

The United States Air Force

HRMA

Housing Requirements

and Market Analysis 

Guidance Manual

2005



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and Market Analysis*** 

Guidance Manual

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Preface

The Air Force has been a leader among the Services in evaluating, planning and executing projects that provide U.S. Air Force personnel with quality housing. The Office of the Secretary of Defense (OSD) and the Air Force recognize the need for updated detailed instructions to determine housing requirements that incorporate OSD's Housing Requirements Determination Process Guidance.

This Air Force Housing Requirements and Market Analysis (HRMA) Guidance Manual, developed by the Air Force Housing Division (AF/ILEH), provides Air Force military housing professionals with detailed and updated instructions on planning and completing an HRMA. A comprehensive manual, it documents the policies and methodologies necessary to perform a consistent, defensible and replicable determination of housing needs at Air Force installations worldwide.

Prior to publication of this document, AF/ILEH directed a number of detailed studies be conducted to investigate current policy implications and methodological assumptions. The resulting manual includes all current policies, analytical assumptions and methodological instructions and identifies elements that may be under current review and modification by the Air Force and OSD.

This manual discusses and presents methodologies, processes and policies currently used in conducting HRMAs. Specifically, this document incorporates discussion and application of the OSD Dynamic Adjustment Model, the "Constrained Model," inclusion of Cost-of-Living Allowance (COLA) as part of Regular Military Compensation (RMC) and treatment of privatization units in the methodology. Additionally, the document provides revised templates for HRMA reporting and On-Board Review templates for conducting HRMA result briefings.

With respect to the HRMA report, although the process has fundamentally not changed, the HRMA report has been updated to reflect the organization of this manual, to provide further detail on the inner workings of the HRMA process and to improve the flow and retrieval of information within the report itself.

Chapters 5 through 9 contain data tables and results of a hypothetical example HRMA for Anywhere Air Force Base. Tables associated with this example are identified as "Worksheets." While this example does not consider and display every scenario an HRMA may encounter, general assumptions and common issues typically found in most HRMAs are incorporated. All data is fictitious and values should not be relied upon as actual HRMA results. Worksheets representing actual inputs into the OSD Dynamic Adjustment Model are identified with the symbol ①.

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Acronyms and Abbreviations

AAFES – Army and Air Force Exchange Services
AFB – Air Force Base
AFCEE – Air Force Center for Environmental Excellence
AF/ILEH – Air Force Housing Division
AHS – American Housing Survey
BAH – Basic Allowance for Housing
BAS – Basic Allowance for Subsistence
BCE – Base Civil Engineer
BRAC – Base Realignment and Closure
COLA – Cost of Living Allowance
CONUS – Continental United States, including Alaska and Hawaii
DECA – Defense Commissary Agency
DoD – U.S. Department of Defense
DoDDS - U.S. Department of Defense Dependents Schools
FMR – Fair Market Rent
FY – Fiscal Year
GAO – General Accounting Office
GPS – Global Positioning System
HQ – Headquarters
HRMA – Housing Requirements and Market Analysis
HUD – U.S. Department of Housing and Urban Development
K&E – Key and Essential
LQA – Living Quarters Allowance
MAJCOM – Major Command
MAHC – Maximum Allowable Housing Cost
MFH – Military Family Housing
MHA – Military Housing Area
MSA – Metropolitan Statistical Area
NAF – Non-Appropriated Fund
OCONUS – Outside continental U.S.
OHA – Overseas Housing Allowance
OOP – Out-Of-Pocket
OSD – Office of the Secretary of Defense
PCS – Permanent Change of Station
RFP – Request for Proposal
RMC – Regular Military Compensation
SOW – Statement of Work
UEPH – Unaccompanied Enlisted Personnel Housing
U.S. – United States
VHAS – Variable Housing Allowance Survey
XP – Personnel Directorate

1 INTRODUCTION

The Air Force Housing Requirements and Market Analysis (HRMA) Guidance Manual (Manual) provides guidance for determining housing requirements for military families and unaccompanied personnel at domestic and overseas U.S. Air Force installations. The Manual provides a standardized process for conducting HRMAs to help assure consistent, defensible results on which to base planning and programming decisions for military housing. This chapter includes the following sections:

- HRMA Process
- HRMA Process Components
- Organization of the Manual
- Using the Manual

1.1 HRMA PROCESS

The Manual provides a framework for determining housing requirements for U.S. Air Force installations at domestic and overseas locations. It provides a set of instructions to guide the process from planning the study, data collection, analysis, and reporting. As such, the HRMA process is not a rigid set of rules that must be followed at the cost of logic and reason. It incorporates DoD and Air Force policies and regulations that establish criteria and define parameters and other factors that are to be applied in the analysis. Within the HRMA, the methodology, defined by the OSD Dynamic Adjustment Model, specifies the relationship among the many analytical factors and parameters and how they are to be assessed. The analytical process provides the structure to accommodate a wide range of changes in policy and regulations.

The HRMA process also recognizes that available information on which the analysis is to be based will vary among locations. At times, the effort required to obtain desired information is beyond that typically budgeted. Professional judgment must then be applied recognizing potential data limitations while requiring development of methods and techniques to utilize alternative data sources, and modification of the analytical process in light of available data.

The fundamental Air Force and OSD policy is to look to the private sector to provide the necessary housing to meet the needs of the military members prior to considering government options to develop and provide housing. The framework for assessing the housing requirement for military personnel who are not required to reside in government housing can be briefly summarized in three basic steps:

- 1) Establish a minimum housing requirement for military housing as defined by Air Force criteria that includes:
 - Sufficient military family housing to maintain a viable military community, housing for Key and Essential personnel, preservation of historic housing, and sufficient, suitable housing for lower income military families; and,
 - Unaccompanied personnel housing for those required to reside in government quarters to meet specific training or other requirements.
- 2) Determine if there is sufficient, suitable, private sector housing for military households (both military families and unaccompanied personnel) not accommodated by the minimum housing requirement. A market analysis is performed that:
 - Begins with the definition of a Housing Market Area;
 - Is based on general economic theory of competitive markets;
 - Quantifies housing supply and competing demand;
 - Applies the OSD Dynamic Adjustment Model that allocates a market share to military households; and,
 - Provides a basis for assessing a wide variety of housing markets encompassing Air Force military installations both domestic and overseas.
- 3) Determine the total military family/unaccompanied personnel housing requirement as the sum of the housing necessary to meet any shortfall in the private sector by pay grade and bedroom category plus the minimum housing requirement.

1.2 HRMA PROCESS COMPONENTS

Each HRMA must follow the same process and procedures to insure consistency in the determination of the housing requirements at each installation. However, the process recognizes that, at times, it may be desirable to address specific situations in greater or lesser detail than is generally required. Although varying instances may impact the level of effort required to collect or refine data, adjust the level of analysis, or modify the common report format, the results must still be based on a standard HRMA process and analysis.

The HRMA process incorporates five major components that begin with study planning and project management and end with presentation of the results in a written report.

- 1) Planning and management of the HRMA assures that it will be conducted in an efficient and cost-effective manner. The level of effort required to meet study objectives must be determined and budgeted. Applicable Air

Force policies and regulations are identified. Data collection activities are planned and coordinated. Special assumptions that are to be incorporated into the analysis specific to the installation are identified.

- 2) Air Force policy sets the installation's minimum housing requirement. OSD allows each military service to set the minimum number of military family housing units as the greatest requirement under each of several criteria relating factors such as maintaining a viable military community, housing for Key and Essential personnel, preserving historic housing, and providing for low income military families. The minimum on-base requirement for unaccompanied personnel is set by those pay grades that are required to reside in government quarters. For overseas locations invoking force protection or mission impact, the minimum requirement may include all U.S. military families and unaccompanied personnel requiring military housing at the installation.
- 3) A housing market analysis is conducted to assess the private sector's ability to meet housing needs of those military families and unaccompanied personnel not accommodated by the minimum housing requirement. The minimum housing requirement is assumed to be fully utilized before considering private sector housing.

Housing supply and competing demand are determined for the installation's Housing Market Area. Unsuitable housing within the area is also quantified. OSD's Dynamic Adjustment Model (Dynamic Model) is applied to determine the number of military households that are unsuitably housed with the HRMA process generating the necessary inputs into the Dynamic Model (*see Appendix I for additional discussion on the Dynamic Model*).

For overseas locations, the market analysis may determine that there is limited local competition for the housing available to the U.S. military and special considerations are to be applied in determining the U.S. military's market share.

The Private Sector Shortfall, if any, for military families/unaccompanied personnel is determined by comparing the military's market share to its requirement.

- 4) The total military housing requirement for an installation for military families and unaccompanied personnel is the sum of the minimum requirement and the Private Sector Shortfall, if any, for that accompaniment status.
- 5) The results of the analysis are compiled and reported. To facilitate comparisons between installations, results are published in a standard report format. When the purpose of the HRMA is only to update or

validate certain aspects of existing studies, an abbreviated report format is used (Sample reports are provided in Appendices E, F & G).

1.3 ORGANIZATION OF THE MANUAL

The Manual following the HRMA process is organized into the following chapters:

- Chapter 2. Policy and Regulations – Describes DoD and Air Force policies and regulations that are incorporated into the HRMA process.
- Chapter 3. Project Management – Provides guidance on planning and managing the HRMA.
- Chapter 4. Methodology Overview – Provides an overview of the HRMA methodology including description and data requirements of the Dynamic Model.
- Chapter 5. The Housing Market Area – Describes how to determine the boundary of the Housing Market Area.
- Chapter 6. Housing Supply – Provides guidance on quantifying and characterizing private sector housing.
- Chapter 7. Military Households Requiring Housing – Describes how to determine the minimum housing requirement as well as military personnel who require private sector housing.
- Chapter 8. Competing Housing Market Demand – Describes how to determine competition for private sector housing.
- Chapter 9. Dynamic Model, Private Sector Shortfall and Total Military Housing Requirement – Explains the Private Sector Shortfall from the Dynamic Model and describes how to determine total housing requirements for an installation.
- Chapter 10. The HRMA Report – Provides a specification and description of the HRMA report.

1.4 USING THE MANUAL

The Manual is available in print and electronic formats. After ensuring that this is the current version of the Manual as determined by the noted publication date, the policy and regulations in Chapter 2 should be reviewed before beginning the analysis. A standard report format is described in Chapter 10.

The Manual is a thorough review and description of the HRMA methodology, process and results. Readers may have varying degrees of interest and responsibility in the HRMA process. As such, the following table identifies chapters that are recommended reading according to each participant:

Table 1-1. Suggested Reading According to Participant

| Chapter | Participant | | | | |
|--|-------------------------|------------------------------|------------------------|--------------------|-------------------------|
| | Installation Leadership | Installation Program Manager | MAJCOM Program Manager | Analyst/Consultant | AF/ILEH Program Manager |
| 2 – Policy and Regulations | | X | X | X | X |
| 3 – Project Management | | X | X | X | X |
| 4 – Methodology Overview | X | X | X | X | X |
| 5 – The Housing Market Area | | X | X | X | X |
| 6 – Housing Supply | | | | X | X |
| 7 – Military Households Requiring Housing | | X | | X | X |
| 8 – Competing Housing Market Demand | | | | X | X |
| 9 – Dynamic Model, Private Sector Shortfall and Total Military Housing Requirement | X | X | X | X | X |
| 10 – The HRMA Report | | X | X | X | X |

Although the process has fundamentally not changed, the HRMA report has been updated to reflect the organization of this Manual and to improve the flow and retrieval of information within the report itself.

Table 1-2. HRMA Report Structure

| <i>Previous HRMA Report Structure</i> | <i>Updated HRMA Report Structure</i> |
|--|--------------------------------------|
| Cover Page | Cover Page |
| Title Page | Title Page |
| Table of Contents | Table of Contents |
| Tables | List of Tables |
| Figures | List of Figures |
| Acronyms and Abbreviations | Acronyms and Abbreviations |
| Glossary of Terms | Glossary of Terms |
| Executive Summary | Executive Summary |
| Chapter 1. Introduction | Chapter 1. Introduction |
| Chapter 2. The Housing Market Area | Chapter 2. The Housing Market Area |
| Chapter 3. Military Housing Requirements | Chapter 3. Housing Supply |
| Chapter 4. The Floor Requirement | Chapter 4. Housing Requirements |
| Chapter 5. Private Sector Housing | Chapter 5. Competing Demand |
| Chapter 6. Rental Housing Demand | Chapter 6. Rental Housing Shortfall |
| Chapter 7. Private Sector Rental Housing Analysis | Chapter 7. Total Housing Requirement |
| Chapter 8. Total Military Family Housing Requirement | Chapter 8. References |
| Chapter 9. Findings | |
| Chapter 10. References | |

2 POLICY AND REGULATIONS

This chapter provides policy and regulations that are to be incorporated into each HRMA. The HRMA process incorporates basic policy and regulations that define the process. Other policies and regulations set the parameters for the analysis. As policies and regulations are modified in response to changing needs and priorities of the Air Force, the Manual will require updates to incorporate the new policies and regulations.

Changes in policy do not invalidate the HRMA methodology. The market analysis is founded on economic principles of supply and demand. The methodology defines the relationship between the many components of the analysis while the regulations and policies give definition to the components of the analysis. The methodology provides the framework to accommodate changes in policies and/or regulations. The following policies and regulations are considered when conducting an HRMA.

2.1 PERIOD OF ANALYSIS

Current Air Force instructions require that the housing market and authorized manpower changes projected over a five-year period form the basis for the HRMA results. Thus, the initial year of the analysis is the year in which the study begins while the final year of the transition period is five years hence.

2.2 HOUSING ACCEPTABILITY CRITERIA

Housing units that do not meet defined acceptability criteria are not considered housing assets available to fulfill military requirements. The responsible party determining acceptability for location and condition is the installation commander. DoD 4165.63-M (1993) enumerates basic standards for housing acceptability. Also, the 1996 Defense Authorization Act instructs DoD to construct houses that reflect the size and amenities of units found in the adjacent private sector community. Factors used to evaluate suitable housing include:

- Housing Market Area
- Health and Safety
- Rental Costs
- Type of Housing
- Number of Bedrooms
- Condition of Housing
- Force Protection
- Ownership of Housing

2.2.1 Housing Market Area

To be considered acceptable, a housing unit must be located within the boundary of the installation's Housing Market Area as defined by the area that can be reached by the greater of the Air Force's standard commute criteria (Table 2-1), via a privately owned vehicle during normal commuting hours or other limits to satisfy mission requirements.

Table 2-1. Commute Standard

| Maximum Commute Time (Minutes) | Maximum Commute Distance (Miles) |
|---|---|
| 60 | 20 |

Most often, the sixty-minute limit will be the deciding criterion in determining the outer boundary of the market area as military personnel at most installations are able to drive farther than twenty miles in a sixty-minute time period. However, in densely populated metropolitan areas, traffic congestion and/or adverse weather conditions may restrict military personnel from exceeding twenty miles within a sixty-minute commute. The two criteria work together to determine the local market area for purposes of the HRMA.

2.2.1.1 Discussion: 60-Minutes vs. 20-Mile Commute

Air Force policy is intended to apply the most reasonable market area. Generally, the larger of the two criteria (sixty minutes or twenty miles) is used to determine the most reasonable market area. The HRMA process seeks to satisfy Air Force housing requirements using private sector housing first (except for a minimum Floor Housing requirement).

Most service-members live within the twenty miles of the installation. Changing the current policy (to the smaller of sixty minutes or twenty miles) would have little effect in changing the results of HRMAs. If unsuitable areas are closer to the installation, then restricting the market to twenty miles may increase the relative percentage of unsuitable units and, as a result, increase the military housing requirement. Military personnel in the HRMA model would be unable to compete for private sector housing located between the twenty-mile and sixty-minute boundaries.

In some markets (e.g., installations with vast test ranges or in remote locations), sufficient rental housing may not be available within the twenty-mile commute, but there may be sufficient housing within the sixty-minute boundary. The sixty-minute Housing Market Area is consistent with current OSD policy and establishes a starting point to determine what housing in the local area is available for military personnel.

2.2.1.2 Discussion: Military Housing Area (MHA)

Confusion often exists between an HRMA Housing Market Area and the boundary used for calculating military members' Basic Allowance for Housing (BAH), the Military Housing Area. Both geographic areas are involved in military housing determinations and allowances; however, policies and the actual process of demarcating the geographic boundary of each area may result in areas that are dissimilar.

As noted previously, the HRMA Housing Market Area is determined by a sixty-minute commute or twenty-mile distance. The purpose of the HRMA Housing Market Area is to define the limits outside of which private sector rental housing is unsuitable. The originating center of the boundary is the installation's headquarters. Thus, most HRMA Housing Market Areas maintain a relative midpoint at the installation. Private sector rental cost data for units located within the boundary is used in the HRMA analysis by comparing actual rental cost to the military members' BAH.

BAH is determined through policies and procedures legislated by Congress. A separate contractor collects rental cost data for private sector rental units located in a Military Housing Area. Although a Military Housing Area is generally based on a sixty-minute commute or twenty miles, actual Military Housing Area boundaries are based specifically on a collection of ZIP codes.

Whereas the HRMA Housing Market Area may cut across many geographic and political boundaries including ZIP codes, the Military Housing Area uses ZIP codes exclusively. Accordingly, once any portion of a ZIP code is included in the Military Housing Area boundary, the entirety of the ZIP code is part of the Military Housing Area. Military Housing Area boundaries may be significantly different than HRMA Housing Market Areas, particularly in more rural areas where ZIP codes extend for significant distances.

Additionally, as Military Housing Area boundaries are determined by ZIP codes, installations located in relative close proximity to other installations may constrict each installation's Military Housing Area boundary due to a decision to provide separate Military Housing Area's for each installation. In these situations, the Military Housing Area and HRMA Housing Market Area may be very dissimilar.

Sample maps showing variations between HRMA Housing Market Areas and BAH Military Housing Areas are provided in Chapter 5, Housing Market Area.

2.2.1.3 Methodology

The commuting time and distance is measured from the installation's headquarters building. If the installation has more than one center of operation,

the market area should be a composite of travel times or distances from each center of operation.

Consideration should be given to traffic bottlenecks such as bridges or tunnels as well as routes or housing areas where tolls must be paid for access to roadways, bridges or tunnels. Toll roads, bridges or tunnels may limit the boundary of the Housing Market Area or may be included as an increase in the cost of rental housing units located across such access structures. Additionally, conditions that affect travel speed may constrict the Housing Market Area. For example, weather conditions including consistent fog and winter conditions such as ice or snow and roads identified as dangerous may force military personnel to reduce driving speeds, thus limiting the market area boundary.

If the installation commander decides that the waiting time at a gate should be incorporated into the commute time, the time delay associated with normal security or threat levels (e.g., “Threatcon Alpha”, etc.) should be taken into consideration in establishing the Housing Market Area. If a morning time commute is incorporated into the average commute boundary, an average waiting time at the gate may be used to account for the delay due to security measures. There is normally a typical window of time at every gate when most of the morning traffic passes through the gate. The average waiting time may incorporate waiting time measurements at sufficient intervals starting 30 minutes before this window, throughout this window, and end 30 minutes after this window. This average waiting time at the gate may then be factored in to the driving time to the communities and neighborhoods that support the installation.

If the HRMA is to assess multiple installations or work centers, a single market area may be appropriate. If the installations or work centers are separated by significant distances, it may be appropriate to apply separate Housing Market Areas for each major work center. Military authorizations by geographic location would then be required for the analysis.

2.2.2 Health and Safety

Acceptable housing is not in an area, subdivision, or housing complex designated by the installation commander as “not acceptable for health or safety reasons.” Areas of concern under this designation may include housing near industrial plants with significant noise or emissions, areas near stockyards, areas with gangs or crime, or other related factors. Data supporting these assertions (studies, reports, etc.) should be obtained from local government sources as much as possible in order to minimize the appearance of prejudicial or unfair practices by the installation towards the local community.

2.2.3 Rental Costs

The cost of housing includes rent payments and utilities that are compensable by the Basic Allowance for Housing and the Overseas Housing Allowance (Table 2-2).

Table 2-2. Rental Housing Costs

| Include | Exclude |
|--------------------|------------------|
| Rental price | Phone |
| Gas (Heating) | Cable television |
| Electricity | |
| Water | |
| Sewer | |
| Solid Waste | |
| Renter's insurance | |

2.2.4 Type of Housing

Mobile homes whether owned or rented are not considered suitable housing. Housing that is not constructed to meet local building codes is also considered unsuitable. For instance, housing may need to be constructed of concrete for safe occupancy in areas subject to typhoons.

Suitable housing units include apartments, condominiums, townhouses, duplexes and single-family residences that are well maintained, structurally sound and maintain basic equipment and amenities required to make the unit habitable. Unsuitable units may include housing units that fail to possess required characteristics as identified in section 2.2.6.

2.2.5 Number of Bedrooms

Policy dictates the minimum number of bedrooms a unit must possess in order to be considered suitable for military members (based on pay grade and number of dependents). In order to match military requirements to available private sector housing units, the private sector rental inventory must be quantified by the number of bedrooms. U.S. Census housing data includes number of bedrooms. For installations located in areas surveyed by the Census, analysts may use Census data for identifying number of bedrooms.

For overseas installations, foreign government surveys often report housing unit data in terms of rooms, not just bedrooms. Therefore, care must be exercised in interpreting overseas census data and adjustments to such data may be necessary to translate number of rooms into number of bedrooms.

2.2.6 Condition of Housing

Suitable housing retains the following qualities:

- The unit is well maintained and structurally sound. It does not pose a health, safety or fire hazard.
- It is a complete unit with private entrance, bathroom and kitchen for sole use of its occupants. The kitchen, a bathroom, the living room and the bedrooms can be entered without passing through bedrooms. The kitchen has stove and refrigerator connections and space for food preparations. At least one bathroom has a shower or bathtub, lavatory and a flushable toilet.
- The unit possesses air conditioning and a permanently installed, adequately vented heating system if it is in a climate where those systems are includable in U.S. Government construction per MIL-HNBK-1190.
- It has adequate electrical service, has washer and dryer connections or accessible laundry facilities on the premises and has hot and cold running potable water. In overseas locations where running potable water is generally not provided, a continuous supply of potable water shall be made available to the housing unit.
- The unit has a sufficient sanitary and sewage disposal facility.

2.2.7 Force Protection

In overseas locations, the installation's commander may invoke force protection condition requiring all personnel live in military housing. As a consequence, there is no private sector requirement for housing at the installation.

2.2.8 Ownership of Housing

All owner-occupied housing is considered acceptable and suitable for military personnel with the exception of mobile homes. Mobile homes, whether owned or rented by military personnel, are considered unsuitable.

2.3 U.S. MILITARY HOUSING

For purposes of the HRMA analysis, U.S. military housing does not consist solely of units that are directly owned by the U.S. Government. U.S. military housing includes the following types of units:

- Government-owned Housing – All Air Force housing under the auspices of the installation typically identified as Military Family Housing (MFH) units and unaccompanied housing (dormitory units).
- Privatized Housing – Housing units available to military members on a right of first refusal basis established through contractual agreements enacted between the U.S. Government and commercial entities.

- Government-leased Housing – Housing leased for the Air Force under Section 801; short-term domestic and foreign leases for the Air Force; and, housing constructed overseas as build-lease housing for the Air Force.
- Host Government Housing – Housing units provided to the Air Force by a host country.

2.4 MANPOWER AND MANPOWER PROJECTIONS

An accurate quantification of manpower for the initial and final year of the transition period forms the foundation for a successful and correct HRMA.

2.4.1 Integrated Projected Manpower Levels Methodology

Long-range family housing and unaccompanied housing requirements are to be based primarily on an integrated projected manpower levels methodology, separate and distinct from the HRMA process (this methodology is currently under development). This methodology will assess (annually or bi-annually) the projected five-year force structure and strength for the Air Force. In addition, this reporting process will determine the accompanied and unaccompanied distribution of personnel for all installations by pay grade, based on historical data. While this process will provide a quantification of accompanied and unaccompanied personnel, data required to determine the number of military married to other military personnel and voluntarily separated personnel will need to be collected in order to determine military families requiring housing. These data elements as well as homeownership information may be obtained from an annual DoD housing survey or from an independent installation-specific survey.

This new methodology will also capture projected manpower levels at each installation for non-Air Force tenants including independent duty personnel for whom the installation has the responsibility to house. Under this integrated methodology, strength levels will conform to the latest Service-approved personnel planning documents.

The initial approach is for the HRMA to incorporate the integrated projected manpower levels methodology. If the methodology is not available to provide manpower information, the HRMA is to use processes and methodologies as described in the balance of this section.

2.4.2 Military Personnel

Only military manpower strengths that have been programmed and authorized are considered in the HRMA. Military manpower includes the following categories: host organization, tenant organizations, and independent duty personnel for whom

an installation's Housing Office has the responsibility of housing. Military personnel may include the following:

- Members of all Services who are authorized at an installation and are on Permanent Change of Station (PCS) orders for 20 weeks or more.
- Other Service members whose organization has an agreement under which the installation is to provide family housing.
- Independent duty personnel when their actual duty station is located within the installation's Housing Market Area.
- Military families retaining housing while their sponsors are on dependent restricted tours.
- Students on PCS orders who are required to live in military housing when necessary to achieve mission requirements.
- Civilian personnel at overseas locations when authorized (including U.S. civilians employees, Department of Defense Dependent Schools—DoDDS, etc.).

2.4.2.1 Key and Essential Personnel

Service members and civilian personnel who are required by the installation commander to reside in military housing because of mission necessity and operational considerations, including special command positions, are considered Key and Essential Personnel.

AF/ILEH will determine and provide, with concurrence from the MAJCOMs, on-base requirement information for O7 and above grades.

2.4.2.2 Military Family Households

Not all accompanied personnel constitute a housing requirement as they may be married to another military member or have chosen to leave dependents at another location. Military family households are determined by the following:

- Accompanied Personnel
- Military Married to Military Households
- Voluntary Separations
- Military Family Requirement
- Families on Dependent Restricted Tours

2.4.2.2.1 Accompanied Personnel

Accompanied personnel include all personnel who are eligible to receive Basic Allowance for Housing at the with-dependent rate.

2.4.2.2.2 Military Married to Military Households

Military households with a military member married to another military member on active duty at the installation.

2.4.2.2.3 Voluntary Separations

Accompanied personnel who are voluntarily separated geographically from their dependents are identified as voluntary separations. At CONUS locations, these personnel receive BAH at the accompanied rate by pay grade for the installation to which they are assigned. With dependents residing elsewhere, the HRMA process assumes, in accordance with Air Force policy, that the BAH allowance supports these geographically-separated family members and, as a consequence, voluntary separated personnel in CONUS locations are not a housing requirement. For HRMA purposes, voluntary separations are not explicitly considered in the analysis at CONUS locations.

At overseas (OCONUS) locations, voluntary personnel may receive Overseas Housing Allowance (OHA) at the unaccompanied rate (equal to ninety percent of the accompanied rate by pay grade) while continuing to receive BAH for dependents residing elsewhere. Consequently, this OHA level allows voluntary separated personnel to retain the same purchasing power in the local private sector rental community as unaccompanied personnel. For HRMA purposes, voluntary separated personnel at OCONUS locations, while not a housing requirement, are treated as additional rental housing competition against unaccompanied personnel.

2.4.2.2.4 Military Family Requirement

The military family requirement is the number of military families as determined by subtracting military married to military households and voluntary separations from accompanied personnel. A military married to military household represents two military persons; thus, the number to subtract from accompanied personnel is the number of *households* by pay grade or the total number of military married to military personnel times one-half according to pay grade.

2.4.2.2.5 Families on Dependent Restricted Tours

Families of military personnel who receive PCS orders at a dependent restricted installation maintain eligibility to secure military housing at the “previous” installation. Thus, special consideration should be taken to ensure that families in this category are included in the military family requirement.

2.4.2.3 Unaccompanied Households

In general terms, unaccompanied personnel include all personnel who are involuntarily separated or not married and are eligible to receive Basic Allowance

for Housing at the without-dependent rate. For a full definition of Air Force unaccompanied housing eligibility, see AFI 32-6005.

2.4.2.3.1 Unaccompanied Housing

The Air Force has modified its policy for providing dormitory housing for unaccompanied personnel in grades E-1 to E-4. Under the previous policy, the Air Force provided housing for all Air Force unaccompanied personnel in grade E-4 and below.

The new policy, known as the “Corona Policy,” still provides housing for all unaccompanied Air Force personnel in grade E-3 and below, but only for E-4 unaccompanied personnel with less than three years of service. E-4 unaccompanied Air Force personnel with more than three years of service seek housing in the private sector. AF/ILEH’s current directive is to assume that twenty-five percent of E-4 unaccompanied personnel have three or fewer years of service and seventy-five percent have more than three years of service.

Installations with dormitories occupied or funded by other services (e.g., Army, Navy, Marine Corps) may not need to comply with Air Force guidance—analysts should consult the standing Inter-Service Support Agreements (ISSAs) or Memoranda of Understanding (MOUs) and confirm with the installation and MAJCOM housing representatives to determine the status for these facilities and related manpower requirement. Analysts must document their findings in the HRMA report.

2.4.2.3.2 Exceptions to the Unaccompanied Housing Policy

Some installations may continue to require all unaccompanied personnel in pay grade E-4 and below reside in military housing to achieve mission objectives such as specialized training. Other restrictions or policies to other pay grades may apply as well. The MAJCOM and Air Force headquarters should confirm or will provide exceptions to standard Air Force policy.

2.4.3 Bedroom Entitlements

OSD and Air Force policy sets bedroom entitlements for Military Families, Voluntary Separated Personnel, and Unaccompanied Personnel.

2.4.3.1 Family Housing Bedroom Entitlements

Bedroom entitlements are based on one bedroom per dependent child. Adult dependents, with the exception of the member’s spouse, shall have a one-bedroom entitlement. The minimum bedroom entitlement is defined by grade category in Table 2-3. The bedroom entitlement for military families is no less than two bedrooms.

Table 2-3. Accompanied Bedroom Entitlement by Housing Categories

| Housing Category | 2 Bedroom | 3 Bedroom | 4+ Bedroom |
|-------------------------|------------------|------------------|-------------------|
| O10-O7 | | X ⁽¹⁾ | X |
| O6 | | X ⁽¹⁾ | X |
| O5-O4 | | X | X |
| O3-O1 | X | X | X |
| E9-E7 | | X | X |
| E6-E1 | X | X | X |

(1) - This bedroom entitlement is only authorized if such housing exists on an installation.

2.4.3.2 Unaccompanied Personnel Bedroom Entitlements

Bedroom entitlements for unaccompanied enlisted personnel required to live in military housing are established by policies in the Air Force Dormitory Master Plan that are not addressed in the HRMA. Unaccompanied personnel on-base entitlements include Priority 1 positions and personnel in grade E-1 through E-4 (less than three years of service). Housing for Priority 1 unaccompanied officer grades may be provided in suitable space as available. Unaccompanied personnel who are provided military family housing because of their responsibilities or position are considered as accompanied for HRMA purposes.

Unaccompanied personnel in grade E-4 (over three years of service) and above are not required to live in military housing and are assumed to have a private sector housing requirement. The HRMA process assumes that unaccompanied personnel will occupy market units of various bedroom types depending on their grade, as shown in Table 2-4.

Table 2-4. Unaccompanied Bedroom Entitlement by Housing Categories

| Housing Category | 1 Bedroom | 2 Bedroom | 3 Bedroom |
|-------------------------|------------------|------------------|------------------|
| O10-O4 | | | X |
| O3-O1 | | X | |
| E9-E6 | | X | |
| E5-E1 | X | | |

2.4.4 Civilian Personnel Authorized Military Housing

Civilian families are considered part of an installation’s family housing responsibility under the following conditions:

- DoD civilian personnel who hold Key and Essential positions.
- Essential civilian employees, with dependents, who must reside on the installation for reasons of military necessity.
- U.S. citizen DoD employees, with dependents, at overseas locations and U.S. possessions and territories where private housing is nonexistent or

unacceptable, who are designated by the installation commander as eligible for assignment to military family quarters.

- U.S. citizen DoDDS employees, with dependents, who are eligible for Living Quarters Allowance (LQA) at overseas locations and U.S. possessions and territories where private housing is nonexistent or unacceptable, who are designated by the installation commander as eligible for assignment to military family quarters.
- Other contractors authorized housing support.

2.5 MAXIMUM ALLOWABLE HOUSING COST

The Maximum Allowable Housing Cost (MAHC) defines affordability for the military member. Housing costing more than this maximum is considered unaffordable to the military household. The HRMA determines if there is sufficient housing that costs equal to or less than MAHC.

2.5.1 CONUS Locations

For military families and unaccompanied personnel assigned to installations in the continental U.S., MAHC is the local median housing cost for each pay grade and accompaniment status as determined by the Per Diem, Travel and Transportation Allowance Committee. For military families with more than one military member, MAHC is the local median housing cost for the military member of the highest pay grade.

For civilians at CONUS locations, MAHC is based on the MAHC of military personnel of an equivalent pay grade.

2.5.2 Overseas Locations

For overseas or outside continental U.S. (OCONUS) locations (excluding Hawaii and Alaska), MAHC is the Overseas Housing Allowance (OHA) for the pay grade and accompaniment status. OHA reimbursement rates are based on actual rents and are set to cover the rent paid by 80 percent of Service members, with command-sponsored dependents, within each pay grade. For military families with more than one member, MAHC is the OHA authorized to the members in the family.

Utility reimbursements for overseas locations, paid separately, are over and above OHA and are treated as a separate allowance. The HRMA process assumes that the utility allowance fully offsets a military member's utility cost. However, to the extent that utilities are included in rent, OHA is increased by that amount. It is often difficult to assess whether or not reported rents include utilities or not. All available data must be assessed by the analyst and a reasonable conclusion reached. Such decisions must be documented in the HRMA report.

For civilians at overseas locations, MAHC is the Living Quarters Allowance for the pay grade, accompaniment and dependent status. Civilian households may also be required to be placed into equivalent military grade groupings per Table 2-5.

Table 2-5. Equivalent Military Grades for Civilian Personnel

| Military Grade Group | Civilian Grade Group | | | | Wage System |
|----------------------|---------------------------------------|--------------------|-------------------|--|--|
| | Senior Executive Service/Senior Level | Merit Pay Employee | General Schedule | Educators (20 U.S.C. 901-907, reference (gg)) | |
| O-10 thru O-7 | SES 1 thru 6 ES 1 thru 6 | | | | |
| O-6 | | GM-15 | GS-15 | | WS-19 thru WS-14 |
| O-5 | | GM-14 GM-13 | GS-14 GS-13 | Schedule K | |
| O-4 | | | GS-12 | Teaching Principals, Schedule L | Productive Support Equivalents |
| O-3 | | | GS-11 GS-10 | Schedule C, Step 4 and above and Schedules D-F and M-O | WS-13 thru WS-8, WL-14 thru WL-6, WG-15 thru WG-12 and Production Support Equivalents |
| O-2 W-4 W-3 | | | GS-9 GS-8 | Schedule C, Steps 1-3 | |
| O-1 W-2 W-1 | | | GS-7 | | |
| E-9 thru E-7 | | | GS-6 | | |
| E-6 E-5 | | | GS-5 | | WS-7 thru WS-1, WL-5 thru WL-1, WG-11 thru WG-9 |
| E-4 | | | GS-4 | | |
| E-3 thru E-1 | | | GS-3 thru GS-1 | | WG-8 thru WG-1 |

2.6 MINIMUM HOUSING REQUIREMENTS

Air Force policies define criteria for determining the minimum housing requirement for military installations. The minimum housing requirement is the housing that must be fully utilized before considering housing in the private sector.

2.6.1 Minimum Military Family Housing Requirement

Per OSD guidance, there is a general agreement within the Department that some level of military housing should be maintained to provide a basic military community for military families. Therefore, notwithstanding the overall policy to look first to the private sector for housing military families, each Service may include a military family housing Floor Housing Requirement to retain a small military community.

The minimum housing requirement (Floor Housing Requirement) for military families is the greatest of following criteria on a pay grade by pay grade basis:

- Military Community – OSD guidance permits up to ten percent of the military family housing requirement by pay grade in order to maintain a viable military community. Air Force HRMAs shall use a fixed ten percent as the military community factor.
- Key and Essential – Key and Essential Service and civilian personnel as defined by the Air Force including special command positions.
- Historic Housing – Housing designated, or eligible for designation, as historic under the National Preservation Act defined by pay grade are to be retained when feasible to meet housing needs.
- Targeted Economic Relief – Personnel in pay grades whose total regular military compensation (based on the DoD Regular Military Compensation for each grade, adjusted for local BAH) is less than 50 percent of the local median family income as identified by the U.S. Department of Housing and Urban Development (HUD) or other reliable sources. This criterion applies to military renters only.

For overseas locations, the Targeted Economic Relief criterion is not applied.

The requirements are not used cumulatively; the Floor Housing Requirement is based on the greatest requirement of the four criteria for each pay grade.

Students with dependents may be required to reside in military housing to meet mission requirements. This Student Requirement is in addition to the Floor Housing Requirement.

2.6.2 Minimum Unaccompanied Housing Requirement

Unaccompanied personnel in grade E4 (less than three years of service) and below are to be provided military housing and represent a minimum housing requirement for unaccompanied military members. Installations may require additional personnel to reside in military housing to achieve mission objectives, such as students receiving specialized training. Unaccompanied personnel in this category are incorporated into the minimum housing requirement. Such treatment should be confirmed with the MAJCOM and Air Force headquarters.

2.7 REGULAR MILITARY COMPENSATION

Regular Military Compensation (RMC) is used to determine the Targeted Economic Relief criterion of the minimum housing requirement. Base Income, Basic Allowance for Subsistence and the Tax Adjustment factors are provided by AF/ILEH. RMC consists of the following forms of compensation to the military member:

- Base Income – The average annual taxable income paid to all military members by pay grade. Base Income is DoD-wide and not dependent upon installation assignment.
- Basic Allowance for Housing (BAH) – Annual BAH is specific to the installation by pay grade.
- Basic Allowance for Subsistence (BAS) – The annual subsistence allowance for each pay grade.
- Tax Adjustment – The tax adjustment alters the military member’s income for allowances not subject to federal income taxes. The tax adjustment is calculated by multiplying the tax adjustment factor by the sum of the BAH and the BAS payments specific to an installation for each pay grade.
- Cost of Living Allowance (COLA) – For CONUS locations, the COLA adjustment is to provide compensation to military members for variations in non-housing costs in the United States.

RMC for each pay grade is the sum of base income, BAH, BAS, the Tax Adjustment and COLA, if applicable. For overseas locations, the Targeted Economic Relief criterion is not applied; therefore, the RMC is not determined for HRMAs at overseas installations.

2.8 PENDING POLICY RECOMMENDATIONS

Policies impacting the HRMA analytical process continue to evolve and change as OSD and the Air Force modify mission objectives. Additionally, audit agencies perform regular examinations of Service policies and processes to determine if policies are followed in a consistent and reliable manner and objectives are achieved through cost-effective means. Audit agencies also provide recommendations for improvement.

2.8.1 Detailed Guidance

The May 2004 GAO audit report recommended OSD provide more detailed guidance on the requirements determination process including information sources, assumptions and methodology to be used in each installation’s housing requirements determination analysis. OSD responded by agreeing to issue

additional detailed guidance by December 2004 via updating the DoD Housing Management Manual. The Air Force HRMA Guidance Manual, this document, supports efforts to achieve the overall OSD objective of reviewing policy and disseminating more detailed instructions. This Air Force HRMA Guidance Manual will serve as input to the OSD housing requirements guidance.

2.8.2 Floor Housing Requirement

The GAO audit report also recommended a review of the current rationale for exceptions to relying on private sector housing, especially the retention of historic housing structures as necessary and available housing units, and the use of the “Targeted Economic Relief” criterion as a low-income threshold for service members who would otherwise qualify for HUD housing. OSD agreed to review exceptions to relying on private sector housing (i.e., the minimum or Floor Housing Requirement) although it noted that existing allowances are sufficiently bounded to reflect sound policy.

2.8.3 Military Households Survey

The GAO audit report addressed the need to update information on military personnel actual housing preferences and choices (homeownership, renting, etc.). OSD agreed to conduct a survey to update military personnel’s housing choices and preferences. This decision reflects OSD’s agreement to conduct an annual survey of such housing information that will support all future HRMAs. The content of this Manual incorporates the assumption that annual survey data will be available to support HRMA efforts.

2.8.4 Integrated Projected Manpower Levels Methodology

As noted in Section 2.4.1, the Air Force (AF/ILEH) is developing an integrated methodology to determine the projected accompanied and unaccompanied manpower force structure. This integrated methodology will reconcile the disparate methods currently used to determine MFH requirements under the HRMA process and dormitory requirements under the DMP (Dormitory Master Plan) process. Once this integrated methodology is developed, it will be used as a starting point for projected host unit requirements in the HRMA process.

3 PROJECT MANAGEMENT

This chapter provides guidance on how to plan, organize and collect data for the HRMA.

Planning, coordinating and managing each aspect of an HRMA is critical to conducting the study in an efficient and successful manner. It is important to assess the scope of the study as not all HRMAs are conducted for the same reason. The scope and general planning assumptions must be defined prior to the start of the HRMA. Accordingly, the scope of the study will direct the coordination, data collection and analytical efforts associated with the study.

3.1 PROJECT SCOPE

HRMAs are undertaken to assess all current aspects of a housing market, to update a previous HRMA, or simply to validate specific concerns about a previous analysis. Some HRMA studies may not fit the typical categories as Air Force or installation policies may supersede normal HRMA studies.

3.1.1 Installations Requiring an HRMA

OSD and Air Force policies require HRMAs be conducted for all Air Force installations at least every three years. Air Force installations require an HRMA. Exceptions are for installations that invoke force protection requiring all personnel to reside within the security of the installation and installations that are dependent-restricted tours and do not allow families to accompany the military member. The Air Force may direct suspension of HRMAs for other installations as well, if determined unnecessary.

3.1.2 HRMA Study Types

The study type affects the data requirements and the required effort. A description of the three types of HRMAs follows:

- Full HRMA – A comprehensive, in-depth study generally performed for each installation at regular intervals to assess the housing situation and determine the installation's housing requirements. All aspects of the housing market and military requirements are assessed and evaluated. These studies require on-site visits, extensive data collection, thorough analytical review, government review and comments at each stage, on-site briefings and publication of an HRMA report. Normally, these studies include a one-week site visit for data collection and take approximately six months to complete.

- **HRMA Update** – A study undertaken to confirm that previously reported installation and market conditions have not significantly changed since the previous HRMA. Updates also may be performed to test the sensitivity of housing requirements to changes in certain market or installation conditions. The same analytical and methodological assumptions and processes of an HRMA are applied only in an abbreviated format. Updates are used to evaluate the impacts of BRAC, manpower increases or decreases, housing privatization impacts and other “what-if” scenarios. These updates do not require the same level of in-depth investigation required of an HRMA. Updates may only require that housing and population growth trends be confirmed, military manpower authorizations and MAHC reimbursements updated and any significant changes in the local economy and other factors be identified and incorporated in the update.

Requirements for on-site visits, some data collection and on-site briefings of the results are determined at the planning stage of the study. Some MAJCOMs and installations may desire to have on-site briefings or discussions while others may conduct such briefings via teleconferences. Updates normally take approximately three months.

- **Validation** – This investigation serves only to validate information and conclusions of a recent HRMA. A validation may require only a general review of the housing market to assess whether or not conditions have changed from previous estimates. No actual analysis is performed. Typically, validation studies do not include site visits, on-board reviews and out briefings. Validations normally require one to two months to accomplish.

Contractors are typically employed to perform HRMA studies. As such, clear direction must be provided to the contractor in order to conduct an efficient and consistent HRMA that conforms to OSD and Air Force policies. A sample Statement of Work (SOW) is provided in Appendix C, Sample Statement of Work.

3.1.3 Study Framework and Critical Issues

The earlier critical issues and assumptions are identified during the HRMA process, the more efficient and effective the analysis can be focused on relevant concerns. A discussion of potential critical issues with study planners and installation personnel allows early identification of unique local housing problems and concerns and facilitates engaging sufficient resources early on to support the analysis.

3.1.3.1 Typical Planning Assumptions

Although each HRMA possesses some unique characteristics that distinguish it from another, most HRMAs contain general planning assumptions common to all installations. Generally, each HRMA will follow OSD and Air Force policies with respect to: period of analysis, housing acceptability criteria, treatment of U.S. military housing, manpower authorizations and consideration of personnel demographics, military bedroom entitlements and minimum housing requirements. Details of these policies are provided in Chapter 2, Policy and Regulations.

IMPORTANT: The analyst must pay special attention to situations when the above assumptions or procedures may not yield a reasonable model of the housing market, housing requirements, or the housing analysis as a whole. In each version of the HRMA report under development, the analyst must provide detailed justification and explanations on how to address particular problems or exceptions encountered, and a rationale for implementing variations to the standard model. Variations must be discussed and reviewed with the installation, MAJCOM and AF/ILEH program managers before proceeding. It is important to acknowledge that the HRMA process relies on both a defensible and replicative model, and the expertise and knowledge of the economists that conduct these studies.

The following assumptions are typical to the HRMA:

- 1) The analysis is bounded by the number of years in the transition period as dictated by OSD or Air Force policy.
- 2) Rental housing must be suitable, available and affordable to military members. Suitability is determined by OSD and Air Force policies. Mobile homes are not considered suitable (*see Chapter 6 for a discussion on unsuitable units*).
- 3) Only housing within a defined market area is considered in the analysis. OSD and Air Force policies determine the extent of the market area boundary.
- 4) Affordability of housing is determined by a military member's Maximum Allowable Housing Cost (MAHC), the local median housing cost as established by DoD for the member's pay grade each year. For analytical purposes, MAHC is established by pay grade and includes the Basic Allowance for Housing (BAH) and Out-of-Pocket expense (OOP), if applicable¹.
- 5) Military housing requirements are based on government-provided information including total authorizations and installation-specific accompaniment statistics used to determine military family and unaccompanied housing requirements by pay grade and bedroom entitlements.
- 6) OSD and Air Force policy allows for minimum housing requirements for both military families and unaccompanied personnel. These policies permit and

¹ OOP is scheduled to be fully absorbed by BAH entitlements by FY05.

define a minimum number of military housing units to be constructed and maintained at the installation.

- 7) The market analysis, primarily focused on the rental market, is conducted on a market segment basis defined by rental cost and bedroom categories. Military rental housing demand is competed against civilian rental housing demand in rental cost and bedroom categories.
- 8) Military members who own their own homes (with the exception of mobile homes) are considered to be suitably housed. The HRMA assumes that these units are located within the installation's Housing Market Area and is occupied and owned by the military member while assigned to the installation.
- 9) Military members are assumed to be competitive renters and will obtain a proportionate share of suitable, available rental housing.

3.1.3.2 Discussion: Competing Military Installations

Air Force personnel at an installation located adjacent to other Air Force installations or other Service facilities may not represent the only military demand for housing within the Housing Market Area. If the adjacent installation(s) is an Air Force facility, HRMAs for both installations should be performed concurrently so that proper levels of military rental housing demand can be estimated for areas where the installations compete within their Housing Market Areas. Examples of these competing installations include Eglin AFB and Hurlburt Field; Andrews AFB and Bolling AFB; and, Peterson AFB and Air Force Academy and Schriever AFB. For analytical purposes, military personnel may be allocated to submarkets within their respective Housing Market Area based on proportions of suitable rental housing within each submarket.

If a single housing office manages the housing function at multiple installations located within a large area, the Housing Market Area may, for HRMA purposes, encompass the entire region to include all installations. Separate market areas for major installations may be necessary if they are located more distant from the others. It may be practical to consider the competition for rental housing between members at separate locations.

