Rental costs compared to BAH rates

Housing Profile	Dependents	BAH Rate ^a	Military Rental Cost	Mean Differential (BAH–Cost)	Percent Difference
 1-bedroom apt	No	\$1,886	\$2,005	–\$119***	–7%
 2-bedroom apt	No	\$2,107	\$2,115	–\$8	–<1%
 2-bedroom TH	No	\$2,407	\$2,160	\$246***	10%
 2-bedroom TH	Yes	\$2,677	\$2,602	\$75	10%
 3-bedroom TH	No	\$2,719	\$2,303	\$416***	15%
 3-bedroom TH	Yes	\$2,859	\$2,845	\$14	<1%
 3-bedroom SFH	No	\$2,762	\$2,411	\$351***	13%
 3-bedroom SFH	Yes	\$2,885	\$2,815	\$70***	3%
 4-bedroom SFH	Yes	\$3,460	\$3,281	\$179***	5%

Source: CNA-generated using the BAH Adequacy Survey and 2023 ACS data.

^a BAH rate without 5 percent cost share deducted.

Note: The asterisks in the table indicate the different levels of statistical significance. *** Differential is statistically significantly different from zero at $p < .001$. When a p-value is less than 0.001 from a t-test, it means that there is a less than 0.1 percent probability that the observed results occurred by random chance.

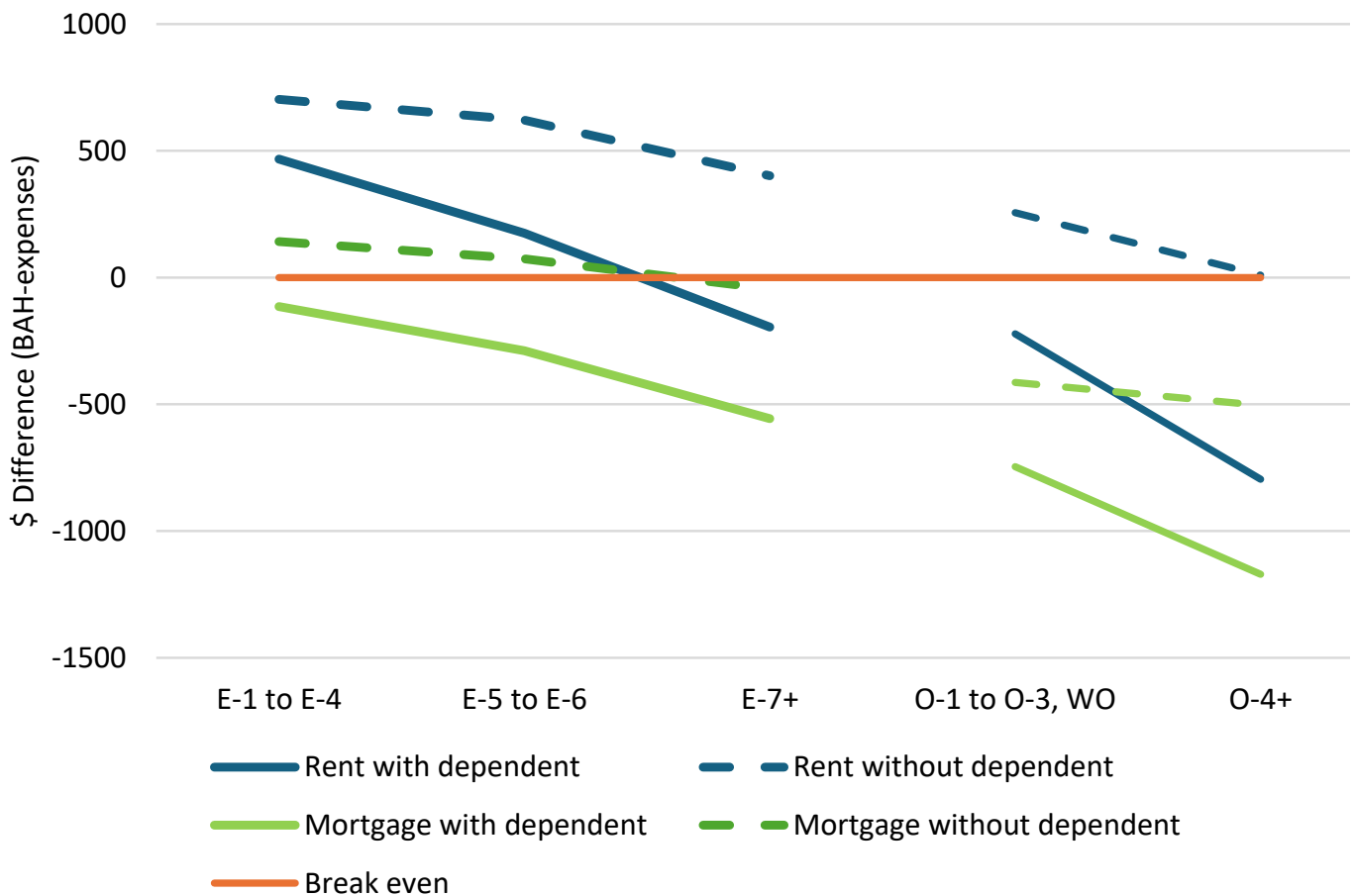
²⁸ That is, they are higher than the BAH that servicemembers receive.

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Because we have not limited the cost data to servicemembers living in their assigned housing profile, some may use their BAH to rent higher quality housing in a smaller housing profile or vice versa. Of those renting one-bedroom apartments, 35 percent are living below their BAH standard, whereas 84 percent of those renting four-bedroom single-family homes are living above their BAH standard. Overall, we found that 49 percent of BAH recipients are overspending their BAH rate by 5 percent or more, 13 percent are spending within 5 percent of their BAH rate, and 38 percent are underspending their BAH rate by 5 percent or more.

Next, we compared servicemembers' housing costs to their BAH rates, regardless of the housing type that they choose (Figure 14). We provide comparisons by rank group, dependent status, and homeownership status. The orange line at zero on the y-axis indicates the breakeven point where monthly housing costs and BAH rates are equal. Across all rank groups, renters without dependents spend less than their BAH on housing, whereas homeowners with dependents spend more than their BAH on housing. For all dependency and home ownership statuses, the differential between BAH and monthly costs increases as rank increases, indicating that housing costs outpace BAH as rank increases.

Figure 14. Differential of BAH and housing costs by rank group, dependent status, and homeownership status



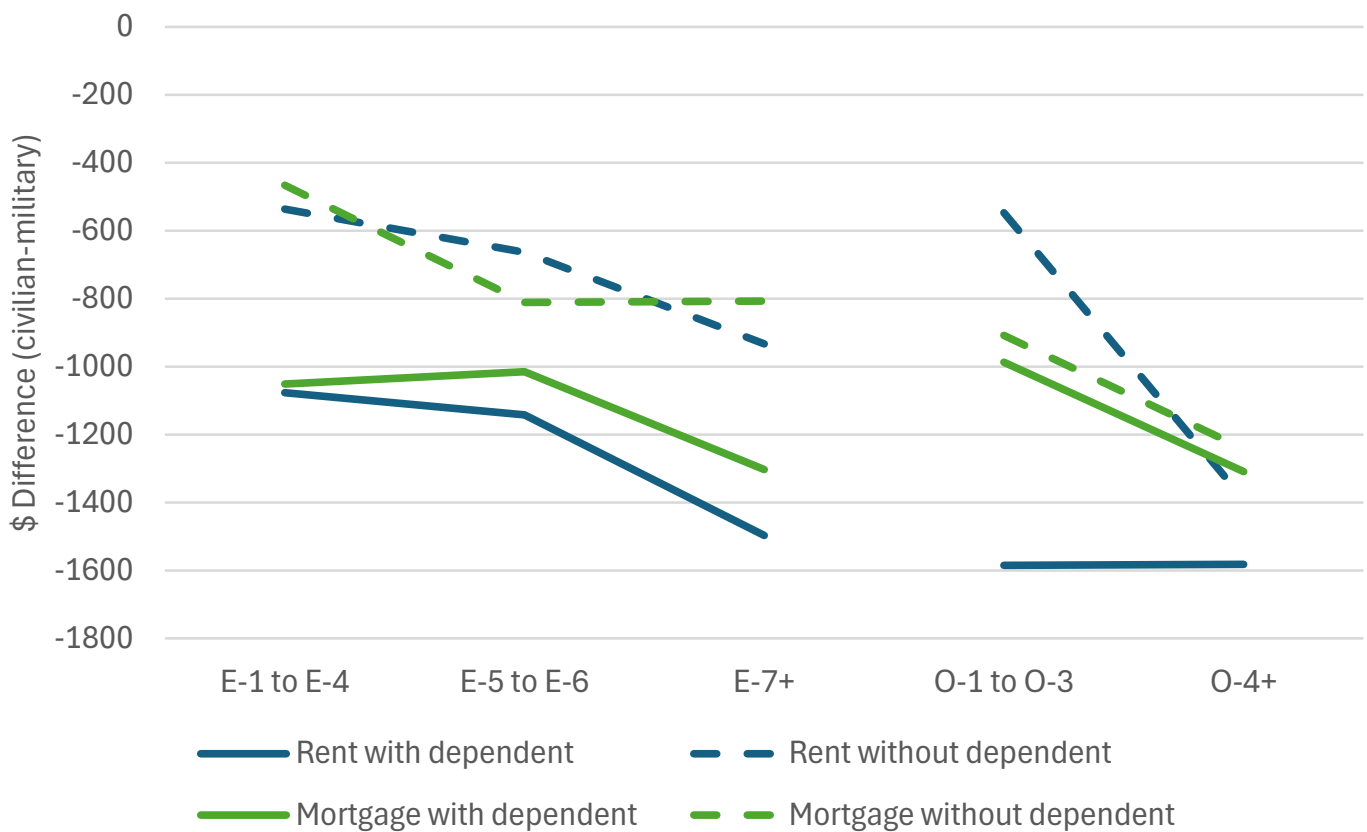
Source: BAH Adequacy Survey conducted by CNA.

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In Figure 15, we present a similar graph but replace BAH rates with comparable civilian housing costs. For this comparison, civilians were assigned a hypothetical rank based on their education and age²⁹ and a hypothetical BAH rate based on their housing profile, dependent status, and the MHA where they

reside. Military housing costs are greater than civilian housing costs across all rank groups and dependent statuses and for both renters and homeowners. As with the comparison with BAH rates, military spending outpaces comparable civilian spending as rank increases.

Figure 15. Civilian and military cost differentials by rank group, dependent status, and homeownership status



Source: CNA-generated using the BAH Adequacy Survey and 2023 ACS data.
 Note: Civilians were assigned hypothetical rank based on age and education status.

²⁹ Civilians with a bachelor's degree were assigned to officer profiles, and the rest were assigned to enlisted profiles. We used DMDC data to determine the IQR of the ages for each rank and assign civilians to each rank within their respective enlisted or officer status.

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We caution that the civilian comparisons should be considered an upper bound. The publicly available ACS data that we relied on are not granular enough to identify the specific census tract where an individual resides. Therefore, we were not able to exclude civilians who live in high-crime census tracts that are excluded from BAH calculations from our comparisons; excluding them should increase the average civilian costs for rent and utilities.³⁰

BAH cost differentials at the featured MHAs

Cost differentials between BAH and rental costs for the featured MHAs (shown in Table 29) reveal that BAH recipients living in one-bedroom apartments generally pay more than the corresponding BAH rate. As with the nationwide comparison, this finding may be due to servicemembers choosing higher quality housing below their BAH profile.

Table 29. Featured MHA rental costs compared to BAH rates and civilian costs

Cost Bracket	MHA	MHA Name	Cost Differential (BAH – Cost)					
			1-Bed Apt	2-Bed Apt	2-Bed TH	3-Bed TH	3-Bed SFH	4-Bed SFH
Low cost	TX286	Fort Hood	–\$333	\$97***	–\$135	\$225***	\$581***	\$370***
	NC178	Camp Lejeune	–\$397***	–\$90	\$507***	–\$41	\$144	\$485***
	TX279	El Paso	–\$13	–\$278***	–\$127***	NA	\$123**	–\$79
Medium cost	VA298	Norfolk/Portsmouth	–\$95	\$167	\$255***	\$127	\$117	\$199*
	NC182	Fort Bragg/Pope	–\$150	–\$95	\$111	NA	\$175	–\$8
	CO046	Colorado Springs	–\$162**	–\$18	\$366**	–\$580***	\$172	–\$5
High cost	CA038	San Diego	–\$266***	–\$122	\$461***	\$456***	–\$484**	–\$136
	DC053	Washington, DC, Metro Area	–\$24	–\$188*	–\$524***	–\$301***	–\$43	\$64
	HI408	Honolulu County	–\$401**	–\$210	\$540***	–\$61	\$298	–\$418**
	FL069	Florida Keys	\$71	\$588***	\$309	NA	\$113	NA

Source: BAH Adequacy Survey conducted by CNA.

Note: * p < 0.10, ** p < 0.05, *** p < 0.01.

NA = Cost data are insufficient to report results for these housing profiles in this MHA.

³⁰ Robustness tests excluding PUMAs with a large share of high-crime tracts increased the disparities between military and civilian spending. However, we caution against viewing this as a meaningful difference for two reasons: PUMAs include large populations and cover varying areas and removing high-crime PUMAs reduced the sample to low-cost rural areas.

Like the monthly cost comparisons, the cost differentials by housing type do not vary uniformly across MHAs; therefore, we do not include a top or bottom five MHAs according to cost differential.

Comparison to civilians and on-base standards

Are members living in homes above or below BAH standards, on-base housing standards, and average civilian standards? In the previous section, we addressed how costs may differ between BAH rates and recipients. In this section, we compare BAH recipients' housing choices with their BAH standard, on-base standard, and comparable civilian housing choices.

Standards for on-base PPV housing allotments differ from BAH housing profiles in several key ways. The number of allocated bedrooms for on-base housing is based on family composition and rank. The rank at which unaccompanied personnel can move out of barracks varies by Service, and on some installations, neighborhoods may be organized by rank [37]. There is no set maximum number of bedrooms for PPV housing; bedrooms are allocated based on number, age, and sex of dependents according to the following rules:

- Children ages 10 and over are each allocated a bedroom.
- Two children ages 6 to 10 of the same sex can share a bedroom.
- Two children under age 6 of either sex can share a bedroom; when children are opposite sex, the oldest is eligible for their own bedroom at age 6 [20].

Civilian comparisons were made using housing data for the comparable civilian population from ACS data

(as determined for Figure 15). We adjusted the ACS civilian population to match the location, rank, and dependent status of BAH recipients (see Appendix E for additional details) because the composition of civilians may not reflect the composition of BAH recipients. For example, BAH recipients are more likely to have dependents and are geographically more concentrated in certain MHAs than in others. Table 30 compares total number of rooms, number of bedrooms, and commute times for BAH recipients and comparable civilians. For the number of bedrooms, we also include a comparison to the BAH standard. Whether on or off base or owners or renters, BAH recipients live in housing with more bedrooms than BAH standards or comparable civilians. However, BAH recipient housing has fewer rooms overall than does housing for comparable civilians. Unsurprisingly, BAH recipients living on base have shorter commutes than those living off base. Overall commute times for BAH recipients are much longer, nearly double for homeowners, than those of comparable civilians.

Bedroom standards

Figure 16 compares the number of bedrooms for on- and off-base BAH recipients and comparable civilians by rank group and dependent status. Overall, 39 percent of off-base BAH recipients live in a dwelling that matches their BAH bedroom standard. On-base housing provides more bedrooms for lower ranking BAH recipients, in part because of limited availability of one- and two-bedroom dwellings on base (where three-bedroom accommodations are more common). Junior enlisted personnel without dependents living in PPV housing frequently (41 percent) live with roommates.³¹ As rank increases, the number of bedrooms for off-base BAH recipients increases more quickly than for on-base BAH recipients or comparable civilians. Other than senior officers, most ranks have more bedrooms than their BAH standard.

³¹ We observed 117 E-3s and E-4s with no dependents living in PPV housing, which is uncommon.

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Table 30. Adjusted civilian–BAH recipient differentials, by rent or ownership

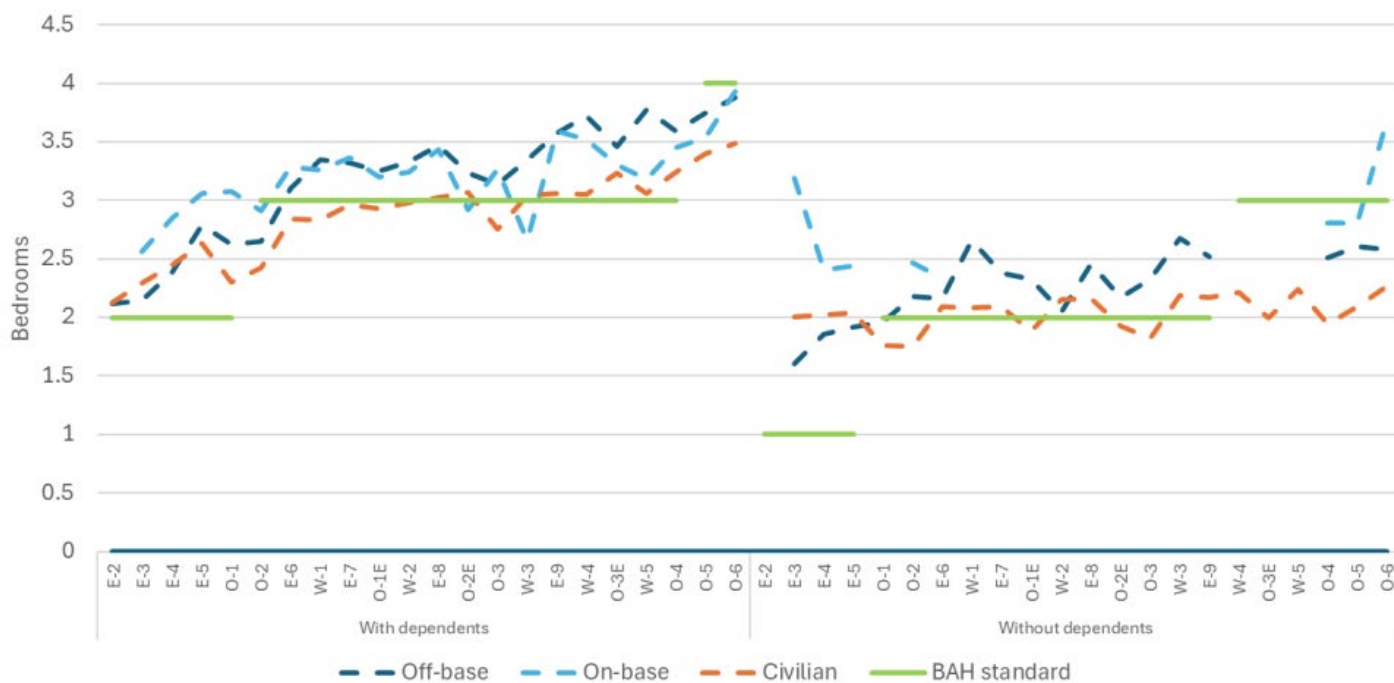
Outcome	BAH Standard	BAH Recipients' Mean	BAH Standard-Adjusted Difference	Civilian Mean	Civilian-Adjusted Difference ^a
Rooms (#)					
Renters (on base)	NA	5.7	NA	NA	NA
Renters (off base)	NA	3.8	NA	4.4	0.3***
Owners	NA	5.8	NA	6.4	0.3***
Bedrooms (#)					
Renters (on base)	2.5	3.1	-0.6***	NA	NA
Renters (off base)	2.6	2.1	-0.1***	2.1	-0.1***
Owners	2.1	3.2	-0.7***	3.1	-0.1***
Commute time (min)					
Renters (on base)	NA	24.5	NA	NA	NA
Renters (off base)	NA	47.9	NA	25.3	-24.6***
Owners	NA	64.1	NA	26.6	-31.6***

Source: CNA-generated using the BAH Adequacy Survey and 2023 ACS data.