If the adjacent installation is another Service's facility, that Service's military rental housing demand is typically accounted for within civilian demand estimates. As such, rental housing requirements and resulting Private Sector Shortfalls for that Service's installation are not considered separately within the Air Force installation's HRMA. Known and quantified changes in that Service's manpower authorizations may be incorporated into the Air Force's HRMA. For example, consideration may be given to realignment activities at other Service's installations in a Housing Market Area. Separate adjustments to civilian demand to account for other Service's private sector housing demand may be a specific accommodation in the analysis.

A joint analysis may be appropriate for multiple installations in a common Housing Market Area where there are possibilities to program housing resources common to all installations. The decision to conduct a joint analysis must be coordinated amongst each Service's housing command (i.e., AF/ILEH and its counterpart in other Services). Certain efficiencies are obtained from conducting a joint analysis. These efficiencies include utilization of the same data sources (Census data, real estate agencies, rental property managers, etc.), concurrent analysis of rental market information, consistent analytical methodologies and comparison and reconciliation of manpower authorizations. Identification of local resources through the installations' housing offices may be more available under a joint analysis. However, the inclusion of a second installation in an analysis requires the Services to consider funding sources, lead Service for analytical purposes, data sources, timing of study, HRMA methodology and other key issues affecting the HRMA.

Locations of possible joint analyses include sites such as Oahu, Guam and Seattle or any other locations where more than one Service maintains an active installation. Conducting a joint analysis may provide a better representation of military demand and resulting military housing requirements as both Services are represented in the analysis as military demand. If separate analyses are performed, the other Service's military demand is considered civilian demand for analytical purposes.

3.1.3.3 Special Mission Requirements

If major realignments or mission changes are contemplated, the HRMA must address the impact of potentially large changes in the housing requirement. In smaller markets, large expansions will more likely stress the local housing markets. There may be little community history to serve as a guide as to how the market would respond to such changes. Comparison to the response of other locations to similar situations rather than focusing entirely on local data sources may be appropriate.

Specific situations at an installation may impact the HRMA. For example, consideration of large military student populations may be important in the analysis of unaccompanied personnel housing. Student families may also be required to be housed in military housing to meet mission requirements.

The HRMA may need to analyze alternative manpower scenarios such as estimating revised installation strength due to military personnel relocating to another installation because of a natural disaster.

3.1.3.4 Small/Unique Markets

Military installations may be located in small communities where general planning assumptions may not apply. If a small number of military authorizations exist at an installation, future changes in personnel demographics including homeownership rates, accompaniment rates and number of dependents for accompanied personnel may have material consequences on housing requirements, in spite of the HRMA results. On the rental supply housing side, measurement of the total rental supply may prove difficult in small markets or market areas with limited information on which to base projections. Census reporting errors coupled with a lack of data can significantly reduce the reliability of HRMA results. Additional information on small markets is contained in Chapter 6.

Other data limitations or market issues may warrant a discussion among HRMA planners and participants to consider an abbreviated HRMA or conducting the HRMA under specific assumptions regarding military personnel information and housing market data. This discussion should occur early enough in the task so that schedule and level of effort can be adjusted appropriately.

The geographic size of the Housing Market Area itself may impact the study. Economic and demographic data is usually organized by political entity and subdivision. Large geographical areas will cover more towns and counties that form many submarkets for housing.

IMPORTANT: In each version of the HRMA report, the analyst must provide detailed justification and explanations that address proposals to particular problems or exceptions encountered and the rationale for implementing variations to the standard model. These variations must be discussed and reviewed with the installation, MAJCOM and AF/ILEH program managers before proceeding.

3.2 STUDY TASKS AND SCHEDULE

Once issues that may impact the time frame and analytical approach to the study have been identified, study planners establish tasks and a schedule for an installation's HRMA study. Study tasks reflect decisions made when determining the scope and adjustments to the analytical approach. Additionally, the schedule should allow sufficient time between tasks to accomplish the task objective as well as provide adequate government review time.

The HRMA process contains major milestones that must be completed sequentially in order to successfully accomplish the HRMA (Figure 3-1):

- 1) Planning and Project Management— careful consideration must be given to plan, organize and administrate the HRMA.

- 2) Data Collection – government personnel and the HRMA analyst collect all installation and market data on a timely basis.
- 3) Housing Market Area – the Housing Market Area defines the geographic limits of the study. Only housing units located within this boundary are considered in the analysis.
- 4) Government Review and Approval of the Housing Market Area – approval by installation leadership of the submitted Housing Market Area is required before the analysis can proceed. The installation commander must provide valid justification for any changes in the market area.
- 5) Analysis – the HRMA analyst performs all estimates and calculations.
- 6) Preliminary Report – from the results of the analysis, the HRMA analyst produces a report for review.
- 7) Government Review of Preliminary Report – government technical POCs review and confirm assumptions and data elements contained in the Preliminary Report.
- 8) Preliminary Teleconference – government technical POCs and the HRMA analyst review assumptions and data elements documented in the Preliminary Report.
- 9) Draft Report – any changes to assumptions or data resulting from the Preliminary Teleconference are incorporated into the Draft Report.
- 10) Government Review of Draft Report - government technical POCs and the HRMA analyst review assumptions and data elements documented in the Draft Report.
- 11) On-Board Review – government personnel (including installation leadership) and the HRMA analyst present the HRMA results to the installation commander providing information on assumptions and data elements incorporated into the analysis. This briefing will:
 - a. Give installation leadership an overview of the HRMA process;
 - b. Advise installation leadership on the changes in requirements policies;
 - c. Discuss and explain changes in results from previous HRMAs;
 - d. Inform installation leadership on the results of the HRMA; and,
 - e. Seek installation leadership concurrence on results.
- 12) HRMA Review and Approval – the installation commander provides approval or disapproval of the results.
- 13) Final Report – the final HRMA document is produced by the HRMA analyst and includes backup material supporting the analysis. The installation commander signs and approves the HRMA results.

Each type of HRMA study requires a different length of time to accomplish. Full HRMAs require approximately six months to accomplish while updates require three months to complete and validations require one to two months to complete. Typical project schedules for each type of HRMA study are presented in Figures 3.2, 3.3 and 3.4.

Figure 3-1. Housing Requirement and Market Analysis Process Overview

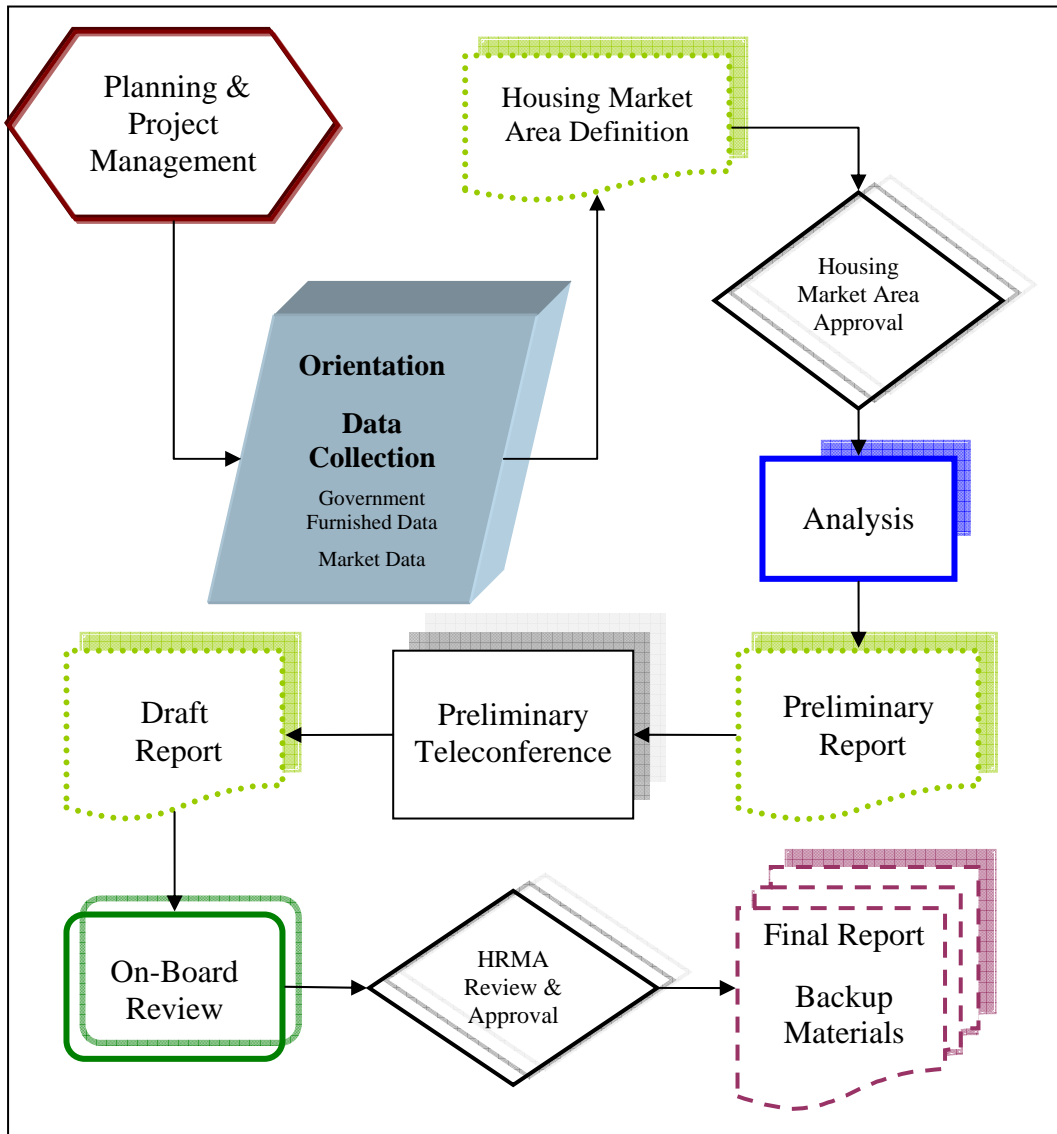


Figure 3-2. Typical Full HRMA Schedule

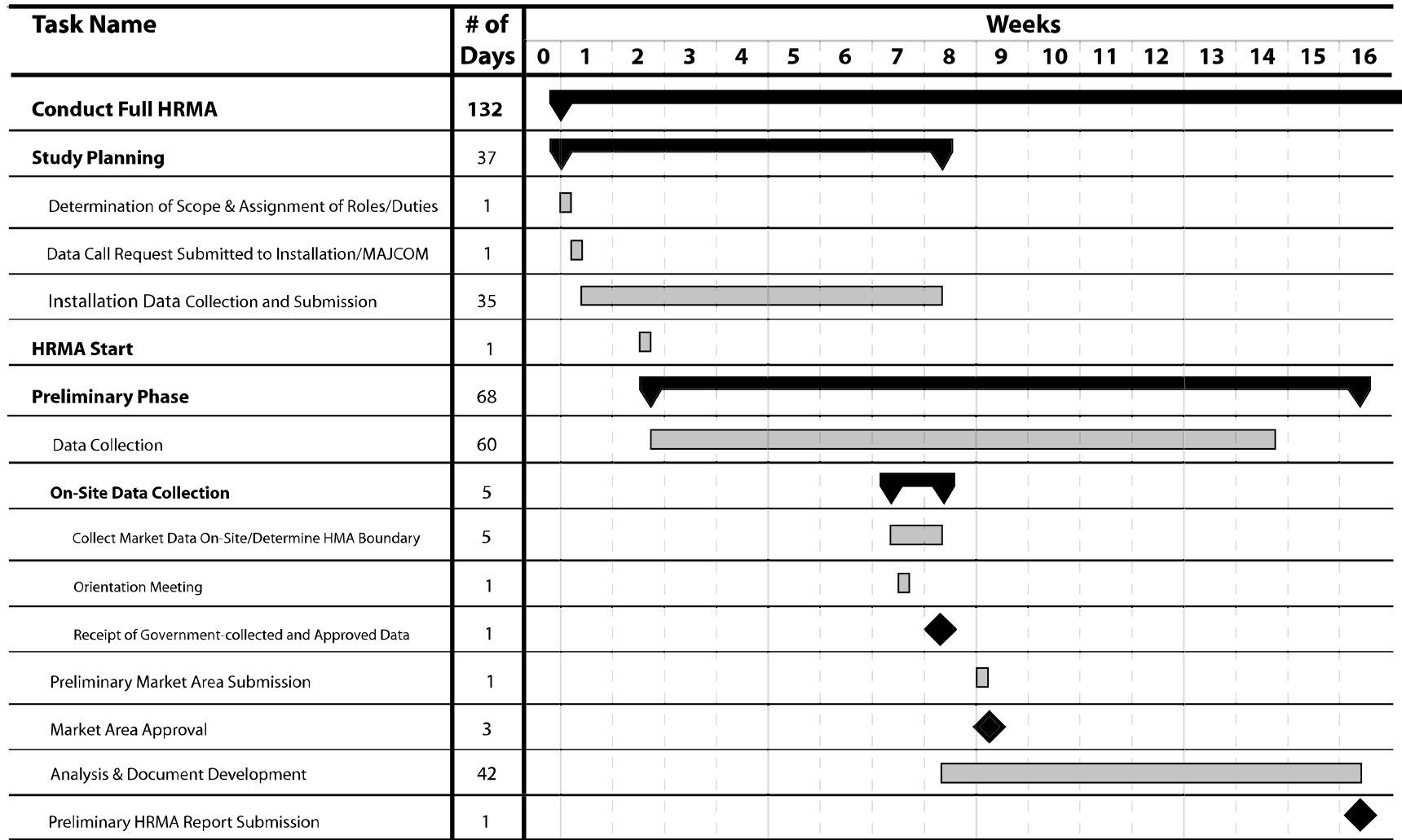


Figure 3-2. Typical Full HRMA Schedule (Continued)

| Task Name | # of Days | Weeks | | | | | | | | | | | | | | | | | |
|---|-----------|-------------------------------------|-------|-------------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | |
| Conduct Full HRMA (Continued) | 132 | [Gantt bar from week 15 to week 26] | | | | | | | | | | | | | | | | | |
| Government Review | 5 | | [Bar] | | | | | | | | | | | | | | | | |
| Written Comments | 1 | | | [Bar] | | | | | | | | | | | | | | | |
| Response to Comments | 3 | | | [Bar] | | | | | | | | | | | | | | | |
| Preliminary Teleconference | 1 | | | | [Bar] | | | | | | | | | | | | | | |
| Finalize Assumptions and Data Elements | 0 | | | | ◆ | | | | | | | | | | | | | | |
| Draft Phase | 27 | | | [Gantt bar from week 18 to week 23] | | | | | | | | | | | | | | | |
| Revise HRMA Document | 15 | | | [Bar] | | | | | | | | | | | | | | | |
| Draft HRMA Report Submission | 1 | | | | | | | | | | | | | | | | | | |
| Government Review | 5 | | | | | | | | | | | | | | | | | | |
| Written Comments | 1 | | | | | | | | | | | | | | | | | | |
| Response to Comments | 3 | | | | | | | | | | | | | | | | | | |
| On-Board Review/CC Briefing | 1 | | | | | | | | | | | | | | | | | | |
| Installation Review and Approval of Results | 27 | | | | | | | | | | | | | | | | | | |
| Final Phase | 16 | | | | | | | | | | | | | | | | | | |
| Finalize HRMA Document | 15 | | | | | | | | | | | | | | | | | | |
| Final HRMA Report Submission | 1 | | | | | | | | | | | | | | | | | | |

Figure 3-3. Typical HRMA Update Schedule

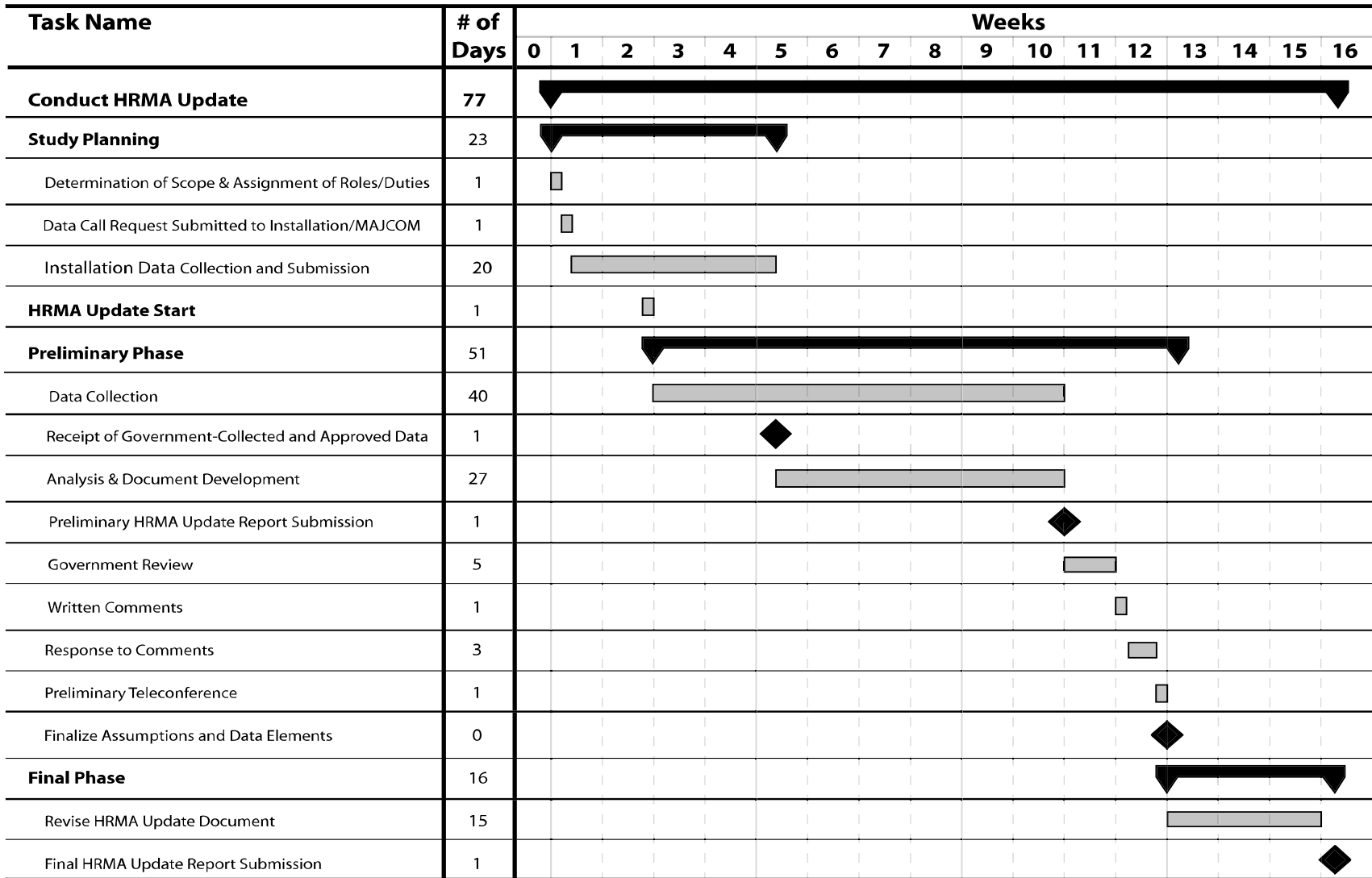
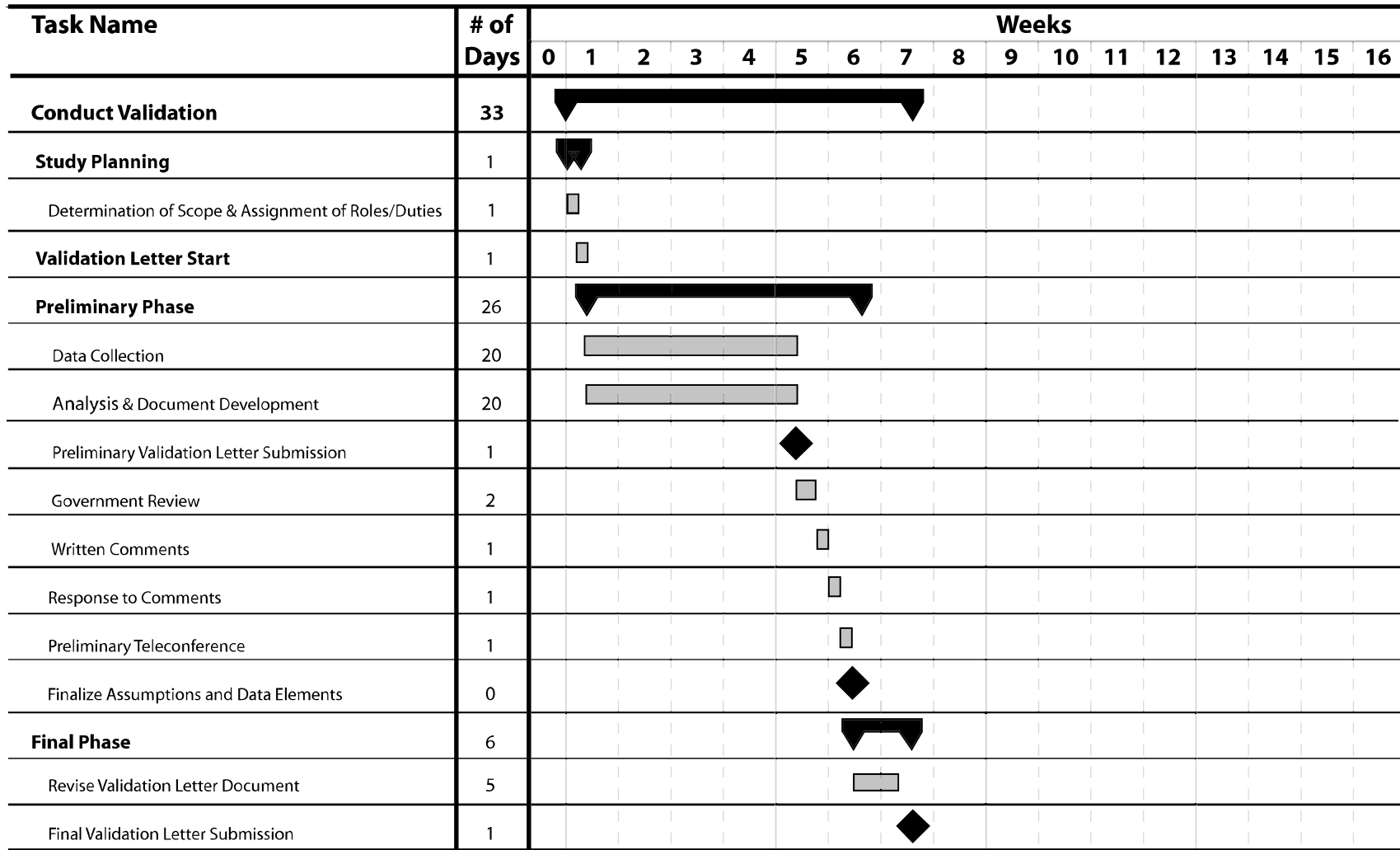


Figure 3-4. Typical Validation Letter Schedule



3.3 HRMA PARTICIPANTS ROLES AND RESPONSIBILITIES

This section briefly describes the roles and responsibilities of each participant in the HRMA process. Circumstances and study needs may change to some extent, but an installation will likely remain a significant participant, particularly from the perspective of providing information and serving as a point of contact. Contributions from each level are required for a successful HRMA.

The HRMA requires support from the following HRMA participants:

3.3.1 HQ AF/ILEH

AF/ILEH provides a program manager to oversee all technical and administrative aspects of the HRMA program. Planning and administration of the HRMA program is the responsibility of Air Force headquarters. Technical issues must be reviewed and resolved at this level should disputes arise among Major Command, installation and analyst personnel. Contracting officers at HQ AFCEE administer HRMA contracts.

3.3.2 Major Command (MAJCOM)

A program manager from the MAJCOM provides oversight of the MAJCOM HRMA program and often provides and/or verifies installation data such as manpower authorizations and personnel demographics. MAJCOM personnel provide authority to support data collection of installation-specific information as well as approve study results. Technical review of the HRMA assumptions and contractor progress may be monitored at this level as well.

3.3.3 Installation

The installation program manager identifies all installation personnel who directly participate in the HRMA process including commander (installation leadership), Housing Office staff and civil engineers. Installation officials may provide input into the planning process by identifying specific considerations and factors impacting the local market area that should be addressed in the HRMA. Installation planners may review the draft HRMA report to insure the accuracy of installation-specific information. The Base Civil Engineer (BCE) and commander confirm the accuracy of the government provided data.

3.3.3.1 Installation Commander

The installation commander approves the defined Housing Market Area. Also, the installation commander reviews HRMA results and provides to the MAJCOMs his or her concurrence/non-concurrence with HRMA results. The installation commander must give valid justification for any changes to the Housing Market Area, market data, or other market and/or installation

information. These requests are evaluated by the MAJCOM and HQ AF/ILEH program managers with agreements based on valid and defensible positions.

3.3.3.2 Housing Office

The Housing Office is a prime source of information for both military and private sector housing. Housing Office knowledge of local housing is often a valuable resource to the HRMA process. Housing Office personnel need to be informed of the type and level of support that is required and should have an understanding of the HRMA process and study requirements. The HRMA responsibilities of Housing Office personnel include the following:

- Provide installation information on military housing, its designations and assignments, authorized renovations, and additions and removal of military controlled housing.
- Interact with installation and MAJCOM personnel to obtain and verify accuracy of manpower authorizations and demographics.
- Identify individuals and sources of data and provide introductions to facilitate the analyst's access to installation data, as appropriate, such as personnel information, civilian personnel office, etc., and private sector data such as real estate professionals, planning agencies, etc.
- Provide information on commute time and general travel routes and assist in establishing the Housing Market Area.
- Archive the installation's rental list, as applicable, to create a set of historic data points on rental costs by housing location and size.
- Share local knowledge about the housing market, such as planned changes in the community that may affect population, employment, earnings, housing growth, and other factors that may impact the local housing market.

3.3.4 Analyst/Contractor

The HRMA analyst needs to understand policies and regulations, issues and concerns that must be addressed in the HRMA. The analyst's management plan should set forth steps to address issues and provide milestones to HRMA program managers.

The HRMA analyst must also be knowledgeable of previous housing requirement policies and be able to convey effectively to installation leadership what impact any policy or process changes have had in the current HRMA results. Likewise, the analyst must also be aware of previous market conditions and be able to relate what impact changes in market conditions have had on the current HRMA results.

The analyst needs to understand the housing market as early as practicable in the HRMA process. Early identification of local information resources and establishment of the Housing Market Area will facilitate data collection and avoid additional cost or delays.

When conducting the HRMA, the analyst must apply the principles of sound research to form supportable conclusions in a manner that would withstand outside scrutiny. The analyst must thoroughly document the research and assumptions considered in analyzing the housing market.

Descriptions of HRMA actions, roles and responsibilities for each study type (Full HRMA, HRMA Update and Validation) are provided in Tables 3.1, 3.2 and 3.3. Actions that are shaded in light gray represent critical steps in the HRMA process that must be accomplished before continuing effort can proceed. Delays in these critical actions may result in an overall delay in schedule for the entire study.

Table 3-1. Full HRMA Actions, Roles and Responsibilities

| <i>Full HRMA</i> | | | | |
|--|-----------------------|---------------|---------------------|--------------------------------|
| <i>Action</i> | <i>Participants</i> | | | |
| | <i>HQ AF/ILEH</i> | <i>MAJCOM</i> | <i>Installation</i> | <i>Analyst/ Contractor</i> |
| Project Management | | | | |
| Establish overall program policy, methodology and guidelines | ✓ | | | |
| Determine scope of study and assign roles and responsibilities | ✓ | | | |
| Arrange contracting actions and procure contract funds | ✓ | | | |
| Establish overall project schedule and tasking | ✓ | | | |
| Submit data request sheet to MAJCOM and installation | ✓ | | | |
| Begin collection of government provided information | ✓ | ✓ | ✓ | |
| Preliminary Phase | | | | |
| Initiate study with analyst | ✓ | | | ✓ |
| Begin data collection | | | ✓ | ✓ |
| Establish date and time for Orientation Meeting and on-site visit | | ✓ | ✓ | ✓ |
| Conduct Orientation Meeting at installation | | ✓ | ✓ | ✓ |
| Submit all government provided, approved information to analyst. Completeness and accuracy of information is critical to ensure correct results and completing the HRMA on schedule. | | ✓ | ✓ | |
| Collect military and local community data including market area boundary estimates | | | | ✓ |
| Submit proposed Housing Market Area | | | | ✓ |
| Provide approval on Housing Market Area boundary. The boundary must be firmly approved – changes to Housing Market Area result in delay of study. | | ✓ | ✓ | |
| Complete data collection and perform analysis | | | | ✓ |
| Prepare and submit results of analysis in Preliminary Report format | | | | ✓ |
| Review analysis results and provide written comments to analyst | ✓ | ✓ | ✓ | |
| Respond in writing to government provided comments | | | | ✓ |
| Establish date and time for teleconference | | ✓ | ✓ | ✓ |

Table 3-1. Full HRMA Actions, Roles and Responsibilities (continued)

| HRMA | | | | |
|--|-----------------------|---------------|---------------------|--------------------------------|
| <i>Action</i> | <i>Participants</i> | | | |
| | <i>HQ AF/ILEH</i> | <i>MAJCOM</i> | <i>Installation</i> | <i>Analyst/ Contractor</i> |
| Conduct teleconference to review assumptions, data elements and results of analysis | | ✓ | ✓ | ✓ |
| Finalize any changes to assumptions and data elements. Any new or modified information that is to be incorporated into the study must be confirmed and provided at this step. | | ✓ | ✓ | ✓ |
| Draft Phase | | | | |
| Incorporate changes to data or assumptions into analysis as applicable | | | | ✓ |
| Publish Draft Report | | | | ✓ |
| Review analysis and provide written comments to analyst | ✓ | ✓ | ✓ | |
| Respond in writing to government provided comments | | | | ✓ |
| Establish date and time for conducting on-site briefing | | ✓ | ✓ | ✓ |
| Conduct on-site briefing to installation | | ✓ | ✓ | ✓ |
| Provide approval. Installation commander typically provides this approval, but other installation personnel should review assumptions and data elements and inform command of study parameters, results and impacts. | | ✓ | ✓ | |
| Final Phase | | | | |
| Incorporate changes/corrections into the report as applicable | | | | ✓ |
| Publish Final Report | | | | ✓ |
| Issue backup documentation | | | | ✓ |
| Installation commander approval/signature to final document | | | ✓ | |

Table 3-2. HRMA Update Actions, Roles and Responsibilities

| <i>HRMA Update</i> | | | | |
|---|-----------------------|---------------|---------------------|--------------------------------|
| <i>Action</i> | <i>Participants</i> | | | |
| | <i>HQ AF/ILEH</i> | <i>MAJCOM</i> | <i>Installation</i> | <i>Analyst/ Contractor</i> |
| Project Management | | | | |
| Establish overall program policy, methodology and guidelines | ✓ | | | |
| Determine scope of study and assign roles and responsibilities | ✓ | | | |
| Arrange contracting actions and procure contract funds | ✓ | | | |
| Submit data request sheet to MAJCOM and installation | ✓ | | | |
| Begin collection of government provided information | | ✓ | ✓ | |
| Preliminary Phase | | | | |
| Initiate study with analyst | ✓ | | | ✓ |
| Begin data collection | | | | ✓ |
| Submit all government provided, approved information to analyst. Completeness and accuracy of information is critical to ensure correct results and completing the HRMA Update on schedule. | | ✓ | ✓ | |
| Complete data collection and perform analysis | | | | ✓ |
| Prepare and submit results of analysis in HRMA Update Preliminary Report format | | | | ✓ |
| Review analysis results and provide written comments to analyst | ✓ | ✓ | ✓ | |
| Respond in writing to government provided comments | | | | ✓ |
| Establish date and time for teleconference | | ✓ | ✓ | ✓ |
| Conduct teleconference to review assumptions, data elements and results of analysis | | ✓ | ✓ | ✓ |
| Finalize any changes to assumptions and data elements. Any new or modified information that is to be incorporated into the study must be confirmed and provided at this step. | | ✓ | ✓ | ✓ |
| Final Phase | | | | |
| Incorporate changes/corrections into the report as applicable | | | | ✓ |
| Publish HRMA Update document | | | | ✓ |
| Issue backup documentation | | | | ✓ |

Table 3-3. Validation Letter Actions, Roles and Responsibilities

| <i>Validation Letter</i> | | | | |
|---|-----------------------|---------------|---------------------|--------------------------------|
| <i>Action</i> | <i>Participants</i> | | | |
| | <i>HQ AF/ILEH</i> | <i>MAJCOM</i> | <i>Installation</i> | <i>Analyst/ Contractor</i> |
| Project Management | | | | |
| Determine scope of study and assign roles and responsibilities | ✓ | | | |
| Preliminary Phase | | | | |
| Initiate study with analyst | ✓ | | | ✓ |
| Begin data collection | | | | ✓ |
| Complete data collection | | | | ✓ |
| Prepare and submit results in Preliminary Validation Letter format | | | | ✓ |
| Review document and provide written comments to analyst | ✓ | ✓ | ✓ | |
| Respond in writing to government provided comments | | | | ✓ |
| Establish date and time for teleconference | | ✓ | ✓ | ✓ |
| Conduct teleconference to review assumptions and data elements | | ✓ | ✓ | ✓ |
| Finalize any changes to assumptions and data elements. Any new or modified information that is to be incorporated into the study must be confirmed and provided at this step. | | ✓ | ✓ | ✓ |
| Final Phase | | | | |
| Incorporate changes/corrections into the report as applicable | | | | ✓ |
| Publish Validation Letter | | | | ✓ |
| Issue backup documentation | | | | ✓ |

3.4 INFORMATION SOURCES

The broad base of information required for the HRMA includes regional, local, and community data as well as specific information about an installation's military families, unaccompanied personnel and available housing. Early determination of data sources helps direct initial steps of the HRMA as well as establishes legitimacy or reasonableness with respect to HRMA issues and assumptions.

The same types and sources of data are often not available at each location. Installations in large urban areas generally have more extensive community data available compared to those in smaller locations and rural areas. At times, various governmental agencies, universities, and other organizations analyze and model the housing market in great detail and provide long-term projections. These detailed studies and forecasts often form the basis for planning and development of urban areas and should be incorporated into the HRMA to the greatest extent practical.

Experience and skill is often required to locate information necessary to characterize and quantify the housing market. The analyst must assess all data in terms of validity and reliability and select the set that best represents housing market conditions. For example, different sources for the same information may apply different definitions to data. The analyst must confirm that the definition is consistent with study needs. Data may be derived from statistically valid comprehensive surveys conducted with a high level of confidence; or, the only information available may be anecdotal observations from local "experts." The analyst must be able to sort through information, assess validity and arrive at reasonable conclusions regarding the housing market.

The market analysis assesses current housing market conditions and makes projections on future market conditions. The HRMA process, therefore, requires information not only about an installation's Housing Market Area, but also about the demographic and economic forces in surrounding areas that impact the housing supply and demand within the installation's market area. Historical changes, trends and future projects must be considered and incorporated, as appropriate, into the analysis.

Market information may be available from different government, private, and commercial sources. While much of the data is developed by federal, state, regional and local planning agencies, specific sources cannot be universally identified as the same data sources do not exist within each installation's market area. At times, proxies or surrogates must be used when specific information is simply non-existent or not available within the time frame or level of effort allocated to the HRMA.

Data sources at overseas locations vary considerably among countries. Customs and practices differ from those found in the U.S. Definitions and metrics may vary widely and need to be understood when incorporating such data into the analysis. For example, in contrast to the U.S., the number of rooms in a housing unit, rather than the number of bedrooms, may be used to characterize housing units. In this case, other sources of information are required to characterize the housing by the number of bedrooms that conform to U.S. military housing standards.

3.4.1 Government Furnished Information

Information specific to authorized military personnel and housing assets controlled by the installation must be provided by a consistent source within the Air Force to assure valid comparisons when setting Air Force priorities. See Appendix B for a sample HRMA data call letter.

The use of authorized manpower as a source of determining future requirements, for example, assures that two installations do not base housing requirements on the assumption that the same activity/mission is assigned or duplicated at each installation. While the market data developed for the HRMA can be used to test the impact of potential mission realignments on an installation's housing requirement, a consistent source provides consistent results DoD and Air Force-wide.

Government sources of information typically include the following:

- Installation Offices – Provide data regarding the number of military housing units, private sector housing listings, military households, and personnel data as well as guidance concerning installation housing policy. Installation housing and personnel offices identify local housing market conditions and areas of critical concern.
- Major Command – Provide manpower strength data as well as guidance on current or changing Air Force housing regulations and directives.

The following major government information items are to be provided by the government concerning authorized manpower and housing assets at an installation (a comprehensive list is provided in Appendix B):

- Authorized Manpower – The authorized manpower for the initial, interim and final year(s) of the transition period, of host and tenant organizations (by pay grade) and others for whom the installation has a support agreement to provide housing.
- Military Family and Unaccompanied Housing Requirements - The Air Force may directly provide the number of authorized families by pay grade and bedroom entitlements and the number of unaccompanied personnel for the initial and final years of the transition period. Otherwise,

authorized families and unaccompanied personnel must be estimated as part of the HRMA process.

- Key and Essential (Priority 1) positions and the pay grades of personnel who fill these positions.
- The number of military personnel by residential zip code or for overseas locations, by town or village.
- Information about U.S. military housing such as government-owned units and leased units.
- Other categories of housing units available to military personnel including privatized units and Overseas Specified Housing units.
- Housing allowances paid (BAH/OHA), as appropriate, to personnel with and without dependents by pay grade at an installation.
- Housing market information including estimates of a Housing Market Area boundary (e.g., drive time estimates), any rental housing lists maintained by the installation and areas identified by an installation as unsuitable for military personnel.
- Sources of local market information including Housing Office referral personnel, rental property managers and other persons and organizations knowledgeable of the local housing markets.
- Housing demographic surveys (military homeowners vs. renters). This information is currently obtained from the most recent Services-wide surveys, last updated in 1997. If no recent data is available, the HRMA contractor may request from the installation an update of materials reflecting recent, localized demographic survey data. This survey would have to be conducted as part of the government data collection effort.

DoD is currently developing an annual, military-wide survey instrument measuring personnel demographics and housing information to replace the 1997 VHA survey data. Annual surveys will not only provide current data but also allow data elements to be evaluated over time and investigated for trends and anomalies.

3.4.2 Regional and Market Area Information

At a general level, regional and local demographic, economic and housing information sources may include:

- National Agencies – Provide comprehensive data such as the Census of Population and Census of Housing for geographic areas and the American Housing Survey (AHS) with information about the U.S. housing market as well as selected metropolitan areas. Employment, earnings, and median income data are also available from federal agencies. National data and projections may serve as a comparison to local information. Some of these agencies include the U.S. Census Bureau, the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA) and the U.S. Department of Housing and Urban Development (HUD). In overseas

locations, different national agencies may collect and report population and housing data. However, overseas data may differ in definition and metrics.

- State and Regional Agencies – Provide area-specific employment, earnings, population data and projections. Regional planning agencies are often responsible for transportation planning and can provide estimates of roadway travel speeds and congestion. State and regional data may also be used to validate local information or act as a surrogate for local data where no local data is available. Many states maintain finance departments or other similar departments and agencies that collect, track and report data. Cities and counties frequently form regional government organizations or associations to study, consolidate and disseminate information.
- City and County Planning and Research Departments and Agencies – Provide important sources of data specific to cities and counties in proximity to an installation. Information on building permits, zoning restrictions, demolitions and building code violations are typically available from these sources. Employees of these agencies, including housing authorities, may also serve as local experts.
- Private and Commercial Sources – Provide local information through the Board of Realtors, Multiple Listing Service, Apartment Association and other similar sources.

3.5 EXCEPTIONS AND WAIVERS

Exceptions and/or waivers due to unique or unusual characteristics existing or anticipated in the market area during the analysis period may be requested once for each HRMA at an installation. That is, an exception should not become a “rule” for that installation as conditions may change during the time period between HRMAs. Also, exceptions should not be extended to all installations within a MAJCOM. Any waivers should be raised during the government review process.

As an example, in some previous HRMAs, use of a “Constrained Model” was employed as an alternative approach to the standard methodology. In this model, an adjustment to the private sector military rental demand was enacted by retaining a certain number of military families and unaccompanied personnel on-base. This action was taken to recognize the theoretical limitations of the local private sector rental market to accommodate both military and civilian demand without civilian displacement from the market. Thus, market conditions at a constrained market area may have changed enough during the three years since the last HRMA study where a “Constrained Model” approach may no longer be appropriate. Further discussion of the “Constrained Model” may be found in Appendix J.

Other market or installation conditions may exist that warrant exception to the standard methodology. Exceptions or adjustments of this nature must obtain approval from AF/ILEH. The analyst/contractor should record all waiver requests and act as the integrator and coordinator of exceptions and waiver requests and their resolutions.

3.6 DISCUSSION: RELEASE OF HRMA INFORMATION TO NON-AIR FORCE ENTITIES

From time to time, HRMA information may be requested by outside parties (including Congress and other government agencies). It is the general practice and guidance of AF/ILEH that only the HRMA Executive Summary is releasable under a Freedom of Information Act request (FOIA).

AF/ILEH interprets the remainder of the report as “deliberative process information” under FOIA Exemption 5, 5 U.S.C. § (b)(5). The HRMA report is a deliberative document used by the Air Force to make decisions on future housing requirements. Recommendations are based in part in the assessment of current market information gathered in the field, specifically housing market trends, for a specific geographic location. The HRMA makes a projection of housing needs using available market data, including interviews with local developers, real estate firms, and government entities.

This factual market data (which at times can be testimonial or subjective in nature) is “inextricably intertwined” with the findings of the report. The HRMA does contain information that may not be deliberative in nature. However, the release of this information may influence future HRMA results and reveal the Air Force’s deliberations process in future market analyses.

The installation and MAJCOM program managers must take care in reviewing FOIA requests and coordinate the dissemination of HRMA information with AF/ILEH, their installation legal office, and their local FOIA office or point of contact.

4 METHODOLOGY OVERVIEW

The methodology is the major component of the HRMA process. While the HRMA process defines the overall study system, the methodology describes the procedures to develop data required for the analysis and defines the computational procedure that determines the total military housing requirement for military families and unaccompanied personnel. A consistent methodology helps to assure consistent and comparable results between HRMAs.

This methodology incorporates OSD's Dynamic Adjustment Model (Dynamic Model). This section briefly describes the Dynamic Model and identifies its function, characteristics, and relationship to the methodology in the following areas:

- Analytical Framework
- Model Structure
- Data Requirements
- Model Outputs

4.1 ANALYTICAL FRAMEWORK

The methodology follows OSD's guidance that the military should turn first to the local housing market for its housing needs. Only if there is insufficient private sector housing should the military pursue MILCON or privatization options. The goal of the HRMA is to determine the capability of the private sector rental supply to meet military housing rental requirements absent any military housing inventory. Since privatized units are interpreted as a component of military housing, such units are excluded from the competitive private sector rental housing supply when conducting actual civilian competition. Air Force program managers can then make better management decisions on future privatization or construction programs based on this fundamental and execution- or program-independent HRMA result.

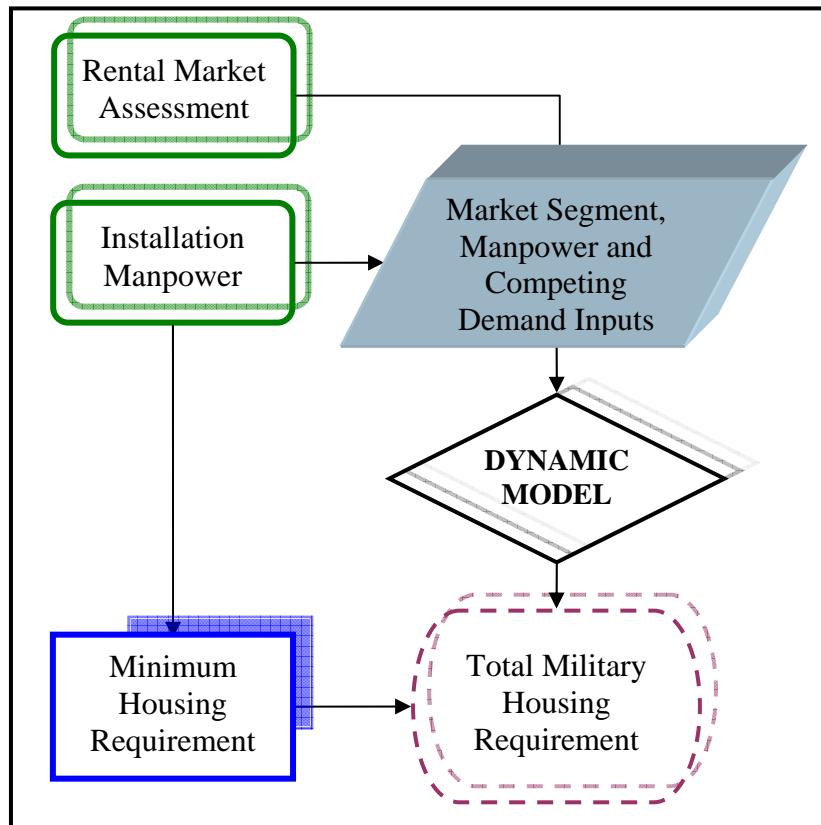
The analytical framework assumes that the installation will transition from its current number of military housing units to a determined minimum inventory over the planning (transition) period. During this transition period, military families currently residing in military housing in excess of a minimum housing requirement are assumed to move into private sector housing. The methodology assesses if there is sufficient suitable, affordable private sector housing to accommodate these transitioning military households as well as any increase or decrease in authorized manpower occurring during the transition period.

4.2 MODEL STRUCTURE

The methodology consists of five major components (Figure 4-1):

- 1) Rental Market Assessment
- 2) Installation Manpower
- 3) Determination of the Minimum Housing Requirement
- 4) Application of the Dynamic Adjustment Model
- 5) Determination of the Total Military Housing Requirement

Figure 4-1. Dynamic Model Structure



The rental market assessment develops input data about the rental housing market. The installation manpower component characterizes and quantifies military family and unaccompanied personnel households. Air Force criteria sets minimum housing requirements while the military requirement for private sector owner-occupied and rental housing is derived from military household data.

Housing market and military household data flows into the Dynamic Model that computes the number of military households that are unsuitably housed at the end of the transition period. The Total Military Housing Requirement for each accompaniment status is determined as the sum of the minimum housing

requirement and the number of military households unsuitably housed in the private sector.

The housing market assessment focuses on the rental supply and competing demand within the installation's Housing Market Area. Market segments, defined by rental cost and number of bedrooms categories, form the unit of analysis. Homeowners, with the exception of mobile homes, are considered suitably housed and generally not addressed in detail. The market assessment estimates the rental supply by market segment, competing civilian demand, and projected growth over the transition period for both rental supply and demand. Rental housing availability during each year of the analysis is determined by the turnover of military family, unaccompanied personnel and civilian households.

Installation manpower includes all personnel for whom the installation has the responsibility to house. Military family and unaccompanied personnel households requiring private sector housing are determined by bedroom entitlements for each year of the transition period. Homeownership is estimated for those military households not living in military housing. Military households that are renters are allocated to the market within a spending band set by their Maximum Allowable Housing Cost (MAHC) and a minimum acceptable rental housing cost.

The minimum housing requirement is determined for both military families and unaccompanied personnel. Air Force policies set the criteria. The minimum housing requirement is determined by the conditions at the end of the transition period (manpower, key and essential positions, etc.).

The market assessment and quantification and classification of the installation's manpower into rental market requirements are inputs to the Dynamic Model. Only the competitive rental housing market is addressed in the Dynamic Model. Military members who own their own home are considered suitably housed with the exception of those owning mobile homes.

4.3 THE DYNAMIC MODEL

The following is a brief overview of the Dynamic Model including competitive market assumptions, model inputs and generated results. See Appendix I for a detailed discussion regarding theory, methodological assumptions, origins, development and implementation of the Dynamic Model.

The Dynamic Model separately addresses the availability of rental housing and active demand within each market segment. For each year between the start and end of the transition period, the Dynamic Model allocates the available, affordable, suitable rental housing only to those military and civilian households actively seeking rental housing that year. The Dynamic Model incorporates a

response mechanism that allows for rental housing growth based on changes in the vacancy rates.

For each year of the transition period, the Dynamic Model allocates suitable housing that becomes available for rent through turnover of the housing (the tenant moves out of the unit), that are vacant, or are new additions to the rental supply, to those households seeking housing during that year. The available suitable housing is allocated only to active demand households. For military families, the active demand are households turning over, households considered unsuitably housed, households requiring rental housing as a result of the transitioning from the current level of the military housing to the minimum housing requirement, as well as new PCS households at an installation. If only 20 percent of the suitable rental housing is available, the Dynamic Model will only allocate 20 percent of the suitable rental housing amongst the competing households.

The available suitable rental housing is allocated to each of the competing groups (military families, unaccompanied, and civilian households) based on its proportion of the total active demand in each market segment. If the military families are 1/10 of the total active demand in a market segment, they are allocated 1/10 of the available suitable housing in that segment. For each year of the analysis and each market segment, the number of available suitable rental units is computed along with the number of active demand households in each competing group.

The total number of households in each competing group identified as suitably housed is the sum of the active demand allocated suitable housing plus those already in suitable housing but not actively seeking other rental housing. The total number of military family and unaccompanied households not in suitable housing at the projected or final year of the transition becomes the Private Sector Shortfall. The Total Military Housing Requirement for military families/unaccompanied personnel is the Private Sector Shortfall plus their respective minimum housing requirement.

4.3.1 Data Requirements

The inputs required by the Dynamic Model are listed by category below for general information, the initial year of the analysis (Initial Year), the final year of the transition period (Final Year), and the transition years:

General Information

- 1) Turnover of Rental Housing
 - a) Military Family
 - b) Unaccompanied Personnel
 - c) Civilian Households
- 2) Minimum Vacancy Rate
- 3) Natural Vacancy Rate

For the Initial Year

- 4) Rental Market Data by Market Segment (Competitive Market)
 - a) Total Rental Supply
 - i) Unsuitable Rentals
 - ii) Total Vacancies
 - iii) Suitable Vacancies
- 5) Military Families
 - a) Military Families Suitably Housed
 - b) Military Families Unsuitably Housed
- 6) Unaccompanied Personnel
 - a) Unaccompanied Personnel Suitably Housed
 - b) Unaccompanied Personnel Unsuitably Housed
- 7) Civilians
 - a) Civilian Rental Demand

For the Final Year

- 8) Demand
 - a) Military Family Private Sector Demand
 - b) Unaccompanied Personnel Private Sector Demand
 - c) Civilian Demand

For the Transition Years

- 9) Rental Market Data by Market Segment
 - a) Rental Market Annual Growth (A linear interpolation between the initial and final year of the transition period for each market segment)
- 10) Rental Market Supply Response
- 11) Demand (A linear interpolation between the initial and final year of the transition period for each market segment):
 - a) Military Family Private Sector Demand
 - b) Unaccompanied Personnel Private Sector Demand
 - c) Civilian Demand

4.3.2 Model Outputs

The Dynamic Model computes for each year of the transition period the number of military families and unaccompanied personnel in each rental market segment who are suitably and unsuitably housed. The military family Private Sector Shortfall is the number of military family renters who are unsuitably housed at the end of the transition period. Similarly, the unaccompanied Private Sector

Shortfall is the number of unaccompanied personnel who are unsuitably housed at the end of the transition period.

For a more detailed explanation of the Dynamic Model inputs and outputs, including how rental market growth and supply response are calculated, refer to Appendix I.

4.4 HRMA EXAMPLE

In order to provide the reader of this document with an understanding and visualization of typical tables and results compiled and derived in the HRMA process, Chapters 5 through 9 include an example HRMA for Anywhere Air Force Base (AFB). Tables and results are identified as “Worksheets.” While this example does not consider and display every scenario an HRMA may encounter, general assumptions and common issues typically found in most HRMAs are incorporated. The data is hypothetical and values should not be relied upon as actual HRMA results. Many of the worksheets display formats and representative inputs that populate an actual HRMA report. Worksheets representing actual inputs into the Dynamic Model are identified with the symbol ①.

Anywhere AFB has manpower authorizations for the initial and final year of the transition period totaling 1,391 host Air Force personnel and 324 tenant personnel. The installation’s Housing Market Area currently has 43,829 rental housing units. Actual current vacancies are estimated at 4.0 percent. The rental supply is estimated to grow at approximately 2.0 percent annually.

5 THE HOUSING MARKET AREA

This chapter defines the process for determining the Housing Market Area for the installation. See Section 2.2.1 for additional information and discussion on the definition and justification of the Housing Market Area.

5.1 BASELINE METHODOLOGY

The Housing Market Area is critical to the analysis as it defines the extent of the housing suitable for military occupancy based on commute time and distance. Only housing within the Housing Market Area is considered in the analysis. The total rental supply, suitable units and vacant housing within the market area are quantified by rental cost and bedroom category.

The Housing Market Area sets the geographical boundary for the HRMA. The defined market area directly affects the available housing supply and competing demand analyzed in the HRMA. The area is determined by commute time and distance from the headquarters building at an installation.

The Housing Market Area boundary is most easily defined by travel time and distance along major travel routes where travel flow information is more readily available. Travel time and distance may be determined using one or a combination of the following resources:

- Municipal or regional agencies that analyze the local and regional transportation network as part of their planning functions. These agencies may provide specific information on traffic patterns and travel speeds along major highways and arterial roadways.
- Time-distance studies conducted by driving from or to an installation's headquarters to outlying locations. Repeated observations along the same route may be necessary to determine typical travel speeds during peak travel times. Global Positioning System (GPS) units may be useful in tracking speed and distance. The following factors need to be considered in interpreting the results:
 - ◆ Traffic vagaries often occur where openings in traffic make the slow route seem fast or a traffic accident causes delays on faster routes. Repeated measurements may be required to assure reliable estimates.
 - ◆ Seasonal variations often cannot be measured within the time frame of the HRMA. A study conducted in the spring cannot measure severe winter driving conditions that would constrict the market area.

- ◆ Areas within the commute distance but must be accessed through toll facilities such as roads, bridges, or tunnels may limit the boundary of the market area or increase the cost of rental housing units located across such access structures.
- Installation employees who have knowledge of the travel time from various locations to an installation and unbiased observations about the commuting time and distance to residences. The installation should review a preliminary market area boundary and provide information about commute times and distances.
- Computerized road network systems that estimate the distance that can be driven within the commute area. Road network software packages typically include a database of road segments, road classifications, and speed limits on each road segment to identify road segments that are within the specified travel time from an installation.

Generally, small changes in the Housing Market Area generally do not have a significant impact on HRMA results. For market areas that extend into rural areas, any small change in the boundary will only add or remove a few housing units and have little impact on the total rental housing supply. The Housing Market Area is assumed to remain the same over the transition period unless new roads or transportation systems are expected to come into operation within the time frame of the analysis.

5.2 EXCEPTIONS AND OTHER CONSIDERATIONS

Each installation may have unique geographic and operational considerations requiring attention when demarcating the Housing Market Area. The Housing Market Area boundary is determined as the greater of sixty minutes or twenty miles. Most often, the sixty-minute limit will be the deciding criterion in determining the boundary of the market area as military personnel typically are able to drive farther than twenty miles in a sixty-minute time period. However, in densely populated metropolitan areas, traffic congestion may restrict military personnel from exceeding twenty miles within a sixty-minute commute.

Additionally, consideration may be given to structures such as bridges or tunnels that slow traffic as well as routes or housing areas where tolls must be paid for access to roadways, bridges or tunnels. Toll roads, bridges or tunnels may limit the boundary of the Housing Market Area or may be included as an increase in the cost of rental housing units located across such access structures. Conditions that affect the travel speed may constrict the Housing Market Area. For example, weather conditions including consistent fog and winter conditions such as ice or snow and roads identified as dangerous may force military personnel to reduce driving speeds, thus limiting the market area boundary. See Section 3.5 for additional comments on exceptions and waivers.

5.2.1 Ingress and Egress for an Installation

In determining the Housing Market Area boundary, consideration should be given regarding location and hours of operation of the installation's gates. Large installations may have multiple ingress and egress points scattered around the installation. In some cases, gates may only be opened during the morning commute time and closed in the afternoon, or vice versa. Such hours of operation would impact the ability of military personnel to reach their housing unit within the allowed commuting time established by Air Force policy.

5.2.2 Multiple Work Centers

Some Air Force installations encompass a vast land area. Multiple work centers may be located within the borders of the installation. In these situations, the analyst should consult with the installation, MAJCOM and AF/ILEH staff to determine the most appropriate Housing Market Area.

In some cases, it may be appropriate to identify separate Housing Market Areas for each major work center. As such, military manpower authorizations by geographic area may be required for the analysis. Since it is likely that the Housing Market Area for each major work center will overlap, it may be necessary to determine the competing demand in each submarket. Military private sector housing requirements may be allocated to such submarket areas according to proportionate numbers of suitable private sector housing within each respective submarket within the Housing Market Area.

It may be appropriate to retain a single Housing Market Area but modify the boundary to accommodate the size of the installation and consider the ability of military personnel to reach suitable private sector rental housing within the commute standards.

A joint analysis (inter-Service) may be appropriate for multiple installations in a common Housing Market Area where there are possibilities to program housing resources common to all installations. In this instance, consideration may be given to utilizing a single Housing Market Area that encompasses both installations; or, consideration may be given to use separate market areas for each installation, including an overlapping geographic area. The decision to conduct a joint analysis must be made by each Service's housing command (i.e., AF/ILEH and its counterpart in other Services).

5.2.3 Access Waiting Time

Access to a military installation may vary widely and depend on several factors including arrival time at the gate, implementation of security measures and familiarity of security personnel with security procedures. The impact to establishment of the Housing Market Area due to gate access delays is dependent upon Air Force policy (see Section 2.2.1.3).

5.3 HOUSING MARKET AREA ILLUSTRATIONS

Figure 5-1 illustrates alternative Housing Market Area configurations including a single installation with one Housing Market Area, an installation with multiple work centers and two installations with overlapping Housing Market Areas. These configurations are depicted in Figures 5-2 to 5-5 for actual Air Force installations. Housing Market Area maps may be used to identify actual locations of housing where members choose to live (Figure 5-6).

Figure 5-1. Sample Housing Market Areas

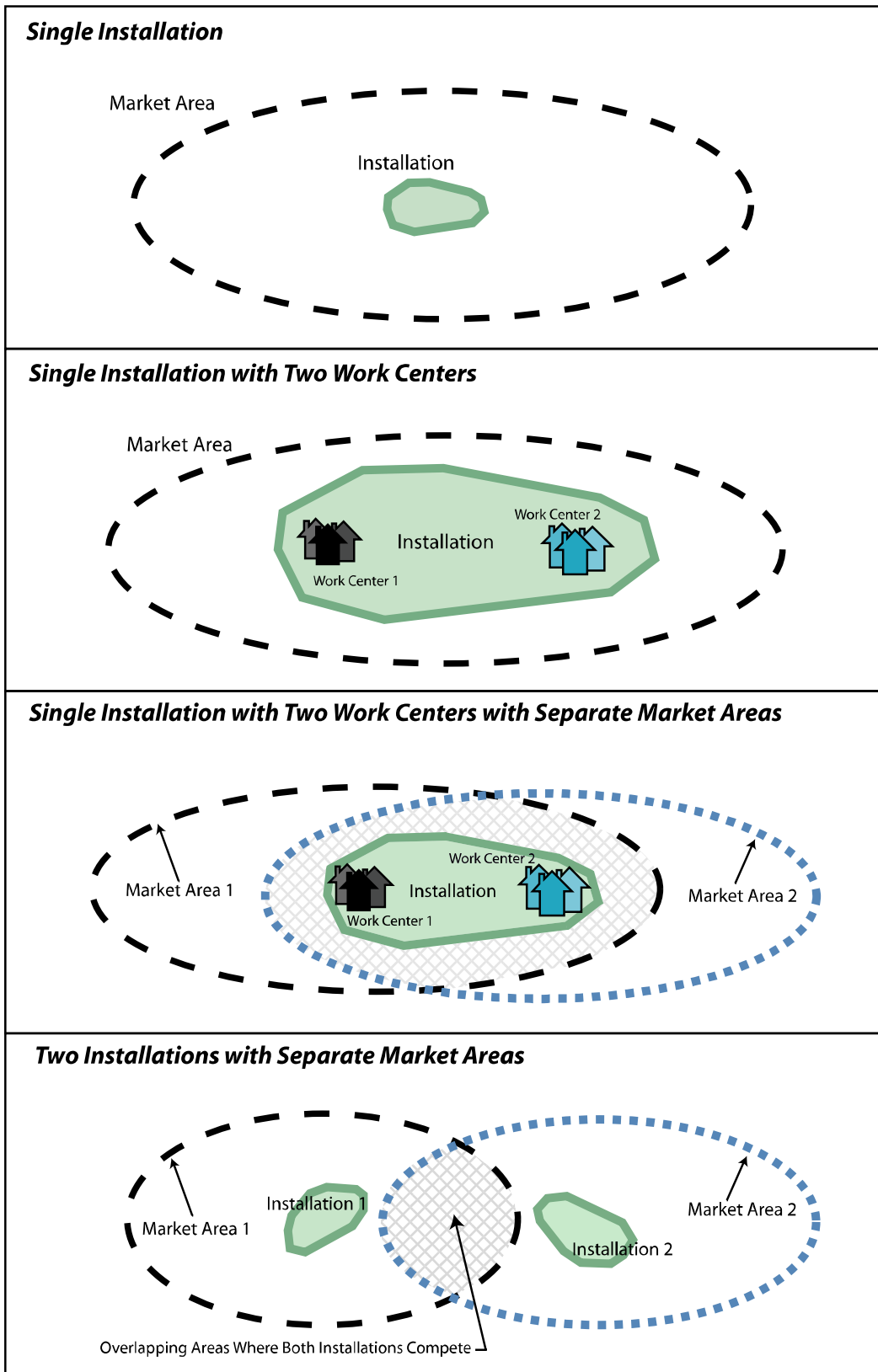


Figure 5-2. Single Installation

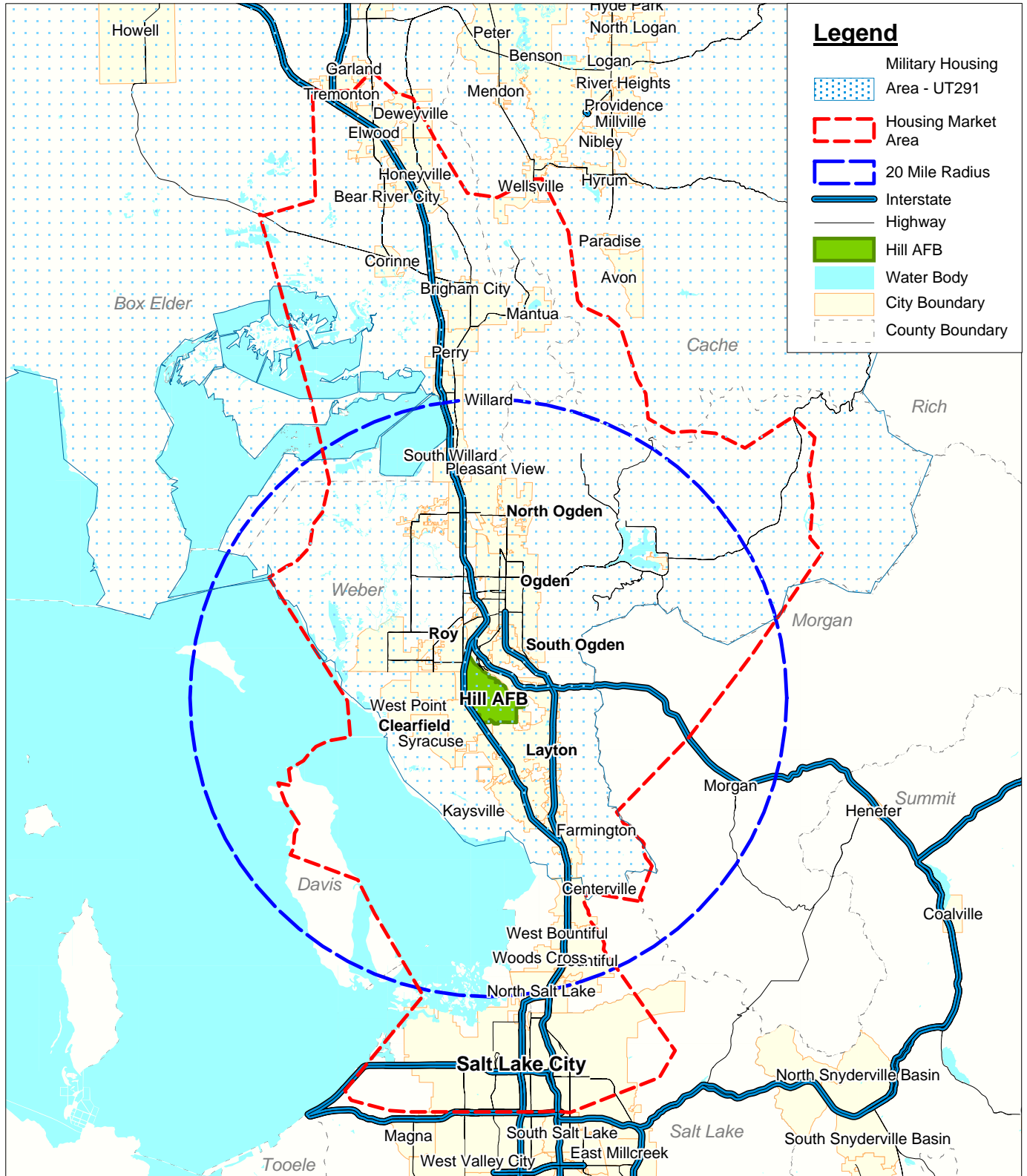


Figure 5-3. Single Installation with Two Work Centers

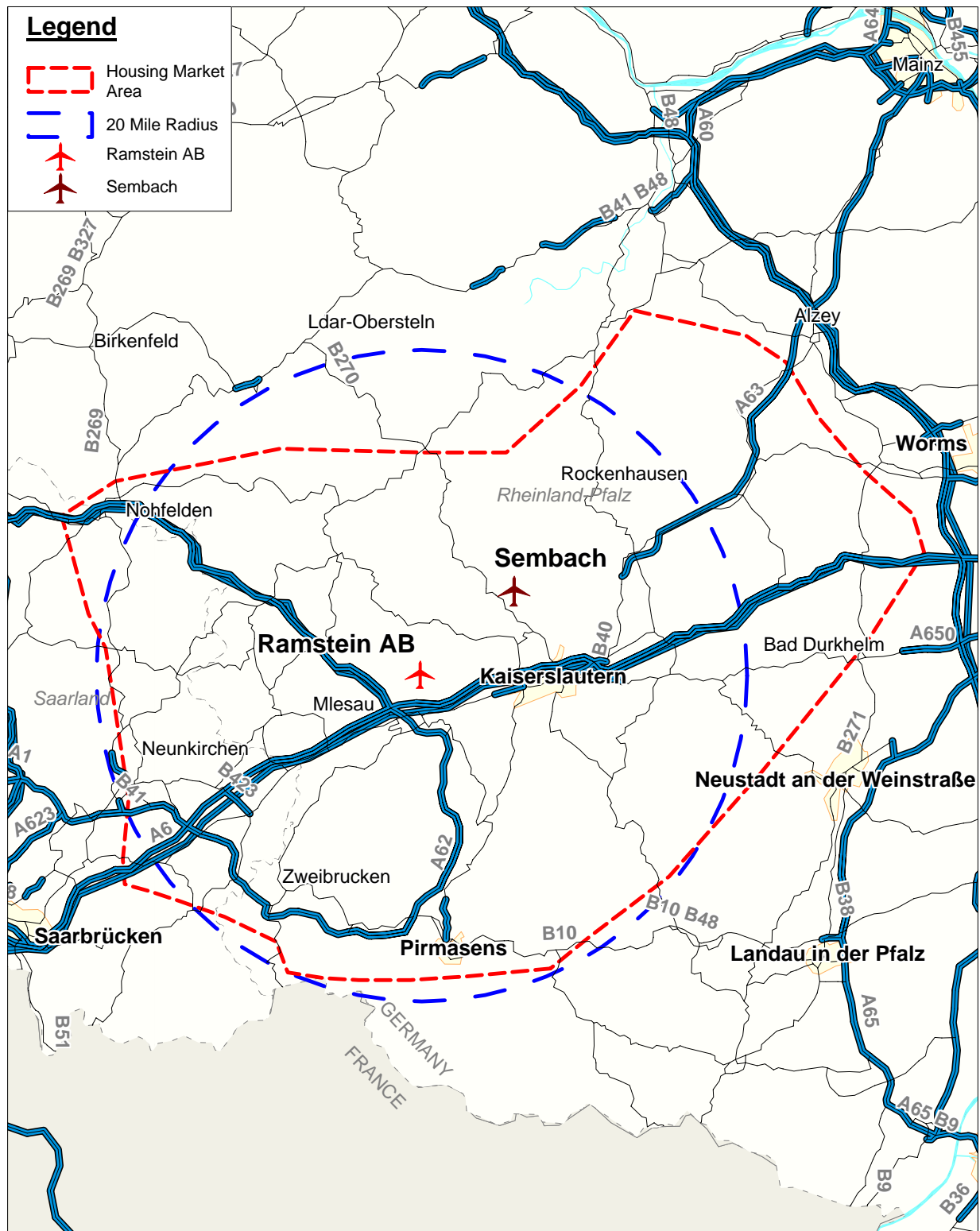


Figure 5-4. Single Installation with Two Work Centers with Separate Market Areas

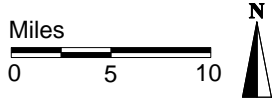
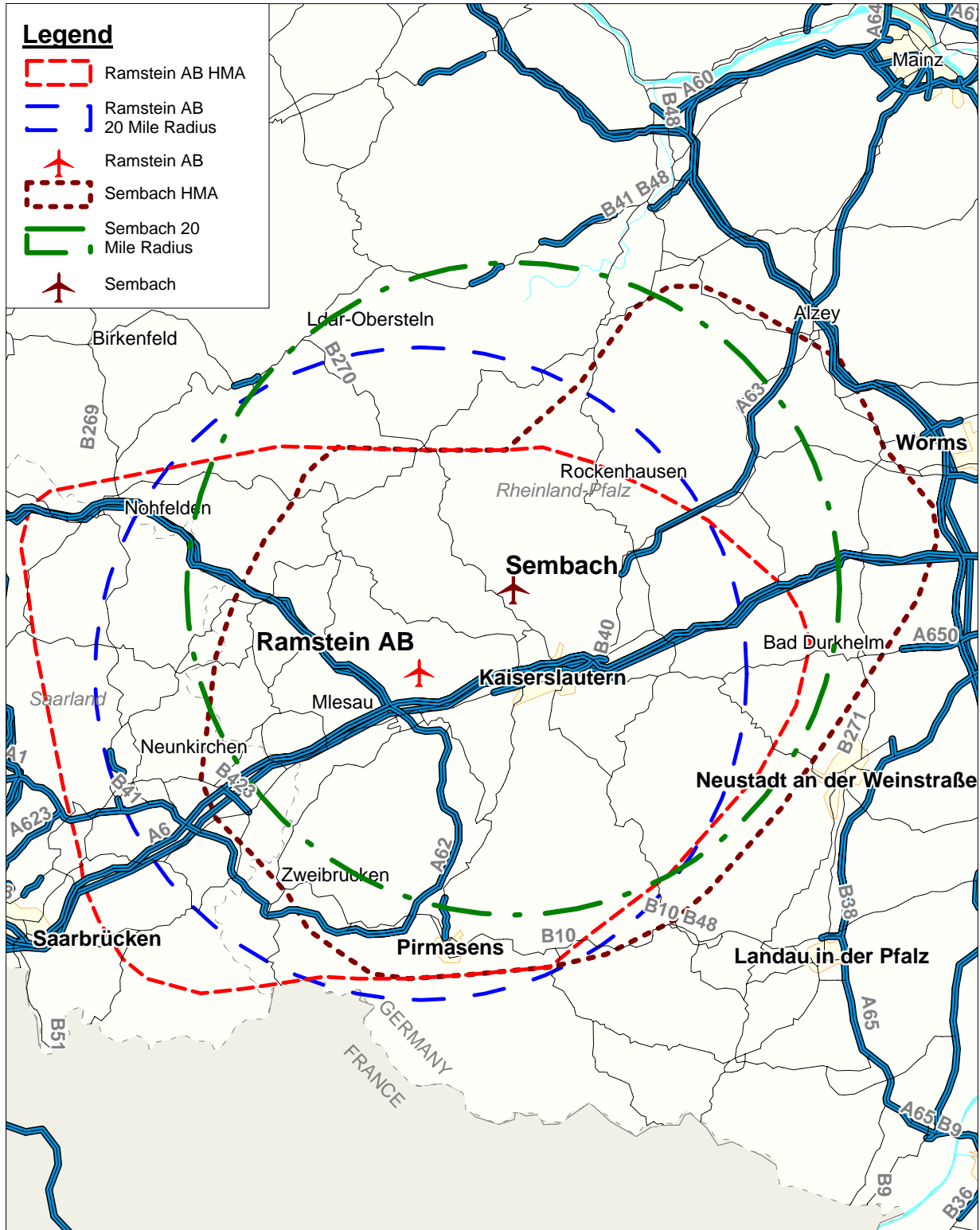


Figure 5-5. Two Installations with Separate Market Areas

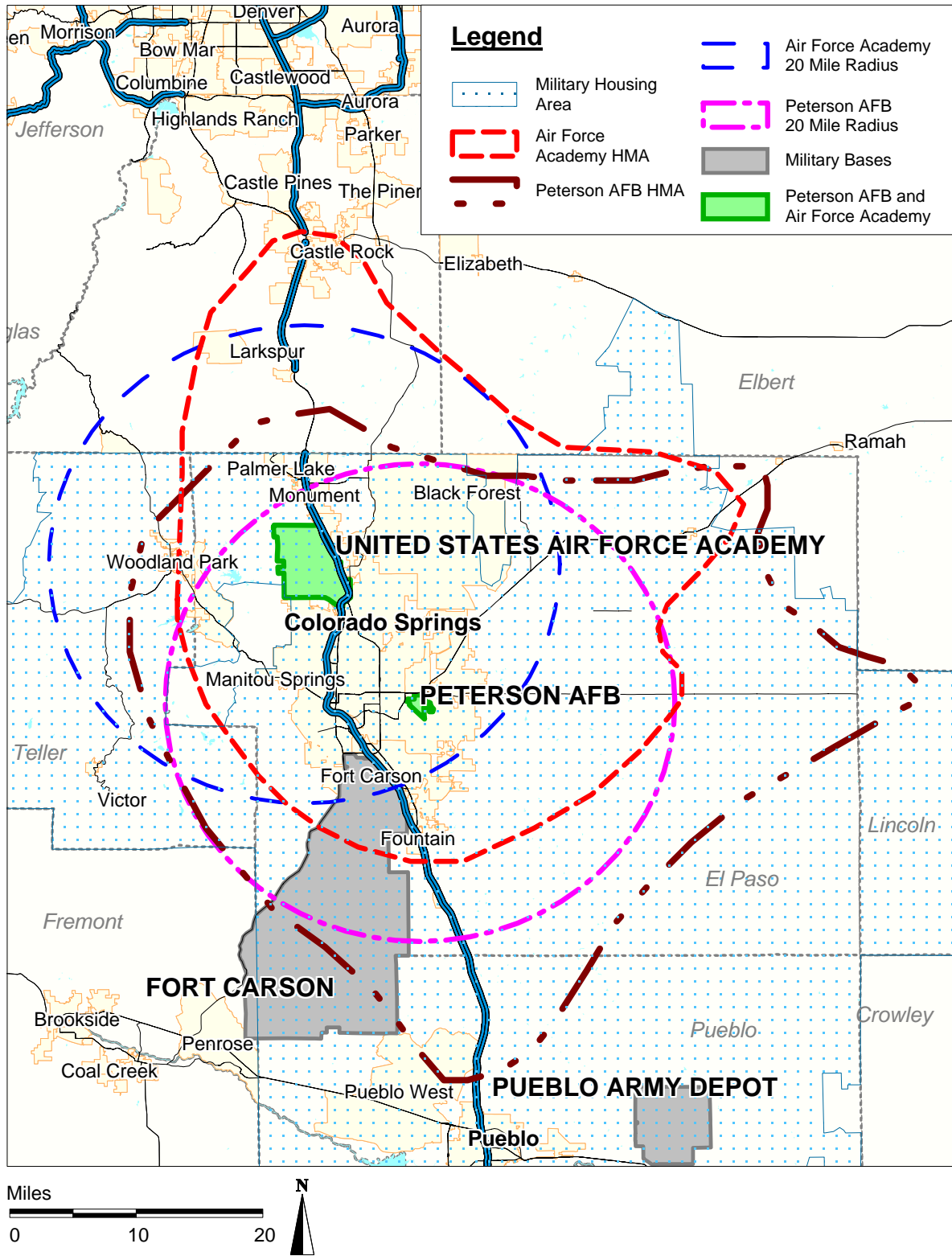
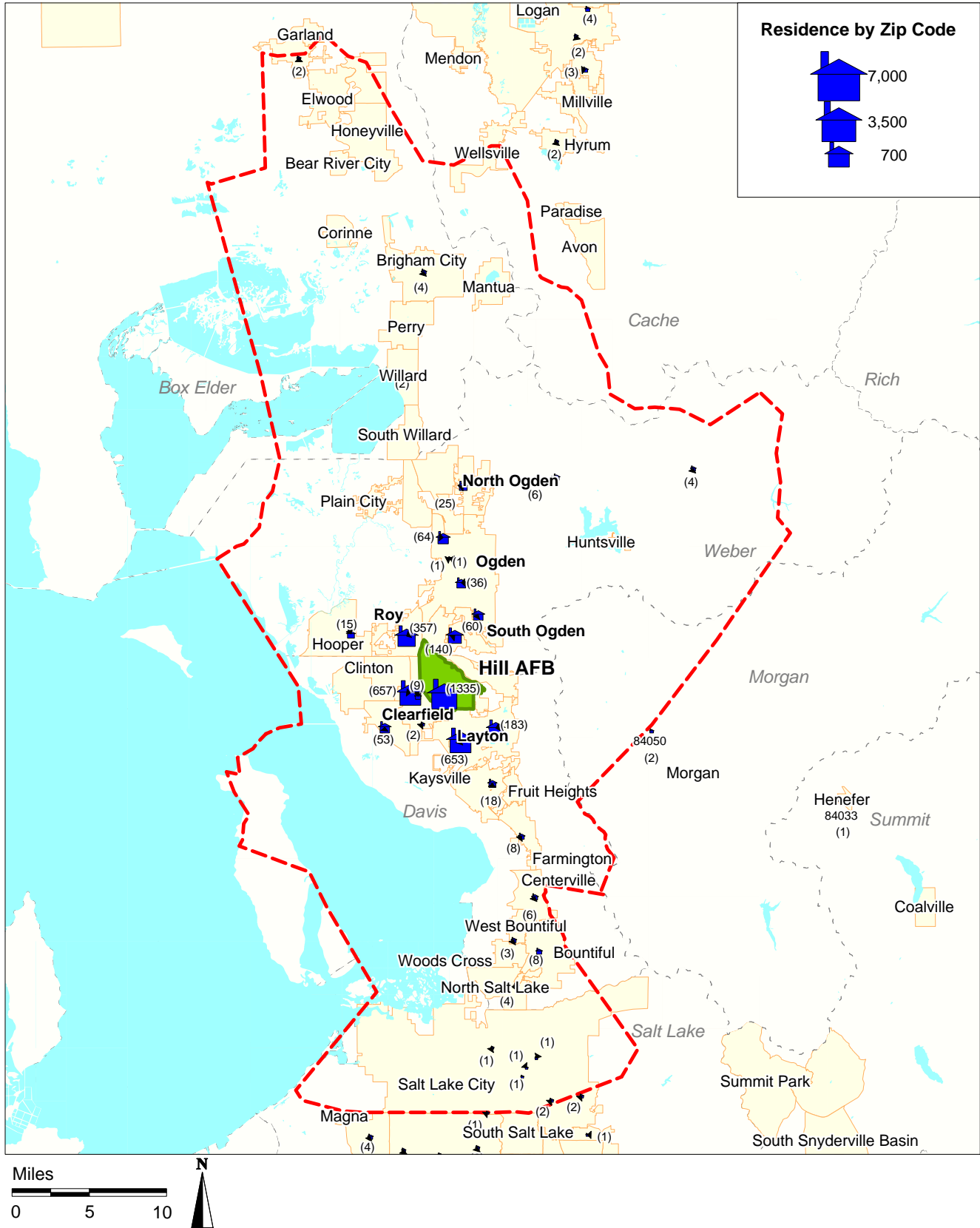


Figure 5-6. Residence Locations by Zip Code



6 HOUSING SUPPLY

The rental housing supply must be quantified and characterized for each year of the analysis to reflect changes that occur during the transition period. This section describes methods to quantify housing in the Housing Market Area by military housing, private sector homeowner housing and private sector rental housing.

If the HRMA includes multiple locations or work centers each with their separate Housing Market Area, the housing supply must be determined for each Housing Market Area. Should Housing Market Areas overlap resulting in common submarkets, the housing supply must be estimated for each submarket, as appropriate.

6.1 MILITARY HOUSING

Military family housing is addressed in the HRMA. Military family housing includes currently active and inactive housing units. Only changes to military housing that are funded and authorized, such as additions, remodels or demolitions, are considered. The classification of military housing by pay grade and bedroom count is based on the unit's current designation.

Military housing may include government owned units, government leased units, housing provided by a host government and privatized units.

Worksheet 6-1. Government Military Family Housing Units

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|------------|
| | Two | Three | Four | |
| O7+ | - | - | 2 | 2 |
| O6 | - | 8 | 15 | 23 |
| O5 | - | 16 | 15 | 31 |
| O4 | - | 29 | 45 | 74 |
| O3 | 63 | 13 | 7 | 83 |
| O2 | 7 | 1 | - | 8 |
| O1 | 4 | 2 | 1 | 7 |
| Officers | 74 | 69 | 85 | 228 |
| E9 | - | 3 | 2 | 5 |
| E8 | - | 25 | - | 25 |
| E7 | - | 125 | 15 | 140 |
| E6 | 68 | 36 | 16 | 120 |
| E5 | 124 | 28 | 9 | 161 |
| E4 | 61 | 12 | - | 73 |
| E3 | 38 | 15 | 4 | 57 |
| E2 | 6 | - | - | 6 |
| E1 | 3 | - | - | 3 |
| Enlisted | 300 | 244 | 46 | 590 |
| Total | 374 | 313 | 131 | 818 |

Anywhere AFB operates 818 military family housing units including 544 government owned units and 274 privatized units.

6.1.1 Government Owned

Military housing units classified as government owned units include all Air Force owned housing including both military family housing units as well as unaccompanied housing units. These units are tangible real property owned by the Air Force. As such, the Air Force is responsible for construction, maintenance, disposal and occupancy of the units. All related costs are the responsibility of the Air Force.

6.1.2 Privatized Units

Housing units constructed and maintained by the private sector for primary occupancy by military personnel constitute privatized units. These units are available to military personnel on a right of first refusal basis with military families retaining priority occupancy followed by other active duty members and unaccompanied personnel with the “waterfall” balance constituted by other categories, the last category being the general public. Privatized units maintain a fixed rental cost equivalent to a military member’s BAH. Costs for maintenance of the units are the responsibility of the privatization contractor.

6.1.3 Government Leased Housing

Military housing units classified as government leased units include units leased for the Air Force by the U.S. Government under Section 801, short-term domestic and foreign leases and overseas housing constructed as build-lease housing. Costs for construction, maintenance and disposal are negotiated into the contractual agreements enacted between the U.S. Government and the contracting entity.

6.1.4 Host Government

For some overseas locations, the host government provides military housing units to U.S. military personnel. These units may be available to all categories of U.S. personnel including military families and unaccompanied military as well as U.S. civilians such as AF Civil Service, DoDDS, DECA, AAFES and NAF Services. The eligibility of the various classes of personnel must be confirmed.

6.2 PRIVATE SECTOR HOUSING SUPPLY

Private sector housing is considered the primary source of housing for Air Force members not required to live in military housing. Private sector housing consists of single-family units, apartments, condominiums, townhouses, mobile homes and other dwellings. For the purposes of the HRMA, the total housing supply within the Housing Market Area is quantified and characterized. Although the focus of the analysis is on private sector rental housing, quantifying owner occupied housing is helpful for understanding the local housing market dynamics. Techniques and methods used to quantify and characterize private sector rental

housing apply to owner occupied housing as well. Detailed characterization of private sector rental housing including competitiveness, cost, bedrooms, suitability and occupancy status are all required for analytical purposes.

The supply of housing within the Housing Market Area is dependent on the demand for housing, cost of land, construction costs, financing costs and the infrastructure cost (i.e., water, waste water disposal, schools, roads, etc.) needed to provide necessary public services. The interaction of supply and demand determines the resulting quantity and price of housing supplied in a housing market. Greater demand and increasing prices of existing housing units encourage the creation of additional housing. Housing will no longer be added to the supply when the demand has been satisfied or when it is no longer profitable to construct housing at the prevailing market price.

The housing supply is the total of many submarkets, each offering a different level or type of housing service. For HRMA purposes, the rental housing market is divided into market segments based on cost and number of bedrooms. This segmentation facilitates comparison of the housing supply to military requirements as specified by rank and concomitant housing allowance and family size through bedroom entitlements.

The HRMA characterizes and quantifies the private sector housing as defined by DoD and Air Force policies and regulations. Some housing units are considered unsuitable due to cost, condition and location. Affordability and bedroom entitlements are primary considerations for the military. As such, cost and the number of bedrooms are used to categorize housing within the market area. Additional considerations include:

- Rental and owner-occupied housing units include single-family and multi-family housing units.
- Public and assisted housing include units owned and managed by public housing authorities and other housing programs. These may not be available to Air Force members.
- Suitability relating to physical and location factors is based on the physical condition of the unit, number of bedrooms, and location with respect to noise, industrial activity, and other health or safety considerations.
- Existing vacant rental housing is a potential source of housing available to meet any increase in demand. Some vacancies result when new housing units coming on the market have not had time to be sold or rented, i.e., absorbed into the market. Other vacancies exist due to the normal turnover time for both homeowner housing and rental housing or when rental units are held vacant for maintenance and repair activities.
- Housing is characterized by type of construction, i.e., houses may need to be constructed of certain materials such as concrete in areas of tropical storms.

The choice of a specific methodology for estimating supply is dependent on the type and extent of the available data. Large data requirements coupled with analytical complexity make housing supply estimates based on simultaneous supply and demand models usually impractical for purposes of an HRMA. Changes in housing supply are often projected independently from changes in housing prices.

At times, the housing supply, including forecasts of future housing conditions in an area, has been well documented by local or regional housing experts or governmental agencies. Often, as part of regional economic development models or transportation network models, these estimates and forecasts are primary sources for the region and serve as a basis for regional planning. These sources should represent the baseline of the housing supply market analysis where available.

Many countries conduct a decennial census of housing. Over time, census data becomes out of date. However, these censuses are often the only source for housing counts and characteristics and can serve as baseline supply estimates. The current housing supply can then be estimated from this baseline by the addition of new housing as recorded on tax assessor records or adjusted based on the numbers of building permits less housing removals that often require a demolition permit.

Estimates of the housing supply in the market area should include all housing, not just units meeting DoD and Air Force standards. For example, efficiency apartments, those with no separate bedroom, may have fewer bedrooms than current Air Force requirements and should not be excluded from the estimate. Estimates that include such units will facilitate comparison to local information sources (housing authorities, planning agencies, and real estate experts) as these other sources generally include all housing.

For CONUS locations, the total housing supply should be based on specified housing units, as defined by the U.S. Census, and exclude housing on farms of greater than ten acres, housing with businesses, rental units for which no cash rent is paid, seasonal housing units, and group or institutional quarters.

6.2.1 Private Sector Owner Occupied Housing

Housing units occupied by its owner, whether civilian or military are identified as owner occupied housing units. For analytical purposes, all military members who own their housing unit, with the exception of mobile homes, are considered suitably housed. Owner occupied units are quantified within the market area. The analysis generally does not consider any other aspects of military members or civilians who own homes.

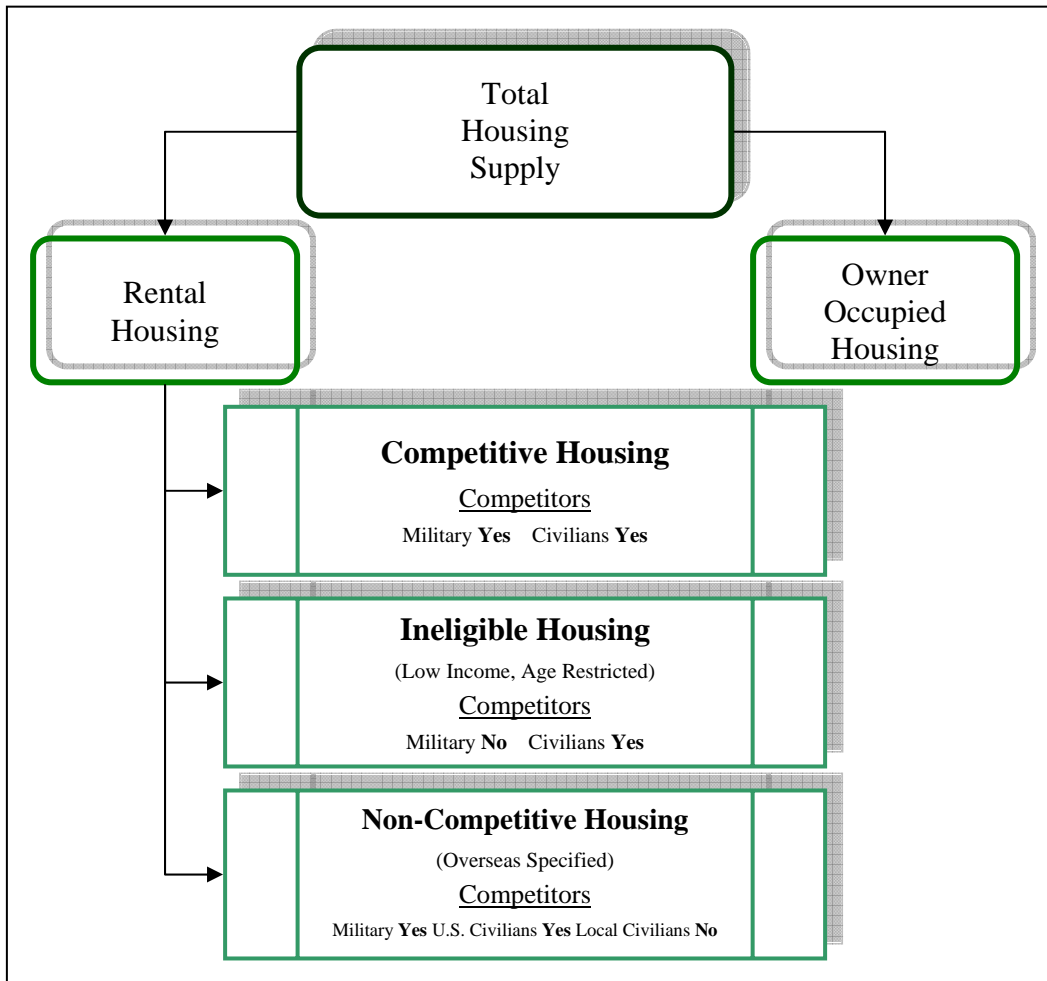
For CONUS, owner occupied housing may be derived from information contained in the U.S. Census. For overseas locations, owner occupied housing may be derived from national censuses, regional statistics, private sector data, local and community information or other sources that collect data on housing statistics. Estimates of owner occupied housing that occurred subsequent to the baseline year may be based on trends from tax records, building permits or other data.

6.2.2 Private Sector Rental Housing

Military members who are not homeowners and are not required to reside in military housing require rental housing in the private sector. Military members are generally able to seek all types of rental housing including single-family units, multi-family units, town homes or condominiums to satisfy their private sector rental requirement. However, not all private sector rental units retain the same competitive nature for the military member. Some rental units cater specifically to military members while other rental units target a particular subset of the civilian rental population for which the military members cannot compete.

The HRMA characterizes rental housing available to military members as competitive, when military members “compete” with other rental demand for occupancy; non-competitive, for which military members encounter no other demand for occupancy; or ineligible, for which military members are not able to rent due to eligibility restrictions for which they cannot qualify. The sections below discuss the characteristics of each of these categories of rental housing and Figure 6-1 illustrates and describes the different types of rental housing.

Figure 6-1. Total Housing Supply and Types of Rental Housing



6.2.3 Quantifying the Rental Housing Supply

Quantification and characterization of the rental supply is primarily derived from U.S. Census information for CONUS locations. Generally, state and local governments do not conduct censuses of housing. Census data provides information on the number of bedrooms and rental price of units contained within the market area. The rental supply must be disaggregated into market segments by rental cost and bedroom categories in order to compare military and civilian rental demand against the rental supply.

For overseas locations, information on rental housing may be obtained from national censuses, regional statistics, private sector data, local and community information or other sources that collect data on housing statistics. Care must be exercised when interpreting overseas housing data, as elements of the information may not parallel U.S. Census information. For example, European housing data often reports housing units in terms of total rooms within the unit versus number

of bedrooms in the unit found in U.S. data. Thus, surrogate estimates often must be applied to the European data in order to translate total rooms into number of bedrooms used for analytical purposes.

Worksheet 6-2. Total Private Sector Rental Housing Supply, Initial Transition Year

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 73 | 125 | 280 | 56 | 542 |
| \$1,400 - \$1,599 | 10 | 75 | 140 | 300 | 62 | 587 |
| \$1,200 - \$1,399 | 15 | 115 | 200 | 450 | 85 | 865 |
| \$1,100 - \$1,199 | 20 | 130 | 380 | 600 | 100 | 1,230 |
| \$1,000 - \$1,099 | 20 | 140 | 620 | 640 | 105 | 1,525 |
| \$900 - \$999 | 30 | 240 | 1,200 | 1,200 | 215 | 2,885 |
| \$800 - \$899 | 75 | 600 | 2,300 | 1,900 | 330 | 5,205 |
| \$700 - \$799 | 180 | 1,800 | 3,700 | 1,200 | 205 | 7,085 |
| \$600 - \$699 | 200 | 2,100 | 4,400 | 1,300 | 250 | 8,250 |
| \$500 - \$599 | 300 | 2,400 | 3,000 | 700 | 110 | 6,510 |
| \$400 - \$499 | 400 | 2,200 | 1,500 | 320 | 65 | 4,485 |
| Below - \$400 | 650 | 2,300 | 1,300 | 350 | 60 | 4,660 |
| Total | 1,908 | 12,173 | 18,865 | 9,240 | 1,643 | 43,829 |

Within the Housing Market Area for Anywhere AFB, there are 43,829 private sector rental housing units in the initial transition year.