Note: * p < 0.10, ** p < 0.05, *** p < 0.01.

^a Civilian and BAH differences were adjusted for rank, dependent status, and duty station MHA.

Figure 16. Bedroom comparison



Source: CNA-generated using the BAH Adequacy Survey and 2023 ACS data.

Residence type standards

Next, we compared the other component of BAH standards: residence type. The most common housing type according to BAH standards and on-base housing standards is a townhome (see Figure 17). However, off-base BAH recipients and comparable civilians are much less likely to live in townhomes than is indicated by the BAH standard or on-base standard. Single-family homes are much more common among off-base BAH recipients and comparable civilians, especially with homeowners. BAH recipient homeowners are more likely to live in single-family homes than their civilian counterparts are.

This finding is consistent with a previous RAND finding that military families consume more housing than do comparable civilians [2].

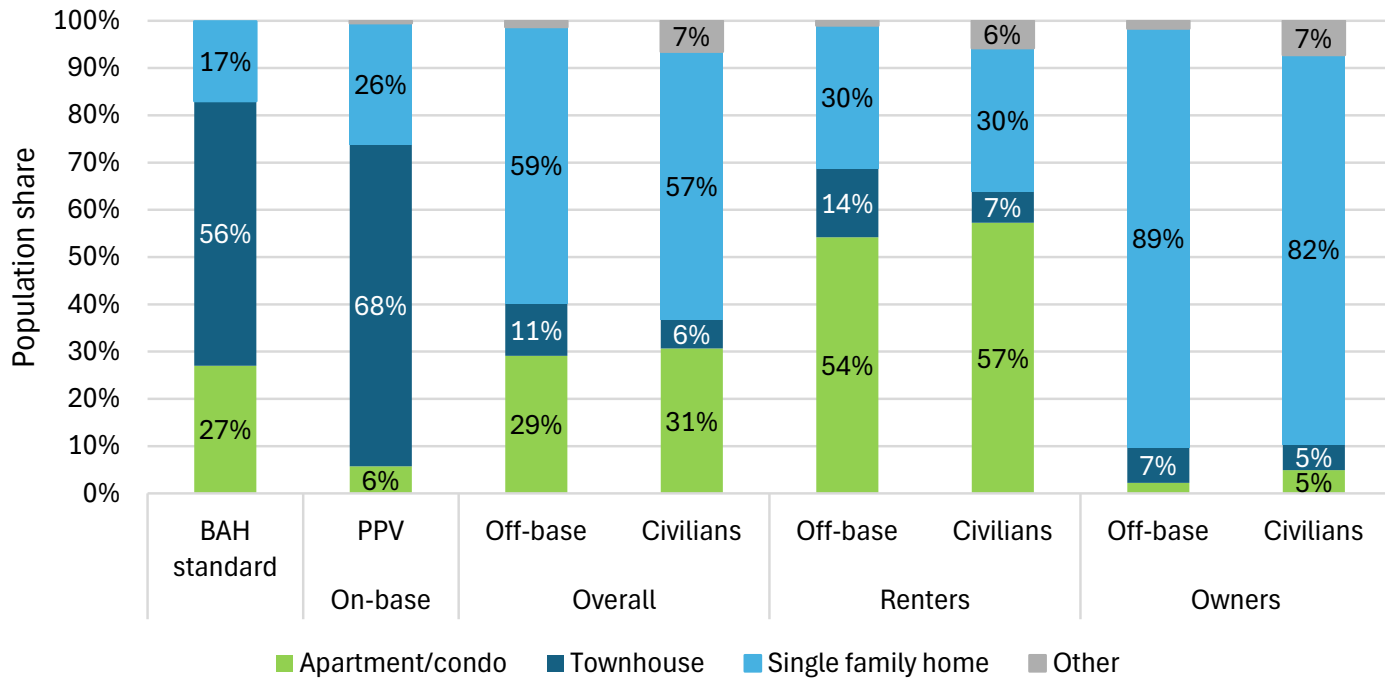
Combined bedroom and residence type standards

Figure 18 shows the share of off-base BAH recipients who are living under, at (or near),³² or over BAH standards for bedrooms and residence type by rank. Overall, just 16 percent of off-base BAH recipients are living at or near their BAH standard. The share of enlisted BAH recipients living above standards increases with rank until E-8. An E-8 with dependents

³² At or near standard includes BAH recipients who are living in their allotted housing type with their allotted number of bedrooms or are living above standard for either housing type or bedrooms and below standard for the other.

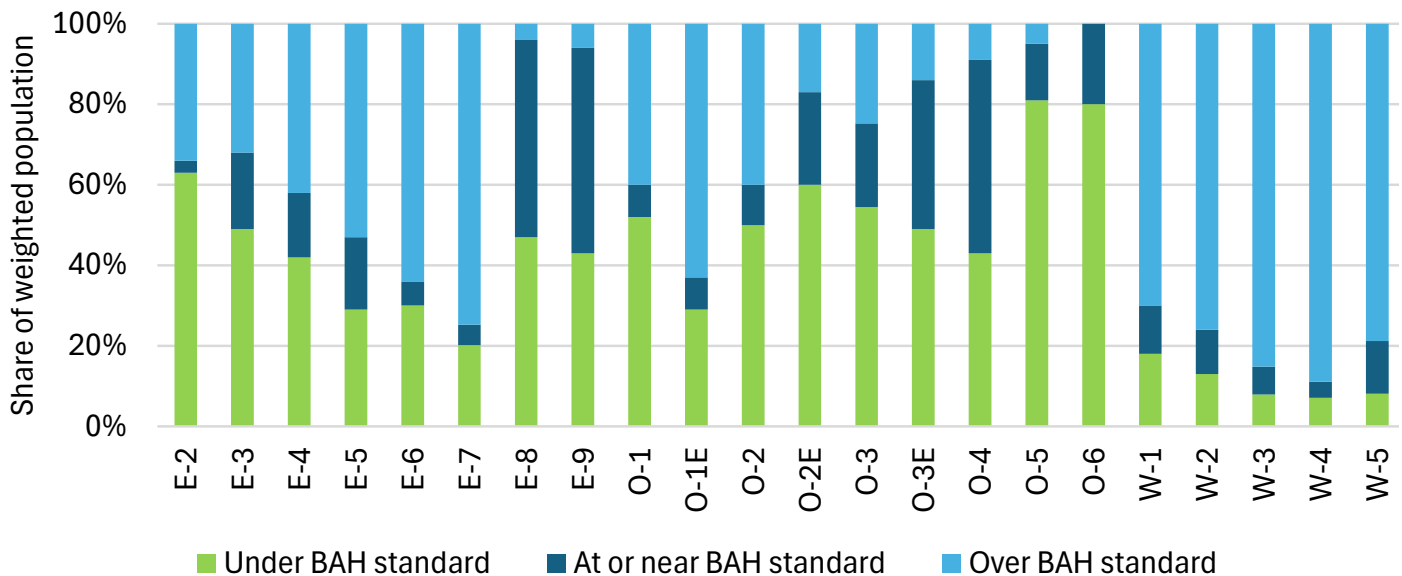
An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

Figure 17. Residence type comparison



Source: CNA-generated using the BAH Adequacy Survey and 2023 ACS data.

Figure 18. Comparison to BAH standard by rank



Source: BAH Adequacy Survey conducted by CNA.
 Note: Figure includes off-base BAH recipients (n=43,411).

(90 percent of E-8s have dependents) has a BAH profile of a three-bedroom townhome with a BAH interpolation of 75 percent, our threshold for rounding up to the next anchor point. Therefore, according to our study standards, an E-8 with dependents would be living at standard if they were living in a three-bedroom single-family home. Given the preference for three-bedroom single-family homes among BAH recipients, it is not surprising that crossing this threshold results in a large increase in the share of those living “at standard.”

Nearly all warrant officers are living above standards. They are more likely to be married (81 percent) and have dependent children (60 percent) than are enlisted personnel (68 percent married, 46 percent dependent children) and officers (67 percent married, 44 percent dependent children).

BAH standard comparisons at the featured MHAs

When we examined the rates of servicemembers living above or below standards by MHA (Table 31),

we found that servicemembers are more likely to live below standards in high-cost MHAs, with all of the high-cost MHAs having 66 percent or more of officers and 57 percent or more of enlisted personnel living below standards. Three of the five MHAs with the highest percentage of servicemembers living above standards are low-cost MHAs (IN399, TX281, and AR010), with one medium-cost MHA (MD432) and one high-cost MHA (CA392). Of the five MHAs with the highest percentage of servicemembers living below standards, all are high-cost MHAs.

Preferences in off-base housing

Evaluating servicemember housing choices shows that servicemembers generally prefer more bedrooms than their BAH standard allows and single-family homes. In this section, we examine other factors that might be influencing servicemember housing choices, including neighborhood characteristics, school characteristics, and individual home characteristics.

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Table 31. BAH standard comparison, featured MHAs

MHA Group	MHA	MHA Name	Enlisted			Officer		
			Below	At or Near	Above	Below	At or Near	Above
Low cost	TX286	Fort Hood	25%	5%	70%	39%	21%	40%
	NC178	Camp Lejeune	16%	8%	76%	44%	22%	34%
	TX279	El Paso	27%	5%	68%	43%	23%	34%
Medium cost	VA298	Norfolk/Portsmouth	32%	17%	51%	50%	31%	19%
	NC182	Fort Bragg/Pope	15%	16%	69%	46%	28%	26%
	CO046	Colorado Springs	30%	13%	57%	47%	29%	24%
High cost	CA038	San Diego	57%	15%	29%	70%	20%	10%
	DC053	Washington, DC, Metro Area	65%	13%	22%	70%	26%	4%
	HI408	Honolulu County	66%	12%	22%	67%	23%	9%
	FL069	Florida Keys	69%	12%	19%	66%	0%	34%
Above standards	IN399	Bloomington	0%	0%	100%	36%	0%	64%
	MD432	Eastern Shore	15%	7%	78%	50%	50%	0%
	CA392	San Luis Obispo	16%	9%	75%	NA	NA	NA
	TX281	Brownsville	8%	18%	74%	26%	0%	74%
	AR010	Little Rock	8%	12%	80%	47%	20%	33%
Below standards	FL423	Fort Pierce	76%	0%	24%	100%	0	0
	CT051	New Haven/Fairfield	77%	2%	21%	73%	6%	20%
	NJ202	Northern New Jersey	100%	0%	0%	57%	43%	0%
	MD130	Fort Detrick	75%	9%	16%	71%	27%	2%
	CA037	Los Angeles	66%	13%	21%	79%	14%	7%

Source: BAH Adequacy Survey conducted by CNA.

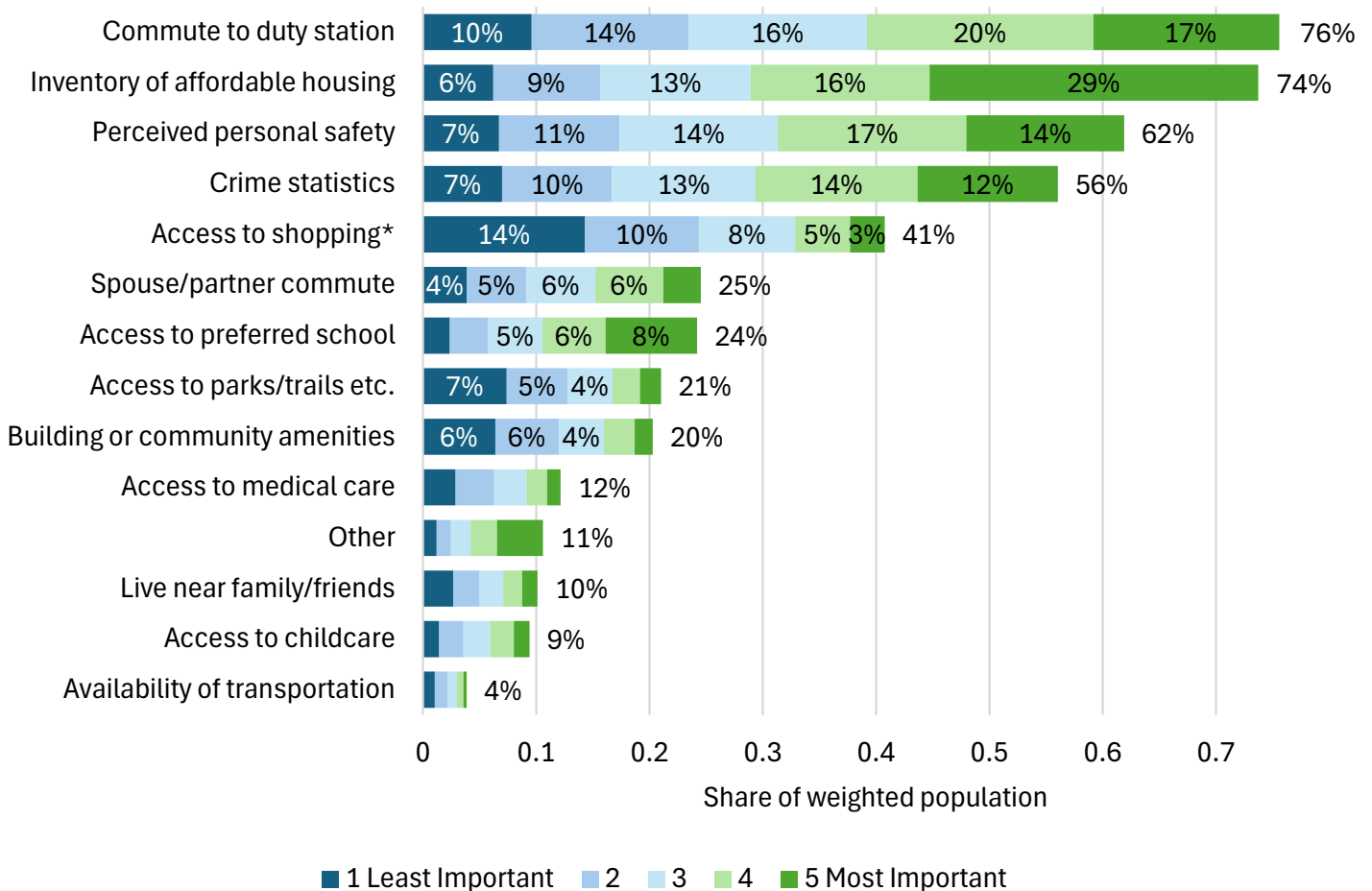
Note: To be included as above or below standards, an MHA had to have more than 10 survey responses.

Neighborhood characteristics

The survey asked respondents who live off base to rank the top five neighborhood factors that were most important to their housing decision. Figure 19 presents a stacked bar graph with the weighted share of the population (across the entire study population who live off base) who ranked each factor, where a ranking of 5 was most important and a ranking of 1 was least important. We found that nationally, commute

to duty station was the most important neighborhood factor, with 76 percent of the respondents ranking it in their top five. The inventory of affordable housing³³ was the second most ranked neighborhood factor at 74 percent, and perceived personal safety was the third most ranked with 62 percent of respondents. However, inventory of affordable housing was most likely to be ranked the most important factor (receive a rank of 5) at 29 percent. Availability of transportation was the lowest ranked nationally, except for MHA

Figure 19. Ranking of neighborhood factors influencing housing choice



Source: BAH Adequacy Survey conducted by CNA.

*Access to shopping = access to shopping, restaurants, and entertainment.

³³ This factor was originally labeled "inventory of available housing in my price range" in the survey.

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DC053 (Washington, DC, metro area), which ranked it seventh. This finding is reasonable because many residents who live in the DC area rely on public transportation to commute to work. Some of the other factors that were written in as free text under the “other” category include pet-friendly policies or amenities, quality of the housing, and walkability of the neighborhood.

In Table 32, we compare differences in mean ranking scores between servicemembers with and without dependent children and between servicemembers

who rent off base and those who own their homes. We found that servicemembers with children ranked access to preferred school significantly higher than those without children. The mean rankings for servicemembers with no children were significantly higher than those with children for inventory of affordable housing, commute to duty station, and perceived safety. Servicemembers who own their homes ranked access to preferred schools higher than those who rent, but those who rent ranked commute to duty station higher than those who own their homes.

Table 32. Mean ranking of neighborhood factors by subgroups

Neighborhood Factor	Dependent Children			Homeowners		
	Yes	No	Significance	Rent	Own	Significance
Inventory of available housing in my price range	2.5	2.9	***	2.7	2.7	—
Commute to duty station	2.0	2.8	***	2.7	2.3	***
Perceived personal safety	1.9	2.2	***	2.1	2.0	**
Crime statistics	1.9	1.8	***	1.8	1.9	***
Access to preferred school	1.8	0.1	***	0.5	1.2	***
Spouse/partner commute	0.7	0.8	***	0.7	0.8	***
Access to shopping, restaurants, and entertainment	0.6	1.2	***	1.0	0.8	***
Access to child care	0.6	0.0	***	0.2	0.3	***
Other	0.4	0.4	**	0.4	0.4	*
Access to medical care	0.4	0.2	***	0.3	0.3	*
Access to parks/trails, etc.	0.4	0.6	***	0.5	0.5	*
Building or community amenities	0.4	0.6	***	0.6	0.3	***
Live near family/friends	0.3	0.3	—	0.2	0.3	***

Source: BAH Adequacy Survey conducted by CNA.
 Note: T-test p-values: * p<0.1; ** p<0.05; *** p<0.01.