Not only must the actual quantity and price-bedroom category of private sector rental units be estimated, but also, particular aspects of the private sector rental supply must be determined including:

- Competitive nature or eligibility of the unit
- Characteristics of the unit including
 - ◆ Cost of the housing unit
 - ◆ Number of bedrooms
 - ◆ Suitability – physical condition, location, type, etc.
 - ◆ Occupancy or vacancy

6.2.4 Housing Competition

Military members are generally able to acquire all types of rental housing including single-family, multi-family, town homes or condominiums, to satisfy their private sector housing requirements. Most housing is open to all competition; however, the military member may not be able to compete equally for all housing. Some rental units target a subset of the civilian rental demand and place restrictions on those eligible to rent them (the HRMA typically excludes these types of units from the analysis). Income and age restrictions are the most common in the U.S. Conversely, some commercially available housing, such as privatized housing, or Overseas Specified Housing may cater FIRST to the military member, giving them a competitive advantage over the remaining rental demand.

Rental housing units need to be classified by their level of competition so that the member's eligibility and the level of competition for the housing can be correctly assessed.

6.2.4.1 Competitive Housing

Competitive housing is private sector rental units for which military personnel and civilian personnel compete for occupancy. For competitive units, it is assumed that the military members have an equal chance of occupying the units as any other competitor.

6.2.4.2 Non-Competitive Housing

Rental housing units for which only military members can compete are categorized as non-competitive housing. The general civilian population typically cannot rent these units. The HRMA acknowledges two categories of non-competitive housing:

- 1) Privatized Housing – military families retain a competitive advantage as they do not compete with any other market demand including civilians, unaccompanied military personnel, other military members, U.S. civilian employees, or any other type of installation-related demand.
- 2) Overseas Specified Housing - military families may only compete with unaccompanied personnel, some U.S. civilian employees, or other military statuses for these units.

6.2.4.2.1 Privatized Housing

Housing units categorized as privatized housing are commercially owned housing units that have been either transferred from the U.S. Government to private sector ownership or constructed by the private sector and owned and operated by the private sector for primary use by U.S. military personnel at the installation. Contracts and operating agreements enacted during the privatization solicitation and subsequent award govern the construction, maintenance, disposal and occupancy of the units with military families retaining the highest priority for occupancy.

Generally, under the privatization programs and contracts, military members are granted a competitive advantage over the civilian community for these housing units. The contractual agreements enacted as part of the program provide military members a priority for the privatized housing units.

Once military families have occupied privatized units, other eligible tenants can occupy any excess housing in what is known as the "Privatization Waterfall," in the following order:

- Other active duty military members/families including unaccompanied personnel
- Federal civil service employees
- Retired military members/families
- Guard and reserve military members/families
- Retired federal civil service
- DoD contractor/permanent employees (U.S. citizens)
- General public

The HRMA assumes that privatized units are part of military housing, even when some units are being temporarily utilized under the privatization waterfall. If civilians and other non-military tenants are occupying privatized housing, they are only to be housed on a one-year lease basis. If military personnel are on a waiting list for privatized housing, then the civilian occupants must vacate the property once their lease expires.

For HRMA purposes, privatized units are excluded from the competitive rental supply. Fundamental to the HRMA process, and in accordance with OSD policy, it is important to remember that the Air Force seeks first to satisfy the military housing demand with available local civilian supply—before pursuing MILCON or privatization options. The goal of the HRMA is to determine the capability of the private sector rental supply to meet military family housing rental requirements. Since privatized units are interpreted as a component of military housing, such units are excluded from the competitive private sector rental housing supply. Air Force program managers can then make better management decisions on future privatization or construction programs based on this fundamental and execution- or program-independent HRMA result.

For calculating the private sector rental supply, it is necessary to determine the year privatized units become available for occupancy. Privatized units may be completely available in the initial year of the analysis or during the transition period. If known, the actual year privatized units become available should be incorporated into the analysis.

Worksheet 6-3. Privatized Military Family Housing

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | 1 | 1 |
| O6 | - | 3 | 5 | 8 |
| O5 | - | 3 | 8 | 11 |
| O4 | - | 12 | 12 | 24 |
| O3 | 22 | 4 | 2 | 28 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | 2 | - | 3 |
| Officers | 25 | 24 | 28 | 77 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 9 | - | 9 |
| E7 | - | 41 | 5 | 46 |
| E6 | 21 | 11 | 5 | 37 |
| E5 | 42 | 10 | 3 | 55 |
| E4 | 21 | 4 | - | 25 |
| E3 | 14 | 5 | 1 | 20 |
| E2 | 2 | - | - | 2 |
| E1 | 1 | - | - | 1 |
| Enlisted | 101 | 81 | 15 | 197 |
| Total | 126 | 105 | 43 | 274 |

For Anywhere AFB, 274 units have been privatized and are excluded from the competitive private sector rental supply.

6.2.4.2.2 Overseas Specified Housing

In some overseas markets, local rental housing may not possess the amenities necessary to make units suitable for U.S. military personnel. The installation’s housing office has, in some instances, identified and screened a number of housing units that have been built by the local community to rent specifically to U.S. personnel. The local population may not desire or be able to afford the higher cost frequently associated with the additional amenities found in these units. Additionally, owners of such housing are willing to place military clauses in the leasing documents as well for disagreements to be settled outside of local courts.

This private housing may be offered exclusively to U.S. households as renting to local households would impose less favorable terms and conditions on the owners. For example, the ability to raise rents or even to withdraw the housing unit from the market for personal use may be limited by local regulations and customs (local households may rent a house for decades compared to the two- to three-year period for the military member). Only U.S. military members and other U.S. civilians eligible to use the housing office referral services may compete for this housing as it is typically offered only through an installation’s housing office.

These Overseas Specified Housing units are a submarket of the overall private sector rental supply. As with privatized units, these units are not included in the competitive private sector rental supply. However, since these units are not a

component of military housing, the HRMA analysis treats these units differently than privatized units. In the HRMA model, military families and unaccompanied personnel seek rental housing in this submarket before seeking the remainder of their rental housing requirements in the competitive private sector rental market. Within this submarket, military families may only compete with unaccompanied personnel, some U.S. civilian employees or other U.S. military statuses for these units.

Care must be exercised when declaring rental housing as non-competitive Overseas Specified Housing. Installations may develop and maintain rental referral lists with rental housing units that have varying degrees of competition. In some cases, the local population may possess the necessary purchasing power and have access to all units identified on the list. In this situation, all such housing would be considered competitive.

6.2.4.3 Ineligible Housing

Military members may not be eligible to occupy certain types of housing, such as some low income housing and age restricted housing. These units are generally not included in the competitive rental housing supply.

6.2.4.3.1 Low Income Housing

Military households may not be eligible for housing units that are reserved for low income households. At certain locations, some military families may meet the income requirements. However, long waiting lists often preclude qualifying military personnel from actually securing a unit within their tour of duty.

Low income units have rents set at fair market value and occupants of such units pay a portion of their income towards the rent with the balance subsidized through local, state or federal programs. As such, military personnel essentially have no opportunity to obtain low income housing while low income civilians are able to secure virtually all of such housing. Whether commercially owned or owned by housing authorities or housing associations and other organizations, this subsidized housing should be included in the competitive rental housing market only to the extent that military members are eligible for such housing.

Quantifying low income housing by market segment may be derived from HUD data, local housing authorities, state and city housing officials or other data sources. In other countries, census and other data often identify the housing owned by housing authorities and associations, other government agencies or is restricted to company employees, etc., and not otherwise available to the U.S. service members.

Worksheet 6-4. Low Income Rental Housing, Initial Transition Year

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|------------|------------|-----------|----------|------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - | - | - |
| \$1,200 - \$1,399 | - | - | - | - | - | - |
| \$1,100 - \$1,199 | - | - | - | - | - | - |
| \$1,000 - \$1,099 | - | - | - | - | - | - |
| \$900 - \$999 | - | - | - | - | - | - |
| \$800 - \$899 | - | - | - | - | - | - |
| \$700 - \$799 | - | - | - | - | - | - |
| \$600 - \$699 | 20 | 45 | 30 | 20 | - | 115 |
| \$500 - \$599 | 30 | 75 | 40 | 10 | - | 155 |
| \$400 - \$499 | 20 | 175 | 80 | 20 | - | 295 |
| Below - \$400 | 25 | 150 | 40 | 15 | - | 230 |
| Total | 95 | 445 | 190 | 65 | - | 795 |

Within Anywhere AFB's Housing Market Area, there are 795 low income rental housing units.

6.2.4.3.2 Age Restricted Housing

Age restricted housing are units generally reserved for persons older than 55 years. These units typically prohibit families with children. As with low income housing, military personnel essentially have little or no opportunity to obtain age restricted housing as the units are reserved for older occupants. Therefore, age restricted units should be excluded from the competitive rental supply.

The number of age restricted housing units by market segment may be estimated HUD data, local housing authorities, retirement associations, state and city housing officials or other data sources.

**Worksheet 6-5. Age Restricted Rental Housing,
Initial Transition Year**

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|------------|------------|-----------|----------|------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - | - | - |
| \$1,200 - \$1,399 | - | - | - | - | - | - |
| \$1,100 - \$1,199 | - | - | - | - | - | - |
| \$1,000 - \$1,099 | - | - | - | - | - | - |
| \$900 - \$999 | - | - | - | - | - | - |
| \$800 - \$899 | - | - | - | - | - | - |
| \$700 - \$799 | - | - | - | - | - | - |
| \$600 - \$699 | 10 | 50 | 25 | 10 | - | 95 |
| \$500 - \$599 | 20 | 100 | 50 | 20 | - | 190 |
| \$400 - \$499 | 10 | 150 | 75 | 15 | - | 250 |
| Below - \$400 | 25 | 200 | 50 | 10 | - | 285 |
| Total | 65 | 500 | 200 | 55 | - | 820 |

For Anywhere AFB, there are 820 rental housing units identified as age restricted.

6.2.5 Determining Housing Characteristics

Owner-occupied housing is considered suitable by current DoD and Air Force guidelines and is generally not extensively characterized as part of the HRMA private sector market analysis. Rental housing, however, must be characterized by cost and suitability factors as defined by DoD and Air Force housing regulations and directives. The following factors are taken into consideration in determining the acceptability of rental housing:

- Cost
- Number of bedrooms
- Suitability

Other characteristics may need to be addressed should policy or regulations change relating to suitability.

6.2.5.1 Cost of the Housing Unit

Cost characterizes the private sector rental housing supply. In the private sector market analysis for CONUS locations, rental costs include rent and utilities that are included in the Maximum Allowable Housing Cost (MAHC).

Cost and number of bedrooms are used to separate the housing supply into market segments that will serve as the basis for comparing the housing supply to military rental housing requirements. The range of the segments, as categorized by cost, will generally be based on underlying data. Narrow market segments require that the data also be obtained in narrow cost bands.

Published rental rates often address the general rental rate for specific types or classes of apartments by the number of bedrooms or by the cost per square foot. Rental rates are usually derived from surveys of members of an apartment association serving the location. Apartment surveys often only sample larger apartment complexes, so caution is advised in interpreting results. These surveys generally do not provide an estimate of the number of rental units available at different rental rate ranges necessary for a private sector market analysis. Historic changes in the rental rates reported by the local apartment association provide an indication of how rental rates have changed over time.

When prices are relatively stable, future rental rate projections may be based on historic trends in rental rates or rental price indices, such as those published with consumer price index information or regional indices. Utilities may be projected independently.

6.2.5.1.1 CONUS Locations

In the U.S., the most recent Census of Housing provides information on the number of rental housing units by gross cost that includes both contract rent and utilities. This distribution may be used to estimate the number of housing units by rental cost for the initial, interim and final years of the transition period.

Another indicator of general rental rate change for CONUS locations can be derived from HUD estimates of Fair Market Rent (FMR). Generally estimated at the lower 40th or 50th percentile of rental housing, HUD's FMR estimates are intended to reveal price information about typical rental units¹ including utility costs (except for phone services), and are used to set subsidy levels in housing programs. Historic FMR data for a location provides some insight to rent changes over time. However, care must be taken to assure that the comparisons are based on the same cost percentile.

6.2.5.1.2 Overseas Locations

In overseas locations, the distribution of rental housing by cost is generally not included in census information. In such cases, separate estimates of the price distribution must be made. Often the installation's housing office rental list is the only source of rental cost information. The rental list should be periodically archived by the housing office to provide historic rental cost data by size and type of unit for future HRMAs. Rental rates for overseas locations should be expressed in U.S. dollars with the exchange rate set at the rate in effect at start of

¹Dilapidated housing units and new units just entering the market are excluded in FMR estimates. HUD has found that prices for different size rental units stay in relative fixed proportion to each other. Thus, HUD only estimates FMR for two-bedroom units and then projects the FMR for other units on the basis of this projection and relative prices.

the data collection. This will facilitate review and provide results independent of currency fluctuations over the course of the study.

6.2.5.1.3 Utility Costs

For CONUS locations, utility costs form part of the rental cost and may be derived through utility company estimates. Caution should be taken to assure that utilities are not already included in the rental cost if separate estimates are prepared. Some utilities may be included in the contract rent and thus not paid separately by the occupant. As such, average utility costs paid for some rental units may appear low relative to utilities typically paid by homeowners. There may be some variation of utility requirements with the rental price of the housing units as higher prices will reflect larger units that may be more costly to heat or cool. A matrix of utility costs by rental cost and number of bedrooms may be developed to adjust rental rates for these variations.

For overseas locations, utility costs are treated as a separate allowance. It is assumed that the utility allowance fully offsets utility costs and thus utility costs do not need to be separately considered. However, to the extent that utilities are included in the rent, the Overseas Housing Allowance is increased by their amount. If utilities are included in rent, the utility cost should be removed from the rental unit for a comparison to OHA.

6.2.5.2 Determining Housing Size by Bedrooms

In the U.S., the number of bedrooms in the unit typically categorizes housing. This is true for owner-occupied as well as rental units. In overseas locations, floor space and the total number of rooms are used frequently to categorize the housing supply. There are generally no built-in closets overseas, a standard feature common to bedrooms in the U.S. Armoires can be used for clothing storage to make any room a suitable bedroom at the discretion of the occupant. Thus, bedrooms are not well defined.

For locations where housing is only described by the number of rooms, the number of bedrooms must be estimated from total rooms in order to compare housing to military households' bedroom requirements. In making the estimate, the definition of a room should be reviewed to understand its relationship to housing requirements of U.S. military families. Independent surveys may be conducted within the market area. Housing inspections conducted by an installation's housing office in overseas locations may be a good source to estimate the number of bedrooms based on total room count.

6.2.5.3 Suitability of the Housing

Unsuitable housing, for the purposes of the private sector market analysis, is housing that does not meet DoD and Air Force minimum standards based on physical condition, location, and other considerations exclusive of rental cost and number of bedrooms¹. Unsuitable housing is not considered a potential housing unit available for military personnel.

The unsuitability of housing is determined from three perspectives. The first addresses physical (i.e., structural) condition and completeness of the housing unit. The second perspective concerns the location of the housing with respect to health and safety issues. And, the third perspective focuses on the type of housing unit (i.e. mobile home, single family, multi-family, etc.).

6.2.5.3.1 Physical Condition

On average, in the United States, more than 95 percent of housing possesses the necessary physical appurtenances to meet current DoD standards for physical condition. Older houses are generally more likely unacceptable as building codes prohibit new housing with such deficiencies. However, age alone does not determine the physical suitability of housing as older units can be restored to contemporary standards. Since actual inspection of the housing supply to assess its physical condition is generally impractical, estimation of housing with unsuitable physical conditions typically must be based on average conditions, assumed trends, and other information.

The latest census of housing often specifies the physical condition of the housing. Although the U.S. Census of Housing contains information on the structural condition of housing units, factors considered by the Census are relatively limited. The Census measures factors such as the lack of a kitchen, plumbing, bathrooms and heating deficiencies. The overall physical condition of a housing unit is also dependent on the structural soundness and quality of facilities (e.g., leaky roofs, electrical hazards, insulation, etc.). In overseas locations, national censuses may not report this information.

Over time, some unsuitable housing may be removed by demolition to make room for new developments. At the same time, other housing units wear out and fall into unacceptable conditions. Discussion with local building inspection departments may help identify areas where housing has declined and define the extent of deterioration. Areas with frequent building code violations may identify the location of such housing units. If large numbers of housing units are identified as substandard, such units should be incorporated into the estimate of physically unsuitable housing.

1. Rental cost and bedrooms are considered when comparing the military housing requirements to the military supply.

Ideally, Housing Market Area specific information on structural characteristics would be available. For certain metropolitan areas, detailed information on structural condition may be available through the American Housing Survey. There may be studies conducted by local housing, planning offices or research organizations that provide this type of information. Community Housing Plans are a potential source of community specific information on housing quality. These planning studies often conduct surveys to identify housing that is in poor and very poor condition.

Generally, physically unsuitable housing units are not categorized by rental cost and bedroom categories. Rental cost and bedroom categories may be estimated from American Housing Survey information for metropolitan areas and/or from local Community Plans. In areas where reliable local information is unavailable, there may be little choice but to refer to national or regional data from which to make an estimate.

Estimates of unsuitable housing due to physical defects should consider any significant changes in the housing supply from the time of the last housing census. Large-scale removal of housing or other factors should be taken into consideration.

6.2.5.3.2 Location Considerations

Suitability may also be based on the location of the housing unit. Areas, subdivisions, or housing complexes officially designated unacceptable for health and safety reasons by the installation commander must be deemed unsuitable for purposes of the HRMA. Current DoD housing regulations require that: “A living unit should be as far as possible from sources of objectionable noise, odors, and health and safety hazards to residents.” These general factors are more readily defined or associated with neighborhoods or sections of a city or area. Health and safety issues are often defined by crime levels, although neighborhood deterioration is also considered. Care must be taken that housing units already excluded because of physical conditions are not again counted as unsuitable housing due to location.

The Housing Market Area should initially be assessed in general terms to establish if there are areas that will not meet suitability criteria. This knowledge will help direct the study by identifying areas of concern and determine where field observations are required or local experts are consulted to address specific locales.

Local expert knowledge is often the best source of information about location and housing suitability. Each market area may have different requirements in applying this approach. Market areas with small communities and few houses or those that are very homogeneous in nature are easier to define in terms of location issues. Large, complex-housing markets will require a greater breadth of

knowledge and experience in order to describe unsuitable areas in detail. In urban areas, it is important to recognize potential areas of concern such as areas with older, low-income neighborhoods or areas near industrial activities. Installation housing referral specialists, local housing authorities, apartment and property management professionals, and experts from regional, city or county planning agencies are all potential sources of suitability information.

Judgment is required when attempting to assess the suitability of housing with more subjective criteria. For example, there may be a noise from a nearby manufacturing plant that is an accepted way of life for the community in close proximity to the plant. If the condition falls within health and safety criteria, but is still considered objectionable, the portion of housing to be considered unsuitable is left to the analyst's best judgment. In such cases, the decision must be well documented so that any conclusions may be appropriately assessed.

6.2.5.3.3 *Type of Housing*

Not all housing types are considered suitable under current policy and regulations. All unsuitable types of housing in the market area must be quantified and characterized by rental cost and number of bedrooms.

Mobile homes, considered unsuitable, are addressed through an approach similar to that applied for estimating the total number of housing units. Mobile homes may be a significant component of the housing stock in more rural settings or in retirement areas where mobile homes are used to provide low cost housing. If long-term trends do not describe the changes in the number of mobile homes, the use of building permits to identify changes in supply since the latest census may be considered. Mobile home associations and mobile home park managers may also be information sources on growth within the market area. Local data on rental cost and size distribution of mobile homes should be used when available. Potential sources may include property managers associations or large mobile home parks in the area. Customized information on specific areas is also available from the Bureau of the Census. Regional or national data, such as that provided in the national American Housing Survey, may be another source of information.

Housing may also be considered unsuitable because of type of construction. For example, in areas of typhoons, construction materials are an important factor in determining the safety of the structure. At such locations, older buildings not made with reinforced concrete may be determined unsuitable.

Worksheet 6-6. Unsuitable Rental Housing, Initial Transition Year

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|--------------|--------------|--------------|------------|--------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 1 | 11 | 19 | 42 | 8 | 81 |
| \$1,400 - \$1,599 | 2 | 11 | 21 | 45 | 9 | 88 |
| \$1,200 - \$1,399 | 2 | 17 | 30 | 68 | 13 | 130 |
| \$1,100 - \$1,199 | 3 | 20 | 57 | 90 | 16 | 186 |
| \$1,000 - \$1,099 | 3 | 21 | 93 | 96 | 16 | 229 |
| \$900 - \$999 | 5 | 36 | 180 | 180 | 32 | 433 |
| \$800 - \$899 | 11 | 90 | 345 | 285 | 50 | 781 |
| \$700 - \$799 | 27 | 270 | 555 | 180 | 31 | 1,063 |
| \$600 - \$699 | 30 | 315 | 660 | 195 | 38 | 1,238 |
| \$500 - \$599 | 45 | 360 | 450 | 105 | 17 | 977 |
| \$400 - \$499 | 60 | 330 | 225 | 48 | 10 | 673 |
| Below - \$400 | 98 | 345 | 195 | 53 | 9 | 700 |
| Total | 287 | 1,826 | 2,830 | 1,387 | 249 | 6,579 |

For Anywhere AFB, there are 6,579 units identified with the Housing Market Area as unsuitable in the initial transition year.

Worksheet 6-7. Suitable Rental Housing, Initial Transition Year ①

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|--------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 7 | 62 | 106 | 238 | 48 | 461 |
| \$1,400 - \$1,599 | 8 | 64 | 119 | 255 | 53 | 499 |
| \$1,200 - \$1,399 | 13 | 98 | 170 | 382 | 72 | 735 |
| \$1,100 - \$1,199 | 17 | 110 | 323 | 510 | 84 | 1,044 |
| \$1,000 - \$1,099 | 17 | 119 | 527 | 544 | 89 | 1,296 |
| \$900 - \$999 | 25 | 204 | 1,020 | 1,020 | 183 | 2,452 |
| \$800 - \$899 | 64 | 510 | 1,955 | 1,615 | 280 | 4,424 |
| \$700 - \$799 | 153 | 1,530 | 3,145 | 1,020 | 174 | 6,022 |
| \$600 - \$699 | 140 | 1,690 | 3,685 | 1,075 | 212 | 6,802 |
| \$500 - \$599 | 205 | 1,865 | 2,460 | 565 | 93 | 5,188 |
| \$400 - \$499 | 310 | 1,545 | 1,120 | 237 | 55 | 3,267 |
| Below - \$400 | 502 | 1,605 | 1,015 | 272 | 51 | 3,445 |
| Total | 1,461 | 9,402 | 15,645 | 7,733 | 1,394 | 35,635 |

When subtracting low income rental units, age restricted units and unsuitable units from the Total Private Sector Rental Housing Supply, the suitable rental housing in the market area totals 35,635 units.

6.2.6 Estimating Vacant Housing

The market analysis recognizes that vacancies play an important role in the housing market and that in the long term, on average, not all vacancies will be occupied. Vacancies occur for a number of reasons. Vacancies typically fluctuate over time following building cycles with changes in both housing supply and demand. At any point in time, vacancies may exist due to new housing units coming on the market that have not yet been absorbed into the market (sold or rented). Other vacancies exist due to normal turnover time for both homeowner housing and rental housing. Rental units are also held vacant in order to perform maintenance and repair activities. Lastly, a population declining faster than the housing supply will result in an increase in vacant housing units.

6.2.6.1 Natural Vacancies

On average, if the housing market is in relative balance, a “natural” level of vacancies will exist to facilitate rental turnover and maintenance requirements and serve as a benchmark of market balance. Vacancy rates (the proportion of vacant housing) below or above the natural rate serve as signals to landlords when rent increases are likely to be accepted, when rent reductions are needed or when to consider the economic/financial feasibility of constructing additional rental units.

6.2.6.2 Minimum Vacancies

Short-term vacancy rates typically fluctuate in a rental market. Should demand increase relatively rapidly, vacancy rates will fall to very low levels. As rents rise, new developments of rental units may occur if there are no inhibiting circumstances such as limited infrastructure or rents too low to pay for new construction. As new developments are completed, the numbers of vacancies increases but then falls as new units are absorbed into the market.

In the private sector rental market, nothing precludes occupancy of suitable vacant units, even those units that constitute part of a “natural” vacancy rate. Thus, for analytical purposes, a low minimum number of vacant private sector rental units will remain unoccupied for tenancy transition and required maintenance.

6.2.6.3 Vacancy Surveys

Generally, housing market surveys conducted by apartment associations report vacancy rates. The U.S. Census conducts vacancy surveys for most major metropolitan areas for housing designated “for sale” and “for rent” vacancies. Apartment association surveys often only include apartment complexes with a minimum number of units and, in general, do not report vacancies in single-family homes or duplexes. At times, surveys are for certain classes of apartments based on the amenities offered or exclude complexes that have not yet been fully

absorbed into the market. Published vacancy rates often consider the entire housing stock including seasonal rentals and thus must be corrected for housing not considered in the housing market analysis.

Care must be taken to ensure that estimated vacancies do not include vacant unsuitable housing units previously identified. Typically, housing lacking basic components is undesirable for civilians as well as unsuitable for DoD personnel and tends to have a higher vacancy rate. The vacancy rate is applied to the total rental supply less the unsuitable housing units to estimate the number of actual suitable vacancies.

6.2.7 Quantifying the Rental Housing Supply over the Transition Period

The HRMA methodology incorporates changes in the rental supply over the transition period in estimating the military housing requirement. As such, the methodology requires estimates by rental cost and bedroom categories by housing characteristics (ineligible, competitive, non-competitive, unsuitable, etc.) for each year of the transition period.

Projecting the rental housing supply over the transition period encompasses the same data and analytical methods associated with quantifying the initial year rental housing supply. The initial year rental housing supply can serve as a basis for estimating the final year rental housing supply. Changes to all types of rental housing units must be estimated and incorporated into the analysis. Estimates of additions to and removals from the initial year rental housing supply summarize the numeric changes to the rental supply. For example, it may be known that large apartment complexes are coming on line in the next year. This type of information should be incorporated into the analysis.

While housing supply changes may be tracked by planning departments in large cities and metropolitan areas, this is not always true of more rural communities. If there are no local sources available, reliable estimates of the housing supply over the period of the analysis must be developed from other available data.

Future housing supplies may be estimated from the initial year supply augmented by forecasts based on building permit trends or housing growth. Projections for each year may rely on the assumed continuation of established trends unless information exists about factors likely to cause diversions from trends, such as announced plant openings or closings, major regional projects, base realignments or even impacts from natural disasters. Projections of population and households may also serve as a basis for estimating housing supply.

Impediments to supply increases must also be examined. Limitations of the infrastructure and land-use need to be considered. Land-use plans and zoning densities may limit development within the Housing Market Area. Additionally,

there may be building moratoriums due to limited domestic water supplies, wastewater treatment facilities or other regional infrastructure.

Several approaches may be taken to estimate the rental housing supply for each transition year. Projections may be made for each year of the transition period. Alternatively, absent detailed information regarding timing of construction project completions, rental housing inventories on an annual basis over the transition period can be linearly interpolated from estimates of the initial year and final year of the transition period on a market segment basis. Additions to or subtractions from the rental housing supply may be incorporated by the actual year of impact, if known.

Additionally, the final year housing supply may be impacted by a specific market response to the additional rental demand in the local housing market. As military personnel transition from military housing to private sector rental housing, the market may respond directly to the increased demand by building additional rental units targeted directly for military personnel. The methodology can address these responses and incorporate response delays as well. In relatively small markets where the military represents a large portion of the rental demand, concerns about installation closures or mission realignments that would adversely affect the housing market may inhibit any increase in rental housing in response to increased military demand.

Worksheet 6-8. Suitable Rental Housing, Final Transition Year

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 70 | 119 | 267 | 54 | 518 |
| \$1,400 - \$1,599 | 9 | 72 | 134 | 286 | 59 | 560 |
| \$1,200 - \$1,399 | 15 | 110 | 191 | 429 | 81 | 826 |
| \$1,100 - \$1,199 | 19 | 124 | 363 | 572 | 94 | 1,172 |
| \$1,000 - \$1,099 | 19 | 134 | 592 | 611 | 100 | 1,456 |
| \$900 - \$999 | 28 | 229 | 1,145 | 1,145 | 206 | 2,753 |
| \$800 - \$899 | 72 | 572 | 2,194 | 1,813 | 314 | 4,965 |
| \$700 - \$799 | 172 | 1,717 | 3,530 | 1,145 | 196 | 6,760 |
| \$600 - \$699 | 161 | 1,909 | 4,143 | 1,210 | 238 | 7,661 |
| \$500 - \$599 | 236 | 2,115 | 2,772 | 638 | 104 | 5,865 |
| \$400 - \$499 | 352 | 1,774 | 1,276 | 270 | 62 | 3,734 |
| Below - \$400 | 570 | 1,844 | 1,150 | 308 | 58 | 3,930 |
| Total | 1,661 | 10,670 | 17,609 | 8,694 | 1,566 | 40,200 |

For Anywhere AFB, the total rental housing supply within the Housing Market Area is expected to increase by 2.0 percent annually, between the initial and final years of the transition period. No increases to ineligible housing (low income and age restricted) and unsuitable housing are assumed such that the suitable rental housing supply for the final transition year totals 40,200 units.

6.2.8 Availability of the Rental Housing

A major premise of the HRMA methodology is that competition occurs only for rental housing that is actually available for rent during the year by those households actively seeking rental housing during the year. For each year of the transition period, the availability of the rental housing must be determined.

Rental housing becomes available each year as a result of tenant turnover, existing vacancies, or new additions to the rental supply. The changes in the rental supply between each year of the transition period are used to determine the availability of any additions to the available supply. The methodology starts with current vacancies and, based on the changes in housing demand from both the military and civilian households, estimates the number of vacant units each year.

The availability of rental units due to tenant turnover is determined from estimated turnover rates for each of the competing groups (military families, unaccompanied households, and civilian households). The methodology allows separate turnover rates for military households housed in suitable housing and those who are not.

The turnover rates must be determined by market segment for each competing group. Limited, reliable data is generally not available. Estimates may rely on anecdotal information from housing property managers. The U.S. Census estimates the number of households that reside at a different address in the previous year, offering some additional information in estimating turnover rates.

6.3 OTHER CONSIDERATIONS

The standard HRMA model described in this Manual may not be effective in addressing every instance or market area under study. Small markets, remote markets, and overseas markets may pose issues for which the analyst may have to apply expertise and knowledge in order to reflect a solid representation of the housing market under study. The HRMA analyst should pay special attention to the following situations and provide detailed justification and explanation for methodological adjustments to specific areas. Analysts should document the approach in the HRMA report and seek approval of the solution from the installation, MAJCOM and AF/ILEH.

6.3.1 Discussion: Small Markets

According to DoD 4165.63-M, September 1993, "C2.4.4.4. The requirement for a full market analysis shall not apply where the proponent of a project can demonstrate that it is inappropriate; e.g., at locations where there is no local housing market, foreign locations, or projects for key positions that cannot be accommodated within existing inventory."

The small market definition may apply to either military demand (i.e., manpower authorizations) or private sector rental housing supply. If a small number of military authorizations exist at an installation, changes in personnel demographics including home ownership rates, accompaniment rates and number of dependents for accompanied personnel, have material consequences to HRMA results. Collecting demographic data over a period of time and measuring average rates for home ownership, accompaniment status and dependents, may reduce possible measurement errors; however, historical trends may not reflect existing or forthcoming demographics of personnel assigned to the installation. On the rental supply side, measurement of the total rental supply becomes difficult in small market areas. Census reporting errors coupled with a lack of data (suitability, vacancies, turnovers, etc.) can materially impact HRMA results.

For these small markets, an abbreviated HRMA may be considered, exploring manpower authorizations and demographics balanced against existing MFH housing and the local market's rental supply based on available data. This abbreviated HRMA may reduce both time and cost of the analysis as data collection trips to the installation and onsite briefings may be reduced or eliminated.

The installation, MAJCOM, AF/ILEH and analyst should assess the availability of data such as accompaniment rates, home ownership rates and other installation information as well as rental supply estimates, unsuitability estimates and the like, before commencing a full HRMA study. Analysts should document the rationale in determining the best approach to a specific situation as well as deviations from the baseline HRMA process.

6.3.2 Discussion: Constrained Markets

In some previous HRMAs, use of a "Constrained Model" was employed as an alternative approach to the standard methodology. In this model, an adjustment to the private sector military rental demand was enacted by retaining a certain number of military families and unaccompanied personnel on the installation. The retention of military families became an addition to the minimum military family housing requirement. This action was done to recognize the theoretical limitations of the local private sector rental market to accommodate both military and civilian demand without civilian displacement from the market. Further discussion of the "Constrained Model" may be found in Appendix J.

7 MILITARY HOUSEHOLDS REQUIRING HOUSING

This chapter describes how to determine the number of military households (military families and unaccompanied personnel) who require private sector housing for each year of the transition period to be analyzed by the HRMA. The general process is to first determine the number of military families and unaccompanied personnel and then apply a pay grade specific bedroom entitlement distribution for each pay grade to estimate the military families by pay grade and bedroom requirement. Where the HRMA considers multiple installations or multiple work centers within an installation, manpower and manpower characteristics must be developed for each such location. The following discussion describes the steps that would need to be accomplished for each location.

The HRMA estimates the housing requirement on the assumption that by the end of the transition period, the number of military housing units will have transitioned to the installation's minimum housing requirement. The criteria used to determine the minimum is based, in part, on the number of military families. Military households not accommodated by the minimum requirement require either owner occupied or rental housing in the private sector. This section also describes how to determine this minimum housing requirement and the requirement for rental housing.

7.1 DETERMINING THE NUMBER OF MILITARY HOUSEHOLDS

The military housing requirement is based only on manpower strengths that have been programmed and authorized and for whom the installation has the responsibility to house. Policy determines specific manpower categories authorized housing at CONUS and overseas installations. A consistent, verifiable source for authorized manpower for the period of the analysis should be used. Likewise, a consistent and verifiable source of information for historical accompanied and unaccompanied ratios should be used. Strength levels should conform to the latest Service-approved personnel planning documents. When planning documents do not provide manpower for the full transition period, the manpower at the end of the planning period should be assumed for the final year of the transition.

Of those authorized, not all accompanied or unaccompanied personnel constitute a household (e.g., two military members married to each other only form a single household). Military households are estimated by considering and quantifying the following categories of personnel and associated entitlements:

- Authorized Manpower and Accompaniment Status
- Military Family Households
- Unaccompanied Personnel Households
- Authorized Civilian Households
- Bedroom Entitlements

7.1.1 Authorized Manpower and Accompaniment Status

Authorized manpower may consist of the host organization which manages the installation, tenant organizations, and independent duty personnel whom the installation has the responsibility to house.

AF/ILEH is developing an integrated methodology to determine the projected accompanied and unaccompanied manpower force structure. This integrated methodology will reconcile the disparate methods currently used to determine military housing requirements under the HRMA process and dormitory requirements under the Dormitory Master Plan (DMP) process. Once this integrated methodology is developed, it will serve as the common source for host and tenant unit manpower requirements and their accompanied status in the HRMA process.

The HRMA is to incorporate the integrated manpower methodology; however, if data from the methodology is unavailable, the HRMA is to use the following procedures to determine the requirements by accompaniment status.

7.1.1.1 Manpower

Manpower authorizations for the initial and final year of the transition period may be provided by the Air Force or other organizations at the installation. Manpower is generally categorized by host, tenants or independent duty personnel not assigned to a unit at an installation. The installation may also be required to house personnel that are not reflected in manpower planning documents but are authorized to reside in military housing. The manpower categories not only help to verify the total housing responsibility, but also allow category specific accompaniment rates and/or family demographics to be applied.

- Use of Actual Strength. When the authorized manpower for certain manpower categories or organizations is not available and actual strength is not a significant portion of total authorized manpower at the installation, the categories/organization's manpower requirements for each year of the transition period may be based on actual manpower strength. If there is no documented basis for authorized manpower changes over the transition

period, manpower levels for those categories may be assumed to remain at the current level throughout the transition period.

- **Determining Pay Grade.** Authorized manpower by pay grade may not always be available for each manpower category. If organization, units, and activities of the authorized manpower are similar to current activities at an installation, current personnel records may be used to determine the distribution of the authorized personnel by pay grade. The proportion of personnel in each pay grade currently assigned may be applied to the authorized manpower to estimate the number of authorized personnel in each pay grade. Separate estimates may be required for personnel in each manpower category to reflect differences in the organization's demographics. If changes are planned in the types of units to be stationed at an installation or new missions or activities to be added, these changes should be reflected in the grade composition.

The installation must confirm which independent duty personnel are housing requirements of the installation. Although independent duty personnel may be assigned to an installation for personnel and finance purposes, actual location of work of independent duty personnel may be outside the installation's local market area. DoD civilian employees authorized for military housing are to be categorized by equivalent military pay grade.

**Worksheet 7-1. Anywhere Air Force Base
Manpower Authorizations**

| Pay Grade | Initial Transition Year | | | Final Transition Year | | |
|-----------------|-------------------------|------------|--------------|-----------------------|------------|--------------|
| | Host | Tenant | Total | Host | Tenant | Total |
| O7+ | 1 | - | 1 | 1 | - | 1 |
| O6 | 15 | 2 | 17 | 15 | 2 | 17 |
| O5 | 50 | 10 | 60 | 50 | 10 | 60 |
| O4 | 80 | 20 | 100 | 80 | 20 | 100 |
| O3 | 150 | 100 | 250 | 150 | 100 | 250 |
| O2 | 10 | 15 | 25 | 10 | 15 | 25 |
| O1 | 10 | 15 | 25 | 10 | 15 | 25 |
| Officers | 316 | 162 | 478 | 316 | 162 | 478 |
| E9 | 10 | 2 | 12 | 10 | 2 | 12 |
| E8 | 30 | 5 | 35 | 30 | 5 | 35 |
| E7 | 150 | 30 | 180 | 150 | 30 | 180 |
| E6 | 180 | 50 | 230 | 180 | 50 | 230 |
| E5 | 300 | 50 | 350 | 300 | 50 | 350 |
| E4 | 250 | 20 | 270 | 250 | 20 | 270 |
| E3 | 125 | 5 | 130 | 125 | 5 | 130 |
| E2 | 20 | - | 20 | 20 | - | 20 |
| E1 | 10 | - | 10 | 10 | - | 10 |
| Enlisted | 1,075 | 162 | 1,237 | 1,075 | 162 | 1,237 |
| Total | 1,391 | 324 | 1,715 | 1,391 | 324 | 1,715 |

For Anywhere AFB, there are 1,391 host Air Force personnel and 324 tenant personnel requiring housing in both the initial and final year of the transition period.

7.1.1.2 Determining Accompanied and Unaccompanied Personnel

As part of the process of estimating the number of military family households, authorized manpower must be disaggregated into personnel who are eligible for “with dependent” housing allowances (accompanied personnel) and “without dependent” housing allowances (unaccompanied personnel). Members who are part of a military married to military couple with no dependents may both receive “without dependent” allowances with only one classified as such if dependents are present. Care must be taken to classify correctly such persons. The number of accompanied personnel is estimated by applying an accompaniment rate (i.e., the proportion in that pay grade that have one or more dependents) to the number of authorized manpower in each pay grade.

Accompaniment rates may be estimated from personnel or finance records for the organization or installation finance center, or from data collected through the annual DoD survey. Accompaniment rates do vary over time and care must be taken to assure that the rates are representative of the transition period. If the rates are to be estimated from actual manpower demographics, particularly at small installations, the current estimates of accompaniment may not be representative of the future, even for the same manpower levels. Historical data, if available, may help to determine if long-term trends yield more appropriate accompaniment rates than current conditions.

While pay grade alone may account for a large proportion of the differences in the accompaniment status of the members, accompaniment rates may significantly differ between manpower categories (host, tenant, student, independent duty, etc.). For example, members in units that are frequently deployed and/or for longer durations or DoD civilian employees at overseas locations may be found to have different family demographics than personnel in other types of activities or locations. In such cases, separate accompaniment rates appropriate to those categories should be applied.

Generally, separate accompaniment rates are not estimated for each year of the transition period unless there are known changes in the demographics occurring over the period. Mission changes may bring a different mix of personnel, for example.

Unaccompanied personnel who are provided military family housing because of their responsibilities or position are considered accompanied for HRMA purposes.

7.1.2 Estimating Military Family Households

Not all accompanied members constitute a military family household. In determining the number of military families, the number of accompanied personnel must be adjusted for military married to military couples and accompanied personnel who are voluntarily separated from their dependents.

Additionally, families living in military housing as a result of their sponsor on dependent restricted tours of duty must also be considered.

The number of military family households is estimated for each year of the transition period.

7.1.2.1 Estimating Military Couples

Accompanied personnel married to another active military member at the installation constitute a single housing requirement. The number of two military member households may be based on data collected from an annual DoD survey or from personnel/finance records. The number of such military family households (military couples and voluntary separated personnel) is typically estimated as a proportion of the number of authorized manpower in the accompanied status.

Personnel and finance records are often the source of information on the number of military couples. Generally, the pay grade of the spouse is not identified and an assumption is made that each member of the couple is of the same pay grade. The count of the members in each pay grade is reduced by the number of couples. Military married to military couples as a proportion of accompanied members may then be computed. The resulting proportion may then be applied to the number of authorized accompanied personnel at the installation by pay grade.

If the information identifies that the military married to military households are comprised of personnel of different pay grades, the couple is assigned to the higher pay grade and the number of accompanied personnel in the lower grade reduced. Separately, each manpower category including civilian personnel may be adjusted to reflect differences in the proportion of this two-member household.

7.1.2.2 Estimating Voluntary Separated Personnel

Accompanied personnel who are voluntarily separated geographically are not considered a family housing requirement. Voluntarily separated personnel are those who elect not to have their dependents reside with them at the installation for reasons other than non-availability of military housing. Personnel and finance records typically provide information on the number of voluntary separated personnel. Data from these records is used to determine a proportion to apply against the number of authorized accompanied personnel at the installation by pay grade.

At OCONUS installations, voluntarily separated personnel are treated as additional rental competition against unaccompanied personnel for the purposes of the HRMA. Such personnel receive Overseas Housing Allowance (OHA) at the unaccompanied rate (equal to ninety percent of the accompanied rate by pay grade) while continuing to receive Basic Allowance for Housing (BAH) for

dependents remaining in the United States. This OHA level of allowance permits voluntary separated personnel to seek private sector housing in the local community on parity with unaccompanied personnel.

In contrast, at CONUS locations, voluntary separated personnel only receive BAH at the accompanied rate by pay grade for the installation to which they are assigned. As these personnel provide housing support to dependents located elsewhere, the HRMA process assumes that voluntary separated personnel do not retain the same purchasing power as unaccompanied personnel when seeking private sector housing in the local community.

7.1.2.3 Estimating Families Retaining Military Housing with Sponsor on Dependent Restricted Tours

Military families may retain military housing when their sponsor is on a dependent restricted tour of duty. In such cases, the number of military families should be increased by the number of families who retain military housing while their sponsors are on dependent restricted tours. The average number of such families by pay grade and bedroom entitlement may be derived from an annual DoD survey or installation information.

7.1.2.4 Determining the Number of Military Families Requiring Housing

The number of families in each pay grade is the number of accompanied personnel less the number military married to military couples less the number of voluntarily separated accompanied personnel plus any families retaining military housing with their sponsor on a dependent restricted tour of duty.

7.1.3 Estimating Unaccompanied Personnel Households

The number of unaccompanied personnel is determined in the same manner as accompanied personnel by disaggregating authorized manpower into personnel who are eligible for “with dependent” housing allowances (accompanied personnel) and “without dependent” housing allowances (unaccompanied personnel). Members who are part of a military married to military couple with no dependents may both receive “without dependent” allowances. Care must be taken in determining the accompaniment rate to classify correctly such persons. Accompaniment rates derived from data collected through the annual survey conducted by DoD are applied to the number of personnel an installation has responsibility to house to determine both accompanied and unaccompanied personnel by pay grade.

Unaccompanied personnel who are provided military family housing because of their responsibilities or position are considered as accompanied for the purposes of the HRMA.

7.1.4 Estimating Authorized Civilian Households

Civilian households are considered part of an installation's family housing responsibility under certain conditions:

- Civilian personnel who retain Key and Essential positions.
- Civilian employees, with dependents, who must reside on the installation at the direction of the installation commander.
- U.S. citizen DoD employees, with dependents, at overseas locations and U.S. possessions and territories where private housing is nonexistent or unacceptable, who are designated by the installation commander as eligible for assignment to military family quarters.
- U.S. citizen DoDDS employees, with dependents, who are eligible for Living Quarters Allowance at overseas locations and U.S. possessions and territories where private housing is nonexistent or unacceptable, who are designated by the installation commander as eligible for assignment to military family quarters.

Civilian households often retain different accompaniment and demographic (homeownership, turnover, e.g.) rates than do military personnel. As such, separate accompaniment rates should be estimated for civilian households. If such data is not available within the resources of the HRMA, demographic rates of military households may be applied to civilian households. Such assumptions and applications should be explicitly documented in the HRMA report.

Worksheet 7-2. Breakdown of Personnel Requiring Housing

| Pay Grade | Accompanied Personnel | Military Couples | Voluntary Separations | Military Families | Unaccompanied Personnel |
|------------------|------------------------------|-------------------------|------------------------------|--------------------------|--------------------------------|
| O7+ | 1 | - | - | 1 | - |
| O6 | 14 | 1 | - | 13 | 3 |
| O5 | 52 | 2 | 1 | 49 | 8 |
| O4 | 79 | 1 | - | 78 | 21 |
| O3 | 168 | 5 | 1 | 162 | 82 |
| O2 | 20 | 2 | - | 18 | 5 |
| O1 | 13 | - | - | 13 | 12 |
| Officers | 347 | 11 | 2 | 334 | 131 |
| E9 | 10 | - | - | 10 | 2 |
| E8 | 29 | 2 | - | 27 | 6 |
| E7 | 158 | 6 | 1 | 151 | 22 |
| E6 | 202 | 13 | 11 | 178 | 28 |
| E5 | 268 | 22 | 14 | 232 | 82 |
| E4 | 118 | 11 | 2 | 105 | 152 |
| E3 | 27 | 2 | - | 25 | 103 |
| E2 | 4 | - | - | 4 | 16 |
| E1 | 2 | - | - | 2 | 8 |
| Enlisted | 818 | 56 | 28 | 734 | 419 |
| Total | 1,165 | 67 | 30 | 1,068 | 550 |

From the total authorizations of 1,715 personnel at Anywhere AFB, 1,165 members are accompanied and 550 unaccompanied. After subtracting 67 military couples and 30 voluntary separations from accompanied personnel, there are 1,068 military families. In this example, the values are the same in both the initial and final years of the transition period.

7.1.5 Determining Bedroom Entitlements

The housing requirement by number of bedrooms is based on the bedroom entitlements as established by Air Force policy. The entitlements are based on the size and composition of the family in terms of the number of dependents as well as a minimum entitlement based on the pay grade of the member.

7.1.5.1 Family Bedroom Entitlements

Air Force policy establishes the bedroom entitlement for each family based on pay grade and number of children and adult (other than spouse) dependents in the household. The first step in establishing the bedroom entitlement is an estimation of the composition of the military families by the number of dependents for each pay grade. The proportion of families by the number of dependents (excluding the spouse) is estimated for each pay grade from the annual DoD survey or from personnel and finance records for the installation. The bedroom entitlement distribution is applied to the authorized military family housing requirement to determine the military housing requirement by bedroom entitlement, by pay grade.

If the composition of the manpower at an installation has changed as a result of base realignment or mission changes or there are significant differences in the family size and composition of manpower categories, separate estimates of the

bedroom entitlement distribution by manpower category may be appropriate. A separate family size distribution may be appropriate for each year of the transition period.

Worksheet 7-3. Military Families

| Pay Grade | Number of Bedrooms | | | Total |
|-----------------|--------------------|------------|------------|--------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | - | 13 | 13 |
| O5 | - | 45 | 4 | 49 |
| O4 | - | 59 | 19 | 78 |
| O3 | 107 | 44 | 11 | 162 |
| O2 | 15 | 3 | - | 18 |
| O1 | 8 | 2 | 3 | 13 |
| Officers | 130 | 153 | 51 | 334 |
| E9 | - | 8 | 2 | 10 |
| E8 | - | 27 | - | 27 |
| E7 | - | 131 | 20 | 151 |
| E6 | 92 | 53 | 33 | 178 |
| E5 | 170 | 43 | 19 | 232 |
| E4 | 87 | 18 | - | 105 |
| E3 | 23 | 2 | - | 25 |
| E2 | 4 | - | - | 4 |
| E1 | 2 | - | - | 2 |
| Enlisted | 378 | 282 | 74 | 734 |
| Total | 508 | 435 | 125 | 1,068 |

For Anywhere AFB, the 1,068 military families are displayed according to bedroom requirements.

After the bedroom entitlement based on family size had been determined, the minimum bedroom entitlement for each pay grade as established by policy is applied. If bedroom entitlements based on family size are less than the minimum entitlement for that pay grade, the entitlements based on family size less than minimum based on the pay grade are to be added to the lowest minimum bedroom category for that pay grade.

7.1.5.2 Discussion: 5-Bedroom Unit Type Category

There is discussion on whether or not to add further detail to the HRMA process and reports by further distinguishing between four-bedroom units and 5-plus bedroom units. Even though this level of detail is executable within the current HRMA process, further disaggregation beyond the “4-plus” bedroom unit type usually does not yield significantly different results in aggregate and 5-bedroom housing is not supported by AF/ILEH.

The impact to the Total Military Family Housing Requirement is minimal as there is a corresponding (not necessarily equal) decrease in 4-bedroom requirements as new 5-plus bedroom requirements are generated. Generally, suitable 5-plus bedroom rental units are rare and expensive. Consequently, most military families with a 5-plus bedroom requirement are housed on the installation.

The U.S. Census does provide a five or more bedroom category for rental property in terms of units, but not prices. Finding five or more rental samples in the community in order to distribute the units to price categories is difficult. The allocation to price categories may be based on the comparative costs of three- and four-bedroom units.

Establishing statistical significance of a 5-plus bedroom category is problematic. For example, in a typical medium sized market with approximately 38,000 rental units, the Census may show less than 250 units with five or more bedrooms. One may assume that the majority of these units are single-family homes, expensive, and turn over very rarely. In addition, some may be located in unsuitable areas, are poor quality, etc. The general conclusion is that any military member with a rank of O4/O5 or below would find it difficult to afford this type of property, if available.

For the MAJCOMs and installations, inclusion of the 5-plus bedroom category identifies a new set of requirements, i.e., 5-plus bedrooms. For the Air Force, a requirement for a new set of costs and design standards results.

In cases where an installation is scheduled for privatization, or is already under a privatized housing scenario, the analyst may include a table indicating the number of 5-plus bedroom requirements. The information may aid in the development of privatization scenarios and project scope that would best serve the installation community. However, it should be noted that the Air Force does not intend to build to, design to, or establish a 5-plus bedroom design standard under MILCON. The construction or planning of 5-bedroom units under privatization is typically viewed as a “desired feature” in privatization Request for Proposals (RFPs) rather than a “required feature.”

7.1.5.3 Unaccompanied Household Bedroom Entitlements

The bedroom entitlement for each unaccompanied member is based on pay grade and established by policy as described in Chapter 2.

Worksheet 7-4. Unaccompanied Personnel

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 8 | 8 |
| O4 | - | - | 21 | 21 |
| O3 | - | 82 | - | 82 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 99 | 32 | 131 |
| E9 | - | 2 | - | 2 |
| E8 | - | 6 | - | 6 |
| E7 | - | 22 | - | 22 |
| E6 | - | 28 | - | 28 |
| E5 | 82 | - | - | 82 |
| E4 | 152 | - | - | 152 |
| E3 | 103 | - | - | 103 |
| E2 | 16 | - | - | 16 |
| E1 | 8 | - | - | 8 |
| Enlisted | 361 | 58 | - | 419 |
| Total | 361 | 157 | 32 | 550 |

The 550 unaccompanied personnel for Anywhere AFB are displayed according to bedroom requirements.

7.1.5.4 Authorized Civilian Households Bedroom Entitlements

Bedroom entitlements for civilian households should be determined in a manner similar to that of military families. Survey data of actual civilian households represents the most reliable method of determining bedroom requirements for civilian households. However, survey data of this nature may be difficult to obtain or unavailable. In this instance, bedroom requirement distributions calculated for military families may be applied to civilian families. As civilians are categorized by their equivalent military grade, minimum bedroom entitlements established by policy appropriate for military families extend to civilian families as well.

7.2 DETERMINING THE MINIMUM MILITARY HOUSING REQUIREMENT

The HRMA determines the Total Military Housing Requirement for military families and unaccompanied personnel under the assumption that over the period of the analysis the installation will transition from its current housing supply to its minimum housing requirement as defined by OSD and Air Force policy. The minimum military housing requirement is the minimum number of housing units necessary to meet specific housing policy objectives and is based on the authorized manpower and other considerations projected for the final year of the transition period.

7.2.1 Determining the Floor Housing Requirement (Minimum Military Family Housing Requirement)

Per OSD guidance, there is a general agreement within DoD that some level of military housing should be maintained to provide a basic military community for military families. Therefore, notwithstanding the overall policy to look first to the private sector for housing military families, each Service may include a military family housing Floor Housing Requirement to retain a small military community.

The Floor Housing Requirement, defined by pay grade and bedroom categories, is critical to the HRMA. The HRMA assumes that before assessing the availability of housing in the private sector for the final year of the transition period, military housing matches the Floor Housing Requirement and is fully utilized. Additionally, the Floor Housing Requirement becomes part of the Total Military Family Housing Requirement for an installation.

For military families, the criteria for calculating the Floor Housing Requirement include:

- Housing to maintain a viable military community.
- Housing for personnel in Key and Essential positions.
- Maintaining historic housing.
- Providing housing for military families whose Regular Military Compensation is below a threshold level.

Each criterion establishes its own housing requirement. That is, each criterion defines the number of housing units required to meet that criterion. For example, the number of housing units necessary to meet the Key and Essential criterion is the number of housing units necessary to house all personnel who are in Key and Essential positions in each pay grade. The criterion to preserve historic housing is determined by the number of historic housing units at an installation designated for each pay grade. The Floor Housing Requirement at an installation is set by the greatest requirement of the criteria on a pay grade by pay grade basis. The bedroom requirement for each pay grade in the Floor Housing Requirement is determined by the criterion that set the requirement for the pay grade. If the Key and Essential Housing Requirement sets the Floor Housing Requirement in the O6 pay grade, then the bedroom requirement for the Key and Essential Housing Requirement for the O6 pay grade sets the bedroom requirement for the Floor Housing Requirement in that pay grade.

Each criterion is determined independently and reflects a policy objective in the manner that it is applied. Additionally, each is based on the requirements and/or conditions in the final year of the transition period. Bedroom entitlements are determined by pay grade. The Floor Housing Requirement is the greatest requirement of the criteria on a pay grade by pay grade basis.

7.2.1.1 Military Community Housing Requirement

The Military Community Housing Requirement is computed by multiplying military families in each bedroom entitlement and in each pay grade by ten percent (the percentage is set by Air Force policy). When an exception has been identified for valid mission requirements, a separate percentage may be applied to those military families affected by the mission requirement. In such cases, the Military Community Housing Requirement is determined by applying up to ten percent of the military families not affected by the mission.

Worksheet 7-5. Military Community Housing Requirement

| Pay Grade | Number of Bedrooms | | | Total |
|-----------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 5 | - | 5 |
| O4 | - | 6 | 2 | 8 |
| O3 | 11 | 4 | 1 | 16 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 14 | 15 | 4 | 33 |
| E9 | - | 1 | - | 1 |
| E8 | - | 3 | - | 3 |
| E7 | - | 13 | 2 | 15 |
| E6 | 9 | 6 | 3 | 18 |
| E5 | 17 | 4 | 2 | 23 |
| E4 | 9 | 2 | - | 11 |
| E3 | 3 | - | - | 3 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 38 | 29 | 7 | 74 |
| Total | 52 | 44 | 11 | 107 |

For Anywhere AFB, multiplying 1,068 families in each pay grade and bedroom requirement by the ten percent criterion equates to a Military Community Housing Requirement of 107 units.

7.2.1.2 Key and Essential Housing Requirement

The Key and Essential Housing Requirement is the number of Key and Essential military and civilian personnel by pay grade as defined by the installation commander, including special command positions. For installations with housing units designated for Key and Essential positions, such unit's bedroom category determines the bedroom entitlement for that position. For instance, if an installation has an O7 Key and Essential position but the residence designated for the O7 is a three-bedroom unit, the Key and Essential Housing Requirement for the O7 is a three-bedroom unit. In addition, if the position is filled by a member of a lower rank than the designated quarters, the quarters are designated for HRMA purposes at the lower grade. For other Key and Essential positions, the bedroom entitlement is set at the largest military family housing requirement by pay grade.

If unaccompanied personnel fill a Key and Essential position and will be housed in a military family housing unit, such members will be designated as accompanied for analytical purposes.

Worksheet 7-6. Key and Essential Housing Requirement

| Pay Grade | Number of Bedrooms | | | Total |
|-----------------|--------------------|-------|-------|-------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | - | 5 | 5 |
| O5 | - | 2 | - | 2 |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 2 | 6 | 8 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | - | - | - | - |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | - | - | - | - |
| Total | - | 2 | 6 | 8 |

There are eight Key and Essential positions at Anywhere AFB.

7.2.1.3 Historic Housing Requirement

The Historic Housing Requirement is the number of historic housing units located at an installation and listed on, or eligible for listing on, the National Historic Register. The historic units are identified by their designated pay grade and bedroom categories. If there are a greater number of historic houses designated for a pay grade than there are military families in the pay grade, the excess historic housing should be re-designated to other appropriate pay grades for HRMA purposes.

Worksheet 7-7. Historic Housing Requirement

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-------|----------|----------|
| | Two | Three | Four+ | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | - | 2 | 2 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | - | - | - | - |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | - | - | - | - |
| Total | - | - | 2 | 2 |

At Anywhere AFB, there is a Historic Housing Requirement of two units.

7.2.1.4 Targeted Economic Relief Housing Requirement

The Targeted Economic Relief Housing Requirement is the number of military families requiring rental housing for those grades whose total Regular Military Compensation (RMC) is less than, as defined by policy, fifty percent of the local median household income. Under the Targeted Economic Relief criterion, the bedroom entitlements for each pay grade are based on the bedroom entitlements of military families that meet the criterion. This criterion applies to military renters only.

The Air Force considers the Cost of Living Allowance (COLA) to be part of RMC for HRMA purposes - specifically, this criterion. For CONUS locations with COLA adjustments, the appropriate COLA adjustment is added to RMC for purposes of the Targeted Economic Relief Housing Requirement calculation. The Targeted Economic Relief Housing Requirement is not applied to OCONUS installations.

Worksheet 7-8. Regular Military Compensation

| Pay Grade | Base Pay | COLA ¹ | Basic Allowance for Housing | Basic Allowance for Subsistence | Tax Adjustment | Regular Military Compensation |
|-----------|-----------|-------------------|-----------------------------|---------------------------------|----------------|-------------------------------|
| O7+ | \$115,000 | \$0 | \$18,600 | \$2,100 | \$7,300 | \$143,000 |
| O6 | \$95,000 | \$0 | \$18,720 | \$2,100 | \$7,000 | \$122,820 |
| O5 | \$77,000 | \$0 | \$18,600 | \$2,100 | \$6,500 | \$104,200 |
| O4 | \$65,000 | \$0 | \$17,760 | \$2,100 | \$4,800 | \$89,660 |
| O3 | \$51,000 | \$0 | \$16,560 | \$2,100 | \$3,300 | \$72,960 |
| O2 | \$39,000 | \$0 | \$14,280 | \$2,100 | \$2,900 | \$58,280 |
| O1 | \$28,000 | \$0 | \$11,640 | \$2,100 | \$2,100 | \$43,840 |
| E9 | \$58,000 | \$0 | \$16,920 | \$3,100 | \$3,900 | \$81,920 |
| E8 | \$46,000 | \$0 | \$16,080 | \$3,100 | \$3,400 | \$68,580 |
| E7 | \$36,000 | \$0 | \$15,120 | \$3,100 | \$3,200 | \$57,420 |
| E6 | \$32,000 | \$0 | \$14,400 | \$3,100 | \$2,800 | \$52,300 |
| E5 | \$26,000 | \$0 | \$11,280 | \$3,100 | \$2,000 | \$42,380 |
| E4 | \$21,000 | \$0 | \$9,780 | \$3,100 | \$1,600 | \$35,480 |
| E3 | \$18,000 | \$0 | \$9,780 | \$3,100 | \$1,400 | \$32,280 |
| E2 | \$16,000 | \$0 | \$9,780 | \$3,100 | \$1,300 | \$30,180 |
| E1 | \$14,000 | \$0 | \$9,780 | \$3,100 | \$1,100 | \$27,980 |

For Anywhere AFB, the local median family income for the Housing Market Area is estimated at \$55,000. There is no COLA adjustment. Therefore, to qualify for the Targeted Economic Relief Housing Requirement, a military family's RMC must be below \$27,500. As the lowest RMC per Worksheet 7-8 is \$27,980 for E-1 families, no personnel qualify for the Targeted Economic Relief Housing Requirement.

7.2.1.5 Floor Housing Requirement

The Military Community, Key and Essential, Historic Housing and Targeted Economic Relief criteria are not used cumulatively. The criterion that produces the greatest total requirement by pay grade determines the minimum military housing requirement for families for that pay grade. In other words, for each pay grade, the Floor Housing Requirement is the housing requirement of the criterion with the greatest requirement. The bedroom requirement for each pay grade in the Floor Housing Requirement is determined by the criterion that sets the requirement for the pay grade.

For example, for an O-6 pay grade, assume the Military Community Housing Requirement is five, the Key and Essential Housing Requirement is seven, the Historic Housing Requirement is two and the Targeted Economic Relief Housing Requirement is zero. The Floor Housing Requirement for the O-6 pay grade is seven as the Key and Essential Housing Requirement is the greatest criterion. The bedroom requirement for the Key and Essential Housing Requirement would constitute the Floor Housing Requirement bedroom requirement for that pay grade.

As another example, for an E-5 pay grade, assume the Military Community Housing Requirement is fifty, the Key and Essential Housing Requirement is zero, the Historic Housing Requirement is zero and the Targeted Economic Relief Housing Requirement is zero. The Floor Housing Requirement for the E-5 pay

grade is fifty as the Military Community Housing Requirement is the greatest criterion.

Worksheet 7-9. Determination of Floor Housing Requirement

| Pay Grade | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Housing Requirement |
|--------------|--------------------|-----------------|------------------|--------------------------|---------------------------|
| O7+ | - | 1 | 2 | - | 2 |
| O6 | 1 | 5 | - | - | 5 |
| O5 | 5 | 2 | - | - | 5 |
| O4 | 8 | - | - | - | 8 |
| O3 | 16 | - | - | - | 16 |
| O2 | 2 | - | - | - | 2 |
| O1 | 1 | - | - | - | 1 |
| Officers | 33 | 8 | 2 | - | 39 |
| E9 | 1 | - | - | - | 1 |
| E8 | 3 | - | - | - | 3 |
| E7 | 15 | - | - | - | 15 |
| E6 | 18 | - | - | - | 18 |
| E5 | 23 | - | - | - | 23 |
| E4 | 11 | - | - | - | 11 |
| E3 | 3 | - | - | - | 3 |
| E2 | - | - | - | - | - |
| E1 | - | - | - | - | - |
| Enlisted | 74 | - | - | - | 74 |
| Total | 107 | 8 | 2 | - | 113 |

The Floor Housing Requirement for Anywhere AFB is calculated at 113 units.

Worksheet 7-10. Floor Housing Requirement

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | 5 | 5 |
| O5 | - | 5 | - | 5 |
| O4 | - | 6 | 2 | 8 |
| O3 | 11 | 4 | 1 | 16 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 14 | 15 | 10 | 39 |
| E9 | - | 1 | - | 1 |
| E8 | - | 3 | - | 3 |
| E7 | - | 13 | 2 | 15 |
| E6 | 9 | 6 | 3 | 18 |
| E5 | 17 | 4 | 2 | 23 |
| E4 | 9 | 2 | - | 11 |
| E3 | 3 | - | - | 3 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 38 | 29 | 7 | 74 |
| Total | 52 | 44 | 17 | 113 |

IMPORTANT: Privatized units do not represent a portion of the Floor Housing Requirement. Although the Floor Housing Requirement may be constituted by any component of the military housing supply (i.e., government owned units,

government leased units, privatized units), the total number of privatized units is not added to the Floor Housing Requirement as part of the Total Military Family Housing Requirement.

7.2.2 Determining the Minimum Unaccompanied Housing Requirement

Air Force policy determines the minimum number of unaccompanied personnel (Minimum Unaccompanied Housing Requirement) to be provided military housing. The minimum may be based on specific pay grades, those unaccompanied personnel that meet certain mission criteria, or other factors. Air Force policy should be consulted for determining current minimum requirements (see Chapter 2).

Installation mission objectives may direct additional or fewer unaccompanied personnel to reside in military housing. MAJCOM and Air Force headquarters personnel should confirm these special cases. The HRMA data request letter submitted to an installation will request whether an installation has been deemed a “constrained location” of the unaccompanied requirement. The HRMA report should indicate if a specific installation is considered a “constrained location.”

Worksheet 7-11. Minimum Unaccompanied Housing Requirement

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|----------|----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | - | - | - |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | 38 | - | - | 38 |
| E3 | 103 | - | - | 103 |
| E2 | 16 | - | - | 16 |
| E1 | 8 | - | - | 8 |
| Enlisted | 165 | - | - | 165 |
| Total | 165 | - | - | 165 |

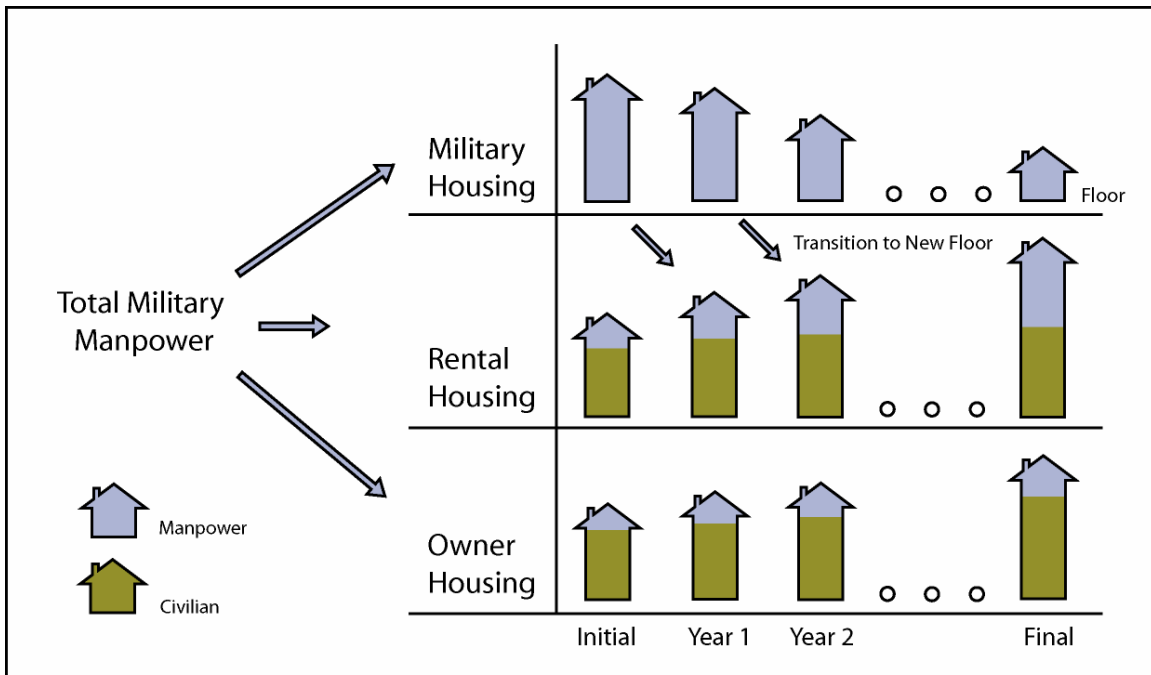
For Anywhere AFB, there are 165 unaccompanied personnel in pay grade E4 and below that constitute the Minimum Unaccompanied Housing Requirement.

7.3 MILITARY HOUSEHOLDS REQUIRING PRIVATE SECTOR HOUSING

The HRMA assesses the ability of the private sector housing market to meet military housing requirements as the installation transitions from its current number of military housing units to its minimum military housing requirement over the transition period. To make this determination, the number of military households requiring private sector housing each year of the transition period must be calculated.

For the initial year of the transition period, military households requiring private sector housing are those authorized military families and unaccompanied personnel currently residing in the private sector. For the final year of the transition period, the HRMA assumes that military housing (the minimum military housing requirement) is fully occupied and that military households not accommodated in the minimum housing requirement require private sector housing to meet their needs. These military households consist of military families not accommodated in the Floor Housing Requirement and those unaccompanied personnel not accommodated in the Minimum Unaccompanied Housing Requirement (Figure 7-1).

Figure 7-1. Transition of Military Households to Private Sector Housing



Military households requiring private sector housing are separated into homeowners and renters. Since military homeowners are considered suitably

housed, the HRMA need only assess the ability of the rental market to meet housing needs.

For the interim years of the transition period, assumptions must be made and documented about the number of military households requiring rental housing. If over the transition period the number of military housing units must be reduced to reach the minimum military housing requirement for families, military families currently residing in military housing must relocate to the private sector. The HRMA methodology assumes all military families relocating from military housing to private sector housing become renters. Current year homeowners may be estimated from data obtained from an annual DoD survey or specific surveys conducted at the direction of the installation.

The process applied to determine the number of military households in the rental market initially addresses military households by pay grade. This results from the fact that survey and other data about their characteristics are most often categorized by pay grade. The final step in determining the number of military households in the rental market is to place these renters into specific market segments of the rental market by rental cost and bedroom categories.

For unaccompanied personnel, the HRMA methodology assumes there is sufficient military housing to satisfy the final transition year's minimum unaccompanied housing requirement. If there is currently (i.e., initial transition year) insufficient military housing to meet their current minimum housing requirement, the HRMA methodology assumes unaccompanied personnel transition back to military housing to meet their minimum requirement.

7.3.1 Estimating Military Households not Accommodated in the Minimum Military Housing Requirement

Estimates of households not accommodated in the minimum military housing requirement are required for both military families and unaccompanied households.

The number of military families not accommodated in the Floor Housing Requirement must be determined for the final year of the transition period. To make this determination, the Floor Housing Requirement is assumed fully occupied. The number of military families requiring housing in a pay grade and bedroom entitlement basis is reduced by the Floor Housing Requirement.

Worksheet 7-12. Military Families in Private Sector Housing, Initial Transition Year

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | 29 | - | 29 |
| O4 | - | 28 | - | 28 |
| O3 | 66 | 35 | 7 | 108 |
| O2 | 9 | 2 | - | 11 |
| O1 | 5 | 2 | 2 | 9 |
| Officers | 80 | 96 | 12 | 188 |
| E9 | - | 6 | 1 | 7 |
| E8 | - | 10 | - | 10 |
| E7 | - | 48 | 10 | 58 |
| E6 | 47 | 29 | 22 | 98 |
| E5 | 87 | 24 | 13 | 124 |
| E4 | 39 | - | - | 39 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 173 | 117 | 46 | 336 |
| Total | 253 | 213 | 58 | 524 |

For the initial year of the analysis at Anywhere AFB, military families that currently reside in the private sector total 524 families.

Worksheet 7-13. Military Families not Accommodated in the Floor Housing Requirement, Final Transition Year

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 8 | 8 |
| O5 | - | 40 | 4 | 44 |
| O4 | - | 53 | 17 | 70 |
| O3 | 96 | 40 | 10 | 146 |
| O2 | 13 | 3 | - | 16 |
| O1 | 7 | 2 | 3 | 12 |
| Officers | 116 | 138 | 42 | 296 |
| E9 | - | 7 | 2 | 9 |
| E8 | - | 24 | - | 24 |
| E7 | - | 118 | 18 | 136 |
| E6 | 83 | 47 | 30 | 160 |
| E5 | 153 | 39 | 17 | 209 |
| E4 | 78 | 16 | - | 94 |
| E3 | 20 | 2 | - | 22 |
| E2 | 4 | - | - | 4 |
| E1 | 1 | - | - | 1 |
| Enlisted | 339 | 253 | 67 | 659 |
| Total | 455 | 391 | 109 | 955 |

For the final year of the transition period, military families not accommodated in the Floor Housing Requirement total 955 families.

For the initial year, the number of unaccompanied personnel occupying private sector housing is estimated from the DoD survey or installation data. To determine unaccompanied personnel not accommodated in the Minimum Unaccompanied Housing Requirement at the end of the transition period, the number of unaccompanied personnel is reduced by the number of unaccompanied personnel required to reside in military housing. This procedure is conducted on a pay grade basis as well.

Worksheet 7-14. Unaccompanied Personnel in Private Sector Housing, Initial Transition Year

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 8 | 8 |
| O4 | - | - | 21 | 21 |
| O3 | - | 82 | - | 82 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 99 | 32 | 131 |
| E9 | - | 2 | - | 2 |
| E8 | - | 6 | - | 6 |
| E7 | - | 22 | - | 22 |
| E6 | - | 28 | - | 28 |
| E5 | 82 | - | - | 82 |
| E4 | 114 | - | - | 114 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 196 | 58 | - | 254 |
| Total | 196 | 157 | 32 | 385 |

At Anywhere AFB, unaccompanied personnel estimated to reside in private sector housing in the initial year total 385 members.

Worksheet 7-15. Unaccompanied Personnel not Accommodated in the Minimum Unaccompanied Personnel Housing Requirement, Final Transition Year

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 8 | 8 |
| O4 | - | - | 21 | 21 |
| O3 | - | 82 | - | 82 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 99 | 32 | 131 |
| E9 | - | 2 | - | 2 |
| E8 | - | 6 | - | 6 |
| E7 | - | 22 | - | 22 |
| E6 | - | 28 | - | 28 |
| E5 | 82 | - | - | 82 |
| E4 | 114 | - | - | 114 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 196 | 58 | - | 254 |
| Total | 196 | 157 | 32 | 385 |

Unaccompanied personnel not accommodated in the Minimum Unaccompanied Housing Requirement for the final year of the transition period total 385 members.

7.3.2 Determining Homeownership

Military private sector housing demand includes households who choose to own a home and those who choose to rent. Homeownership for authorized military households is typically estimated from homeownership rates derived from a local survey of current installation personnel. Homeownership rates for both military families and unaccompanied personnel are applied by pay grade to estimate the number of families and unaccompanied personnel identified as homeowners. The remaining military households in the private sector are considered renters.

Homeownership must be estimated for each year of the transition period. Current military homeownership data may be estimated from an annual housing survey conducted by DoD, or from other verifiable surveys conducted by the Air Force, MAJCOM, or installation. If survey data is not available, other data may be used or, under some conditions, a separate survey of the households currently living off the installation may be undertaken to determine current homeownership rates.

Homeownership rates differ between locations depending on relative housing prices as well as changes in the economy. A rate derived from multi-year survey data may help minimize the impact of applying a single rate over the transition period that is based on current economic and housing market conditions alone. The choice of homeownership rates should be consistent with factors affecting the local housing market.

Implicit in the choice of current housing, households living in military housing are likely to rent if, as a result of the transition to the minimum housing requirement, they would be required to live in private sector housing.

Air Force policy assumes military homeowners are adequately housed, with the exception of members who own mobile homes. The presumption is that homeowners voluntarily find and purchase desired and, in their estimation, suitable housing. It is also presumed that homeownership rates reflect the price of the housing relative to members' income, availability, acceptable financing costs and other favorable current market factors that make owning a viable option for members. Nonetheless, the reasonableness of this assumption must be validated.

If military homeowner requirements are not likely to be accommodated by the current supply or projected growth of homeowner housing, a more detailed analysis may be needed. For example, a small local economy or a Housing Market Area that has infrastructure or land limitations may not easily accommodate or respond to large changes in military personnel and the resulting growth in owner-occupied housing demand. Under such conditions, a discussion of constraints and possible homeowner housing shortages should be included as part of the analysis.

7.3.3 Estimating Military Families Requiring Private Sector Housing

For each year of the transition period, military families not residing in military housing occupy homeowner and rental housing in the private sector. For the first year of the transition period, authorized families and unaccompanied personnel in the private sector are those currently residing in the private sector. At the end of the transition period, military families not accommodated in the Floor Housing Requirement require homeowner and rental housing in the private sector.

7.3.3.1 Owner Occupied Housing

The number of military families in each pay grade that own the home they currently occupy may be estimated from an annual DoD survey, or from other verifiable surveys conducted by the Air Force, MAJCOM, or installation. From this data, homeownership rates for each pay grade may be derived and applied to the authorized military families and unaccompanied personnel not residing in military housing. As homeownership rates vary by pay grade and rates for military families are likely to differ from those for unaccompanied personnel and civilians, caution must be exercised in interpreting and applying the results in the analysis. Homeownership rates may change over time and different rates may be applied for each year of the transition period, as appropriate.

**Worksheet 7-16. Homeownership Rates
for Military Families**

| Pay Grade | Percentage | |
|-----------|------------|---------|
| | Homeowners | Renters |
| O7+ | 100.0% | 0.0% |
| O6 | 75.0% | 25.0% |
| O5 | 75.0% | 25.0% |
| O4 | 75.0% | 25.0% |
| O3 | 70.0% | 30.0% |
| O2 | 60.0% | 40.0% |
| O1 | 50.0% | 50.0% |
| E9 | 90.0% | 10.0% |
| E8 | 90.0% | 10.0% |
| E7 | 90.0% | 10.0% |
| E6 | 85.0% | 15.0% |
| E5 | 70.0% | 30.0% |
| E4 | 45.0% | 55.0% |
| E3 | 0.0% | 100.0% |
| E2 | 0.0% | 100.0% |
| E1 | 0.0% | 100.0% |

For Anywhere AFB, homeownership rates derived from an annual DoD survey are applied against military families requiring private sector housing.

**Worksheet 7-17. Military Family Homeowners
for the Initial and Final Transition Years**

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 2 | 2 |
| O5 | - | 22 | - | 22 |
| O4 | - | 22 | - | 22 |
| O3 | 46 | 25 | 5 | 76 |
| O2 | 5 | 2 | - | 7 |
| O1 | 3 | 2 | 2 | 7 |
| Officers | 54 | 73 | 9 | 136 |
| E9 | - | 6 | 1 | 7 |
| E8 | - | 9 | - | 9 |
| E7 | - | 43 | 9 | 52 |
| E6 | 40 | 25 | 18 | 83 |
| E5 | 61 | 17 | 9 | 87 |
| E4 | 17 | - | - | 17 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 118 | 100 | 37 | 255 |
| Total | 172 | 173 | 46 | 391 |

For the initial and final years of the transition period, 391 military families are estimated to require homeowner housing.

7.3.3.2 Renter Occupied Housing

For each year of the transition period, military families residing in private sector rental housing are the difference between authorized military families residing in private sector housing less those who are homeowners. The military families that rent must also be allocated to rental market segments by rental cost and bedroom categories.

**Worksheet 7-18. Military Family Renters,
Initial Transition Year**

| Pay Grade | Number of Bedrooms | | | Total |
|-----------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 7 | - | 7 |
| O4 | - | 6 | - | 6 |
| O3 | 20 | 10 | 2 | 32 |
| O2 | 4 | - | - | 4 |
| O1 | 2 | - | - | 2 |
| Officers | 26 | 23 | 3 | 52 |
| E9 | - | - | - | - |
| E8 | - | 1 | - | 1 |
| E7 | - | 5 | 1 | 6 |
| E6 | 7 | 4 | 4 | 15 |
| E5 | 26 | 7 | 4 | 37 |
| E4 | 22 | - | - | 22 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 55 | 17 | 9 | 81 |
| Total | 81 | 40 | 12 | 133 |

For Anywhere AFB, there are 133 military families determined to require private sector rental housing in the initial year.

**Worksheet 7-19. Military Family Renters,
Final Transition Year**

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 6 | 6 |
| O5 | - | 18 | 4 | 22 |
| O4 | - | 31 | 17 | 48 |
| O3 | 50 | 15 | 5 | 70 |
| O2 | 8 | 1 | - | 9 |
| O1 | 4 | - | 1 | 5 |
| Officers | 62 | 65 | 33 | 160 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 15 | - | 15 |
| E7 | - | 75 | 9 | 84 |
| E6 | 43 | 22 | 12 | 77 |
| E5 | 92 | 22 | 8 | 122 |
| E4 | 61 | 16 | - | 77 |
| E3 | 20 | 2 | - | 22 |
| E2 | 4 | - | - | 4 |
| E1 | 1 | - | - | 1 |
| Enlisted | 221 | 153 | 30 | 404 |
| Total | 283 | 218 | 63 | 564 |

For the final year of the transition period, there are 564 families requiring private sector rental housing.

Market segments where military families rent housing must also be determined for each year of the transition period. Military families are assumed to rent within the limits of affordability on the upper end of the rental cost range and acceptability on the lower end. The Maximum Allowable Housing Cost (MAHC) as defined by policy sets the upper limit of affordability. An annual survey of housing conducted by DoD establishes the lower limit. Military families are assumed to compete for housing meeting bedroom requirements that, at a minimum, cost no less than necessary to provide housing that is suitable and of acceptable quality. Without data from the annual DoD survey, it may be necessary to obtain surrogate estimates to establish a lower limit. Such estimates must be documented in the HRMA report.

**Worksheet 7-20. Maximum Allowable
Housing Cost with Dependents**

| Pay Grade | BAH | OOP | MAHC |
|------------------|------------|------------|-------------|
| O7+ | \$1,550 | \$60 | \$1,610 |
| O6 | \$1,550 | \$57 | \$1,607 |
| O5 | \$1,550 | \$55 | \$1,605 |
| O4 | \$1,480 | \$50 | \$1,530 |
| O3 | \$1,380 | \$50 | \$1,430 |
| O2 | \$1,190 | \$40 | \$1,230 |
| O1 | \$970 | \$35 | \$1,005 |
| | | | |
| E9 | \$1,410 | \$50 | \$1,460 |
| E8 | \$1,340 | \$45 | \$1,385 |
| E7 | \$1,260 | \$40 | \$1,300 |
| E6 | \$1,200 | \$40 | \$1,240 |
| E5 | \$940 | \$35 | \$975 |
| E4 | \$815 | \$30 | \$845 |
| E3 | \$815 | \$30 | \$845 |
| E2 | \$815 | \$30 | \$845 |
| E1 | \$815 | \$30 | \$845 |

MAHC for military personnel at Anywhere AFB with dependents is displayed above. MAHC is composed of the Basic Allowance for Housing and an Out-Of-Pocket (OOP) expense (OOP is scheduled to be fully offset by increases in BAH such that by 2005, OOP will be zero).

**Worksheet 7-21. Military Family Rental Requirement
by Price and Bedroom Category, Initial Transition Year ①¹**

| Rental Cost | Number of Bedrooms | | | Total |
|--------------------|---------------------------|--------------|--------------|--------------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | 3 | - | 3 |
| \$1,400 - \$1,599 | 2 | 6 | 1 | 9 |
| \$1,200 - \$1,399 | 18 | 16 | 2 | 36 |
| \$1,100 - \$1,199 | 7 | 7 | 4 | 18 |
| \$1,000 - \$1,099 | 4 | 1 | 1 | 6 |
| \$900 - \$999 | 11 | 2 | 1 | 14 |
| \$800 - \$899 | 24 | 5 | 3 | 32 |
| \$700 - \$799 | 15 | - | - | 15 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 81 | 40 | 12 | 133 |

Military families at Anywhere AFB for the initial transition year are allocated to market segments according to MAHC.

¹ Actual Dynamic Model inputs for military family rental requirements (initial transition year) are distributed between suitably and unsuitably housed personnel.

**Worksheet 7-22. Military Family Rental Requirement
by Price and Bedroom Category, Final Transition Year ①**

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | 7 | 3 | 10 |
| \$1,400 - \$1,599 | 5 | 26 | 15 | 46 |
| \$1,200 - \$1,399 | 47 | 65 | 19 | 131 |
| \$1,100 - \$1,199 | 29 | 74 | 13 | 116 |
| \$1,000 - \$1,099 | 20 | 6 | 4 | 30 |
| \$900 - \$999 | 34 | 9 | 4 | 47 |
| \$800 - \$899 | 84 | 21 | 5 | 110 |
| \$700 - \$799 | 64 | 10 | - | 74 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 283 | 218 | 63 | 564 |

Military families at Anywhere AFB for the final transition year are allocated to market segments according to MAHC.

7.3.4 Estimating Unaccompanied Personnel Requiring Private Sector Housing

For each year of the transition period, unaccompanied households not residing in military housing occupy homeowner and rental housing in the private sector. For the initial year, unaccompanied personnel in the private sector are those currently residing in the private sector. At the end of the transition period, unaccompanied not accommodated in the Minimum Unaccompanied Housing Requirement require homeowner and rental housing in the private sector.

7.3.4.1 Owner Occupied Housing

Information derived from an annual DoD survey provides estimates of the number of unaccompanied personnel on a pay grade basis that currently own the home they occupy. From this data, homeownership rates may be derived and applied to unaccompanied personnel with private sector housing requirements for each year of the transition period. As homeownership rates for unaccompanied personnel are likely different from rates for accompanied personnel and civilians, caution must be exercised in interpreting and applying the results in the study. Homeownership rates may change over time and different rates may be applied for each year of the transition period, as appropriate.

Worksheet 7-23. Homeownership Rates for Unaccompanied Personnel

| Pay Grade | Percentage | |
|-----------|------------|---------|
| | Homeowners | Renters |
| O7+ | 100.0% | 0.0% |
| O6 | 0.0% | 100.0% |
| O5 | 50.0% | 50.0% |
| O4 | 0.0% | 100.0% |
| O3 | 40.0% | 60.0% |
| O2 | 0.0% | 100.0% |
| O1 | 0.0% | 100.0% |
| | | |
| E9 | 50.0% | 50.0% |
| E8 | 50.0% | 50.0% |
| E7 | 40.0% | 60.0% |
| E6 | 40.0% | 60.0% |
| E5 | 20.0% | 80.0% |
| E4 | 5.0% | 95.0% |
| E3 | 0.0% | 100.0% |
| E2 | 0.0% | 100.0% |
| E1 | 0.0% | 100.0% |

For Anywhere AFB, homeownership rates derived from an annual DoD survey are applied against unaccompanied personnel requiring private sector housing.

Worksheet 7-24. Unaccompanied Personnel Homeowners, Initial and Final Transition Years

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|----------|-----------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | 5 | 5 |
| O4 | - | - | - | - |
| O3 | - | 33 | - | 33 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 33 | 5 | 38 |
| | | | | |
| E9 | - | 1 | - | 1 |
| E8 | - | 4 | - | 4 |
| E7 | - | 9 | - | 9 |
| E6 | - | 11 | - | 11 |
| E5 | 16 | - | - | 16 |
| E4 | 5 | - | - | 5 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 21 | 25 | - | 46 |
| Total | 21 | 58 | 5 | 84 |

For the initial and final years of the transition period, 84 unaccompanied personnel are estimated to require homeowner housing.

7.3.4.2 Renter Occupied Housing

Unaccompanied personnel requiring rental housing in the private sector is calculated as the total unaccompanied personnel requiring housing in the private sector less unaccompanied personnel homeowners.

Worksheet 7-25. Unaccompanied Personnel Renters, Initial and Final Transition Years

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 3 | 3 |
| O4 | - | - | 21 | 21 |
| O3 | - | 49 | - | 49 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 66 | 27 | 93 |
| E9 | - | 1 | - | 1 |
| E8 | - | 2 | - | 2 |
| E7 | - | 13 | - | 13 |
| E6 | - | 17 | - | 17 |
| E5 | 66 | - | - | 66 |
| E4 | 109 | - | - | 109 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 175 | 33 | - | 208 |
| Total | 175 | 99 | 27 | 301 |

For Anywhere AFB, there are 301 unaccompanied personnel requiring private sector rental housing in both the initial and final transition years.

Similar to military families, market segments where unaccompanied personnel rent housing must also be determined within the limits of affordability on the upper end of the rental cost range and acceptability on the lower end. The Maximum Allowable Housing Cost as defined by policy sets the upper limit of affordability. An annual survey of housing conducted by DoD establishes the lower limit. Military households are assumed to compete for housing meeting bedroom requirements that, at a minimum, cost no less than necessary to provide housing that is suitable and of acceptable quality.

Worksheet 7-26. Maximum Allowable Housing Cost without Dependents

| Pay Grade | BAH | OOP | MAHC |
|-----------|---------|------|---------|
| O7+ | \$1,400 | \$45 | \$1,445 |
| O6 | \$1,380 | \$44 | \$1,424 |
| O5 | \$1,320 | \$44 | \$1,364 |
| O4 | \$1,270 | \$43 | \$1,313 |
| O3 | \$1,100 | \$39 | \$1,139 |
| O2 | \$900 | \$34 | \$934 |
| O1 | \$750 | \$30 | \$780 |
| | | | |
| E9 | \$1,100 | \$38 | \$1,138 |
| E8 | \$990 | \$36 | \$1,026 |
| E7 | \$820 | \$33 | \$853 |
| E6 | \$750 | \$30 | \$780 |
| E5 | \$700 | \$28 | \$728 |
| E4 | \$650 | \$25 | \$675 |
| E3 | \$650 | \$25 | \$675 |
| E2 | \$650 | \$25 | \$675 |
| E1 | \$650 | \$25 | \$675 |

MAHC for those without dependents at Anywhere AFB is displayed above.

Worksheet 7-27. Unaccompanied Personnel Rental Requirement by Price and Bedroom Category, Initial and Final Transition Years ¹

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - |
| \$1,200 - \$1,399 | - | - | 12 | 12 |
| \$1,100 - \$1,199 | - | 7 | 15 | 22 |
| \$1,000 - \$1,099 | - | 26 | - | 26 |
| \$900 - \$999 | - | 18 | - | 18 |
| \$800 - \$899 | - | 10 | - | 10 |
| \$700 - \$799 | 24 | 28 | - | 52 |
| \$600 - \$699 | 151 | 10 | - | 161 |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 175 | 99 | 27 | 301 |

Unaccompanied personnel at Anywhere AFB for the initial and final transition years are allocated to market segments according to MAHC.

¹ Actual Dynamic Model inputs for unaccompanied personnel rental requirements (initial transition year), are distributed between suitably and unsuitably housed.

8 COMPETING HOUSING MARKET DEMAND

This section defines procedures for estimating military and civilian demand for competitive and non-competitive housing. The Dynamic Model, an integral part of the methodology, only addresses the competitive rental market. Military demand for non-competitive housing and demand for ineligible housing are removed from the total demand to determine competitive demand. Within the competitive market, competition only occurs between those households that are actively seeking housing during each year of the transition period.

The level of competition for both military and civilian rental demand must be determined for each category of private sector rental housing. Military personnel compete for private sector rental housing once consideration has been given to non-competitive housing units (i.e., Overseas Specified Housing). Civilian personnel compete for private sector rental housing after consideration of ineligible rental units including low income and age restricted units.

For transition years, the analysis competes military members for affordable and acceptable housing and determines the military's market share. Both military family and unaccompanied personnel requirements are considered in the process as competition occurs in market segments where both have housing requirements.

8.1 MILITARY HOUSING MARKET DEMAND

For military households, the methodology separately addresses active demand in suitable and unsuitable housing. For the initial year, military members residing in suitable and unsuitable competitive private sector rental housing must be categorized by market segment. Military personnel are deemed suitably or unsuitably housed based on actual rental cost information, current MAHC values and geographic areas identified as unsuitable.

Unaccompanied dormitory facilities house unaccompanied personnel required to reside in military housing. For the initial year, if sufficient data is available, the actual number of unaccompanied personnel residing in military housing determines the number of unaccompanied personnel residing in or competing for private sector rental housing. If dormitory housing is unable to accommodate all required unaccompanied personnel, those not accommodated compete for rental housing in the private sector rental market.

For CONUS locations, military households seeking competitive housing are those members not accommodated in the minimum military housing requirement nor are homeowners. For OCONUS locations, the number of military households in non-competitive housing (i.e., Overseas Specified Housing), must first be estimated.

8.1.1 Military Personnel Occupying Overseas Specified Housing

For OCONUS installations with Overseas Specified Housing, military family and unaccompanied rental requirements are assumed to occupy first Overseas Specified Housing units with generally no competition from the local civilian population. However, some competition may occur from other U.S. civilians residing in the local community associated with the installation. This type of competition may occur from AF Civil Service, DoDDS, DECA, AAFES and NAF Services personnel.

The quantity and market segments where such U.S. civilians may seek housing may prove difficult to determine, as information concerning such personnel is frequently unavailable. The analyst must consult with HRMA project managers and housing office staff to determine the extent of incorporating U.S. civilian demand into competition for Overseas Specified Housing.

Military families and unaccompanied personnel not occupying Overseas Specified Housing units require housing in the balance of private sector rental housing competing against other military personnel, U.S. civilian personnel, and local civilians.

8.1.2 Determining Demand for Competitive Housing

Military personnel not in military housing, are not homeowners, and, for OCONUS installations, do not occupy Overseas Specified Housing, require rental housing in the competitive private sector housing market. For the final year of the transition period, the quantity of military housing is determined by the Floor Housing Requirement and the Minimum Unaccompanied Housing Requirement.

Military family private sector rental requirements are distributed to market segments based on bedroom entitlement and their respective MAHC for with-dependent status and pay grade. Military unaccompanied private sector rental requirements are distributed to market segments based on bedroom entitlement and their respective MAHC for without-dependent status and pay grade. These families and unaccompanied personnel represent the military demand for competitive housing.

Table 8-1. Military Demand for Competitive Private Sector Rental Housing Over the Transition Period

| <u>Military Families</u> | | <u>Unaccompanied Personnel</u> | |
|---|---|---|---|
| Initial Year | Final Year | Initial Year | Final Year |
| Military Families Requiring Housing | Military Families Requiring Housing | Unaccompanied Personnel Requiring Housing | Unaccompanied Personnel Requiring Housing |
| <i>Less: Military Families in Military Housing</i> | <i>Less: Military Families in Floor Housing Requirement</i> | <i>Less: Unaccompanied Personnel in Military Housing</i> | <i>Less: Minimum Unaccompanied Housing Requirement</i> |
| <i>Less: Homeowners</i> | <i>Less: Homeowners</i> | <i>Less: Homeowners</i> | <i>Less: Homeowners</i> |
| <i>Less: Military Families in Overseas Specified Housing (OCONUS)</i> | <i>Less: Military Families in Overseas Specified Housing (OCONUS)</i> | <i>Less: Unaccompanied Personnel in Overseas Specified Housing (OCONUS)</i> | <i>Less: Unaccompanied Personnel in Overseas Specified Housing (OCONUS)</i> |
| <i>Equals:</i> | <i>Equals:</i> | <i>Equals:</i> | <i>Equals:</i> |
| Military Family Competitive Rental Housing Demand | Military Family Competitive Rental Housing Demand | Unaccompanied Personnel Competitive Rental Housing Demand | Unaccompanied Personnel Competitive Rental Housing Demand |

Worksheet 8-1. Military Family Competitive Housing Rental Requirement by Price and Bedroom Category, Final Transition Year ①

| Rental Cost | Number of Bedrooms | | | Total |
|--------------------|---------------------------|--------------|--------------|--------------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | 7 | 3 | 10 |
| \$1,400 - \$1,599 | 5 | 26 | 15 | 46 |
| \$1,200 - \$1,399 | 47 | 65 | 19 | 131 |
| \$1,100 - \$1,199 | 29 | 74 | 13 | 116 |
| \$1,000 - \$1,099 | 20 | 6 | 4 | 30 |
| \$900 - \$999 | 34 | 9 | 4 | 47 |
| \$800 - \$899 | 84 | 21 | 5 | 110 |
| \$700 - \$799 | 64 | 10 | - | 74 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 283 | 218 | 63 | 564 |

For the final year of the transition period, there are 564 military families at Anywhere AFB requiring private sector rental housing.