School characteristics

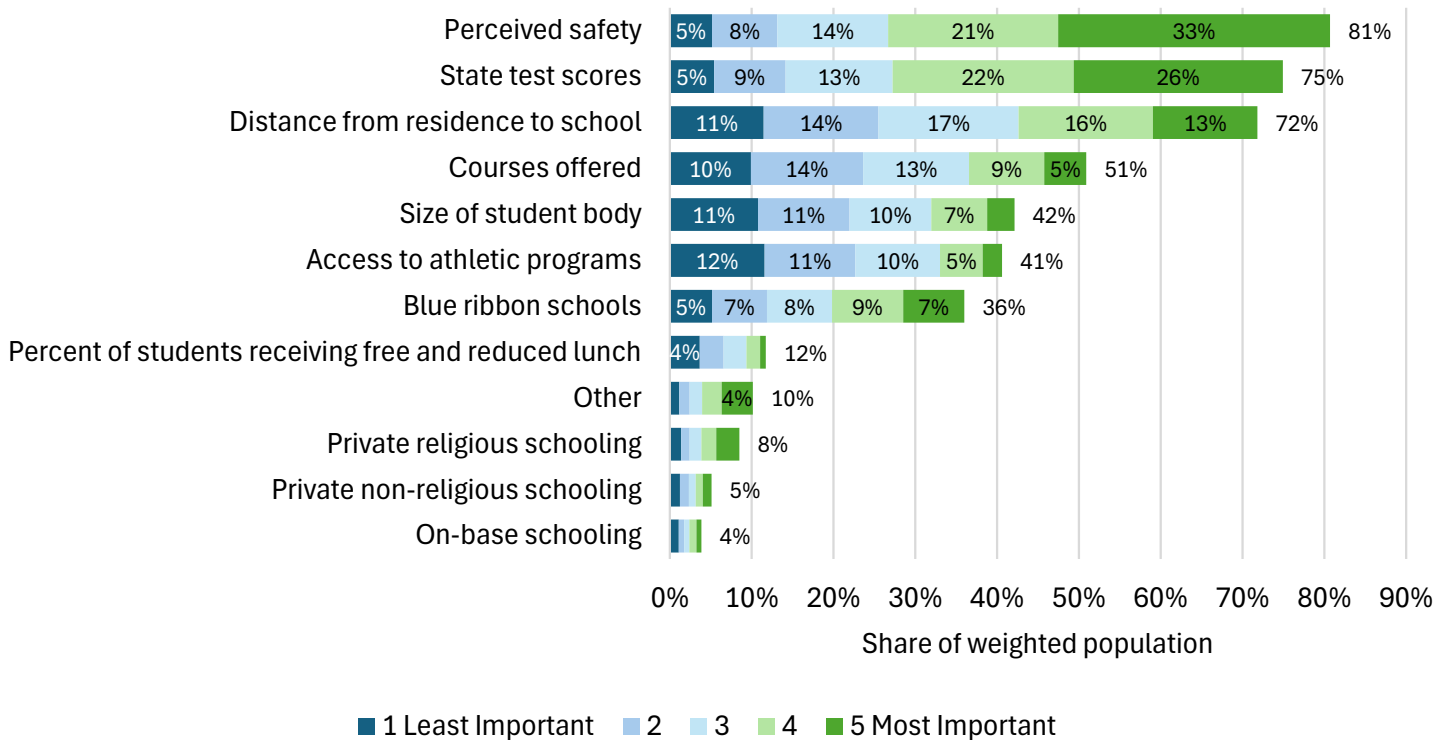
For those who selected access to preferred school as a top factor in neighborhood choice, the survey asked what specific school characteristics were most important (we present a stacked bar graph with the weighted share of the population who ranked each school characteristic as important to them in Figure 20). We found that perceived safety was the highest ranked characteristic, state test scores were second highest ranked, and distance from residence to school was the third highest ranked. On-base schooling, private non-religious schooling, and private religious schooling were the lowest ranked characteristics. Some other school characteristics that were written

in as free text in the “other” category included access to special needs educational programs, school ratings, and other extracurricular programs.

Child care

Subject matter experts representing MHOs reported that many BAH recipients factor in access to child care when choosing a home. The BAH Adequacy Survey found that 9 percent of the national population ranked access to child care as one of their top five important neighborhood factors. The 2023 MFSP Survey found that 52 percent of active duty servicemember families reported a need for child care [5]. Although the survey also asked about use of child care, those numbers were not reported.

Figure 20. School characteristics influencing housing choice



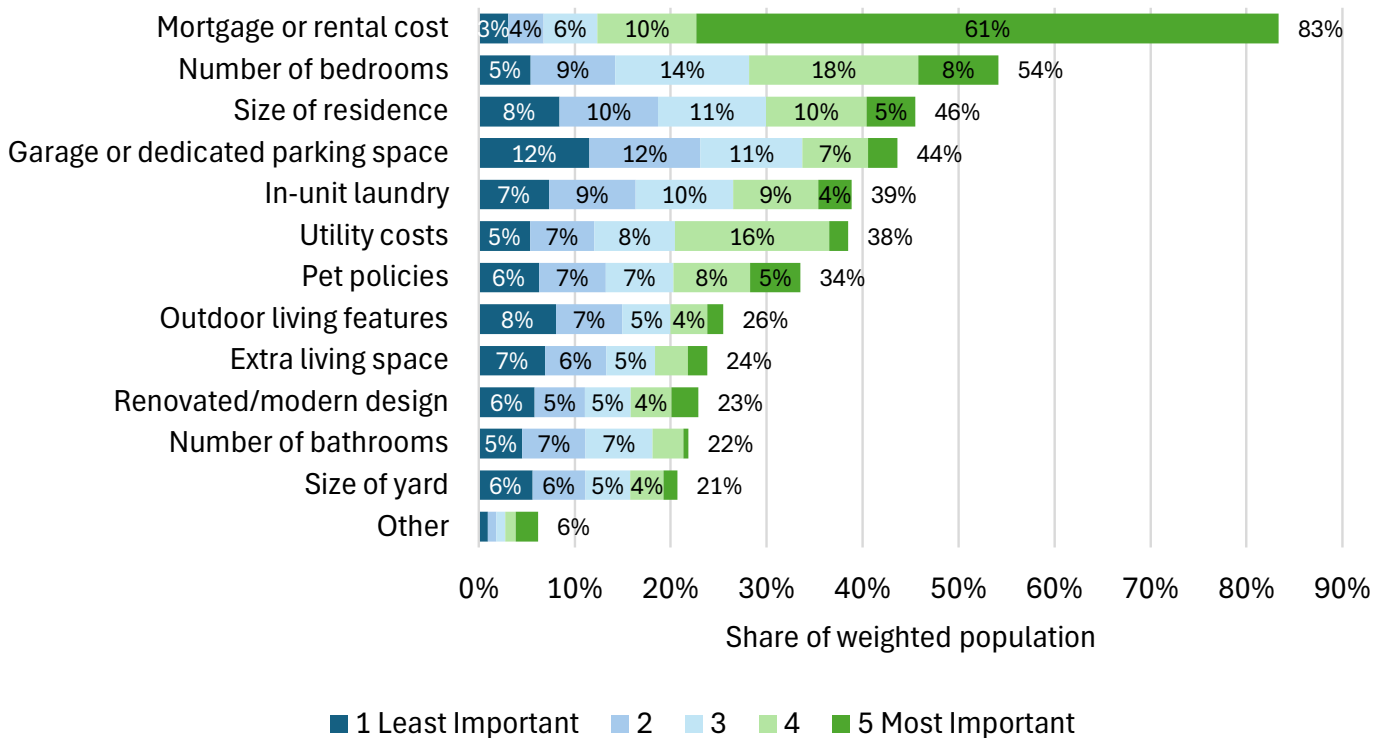
Source: BAH Adequacy Survey conducted by CNA.
 Note: Percentages 3% or less are not labeled on the figure.

Housing factors

The survey also asked respondents who live off base to rank the top five housing factors that were most important to them in making their housing decision. In Figure 21, we present a stacked bar graph with the weighted share of the population who ranked each housing factor as important to them, where a ranking of 5 was most important and a ranking of 1 was least important. Mortgage and rental costs were by far the most important housing factor ranked, with number of bedrooms the second highest ranked factor and size of residence the third highest ranked factor. "Other housing factors" was the lowest ranked nationally; this category included a wide range of additional factors such as availability, safety, privacy, storage space, and quality.

When we compared the mean rankings for housing by dependents and homeownership, we found significant differences across all the t-test comparisons for every housing factor (Table 33). Servicemembers without dependent children were more likely to rank mortgage or rental costs, utility costs, and garage or parking spaces as important. Meanwhile, servicemembers with dependent children were more likely to rank number of bedrooms and size of residence as important housing factors. When comparing renters and owners, renters were more likely than owners to rank mortgage or rental costs and utility costs as housing factors important in deciding where to live. Servicemembers who own their homes were more likely than renters to rank number of bedrooms, size of residence, and garage and parking space as important.

Figure 21. Ranking of housing factors influencing housing choice



Source: BAH Adequacy Survey conducted by CNA.
 Note: Percentages 3% or less are not labeled on the figure.

Impact on cost

Thus far, we have observed that housing costs are higher for BAH recipients of higher ranks, with dependents, and who own homes. BAH recipients show clear preferences for affordable housing, preferable commutes, and safe neighborhoods. Next, we combined all the observed factors that may influence housing costs into a single regression analysis to quantify their impacts on servicemembers'

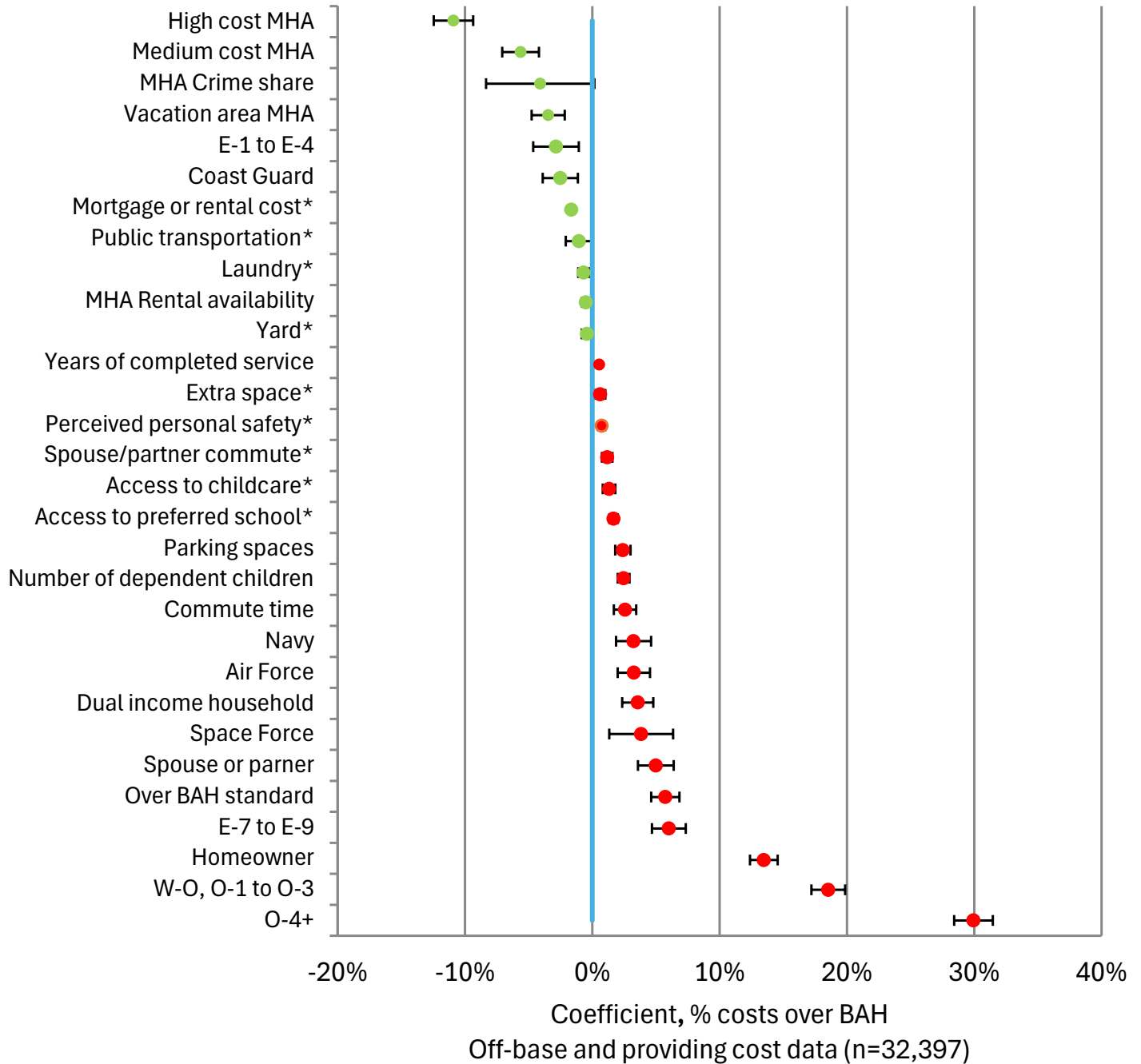
housing costs in relation to their BAH rate. Figure 22 shows the impact of income, location, and the neighborhood and home factors chosen by servicemembers on spending over BAH. Negative coefficients (green dots) indicate that the factor is associated with a decrease in housing costs, leading the servicemember to spend under BAH. Positive coefficients (red dots) indicate that the factor is associated with an increase in housing costs, leading the servicemember to overspend BAH.

Table 33. Mean ranking of housing factors by subgroup

Housing Factor	Dependent Children			Homeowners		
	Yes	No	Significance	Rent	Own	Significance
Mortgage or rental cost	3.6	3.8	***	3.8	3.6	***
Number of bedrooms	2.6	1.1	***	1.5	2.1	***
Size of residence	1.5	1.1	***	1.2	1.4	***
Garage or dedicated parking space	1.0	1.2	***	1.0	1.2	***
Utility costs	0.9	1.4	***	1.5	0.9	***
Pet policies	0.8	1.2	***	1.2	0.8	***
Number of bathrooms	0.7	0.4	***	0.4	0.6	***
Outdoor living features	0.7	0.6	***	0.4	0.8	***
Size of yard	0.7	0.4	***	0.2	0.8	***
Extra living space	0.6	0.6	***	0.5	0.7	***
In-unit laundry	0.5	1.5	***	1.6	0.5	***
Renovated/modern design	0.5	0.7	***	0.6	0.6	***
Other	0.2	0.2	*	0.2	0.2	**

Source: BAH Adequacy Survey conducted by CNA.
 Note: T-test p-value: * p<=0.1; ** p<0.05; *** p<0.01.

Figure 22. Cost impact of off-base housing preferences



Source: BAH Adequacy Survey conducted by CNA.

* = Top 5 factor from survey

Note: Insignificant factors not displayed in the figure include serving in Marine Corps, home or community amenities, access to parks/trails or geographic features, living near family/friends, access to shopping, size of residence, number of bathrooms, pet policies, outdoor living features, utility costs, and renovated/modern homes. Reference groups include serving in Army, rank group E-5 to E-6, and living in a low-cost MHA.

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Although preferences play some role in the amount that BAH recipients spend on housing, we observed that the factors with the most impact on overspending BAH are rank, homeownership, having a spouse or partner, having an employed spouse or partner, having dependents, and living over BAH standards. We note that living in medium- and high-cost MHAs are factors for underspending BAH and that those who rank mortgage or rental cost as an important factor in choosing housing underspend BAH.

Neighborhood and housing preferences at the featured MHAs

In Table 34, we present the neighborhood factors that were ranked in the top 3 across the 10 featured MHAs. MHA-specific findings were similar to the

national total population findings, with commute to duty station as the most ranked neighborhood factor, except for Honolulu County, which had inventory of affordable housing as the most ranked. Inventory of affordable housing was still most likely to be ranked highest (rank of 5) across all 10 MHAs. Safety and crime statistics were ranked third and fourth highest, respectively, both nationally and across 9 of the 10 MHAs; Fort Bragg/Pope instead ranked crime statistics as the second most important factor. Availability of transportation was the lowest ranked nationally and for 9 of 10 MHAs; the Washington, DC, metro area instead ranked transportation 7 of 14 options, likely because many residents who live in the DC area rely on public transportation to commute to work.

Table 34. Top neighborhood factors across featured MHAs, weighted percent

Cost Bracket	MHA	MHA Name	Commute to Duty Station Weighted % (SE)	Inventory of Affordable Housing Weighted % (SE)	Perceived Personal Safety Weighted % (SE)	Crime Statistics Weighted % (SE)
Low cost	TX286	Fort Hood	76% (5.46)	72% (4.89)	68% (5.60)	56% (6.20)
	NC178	Camp Lejeune	75% (2.55)	71% (3.18)	58% (3.37)	56% (3.14)
	TX279	El Paso	77% (6.52)	73% (5.01)	64% (6.96)	51% (7.64)
Medium cost	VA298	Norfolk/Portsmouth	79% (2.11)	77% (2.14)	69% (2.83)	66% (3.11)
	NC182	Fort Bragg/Pope	70% (4.52)	69% (4.53)	57% (4.80)	70% (3.53)
	CO046	Colorado Springs	72% (3.93)	71% (3.91)	62% (3.95)	50% (3.93)
High cost	CA038	San Diego	83% (2.04)	73% (2.59)	61% (2.80)	44% (2.68)
	DC053	Washington, DC, Metro	80% (2.01)	72% (2.56)	55% (3.08)	47% (3.04)
	HI408	Honolulu County	68% (3.40)	74% (2.59)	58% (3.41)	44% (3.48)
	FL069	Florida Keys	71% (5.44)	65% (6.53)	60% (6.17)	31% (5.53)

Source: BAH Adequacy Survey conducted by CNA.

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Next, we present MHA-level results for the housing factors that were ranked in the top three across the featured MHAs. Table 35 shows the weighted percent of the population who ranked each housing factor in the top five, along with standard errors. The top two factors were similar to the national trends, except for the Florida Keys and San Diego ranking in-unit laundry as the second most important factor and Fort Hood ranking size of residence as the second most important factor.

Views on BAH

The BAH Adequacy Survey includes three questions about servicemembers' satisfaction and views on BAH. Although these questions do not answer any research question directly, they provide context for

how servicemembers view BAH and how those views may influence their approach to housing costs.