Worksheet 8-2. Unaccompanied Personnel Competitive Housing Rental Requirement by Price and Bedroom Category, Initial and Final Transition Years ①

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - |
| \$1,200 - \$1,399 | - | - | 12 | 12 |
| \$1,100 - \$1,199 | - | 7 | 15 | 22 |
| \$1,000 - \$1,099 | - | 26 | - | 26 |
| \$900 - \$999 | - | 18 | - | 18 |
| \$800 - \$899 | - | 10 | - | 10 |
| \$700 - \$799 | 24 | 28 | - | 52 |
| \$600 - \$699 | 151 | 10 | - | 161 |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 175 | 99 | 27 | 301 |

A total of 301 unaccompanied personnel at Anywhere AFB seek rental housing for both initial and final years of the transition period.

8.2 COMPETING HOUSING DEMAND

Competing demand for private sector rental housing is typically categorized as civilian demand. Typically, state or local planning agencies produce current population estimates and projections. Historical data may provide a basis for understanding growth trends in the market and changes that have affected the housing market. However, when structural changes occur in the economy, historic trends may not offer insight into the future.

In some areas, particularly rural areas, detailed population projections and household data may be more difficult to obtain. A census of population and housing generally provides a comprehensive count of households and population every ten years. However, in years more distant from the census year, this information is less likely to reflect accurately current conditions. If reliable information on household and population growth is unavailable, annual employment information may provide insight into household formation. In areas where no local information is available, statewide or regional trends may be the best data available on which to base estimates of growth in local housing demand.

8.2.1 Determining Demand for Competitive Housing

Civilian demand by market segment can be estimated from total rental housing, vacant rental units and estimates of military households currently occupying private sector rental units. However, not all civilians compete against military members for private sector rental units.

8.2.2 Consideration of Demand from Ineligible Housing

As described in Chapter 6, military members are generally ineligible to compete for income or age restricted housing. These units are not considered part of the housing supply for which military households compete.

Accordingly, civilians who occupy low income or elderly rental units generally are not able to compete against military members for other private sector rental housing. To the extent that they are subsidized or prefer elderly housing, these civilians would not compete for rental housing for which military households compete.

8.3 DEMAND FROM OTHER MILITARY INSTALLATIONS

Housing demand may include personnel stationed at other military installations that share the Housing Market Area. Housing demand by military families and unaccompanied personnel working at other non-Air Force military installations within the market area typically are not expressly addressed and are included in the civilian demand. Therefore, housing demand from military personnel at other installations is not explicitly analyzed unless there are substantial changes in those military personnel not reflected in civilian demand estimates projected during the transition period.

On occasion, any known, significant changes in military or civilian populations in adjacent military installations or industrial areas (e.g., base realignments, new mission, factory closures, etc.) may require an HRMA update report. The update would determine what impact, if any, such moves or market changes may have to the rental market and, consequently, to the Air Force housing requirement.

If considered, additional competing military demand is quantified by market segment and should be incorporated by year into the competitive market segment. For example, realignments at military installations sharing the Housing Market Area may impact the availability of competitive rental housing in a particular year and subsequent year(s).

Trends based on reliable data may be used to estimate other competitive military demand in the projected transition year, but estimates need to reflect any recent developments or anticipated changes. Historic and current manpower levels may be used to evaluate potential changes not reflected in a trend analysis.

For other Air Force installations located within the Housing Market Area of the installation under study, military demand for competitive private sector rental housing may need to be estimated for those overlapping areas within each installation's Housing Market Area. For analytical purposes, military personnel

may be allocated to geographic submarket areas of each respective Housing Market Area based on proportions of suitable rental housing in each submarket area.

8.4 DETERMINING DEMAND IN OVERSEAS LOCATIONS

Civilian demand in overseas locations may be represented by the local civilian population as well as U.S. civilians residing in the local community. National censuses, regional and local information as well as private sector organizations may supply data on population and housing statistics in order to estimate civilian demand. However, U.S. civilians may represent a separate demand for private sector rental housing.

8.4.1 DoD and DoDDS Employees

Department of Defense (DoD) and Department of Defense Dependents Schools (DoDDS) civilian employees frequently represent competing demand in overseas locations for military members. These and other U.S. agencies including AF Civil Service, DECA, AAFES and NAF may compete with military members for Overseas Specified Housing or units in the balance of private sector rental housing. The analyst should consult with AF/ILEH, MAJCOM and housing office personnel to determine the extent and characteristics (i.e., market segments) of competition such civilians represent.

MAHC for DoD and DoDDS personnel is the Living Quarters Allowance (LQA) for the pay grade and accompaniment status. Bedroom entitlements and requirements for these civilians may be determined by data provided by the housing office. If unavailable, estimates may be derived from military personnel information.

8.4.2 U.S. Contractors

U.S. companies occasionally have offices located in close proximity to overseas military installations. The housing office may extend housing services to U.S. civilians working at the installation or in company offices nearby. Housing office personnel often allow these contractors access to Overseas Specified Housing units or assist in negotiating leases with local national landlords. As such, these contractors may represent competing demand for rental housing. The analyst should consult with MAJCOM and/or housing office personnel to determine the extent and characteristics (i.e., market segments) of competition such civilians represent.

Worksheet 8-3. Civilian Demand for Competitive Private Sector Housing, Initial Transition Year ①

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 70 | 120 | 266 | 54 | 518 |
| \$1,400 - \$1,599 | 10 | 72 | 132 | 282 | 59 | 555 |
| \$1,200 - \$1,399 | 14 | 110 | 174 | 404 | 80 | 782 |
| \$1,100 - \$1,199 | 19 | 125 | 351 | 554 | 92 | 1,141 |
| \$1,000 - \$1,099 | 19 | 134 | 565 | 613 | 100 | 1,431 |
| \$900 - \$999 | 29 | 230 | 1,123 | 1,150 | 205 | 2,737 |
| \$800 - \$899 | 72 | 576 | 2,174 | 1,819 | 314 | 4,955 |
| \$700 - \$799 | 173 | 1,704 | 3,509 | 1,152 | 197 | 6,735 |
| \$600 - \$699 | 163 | 1,774 | 4,161 | 1,219 | 240 | 7,557 |
| \$500 - \$599 | 240 | 2,136 | 2,794 | 643 | 106 | 5,919 |
| \$400 - \$499 | 355 | 1,800 | 1,291 | 274 | 62 | 3,782 |
| Below - \$400 | 576 | 1,872 | 1,162 | 312 | 57 | 3,979 |
| Total | 1,678 | 10,603 | 17,556 | 8,688 | 1,566 | 40,091 |

For Anywhere AFB, competing demand for competitive sector housing is determined to be 40,091 in the initial year.

Worksheet 8-4. Civilian Competing Demand for Competitive Private Sector Housing, Final Transition Year ①

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 9 | 77 | 131 | 294 | 59 | 570 |
| \$1,400 - \$1,599 | 10 | 79 | 145 | 306 | 64 | 604 |
| \$1,200 - \$1,399 | 16 | 121 | 195 | 443 | 87 | 862 |
| \$1,100 - \$1,199 | 21 | 137 | 381 | 612 | 101 | 1,252 |
| \$1,000 - \$1,099 | 21 | 147 | 624 | 666 | 109 | 1,567 |
| \$900 - \$999 | 31 | 252 | 1,225 | 1,257 | 225 | 2,990 |
| \$800 - \$899 | 79 | 629 | 2,385 | 1,988 | 342 | 5,423 |
| \$700 - \$799 | 189 | 1,875 | 3,841 | 1,259 | 216 | 7,380 |
| \$600 - \$699 | 181 | 2,008 | 4,546 | 1,335 | 262 | 8,332 |
| \$500 - \$599 | 267 | 2,294 | 3,061 | 706 | 114 | 6,442 |
| \$400 - \$499 | 391 | 1,999 | 1,426 | 302 | 68 | 4,186 |
| Below - \$400 | 635 | 2,080 | 1,278 | 343 | 63 | 4,399 |
| Total | 1,850 | 11,698 | 19,238 | 9,511 | 1,710 | 44,007 |

For Anywhere AFB, competing demand for competitive sector housing is determined to be 44,007 in the final year.

9 DYNAMIC MODEL, PRIVATE SECTOR SHORTFALL AND TOTAL MILITARY HOUSING REQUIREMENT

The HRMA methodology incorporates OSD's Dynamic Model. Previous chapters developed the inputs to the model. Example input tables in those chapters have been identified. This chapter describes the input into the Dynamic Model as well as the computed Private Sector Shortfall and total military housing requirement.

9.1 DYNAMIC MODEL

As described in Chapter 4, the Dynamic Model requires the following private sector competitive rental market data elements all in market segment format (rental cost and bedroom category) for each year of the transition period. When appropriate, the Dynamic Model may interpolate values between the initial and final years of the transition period.

- 1) Rental Supply (Competitive Market)
 - a) Total Rental Supply
 - b) Unsuitable Rental Supply
 - c) Total Vacancies
 - d) Suitable Vacancies
 - e) Minimum Vacancy Rate
 - f) Natural Vacancy Rate
- 2) Military Families
 - a) Military Families Suitably Housed in Rental Housing, Initial Year
 - b) Military Families Unsuitably Housed in Rental Housing, Initial Year
 - c) Military Family Turnover Rate
- 3) Unaccompanied Personnel
 - a) Unaccompanied Personnel Suitably Housed in Rental Housing, Initial Year
 - b) Unaccompanied Personnel Unsuitably Housed in Rental Housing, Initial Year
 - c) Unaccompanied Personnel Turnover Rate
- 4) Civilian Demand
 - a) Civilian Rental Demand
 - b) Civilian Turnover Rate

9.2 PRIVATE SECTOR SHORTFALL

The Dynamic Model computes the Private Sector Shortfall for competitive rental housing. For each year of the transition period, the model determines the number of households in each competing group (military families, unaccompanied personnel and civilian households) that actively seek rental housing. To each of these groups, the model allocates a share of the available suitable rental housing. For each year, the model totals the number of military households that are suitably and unsuitably housed. The Private Sector Shortfall, for military families, is the number of military family households that are unsuitably housed in the final year of the transition period.

Worksheet 9-1. Military Market Share of Suitable Rental Housing

| Component | Transition Period | | | | | Final Year |
|--|-------------------|--------|--------|--------|--------|------------|
| | Initial Year | Year 1 | Year 2 | Year 3 | Year 4 | |
| Military Family Renters | 677 | 677 | 677 | 677 | 677 | 677 |
| Final Year Floor Housing Requirement | 113 | 113 | 113 | 113 | 113 | 113 |
| MFH Units Occupied in Excess of Floor | 431 | 345 | 259 | 172 | 86 | 0 |
| Competitive Market Military Family Renters | 133 | 219 | 305 | 392 | 478 | 564 |
| Military Family Market Share | 112 | 204 | 283 | 364 | 445 | 525 |
| Private Sector Shortfall | 21 | 15 | 22 | 28 | 33 | 39 |
| <hr/> | | | | | | |
| Competitive Market Unaccompanied Personnel Renters | 301 | 301 | 301 | 301 | 301 | 301 |
| Unaccompanied Personnel Market Share | 248 | 287 | 286 | 286 | 286 | 286 |
| Private Sector Shortfall | 53 | 14 | 15 | 15 | 15 | 15 |

For Anywhere AFB, military families are able to obtain 525 suitable private sector rental units by the final transition year, resulting in a Private Sector Shortfall of 39 units. Unaccompanied personnel are able to obtain 286 suitable private sector rental units by the final transition year resulting in a Private Sector Shortfall of 15 units. The military Private Sector Shortfall decreases between the initial and first transition years as transitioning military personnel secure vacant rentals.

The Dynamic Model determines the Private Sector Shortfall by market segments. To determine the Private Sector Shortfall by pay grade and bedroom categories, the analyst must allocate the market segment shortfall according to the proportionate share of the military competitive rental housing demand by pay grade and bedroom categories.

**Worksheet 9-2. Military Family Private Sector Shortfall
by Price and Bedroom Category, Final Transition Year**

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|----------|-----------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | 2 | 2 | 4 |
| \$1,200 - \$1,399 | 5 | 6 | 3 | 14 |
| \$1,100 - \$1,199 | 2 | 7 | 1 | 10 |
| \$1,000 - \$1,099 | 1 | - | - | 1 |
| \$900 - \$999 | 1 | - | 1 | 2 |
| \$800 - \$899 | 4 | 1 | - | 5 |
| \$700 - \$799 | 3 | - | - | 3 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 16 | 16 | 7 | 39 |

For Anywhere AFB, the military family Private Sector Shortfall by market segment is displayed above.

**Worksheet 9-3. Military Family Private Sector Shortfall
by Pay Grade and Bedroom Category, Final Transition Year**

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|----------|-----------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 1 | - | 1 |
| O4 | - | 3 | 2 | 5 |
| O3 | 4 | - | 1 | 5 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | 4 | 4 | 4 | 12 |
| E9 | - | - | - | - |
| E8 | - | 1 | - | 1 |
| E7 | - | 7 | 1 | 8 |
| E6 | 3 | 2 | 1 | 6 |
| E5 | 5 | 1 | 1 | 7 |
| E4 | 3 | 1 | - | 4 |
| E3 | 1 | - | - | 1 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 12 | 12 | 3 | 27 |
| Total | 16 | 16 | 7 | 39 |

For Anywhere AFB, the military family Private Sector Shortfall by pay grade/bedroom category is displayed above.

**Worksheet 9-4. Unaccompanied Personnel Private Sector Shortfall
by Price and Bedroom Category, Final Transition Year**

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|----------|----------|-----------|
| | One | Two | Three+ | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - |
| \$1,200 - \$1,399 | - | - | 1 | 1 |
| \$1,100 - \$1,199 | - | - | 1 | 1 |
| \$1,000 - \$1,099 | - | 1 | - | 1 |
| \$900 - \$999 | - | 1 | - | 1 |
| \$800 - \$899 | - | 1 | - | 1 |
| \$700 - \$799 | 1 | 1 | - | 2 |
| \$600 - \$699 | 7 | 1 | - | 8 |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 8 | 5 | 2 | 15 |

The Private Sector Shortfall by market segment for unaccompanied personnel is displayed above.

9.3 TOTAL MILITARY HOUSING REQUIREMENT

The Total Military Housing Requirement for military families and unaccompanied personnel is the sum of the minimum housing requirement and the Private Sector Shortfall, if any.

9.3.1 Total Military Family Housing Requirement

The Total Military Family Housing Requirement is the fundamental housing requirement for the installation. It is this requirement that forms the basis for housing programming and planning at the installation. The total military housing requirement defines the total number of housing units by pay grade and bedroom category that are required at an installation. The Total Military Family Housing Requirement is the sum of the Floor Housing Requirement and the Private Sector Shortfall, if any, on a pay grade by pay grade basis.

$$\textit{Total Military Family Housing Requirement} = \textit{Floor Housing Requirement} + \textit{Private Sector Shortfall}$$

Worksheet 9-5. Summary of the Total Military Family Housing Requirement

| Component | Transition Period | | | | | Final Year |
|---|-------------------|--------|--------|--------|--------|------------|
| | Initial Year | Year 1 | Year 2 | Year 3 | Year 4 | |
| Floor Housing Requirement – Final Year | 113 | 113 | 113 | 113 | 113 | 113 |
| Units Occupied in Excess of Floor Requirement | 431 | 345 | 259 | 172 | 86 | 0 |
| Private Sector Housing Shortfall | 21 | 15 | 22 | 28 | 33 | 39 |
| Total Military Family Housing Requirement | 565 | 473 | 394 | 313 | 232 | 152 |

For Anywhere AFB, the Total Military Family Housing Requirement totals 152 units (Worksheets 9-5 through 9-7).

Worksheet 9-6. Total Military Family Housing Requirement by Pay Grade and Bedroom Category

| Pay Grade | Number of Bedrooms | | | Total |
|-----------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | 6 | 6 |
| O5 | - | 6 | - | 6 |
| O4 | - | 9 | 4 | 13 |
| O3 | 15 | 4 | 2 | 21 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 18 | 19 | 14 | 51 |
| E9 | - | 1 | - | 1 |
| E8 | - | 4 | - | 4 |
| E7 | - | 20 | 3 | 23 |
| E6 | 12 | 8 | 4 | 24 |
| E5 | 22 | 5 | 3 | 30 |
| E4 | 12 | 3 | - | 15 |
| E3 | 4 | - | - | 4 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 50 | 41 | 10 | 101 |
| Total | 68 | 60 | 24 | 152 |

Worksheet 9-7. Total Military Family Housing Requirement

| Pay Grade | Military Families | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Housing Requirement | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------|--------------------|-----------------|------------------|--------------------------|---------------------------|--------------------------|------------------------------------|
| O7+ | 1 | - | 1 | 2 | - | 2 | - | 2 |
| O6 | 13 | 1 | 5 | - | - | 5 | 1 | 6 |
| O5 | 49 | 5 | 2 | - | - | 5 | 1 | 6 |
| O4 | 78 | 8 | - | - | - | 8 | 5 | 13 |
| O3 | 162 | 16 | - | - | - | 16 | 5 | 21 |
| O2 | 18 | 2 | - | - | - | 2 | - | 2 |
| O1 | 13 | 1 | - | - | - | 1 | - | 1 |
| Officers | 334 | 33 | 8 | 2 | - | 39 | 12 | 51 |
| E9 | 10 | 1 | - | - | - | 1 | - | 1 |
| E8 | 27 | 3 | - | - | - | 3 | 1 | 4 |
| E7 | 151 | 15 | - | - | - | 15 | 8 | 23 |
| E6 | 178 | 18 | - | - | - | 18 | 6 | 24 |
| E5 | 232 | 23 | - | - | - | 23 | 7 | 30 |
| E4 | 105 | 11 | - | - | - | 11 | 4 | 15 |
| E3 | 25 | 3 | - | - | - | 3 | 1 | 4 |
| E2 | 4 | - | - | - | - | - | - | - |
| E1 | 2 | - | - | - | - | - | - | - |
| Enlisted | 734 | 74 | - | - | - | 74 | 27 | 101 |
| Total | 1,068 | 107 | 8 | 2 | - | 113 | 39 | 152 |

9.3.2 Total Unaccompanied Housing Requirement

The Total Unaccompanied Housing Requirement is the basic housing requirement for unaccompanied personnel at the installation. It is this requirement that forms the basis for unaccompanied housing planning at an installation. The Total Unaccompanied Housing Requirement is the sum of the Minimum Unaccompanied Housing Requirement and the Private Sector Shortfall, if any, on a pay grade by pay grade basis.

$$\text{Total Unaccompanied Housing Requirement} = \text{Minimum Unaccompanied Housing Requirement} + \text{Private Sector Shortfall}$$

Worksheet 9-8. Total Unaccompanied Personnel Housing Requirement

| Pay Grade | Minimum Requirement | Private Sector Shortfall | Total Unaccompanied Personnel Housing Requirement |
|------------------|----------------------------|---------------------------------|--|
| O7+ | - | - | - |
| O6 | - | - | - |
| O5 | - | - | - |
| O4 | - | 2 | 2 |
| O3 | - | 2 | 2 |
| O2 | - | - | - |
| O1 | - | - | - |
| Officers | - | 4 | 4 |
| E9 | - | - | - |
| E8 | - | - | - |
| E7 | - | 1 | 1 |
| E6 | - | 1 | 1 |
| E5 | - | 4 | 4 |
| E4 | 38 | 5 | 43 |
| E3 | 103 | - | 103 |
| E2 | 16 | - | 16 |
| E1 | 8 | - | 8 |
| Enlisted | 165 | 11 | 176 |
| Total | 165 | 15 | 180 |

For Anywhere AFB, the Total Unaccompanied Housing Requirement totals 180 units.

Worksheet 9-9. Total Unaccompanied Personnel Housing Requirement by Pay Grade and Bedroom Category

| Pay Grade | Number of Bedrooms | | | Total |
|------------------|---------------------------|------------|--------------|--------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | 2 | 2 |
| O3 | - | 2 | - | 2 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 2 | 2 | 4 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | 1 | - | 1 |
| E6 | - | 1 | - | 1 |
| E5 | 3 | 1 | - | 4 |
| E4 | 43 | - | - | 43 |
| E3 | 103 | - | - | 103 |
| E2 | 16 | - | - | 16 |
| E1 | 8 | - | - | 8 |
| Enlisted | 173 | 3 | - | 176 |
| Total | 173 | 5 | 2 | 180 |

For Anywhere AFB, the Total Unaccompanied Housing Requirement by pay grade/bedroom category is displayed above.

10 THE HRMA REPORT

This chapter provides an overview of the types and elements of HRMA reports.

10.1 OVERVIEW

The HRMA report is the official report documenting all assumptions, analytical procedures, methodology and results of the analysis. The report must reflect the type of study (Full HRMA, Update, Validation) and contain all key data elements and results so that HRMA project managers and planners can make appropriate planning and housing decisions.

10.1.1 Full HRMA

The Full HRMA report is the most extensive of the three types of reports documenting all aspects of the data elements, assumptions, methodology and results of the HRMA. Elements of the report are provided in section 10.2 below and an example of the report is provided in Appendix E.

10.1.2 HRMA Update

HRMA Updates may be performed to confirm that previously reported installation and market conditions have not significantly changed since the previous HRMA. Additionally, updates may be performed to test the sensitivity of housing requirements to changes in certain market or installation factors such as impacts of BRAC, manpower changes, housing privatization impacts and other “what-if” scenarios.

The HRMA Update report is an abbreviated document of the complete HRMA but highlights critical data elements, assumptions, methodology and results of the HRMA Update. Of key importance is a discussion of the market parameters reviewed and military information revised that impact the results of the study. Elements of the report are provided in section 10.3 below and an example of the report is provided in Appendix F.

10.1.3 Validation Letter

The validation letter serves only to substantiate information and conclusions of a recent HRMA. No actual analysis is performed.

The validation letter is the shortest of the three reports and usually serves only to provide confirmation and discussion of a recent HRMA. General market parameters are reviewed to ensure market conditions have not experienced

significant change. Elements of the report are provided in section 10.4 below and an example of the report is provided in Appendix G.

10.2 WRITING THE HRMA REPORT

The Housing Requirements and Market Analysis (HRMA) report provides information to AF/ILEH, MAJCOM, installation personnel and other military housing professionals who are involved in the HRMA process. The report reflects the Air Force’s standardized HRMA process, assures consistent results, and enhances acceptance of the HRMA for determining housing requirements, planning and programming processes. An example of the HRMA Report is provided in Appendix E.

Although the process has fundamentally not changed, the HRMA report has been updated to reflect the organization of this Manual, to provide further detail on the inner workings of the HRMA process and to improve the flow and retrieval of information within the report itself.

Table 10-1. HRMA Report Structure

| <i>Previous HRMA Report Structure</i> | <i>Updated HRMA Report Structure</i> |
|--|--------------------------------------|
| Cover Page | Cover Page |
| Title Page | Title Page |
| Table of Contents | Table of Contents |
| Tables | List of Tables |
| Figures | List of Figures |
| Acronyms and Abbreviations | Acronyms and Abbreviations |
| Glossary of Terms | Glossary of Terms |
| Executive Summary | Executive Summary |
| Chapter 1. Introduction | Chapter 1. Introduction |
| Chapter 2. The Housing Market Area | Chapter 2. The Housing Market Area |
| Chapter 3. Military Housing Requirements | Chapter 3. Housing Supply |
| Chapter 4. The Floor Requirement | Chapter 4. Housing Requirements |
| Chapter 5. Private Sector Housing | Chapter 5. Competing Demand |
| Chapter 6. Rental Housing Demand | Chapter 6. Rental Housing Shortfall |
| Chapter 7. Private Sector Rental Housing Analysis | Chapter 7. Total Housing Requirement |
| Chapter 8. Total Military Family Housing Requirement | Chapter 8. References |
| Chapter 9. Findings | |
| Chapter 10. References | |

10.2.1 Cover Page

The report cover page includes the following information to identify the document:

- Title: Housing Requirements and Market Analysis for <Military Installation>
- Prepared for: Name of the Organization
- Prepared by:
- Date:

10.2.2 Title Page

The report title page, the first page in the actual document, includes the following information to identify the document:

- Title: Housing Requirements and Market Analysis for <Military Installation>
- Prepared for: Name and Address of the Organization
- Prepared by:
- Date:

10.2.3 Table of Contents

The table of contents lists Heading Levels 1 through 3 of the report and corresponding page numbers.

10.2.4 List of Tables

The list of tables identifies the table number, caption of tables in the report, and corresponding page numbers.

10.2.5 List of Figures

The list of figures itemizes the figures number, caption of figures in the report, and corresponding page numbers.

10.2.6 Acronyms and Abbreviations

The acronyms and abbreviations list enumerates the abbreviations and acronyms used in the report in alphabetical order including an appropriate definition. *See [Acronyms and Abbreviations](#).*

10.2.7 Glossary of Terms

The glossary of terms provides an alphabetical listing of major terms used in the report with a corresponding definition. *See Appendix A [Glossary](#).*

10.2.8 Executive Summary

The executive summary describes the HRMA results and presents the analyst's assessment of the HRMA:

HRMA Results

- Summarizes all of the chapters in the report in a one-to-two page narrative.
- References Table ES-1, Summary of Housing Requirements and Market Analysis.
- References Table ES-2, Total Military Family Housing Requirements.

Analyst Assessment

The HRMA analyst provides a discussion regarding the assumptions and results of the HRMA. The analyst may submit sensitivity analyses to data estimates or opinions regarding the results and inherent risks of relying upon such results. In analyzing rental market parameters, the analyst often makes professional interpretations of data. Additionally, in some markets, parameters such as vacancy rates, rental inventory growth, rental price growth and price distributions of rental units must be based on limited available data. Although these estimates are derived from available data and incorporate the analyst's experience and professional judgment, there is a potential that actual market parameters differ from those incorporated into the analysis. Thus, an additional purpose of this section is to provide military program managers with a perspective of how military requirements may change should actual market parameters differ from those used in the analysis.

The analyst may also provide a summary of changes, if any, taken from the standard HRMA process and make reference to further text or justifications for these changes described elsewhere in the HRMA report.

10.2.9 Chapter 1. Introduction

This chapter briefly discusses the HRMA methodology used in the study and describes the key assumption on which the analysis is based in the following sections:

- Methodology for the Air Force HRMA
- Key Assumptions and Policy used in the HRMA
- HRMA Report Organization

Methodology for the Air Force HRMA

This section briefly describes the HRMA methodology applied to this analysis. See *Chapter 4.0* [Methodology Overview](#).

Key Assumptions and Policy used in the HRMA

This section describes the key assumptions as well as critical policy and policy exceptions incorporated in the analysis. *See Chapter 2.0 [Policy and Regulations](#).*

HRMA Report Organization

The HRMA is presented in the following chapters:

Chapter 2. The Housing Market Area

Chapter 3. Housing Supply

Chapter 4. Housing Requirements

Chapter 5. Competing Demand

Chapter 6. Rental Housing Shortfall

Chapter 7. Total Housing Requirement

Chapter 8. References

10.2.10 Chapter 2. The Housing Market Area

This chapter displays and discusses the Housing Market Area and provides information concerning the region's economic activity and demographics.

Market Area

This section identifies the boundary of the market area and the methods and criteria used to determine the Housing Market Area. The map of the Housing Market Area will include boundaries for the 60-minute commute, the 20-mile commute and the Military Housing Area in which the installation is located. A second map will show residential locations of military members by zip code. *See Chapter 5.0 [The Housing Market Area](#).*

Regional Economy and Demographics

This section describes the demographic and economic factors that influence the housing market within the installation's Housing Market Area and impact future housing market conditions.

10.2.11 Chapter 3. Housing Supply

This chapter reports the military and private sector housing supply in the following subsections:

- U.S. Military Housing
- Private Sector Housing
 - ◆ Homeowner Housing
 - ◆ Rental Housing

U.S. Military Housing

The number of units identified as military housing (including privatized units and leased housing) are quantified and described in this section. *See Section 6.1 [Military Housing](#).*

Private Sector Housing

This section discusses and quantifies the number of housing units contained within the Housing Market Area. All private sector units including homeowner units and rental units are quantified. As the focus of the HRMA is rental housing, the balance of this section details rental housing units in terms of level of competition (e.g., Overseas Specified Housing, age restricted housing), characteristics (cost, bedroom, suitability) and vacancy. *See Section 6.2 [Private Sector Housing Supply](#).*

10.2.12 Chapter 4. Housing Requirements

This chapter reports military households and military and private sector housing requirements in the following sections:

- Manpower Authorizations
- Military Families
- Unaccompanied Personnel

Manpower Authorizations

This section identifies the total number of manpower authorizations and quantifies the total number of personnel the installation has responsibility to house. The number of authorizations by unit and/or Service is identified as well. *See Section 7.1.1 [Authorized Manpower and Accompaniment Status](#).*

Military Families

This section describes and quantifies the number of accompanied personnel, military families, military members married to other military members, voluntary separations and the number of families in the Floor Housing Requirement. Families requiring private sector housing is discussed and quantified and categorized into competitive and non-competitive classifications. *See the following sections:*

Section 7.1.2 [Estimating Military Family Households](#)

Section 7.2.1 [Determining the Floor Housing Requirement \(Minimum Military Family Housing Requirement\)](#)

Section 7.3.3 [Estimating Military Families Requiring Private Sector Housing](#)

Section 8.1 [Military Housing Market Demand](#).

Unaccompanied Personnel

This section describes and quantifies the number of unaccompanied personnel, unaccompanied personnel in the minimum housing requirement and

unaccompanied requiring private sector housing. Unaccompanied personnel are further categorized into competitive and non-competitive classifications. *See the following sections:*

- Section 7.1.3* [Estimating Unaccompanied Personnel Households](#)
- Section 7.2.2* [Determining the Minimum Unaccompanied Housing Requirement](#)
- Section 7.3.4* [Estimating Unaccompanied Personnel Requiring Private Sector Housing](#)
- Section 8.1* [Military Housing Market Demand](#)

10.2.13 Chapter 5. Competing Demand

This chapter discusses and quantifies competing demand for private sector housing in the following sections:

- Civilian Households
- Other Households

Civilian Households

Determination and quantification of competing demand (i.e., civilian demand) is discussed in this section. Competing demand is categorized into competitive and non-competitive classifications. *See Section 8.2 [Competing Housing Demand](#).*

Other Households

Any special consideration for incorporating military demand from other nearby military installations is discussed and quantified in the section, as applicable. Additionally, determination and quantification of special competing demand (e.g., DoD civilians, DoDDS employees) for overseas locations is discussed in this section, as appropriate. *See Section 8.3 [Demand from Other Military Installations](#).*

10.2.14 Chapter 6. Rental Housing Shortfall

This chapter reports the private sector housing market share for military personnel as estimated from military and competing rental demand against the rental housing supply and displays the Private Sector Shortfall. *See Chapter 9.0 [Dynamic Model, Private Sector Shortfall and Total Military Housing Requirement](#).*

10.2.15 Chapter 7. Total Housing Requirement

The total housing requirement based on the minimum housing requirement and the Private Sector Shortfall is described and quantified. Requirements for both military families and unaccompanied personnel are discussed and displayed. A

summary of major data elements and analytical results is provided as well. See [Chapter 9.0 Dynamic Model, Private Sector Shortfall and Total Military Housing Requirement](#).

10.2.16 Chapter 8. References

This chapter lists the references cited in the HRMA report in an author/date format. Persons consulted for the HRMA are also included.

10.3 WRITING THE HRMA UPDATE REPORT

The HRMA Update Report provides abbreviated information to AF/ILEH, MAJCOM, installation personnel and other military housing professionals who are involved in the HRMA process. The report includes an Executive Summary and an Analyst's Assessment in the first part of the document. The balance of the document is dependent on the background, subject and purpose of the Update.

An HRMA Update may be conducted to test one or several parameters of the HRMA. As such, the length and structure of the HRMA Update Report should be commensurate with the scope of the HRMA Update. For instance, an HRMA Update Report evaluating the impact of a slight change in vacancy rates may be much shorter in length than a report estimating the impact of three different manpower authorizations. An example of the HRMA Update Report is provided in Appendix F. The HRMA Update report should contain the following major elements:

10.3.1 Executive Summary

This section provides an overview of the purpose, scope and results of the HRMA Update. Data tables provide summary level information on data assumptions and results.

10.3.2 Analyst Assessment

The HRMA Update analyst provides a discussion regarding the assumptions, deviations from the standard process (if any), and results of the HRMA Update. The analyst may submit sensitivities to data estimates or opinions regarding the results and inherent risks of relying upon such results.

10.3.3 Introduction

The background, subject and purpose of the HRMA Update are provided in this section.

10.3.4 Methods and Assumptions

In this section, the scenarios and data elements reviewed and/or modified are presented. The scope and key assumptions incorporated into the analysis are presented and discussed.

10.3.5 Data, Tables, Results

The structure of this section is dependent on the scope and purpose of the study. Data elements presented should correspond to the intent of the HRMA Update. For example, if the purpose of the HRMA Update is to calculate the change in Total Military Family Housing Requirements due to adjustments in military authorizations, then narrative and tables displayed should correspond directly with changes in manpower authorizations, military rental demand and resulting Private Sector Shortfalls and housing requirements. This section may contain multiple sections depending on the number of various alternatives under examination. Risks and sensitivity to the data assumptions and results should be noted and discussed as well.

10.3.6 References

Sources of data and persons contacted during the HRMA Update are listed in this section.

10.4 WRITING THE VALIDATION LETTER

The Validation HRMA is intended to confirm and/or discuss changes to a recent HRMA. As such, the content of the Validation Letter is focused solely on issues that either confirm or dispute the results of the recent HRMA. Therefore, the length of the Validation Letter is short, normally two to four pages. An example of the Validation Letter is provided in Appendix G.

The Validation Letter opens with a stated purpose and then directly moves into discussion of the key data elements or assumptions that have changed or have been confirmed. Narrative discussion coupled with appropriate data/table information constitutes the balance of the report.

APPENDIX A. GLOSSARY

Accompanied Personnel – Military members who are eligible to receive with-dependent housing allowances.

Actual Vacancy Rate – The number of rental units available for occupancy divided by the total rental housing supply.

Authorized Civilian Households – Civilian households which are authorized military housing at an installation.

Basic Allowance for Housing (BAH) – The housing allowance paid to eligible members at an installation.

Basic Allowance for Subsistence (BAS) – The subsistence allowance paid to eligible military members at an installation.

Competitive Housing – Rental housing for which military personnel compete against civilian personnel for occupancy.

Cost of Living Allowance (COLA) – An allowance paid to eligible members (assigned to high cost areas) that provides compensation for variations in non-housing costs.

Floor Housing Requirement – The minimum military family housing assets required for an installation by policy determination. Also defined as the Minimum Military Family Housing Requirement.

Force Protection – Installation policy requiring all military personnel to reside in military housing for security purposes.

Historic Housing – U.S. Government owned housing units listed on or eligible for the National Register of Historic Places under the National Historic Preservation Act.

Housing Market Area – The geographic area defined by the Air Force for the purposes of determining the Total Military Family Housing Requirement.

Ineligible Housing – Rental housing units which military personnel have no opportunity to occupy due to restrictive requirements on the rental units.

Key and Essential Housing Requirement (K&E) – Housing for all Key and Essential military and civilian personnel required to live in military housing.

Market Segment – A portion of the rental housing market determined by bedrooms and monthly rental costs of rental units.

Maximum Allowable Housing Cost (MAHC) – The highest rental cost by Air Force policy that determines the affordability of private sector rental housing for military personnel. For HRMA purposes, Out-of-Pocket Expenses (OOP) are included for CONUS installations but not included for OCONUS installations.

Military Community Housing Requirement – A criterion of the Floor Housing Requirement whereby ten percent of the military family housing requirement by pay grade is determined to represent a viable military community

Military Families – Those accompanied personnel, less military couples and voluntarily separated personnel, eligible for housing at an installation.

Military Family Housing (MFH) Supply – All housing controlled by the U.S. Government for use by military family members at an installation including military owned housing, housing under lease to the Air Force, housing provided by the host country and privatized housing.

Military Housing – Housing units and unaccompanied dormitory units available for use by military members.

Military Housing Area – The defined geographic area that defines the Basic Allowance for Housing for the installation.

Military Households Requiring Housing – Military personnel including accompanied and unaccompanied personnel that an installation has responsibility to house, either in military housing or in private sector housing.

Military Market Share – The number of rental housing units that military households requiring rental housing are expected to be able to rent.

Minimum Military Family Housing Requirement - The minimum military family housing supply required for an installation by policy determination. Also defined as the Floor Housing Requirement.

Minimum Unaccompanied Housing Requirement – The number of military housing units, usually dormitory units, the U.S. Government must provide to house unaccompanied personnel.

Natural Vacancy Rate – The number of rental units available for occupancy divided by the total rental housing supply that accommodates regular turnovers and maintains stable rental prices.

Non-Competitive Housing – Rental housing units for which military personnel do not face any competition from civilian personnel for occupancy. Privatized housing and Overseas Specified Housing typically constitute these units.

Out-Of-Pocket (OOP) Expenses – The expense that the military member would pay in addition to their housing allowance to equal the national median housing cost for any particular pay grade. The amount is the same for every installation.

Overseas Specified Housing – Private sector rental housing units serving overseas military installations that market specifically to U.S. personnel. These rental units typically contain amenities and equipment making the unit adequate for rental by U.S. personnel.

Private Sector Housing – Housing in the local community that is not owned or leased by the U.S. Government.

Private Sector Shortfall – The difference between those military members requiring private sector rental housing and the military market share.

Privatized Housing – Housing units constructed and maintained by the private sector for primary occupancy by military personnel.

Regular Military Compensation (RMC) – The sum of annual standard base pay, housing and subsistence allowances, Cost of Living Allowance (where applicable) and a tax adjustment (to reflect the exemption from Federal Income Tax of the housing and subsistence allowances).

Service – A military branch of the armed forces of the United States of America.

Student Requirement – Military students required to reside in military housing.

Study Period – The number of years an HRMA study covers, from the initial year to the final year of the transition period.

Targeted Economic Relief Requirement – Housing for members whose Regular Military Compensation (RMC) is less than 50 percent of the median family income in the market area for the installation.

Total Military Family Housing Requirement – The number of family housing units that the U.S. Government must provide in addition to housing available in the private sector to house adequately military families at an installation. The requirement is determined as the sum of the Floor Housing Requirement plus any shortfall of housing in the private sector on a pay grade basis.

Total Military Housing Requirement – The sum of the minimum housing requirement and the number of military households unsuitably housed in the private sector for each accompaniment status.

Total Unaccompanied Personnel Housing Requirement – The number of unaccompanied housing units that the U.S. Government must provide in addition to housing available in the private sector to house adequately unaccompanied personnel at an installation. The requirement is determined as the sum of the Minimum Unaccompanied Housing Requirement plus any shortfall of housing in the private sector on a pay grade basis.

Transition Period – The number of years established for transitioning from the current number of military housing units to the minimum military housing requirement.

Unaccompanied Housing Policy – Air Force policy directing an installation to provide military housing for all unaccompanied personnel in grade E-3 and below and for E-4 unaccompanied personnel with less than three years of service. The balance of unaccompanied personnel seeks housing in the private sector. This policy is often referred to as the “Corona Policy.”

Unaccompanied Personnel – Military personnel who are eligible to receive without-dependents housing allowances.

Voluntary Separations – Military members who are voluntarily separated geographically from family members. Also known as Voluntary Family Separations.

APPENDIX B. DATA CALL REQUEST

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Government Furnished Material List for Housing Requirement and Market Analysis (HRMA)

General: All data should be provided in electronic format where possible, preferably in a standard spreadsheet application.

1. Authorized manpower data - This data provides the basis of an installation's requirement for housing personnel.
 - a. Authorized Manpower: The number of authorized manpower by pay grade for each year of the transition period for which an installation has a support agreement. Authorized manpower for the host organization should be sourced and approved by the applicable command. This data should be segmented by organization. These totals should incorporate the following:
 - Host organization personnel
 - Tenant organization personnel
 - Independent duty personnel
 - Identification of the number of recruiters and/or other authorized personnel by pay grade with the assigned duty station outside the Housing Market Area, for whom the installation has responsibility to house
 - Identification of the number of personnel by pay grade that are currently deployed
 - b. Key and Essential: The designated Key and Essential (Priority 1) positions and the pay grades of the personnel who typically fill these positions. For General Officer requirements, please ensure O-7 and above are identified in accordance with the GOQ Master Plan.
 - c. OCONUS Civilian Employees: The total number of only those civilian employees that an overseas installation has contractual housing support agreements to provide housing at a Priority 1 or Priority 2 level.
2. Military personnel housing preference – This data is used to determine the preferences of where and in what circumstances installation personnel currently choose to reside.
 - a. Survey Results: The personnel housing preference and demographic survey results to define accurately current housing decisions of installation personnel. This survey is conducted on an annual basis with results maintained in a database to be used in determining important HRMA analysis parameters, including: current living environment, turnover, homeownership rates, sharing of rental units, and personnel demographics. The survey results replace data requirements item (3) and item (2)(b) below.
 - b. Location of Residence: The number of military personnel by the Zip Code of residence and pay grade.

3. Demographic data – This data is used to determine the “mix” of the number of bedrooms needed to house adequately an installation’s personnel and their dependents. Include all authorized host and tenant personnel from data requirement item (1)(a).
 - a. Military Personnel Turnover: The percent of military personnel by pay grade and accompaniment status who PCS from an installation annually.
 - b. Accompanied Personnel: The total number of accompanied personnel (married and single with dependents) by pay grade.
 - c. Family Size: The number of families by the number of dependents in the family for accompanied personnel with a spouse and without a spouse by pay grade. (Present data listing the total number of personnel in each pay grade with one, two, three, etc. child/adult non-spouse dependents for families with the spouse present and for families without a spouse present).
 - d. Military Married to Military Families: The number of accompanied personnel married to and currently residing with other active duty military personnel by pay grade.
 - e. Families on Dependent Restricted Tours: The number of families of military personnel who receive PCS orders at a dependent restricted installation and are eligible to secure military housing at the “previous” installation.
 - f. Unaccompanied Personnel: The total number of unaccompanied personnel (single without dependents) by pay grade.
 - g. Unaccompanied “Constrained Location”: Indicate whether or not the installation has been deemed a “constrained location” for unaccompanied requirement – a constrained location indicates installations where the unaccompanied on-base requirement extends beyond the traditional E1-E4 (less than three years of service) threshold.
4. Military Family Housing (MFH) data – This data is used to determine the actual housing units controlled by an installation and is compared to an installation’s housing requirements.
 - a. MFH Supply: The initial and final year’s MFH by bedroom category, pay grade designation, and by housing ownership (government owned housing, leased housing, or any other applicable category). If any MFH is geographically located off an installation, the geographical location of that MFH should be provided. Final housing totals should include any demolition, replacements, and/or new unit construction already authorized and funded by the final year.


- b. **Historic Housing:** The number of MFH by the pay grade designation of personnel typically assigned to assets under the control of an installation listed on or eligible for the National Register of Historic Places under the National Historic Preservation Act.
 - c. **Privatized Housing:** Privatized housing units by bedroom category and pay grade designation for each year of the transition period.
 - d. **MFH Occupancy:** MFH occupancy data for the current year and the previous three years on a semi-annual basis by pay grade, number of bedrooms, and occupant's military service. The priority of occupants should also be presented, identifying those of Priority 1, Priority 2, and Priority 3.
5. **Private Sector Housing Data** – This data is used to supplement data collected in the private sector in evaluating the local housing market.
- a. **Rental Listing:** An installation housing office's current rental listings by number of bedrooms and cost. This data should be maintained in a standard database and submitted on a semi-annual basis through a provided standard database query.
 - b. **Local Housing Knowledge:** A listing of persons and organizations knowledgeable of the local housing market, including: property managers, realtors, apartment associations, rental agencies, economic development councils, and local housing authorities.
 - c. **Special Market Considerations:** A description and, where applicable, documentation of any special circumstances in the local housing market that should be taken into consideration.
 - d. **OCONUS Inspections:** All available inspection reports for units on the housing referral list.
6. **The Housing Market Area** – This data is used to determine the rental housing supply that will be evaluated in the analysis.
- a. **Market Area:** Identify areas in the community that can be reached within the time parameters established by policy. The commute time should consider typical peak traffic times, accounting for commonly encountered weather and traffic problems as well as waiting times at major installation ingress/egress points. Uncommon weather and traffic problems would not be applicable for consideration.
 - b. **Unsuitable Housing:** Identify any areas in the community that are considered unsuitable for housing military personnel. The rationale for selections should be provided and consistent with Air Force policy.
7. The installation's Newcomer's Guide / Welcome Package.
8. Any other installation concerns that should be considered in the HRMA analysis.

(The following is an example data call request to the MAJCOM and installations).

Data collection is a vital element in the entire process. The contractors performing the HRMAs are responsible for collecting the bulk of private sector data. However, installation offices must provide accurate data for use of military family housing assets, off-base listings, military households, and personnel data as well as guidance on installation housing policy. The government furnished data (atch 2) must be compiled before the HRMA consultant's scheduled visit. The MAJCOM/CEP/XP/DP certified manpower and demographics data must be submitted to AF/ILEH before the contractor will be authorized to begin development of the HRMA. Please provide the manpower and demographics data to AF/ILEH no later than two weeks before the target date for the HRMA in brief. Also, provide a list of installation and MAJCOM POCs by 13 Dec 02 so the HRMA consultant can coordinate the visit schedule with each installation.

We are on a very fast track to make this effort a success and we need your help!
Thank you for your cooperation and support.

Our primary point of contact for the fast-track HRMA's is Maj Marc Barrett, AF/ILEHD, DSN 664-4247, william.barrett@pentagon.af.mil and Mr. Casey Lowe, DSN 664-4049, lowe_william@bah.com.



JAMES P. HOLLAND, Colonel, USAF
Chief, Housing Division
DCS/Installations & Logistics

Attachments:

1. Fast-Track HRMA Base List
2. Government Furnished HRMA Information
3. Execution Timeline

APPENDIX C. SAMPLE STATEMENT OF WORK (SOW)

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MODEL STATEMENT OF WORK
HOUSING REQUIREMENTS AND MARKET ANALYSIS (HRMA)
Military Installation, Location

1.0 BACKGROUND:

The objective of this work effort is to provide a Housing Requirements and Market Analysis (HMRA) for **Military Installation, Location**. The HRMA is a detailed study of housing demand and supply within a defined market area. The purpose of the HRMA is to determine the ability of the local private sector housing market to meet adequately the needs of Air Force personnel both accompanied and unaccompanied authorized at this location. The HRMA provides civilian and Air Force planners with the necessary decision support information such that action may be taken, where warranted, to meet unmet housing needs of military personnel. Current Congressional and Department of Defense (DOD) policy specifies that any government-financed housing project shall be considered only when it has been demonstrated that the local market is unable to meet government requirements for housing quality and affordability.