BAH satisfaction

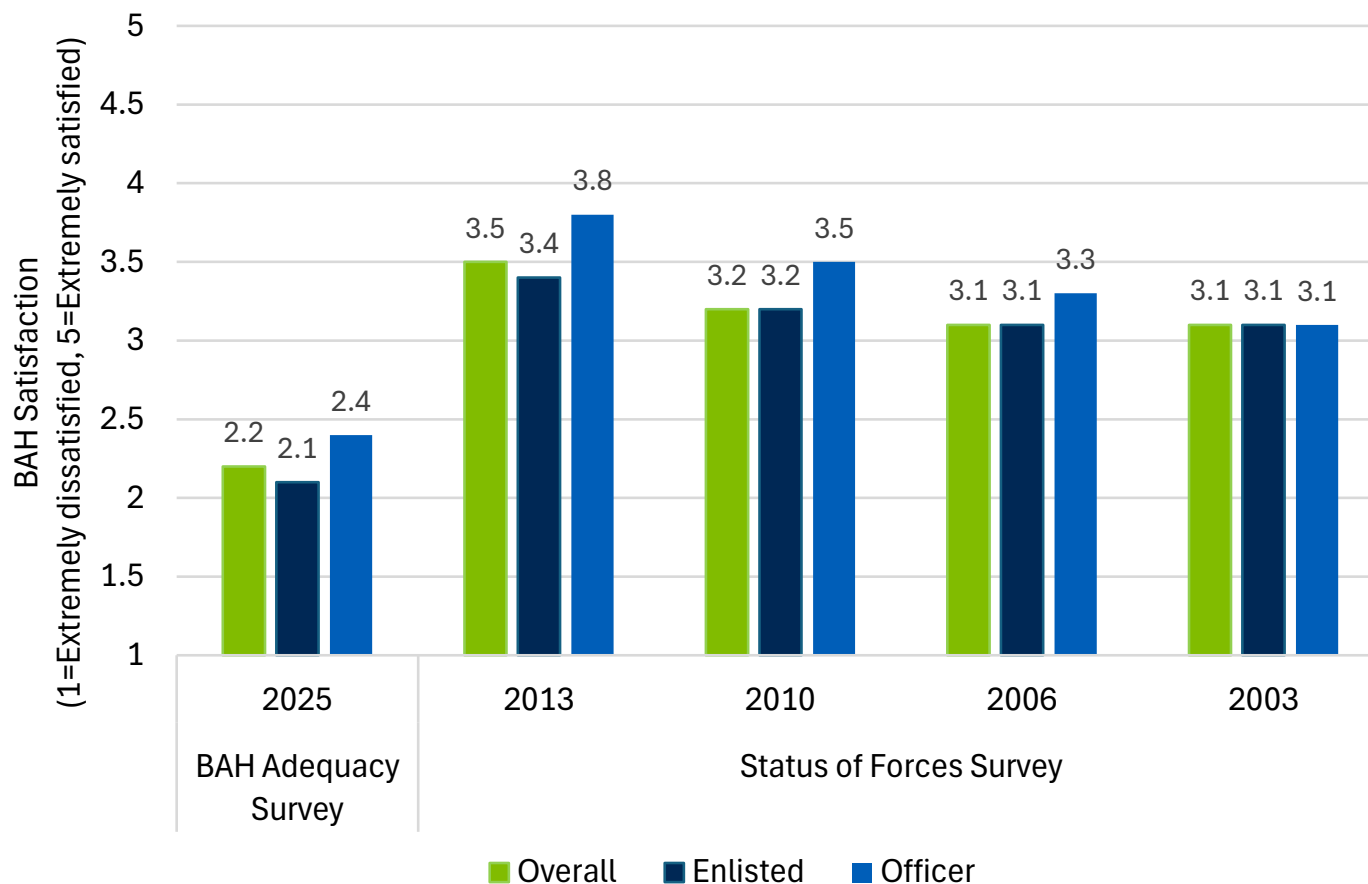
The first question asked respondents to rank their satisfaction with BAH on a five-point Likert scale with values for extremely dissatisfied (1), somewhat dissatisfied (2), neutral (3), somewhat satisfied (4), and extremely satisfied (5). The question is identical to the BAH satisfaction question previously included in the SOFS and last reported as a mean satisfaction score in 2013. Mean satisfaction scores from the SOFS and the BAH Adequacy Survey are shown in Figure 23. Between 2013 and 2025, the average BAH satisfaction score dropped 37 percent, from 3.5 (midway between neutral and satisfied)

Table 35. Top housing factors across featured MHAs, weighted percent

Cost Bracket	MHA	MHA Name	Mortgage or Rental Cost Weighted % (SE)	Number of Bedrooms Weighted % (SE)	Size of Residence Weighted % (SE)	In-Unit Laundry Weighted % (SE)	Garage or Dedicated Parking Space Weighted % (SE)
Low cost	TX286	Fort Hood	79% (4.58)	46% (5.77)	50% (6.12)	28% (6.12)	47% (5.98)
	NC178	Camp Lejeune	74% (3.18)	60% (3.28)	49% (3.27)	23% (2.76)	38% (2.98)
	TX279	El Paso	75% (6.61)	65% (6.94)	60% (7.15)	41% (7.70)	52% (7.50)
Medium cost	VA298	Norfolk/Portsmouth	89% (1.46)	58% (3.30)	51% (3.24)	45% (3.21)	38% (2.98)
	NC182	Fort Bragg/Pope	83% (3.64)	58% (4.67)	46% (4.60)	24% (3.98)	46% (4.77)
	CO046	Colorado Springs	84% (3.11)	58% (3.97)	43% (3.98)	44% (4.23)	54% (4.00)
High cost	CA038	San Diego	82% (2.49)	55% (2.85)	41% (2.62)	60% (2.72)	59% (2.77)
	DC053	Washington, DC, Metro	86% (2.34)	53% (3.17)	47% (3.14)	46% (3.15)	45% (2.83)
	HI408	Honolulu County	80% (3.02)	50% (3.52)	40% (3.38)	53% (3.51)	56% (3.42)
	FL069	Florida Keys	81% (5.42)	45% (6.50)	29% (5.38)	64% (5.58)	29% (6.55)

Source: BAH Adequacy Survey conducted by CNA.

Figure 23. BAH satisfaction



Source: BAH Adequacy Survey conducted by CNA and [38-41].

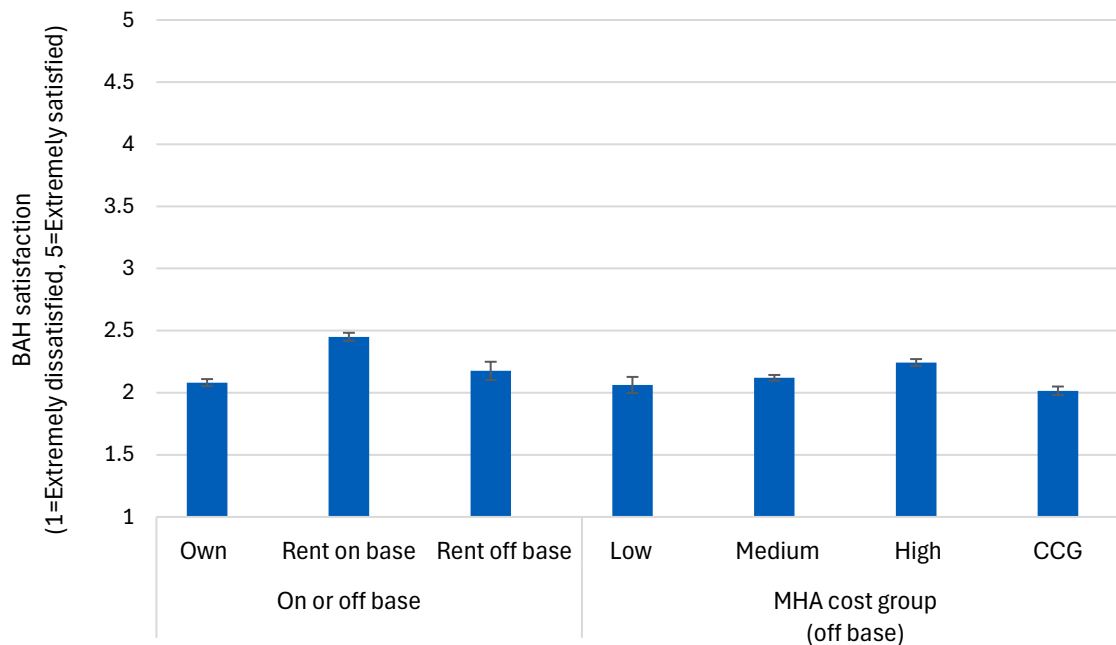
to 2.2 (somewhat dissatisfied). In general, officer satisfaction with BAH has been slightly higher than enlisted satisfaction since 2006.

Figure 24 shows BAH satisfaction by on-base status and ownership and by MHA cost group for off-base BAH recipients. Those who rent on base are more satisfied than those who rent off base or own their homes, but there was no significant difference in satisfaction by MHA cost group.

Perception of BAH adequacy

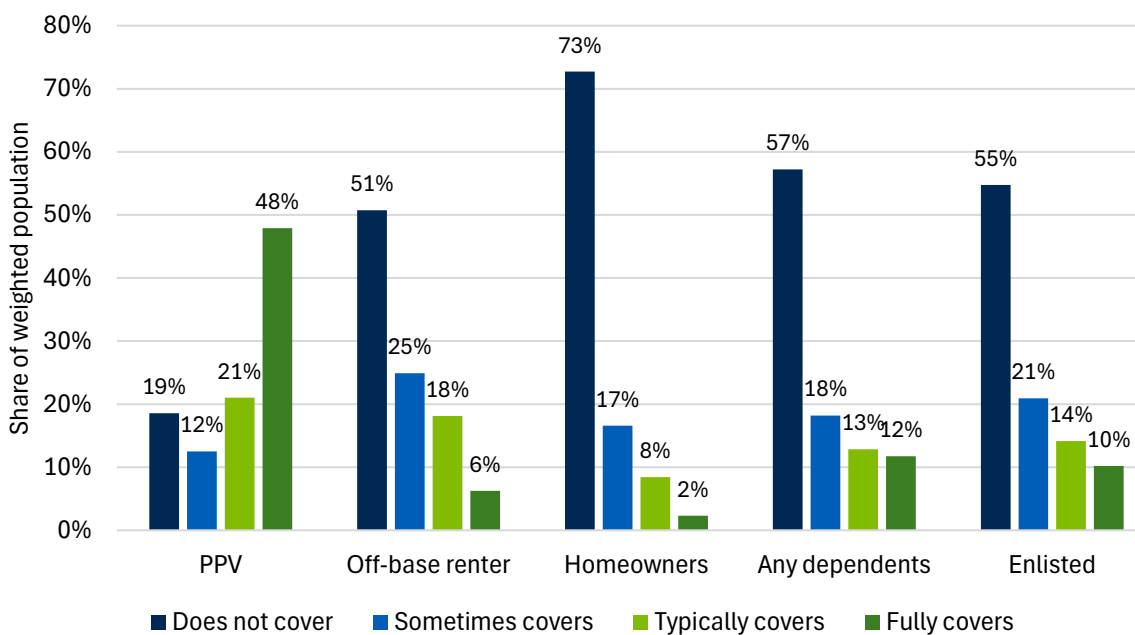
The second question asked servicemembers about their perception of how much of their basic monthly housing expenses are covered by BAH. The question specifies that basic housing expenses include rent or mortgage, electricity, gas, and water and sewer. Respondents could choose from four options: BAH does not cover my expenses, BAH sometimes covers my expenses, BAH typically covers my expenses, and BAH fully covers my expenses. Figure 25 shows perceptions of BAH adequacy for those who live on base in PPV housing, off-base renters, homeowners, those with dependents, and enlisted servicemembers.

Figure 24. BAH satisfaction by residence location



Source: BAH Adequacy Survey conducted by CNA.
 Note: Whiskers represent SE.

Figure 25. Perception that BAH covers basic housing expenses



Source: BAH Adequacy Survey conducted by CNA.

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Overall, just 10 percent of survey respondents feel that BAH fully covers their basic monthly housing expenses. There was little variation in the perception of BAH adequacy by rank or dependent status; however, just 2 percent of homeowners said that BAH fully covers their expenses. Even among servicemembers who live on base in PPV housing, only 48 percent said that BAH fully covers their expenses. In Table 36, we show perceptions of BAH along with BAH cost differentials and the percentage of survey respondents that reported monthly costs at or below their BAH rate. As would be expected, those who perceive BAH as inadequate to cover their expenses are more dissatisfied than those who perceive BAH as fully covering their expenses. However, even among those who believe that BAH covers their expenses, BAH satisfaction is only midway between neutral and somewhat satisfied (3.5).

Although the mean BAH differential indicates that servicemembers who feel that BAH does not cover their expenses spend \$440 more than BAH per month, we also found that 46 percent of these BAH recipients report costs less than or equal to their BAH rate. The incongruencies between perception and

actual reported costs indicate that BAH recipients' understanding of BAH does not align with policy; they consider BAH inadequate even when it covers their spending.

Budget planning

The third and final question asked respondents to choose the option that comes closest to how they view BAH:

- BAH is the maximum amount I will pay for housing.
- BAH is the target amount I should pay for housing.
- BAH is the minimum amount I will pay for housing.
- I do not consider BAH when choosing housing.

Overall, we observed that 44 percent of BAH recipients view BAH as the maximum amount that they should pay for housing, whereas 48 percent view it as the target amount that they should pay. There were some differences in views on BAH by respondent characteristic, as shown in Figure 26. Specifically, we observed differences in views on

Table 36. BAH perceptions and housing cost differentials

BAH Perception	Mean Satisfaction	BAH Differential (BAH – Cost)	Reported Costs at or Below BAH
Does not cover	1.8	-\$440***	46%
Sometimes covers	2.2	\$108***	70%
Typically covers	3.0	\$390***	80%
Fully covers	3.5	\$327***	75%

Source: BAH Adequacy Survey conducted by CNA.

Note: *** p < 0.01.

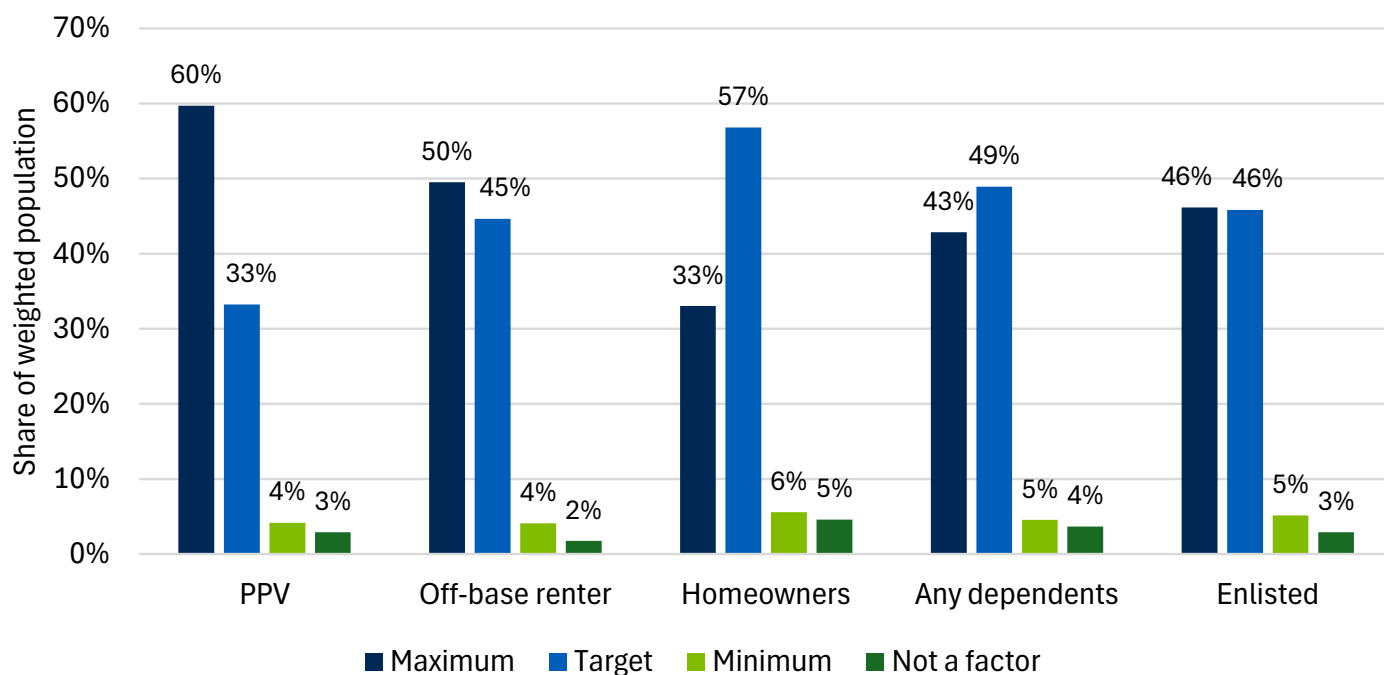
An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

BAH for homeowners and those living on base in PPV housing. As would be expected, those living on base are more likely to view BAH as the maximum amount that they should spend (60 percent). Homeowners are more likely to view BAH as the target amount that they should spend (57 percent).

Servicemembers who view BAH as the maximum amount that they should spend are slightly more satisfied with BAH and spend an average of \$100

less than BAH on their housing each month. BAH recipients who view BAH as the target or minimum amount that they should spend are less satisfied and overspend BAH by around \$300 each month. Servicemembers who do not consider BAH when choosing housing are the least satisfied and overspend their BAH by an average of \$625 per month. Views on BAH along with satisfaction and difference between BAH rate and monthly costs are shown in Table 37.

Figure 26. Views on BAH in relation to housing costs



Source: BAH Adequacy Survey conducted by CNA.

Table 37. Views on BAH, satisfaction, and cost differential

View on BAH	BAH Satisfaction	BAH Differential (BAH – Cost)
Maximum I should spend	2.3	\$101***
Target I should spend	2.1	-\$314***
Minimum I should spend	2.1	-\$275***
Do not consider BAH	2.0	-\$625***

Source: BAH Adequacy Survey conducted by CNA.
Note: *** significantly different from zero at $p < .0001$.

Views on BAH at the featured MHAs

BAH satisfaction across the featured MHAs varies from a low of 1.9 at Fort Carson to a high of 2.5 in the Washington DC metro area (see Table 38). The DC metro area has the highest percentage of BAH recipients that are satisfied but does not stand out in terms of perceptions or views on BAH. More than 20 percent of BAH recipients at Fort Bliss and Hickam Air Force Base believe that BAH fully covers their basic monthly expenses, whereas 50 percent or more of BAH recipients at Fort Hood, Camp Lejeune, Fort Bragg, and Fort Carson believe that BAH does not cover their expenses. BAH recipients in the Florida Keys appear to be the most conscious about how they spend their BAH, with 63 percent of recipients viewing BAH as the maximum amount that they should spend and less than 1 percent not considering BAH when choosing housing.

Discussion

The purpose of this study was to collect baseline servicemember-reported housing descriptions and costs to determine whether current BAH adequacy standards and sampling methodologies result in BAH rates commensurate with actual servicemember choices. This study is the initial attempt to collect nationwide servicemember housing data representative of the population of BAH recipients. The data collected through the BAH Adequacy Survey provide not only a baseline for servicemember housing costs but also a description of the homes that servicemembers choose to live in and the factors that influence their housing choices.

Analysis of the survey data revealed that most off-base BAH recipients (84 percent) are not living at standard. Nearly half of servicemembers overspend their BAH by 5 percent or more. The amount by which they overspend BAH increases with career progression, homeownership, family size, and

household income. More than half of servicemembers who overspend their BAH are living in homes above their BAH standard, and nearly half of BAH recipients living off base have increased housing costs because they have purchased homes. Comparing the BAH Adequacy Survey data to ACS data, we found that BAH recipients are spending more on mortgages and rent than comparable civilians.

Other surveys have attempted to collect similar information. In the 2023 Military Family Lifestyle Survey, respondents were asked how much of their monthly out-of-pocket housing costs including utilities were not covered by their BAH. For those living in military housing, 68 percent said that BAH fully covered their costs and 17 percent said that they had out-of-pocket costs of more than \$200. For those renting civilian housing, 70 percent were paying \$200 or more out of pocket, and among those who own civilian housing, 78 percent said that they were paying \$200 or more in housing costs above their BAH. Note that the survey did not provide a clear definition for what to include as utility costs, so respondents may have had different definitions of what is included in their monthly housing costs (e.g., some may have included cellular phone or cable bills in addition to utilities such as gas, electricity, and water). By asking about each component of housing costs separately, the BAH Adequacy Survey enables direct comparisons between servicemembers' BAH rates and housing expenses.

Inconsistencies in BAH adequacy and perceptions

BAH satisfaction has dropped significantly since the last time that it was reported in the SOFS in 2013. Seventy-two percent of off-base BAH recipients are now dissatisfied with their BAH. The mean satisfaction rating for those who believe that BAH fully covers their basic monthly expenses is at the

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Table 38. Views on BAH for featured MHAs

MHA Group	MHA	BAH Satisfaction		Extent to Which BAH Covers Expenses		View of BAH		Reported Costs at or Below BAH
		Mean	Satisfied	Fully Covers	Does Not Cover	Max Amount	Not Considered	
Low cost	TX286	2.0	11%	11%	61%	48%	6%	34%
	NC178	2.2	14%	7%	59%	34%	3%	25%
	TX279	2.4	14%	21%	50%	34%	12%	40%
Medium cost	VA298	2.3	20%	4%	54%	43%	4%	45%
	NC182	2.3	16%	10%	60%	35%	11%	38%
	CO046	1.9	7%	5%	64%	42%	2%	36%
High cost	CA038	2.2	17%	12%	40%	58%	2%	59%
	DC053	2.5	25%	10%	50%	47%	2%	43%
	HI408	2.3	19%	25%	39%	54%	2%	51%
	FL069	2.1	14%	17%	43%	63%	1%	63%
Most satisfied	VT305	3.4	58%	21%	41%	56%	0%	76%
	NY222	3.1	36%	17%	27%	41%	7%	60%
	MD130	2.9	37%	19%	36%	66%	1%	61%
	CT051	2.8	25%	10%	24%	63%	4%	65%
	NY217	2.8	31%	40%	32%	55%	4%	39%
	CA019	2.8	35%	11%	23%	73%	1%	78%
Least satisfied	IN399	1.4	11%	2%	83%	49%	0%	49%
	CA021	1.5	4%	9%	68%	36%	2%	18%
	KY109	1.5	0%	0%	96%	28%	0%	22%
	MS172	1.6	7%	3%	84%	32%	0%	10%
	NC176	1.6	0%	0%	75%	22%	3%	96%

Source: BAH Adequacy Survey conducted by CNA.

Note: To be included as most or least satisfied, an MHA had to have more than 10 survey responses.

midpoint between neutral and somewhat satisfied. Even when servicemembers can secure their basic housing needs with BAH, they are not satisfied with the allowance.

Forty-six percent of the servicemembers who believe that BAH does not cover their housing expenses report costs less than their BAH rate, indicating that servicemembers may be expecting BAH to cover more expenses than it is designed to cover.

Featured MHAs

The survey results reported for each of the featured MHAs show some consistent patterns—satisfaction with BAH is low, reasons for living on or off base

and preferences for off-base housing are similar across locations—but the overall picture is that there is a great deal of variation across the housing markets. Homeownership varies from 15 percent in the Florida Keys to 72 percent at Camp Lejeune, and costs for a three-bedroom single-family home range from \$2,148 per month at Fort Hood to \$5,329 per month in San Diego. Cost differentials between BAH rates and servicemember housing costs are not uniformly high or low, indicating that the market in each location has unique challenges in terms of availability and price of housing profiles.

Recommendations

The results of the BAH Adequacy Survey demonstrate that current BAH standards and rates are not aligned with servicemember housing choices and costs. Servicemembers do not live in housing aligned to standards, and spending across MHAs and BAH profiles is frequently above or below BAH rates. We provide recommendations aimed at improving messaging on BAH policy and rates, revising BAH policy to better align the policy with servicemember housing choices, and improving servicemember housing experiences through higher quality on-base housing. We also provide recommendations for improving future iterations of the BAH Adequacy Survey.

Improve messaging on BAH policy and rates

A high percentage of servicemembers are living either above or below their BAH standard. Those overspending their BAH may be doing so because they are living above standards. Servicemembers may choose to live above standards to accommodate their unique housing needs, but they may not realize that their BAH will not cover the increased cost.

The disparities between perception of BAH adequacy and BAH differential using servicemember-provided costs, results reported from other surveys [4, 42], and our conversations with Service housing offices all indicate that servicemembers may lack some understanding of BAH policy and how it applies to them. We recommend **that OSW produce standardized educational materials explaining BAH policy in common, everyday language.** These materials should name explicitly the utilities covered by BAH.

In addition, **OSW should develop educational materials on the costs and benefits of homeownership in the local area.** Our results show that, in most cases, homeownership costs more than renting. However, the costs that our survey asked about do not include additional costs for maintaining a home or down payments, likely further increasing the costs of homeownership.

We recommend that **OSW publish BAH rates as separate rent and utilities allowances.** Publishing the allowances separately would allow servicemembers to make more informed choices about the rent or mortgage payment that they can afford while keeping overall expenses within their BAH rate. If a servicemember moves to off-base housing for the first time or moves from an area with low utility costs, they may underestimate the portion of their BAH that should be reserved for utilities. Resources available online provide some guidance on servicemembers' expected utility costs based on the type of housing that they choose but do not emphasize that BAH rates are intended to cover both rent and utilities [37].

Separate allowances would also serve a secondary purpose. During our discussions with Service housing offices and when responding to inquiries from the BAH survey inbox, we heard anecdotes of local area landlords raising rents to match the published BAH rates that include utilities every January. Although we did not evaluate the validity of this claim in this study, publishing the BAH rental allowance separate from the utilities allowance would address this concern by making clear the amount of BAH intended for rent separate from utilities.

BAH policy

The current BAH housing profiles do not align with servicemembers' housing choices. The standard for residence type assigns a townhome to 56 percent of survey respondents, although just 11 percent of off-base BAH recipients live in townhomes. Although this finding is driven partially by servicemember preference for single-family homes (BAH recipients are more likely to live in single-family homes than their civilian counterparts), it is also driven by market availability. We recommend **that OSW either reduce the residence types to two options—multifamily dwellings and single-family dwellings—or dispense with residence types altogether.**

Servicemembers are not living in dwellings aligned with their BAH standard for bedrooms. Just 39 percent live in dwellings aligned with their BAH standard, whereas 45 percent live in dwellings with more bedrooms than their BAH standard. One solution for aligning BAH bedroom standards more closely to civilian and off-base BAH member housing choices is for **OSW to adopt on-base housing standards for bedroom allotments for BAH rates.** In the fourteenth QRMC, CNA calculated this to be a \$340 million per year increase in BAH spending [6], which is just over a 1 percent increase in the \$29 billion per year BAH budget.

Current rate-setting procedures produce BAH rates that do not align with servicemember costs. Ignoring standards, we observe that BAH rates range from 7 percent less than servicemember costs (one-bedroom apartment without dependents) to 15 percent more than member costs (three-bedroom townhome without dependents). Across our featured MHAs, we see monthly BAH rate differentials that are neither uniformly high nor low but have a range

from -30 percent (NC178) to 15 percent (HI408) for a single housing type (two-bedroom townhomes). As currently designed, BAH rates are slow to respond to market fluctuations, which may cause some of the discrepancy. We recommend that **OSW investigate a dynamic model for establishing BAH rates that responds to the unique needs in local markets.** Such a model might include the use of commercial rent indexes (e.g., Zillow, Apartment List) and employ machine learning to set pricing adjustments to account for DOW-set standards and forecast rental prices, reducing discrepancies due to expected market fluctuations.

Improve the quality of on-base housing

Accusations of poor housing conditions and lack of quality have persisted since the implementation of PPV use in 1996,³⁴ despite ongoing efforts to improve the quality and availability of on-base housing, including the yearly administration of a Tenant Satisfaction Survey. The 2023 Navy report for PPV tenants noted little to no change in tenant satisfaction from 2022, with 22 percent of Navy installations receiving an overall satisfaction score below 70, indicating below average or poor satisfaction [42]. The 2025 Army report for family housing reported that 21 percent of installations received the same below average or poor satisfaction score [44]. Ratings for unaccompanied housing were lower, with more than 22 percent of Navy and 58 percent of Army installations receiving below average or poor ratings [44-45]. As long as there is variation in quality across installations, neighborhoods, contractors, and housing types, the perception of poor-quality on-base housing will drive servicemembers to seek housing off base.

³⁴ As one example, CNA documented concerns of the economic incentives for PPVs to reduce maintenance, modernization, and management of on-base housing units rented at below-market rates in 1998 [43].

Improving the quality of on-base housing is a multifaceted problem. Our first-line recommendation is for **OSW to sponsor a study to assess complaints of PPV and unaccompanied housing quality**. The Tenant Satisfaction Surveys provide some information on quality concerns at the Service level but do not provide detailed information on specific quality concerns. A future study should include recommendations for addressing complaints from the Tenant Satisfaction Surveys, including mold and pest infestations, time to complete maintenance requests, and aging appliances. Second, we recommend that **Congress and/or the services allocate funding for improving base housing targeted at the areas identified for quality improvement**.

We note that privacy is a significant driver of servicemembers choosing to live off base. If perceptions of on-base housing quality are improved, some servicemembers will still prefer to live off installation to institute a barrier between their work and home life.

Survey

If the BAH Adequacy Survey were administered again, we recommend planning to increase opportunities for junior enlisted personnel to participate by **offering a paper or text-based option or investigating implementing a QR code** that can be widely distributed to servicemembers but requires verification via government email. The provided government email could then be matched to DMDC data files to verify that the respondent is a BAH recipient.

The screening question asking respondents whether they were in a CONUS location caused confusion.

In future administrations, we recommend that **the location screening question be revised** so that respondents select a state for their current duty station. The provided state could then be used to filter a list for duty stations. This structure would eliminate any confusion over CONUS location and improve the quality of responses for the duty station question.

Most of the excluded values for mortgage costs appeared to be mortgage balances, down payments, or current home values. We suspect that survey respondents provided the information that they wanted us to have rather than the information requested in the question. We recommend that future iterations **provide homeowners the opportunity to provide detailed mortgage information**. This additional information may improve overall data quality and allow further analysis. We did not ask for mortgage terms in this iteration of the survey, so our analysis does not account for the down payment and interest rate of servicemember mortgages.

In addition, we would **add a question to capture the reasons why homeowners choose to purchase a home**. The question should include such factors as low rental availability, opportunity to build equity, desire to customize a home, and intent to return to duty station at conclusion of service.

Our survey population was limited to those who receive full BAH with or without dependents. There was demonstrated interest in the BAH survey email inbox for a version of the survey applicable to all BAH recipients. We recommend **creating additional versions of the BAH Adequacy Survey tailored to activated reserves and those receiving partial BAH or BAH-differential**.

Appendix A: BAH Adequacy Survey

This voluntary survey is designed to help DOW understand the housing needs and expenses of active duty servicemembers and their families and to determine the extent to which BAH helps servicemembers secure their housing needs. It should take less than 20 minutes to answer. After the required screening questions, you may skip any individual question that you do not wish to answer. *Please do not include any identifiable information (such as names) in text fields.*

All information collected in this survey will be summarized and reported by CNA. No names, contact information, or any other personally identifiable information will be associated with your survey responses or used in the analysis or reporting of survey results. We thank you in advance for providing information that will contribute to decisions about BAH.

[SCREENER QUESTIONS]

In which branch of the military are you currently serving in an Active Duty status?

Please choose one.

- Air Force
- Army
- Marine Corps
- Navy
- Space Force
- Coast Guard
- None of these/Not in an Active Duty status (exit survey)

Is your current duty station in the Continental US (CONUS), Alaska, or Hawaii?

Please choose one.

- Yes
- No (exit survey)

Do you currently receive Basic Allowance for Housing (BAH)?

Please choose one.

- Yes
- No (exit survey)

[SCREENER EXIT]

Thank you for your time, you are not eligible to participate in this survey at this time. If you feel you have reached this message in error, please contact the study team at BAHsurvey@cna.org.

[CONSENT]

Please click on the following link to download a consent information sheet.

[Consent Information Sheet \[Link for attached consent\]](#)

Do you acknowledge receipt of the consent information sheet and choose to participate in this research?

- Yes
- No (exit survey)

[SURVEY]

Household demographics

This section of the survey asks questions about the people living in your current household. Any information you provide will be aggregated and reported by CNA. This information will be used to help DOW understand servicemember family characteristics that impact housing decisions.

1. How many of the following live with you at your current residence?

Please check all that apply.

- Spouse
- Unmarried partner
- Rent paying roommate
- If yes: How many rent paying roommates do you have?
 - 0
 - 1
 - 2
 - 3
 - 4
 - 5 or more
- Children: biological, adopted, or stepchildren

[if yes]

Please choose the age groups that represent the biological, adopted, or stepchildren that live at your current residence.

Please check all that apply.

- Age 5 or younger [if yes] Please provide the number of children ages 5 or younger. If more than 5, please choose 5. [slider 0 to 5]
- Age 6-9 [if yes] Please provide the number of children ages 6 to 9 by sex. If more than 5, please choose 5.
 - Male: [slider 0 to 5]
 - Female: [slider 0 to 5]
 - Prefer not to answer by sex: [slider 0 to 5]

- Age 10-17 [if yes] Please provide the number of children ages 10-17 by sex. If more than 5, please choose 5.
 - Male: [slider 0 to 5]
 - Female: [slider 0 to 5]
 - Prefer not to answer by sex: [slider 0 to 5]
- Age 18-20. [if yes] Please provide the number of children ages 18 to 20. If more than 5, please choose 5. [slider 0 to 5]
- Age 21 to 23 [if yes]
 - Do the children ages 21 to 23 at your current residence include any of the following: Please check all that apply.
 - Incapacitated children [if yes] How many incapacitated children ages 21 to 23 live at your current residence? If more than 5, please choose 5. [slider 0 to 5]
 - Full time students [if yes] How many children ages 21 to 23 in your current residence are full time students? If more than 5, please choose 5. [slider 0 to 5]
 - Neither incapacitated nor a full time student [if yes] How many children ages 21 to 23 in your current residence are neither incapacitated nor full time students? If more than 5, please choose 5. [slider 0 to 5]
 - Age 24 or older. [if yes] How many children ages 24 or older in your current residence? If more than 5, please choose 5. [slider 0 to 5]
- Paid caregiver(s) (a live-in nurse or au pair)
- Other family members
- Others
- None of the above

2. Do you have dependents (people for whom you provide financial support) who do not live at your current address?

- Yes
- No

2a. Please provide the number of your dependents who do not live with you by age group:

If more than 5, please choose 5.

- Over age 18 [slider 0 to 5]
- Ages 10 to 17 [slider 0 to 5]
- Ages 6 to 9 [slider 0 to 5]
- Under age 5 [slider 0 to 5]

3. [if spouse is not selected in Q1] What is your current marital status?

Please check the one response that best describes your current marital status.

- Married
- Widowed
- Divorced or annulled
- Separated
- Never married

3a. [If Q1 spouse is selected or Q3=married] What is your spouse's employment status?

Check the one response that best describes your spouse's employment status.

- Armed Forces (Active Duty, National Guard or Reserve)
 - o What is the paygrade of your spouse?
 - Enlisted: dropdown E1-E9
 - Officer: dropdown for O1-O6 or above
 - Warrant Officer: dropdown for W1 to W5

- Employed (outside of the Armed Forces)
- Unemployed (looking for employment or needing or wanting to work)
- Not in the Labor Force (not looking for employment or needing or wanting to work)

3b. [If Q1 unmarried partner is selected] What is your partner's employment status?

Check the one response that best describes your partner's employment status.

- Armed Forces (Active Duty, National Guard or Reserve)
 - o What is the paygrade of your partner?
 - Enlisted: dropdown E1-E9
 - Officer: dropdown for O1-O6 or above
 - Warrant Officer: dropdown for W1 to W5
- Employed (outside of the Armed Forces)
- Unemployed (looking for employment or needing or wanting to work)
- Not in the Labor Force (not looking for employment or needing or wanting to work)

Residency description

This section of the survey asks questions about your current residence. Any information you provide will be aggregated and reported by CNA. This information will be used to understand the location and type of housing available to servicemembers at your duty station.

4. Is your current residence on a military base?

- Yes
- No

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5. Which best describes your current residence?
Check the one response that best describes your current residence.
- A mobile home
 - A one-family house detached from any other house
 - A one-family house attached to one or more houses (for example, a row home or townhouse)
 - A building with 1 or more apartments or condominiums
 - Boat, RV, van, etc.
 - Other, please specify _____
6. How many years have you lived at this residence?
- o Less than 1 year
 - How many months have you lived at this residence?
 - Less than 1 month
 - 1 to less than 2 months
 - 2 to less than 3 months
 - 3 to less than 4 months
 - 4 to less than 5 months
 - 5 to less than 6 months
 - 6 to less than 7 months
 - 7 to less than 8 months
 - 8 to less than 9 months
 - 9 to less than 10 months
 - 10 to less than 11 months
 - 11 or more months
 - o 1 to less than 2 years
 - o 2 to less than 3 years
 - o 3 to less than 4 years
 - o 4 to less than 5 years
 - o 5 to less than 6 years
 - o 6 to less than 7 years
 - o 7 to less than 8 years
 - o 8 to less than 9 years
 - o 9 to less than 10 years
 - o 10 or more years
7. [if mobile home or one-family house=1] How many acres of land is your residence on? *Please choose one.*
- I don't know
 - Less than .25 acres (Less than 10,890 square feet)
 - .26 to .50 acres
 - .51 to 1.00 acre
 - 1.01 to 9.99 acres
 - 10 or more acres
8. [if boat, RV, van=0] What is the approximate square footage of your residence?
- Less than 500 square feet
 - 500 to 749 square feet
 - 750 to 999 square feet
 - 1,000 to 1,499 square feet
 - 1,500 to 1,999 square feet
 - 2,000 to 2,499 square feet
 - 2,500 to 2,999 square feet
 - 3,000 to 3,999 square feet
 - 4,000 square feet or more
 - I don't know
9. [if boat, RV, van=0] How many separate rooms are in your current residence?
- Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.
- INCLUDE bedrooms, kitchens, living/family rooms, office/studio space, finished basements, etc.*
- EXCLUDE bathrooms, porches, balconies, foyers, halls, closets, or unfinished basements.*

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9a. Number of rooms [dropdown box 0-20+ rooms]

9b. How many of these rooms are bedrooms?