2.0 DESCRIPTION OF THE STUDY

The HRMA assesses the military housing requirements for the **Military Installation**. Minimum housing requirements are established by Air Force policies. The minimum requirements and assessment of the ability of the private sector housing to meet the military's needs are used to determine the military housing requirements for an installation.

The study focuses on the private sector rental housing market that may be available to military families and unaccompanied personnel. The Contractor shall conduct an analysis of present and prospective housing demand and supply relationships in the local housing market in order to assess the private sector's ability to support adequately current and future housing needs of accompanied and unaccompanied personnel located at the installation. The Contractor shall comprehensively evaluate the current and prospective dynamic forces affecting economic, demographic, and housing conditions, as well as housing inventory trends in order to quantify the local demand for housing.

The analysis will be prepared in accordance with the "*U.S. Air Force Housing Requirements and Market Analysis Guidance Manual*" (Guidance Manual) and other DoD or Air Force directives or regulations.

The assessment shall be based on (*select one*):

- a complete and comprehensive study
- an update of a previous HRMA
- the validation of specific HRMA assumptions

3.0 TASKS

The date of the Orientation Meeting sets the time frame for the HRMA. This date sets the initial transition year of the analysis and the final transition year. It also sets all analytical parameters such as the market condition, authorized manpower, MFH supply, BAH and MAHC rates, exchange rates for overseas locations, etc. to be used in the analysis in that any changes may require re-analysis and alter the task schedule.

Specific issues and assumptions that the Contractor shall assess are identified in Attachment 1 of this Scope of Work. The analysis will be prepared in accordance with the Guidance Manual and other applicable DOD or Air Force directives and regulations. Tasks to be completed by the Contractor shall include but not be limited to the following:

3.1 Task 1. Orientation Meeting: The Contractor shall attend and participate in an Orientation Meeting at **Military Installation** with installation housing personnel and the government's Project Manager. The purpose of the meeting shall be to:

- A. Discuss special issues and assumptions to be used in the analysis.
- B. Review the study work schedule.
- C. Discuss the Housing Market Area.
- D. Identify on-base and off-base personnel and community officials relevant to housing information.
- E. Discuss the processes used to obtain information and data.

An HRMA working group comprised of installation housing and civil engineering personnel, Major Command and AF/ILEH personnel will represent the installation. The HRMA working group will participate in all areas of discussion, coordination and decision-making during the orientation meeting as well as all other elements of the HRMA development. The Government Furnished Materials are to be delivered at the time of the Orientation Meeting. Subsequent changes to this information may impact the analysis and may require re-analysis that may delay the scheduled deliverables. The Contractor shall be responsible for recording and documenting items of discussion/decision for this and all subsequent meetings, interviews or telephone conversations.

3.2 Task 2. HRMA Project Management Plan: Contractor shall furnish the government a completed HRMA Project Management Plan (PMP) (Deliverable 1). In addition to defining the methodology, the HRMA process, and schedule, the PMP shall serve as a partnering agreement amongst all parties relevant to a successful and timely completion of the HRMA. The PMP shall define the roles and responsibilities of AF/ILEH, the Major Command, the installation housing manager, and the HRMA Contractor. The PMP shall include a signature sheet which will establish acceptance of the PMP by all key HRMA participants.

3.3 Task 3. Housing Market Area Definition: Applying the specified time/distance criteria, the Contractor will establish the Housing Market Area appropriate to the installation. Establishment of the market area shall consider secondary road systems, typical weather conditions and other impediments to commuter travel. A final definition of the Housing Market Area will be submitted for government approval (Deliverable 2). A map will be furnished by the Contractor depicting the location of the residences of the military members based on zip code, city, or town of residence as provided by the installation's housing office. Concurrence of the Housing Market Area will be provided in writing by the installation's leadership.

3.4 Task 4. Monthly Progress Report: Contractor shall furnish the government's Project Manager a monthly progress report briefly describing work items completed and anticipated for the preceding, and following 30-day period, respectively (Deliverable 3). The HRMA working group will assess each report and provide guidance to the Contractor as needed.

3.5 Task 5. On-Site Data Collection: Critical information on the local housing supply includes the number, quality, and cost of rental units in each market segment as defined by price and number of bedrooms. Information gathered from city and county planners and engineers, county assessors, representatives of local boards of realtors, real estate developers, bankers, census publications, and others is to be utilized to estimate the current and future housing inventory. This information is to be disaggregated by housing type (i.e., single and multi-family housing units, etc.), bedroom mix, type of occupancy (homeowner or renter) and occupancy cost.

A survey of unsuitable housing areas will also be conducted to confirm areas which are unsuitable due to health and safety concerns related to housing location. The Contractor shall create a list of the unsuitable housing areas identified by the installation by census tract and zip code as well as recommend other housing areas that should be considered unsuitable by Air Force standards.

3.6 Task 6. Analysis: Contractor will provide an assessment of the present and prospective private sector housing supply and demand relationships in order to determine the ability of the private sector to support adequately the housing needs of accompanied and unaccompanied Air Force personnel, their families, and others for whom the installation Housing Office has the responsibility to house. The principal goal is to evaluate comprehensively the current and prospective dynamic forces affecting economic, demographic, and housing inventory trends in order to estimate local demand for housing. The analysis will identify existing suitable community owned housing assets and vacancies, which are likely to be available at the final transition year.

Information resulting from expert opinion shall be combined with data gathered from various source publications (i.e. Census, local Council of Governments, local building officials, etc.) and local building activity data such that estimates of current and future adequate private sector housing can be made. Additionally, it will be necessary to analyze housing supply conditions in terms of the number, type, occupancy, cost and bedroom mix.

Other factors affecting the supply of community housing may include the general condition of sales markets (i.e., sources and availability of mortgage money, interest rates and the rapidity at which new homes are being built and absorbed). Based on this assessment the supply and condition of private sector housing for the period of analysis will be estimated.

The process and procedures defined in the Guidance Manual will be followed to determine the minimum housing requirement, the Private Sector Shortfall and the resulting housing requirement for an installation.

3.7 Task 7. Preliminary HRMA Report: The Contractor shall prepare and deliver a Preliminary HRMA Report for review by the government (Deliverable 4). AF/ILEH and Major Command will review the report with the installation. The government's Project Manager will provide consolidated review comments to the Contractor within six (6) days following its receipt.

The general format of the preliminary report shall be that as described in the Guidance Manual. The preliminary report shall include all basic components of the final report in order to allow for adequate presentation and review of the document. At a minimum, the report shall include a map depicting the Housing Market Area, a description of the condition and number of military housing units, existing and projected military demand, and the condition and trends in private sector housing supplies (rent vs. homeowner, cost, quality and vacancies). In addition, this report should list the major assumptions used in developing the analysis (i.e., marital factors, annual military pay and allowances, etc.). Instructions for completing the report are provided in the Guidance Manual.

3.8 Task 8. Preliminary Report Discussion. The Contractor shall conduct a discussion of the results of the HRMA with government officials. The Contractor will receive additional written and verbal comments on the report based on this meeting. The Contractor will respond to the comments in writing indicating concurrence with the comments or providing justification. AF/ILEH and Major Command will review the responses and provide concurrence or through telephonic conference reach agreement on the appropriate approach.

3.9 Task 9. Draft HRMA Report: The Contractor shall prepare and submit, following receipt of all government review comments on the Preliminary HRMA Report, the Draft HRMA Report (Deliverable 5). The Draft report shall incorporate government comments provided on the preliminary report.

The government's Project Manager will provide consolidated review comments to the Contractor on the Draft Report within six (6) days following receipt of the Draft HRMA Report. The Contractor will respond to the comments in writing indicating concurrence with the comments or providing justification. AF/ILEH and Major Command will review the responses and provide concurrence or through telephonic conference reach agreement on the appropriate approach.

3.10 Task 10. On-Board Review/HRMA Report Presentation: The Contractor shall coordinate a presentation and briefing of the Draft HRMA results to government officials at **Military Installation, Location** (Deliverable 6). The purpose of this meeting is to brief the results of the HRMA to the installation commander and other government officials and obtain written approval or disapproval of the results. The Contractor will respond to any received comments in writing indicating concurrence with the comments or providing justification. AF/ILEH and Major Command will review the responses and provide concurrence or through telephonic conference reach agreement on the appropriate approach.

3.11 Task 11. Final HRMA Report. Contractor shall upon notice by the government's Project Manager, produce and deliver the Final HRMA Report (Deliverable 7). The final report shall incorporate government comments on the Draft report. All copies shall be bound in three-ring binders. Additionally, the Contractor will deliver to each recipient one copy of the Final Report in electronic format as well as electronic copies of appropriate backup material used in the analysis (Deliverable 8).

4.0 DELIVERABLES

The following are considered deliverable items and the Contractor shall be required to provide the number of copies identified:

| Item | Deliverable No. | Copies | | | |
|-----------------------------------|-----------------|---------|---------------|--------------|--------------------|
| | | AF/ILEH | Major Command | Installation | Contracting Office |
| Final Project Mgmt Plan | 1 | 1 | 1 | 1 | 1 |
| Housing Market Area* | 2 | 1 | 1 | 1 | 1 |
| Monthly Progress Reports | 3 | 1 | 1 | 1 | 1 |
| Preliminary HRMA Report* | 4 | 1 | 1 | 1 | 1 |
| Response to Comments | - | 1 | 1 | 1 | 1 |
| Draft HRMA* | 5 | 1 | 1 | 1 | 1 |
| Response to Comments | - | 1 | 1 | 1 | 1 |
| On-Board Review HRMA Presentation | 6 | 1 | 1 | 1 | 1 |
| Final HRMA Report * | 7 | 1 | 1 | 1 | 1 |
| HRMA Backup Material | 8 | 1 | 1 | 1 | 1 |

*Simultaneous delivery to each location.

The data on suitable areas by census tract and zip code are not published in the HRMA documents but provided as part of the backup material in electronic format.

5.0 SCHEDULE OF WORK

Work by the Contractor under this order is to begin as soon as possible following the government's issuance of the Notice to Proceed. Deliverables due to the government under this order are to be submitted in accordance with the following schedule unless otherwise directed by the government's Contracting Officer. The schedule will be modified when there are changes in the Government Furnished Materials subsequent to the analysis or when major market changes occur within the course of the study. All days identified below reflect working business days and do not include holidays or weekends.

| Task No | Description | Deliverable | Submittal Due |
|---------|--|-------------|--|
| 1 | Orientation Meeting | - | To be determined – typically scheduled 11 days following notice to proceed |
| 2 | Program Management Plan | 1 | 5 days following delivery of all Government Furnished Materials |
| 3 | Housing Market Area Definition | 2 | 5 to 7 days after Orientation Meeting |
| 4 | Monthly Progress Reports | 3 | 15 th of each month |
| 5 | On-Site Data Collection | - | Concurrent with Task 1 Orientation Meeting |
| 6 | Analysis | - | Conducted between notice to proceed and Task 7 Preliminary HRMA Report |
| 7 | Preliminary HRMA Report | 4 | 60 days following notice to proceed provided government furnished information is delivered on schedule |
| 8 | Response to Preliminary HRMA Report Comments | - | 3 days following receipt of all comments on the Preliminary Report, the Contractor will deliver responses indicating concurrence with the comment or justification |
| 8 | Preliminary HRMA Report Discussion | - | 10 days following submission of Preliminary HRMA Report |
| 9 | Draft HRMA Report | 5 | 15 days following finalization of assumptions and data elements from the Preliminary Report |
| 9 | Response to Draft HRMA Report Comments | - | 3 days following receipt of all comments on the Draft Report, the Contractor will deliver responses indicating concurrence with the comment or justification |
| 10 | On-Board Review/HRMA Report Presentation | 6 | 10 days following submission of the Draft HRMA Report |
| 11 | Final HRMA Report | 7, 8 | 15 days following approval of Draft Report |

6.0 SPECIAL CONSIDERATIONS:

6.1 Deliverable Criteria

Final trim size of all delivered documents shall be 8.5 x 11 inches. Image size of standard text shall not exceed 7 x 10 inches. Avoid the use of oversized illustrations, charts, maps or art works. Foldouts shall not exceed 11 x 17 inches with a maximum image size of 9.75 x 15.5 inches. Color reproduction shall convey all intended information when copied in black and white.

Contractor shall also make delivery of the final report via electronic media on a CD-ROM in a software format of Microsoft Word and Adobe Acrobat PDF.

6.2 Public Disclosures

The Contractor shall make no public announcements or disclosures relative to information contained or developed under this contract except as authorized in writing by the Contracting Officer or authorized representative.

6.3 Records

The Contractor is required to retain a record of all significant conferences, meetings, discussions, verbal directives, telephone conversations, etc. with government representatives relative to this contract in which the Contractor and/or designated representatives participated. The Contractor shall be required to provide a record of requests for and/or receipt of government furnished material or data that, if not furnished in a timely manner, would significantly impair the normal progression of work under this contract.

7.0 GOVERNMENT FURNISHED MATERIALS:

The government shall furnish the following items to the Contractor within the fifteen (15) days of the Notice to Proceed. (Attachment 1 – *Data Call Request*)

8.0 CONTRACT ADMINISTRATION DATA:

8.1 Contracting Officer

Contracting Officer (CO), the term used herein, does not include any representative not acting within the scope of his/her authority. Notwithstanding any of the provisions of this contract, the CO shall be the only individual authorized to redirect the effort or in any way amend or modify the terms of this contract. Final inspection and acceptance of all work called for under this contract shall be performed by the Contracting Officer and his/her duly authorized representative. The authorizing CO shall reside within — **name, organization, address, and telephone number**.

The Contracting Officer's Representative for this project is — **name, organization, address, and telephone number**.

8.2 Government Project Manager

The government Project Manager shall be — **name, organization, address, and telephone number**. All correspondence regarding this contract including invoices, submittals should be directed to — **name, organization, address, and telephone number**.

8.3 Installation Representative

The Installation Representative shall be — **name, organization, address, and telephone number**.

Attachment 1

Attachment 1 contains the Government Data Call Request.

Attachment 2

Special Instructions and Assumptions

This appendix describes any special consideration and assumptions that the Contract must consider in the preparation of the HRMA. These considerations and assumptions would have a significant impact on the level of effort required by the Contractor for completion of the HRMA. Such considerations may include a description of the assumptions or data that the Contractor is to validate or to assess when performing an update or validation of a previous HRMA.

APPENDIX D. SAMPLE HRMA ON-BOARD REVIEW BRIEFING

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Headquarters U.S. Air Force

Integrity - Service - Excellence

Housing Requirements and Market Analysis



Anywhere AFB
HRMA Results

Presenters

Date

U.S. AIR FORCE



U.S. AIR FORCE

Purpose

- Review Housing Requirements and Market Analysis (HRMA) Methodology
- Discuss *Anywhere* AFB HRMA Results
- Request CC Approval on HRMA Results
- Review Key Milestones

Date

Anywhere AFB HRMA Results

Page



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HRMA Overview

Assesses private sector's ability to house military by grade and bedroom requirements:

- Complies with OSD policy to rely first on private sector
- Identifies affordable and suitable housing within a defined housing market area
- Assumes military members obtain proportional share of available, affordable and suitable private sector housing

Date

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HRMA Methodology Major Steps

Identify Military Housing Requirement

- Identify current and projected manpower
- Determine minimum **Floor Housing Requirement**
 - 10% each pay grade
 - Key and Essential
 - Historic Housing
 - Targeted Economic Relief

Characterize Local Market Conditions

- Identify market area defined by Air Force commute standard
- Identify current & projected rental inventory
- Identify unsuitable housing based on condition, location, safety

Analyze Housing Demand and Supply

- Forecast number of military families the community can absorb over 5 years
 - Based on share of units coming available each year
- Identify any market housing **shortfall**
- Compute **requirement** (floor + shortfall)

Date

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HRMA Methodology

- **Determine Current Conditions**
 - Current or occupied housing
 - Military homeowners
 - Military members housed in suitable/unsuitable private sector housing

- **Determine Suitable Housing**
 - Safety/Quality
 - Location
 - Physical Condition
 - Mobile Homes
 - Cost

Optional Slide – use to supplement slide "Major Steps" as appropriate

Date

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HRMA Methodology

- **Establish a minimum number of military housing**
 - For military families, Floor Requirement based on the greatest of:
 - Military community (10% of each grade)
 - Key and essential personnel
 - Historic housing
 - Military family renters whose total compensation is less than 50% of local median income
 - For unaccompanied personnel, minimum requirement based on AF policy
- **Determine private sector housing requirement**

Optional Slide – use to supplement slide "Major Steps" as appropriate

Date

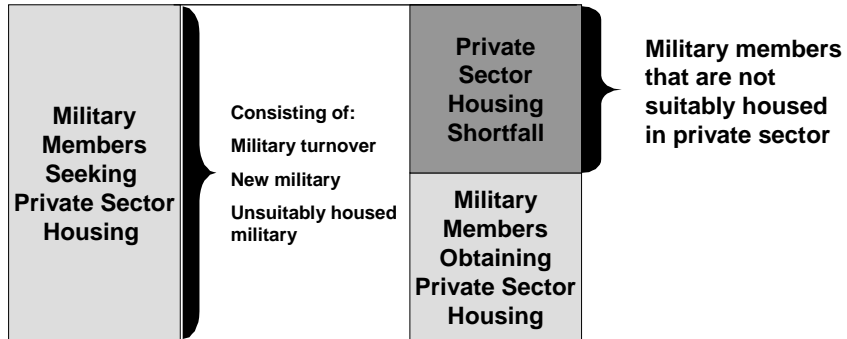
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HRMA Methodology



This process occurs in each year of the analysis

Optional Slide – use to supplement slide "Major Steps" as appropriate

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HRMA Methodology

- The number of military members allocated suitable private sector rental housing each year is based on:
 - Turnover rates – military and civilian
 - Civilian competition

- Total Military Housing Requirement is the sum of:
 - Minimum Housing Requirement
 - Number of military members who are not suitably housed in the private sector in the final year

Optional Slide – use to supplement slide "Major Steps" as appropriate

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Housing Market Analysis Results

- Housing Market Area
- Housing Market and Trends
- Military Housing Requirements
- Comparison to Previous HRMA

Date

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Housing Market Area

Insert map of Housing Market Area

Date

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Housing Market and Trends

Discuss relevant housing market issues here

- ***Rental supply***
 - ***Total housing units***
 - ***Non-competitive units***
 - ***Ineligible units***
 - ***Unsuitable units***
- ***Growth in rental supply***
 - ***Construction trends***
 - ***Issues concerning growth***
- ***Vacancies***
- ***Turnover rates***

Date

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Military Housing Requirements

| | Initial Year 201Y | Final Year 20FY |
|---|----------------------|--------------------|
| Total Authorizations | 2,120 | 1,977 |
| Accompanied Personnel | 1,446 | 1,338 |
| Military Couples | 90 | 83 |
| Voluntary Separations | 44 | 38 |
| Military Families | 1,312 | 1,217 |
| Occupied Military Housing/ Minimum (Floor) Housing Requirement | 508 | 125 |
| Military Families Requiring Private Sector Housing | 804 | 1,092 |
| Unaccompanied Personnel | 674 | 639 |
| Occupied Military Housing/ Minimum Housing Requirement | 220 | 219 |
| Unaccompanied Personnel Requiring Private Sector Housing | 454 | 420 |

Date

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Military Housing Requirements

| | Military Families | | Unaccompanied Personnel | |
|---|-------------------|------------|-------------------------|------------|
| | Initial Year | Final Year | Initial Year | Final Year |
| | 201Y | 20FY | 201Y | 20FY |
| Military Members Requiring Private Sector Housing | | | | |
| Homeowners | 804 | 1,092 | 454 | 420 |
| Renters | 574 | 502 | 115 | 103 |
| Private Sector Suitable Market Share | 230 | 590 | 339 | 317 |
| Private Sector Housing Shortfall | - | 19 | - | 25 |
| Private Sector Housing Shortfall | - | 19 | - | 25 |
| Occupied Military Housing/ Minimum Housing Requirement | 508 | 125 | 220 | 219 |
| Total Military Housing Requirement | 508 | 144 | 220 | 244 |
| Military Housing Supply | 1,102 | 1,102 | 225 | 225 |
| Deficit/(Surplus) | (594) | (958) | (5) | 19 |

Date

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Total Military Family Housing Requirement

| Pay Grade | Military Families | Military Community Housing Requirement | Key and Essential Housing Requirement | Historic Housing Requirement | Targeted Economic Relief Housing Requirement | Floor Housing Requirement | Private Sector Shortfall | Total Military Family Housing Requirement |
|-----------------|-------------------|--|---------------------------------------|------------------------------|--|---------------------------|--------------------------|---|
| O7 & Above | 1 | - | 1 | - | - | 1 | - | 1 |
| O6 | 17 | 2 | 6 | - | - | 6 | - | 6 |
| O5 | 53 | 5 | 3 | - | - | 5 | - | 5 |
| O4 | 84 | 8 | - | - | - | 8 | - | 8 |
| O3 | 144 | 14 | - | - | - | 14 | 1 | 15 |
| O2 | 19 | 2 | - | - | - | 2 | - | 2 |
| O1 | 14 | 1 | - | - | - | 1 | - | 1 |
| Officers | 332 | 32 | 10 | - | - | 37 | 1 | 38 |
| E9 | 12 | 1 | - | - | - | 1 | - | 1 |
| E8 | 42 | 4 | - | - | - | 4 | - | 4 |
| E7 | 181 | 18 | - | - | - | 18 | 2 | 20 |
| E6 | 233 | 23 | - | - | - | 23 | 5 | 28 |
| E5 | 266 | 27 | - | - | - | 27 | 5 | 32 |
| E4 | 112 | 11 | - | - | - | 11 | 5 | 16 |
| E3 | 30 | 3 | - | - | - | 3 | 1 | 4 |
| E2 | 7 | 1 | - | - | - | 1 | - | 1 |
| E1 | 2 | - | - | - | - | - | - | - |
| Enlisted | 885 | 88 | - | - | - | 88 | 18 | 106 |
| Total | 1,217 | 120 | 10 | - | - | 125 | 19 | 144 |

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Total Unaccompanied Housing Requirement

| Pay Grade | Unaccompanied Personnel | Minimum Housing Requirement | Private Sector Shortfall | Total Unaccompanied Housing Requirement |
|-----------------|-------------------------|-----------------------------|--------------------------|---|
| O7 & Above | - | - | - | - |
| O6 | 1 | - | - | - |
| O5 | 7 | - | - | - |
| O4 | 19 | - | - | - |
| O3 | 69 | - | 1 | 1 |
| O2 | 7 | - | - | - |
| O1 | 10 | - | - | - |
| Officers | 113 | - | 1 | 1 |
| E9 | 6 | - | - | - |
| E8 | 6 | - | - | - |
| E7 | 27 | - | - | - |
| E6 | 38 | - | 3 | 3 |
| E5 | 100 | - | 5 | 5 |
| E4 | 173 | 43 | 16 | 59 |
| E3 | 130 | 130 | - | 130 |
| E2 | 36 | 36 | - | 36 |
| E1 | 10 | 10 | - | 10 |
| Enlisted | 526 | 219 | 24 | 243 |
| Total | 639 | 219 | 25 | 244 |

Date

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Changes and Impact Since Last HRMA

- **Policy Changes**
 - Short description, impact to HRMA #1
 - Short description, impact to HRMA #2 ...
- **Methodology Changes**
 - Short description, impact to HRMA #1
 - Short description, impact to HRMA #2 ...
- **Changes in Market Conditions**
 - Short description, impact to HRMA #1
 - Short description, impact to HRMA #2 ...

Date


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Key Milestones

| ACTIVITY | DATE |
|---|------------------|
| <input checked="" type="checkbox"/> ■ Installation visit (HRMA) | 12-16 January 0X |
| <input checked="" type="checkbox"/> ■ HRMA Preliminary Results Submission | 10 March 0X |
| <input checked="" type="checkbox"/> ■ HRMA Draft Submission | 01 April 0X |
|  ■ CC Approval of HRMA Results | 30 April 0X |
| ■ HRMA Final Submission | 28 May 0X |

Date

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Housing Requirements and Market Analysis



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APPENDIX E. HRMA SAMPLE REPORT

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HOUSING REQUIREMENTS AND MARKET ANALYSIS

<201Y – 20FY>

<ANYWHERE AIR FORCE BASE>

<STATE>

<MONTH YEAR>

HOUSING REQUIREMENTS AND MARKET ANALYSIS

<201Y – 20FY>

PREPARED FOR:

*<ANYWHERE AIR FORCE BASE, STATE>
MAJCOM
U.S. AIR FORCE
<AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE>*

PREPARED BY:

<CONTRACTOR>

PUBLISHED *<MONTH DAY, YEAR>*

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ACRONYMS AND ABBREVIATIONS

AAFES – Army and Air Force Exchange Services
AFB – Air Force Base
AF/ILEH – Air Force Housing Division
AHS – American Housing Survey
BAH – Basic Allowance for Housing
BAS – Basic Allowance for Subsistence
BCE – Base Civil Engineer
BRAC – Base Realignment and Closure
COLA – Cost of Living Adjustment
CONUS – Continental United States
DECA – Defense Commissary Agency
DoD – U.S. Department of Defense
DoDDS - U.S. Department of Defense Dependents Schools
FMR – Fair Market Rent
FY – Fiscal Year
GAO – General Accounting Office
GPS – Global Positioning System
HQ – Headquarters
HRMA – Housing Requirements and Market Analysis
HUD – U.S. Department of Housing and Urban Development
K&E – Key and Essential
LQA – Living Quarters Allowance
MAJCOM – Major Command
MAHC – Maximum Allowable Housing Cost
MFH – Military Family Housing
MHA – Military Housing Area
MSA – Metropolitan Statistical Area
NAF – Non-Appropriated Fund
OCONUS – Outside continental U.S.
OHA – Overseas Housing Allowance
OOP – Out-Of-Pocket
OSD – Office of the Secretary of Defense
PCS – Permanent Change of Station
RMC – Regular Military Compensation
SOW – Statement of Work
UEPH – Unaccompanied Enlisted Personnel Housing
U.S. – United States
VHAS – Variable Housing Allowance Survey
XP – Personnel Directorate

<Published Date>

Housing Requirements and Market Analysis
<Anywhere Air Force Base, 201Y – 20FY>

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GLOSSARY OF TERMS

Accompanied Personnel – Military members who are eligible to receive with-dependent housing allowances.

Actual Vacancy Rate – The number of rental units available for occupancy divided by the total rental housing supply.

Authorized Civilian Households – Civilian households which are authorized military housing at an installation.

Basic Allowance for Housing (BAH) – The housing allowance paid to eligible members at an installation.

Basic Allowance for Subsistence (BAS) – The subsistence allowance paid to eligible military members at an installation.

Competitive Housing – Rental housing for which military personnel compete against civilian personnel for occupancy.

Cost of Living Allowance (COLA) – An allowance paid to eligible members (assigned to high cost areas) that provides compensation for variations in non-housing costs.

Floor Housing Requirement – The minimum military family housing assets required for an installation by policy determination. Also defined as the Minimum Military Family Housing Requirement.

Force Protection – Installation policy requiring all military personnel to reside in military housing for security purposes.

Historic Housing – U.S. Government owned housing units listed on or eligible for the National Register of Historic Places under the National Historic Preservation Act.

Housing Market Area – The geographic area defined by the Air Force for the purposes of determining the Total Military Family Housing Requirement.

Ineligible Housing – Rental housing units which military personnel have no opportunity to occupy due to restrictive requirements on the rental units.

Key and Essential Housing Requirement (K&E) – Housing for all Key and Essential military and civilian personnel required to live in military housing.

Market Segment – A portion of the rental housing market determined by bedrooms and monthly rental costs.

Maximum Allowable Housing Cost (MAHC) – The highest rental cost by Air Force policy that determines the affordability of private sector rental housing for military personnel. For HRMA purposes, Out-of-Pocket Expenses (OOP) are included for CONUS installations (including Alaska and Hawaii), but not included for OCONUS installations.

Military Community Housing Requirement – A criterion of the Floor Housing Requirement whereby ten percent of the military family housing requirement by pay grade is determined to represent a viable military community.

Military Families – Those accompanied personnel, less military couples and voluntarily separated personnel, eligible for housing at an installation.

Military Family Housing (MFH) Supply – All housing controlled by the U.S. Government for use by military family members at an installation including military owned housing, housing under lease to the Air Force, housing provided by the host country and privatized housing.

Military Housing – Housing units and unaccompanied dormitory units available for use by military members.

Military Housing Area – The defined geographic area that defines the Basic Allowance for Housing for the installation.

Military Households Requiring Housing – Military personnel including accompanied and unaccompanied personnel that an installation has responsibility to house, either in military housing or in private sector housing.

Military Market Share – The number of rental housing units that military households requiring rental housing are expected to be able to rent.

Minimum Military Family Housing Requirement - The minimum military family housing supply required for an installation by policy determination. Also defined as the Floor Housing Requirement.

Minimum Unaccompanied Housing Requirement – The number of military housing units, usually dormitory units, the U.S. Government must provide to house unaccompanied personnel.

Natural Vacancy Rate – The number of rental units available for occupancy divided by the total rental housing supply that accommodates regular turnovers and maintains stable rental prices.

Non-Competitive Housing – Rental housing units for which military personnel do not face any competition from civilian personnel for occupancy. Privatized housing and Overseas Specified Housing typically constitute these units.

Out-Of-Pocket (OOP) Expenses – The expense that the military member would pay in addition to their housing allowance to equal the national median housing cost for any particular pay grade. The amount is the same for every installation.

Overseas Specified Housing – Private sector rental housing units serving overseas military installations that market specifically to U.S. personnel. These rental units typically contain amenities and equipment making the unit adequate for rental by U.S. personnel.

Private Sector Housing – Housing in the local community that is not owned or leased by the U.S. Government.

Private Sector Shortfall – The difference between those military members requiring private sector rental housing and the military market share.

Privatized Housing – Housing units constructed and maintained by the private sector for primary occupancy by military personnel.

Regular Military Compensation (RMC) – The sum of annual standard base pay, housing and subsistence allowances, Cost of Living Allowance (where applicable) and a tax adjustment (to reflect the exemption from Federal Income Tax of the housing and subsistence allowances).

Service – A military branch of the armed forces of the United States of America.

Student Requirement – Military students required to reside in military housing.

Study Period – The number of years an HRMA study covers, from the initial year to the final year of the transition period.

Targeted Economic Relief Requirement – Housing for members whose Regular Military Compensation (RMC) is less than 50 percent of the median family income in the market area for the installation.

Total Military Family Housing Requirement – The number of family housing units that the U.S. Government must provide in addition to housing available in the private sector to adequately house military families at an installation. The requirement is determined as the sum of the Floor Housing Requirement plus any shortfall of housing in the private sector on a pay grade basis.

Total Military Housing Requirement – The sum of the minimum housing requirement and the number of military households unsuitably housed in the private sector for the accompaniment status.

Total Unaccompanied Personnel Housing Requirement – The number of unaccompanied housing units that the U.S. Government must provide in addition to housing available in the private sector to house adequately unaccompanied personnel at an installation. The requirement is determined as the sum of the Minimum Unaccompanied Housing Requirement plus any shortfall of housing in the private sector on a pay grade basis.

Transition Period – The number of years established for transitioning from the current number of military housing units to the minimum military housing requirement.

Unaccompanied Housing Policy – Air Force policy directing an installation to provide military housing for all unaccompanied personnel in grade E-3 and below and for E-4 unaccompanied personnel with less than three years of service. The balance of unaccompanied personnel seeks housing in the private sector. This policy is often referred to as the “Corona Policy.”

Unaccompanied Personnel – Military personnel who are eligible to receive without-dependents housing allowances.

Voluntary Separations – Military members who are voluntarily separated geographically from family members. Also known as Voluntary Family Separations.

EXECUTIVE SUMMARY

This Housing Requirements and Market Analysis (HRMA) determines the Total Military Family Housing Requirement for personnel at <Anywhere Air Force Base (AFB), State>. The HRMA assesses the private sector housing market's potential to house military families as the installation transitions from its current supply of military housing assets to the minimum number authorized under Office of Secretary of Defense (OSD) policies.

The analysis is based on OSD's Dynamic Adjustment Model which analyzes the housing market under the assumption military families will transition from military housing to private sector housing over a five-year period. By the final year of the transition period, all military families require private sector housing except those in the installation's Floor Housing Requirement. An assessment of housing supply and demand (both civilian and military) is made for each year of the transition period.

Each year of the transition period, a market share of the available rental housing (i.e., units either turning over or new to the market) is allocated to military families and unaccompanied personnel based on only those military and civilian households actively seeking rental housing during the year. The Total Military Family Housing Requirement is the sum of the Floor Housing Requirement and any shortfall of private sector housing in the final year of the analysis.

HRMA RESULTS

At the end of the five-year transition period between <20IY> and <20FY>, the Total Military Family Housing Requirement for <Anywhere AFB> for <20FY> is 152 units (Table ES-1).

[Enter a brief comparison to the previous HRMA study. For example:

The <20FY> results differ from the HRMA conducted in <20ZZ>, which estimated a total housing requirement of 130 units. The number of military families has increased by families to total 1,068 families. The rental supply has remained fairly constant with neither significant inventory additions nor significant cost increases.]

Table ES-1. Total Military Family Housing Requirements

| Component | Previous <20ZZ> HRMA | HRMA <20FY> |
|---|-------------------------|----------------|
| Total Military Family Housing Requirement | 130 | 152 |
| Floor Housing Requirement | 105 | 113 |
| Private Sector Shortfall | 25 | 39 |

The utilization/disposition of any housing in excess of the requirement is not addressed in the HRMA but is addressed as part of the Housing Community Profile process.

The <Anywhere AFB> HRMA is summarized as follows:

[Provide a brief discussion of the significant factors that impacted the results. For example:

- ◆ The rental market is growing slowly with a net total of 4,565 new units expected to come on-line over the next five years equating to an annual growth rate of approximately 2 percent.
- ◆ The rental market has tightened over the last several years. Rental vacancy rates declined to 4 percent from nearly 5 percent from the previous year. Rental rates rose about 2 percent as a result of the increasing demand. No significant changes are anticipated in the rental market over the next several years.
- ◆ By the final year of the transition period, authorized manpower will be 1,715 personnel including 1,068 military families and 550 unaccompanied personnel. There will be 955 military families and 385 unaccompanied personnel requiring private sector housing (Table ES-2) as only the Floor Housing Requirement of military housing is available.
- ◆ The dynamic model incorporates the annual military and civilian turnover and changes to the rental market. In the final year, the analysis allocated suitable rental housing to 816 of the 955 military families (homeowners and renters) resulting in a Private Sector Shortfall of 39 units.]

Table ES-2. Summary of Military Housing Requirements, <201Y & 20FY>

| Component | Previous HRMA | Current HRMA | |
|---|---------------|--------------|--------|
| | <20ZZ> | <201Y> | <20FY> |
| Authorized Permanent Party | 1,500 | 1,715 | 1,715 |
| Accompanied Personnel | 1,050 | 1,165 | 1,165 |
| Military Couples and Voluntary Separations | 80 | 97 | 97 |
| Military Families | 970 | 1,068 | 1,068 |
| Total Military Family Housing Requirement | 130 | 134 | 152 |
| Floor Housing Requirement | 105 | 113 | 113 |
| Private Sector Shortfall | 25 | 21 | 39 |
| In Private Sector Housing | | 524 | 955 |
| Homeowners | 290 | 391 | 391 |
| Renters | 565 | 133 | 564 |
| Unaccompanied Personnel | | | |
| Total Unaccompanied Personnel Housing Requirement | 450 | 550 | 550 |
| In Government Quarters | | | |
| (E4 three years of service and below) | 150 | 165 | 165 |
| Private Sector Shortfall | 10 | 53 | 15 |
| In Private Sector Housing | 300 | 385 | 385 |
| E4 over three years of service | 80 | 114 | 114 |
| E5 and Above | 220 | 271 | 271 |
| Homeowners | 70 | 84 | 84 |
| Renters | 230 | 301 | 301 |

The Floor Housing Requirement is determined as the greatest of the following criteria for each pay grade:

- ◆ **Military Community** – Housing for ten percent of the military family housing requirement by grade.
- ◆ **Key and Essential** – Housing for all key and essential military and civilian personnel.
- ◆ **Historic Housing** – U.S. Government owned housing units listed on or eligible for the National Register of Historic Places under the National Historic Preservation Act.
- ◆ **Targeted Economic Relief** – Housing for members whose Regular Military Compensation (RMC) is less than 50 percent of the local median family income.

The <Anywhere AFB> Total Military Family Housing Requirement is the sum of the Floor Housing Requirement, and the Private Sector Shortfall on a pay grade basis (Table ES-3).

**Table ES-3. <Anywhere AFB> Total Military Family
Housing Requirement, <20FY>**

| Pay Grade | Military Families | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Housing Requirement | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------|--------------------|-----------------|------------------|--------------------------|---------------------------|--------------------------|------------------------------------|
| O7+ | 1 | - | 1 | 2 | - | 2 | - | 2 |
| O6 | 13 | 1 | 5 | - | - | 5 | 1 | 6 |
| O5 | 49 | 5 | 2 | - | - | 5 | 1 | 6 |
| O4 | 78 | 8 | - | - | - | 8 | 5 | 13 |
| O3 | 162 | 16 | - | - | - | 16 | 5 | 21 |
| O2 | 18 | 2 | - | - | - | 2 | - | 2 |
| O1 | 13 | 1 | - | - | - | 1 | - | 1 |
| Officers | 334 | 33 | 8 | 2 | - | 39 | 12 | 51 |
| E9 | 10 | 1 | - | - | - | 1 | - | 1 |
| E8 | 27 | 3 | - | - | - | 3 | 1 | 4 |
| E7 | 151 | 15 | - | - | - | 15 | 8 | 23 |
| E6 | 178 | 18 | - | - | - | 18 | 6 | 24 |
| E5 | 232 | 23 | - | - | - | 23 | 7 | 30 |
| E4 | 105 | 11 | - | - | - | 11 | 4 | 15 |
| E3 | 25 | 3 | - | - | - | 3 | 1 | 4 |
| E2 | 4 | - | - | - | - | - | - | - |
| E1 | 2 | - | - | - | - | - | - | - |
| Enlisted | 734 | 74 | - | - | - | 74 | 27 | 101 |
| Total | 1,068 | 107 | 8 | 2 | - | 113 | 39 | 152 |

**Table ES-4. <Anywhere AFB> Total Unaccompanied Personnel
Housing Requirement, <20FY>**

| Pay Grade | Unaccompanied Personnel | Minimum Housing Requirement | Require Private Sector Housing | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------------|-----------------------------|--------------------------------|--------------------------|------------------------------------|
| O7+ | - | - | - | - | - |
| O6 | 3 | - | 3 | - | - |
| O5 | 8 | - | 8 | - | - |
| O4 | 21 | - | 21 | 2 | 2 |
| O3 | 82 | - | 82 | 2 | 2 |
| O2 | 5 | - | 5 | - | - |
| O1 | 12 | - | 12 | - | - |
| Officers | 131 | - | 131 | 4 | 4 |
| E9 | 2 | - | 2 | - | - |
| E8 | 6 | - | 6 | - | - |
| E7 | 22 | - | 22 | 1 | 1 |
| E6 | 28 | - | 28 | 1 | 1 |
| E5 | 82 | - | 82 | 4 | 4 |
| E4 | 152 | 38 | 114 | 5 | 43 |
| E3 | 103 | 103 | - | - | 103 |
| E2 | 16 | 16 | - | - | 16 |
| E1 | 8 | 8 | - | - | 8 |
| Enlisted | 419 | 165 | 254 | 11 | 176 |
| Total | 550 | 165 | 385 | 15 | 180 |

<Published Date>

Housing Requirements and Market Analysis
<Anywhere Air Force Base, 201Y – 20FY>

ES-4

ANALYST ASSESSMENT

[This section is used to describe any issues and concerns about the analysis. It may address data quality, deviations from baseline model, or assumptions that are of concern. Results of any sensitivity analysis may be presented here as well.]

**HOUSING
REQUIREMENTS
AND MARKET
ANALYSIS**
<201Y - 20FY>

<ANYWHERE AIR FORCE BASE>
<STATE>

<MONTH YEAR>

1.0 INTRODUCTION

The Housing Requirements and Market Analysis (HRMA) is a detailed study to determine the military housing the U.S. Government must provide to ensure that all military households (both families and unaccompanied) that *<Anywhere Air Force Base (AFB), State>*, has the responsibility to house have access to acceptable housing.

This report and the analysis on which the results are based follow Air Force guidance implementing the HRMA process as advocated by the Office of the Secretary of Defense (OSD) to assure a consistent determination of housing requirements across military services in support of the planning and programming processes. The HRMA methodology incorporates OSD's Dynamic Adjustment model.

This section describes the following:

- ◆ Methodology
- ◆ Policy and Assumptions
- ◆ Report Organization

1.1 METHODOLOGY

The HRMA follows the OSD guidance that the military services must rely first on the private sector to meet its housing needs prior to considering military housing. The HRMA determines if there is sufficient affordable, suitable private sector housing to meet the needs of military households, both families and unaccompanied, as the military households are assumed to transition from current military housing to a minimum level of the military housing over a five-year transition period, increasing the reliance on the private sector for meeting housing needs.

Air Force policy establishes a minimum housing requirement for both military families and unaccompanied personnel. The minimum housing requirement for unaccompanied personnel is set by Air Force policy which specifies the personnel required to reside in government quarters. The minimum housing requirement (Floor Housing Requirement) for military families is based on four criteria evaluated for the final year of the analysis *<20FY>*:

- ◆ The need for a military community,
- ◆ Housing for personnel in Key and Essential positions,
- ◆ Preservation of historic housing, and
- ◆ Housing for the personnel whose level of Regular Military Compensation (RMC) is below 50 percent of the median family income in the local area.

Private sector rental housing is assessed separately from owner-occupied housing. Military members who own their home are considered suitably housed. The homeowner market is otherwise not addressed if it is viable and responsive. The rental market is assessed through the dynamic model which simulates an adjustment process between market area rental housing demand and supply over the five-year

transition period. Changes in military manpower, competing civilian demand and rental housing supply are incorporated into the analysis. Available suitable rental housing is allocated amongst military families, unaccompanied personnel and civilians who actively require housing during each year of the transition period.

In assessing the rental market, the analysis distinguishes between the total rental housing and rental housing estimated to be available and acceptable for military personnel in the housing market area. The analysis divides the housing market into segments by cost (rent, utility costs and renter's insurance) and number of bedroom categories. The suitable housing allocated to the military is determined for each segment as the proportion of available, affordable, adequate-quality housing in that segment equal to the proportion of the military requirement to the total competing housing demand within the segment.

The military market share of suitable rental housing for each accompaniment status is their allocated suitable rentals plus the suitable rental units retained by military households not actively housing seek during the year. Each year of the analysis, the market share for military families and unaccompanied households is compared to their respective private sector rental housing requirement to determine if there is sufficient private sector housing. The Total Military Housing Requirement is the sum of the Minimum Housing Requirement and any shortfall in private sector rental housing for that accompaniment status.

The dynamic process applies to the rental market and those military households that require rental housing. The dynamic process applies these major assumptions:

- ◆ The installation's military housing supply is hypothetically adjusted to the minimum military housing supply over a five-year period. This transition period reflects OSD's guidance to rely on the private sector first by adjusting the military housing to its minimum allowed under OSD policy. If the current military family housing supply differs from the Floor Housing Requirement, the number of military families occupying military housing changes each year until by the final year of the transition, only the housing needed to meet the Floor Housing Requirement is occupied. Government quarters for unaccompanied personnel required to be on base are also adjusted to its minimum requirement for the final year.
- ◆ Civilians and military members requiring private sector rental housing compete each year only for rental housing units that become available for rent during the year. Rental housing becomes available when current occupants terminate their occupancy for whatever purpose or net increases to the rental market through new construction or conversions from owner-occupancy.

Estimated changes, if any, in the rental housing supply are based on the potential rental market response to any assumed increased in demand – from civilian population growth, from military families moving from military housing to the private sector, or any increases in military personnel authorizations.

- ◆ Competing for available rental housing each year are those households, both military and civilian, who actively seek rental housing during the year. These include households occupying suitable housing that choose to find different rental housing within the market area or relocate to a different market area; all military households currently occupying unsuitable housing; and, new households entering the housing market. New households include military households newly authorized to the installation, military families who are part of the hypothetical transition from military housing to the private sector, and civilian households new to the housing market. Military households not competing retain their suitable housing units during the year.
- ◆ For each accompaniment status, the available suitable rental housing is allocated to military seeking rental housing. The military market share of the suitable housing is the sum of the allocated housing plus the suitable housing retained by military households not seeking housing. The difference between the military share of the private sector housing and the military rental requirement in that market segment determines if there is sufficient private sector housing to meet the military needs in that market segment. A Private Sector Shortfall exists, if in aggregate over all market segments, there is insufficient available, affordable private sector housing of acceptable quality.

Determining the Total Military Housing Requirement is the final step of the HRMA methodology. The Total Military Housing Requirement is based on the Private Sector Shortfall in the final year of the transition period. For military families, the Total Military Family Housing Requirement is the sum of the Floor Housing Requirement, and the Private Sector Shortfall, if any, for the final year. For unaccompanied personnel, the Total Unaccompanied Personnel Housing Requirement is the sum of the minimum unaccompanied housing requirement plus the Private Sector Shortfall in the final year.

Figure 1-1. Housing Requirements and Market Analysis Process Summary

- ◆ Determine the housing market area based on the greater of a 60-minute commute or 20 miles from the installation's headquarters building or major work centers.
- ◆ Establish the military family housing and unaccompanied personnel requirement for each year of the transition period.
- ◆ Determine the Floor Housing Requirement:
 - ◆ Military Community
 - ◆ Key and Essential
 - ◆ Historic Housing
 - ◆ Targeted Economic Relief
- ◆ Determine the unaccompanied minimum housing requirement.
- ◆ Determine the potential private sector requirement for each year of the analysis such that only the Floor Housing Requirement and minimum unaccompanied housing requirement remains occupied by the final year.
- ◆ Determine military and civilian demand actively seeking available suitable rental housing.
- ◆ Determine available rental supply.
- ◆ Compute military market share for each military segment:

Military Market Share =

$$\frac{\text{Competing Military Demand}}{\text{Total Competing Demand}} \times \frac{\text{Available Suitable Supply}}{\text{Supply}}$$

+ Suitable Housing Occupied by Military Not Seeking Other Housing
- ◆ Compare military market share to competing military requirement to determine a Private Sector Shortfall, if any, for each accompanied status in the final year.
- ◆ Establish the Total Military Housing Requirement as the sum of the minimum housing requirement and any Private Sector Shortfall for each accompaniment status.

1.2 POLICY AND ASSUMPTIONS

The following critical policies and assumptions are used in this HRMA:

Methodology

This HRMA is based on a methodology that determines military market share, in part, based on suitable housing available for rent and households seeking rental housing each year during a five-year period.

Based on a competitive model, military households are allocated a proportional share of available, suitable rental housing.

Housing Supply

Only housing within the Housing Market Area is considered in the analysis. The housing market area is based on: [Enter the greater of a 60-minute commute or 20 miles from the installation's headquarters building or major work centers or describe other basis for determination of the boundary.]

[Enter discussion concerning basis of rental housing growth over the transition period. Discuss changes in rental supply over the transition period. Discuss recent changes in vacancies of rental units. Describe basis for market response if that mechanism is used in the analysis.]

The number of housing units and the distribution of housing by number of bedrooms and rent categories are based on the [Enter primary source(s) of data.]

[For CONUS locations: Rental housing includes only units on less than ten acres of land for which cash rent is paid and excludes seasonal rental housing.]

[Enter discussion of the availability of owner-occupied housing, as appropriate, if there any constraints that may limit its availability in the future.]

Housing Suitability

Suitability estimates are based on: [Enter source or basis for the estimates of the number of suitable rental housing units. Describe source for areas deemed to be unsuitable. Describe basis for unsuitable housing in areas that are not in general unsuitable.]