If this is an efficiency/studio apartment, print "0".

• Number of bedrooms [dropdown box 0-8+ bedrooms]

9c. How many separate bathrooms are in this house, apartment, or mobile home?

Bathroom with a toilet, sink, **and** bathtub or shower [dropdown box 0-8+ bathrooms]

Bathroom with a toilet and sink **only** [dropdown box 0-8+ bathrooms]

10. How many dedicated or assigned off-street parking spaces are included with your residence? For example, garage, carport and dedicated driveway parking if applicable. Please choose one.

- 0
- 1
- 2
- 3 or more

Commuting

This section asks about your commute from your residence to your current duty station. Any information you provide will be aggregated and reported by CNA. This information will be used to understand the trade-offs BAH recipients are making in choosing location and home characteristics.

11. During a typical work week, which of the following modes of transportation do you use to commute to work?

Check all that apply.

- Ride share in a personal use vehicle (car, truck, van, or motorcycle)

- Ride alone in a personal use vehicle (car, truck, van, or motorcycle)
- Public transportation (such as subway or commuter rail)
- Bicycle, Scooter, E-bike, or E-scooter
- Walk
- No travel necessary--work from home
- Other method

12. [if worked from home is not the only option chosen in Q11] On average using your most common mode of transportation, how long is your daily round trip commute from your residence to your duty station? ___hours ___minutes

BAH satisfaction

This section asks about your satisfaction and views on your Basic Allowance for Housing. Any information you provide will be aggregated and reported by CNA. This information will be used to understand how BAH recipients view their BAH rate.

13. How satisfied are you with your Basic Allowance for Housing (BAH)?

Please choose one.

- Extremely dissatisfied
- Somewhat dissatisfied
- Neutral
- Somewhat satisfied
- Extremely satisfied

14. To what extent does your BAH cover your basic housing expenses (rent or mortgage, electricity, gas, water, and sewer)?

Please choose one.

- BAH does not cover my expenses
- BAH sometimes covers my expenses
- BAH typically covers my expenses
- BAH fully covers my expenses

15. When choosing housing, which of the following comes *closest to how you view your BAH?*

Please choose one.

- BAH is the maximum amount I will pay for housing
- BAH is the target amount I should pay for housing
- BAH is the minimum amount I will pay for housing
- I do not consider BAH when choosing housing

Market conditions and preferences

This section of the survey asks questions about housing availability in and around your current duty station. Any information you provide will be aggregated and reported by CNA. This information will be used to understand the impact of market availability and on-base housing options on BAH recipients' housing decisions.

16. [if off-base] Did you have an option to live in on-base housing when you arrived at your current duty station?

Please choose one.

- Yes
- No
- I don't know

17. [if off-base and option=N] If you had an option to live on-base at your current duty station, would you take it?

Please choose one.

- Yes
- No
- I don't know

18. [if off-base and option=Y] What factors influenced your decision to live in off-base housing at your current residence?

Click and drag up to 5 factors and list them in order from most important to least important, where the item at the top of the list was the most important and the item at the bottom of the list was the least important.

- Amenities (on-site pool/gym/playground)
- Perceived personal safety
- Access to childcare
- Access to preferred school
- Access to medical care
- Access to parks/trails or geographic features such as mountains or water
- Live near family/friends
- Commute to duty station
- Spouse/partner commute
- Access to shopping, restaurants, and entertainment
- Access to a garage or more desirable parking
- Pet restrictions
- Size of yard
- Size of residence
- Cost
- Privacy
- Quality of on-base housing
- Opportunity to build equity

19. [if on-base] What factors influenced your decision to live in on-base housing at your current residence?

Please check all that apply.

- Amenities (on-site pool/gym/playground)
- Perceived personal safety
- Access to childcare
- Access to preferred school
- Access to medical care

- Access to parks/trails
- Access to parks/trails or geographic features such as mountains or water
- Live near family/friends
- Commute to duty station
- Spouse/partner commute
- Access to shopping, restaurants, and entertainment
- Access to a garage or more desirable parking
- Size of yard
- Size of residence
- Cost
- Privacy
- Quality of on-base housing
- Community housing not available
- Length of tour at duty station
- Comradery

Housing preferences

This section of the survey asks questions about the factors that influenced your decision to live in your current residence. Any information you provide will be aggregated and reported by CNA. This information will be used to understand BAH recipients' neighborhoods and individual home preferences.

20. [if off-base] What neighborhood factors were important in making your current housing decision?

Click and drag up to 5 and list them in order from most important to least important, where the item at the top of the list is the most important and the item at the bottom of the list is the least important.

- Building or community amenities (on-site pool/gym/playground)
- Availability of public transportation

- Crime statistics
- Perceived personal safety
- Access to preferred school
- Access to childcare
- Access to medical care
- Access to parks/trails or geographic features such as mountains or water
- Live near family/friends
- Commute to duty station
- Spouse/partner commute
- Access to shopping, restaurants, and entertainment
- Inventory of available housing in my price range
- Other, please specify:

21. [if school characteristics is chosen] What school characteristics were most important to you?

Click and drag up to 5 and list them in order from most important to least important, where the item at the top of the list is the most important and the item at the bottom of the list is the least important.

- State test scores (or other state-level recognition)
- Blue ribbon schools (or other national recognition)
- Percent of students receiving free and reduced lunch
- Courses offered
- Access to athletic programs
- Size of student body
- Private religious schooling
- Private non-religious schooling
- On-base schooling
- Perceived safety
- Distance from residence to school
- Other, please specify _____

22. [if off base] What housing factors were important in making your current housing decision?

Click and drag up to 5 and list them in order from most important to least important, where the item at the top of the list is the most important and the item at the bottom of the list is the least important.

- Size of yard
- Size of residence
- Number of bedrooms
- Number of bathrooms
- In-unit laundry
- Pet policies (or lack thereof)
- Extra living space (office, gym, playroom, guest room)
- Outdoor living features (fenced yard, deck, patio, garden)
- Utility costs
- Mortgage or rental cost
- Garage or dedicated parking space
- Renovated/modern design
- Other, please specify: _____

Current residence costs

This section of the survey asks for detailed information on the cost of your current residence. We start with questions concerning rent or mortgage expenses, depending on which of those expenses are applicable to you, and then move on to utility costs. While these questions may take some time and consideration to answer, we appreciate your willingness to share this important data. The data you provide will be used to evaluate the adequacy of BAH at your current duty station. Any information you provide will be aggregated before being reported by CNA.

23. Is your residence:

Please check one.

- Owned by you or someone in this household with a mortgage or loan
- Owned by you or someone in this household without a mortgage or loan (including if any mortgage or loan has already been paid off)
- Rented by you or someone in this household
- Occupied without payment of rent

24. [if roommate, partner, spouse, other family, or other in Q1] When answering questions about cost of your current residence (such as rent and mortgage) are you able to provide total costs for the residence?

- Yes, I can provide the total rent or mortgage payment for my residence
- No, I can provide only my share of the rent or mortgage payment for my residence

25. [if roommate, partner, spouse, other family, or other in Q1] When answering questions about utility costs for your current residence (such as electricity and gas) are you able to provide total utility costs for the residence?

- Yes, I can provide the total utility costs for my residence
- No, I can provide only my share of the utility costs for my residence
- It varies by utility

Mortgage

The following questions will ask details about your mortgage and may require you to view a copy of your mortgage and escrow statements. If these documents are unavailable to you, please provide your best estimate. While you can skip any question you choose not to answer, we hope that you will answer all the questions that you can. Any information you provide will be aggregated and reported by CNA. This information will be used understand how servicemember's actual housing costs compare to BAH rates.

M26. [if owned with mortgage=1] How frequently are you required to make a payment on your mortgage?

Please choose one.

- Monthly
- Biweekly
- Other, please specify _____

M27. [if owned with mortgage=1] How much is the regular mortgage payment on this property? Include payment on FIRST mortgage or contract to purchase. Do not include payments for any additional mortgages or home equity loans or lines of credit.

Please provide the amount you pay for a regular mortgage payment. If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of my regular mortgage payment. It is: \$____
- I do not know the exact amount of my regular mortgage payment. I estimate it is: \$____
- I don't know

M28. [if owned with mortgage=1] Are you willing to answer more detailed questions about your mortgage payment? To answer these questions you will need to refer to a copy of your mortgage statement. This information will be used understand how mortgage terms, property taxes, and insurance impact BAH recipients' housing costs.

- Yes
- No [skip to 34]

M29. [if M28=yes] How much of your mortgage payment is for principal and interest? If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of principal and interest. It is: \$____
- I do not know the exact amount of principal and interest. I estimate it is: \$____
- I don't know

M30. [if M28=yes] How much of your mortgage payment is for fees? If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of fees. It is: \$____
- I do not know the exact amount of fees. I estimate it is: \$____
- I don't know

M31. [if M28=yes] How much of your mortgage payment is held in escrow for property taxes? If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of my mortgage payment that is held for property taxes. It is: \$____
- I do not know the exact amount my mortgage payment that is held for of property taxes. I estimate it is: \$____
- My property taxes are not paid from my escrow account
- I don't know

M32. [if owned with or without mortgage] Which of the following types of insurance do you hold for this property? If you do not know an exact amount, you can provide an estimate.

Check all that apply.

- Basic homeowner's insurance for coverage of fire and other hazards
 - o [if yes] How much is your yearly payment for basic homeowner's insurance for your current residence? If you do not know an exact amount, you can provide an estimate.
 - I know the exact amount of homeowner's insurance. It is: \$____
 - I do not know the exact amount of homeowner's insurance. I estimate it is: \$____
 - I don't know

- Flood insurance
 - o [if yes] How much is your yearly payment for flood insurance?
 - I know the exact amount of flood insurance. It is: \$____
 - I do not know the exact amount of flood insurance. I estimate it is: \$____
 - I don't know
- Earthquake insurance
 - o [if yes] How much is your yearly payment for earthquake insurance?
 - I know the exact amount of earthquake insurance. It is: \$____
 - I do not know the exact amount of earthquake insurance. I estimate it is: \$____
 - I don't know

M33. [if owned without mortgage or property tax not paid from escrow] What are the annual real estate taxes on this property?

If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of property taxes. It is: \$____
- I do not know the exact amount of property taxes. I estimate it is: \$____
- I don't know

Renters

The following questions will ask details about your rent. Any information you provide will be aggregated and reported by CNA. This information will be used to understand how servicemember's actual housing costs compare to BAH rates.

R26a. [if rented=1 & 24=share] What is your portion of the monthly rent for your residence?

Please provide the amount you pay per month for rent. If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of my share of the monthly rent. It is \$_____
- I do not know the exact amount of my share of the monthly rent. I estimate it is: \$_____
- I don't know

R26b. [if rented=1 & 24=total] What is the monthly rent for your residence?

Please provide the amount you pay per month for rent. If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of my monthly rent. It is \$_____
- I do not know the exact amount of my monthly rent. I estimate it is: \$_____
- I don't know

R27. [if rented=1] Does your rent include an additional fee for pet rent? Yes/No

[if yes] How much is your monthly pet rent?

o R27a. Please provide the amount you pay per month for pet rent. If you do not know an exact amount, you can provide an estimate.

- \$_____ per month
- I don't know

R28. [if rented=1] What is your annual payment for renter's insurance?

Please provide the amount you pay for 12 months (1 year) of renter's insurance. If you do not know an exact amount, you can provide an estimate.

- I know the exact amount of my yearly renter's insurance. It is \$_____
- I do not know the exact amount of my yearly renter's insurance. I estimate it is: \$_____
- Renter's insurance is included in my monthly rent
- I do not have renter's insurance
- I do not know

Utilities

The following questions will ask details about your utility costs and may require you to view your utility bills. If these documents are unavailable to you, please provide your best estimate. While you can skip any question you choose not to answer, we hope that you will answer all of the questions that you can. Any information you provide will be aggregated and reported by CNA. The aggregated information will be used to help DOW understand if BAH rates are sufficient for servicemembers to secure adequate housing including utilities at your current duty station.

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If you share these costs with others living at your residence, please provide the amount you pay for your share of the service.

34. Last month, what was the cost of electricity for your residence?

Please provide the amount you paid for electricity in the last month. Only include the portion of your payment that was for the most recent month of service (do not include late fees or unpaid balances from prior months). If you do not know an exact amount, you can provide an estimate.

- I know the exact cost of electricity for last month. It is \$_____
- I do not know the exact amount of electricity for last month. I estimate it is: \$_____
- Electricity is included in rent or condominium fee
- My residence uses this utility, but I am not responsible for paying for them
- My residence does not use this utility
- I don't know

35. Last month, what was the cost of gas for your residence?

Please provide the amount you paid for gas service in the last month. Only include the portion of your payment that was for the most recent month of service (do not include late fees or unpaid balances from prior months). If you do not know an exact amount, you can provide an estimate.

- I know the exact cost of gas for last month. It is \$_____
- I do not know the exact amount of gas for last month. I estimate it is: \$_____
- Gas is included in rent or condominium fee
- My residence uses this utility, but I am not responsible for paying for them
- My residence does not use this utility
- I don't know

36. Last month, what was the total cost of television, telephone, and internet service for your residence?

Please provide the amount you paid for television, telephone, and internet service in the last month.

For television service, only include cable or basic streaming services such as Sling TV, Hulu TV, or YouTube TV. Do not include premium services such as Disney+, Netflix, or NFL Sunday Ticket.

Only include the portion of your payment that was for the most recent month of service (do not include late fees or unpaid balances from prior months). If you do not know an exact amount, you can provide an estimate.

- I know the exact cost of television, telephone, and internet for last month. It is \$_____
- I do not know the exact cost of television, telephone, and internet for last month. I estimate it is: \$_____
- Included in rent or condominium fee
- My residence uses this utility, but I am not responsible for paying for them
- My residence does not use this utility
- I don't know

36a. [if>0] This fee includes: *Check all that apply.*

- Cable television
- Streaming service
- Internet
- Landline telephone
- Mobile telephone, including data service

37. In the past 12 months, what was the cost of oil, coal, kerosene, wood, or other heating fuel for your residence? If you have lived here less than 12 months, estimate the cost for 12 months.

Please provide the amount you paid for heating fuel last year. Only include the portion of your payment that was for the last year of fuel (do not include late fees or unpaid balances from prior years). If you do not know an exact amount, you can provide an estimate.

- I know the exact cost of heating fuel for the last year. It is \$_____
 - I do not know the exact cost of heating fuel for the last year. I estimate it is: \$_____
 - Heating fuel is included in rent or condominium fee
 - I have not lived in this location long enough to be able to estimate these costs
 - My residence uses these fuel types, but I am not responsible for paying for them
 - My residence does not use these fuel types
 - I don't know
38. How frequently are you required to pay for water and sewer for your residence?
- Monthly
 - Quarterly
 - Yearly
 - Water and sewer are included in my rent or condominium fee
 - I am not charged for water or sewer
 - I don't know

- 38a. [if pay for water and sewer] What was the cost of water and sewer for your most recent bill for your residence?

- I know the exact cost of my last water and sewer bill. It is \$_____
- I do not know the exact cost of my last water and sewer bill. I estimate it is: \$_____
- No charge for water and sewer

39. Is your residence part of a homeowners' association or condominium? For renters, answer Yes only if you pay the fee in addition to your rent; otherwise, mark the No box.

- Yes.
 - o [Yes] How frequently is this fee paid? Please choose one.
 - Monthly
 - Quarterly
 - Yearly
 - Other, please specify _____

- o What is the required homeowners' association fee or condominium fee?

For renters, only enter the fee if you pay the fee in addition to your rent. Otherwise choose the "I do not pay this fee" option.

- I know the exact cost of the HOA or condominium fee. It is \$_____
 - I do not know the exact cost of the HOA or condominium fee. I estimate it is: \$_____
 - I do not pay this fee
 - I do not know
- No

Demographics

The following section asks questions about your demographics. All information collected in the following questions will be summarized and reported by CNA. No names, contact information, or any other personally identifiable information will be associated with your survey responses or used in the analysis or reporting of survey results.

40. What describes your current rank?

Please choose one.

- Enlisted
- Warrant Officer
- Officer

41. What is your current paygrade? *Please choose one. [dropdown box]*

42. [If O1, O2, O3=1] Are you prior enlisted?

Please choose one.

- Yes
- No

43. [if not E1, E2, O9, O10] How many cumulative years of active duty service have you completed? [drop down]

- 2 or less
- Over 2
- Over 3
-
- Over 40

44. What is the 5-digit zip code of your current residence? This information will be used to identify the Military Housing Area where you reside as well as to calculate your distance from your current duty station. No individual results will be presented by zip code.

45. What is the Service affiliation of your current duty station?

- a. Air Force
- b. Army
- c. USCG
- d. Navy
- e. Marine Corps
- f. Space Force
- g. Joint Base

46. What is your current duty station? [drop down limited by Service affiliation]

47. How much is the combined income of all members of YOUR HOUSEHOLD for the last calendar year?

Please include your taxable income PLUS the taxable income of all members living in your household (including unmarried partners and armed forces members living at home). Please count income BEFORE TAXES and from all sources (such as wages, salaries, tips, net income from a business, interest, dividends, Social Security, special pays, pensions).

Do not include child support, alimony, public assistance, retirement benefits, Basic Allowance for Housing, Basic Allowance for Subsistence (BAS), Basic Needs Allowance, Family Separation Allowance, and other DOW allowances included in your regular compensation.

Please check one.

- Below \$50,000
- \$50,000 or more
- I don't know

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47a. [If income <\$50,000] We would like to get a better estimate of your total HOUSEHOLD taxable income in the last year (2024) before taxes. Was it... *Please check one.*

- Less than \$24,999
- \$25,000 to \$29,999
- \$30,000 to \$34,999
- \$35,000 to \$39,999
- \$40,000 to \$49,999
- I don't know

47b. [If income >=\$50,000] We would like to get a better estimate of your total HOUSEHOLD taxable income in the last year (2024) before taxes. Was it... *Please check one.*

- \$50,000 to \$59,999
- \$60,000 to \$74,999
- \$75,000 to \$84,999
- \$85,000 to \$99,999
- \$100,000 to \$124,999
- \$125,000 to \$149,999
- \$150,000 to \$174,999
- \$175,000 to \$199,999
- \$200,000 to \$249,999
- \$250,000 or more
- I don't know

48. Did you receive Family Separation Allowance for some or all of 2024? *Please check one.*

- Yes
- No
- I don't know

49. Do you have any other non-taxable income, such as child support or alimony? *Please check one.*

Do not include Basic Allowance for Housing, Basic Allowance for Subsistence (BAS), Basic Needs Allowance, Family Separation Allowance, and other non-taxable DOW allowances.

- Yes

49a. How much did you receive in non-taxable income in 2024? *Please check one.*

- Less than \$5,000
- \$5,000 to \$9,999
- \$10,000 to \$14,999
- \$15,000 to \$19,999
- \$20,000 to \$24,999
- \$25,000 to \$29,999
- \$30,000 or more
- I don't know

- No

Appendix B: Data Cleaning Procedures

Our survey design limited text entry intentionally to reduce the need to code and clean collected data. However, we did employ deductive imputation and logical limits to some survey items. A full listing of these actions is listed in Table 39.

Table 39. BAH Adequacy Survey data cleaning procedures

Variable	Rule
Duty station	<ul style="list-style-type: none"> We used Google API to assign write-in installation names to zip codes and then zip codes to MHAs. We imputed installation MHA as the residence MHA if 75 percent or more of the respondents in a residential MHA listed their installation within the same MHA.
On or off base	If residence type is a mobile home, boat, van, RV, or other, a respondent can own a residence and live on base. Otherwise, we assumed that respondents who own a home and report living on base are unaccompanied servicemembers who have reported housing expenses for the home they own and recoded their location to off base.
Residence type	We reassigned write-ins for residence type to match existing housing types when possible (e.g., a split-level home was recoded as a detached single-family home, a studio was recoded as an apartment/condo).
Spouse or unmarried partners	If a respondent indicated that they lived with a spouse or unmarried partner but did not respond to the marital status question, we set the marital status to match their spouse or partner-in-residence status.
Household income	<ul style="list-style-type: none"> Minimum bound of active duty salary for rank and years of service. For those with more than two years of service, minimum bound is active duty salary for one less year of service and one lower rank and rank is over E-4. <ul style="list-style-type: none"> O-1Es with more than two years of service have an income floor of a 2024 E-4 with one less year of service.
Mortgage, rent, utilities, insurance, and commute time	Values outside of Tukey's fences (Quartile 1 – α *IQR, Quartile 3 + α *IQR, $\alpha=4$) were set to missing.
Pet rent	The MHA-level Tukey's fences resulted in small numbers of pet rents reported in some locations. When small numbers of pet rents were reported, extreme values fell within the valid range. Based on [46], we capped pet rents at \$500 per month, allowing for up to five pets at a pet rent of \$100 each per month.

Source: CNA.

Appendix C: Item Nonresponse

Not every survey respondent answered every question posed to them. Table 40 provides the expected number of responses (the number of survey respondents asked a question), the number of missing values, the number of suppressed outlier values, the number of imputed values (duty station only), and the resulting number of valid values for each survey item.

Table 40. Response and nonresponse by survey item

Survey Item	Expected Responses	Missing	Number Suppressed	Number Imputed	Valid Values
Demographics					
Duty station	50,255	4,428	0	3,291	49,118
Spouse or partner	50,255	0	0	0	50,255
Dependents	50,255	0	0	0	50,255
Spouse/partner employment	38,065	31	0	0	38,034
Taxable household income	50,255	4,221	5,603	0	40,431
Non-taxable household income	50,255	507	0	0	49,748
Years of service	50,255	1,324	0	0	48,931
Residence description					
On or off base	50,255	15	0	0	50,240
Residence type	50,255	48	0	0	50,207
Total rooms	50,255	553	0	0	49,702
Bedrooms	50,255	342	0	0	49,913
Bathrooms	50,255	1,673	0	0	48,582
Commute time	50,255	66	414	0	49,775
Parking spaces	50,255	24	0	0	50,231
Costs					
Rent cost	25,117	4,428	37	0	20,652
Mortgage cost ^a	24,144	618	136	0	23,390
Electric	41,387	1,753	93	0	39,541
Gas	25,370	2,165	256	0	22,949
Heating fuel	7,223	242	62	0	6,919
Water and sewer	38,150	2,287	231	0	35,632
HOA fees	13,561	2,093	283	0	11,185
Media	46,207	158	41	0	46,008
Pet rent ^b	8,726	403	607	0	7,716
Renter's insurance	20,689	4,668	551	0	15,470

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Survey Item	Expected Responses	Missing	Number Suppressed	Number Imputed	Valid Values
Preferences					
On-base factors	6,295	2,611	0	0	3,684
Off-base factors	11,733	58	0	0	11,733
On-off base option	43,945	132	0	0	43,813
Preference to live on base	26,986	9	0	0	26,977
Neighborhood factors	43,872	203	0	0	43,669
School factors	1,289	0	0	0	1,289
Home factors	43,872	203	0	0	43,669
Views on BAH					
BAH satisfaction	50,255	42	0	0	50,213
BAH perception	50,255	29	0	0	50,226
BAH view	50,255	22	0	0	50,233

Source: BAH Adequacy Survey conducted by CNA.

^a Mortgage costs include property taxes and mortgage insurance.

^b Pet rent is capped at \$500 per month.

Appendix D: Identifying the Eligible Population with DMDC Data

Because of the transition of the data environment for DMDC, there were data feed delays to CNA, and the most recent month of DMDC's Active Duty Pay (ADP) and Active Duty Master (ADM) files to which we had access was June 2024, which we used to create our survey study sample. We sent our BAH survey sample to DMDC in late March 2025 to request the servicemembers' email addresses. Using the ADP June 2024 file and ADM June 2024 file, we merged records from both files by month and the study identifier DMDC provided us, which was based on the social security numbers, and kept only records from the latest month, June 2024. We used the BAH Primary Location Eligibility Status variable from the ADP file to determine BAH eligibility and dependent status. We kept observations from the combined ADP and ADM file where the BAH Primary Location Eligibility Status equaled A, B, L, or M. We then created a dependent status flag using BAH Primary Location Eligibility Status where BAH eligibility with dependents equaled A or L and without dependents equaled B or M.

BAH Primary Location Eligibility Status

- A- BAH with dependents
- B- BAH without dependents
- L- Privatized quarters with dependents
- M- Privatized quarters without dependents

We also created an assigned unit identification code (UIC) zip code using the ADM-assigned UIC zip code and replaced it with the ADP's assigned unit location zip code if the ADM-assigned UIC zip code was missing, "00000," or "99999." If any additional zip codes were missing, "00000," or "99999," we replaced the zip code with the ADP file BAH primary location zip code. The remainder of "00000" or "99999" zip codes were recoded as missing and did not get assigned to an MHA.

Appendix E: Constructing Civilian Comparisons Using ACS Data

Individual-level civilian data

Our comparisons of civilian housing choices and expenditures are drawn from the ACS 2023 one-year data.³⁵ Within the ACS sample, we excluded civilians who have been institutionalized, those currently living in group quarters, and those living in multifamily units with more than four unique families.³⁶ We further excluded any households that have a householder whose occupation or veteran status³⁷ indicates that they are currently in the military. Finally, we excluded households in which the household head is outside the 18–64 age range, unemployed, not in the labor force, or whose income exceeds 1 million dollars.

After defining the civilian sample, we combined it with the BAH Adequacy Survey respondents and applied the same post-stratification survey weights to civilians as the stratifiers used in our primary analysis of the BAH survey: MHA cost group, rank group, and dependent status.³⁸ Although dependent status is a simple calculation, mapping a civilian to an MHA and military paygrade required some additional manipulation.

Civilians were matched to a hypothetical military paygrade based on age and education [3]. Individuals with a bachelor's degree or higher were assigned to an officer paygrade (inclusive of enlisted-to-officer profiles), and the rest were assigned to an enlisted or warrant officer paygrade. We then assigned civilians to a hypothetical paygrade if they fell within the 25th to 75th percentile of the ages of a particular paygrade across DOW. Some civilians fell within multiple paygrades. In these instances, we included the civilian in calculations for each hypothetical paygrade.

Assigning civilians to an MHA required a crosswalk because the ACS data use PUMAs, which do not neatly fall within MHAs. This was a two-step process: we first used MHA and PUMA shapefiles to determine which PUMAs fall into each MHA using the centroid method (e.g., if the centroid of a PUMA falls within an MHA, all civilians within that PUMA are assigned to that MHA). However, the existing MHA shapefile does not include boundaries for CCGs. To address this issue, we used zip code tabulation areas (ZCTAs).³⁹ Using the same centroid method, we mapped ZCTAs to PUMAs. Because zip codes fall neatly within a CCG,

³⁵ We considered three different civilian data sources: the American Housing Survey (AHS), the one-year ACS, and the five-year ACS. Although the AHS tracks more housing features than the ACS, it is available for only a subset of large metropolitan areas and does not provide sufficient granular data that can be mapped to MHAs. The five-year ACS sample provides more power but is less likely to reflect the consumption patterns of civilians in 2025, when the BAH Adequacy Survey was implemented.

³⁶ Multifamily units typically represent household structures comprising roommates, although they may include less traditional household arrangements. To focus on more conventional roommate situations, we restricted multifamily households to a maximum of four unique families. This restriction captured more than 96 percent of the observations within the multifamily category.

³⁷ If veteran status indicates current active duty.

³⁸ The only stratifier not matched was Service. There is no meaningful way to hypothesize which Service a civilian would identify with. More important, BAH is not meant to differ across Services.

³⁹ Because zip codes are assigned by the US Postal Service, they do not have geographic boundaries; to address this issue, the US Census Bureau created ZCTAs, which are approximate geographic boundaries used for the purpose of data analysis.

we could map PUMAs to CCGs. If a civilian had not already been assigned to an MHA by the previous method, we assigned them to their matched CCG.

MHA-level attribute: rental availability

Our rental availability measure was calculated at the MHA level using one-year 2023 ACS data obtained from National Historic Geographic Information System. To improve the accuracy of this measure, we calculated the MHA-level measure using a household-weighted average of the PUMAs that overlap with each MHA. When a PUMA partially overlapped with an MHA, we weighed the influence of that PUMA by the share of households that fall into that MHA.⁴⁰ To create the crosswalk used in the second step, we overlaid MHA and PUMA shapefiles, and a new shapefile was generated of the unique shapes that result from their intersections. We identified the total number of households that live within each PUMA-MHA shape using the 2020 census tract estimates from the US Census.

⁴⁰ For example, if 70 households of PUMA1 fall inside the MHA and 100 households of PUMA2 fall within the MHA, we would calculate the weighted average as $(70 * \text{PUMA1attribute} + 100 * \text{PUMA2attribute}) / (170)$.

Appendix F: List of MHAs and CCGs

This appendix provides a full listing of MHAs and their key attributes. The percentages of response rate, on-base renters, and homeowners were calculated based on servicemembers' duty station MHAs.

Table 41. List of MHAs and their key attributes

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
AKSML	ALASKA SMALL MARKETS: KETCHIKAN, SITKA, JUNEAU, KODIAK ISLAND	High		33%	1%	33%
AK404	ANCHORAGE, AK	High		19%	27%	40%
AK405	FAIRBANKS, AK	Medium		15%	39%	31%
AL001	ANNISTON/FORT MCCLELLAN, AL	Low		22%	0%	75%
AL002	FORT RUCKER, AL	Low		10%	30%	43%
AL003	HUNTSVILLE, AL	Medium		27%	10%	70%
AL004	MOBILE, AL	Low	Y	26%	0%	69%
AL005	MONTGOMERY, AL	Low		23%	11%	51%
AL006	AUBURN, AL	Low		0%	—	—
AL007	BIRMINGHAM, AL	Medium		10%	0%	68%
AR010	LITTLE ROCK, AR	Low		16%	13%	51%
AR012	FORT CHAFFEE/FORT SMITH, AR	Low		19%	0%	53%
AR411	FAYETTEVILLE, AR	Low		6%	0%	100%
AZ013	PHOENIX, AZ	Medium		22%	7%	44%
AZ014	FORT HUACHUCA, AZ	Low		9%	41%	34%
AZ015	DAVIS-MONTHAN AFB, AZ	Medium		24%	10%	46%
AZ016	YUMA, AZ	Low		15%	25%	44%
CA018	OAKLAND, CA	High		19%	3%	23%
CA019	SAN FRANCISCO, CA	High		18%	1%	23%
CA021	CHINA LAKE, CA	Low		19%	26%	27%
CA022	FRESNO, CA	High		4%	0%	67%
CA023	LEMOORE NAS, CA	Medium		18%	12%	37%
CA024	CAMP PENDLETON, CA	High		11%	33%	21%
CA025	VENTURA, CA	High		17%	20%	20%
CA026	VANDENBERG SFB, CA	High		16%	45%	17%
CA027	MARIN/SONOMA, CA	High		19%	0%	15%

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MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
CA028	BARSTOW/FORT IRWIN, CA	Medium		5%	78%	8%
CA031	SAN BERNARDINO, CA	High	Y	2%	0%	0%
CA032	TWENTY NINE PALMS MCB, CA	High	Y	9%	40%	28%
CA033	BEALE AFB, CA	High		21%	6%	30%
CA034	SACRAMENTO, CA	High		19%	6%	35%
CA035	STOCKTON, CA	High		4%	0%	31%
CA036	VALLEJO/TRAVIS AFB, CA	High		20%	14%	26%
CA037	LOS ANGELES, CA	High		24%	11%	19%
CA038	SAN DIEGO, CA	High		24%	6%	30%
CA039	MONTEREY, CA	High		7%	29%	5%
CA041	RIVERSIDE, CA	High	Y	19%	19%	29%
CA042	HUMBOLDT COUNTY, CA	Medium		33%	0%	11%
CA044	SANTA CLARA COUNTY, CA	High		6%	5%	19%
CA392	SAN LUIS OBISPO, CA	High		15%	4%	55%
CA393	BRIDGEPORT, CA	High	Y	10%	15%	42%
CA420	EL CENTRO, CA	Medium		1%	0%	100%
CA457	EDWARDS AFB/PALMDALE, CA	High		18%	24%	31%
CO045	DENVER, CO	High		18%	6%	41%
CO046	COLORADO SPRINGS, CO	Medium		22%	10%	44%
CO047	FORT COLLINS, CO	Medium		2%	0%	100%
CO422	BOULDER, CO	High		6%	0%	74%
CT049	NEW LONDON, CT	High		14%	15%	39%
CT050	HARTFORD, CT	High		16%	0%	27%
CT051	NEW HAVEN/FAIRFIELD, CT	High		15%	0%	42%
DC053	WASHINGTON, DC METRO AREA	High		42%	6%	34%
DE054	DOVER AFB/REHOBOTH, DE	Medium	Y	14%	16%	44%
FL056	EGLIN AFB, FL	Medium	Y	23%	5%	59%
FL057	GAINESVILLE, FL	Medium		2%	0%	100%
FL058	JACKSONVILLE, FL	Medium		24%	3%	56%
FL059	PATRICK SFB, FL	High		22%	14%	51%
FL061	MIAMI/FORT LAUDERDALE, FL	High	Y	21%	1%	35%
FL062	ORLANDO, FL	High		11%	0%	59%
FL063	PANAMA CITY, FL	Medium	Y	25%	6%	56%
FL064	PENSACOLA, FL	Medium		12%	6%	47%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
FL065	TALLAHASSEE, FL	Low		5%	0%	100%
FL066	TAMPA, FL	High		23%	5%	46%
FL067	WEST PALM BEACH, FL	High		8%	0%	7%
FL068	OCALA, FL	Medium		5%	0%	22%
FL069	FLORIDA KEYS, FL	High	Y	15%	23%	11%
FL070	VOLUSIA COUNTY, FL	Medium		8%	0%	29%
FL423	FORT PIERCE, FL	High		22%	0%	24%
FL424	FORT MYERS BEACH, FL	High	Y	6%	0%	50%
GA071	ATLANTA, GA	High		17%	0%	41%
GA072	ALBANY, GA	Low		23%	29%	49%
GA073	FORT GORDON, GA	Medium		17%	9%	54%
GA074	KINGS BAY/BRUNSWICK, GA	Medium		13%	6%	61%
GA075	FORT BENNING, GA	Low		7%	26%	41%
GA076	ROBINS AFB, GA	Low		22%	5%	50%
GA077	SAVANNAH, GA	Medium		7%	4%	42%
GA079	DAHLONEGA, GA	Medium		2%	0%	79%
GA080	FORT STEWART, GA	Medium		6%	11%	54%
GA081	MOODY AFB, GA	Low		26%	6%	53%
HI408	HONOLULU COUNTY, HI	High		26%	38%	18%
HISML	HAWAII SMALL MARKETS: MAUI COUNTY, HAWAII COUNTY, KAUAI COUNTY	High		23%	28%	12%
IA082	DES MOINES, IA	Medium		3%	0%	100%
ID084	BOISE, ID	Medium		8%	0%	71%
ID086	MOUNTAIN HOME AFB, ID	Medium	Y	18%	14%	41%
IL088	CHAMPAIGN/URBANA, IL	Low		6%	0%	100%
IL089	ROCK ISLAND, IL	Medium		19%	11%	54%
IL090	PEORIA, IL	Low		12%	0%	89%
IL092	GREAT LAKES NAVTRACEN, IL	High		12%	15%	32%
IL093	SCOTT AFB, IL	Low		28%	23%	45%
IL325	CHICAGO, IL	High		6%	15%	45%
IL335	SPRINGFIELD/DECATUR, IL	Low		9%	0%	100%
IN094	INDIANAPOLIS, IN	Medium		12%	0%	65%
IN097	FORT WAYNE, IN	Low		4%	0%	100%
IN338	TERRE HAUTE, IN	Low		12%	0%	100%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
IN399	BLOOMINGTON, IN	Low		14%	5%	12%
KS100	FORT RILEY, KS	Low		7%	21%	34%
KS101	WICHITA/MCCONNELL AFB, KS	Low		23%	9%	49%
KS102	FORT LEAVENWORTH, KS	Medium		13%	22%	39%
KS105	TOPEKA, KS	Low		19%	0%	71%
KY106	FORT CAMPBELL, KY	Medium		7%	15%	37%
KY107	LEXINGTON, KY	Low		17%	0%	41%
KY109	LOUISVILLE, KY	Medium		5%	0%	69%
KY110	FORT KNOX, KY	Low		16%	25%	60%
KY339	FRANKFURT KY	Low		0%	—	—
KY430	PADUCAH, KY	Low		28%	0%	90%
LA113	ALEXANDRIA, LA	Low		0%	—	—
LA114	BATON ROUGE, LA	Medium		28%	0%	46%
LA115	FORT POLK, LA	Low		4%	40%	43%
LA116	NEW ORLEANS, LA	Medium		22%	11%	46%
LA117	SHREVEPORT/BARKSDALE AFB, LA	Low		23%	12%	57%
LA118	LAFAYETTE, LA	Low		30%	0%	47%
LA326	ST MARY AND TERREBONNE, LA	Low		42%	0%	50%
LA370	LAKE CHARLES, LA	Low		46%	0%	45%
LA371	MONROE, LA	Low		5%	0%	100%
MA119	NANTUCKET, MA	High	Y	14%	0%	0%
MA120	BOSTON, MA	High		12%	12%	31%
MA122	WORCESTER, MA	High		2%	0%	100%
MA123	FITCHBURG, MA	High		6%	1%	1%
MA124	CAPE COD-PLYMOUTH, MA	High	Y	27%	2%	42%
MA125	ESSEX CO, MA	High		12%	0%	0%
MA126	HAMPDEN COUNTY, MA	High		18%	6%	27%
MA151	MARTHA'S VINEYARD, MA	High	Y	0%	—	—
MA377	HANSCOM AFB, MA	High		25%	20%	29%
MD127	ABERDEEN PROVING GROUNDS, MD	High		18%	23%	48%
MD128	ANNAPOLIS, MD	High		12%	11%	44%
MD129	BALTIMORE, MD	High		2%	33%	60%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
MD130	FORT DETRICK, MD	High		13%	17%	34%
MD133	FORT G. G. MEADE, MD	High		21%	12%	31%
MD134	INDIAN HEAD NAVORDSTA, MD	High		9%	6%	45%
MD135	PATUXENT RIVER, MD	Medium		22%	15%	42%
MD432	EASTERN SHORE, MD	Medium	Y	18%	0%	40%
MD458	OXFORD, MD	High		5%	0%	0%
ME136	BRUNSWICK, ME	High		13%	0%	56%
ME139	PORTLAND, ME	High		19%	0%	27%
ME141	COASTAL MAINE, ME	Medium	Y	29%	0%	50%
ME390	BANGOR, ME	Medium		0%	—	—
MI142	DETROIT, MI	Medium		21%	0%	52%
MI143	MARQUETTE, MI	Medium		22%	0%	44%
MI145	SAULT STE MARIE, MI	Low	Y	29%	0%	54%
MI146	TRAVERSE CITY, MI	Medium	Y	33%	0%	48%
MI148	GRAND HAVEN, MI	Medium		22%	0%	46%
MI152	BATTLE CREEK/KALAMAZOO, MI	Medium		6%	0%	21%
MI153	LANSING, MI	Low		30%	1%	49%
MI154	GRAND RAPIDS, MI	Medium		0%	—	—
MI155	ANN ARBOR, MI	High		3%	0%	100%
MI156	SAGINAW, MI	Low		13%	0%	42%
MN158	DULUTH, MN	Medium	Y	30%	0%	45%
MN159	MINNEAPOLIS/ST PAUL, MN	High		22%	0%	47%
MO160	KANSAS CITY, MO	Medium		4%	0%	29%
MO161	ST. LOUIS, MO	Medium		9%	2%	53%
MO162	WHITEMAN AFB, MO	Low		18%	16%	46%
MO163	FORT LEONARD WOOD, MO	Low		9%	35%	40%
MO164	SPRINGFIELD, MO	Low		23%	0%	92%
MO165	COLUMBIA/JEFFERSON CITY, MO	Low		2%	0%	100%
MO344	SAINT JOSEPH, MO	Low		0%	—	—
MS168	GULFPORT, MS	Low		20%	17%	57%
MS169	COLUMBUS AFB, MS	Low		14%	26%	34%
MS170	JACKSON, MS	Medium		9%	0%	78%
MS171	MERIDIAN, MS	Low		12%	42%	30%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
MS172	HATTIESBURG, MS	Low		12%	3%	48%
MT175	MALMSTROM SFB/GREAT FALLS, MT	Low		17%	20%	35%
MT347	HELENA, MT	Medium		0%	—	—
NC176	OUTER BANKS, NC	Medium		16%	0%	3%
NC177	MOREHEAD/CHERRY PT MCAS, NC	Low		13%	18%	51%
NC178	CAMP LEJEUNE, NC	Low		18%	10%	64%
NC179	CHARLOTTE, NC	Medium		3%	0%	22%
NC180	DURHAM/CHAPEL HILL, NC	Medium		2%	0%	88%
NC181	ELIZABETH CITY, NC	Medium		32%	0%	68%
NC182	FORT BRAGG/POPE, NC	Medium		14%	14%	50%
NC183	SEYMOUR JOHNSON AFB, NC	Low		24%	8%	52%
NC184	GREENSBORO, NC	Medium		1%	0%	0%
NC185	RALEIGH, NC	Medium		9%	0%	54%
NC186	WILMINGTON, NC	Medium		16%	0%	61%
NC187	ASHEVILLE, NC	Medium		38%	0%	51%
ND188	BISMARCK, ND	Medium		0%	—	—
ND189	FARGO, ND	Medium		0%	—	—
ND190	GRAND FORKS, ND	Low		16%	30%	25%
ND191	MINOT AFB, ND	Low		14%	22%	34%
NE192	OMAHA/OFFUTT AFB, NE	Medium		21%	7%	46%
NE193	LINCOLN, NE	Low		5%	0%	0%
NH194	PORTSMOUTH, NH/KITTERY, ME	High		28%	5%	44%
NH195	MANCHESTER/CONCORD, NH	High		9%	0%	100%
NJ196	ATLANTIC CITY, NJ	High	Y	17%	1%	32%
NJ198	CAPE MAY, NJ	High	Y	43%	3%	47%
NJ200	FORT MONMOUTH/EARLE NWS, NJ	High		6%	12%	26%
NJ201	PERTH AMBOY, NJ	High		0%	0%	44%
NJ202	NORTHERN NEW JERSEY	High		10%	22%	28%
NJ203	TRENTON, NJ	High		0%	—	—
NJ204	JB MCGUIRE-DIX-LAKEHURST, NJ	High	Y	17%	26%	36%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
NM205	HOLLOMAN AFB/ ALAMOGORDO, NM	Low		19%	20%	33%
NM206	ALBUQUERQUE/KIRTLAND AFB, NM	Medium		17%	17%	42%
NM207	CANNON AFB/CLOVIS, NM	Low		20%	12%	44%
NM209	WHITE SANDS MR/LAS CRUCES, NM	Low		8%	20%	100%
NM210	SANTA FE/LOS ALAMOS, NM	High		9%	0%	28%
NV211	FALLON NAS, NV	Low		18%	10%	37%
NV212	NELLIS AFB/LAS VEGAS, NV	Medium		31%	8%	0%
NV213	RENO/CARSON CITY, NV	High		3%	0%	31%
NY215	BALLSTON SPA/ALBANY, NY	High		18%	9%	36%
NY216	BUFFALO, NY	Medium		12%	0%	19%
NY217	WEST POINT, NY	High	Y	9%	52%	30%
NY218	LONG ISLAND, NY	High	Y	6%	11%	12%
NY219	NEW YORK CITY, NY	High		11%	24%	20%
NY221	ROCHESTER, NY	Medium		8%	0%	55%
NY222	ROME/GRIFFISS AFB, NY	High		28%	0%	54%
NY223	SYRACUSE, NY	Medium		32%	1%	29%
NY225	FORT DRUM/WATERTOWN, NY	Low		5%	33%	33%
NY349	WESTCHESTER COUNTY, NY	High		0%	—	—
NY413	STATEN ISLAND, NY	High		19%	3%	80%
OH227	AKRON, OH	Low		0%	—	—
OH228	CINCINNATI, OH	Medium		15%	0%	64%
OH229	CLEVELAND, OH	Medium		43%	0%	59%
OH230	COLUMBUS, OH	Medium		14%	0%	52%
OH231	WRIGHT-PATTERSON AFB, OH	Low		29%	11%	76%
OH232	TOLEDO, OH	Medium		12%	0%	52%
OH233	YOUNGSTOWN, OH	Low		0%	—	—
OK235	ALTUS AFB, OK	Low		20%	28%	49%
OK236	VANCE AFB/ENID, OK	Low		17%	14%	43%
OK237	FORT SILL/LAWTON, OK	Low		8%	15%	62%
OK239	OKLAHOMA CITY, OK	Low		22%	6%	45%
OK240	TULSA, OK	Low		12%	0%	30%
OR241	ASTORIA, OR	High		24%	0%	48%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
OR242	COOS BAY, OR	Medium		30%	0%	30%
OR243	PORTLAND, OR	High		25%	1%	100%
OR244	SALEM, OR	Medium		8%	0%	25%
OR245	CORVALLIS, OR	High		17%	0%	0%
OR246	EUGENE, OR	Medium		6%	0%	43%
PA247	CARLISLE BARRACKS, PA	Medium		19%	19%	28%
PA248	PHILADELPHIA, PA/CAMDEN, NJ	High		21%	3%	0%
PA249	WILLOW GROVE, PA	High		3%	0%	71%
PA250	PITTSBURGH, PA	Medium		16%	0%	42%
PA252	STATE COLLEGE, PA	Medium		5%	0%	14%
PA253	ERIE, PA	Low		9%	0%	5%
PA254	WILKES-BARRE/SCRANTON, PA	Low	Y	13%	11%	0%
PA255	ALLENTOWN/BETHLEHEM, PA	High		2%	0%	32%
RI256	NEWPORT, RI	High		11%	13%	64%
RI257	PROVIDENCE, RI	High		6%	10%	51%
SC258	BEAUFORT/PARRIS ISLAND, SC	High		9%	21%	53%
SC259	CHARLESTON, SC	Medium		13%	10%	49%
SC260	COLUMBIA/FORT JACKSON, SC	Medium		9%	14%	31%
SC261	GREENVILLE, SC	Medium		4%	0%	34%
SC262	MYRTLE BEACH, SC	Medium	Y	9%	0%	52%
SC263	SUMTER/SHAW AFB, SC	Low		25%	6%	47%
SD264	RAPID CITY/ELLSWORTH AFB, SD	Medium		20%	10%	0%
SD265	SIOUX FALLS, SD	Low		8%	0%	30%
TN266	CHATTANOOGA, TN	Medium		7%	0%	57%
TN267	KNOXVILLE, TN	Medium		11%	0%	56%
TN268	MEMPHIS, TN	Medium		22%	13%	51%
TN269	NASHVILLE, TN	High		13%	2%	56%
TN353	JOHNSON CITY/KINGSPORT, TN	Low		0%	—	—
TX270	ABILENE/DYESS AFB, TX	Medium		18%	9%	67%
TX272	AUSTIN, TX	Medium		5%	0%	41%
TX273	BEAUMONT, TX	High		25%	0%	35%
TX274	COLLEGE STATION, TX	Low		2%	0%	28%
TX275	CORPUS CHRISTI, TX	Low		11%	13%	47%
TX277	DALLAS, TX	Low		10%	3%	41%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
TX278	LAUGHLIN AFB/DEL RIO, TX	Medium		16%	31%	34%
TX279	EL PASO, TX	Low		7%	32%	57%
TX281	BROWNSVILLE, TX	Low		16%	0%	51%
TX282	HOUSTON, TX	Medium		16%	0%	39%
TX283	LUBBOCK, TX	Low		0%	—	—
TX284	GOODFELLOW AFB, TX	Low		15%	8%	57%
TX285	SAN ANTONIO, TX	Medium		30%	5%	46%
TX286	FORT HOOD, TX	Low		10%	18%	55%
TX288	WICHITA FLS/SHEPPARD AFB, TX	Medium		17%	16%	45%
TX356	FORT WORTH, TX	Medium		16%	5%	57%
TX415	WACO, TX	Medium		27%	0%	37%
UT291	OGDEN/HILL AFB, UT	Medium		28%	17%	49%
UT292	SALT LAKE CITY, UT	Medium		21%	5%	86%
UT357	PROVO, UT	Medium		13%	0%	41%
VA295	CHARLOTTESVILLE, VA	Medium		14%	0%	45%
VA296	QUANTICO/WOODBRIDGE, VA	High		13%	14%	46%
VA297	HAMPTON/NEWPORT NEWS, VA	Medium		21%	12%	52%
VA298	NORFOLK/PORTSMOUTH, VA	Medium		30%	2%	41%
VA301	RICHMOND/FORT LEE, VA	Medium		10%	28%	32%
VA302	WARRENTON, VA	High		15%	0%	12%
VA303	LEXINGTON, VA	Low		6%	0%	0%
VA362	ROANOKE, VA	Low		3%	0%	41%
VA368	DAHLGREN/FORT AP HILL, VA	High		7%	10%	41%
VT305	BURLINGTON, VT	High		9%	0%	42%
WA306	BREMERTON, WA	High		17%	12%	33%
WA307	EVERETT, WA	High		16%	4%	32%
WA308	PORT ANGELES, WA	High		27%	1%	33%
WA309	SEATTLE, WA	High		24%	0%	34%
WA310	SPOKANE, WA	High		17%	11%	38%
WA311	TACOMA, WA	High		15%	12%	43%
WA312	WHIDBEY ISLAND, WA	High		21%	11%	47%
WA313	YAKIMA, WA	Medium		35%	0%	30%
WI316	MADISON, WI	Medium		14%	0%	36%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
WI317	MILWAUKEE, WI	High		17%	0%	39%
WI318	SPARTA/FORT MCCOY, WI	Low		22%	26%	86%
WI359	STEVENS POINT, WI	Low		20%	0%	100%
WV320	MORGANTOWN, WV	Low		5%	0%	75%
WV322	HUNTINGTON, WV	Low		21%	0%	51%
WV323	CHARLESTON, WV	Low		7%	0%	46%
WV454	EASTERN PANHANDLE, WV	Medium		32%	0%	36%
WY324	CHEYENNE, WY	Medium		25%	13%	44%
ZZ510	COUNTY COST GROUP 510	Low		6%	0%	52%
ZZ520	COUNTY COST GROUP 520	Low		4%	0%	100%
ZZ530	COUNTY COST GROUP 530	Low		4%	0%	11%
ZZ540	COUNTY COST GROUP 540	Low		23%	0%	100%
ZZ550	COUNTY COST GROUP 550	Low		1%	0%	28%
ZZ560	COUNTY COST GROUP 560	Low		2%	0%	41%
ZZ570	COUNTY COST GROUP 570	Low		0%	—	—
ZZ580	COUNTY COST GROUP 580	Low		11%	0%	46%
ZZ590	COUNTY COST GROUP 590	Low		0%	—	—
ZZ600	COUNTY COST GROUP 600	Low		0%	—	—
ZZ610	COUNTY COST GROUP 610	Low		0%	—	—
ZZ620	COUNTY COST GROUP 620	Low		0%	—	—
ZZ630	COUNTY COST GROUP 630	Low		12%	0%	0%
ZZ640	COUNTY COST GROUP 640	Low		2%	0%	40%
ZZ650	COUNTY COST GROUP 640	Low		0%	—	—
ZZ660	COUNTY COST GROUP 660	Low		17%	0%	100%
ZZ670	COUNTY COST GROUP 670	Low		5%	0%	63%
ZZ680	COUNTY COST GROUP 680	Low		8%	0%	48%
ZZ690	COUNTY COST GROUP 690	Low		6%	10%	54%
ZZ700	COUNTY COST GROUP 700	Low		6%	8%	56%
ZZ710	COUNTY COST GROUP 710	Low		9%	3%	25%
ZZ720	COUNTY COST GROUP 720	Low		7%	0%	60%
ZZ730	COUNTY COST GROUP 730	Low		6%	0%	53%
ZZ740	COUNTY COST GROUP 740	Low		3%	0%	5%
ZZ750	COUNTY COST GROUP 750	Low		2%	0%	29%
ZZ760	COUNTY COST GROUP 760	Medium		9%	0%	100%
ZZ770	COUNTY COST GROUP 770	Medium		1%	0%	50%

An Evaluation of Basic Allowance for Housing (BAH) Adequacy Standards and Recipient Housing Choices

MHA Code	MHA Name	MHA Cost Group	Vacation Area?	Response Rate ^a	On-Base Renters	Homeowners
ZZ780	COUNTY COST GROUP 780	Medium		3%	0%	100%
ZZ790	COUNTY COST GROUP 790	Medium		3%	0%	39%
ZZ800	COUNTY COST GROUP 800	Medium		5%	0%	31%
ZZ810	COUNTY COST GROUP 810	Medium		11%	0%	61%
ZZ820	COUNTY COST GROUP 820	Medium		10%	0%	38%
ZZ830	COUNTY COST GROUP 830	Medium		4%	0%	22%
ZZ840	COUNTY COST GROUP 840	Medium		7%	0%	0%
ZZ850	COUNTY COST GROUP 850	Medium		13%	0%	8%
ZZ860	COUNTY COST GROUP 860	Medium		10%	0%	0%
ZZ870	COUNTY COST GROUP 870	Medium		2%	0%	78%
ZZ880	COUNTY COST GROUP 880	Medium		7%	0%	53%
ZZ890	COUNTY COST GROUP 890	Medium		26%	0%	0%

Source: CNA.

^a We surveyed all assigned to CCGs at the time our sample was pulled from DMDC. Members assigned to CCGs accounted for just over 1 percent of our sample. Cost data for members living in CCGs are more complete because of members living outside of their MHAs.

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Abbreviations

ACS	American Community Survey
ADM	Active Duty Master
ADP	Active Duty Pay
API	application programming interface
apt	apartment
BAH	Basic Allowance for Housing
BAQ	Basic Allowance for Quarters
CCG	county cost group
COA	course of action
CONUS	continental US
DAA	Dependents Assistance Act
DFAS	Defense Finance and Accounting Service
DMDC	Defense Manpower Data Center
DOW	Department of War
DTMO	Defense Travel Management Office
EFMP	Exceptional Family Member Program
FAQs	frequently asked questions
HOA	homeowners' association
HUD	Department of Housing and Urban Development
IQR	interquartile range
MFSP	Military Family Support Programming
MHA	military housing area
MHO	Military Housing Office
OPA	Office of People Analytics
OR	odds ratio
OSW	Office of the Secretary of War
OUSW-P&R	Office of the Under Secretary of War for Personnel & Readiness
PPV	public private venture
PUMA	public use micro area
QRMC	Quadrennial Review of Military Compensation
RECS	Residential Energy Consumption Survey
RMC	regular military compensation
ROTC	Reserve Officers' Training Corps
SE	standard error

SFH	single-family home
SOFS	Status of Forces Survey
TH	townhome
UIC	unit identification code
VA	Department of Veterans Affairs
VHA	Variable Housing Allowance
ZCTA	zip code tabulation area

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