Mobile homes are not considered suitable housing for military personnel [Enter alternative if policy changes.]

All homeowner occupied housing, with the exception of mobile homes, is considered suitable housing for military personnel [Enter alternative if policy changes.]

Housing Demand

[Enter a description of the basis for changes in civilian rental housing demand. Describe whether the changes are based on population and economic projections for the region, census information, residential construction permit data, or other factors.]

Changes in military family housing requirements are based on current and manpower authorizations projected for the final year. [Enter, if available, a discussion of the changes such as a specific mission is arriving or departing from the installation and the units that comprise such changes.]

[Enter a description of how the military demand for private sector housing each year is determined. For example: The methodology assumes that by the final year, military families will occupy only military housing that meets the minimum housing requirement. Each year an additional one-fifth of military families currently occupying military housing in excess of the Floor Housing Requirement will seek private sector housing. In addition, the new mission is expected to arrive the third year of the transition period. Or, 125 military housing units are expected to reach the end of their useful life in year three of the transition period requiring the occupants to seek rental housing.]

Military households competing for housing each year consists of military families and unaccompanied personnel assumed to be residing in suitable rental housing at the start of the year that will turn over its occupancy during the year, all of the military families and unaccompanied personnel residing in unsuitable rental housing at the start of the year plus any net change in total manpower authorized to the installation who require rental housing.

Civilian households competing for rental housing in each year consists of the proportion of civilian households assumed to be residing in rental housing at the start of the year that will turn over during the year plus any net change in civilian demand from civilian households entering or leaving the market area.

Rental Rates

In the dynamic model, rent, utility costs and renter's insurance are assumed to remain constant over the five-year transition period.

Military Housing Affordability

The Maximum Allowable Housing Cost (MAHC), the upper limit of affordability for housing for each pay grade, is the local median housing cost for that pay grade as determined by the Per Diem, Travel and Transportation Allowance Committee. [If Out-of-Pocket exists add a statement that OOP is included in the MAHC.] For the purposes of this analysis, MAHC for <201Y> is held constant through <20FY>.

Regular Military Compensation

Regular Military Compensation (RMC) is the sum of the current average base pay for each pay grade as determined by OUSD Directorate of Compensation, the installation specific BAH for the base, the Basic Allowance for Subsistence (BAS), COLA, if applicable, and a tax adjustment to compensation for the federal tax exempt status of the allowances. For this analysis, RMC is held constant through <20FY>.

Military Housing Supply

[Enter a description of the housing that constitutes the military family housing supply. This may include units that are government owned, units that are authorized and funded but may not yet be constructed, demolished and/or operational under the Fiscal Year <20IY> Military Family Housing Construction Program, housing that is leased by the government for use by the installation, housing furnished by a host government and housing available to the installation through privatization initiatives.]

[Enter the housing that constitutes the unaccompanied housing supply for the initial year.]

Military Housing Requirements

Military family housing requirements are the number of families that the installation has the responsibility to house. The number of Air Force families is derived from authorized manpower applying base-specific accompaniment rates, voluntary separations, and military married to military rates of currently assigned personnel using data obtained from the installation. [Enter a discussion of how the number of families is determined for tenants and members of other military services.]

Bedroom entitlements are based on each dependent child having a bedroom and a minimum bedroom entitlement based on military member's rank. The bedroom requirements are estimated from the family characteristics of Air Force personnel currently assigned to the installation.

Unaccompanied personnel in grade E4 (over three years of service) and above are assumed to require private sector housing under current Air Force policy. [Enter discussion as to whether unaccompanied personnel in grade E4 (under three years of service) and below are living in U.S. Government quarters or in one-bedroom units in the private sector if there is insufficient government housing.]

[Enter source of information used to estimate military family and unaccompanied personnel homeowners.] Military personnel currently residing in military housing are assumed to become renters if required to live in the private sector.

1.3 REPORT ORGANIZATION

This HRMA for <Anywhere AFB> is presented in the following chapters:

- ◆ Chapter 2. Housing Market Area
- ◆ Chapter 3. Housing Supply
- ◆ Chapter 4. Housing Requirements
- ◆ Chapter 5. Competing Demand
- ◆ Chapter 6. Rental Housing Shortfall
- ◆ Chapter 7. Total Housing Requirement
- ◆ Chapter 8. References

2.0 THE HOUSING MARKET AREA

This section describes the Housing Market Area boundary and discusses economic and demographic factors that currently influence the housing market and forecasted over the transition period.

2.1 MARKET AREA

The Housing Market Area for <Anywhere AFB> is defined by a one-hour commute time from the installation's headquarters building during peak traffic in privately owned vehicles assuming normal weather conditions or twenty miles distance from the installation's headquarters building, whichever is greater.

[Enter sources of information on which the market was determined. Source may include <Anywhere AFB> personnel, Housing Office data, timed drives from the base headquarters building utilizing GPS information, interviews with local real estate professionals as well as mapping software that estimated the area within the maximum commute time or the commute distance.]

[Enter a brief description of the location of the market area boundary displayed in Figure 2-__.]

2.2 REGIONAL ECONOMIC AND DEMOGRAPHIC FACTORS

This section describes various economic and demographic factors that affect the housing market.

[Sub-sections may include:

Regional Demographic Changes

Discussion of population and other demographic changes that will affect the housing market such as retirees entering the market, etc.

Regional Economic Changes

A discussion of employers, changes in employment, causes of labor market growth, new industries entering the region, expansion of market, changes in unemployment, impacts of personal income, and other factors that are relevant to changes in demand for housing.

Regional Housing Market

Topics may include:

Factors influencing housing growth, changes in building permits, demolitions and other indicators of growth, changes in housing sales prices and rental costs, changes in rental vacancies, and other factors influencing the regional housing market.]

3.0 HOUSING SUPPLY

The housing supply available to military households consists of both military housing and private sector housing. Private sector housing is categorized by its rental competitiveness from the perspective of the military household.

3.1 MILITARY HOUSING SUPPLY

The military housing supply consists of [Enter list of the types of military housing that is present and projected over the transition period. Identify those units that are authorized and funded and those that are in the planning stages] (Table 3-1).

Table 3-1. Military Housing Supply by Year, <201Y & 20FY>

| Military Housing | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|-----------------------|------------|------------|------------|------------|------------|------------|
| Family Housing | | | | | | |
| Owned | 544 | 544 | 419 | 294 | 270 | 270 |
| Leased | - | - | - | - | - | - |
| Host Government | - | - | - | - | - | - |
| Privatized | - | - | 125 | 250 | 274 | 274 |
| Total | 544 | 544 | 544 | 544 | 544 | 544 |
| Unaccompanied | 165 | 165 | 165 | 165 | 165 | 165 |

[Discuss the occupancy levels of the military housing units by housing category (Table 3-2). If less than full occupancy, present the occupancy levels by housing category (Table 3-3).

If unaccompanied housing is insufficient to house all of the unaccompanied personnel required to be on base, identify the number of personnel not housed as required by rank and bedroom requirement.]

In the initial year of the transition period, 46 percent of the military housing supply is two-bedroom units, 38 percent have three bedrooms and 16 percent have four bedrooms (Table 3-4).

[Delete categories as appropriate. In the final year of the transition period, there are a total of 544 military family housing units constituted by 274 owned, no leased, no host government and 274 privatized units.]

Table 3-2. Military Housing Supply, <201Y>

| Military Housing | <201Y> | Percent Occupied |
|-------------------------|---------------------|-------------------------|
| Family Housing | | |
| Owned | 544 | 100% |
| Leased | - | - |
| Host Government | - | - |
| Privatized | - | - |
| Total | 544 | 100% |
| Unaccompanied | 165 | 100% |

Table 3-3. Occupied Military Family Housing Supply, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|------------------|---------------------------|--------------|--------------|--------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | 5 | 10 | 15 |
| O5 | - | 13 | 7 | 20 |
| O4 | - | 17 | 33 | 50 |
| O3 | 41 | 9 | 4 | 54 |
| O2 | 6 | 1 | - | 7 |
| O1 | 3 | - | 1 | 4 |
| Officers | 50 | 45 | 56 | 151 |
| E9 | - | 2 | 1 | 3 |
| E8 | - | 17 | - | 17 |
| E7 | - | 83 | 10 | 93 |
| E6 | 45 | 24 | 11 | 80 |
| E5 | 83 | 19 | 6 | 108 |
| E4 | 40 | 8 | - | 48 |
| E3 | 25 | 10 | 3 | 38 |
| E2 | 4 | - | - | 4 |
| E1 | 2 | - | - | 2 |
| Enlisted | 199 | 163 | 31 | 393 |
| Total | 249 | 208 | 87 | 544 |

Table 3-4. Military Family Housing Supply, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | 5 | 10 | 15 |
| O5 | - | 13 | 7 | 20 |
| O4 | - | 17 | 33 | 50 |
| O3 | 41 | 9 | 4 | 54 |
| O2 | 6 | 1 | - | 7 |
| O1 | 3 | - | 1 | 4 |
| Officers | 50 | 45 | 56 | 151 |
| E9 | - | 2 | 1 | 3 |
| E8 | - | 17 | - | 17 |
| E7 | - | 83 | 10 | 93 |
| E6 | 45 | 24 | 11 | 80 |
| E5 | 83 | 19 | 6 | 108 |
| E4 | 40 | 8 | - | 48 |
| E3 | 25 | 10 | 3 | 38 |
| E2 | 4 | - | - | 4 |
| E1 | 2 | - | - | 2 |
| Enlisted | 199 | 163 | 31 | 393 |
| Total | 249 | 208 | 87 | 544 |

3.2 PRIVATE SECTOR HOUSING

In <201Y>, there is an estimated 160,968 private sector housing units in the housing market area (Table 3-5). The current private sector housing inventory includes 117,139 homeowner units and 43,829 rental units.

[Enter a brief discussion of the expected changes in the market between the initial and final years of the transition period. For example: It is projected that housing construction will grow nominally over the next five years consistent with expected low population and employment growth. The total private housing inventory is expected to increase by 2 percent per year through <20FY> to a total of 191,183 units, including 142,518 homeowner units and 48,665 rental units.]

Table 3-5. Private Sector Housing in the Housing Market Area, <201Y & 20FY>

| Housing Ownership | <201Y> | <20FY> |
|-------------------|----------------|----------------|
| Homeowner Housing | 117,139 | 142,518 |
| Rental Housing | 43,829 | 48,665 |
| Total | 160,968 | 191,183 |

3.3 RENTAL HOUSING

In order to establish if there is sufficient affordable and suitable rental housing to meet military needs, the analysis quantifies rental housing by cost (monthly rent, selected utility costs and renter's insurance) categories, number of bedrooms in the unit and the suitability of the housing by Air Force standards.

Military households are not able to compete equally for all rental housing. Some rental units target a subset of the civilian rental demand and place restrictions on those who are eligible to rent. Income and age restrictions are the most common. Rental housing units are classified by their level of competition from the perspective of the military household.

The analysis considers vacant rental units in the market place. Vacancies play an important role in the housing market. Rental vacancies occur at times of tenant turnover and facilitate needed maintenance. Vacancies also serve as a signal to the landlords when rent increases are likely to be accepted, when rent reductions are needed, or when to consider the economic/financial feasibility of constructing additional rental units.

[Enter a discussion on the use of the natural vacancy rate to trigger a market response, if applied, in the analysis in the dynamic model.]

3.4 RENTAL HOUSING SUPPLY

[This section describes the rental supply. Enter a discussion of the total rental by competitive category for the initial and final year of the transition period. If specific data are available for the interim years, the rental supply information should be displayed about those years as well (Table 3-6). For example: The total <201Y> rental supply in the Housing Market Area is estimated at 43,829 units.]

Table 3-6. Total Rental Housing Supply by Competitive Categories, <201Y through 20FY>

| Competitive Category | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|----------------------|--------|--------|--------|--------|--------|--------|
| Total Rentals | 43,829 | 44,741 | 45,779 | 46,816 | 47,753 | 48,665 |
| Ineligible Housing | 1,615 | 1,615 | 1,615 | 1,615 | 1,615 | 1,615 |
| Low Income | 795 | 795 | 795 | 795 | 795 | 795 |
| Age Restricted | 820 | 820 | 820 | 820 | 820 | 820 |
| Non-Competitive | - | - | 125 | 250 | 274 | 274 |
| Competitive Rentals | 42,214 | 43,126 | 44,039 | 44,951 | 45,864 | 46,776 |

In determining the available rental housing supply, only units on less than ten acres of land for which cash rent is paid are included. [Enter the basis or source of the estimate of the total rental supply. For example: The estimate is based on the number of rental households as determined by the 2000 Census adjusted for subsequent changes based on building permits and demolitions.] The total rental housing is summarized into market segments by monthly rental rates (including utilities and renter's insurance) and number of bedrooms. Two bedroom and smaller units make up 75 percent of total rental housing. Three bedroom units make up 21 percent of rental housing and the remaining 4 percent have four or more bedrooms.

Table 3-7. Total Rental Housing Supply, <20/Y>

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 73 | 125 | 280 | 56 | 542 |
| \$1,400 - \$1,599 | 10 | 75 | 140 | 300 | 62 | 587 |
| \$1,200 - \$1,399 | 15 | 115 | 200 | 450 | 85 | 865 |
| \$1,100 - \$1,199 | 20 | 130 | 380 | 600 | 100 | 1,230 |
| \$1,000 - \$1,099 | 20 | 140 | 620 | 640 | 105 | 1,525 |
| \$900 - \$999 | 30 | 240 | 1,200 | 1,200 | 215 | 2,885 |
| \$800 - \$899 | 75 | 600 | 2,300 | 1,900 | 330 | 5,205 |
| \$700 - \$799 | 180 | 1,800 | 3,700 | 1,200 | 205 | 7,085 |
| \$600 - \$699 | 200 | 2,100 | 4,400 | 1,300 | 250 | 8,250 |
| \$500 - \$599 | 300 | 2,400 | 3,000 | 700 | 110 | 6,510 |
| \$400 - \$499 | 400 | 2,200 | 1,500 | 320 | 65 | 4,485 |
| Below - \$400 | 650 | 2,300 | 1,300 | 350 | 60 | 4,660 |
| Total | 1,908 | 12,173 | 18,865 | 9,240 | 1,643 | 43,829 |

3.4.1 INELIGIBLE HOUSING

[Enter a discussion of any ineligible house that may exist in the Housing Market Area. Describe the base for eligibility. Present tables displaying the ineligible housing by rental cost and bedroom categories. (Tables 3-8 to 3-9).]

Table 3-8. Income Restricted Rental Housing, <201Y>

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|------------|------------|-----------|----------|------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - | - | - |
| \$1,200 - \$1,399 | - | - | - | - | - | - |
| \$1,100 - \$1,199 | - | - | - | - | - | - |
| \$1,000 - \$1,099 | - | - | - | - | - | - |
| \$900 - \$999 | - | - | - | - | - | - |
| \$800 - \$899 | - | - | - | - | - | - |
| \$700 - \$799 | - | - | - | - | - | - |
| \$600 - \$699 | 20 | 45 | 30 | 20 | - | 115 |
| \$500 - \$599 | 30 | 75 | 40 | 10 | - | 155 |
| \$400 - \$499 | 20 | 175 | 80 | 20 | - | 295 |
| Below - \$400 | 25 | 150 | 40 | 15 | - | 230 |
| Total | 95 | 445 | 190 | 65 | - | 795 |

Table 3-9. Age Restricted Rental Housing, <201Y>

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|------------|------------|-----------|----------|------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - | - | - |
| \$1,200 - \$1,399 | - | - | - | - | - | - |
| \$1,100 - \$1,199 | - | - | - | - | - | - |
| \$1,000 - \$1,099 | - | - | - | - | - | - |
| \$900 - \$999 | - | - | - | - | - | - |
| \$800 - \$899 | - | - | - | - | - | - |
| \$700 - \$799 | - | - | - | - | - | - |
| \$600 - \$699 | 10 | 50 | 25 | 10 | - | 95 |
| \$500 - \$599 | 20 | 100 | 50 | 20 | - | 190 |
| \$400 - \$499 | 10 | 150 | 75 | 15 | - | 250 |
| Below - \$400 | 25 | 200 | 50 | 10 | - | 285 |
| Total | 65 | 500 | 200 | 55 | - | 820 |

3.4.2 NON-COMPETITIVE RENTAL HOUSING

[Discuss the non-competitive rental housing in the Housing Market Area. In overseas locations this may include Overseas Specified Housing. In CONUS locations, this may include privatized housing that is included in the total rental housing estimates. Privatized housing may be treated as rental housing in terms of a census of housing. In the initial year, there are no privatized housing units (Table 3-10).]

Table 3-10. Privatized Housing, <201Y>

| Rental Cost ¹ | Number of Bedrooms | | | | | Total |
|--------------------------|--------------------|-----|-----|-------|-------|-------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - | - | - |
| \$1,200 - \$1,399 | - | - | - | - | - | - |
| \$1,100 - \$1,199 | - | - | - | - | - | - |
| \$1,000 - \$1,099 | - | - | - | - | - | - |
| \$900 - \$999 | - | - | - | - | - | - |
| \$800 - \$899 | - | - | - | - | - | - |
| \$700 - \$799 | - | - | - | - | - | - |
| \$600 - \$699 | - | - | - | - | - | - |
| \$500 - \$599 | - | - | - | - | - | - |
| \$400 - \$499 | - | - | - | - | - | - |
| Below - \$400 | - | - | - | - | - | - |
| Total | - | - | - | - | - | - |

3.4.3 COMPETITIVE RENTAL HOUSING

Competitive housing is those private sector rental units for which the military and civilian households are assumed to compete such that each household has an equal chance to occupy the unit (Table 3-11).

Table 3-11. Competitive Rental Housing, <201Y>

| Rental Cost ¹ | Number of Bedrooms | | | | | Total |
|--------------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 73 | 125 | 280 | 56 | 542 |
| \$1,400 - \$1,599 | 10 | 75 | 140 | 300 | 62 | 587 |
| \$1,200 - \$1,399 | 15 | 115 | 200 | 450 | 85 | 865 |
| \$1,100 - \$1,199 | 20 | 130 | 380 | 600 | 100 | 1,230 |
| \$1,000 - \$1,099 | 20 | 140 | 620 | 640 | 105 | 1,525 |
| \$900 - \$999 | 30 | 240 | 1,200 | 1,200 | 215 | 2,885 |
| \$800 - \$899 | 75 | 600 | 2,300 | 1,900 | 330 | 5,205 |
| \$700 - \$799 | 180 | 1,800 | 3,700 | 1,200 | 205 | 7,085 |
| \$600 - \$699 | 170 | 2,005 | 4,345 | 1,270 | 250 | 8,040 |
| \$500 - \$599 | 250 | 2,225 | 2,910 | 670 | 110 | 6,165 |
| \$400 - \$499 | 370 | 1,875 | 1,345 | 285 | 65 | 3,940 |
| Below - \$400 | 600 | 1,950 | 1,210 | 325 | 60 | 4,145 |
| Total | 1,748 | 11,228 | 18,475 | 9,120 | 1,643 | 42,214 |

<Published Date>

3.4.3.1 Suitable Rental Housing

Only competitive rental housing that is determined to be suitable for military personnel and their families is considered in the analysis. Suitability is a function of cost, number of bedrooms, proximity to the major work centers in the market area, health and safety concerns, construction quality, and environmental factors. In this section of the report, suitable housing is those units that meet minimum DoD and Air Force standards on the basis of physical condition, location, and other considerations exclusive of price and number of bedrooms. Suitability based on cost and bedroom requirements is considered in the dynamic model.

Air Force standards for judging suitability of private sector housing are based on DoD 4165.63-M (U.S. Department of Defense, 1993) as interpreted by the Air Force. Housing must be within a reasonable commute distance of the base and not in an area designated by the base commander as unacceptable for health or safety reasons. The housing must be no more expensive than the local median housing cost as determined by DoD for each pay grade.

The housing must be well maintained and structurally sound. It must not pose a health or safety hazard. It must be a complete unit with private entrance, bathroom, and kitchen for the sole use of its occupants. The rooms must be so arranged that the kitchen, a bathroom, the living room, and bedrooms can be entered without passing through bedrooms. The unit must have air conditioning or a similar cooling system and a permanently installed, adequately vented heating system if the base is located in a climate where these are to be included in U.S. Government construction by DoD standards. The housing must have adequate electrical service. It must have washer/dryer connections or accessible laundry facilities on the premises. The unit must have hot and cold running potable water. It must have sufficient sanitary and sewage disposal facilities. Mobile homes, even if owner occupied, are not considered suitable housing for military personnel.

[Discuss the basis for estimating the suitability of the rental housing. For example: Suitability estimates are based on on-site surveys of rental units throughout the housing market area, interviews with property managers, local planning agency staff, and base housing representatives, Census data, and other published information.]

For <201Y>, the initial year of the transition period, 6,579 (15.6 percent) rental housing units are considered unsuitable for military personnel (Table 3-12) [Enter the rationale for the unsuitability. For example: based on physical condition and health and safety factors. The largest component is physical condition and location. The installation participated in identifying areas as potentially problematic.]

Suitable rental housing in the Housing Market Area is estimated at 35,635 units in <201Y> (Table 3-13).

Table 3-12. Unsuitable Rental Housing by Condition, <20/Y>

| County | Location/ Physical Condition | Mobile Homes | Other | Total |
|--------------|------------------------------|--------------|------------|--------------|
| Orange | 990 | 475 | - | 1,465 |
| Brown | 1,950 | 680 | 100 | 2,730 |
| Green | 1,800 | 350 | 234 | 2,384 |
| Total | 4,740 | 1,505 | 334 | 6,579 |

Table 3-13. Suitable Rental Housing, <20/Y>

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|--------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 7 | 62 | 106 | 238 | 48 | 461 |
| \$1,400 - \$1,599 | 8 | 64 | 119 | 255 | 53 | 499 |
| \$1,200 - \$1,399 | 13 | 98 | 170 | 382 | 72 | 735 |
| \$1,100 - \$1,199 | 17 | 110 | 323 | 510 | 84 | 1,044 |
| \$1,000 - \$1,099 | 17 | 119 | 527 | 544 | 89 | 1,296 |
| \$900 - \$999 | 25 | 204 | 1,020 | 1,020 | 183 | 2,452 |
| \$800 - \$899 | 64 | 510 | 1,955 | 1,615 | 280 | 4,424 |
| \$700 - \$799 | 153 | 1,530 | 3,145 | 1,020 | 174 | 6,022 |
| \$600 - \$699 | 140 | 1,690 | 3,685 | 1,075 | 212 | 6,802 |
| \$500 - \$599 | 205 | 1,865 | 2,460 | 565 | 93 | 5,188 |
| \$400 - \$499 | 310 | 1,545 | 1,120 | 237 | 55 | 3,267 |
| Below - \$400 | 502 | 1,605 | 1,015 | 272 | 51 | 3,445 |
| Total | 1,461 | 9,402 | 15,645 | 7,733 | 1,394 | 35,635 |

3.4.3.2 Vacant Rental Housing

There are an estimated 1,689 vacant rental units in the Housing Market Area (Table 3-14). The overall vacancy rate is estimated at 4 percent. The vacancy rates differ by price segment with lower cost, smaller units typically experiencing a higher vacancy rate than the average, due to location and size. Suitable rental vacancies are estimated at 1,429 in <201Y> (Table 3-15).

Table 3-14. Vacant Rental Housing, <201Y>

| Rental Cost ¹ | Number of Bedrooms | | | | | Total |
|--------------------------|--------------------|------------|------------|------------|-----------|--------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | 3 | 5 | 11 | 2 | 21 |
| \$1,400 - \$1,599 | - | 3 | 6 | 12 | 2 | 23 |
| \$1,200 - \$1,399 | 1 | 5 | 8 | 18 | 3 | 35 |
| \$1,100 - \$1,199 | 1 | 5 | 15 | 24 | 4 | 49 |
| \$1,000 - \$1,099 | 1 | 6 | 25 | 26 | 4 | 62 |
| \$900 - \$999 | 1 | 10 | 48 | 48 | 9 | 116 |
| \$800 - \$899 | 3 | 24 | 92 | 76 | 13 | 208 |
| \$700 - \$799 | 7 | 72 | 148 | 48 | 8 | 283 |
| \$600 - \$699 | 7 | 80 | 174 | 51 | 10 | 322 |
| \$500 - \$599 | 10 | 89 | 116 | 27 | 4 | 246 |
| \$400 - \$499 | 15 | 75 | 54 | 11 | 3 | 158 |
| Below - \$400 | 24 | 78 | 48 | 13 | 3 | 166 |
| Total | 70 | 450 | 739 | 365 | 65 | 1,689 |

Table 3-15. Suitable Vacant Rental Housing, <201Y>

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|------------|------------|------------|-----------|--------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | - | 3 | 4 | 9 | 2 | 18 |
| \$1,400 - \$1,599 | - | 3 | 5 | 10 | 2 | 20 |
| \$1,200 - \$1,399 | 1 | 4 | 7 | 15 | 3 | 30 |
| \$1,100 - \$1,199 | 1 | 4 | 13 | 20 | 3 | 41 |
| \$1,000 - \$1,099 | 1 | 5 | 21 | 22 | 3 | 52 |
| \$900 - \$999 | 1 | 9 | 41 | 41 | 8 | 100 |
| \$800 - \$899 | 3 | 20 | 78 | 65 | 11 | 177 |
| \$700 - \$799 | 6 | 61 | 126 | 41 | 7 | 241 |
| \$600 - \$699 | 6 | 67 | 148 | 43 | 9 | 273 |
| \$500 - \$599 | 8 | 75 | 98 | 23 | 3 | 207 |
| \$400 - \$499 | 13 | 62 | 45 | 9 | 3 | 132 |
| Below - \$400 | 20 | 64 | 40 | 11 | 3 | 138 |
| Total | 60 | 377 | 626 | 309 | 57 | 1,429 |

3.4.3.3 Net Change in Suitable Rental Housing Supply

[Describe the basis for any net change in the rental supply. The changes may be based on historic growth trends, for example. If changes in supply are based on market response mechanisms, explain the basis for the market response, the factors that trigger market response and any delays in the response. For example: Based on interviews of local planners and developers, the rental inventory is expected to experience a net increase of 4,565 units (approximately 913 units per year) over the transition period (Table 3-16). The change in the rental supply was based on currently planned projects considering historical building cycles. The inventory of suitable rental housing is estimated to total 40,200 units by <20FY> (Table 3-17).]

Table 3-16. Net Change in the Suitable Rental Housing, <201Y to 20FY>

| Rental Cost ¹ | Number of Bedrooms | | | | | Total |
|--------------------------|--------------------|--------------|--------------|------------|------------|--------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 1 | 8 | 13 | 29 | 6 | 57 |
| \$1,400 - \$1,599 | 1 | 8 | 15 | 31 | 6 | 61 |
| \$1,200 - \$1,399 | 2 | 12 | 21 | 47 | 9 | 91 |
| \$1,100 - \$1,199 | 2 | 14 | 40 | 62 | 10 | 128 |
| \$1,000 - \$1,099 | 2 | 15 | 65 | 67 | 11 | 160 |
| \$900 - \$999 | 3 | 25 | 125 | 125 | 23 | 301 |
| \$800 - \$899 | 8 | 62 | 239 | 198 | 34 | 541 |
| \$700 - \$799 | 19 | 187 | 385 | 125 | 22 | 738 |
| \$600 - \$699 | 21 | 219 | 458 | 135 | 26 | 859 |
| \$500 - \$599 | 31 | 250 | 312 | 73 | 11 | 677 |
| \$400 - \$499 | 42 | 229 | 156 | 33 | 7 | 467 |
| Below - \$400 | 68 | 239 | 135 | 36 | 7 | 485 |
| Total | 200 | 1,268 | 1,964 | 961 | 172 | 4,565 |

Table 3-17. Suitable Rental Housing, <20FY>

| Rental Cost | Number of Bedrooms | | | | | Total |
|-------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 70 | 119 | 267 | 54 | 518 |
| \$1,400 - \$1,599 | 9 | 72 | 134 | 286 | 59 | 560 |
| \$1,200 - \$1,399 | 15 | 110 | 191 | 429 | 81 | 826 |
| \$1,100 - \$1,199 | 19 | 124 | 363 | 572 | 94 | 1,172 |
| \$1,000 - \$1,099 | 19 | 134 | 592 | 611 | 100 | 1,456 |
| \$900 - \$999 | 28 | 229 | 1,145 | 1,145 | 206 | 2,753 |
| \$800 - \$899 | 72 | 572 | 2,194 | 1,813 | 314 | 4,965 |
| \$700 - \$799 | 172 | 1,717 | 3,530 | 1,145 | 196 | 6,760 |
| \$600 - \$699 | 161 | 1,909 | 4,143 | 1,210 | 238 | 7,661 |
| \$500 - \$599 | 236 | 2,115 | 2,772 | 638 | 104 | 5,865 |
| \$400 - \$499 | 352 | 1,774 | 1,276 | 270 | 62 | 3,734 |
| Below - \$400 | 570 | 1,844 | 1,150 | 308 | 58 | 3,930 |
| Total | 1,661 | 10,670 | 17,609 | 8,694 | 1,566 | 40,200 |

3.4.4 RENTAL COST INCREASES

For the purposes of the analysis, rental costs are assumed to remain constant for the duration of the transition period.

4.0 HOUSING REQUIREMENTS

This chapter reports the number of military families and unaccompanied personnel requiring housing at <Anywhere AFB> in the following sections:

- ◆ Authorized Manpower
- ◆ Military Housing Requirements
- ◆ Minimum Housing Requirement
- ◆ Military Requirements for Private Sector Housing

4.1 AUTHORIZED MANPOWER

Authorized manpower includes all personnel that the housing office has the responsibility to house. [Describe the authorized manpower in the initial year, <201Y>, and the final year, <20FY>, of the transition period at a minimum (Table 4-1.) If manpower changes occur during interim years they should also be displayed (Table 4-2). A summary of these personnel by organization should be provided (Table 4-3). Describe the source of the manpower data and demographic information used to estimate the families and unaccompanied personnel.]

Table 4-1. <Anywhere Air Force Base> Manpower Authorizations, <201Y & 20FY>

| Pay Grade | Current Year, <201Y> | | | | Projected Year, <20FY> | | | |
|--------------|----------------------|------------|----------|--------------|------------------------|------------|----------|--------------|
| | Host | Tenant | Students | Total | Host | Tenant | Students | Total |
| O7+ | 1 | - | - | 1 | 1 | - | - | 1 |
| O6 | 15 | 2 | - | 17 | 15 | 2 | - | 17 |
| O5 | 50 | 10 | - | 60 | 50 | 10 | - | 60 |
| O4 | 80 | 20 | - | 100 | 80 | 20 | - | 100 |
| O3 | 150 | 100 | - | 250 | 150 | 100 | - | 250 |
| O2 | 10 | 15 | - | 25 | 10 | 15 | - | 25 |
| O1 | 10 | 15 | - | 25 | 10 | 15 | - | 25 |
| Officers | 316 | 162 | - | 478 | 316 | 162 | - | 478 |
| E9 | 10 | 2 | - | 12 | 10 | 2 | - | 12 |
| E8 | 30 | 5 | - | 35 | 30 | 5 | - | 35 |
| E7 | 150 | 30 | - | 180 | 150 | 30 | - | 180 |
| E6 | 180 | 50 | - | 230 | 180 | 50 | - | 230 |
| E5 | 300 | 50 | - | 350 | 300 | 50 | - | 350 |
| E4 | 250 | 20 | - | 270 | 250 | 20 | - | 270 |
| E3 | 125 | 5 | - | 130 | 125 | 5 | - | 130 |
| E2 | 20 | - | - | 20 | 20 | - | - | 20 |
| E1 | 10 | - | - | 10 | 10 | - | - | 10 |
| Enlisted | 1,075 | 162 | - | 1,237 | 1,075 | 162 | - | 1,237 |
| Total | 1,391 | 324 | - | 1,715 | 1,391 | 324 | - | 1,715 |

Table 4-2. Manpower Authorizations by Year, <201Y through 20FY>

| Authorized Manpower | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|---------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Hosts | 1,391 | 1,391 | 1,391 | 1,391 | 1,391 | 1,391 |
| Tenants | 324 | 324 | 324 | 324 | 324 | 324 |
| Students | - | - | - | - | - | - |
| Total | 1,715 | 1,715 | 1,715 | 1,715 | 1,715 | 1,715 |

Table 4-3. Manpower Authorizations by Organization, <201Y & 20FY>

| Organization | <201Y> | <20FY> |
|-------------------|--------------|--------------|
| Host Air Force | 1,391 | 1,391 |
| Air Force Reserve | 324 | 324 |
| Students | - | - |
| Total | 1,715 | 1,715 |

Military family housing requirements are based on the number of military families. Not all personnel receiving with-dependent housing allowances constitute a single household. Military members married to another military member constitute a single household. As a consequence, the number of accompanied personnel must be adjusted for households with more than one military member and those households in which the accompanied member chooses to leave dependents at another location.

[Display the breakout of accompanied personnel by the factors that affect the number of families for the initial year and final year of the transition period (Tables 4-4 and 4-5). Display interim years as appropriate if military demographics change due to change in missions at the installation.]

**Table 4-4. Military Families and Unaccompanied Personnel
Requiring Housing, <201Y>**

| Pay Grade | Accompanied Personnel | Military Couples | Voluntary Separations | Military Families | Unaccompanied Personnel |
|--------------|-----------------------|------------------|-----------------------|-------------------|-------------------------|
| O7+ | 1 | - | - | 1 | - |
| O6 | 14 | 1 | - | 13 | 3 |
| O5 | 52 | 2 | 1 | 49 | 8 |
| O4 | 79 | 1 | - | 78 | 21 |
| O3 | 168 | 5 | 1 | 162 | 82 |
| O2 | 20 | 2 | - | 18 | 5 |
| O1 | 13 | - | - | 13 | 12 |
| Officers | 347 | 11 | 2 | 334 | 131 |
| E9 | 10 | - | - | 10 | 2 |
| E8 | 29 | 2 | - | 27 | 6 |
| E7 | 158 | 6 | 1 | 151 | 22 |
| E6 | 202 | 13 | 11 | 178 | 28 |
| E5 | 268 | 22 | 14 | 232 | 82 |
| E4 | 118 | 11 | 2 | 105 | 152 |
| E3 | 27 | 2 | - | 25 | 103 |
| E2 | 4 | - | - | 4 | 16 |
| E1 | 2 | - | - | 2 | 8 |
| Enlisted | 818 | 56 | 28 | 734 | 419 |
| Total | 1,165 | 67 | 30 | 1,068 | 550 |

**Table 4-5. Military Families and Unaccompanied Personnel
Requiring Housing, <20FY>**

| Pay Grade | Accompanied Personnel | Military Couples | Voluntary Separations | Military Families | Unaccompanied Personnel |
|--------------|-----------------------|------------------|-----------------------|-------------------|-------------------------|
| O7+ | 1 | - | - | 1 | - |
| O6 | 14 | 1 | - | 13 | 3 |
| O5 | 52 | 2 | 1 | 49 | 8 |
| O4 | 79 | 1 | - | 78 | 21 |
| O3 | 168 | 5 | 1 | 162 | 82 |
| O2 | 20 | 2 | - | 18 | 5 |
| O1 | 13 | - | - | 13 | 12 |
| Officers | 347 | 11 | 2 | 334 | 131 |
| E9 | 10 | - | - | 10 | 2 |
| E8 | 29 | 2 | - | 27 | 6 |
| E7 | 158 | 6 | 1 | 151 | 22 |
| E6 | 202 | 13 | 11 | 178 | 28 |
| E5 | 268 | 22 | 14 | 232 | 82 |
| E4 | 118 | 11 | 2 | 105 | 152 |
| E3 | 27 | 2 | - | 25 | 103 |
| E2 | 4 | - | - | 4 | 16 |
| E1 | 2 | - | - | 2 | 8 |
| Enlisted | 818 | 56 | 28 | 734 | 419 |
| Total | 1,165 | 67 | 30 | 1,068 | 550 |

4.2 MILITARY HOUSING REQUIREMENTS

This section describes the military housing requirements for both military families and unaccompanied personnel. Military housing requirements are the number of military family and unaccompanied households that the installation has the responsibility to house. Military families by bedroom entitlement and unaccompanied personnel by bedroom entitlement are described.

4.2.1 MILITARY FAMILY HOUSING REQUIREMENTS

Military family housing requirements are based on the grade, family size, and composition of the households. Bedroom entitlements are based on one bedroom per dependent child and a minimum bedroom requirement by rank. Junior enlisted families require a minimum of a two-bedroom unit, while families of field grade officers require a minimum of a three-bedroom unit and senior officers require a minimum of a four-bedroom unit. The family size is estimated from the composition of the Air Force personnel currently assigned to the installation.

[Describe military families requiring housing by bedroom entitlement for the initial and final years of the transition period. As appropriate, identify the number of families in interim years. Separately identify the families whose actual work station lies outside of the Housing Market Area. The description may be as follows:

In <20IY>, there are 1,068 military families that require housing (Table 4-6). There are 1,068 military families projected for <20FY> (Table 4-7). Approximately 48 percent of the families are entitled to two-bedroom housing while 41 percent have a three-bedroom requirement and 11 percent have a four or more bedroom requirement.]

Table 4-6. Military Families, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|--------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | - | 13 | 13 |
| O5 | - | 45 | 4 | 49 |
| O4 | - | 59 | 19 | 78 |
| O3 | 107 | 44 | 11 | 162 |
| O2 | 15 | 3 | - | 18 |
| O1 | 8 | 2 | 3 | 13 |
| Officers | 130 | 153 | 51 | 334 |
| E9 | - | 8 | 2 | 10 |
| E8 | - | 27 | - | 27 |
| E7 | - | 131 | 20 | 151 |
| E6 | 92 | 53 | 33 | 178 |
| E5 | 170 | 43 | 19 | 232 |
| E4 | 87 | 18 | - | 105 |
| E3 | 23 | 2 | - | 25 |
| E2 | 4 | - | - | 4 |
| E1 | 2 | - | - | 2 |
| Enlisted | 378 | 282 | 74 | 734 |
| Total | 508 | 435 | 125 | 1,068 |

Table 4-7. Military Families, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|--------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | - | 13 | 13 |
| O5 | - | 45 | 4 | 49 |
| O4 | - | 59 | 19 | 78 |
| O3 | 107 | 44 | 11 | 162 |
| O2 | 15 | 3 | - | 18 |
| O1 | 8 | 2 | 3 | 13 |
| Officers | 130 | 153 | 51 | 334 |
| E9 | - | 8 | 2 | 10 |
| E8 | - | 27 | - | 27 |
| E7 | - | 131 | 20 | 151 |
| E6 | 92 | 53 | 33 | 178 |
| E5 | 170 | 43 | 19 | 232 |
| E4 | 87 | 18 | - | 105 |
| E3 | 23 | 2 | - | 25 |
| E2 | 4 | - | - | 4 |
| E1 | 2 | - | - | 2 |
| Enlisted | 378 | 282 | 74 | 734 |
| Total | 508 | 435 | 125 | 1,068 |

4.2.2 UNACCOMPANIED PERSONNEL HOUSING REQUIREMENT

There are a total of 550 unaccompanied service members for whom <Anywhere AFB> has housing responsibility in the initial year of the analysis. Of the total number of unaccompanied personnel, 385 are in grade E4 (over three years of service) and above and require private sector housing (Table 4-8).

In the final year of the transition period, <20FY>, there are projected to be a total of 550 unaccompanied service members affiliated with <Anywhere AFB>. Of the total, 385 are in grade E4 (over three years of service) and above (Table 4-9).

Bedroom requirements for unaccompanied personnel requiring housing in the private sector vary from one to three bedrooms based on OSD compensation standards. Grade E5 and below have a one-bedroom requirement while grades E6 to O3 have a two-bedroom requirement. Grade O4 and above have a three-bedroom requirement.

[Separately describe members whose actual duty station is outside of the Housing Market Area.]

Table 4-8. Unaccompanied Personnel Housing Requirement, <20IY>

| Pay Grade | Unaccompanied Personnel | Require Government Quarters | Require Private Sector Housing |
|--------------|-------------------------|-----------------------------|--------------------------------|
| O7+ | - | - | - |
| O6 | 3 | - | 3 |
| O5 | 8 | - | 8 |
| O4 | 21 | - | 21 |
| O3 | 82 | - | 82 |
| O2 | 5 | - | 5 |
| O1 | 12 | - | 12 |
| Officers | 131 | - | 131 |
| E9 | 2 | - | 2 |
| E8 | 6 | - | 6 |
| E7 | 22 | - | 22 |
| E6 | 28 | - | 28 |
| E5 | 82 | - | 82 |
| E4 | 152 | 38 | 114 |
| E3 | 103 | 103 | - |
| E2 | 16 | 16 | - |
| E1 | 8 | 8 | - |
| Enlisted | 419 | 165 | 254 |
| Total | 550 | 165 | 385 |

Table 4-9. Unaccompanied Personnel Housing Requirement, <20FY>

| Pay Grade | Unaccompanied Personnel | Require Government Quarters | Require Private Sector Housing |
|------------------|--------------------------------|------------------------------------|---------------------------------------|
| O7+ | - | - | - |
| O6 | 3 | - | 3 |
| O5 | 8 | - | 8 |
| O4 | 21 | - | 21 |
| O3 | 82 | - | 82 |
| O2 | 5 | - | 5 |
| O1 | 12 | - | 12 |
| Officers | 131 | - | 131 |
| E9 | 2 | - | 2 |
| E8 | 6 | - | 6 |
| E7 | 22 | - | 22 |
| E6 | 28 | - | 28 |
| E5 | 82 | - | 82 |
| E4 | 152 | 38 | 114 |
| E3 | 103 | 103 | - |
| E2 | 16 | 16 | - |
| E1 | 8 | 8 | - |
| Enlisted | 419 | 165 | 254 |
| Total | 550 | 165 | 385 |

4.3 MINIMUM HOUSING REQUIREMENT

Air Force policy establishes minimum housing requirements for military families and unaccompanied personnel. The Floor Housing Requirement for military families is based on the greatest of four criteria. For unaccompanied personnel, currently policy requires personnel in grade E4 with less than three years of service and below to reside in government quarters.

4.3.1 FLOOR HOUSING REQUIREMENT

By the final year of the transition period, the installation is assumed to have transitioned its military family housing supply to the Floor Housing Requirement. As a result, all military rental demand in excess of the Floor Housing Requirement requires private sector housing by <20FY>. The Floor Housing Requirement is determined by the greatest of the following four criteria on the basis of pay grade:

Military Community – Housing for ten percent of the military families by grade.

Key and Essential – Housing for all key and essential military and civilian personnel.

Historic Housing – U.S. Government owned housing units listed on or eligible for the National Register of Historic Places under the National Historic Preservation Act.

Targeted Economic Relief – Housing for members whose RMC is less than 50 percent of the local median family income.

4.3.1.1 Military Community Housing Requirement

The requirement for an on-base community for military families recognizes the value of the cohesive attributes of a military community to the morale of its members. The presence of housing and community support facilities to accommodate 10 percent of the military families is established as part of the Floor Housing Requirement.

In <20FY>, there is a military community housing requirement of 107 housing units based on 1,068 military families (Table 4-10).

Table 4-10. Military Community Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 5 | - | 5 |
| O4 | - | 6 | 2 | 8 |
| O3 | 11 | 4 | 1 | 16 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 14 | 15 | 4 | 33 |
| E9 | - | 1 | - | 1 |
| E8 | - | 3 | - | 3 |
| E7 | - | 13 | 2 | 15 |
| E6 | 9 | 6 | 3 | 18 |
| E5 | 17 | 4 | 2 | 23 |
| E4 | 9 | 2 | - | 11 |
| E3 | 3 | - | - | 3 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 38 | 29 | 7 | 74 |
| Total | 52 | 44 | 11 | 107 |

4.3.1.2 Key and Essential Housing Requirement

Currently, there are eight key and essential positions at <Anywhere AFB>. These positions are expected to remain unchanged in the final year of the transition period (Table 4-11).

Table 4-11. Key and Essential Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|----------|----------|----------|
| | Two | Three | Four+ | |
| O7+ | - | - | 1 | 1 |
| O6 | - | - | 5 | 5 |
| O5 | - | 2 | - | 2 |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 2 | 6 | 8 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | - | - | - | - |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | - | - | - | - |
| Total | - | 2 | 6 | 8 |

4.3.1.3 Historic Housing Requirement

U.S. Government owned historic housing listed on, or eligible for, the National Register of Historic Places must be maintained as a historical resource. In the case of <Anywhere AFB>, there are two housing units designated as historic (Table 4-12).

Table 4-12. Historic Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|----------|----------|----------|
| | Two | Three | Four+ | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | - | 2 | 2 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | - | - | - | - |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | - | - | - | - |
| Total | - | - | 2 | 2 |

4.3.1.4 Targeted Economic Relief Housing Requirement

The Targeted Economic Relief Housing Requirement is determined by the number of personnel in each pay grade whose RMC falls below 50 percent of the local median family income of \$55,000 [Enter the source for the local median income or describe how it is estimated]. The RMC is determined for each pay grade as the sum of standard base pay, the local BAH, BAS, and a tax adjustment. [If COLA is applicable, expand the table to include a column for the COLA.] The RMC for <201Y> is presented in Table 4-13.

For the analysis, the local median family income and the RMC are assumed not to change over the transition period with the result that no military families meet the Targeted Economic Relief Housing Requirement in <20FY> (Table 4-14).

Table 4-13. Regular Military Compensation, <20FY>

| Pay Grade | Base Pay | Basic Allowance for Housing | Basic Allowance for Subsistence | Tax Adjustment | Regular Military Compensation |
|-----------|-----------|-----------------------------|---------------------------------|----------------|-------------------------------|
| O7+ | \$115,000 | \$18,600 | \$2,100 | \$7,300 | \$143,000 |
| O6 | \$95,000 | \$18,720 | \$2,100 | \$7,000 | \$122,820 |
| O5 | \$77,000 | \$18,600 | \$2,100 | \$6,500 | \$104,200 |
| O4 | \$65,000 | \$17,760 | \$2,100 | \$4,800 | \$89,660 |
| O3 | \$51,000 | \$16,560 | \$2,100 | \$3,300 | \$72,960 |
| O2 | \$39,000 | \$14,280 | \$2,100 | \$2,900 | \$58,280 |
| O1 | \$28,000 | \$11,640 | \$2,100 | \$2,100 | \$43,840 |
| E9 | \$58,000 | \$16,920 | \$3,100 | \$3,900 | \$81,920 |
| E8 | \$46,000 | \$16,080 | \$3,100 | \$3,400 | \$68,580 |
| E7 | \$36,000 | \$15,120 | \$3,100 | \$3,200 | \$57,420 |
| E6 | \$32,000 | \$14,400 | \$3,100 | \$2,800 | \$52,300 |
| E5 | \$26,000 | \$11,280 | \$3,100 | \$2,000 | \$42,380 |
| E4 | \$21,000 | \$9,780 | \$3,100 | \$1,600 | \$35,480 |
| E3 | \$18,000 | \$9,780 | \$3,100 | \$1,400 | \$32,280 |
| E2 | \$16,000 | \$9,780 | \$3,100 | \$1,300 | \$30,180 |
| E1 | \$14,000 | \$9,780 | \$3,100 | \$1,100 | \$27,980 |

Table 4-14. Targeted Economic Relief Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-------|-------|-------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | - | - | - |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | - | - | - | - |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | - | - | - | - |
| Total | - | - | - | - |

4.3.1.5 Floor Housing Requirement

The Floor Housing Requirement is the greatest of the Military Community, Key and Essential, Historic Housing, and the Targeted Economic Relief Requirements on the basis of pay grade. The Floor Housing Requirement or minimum military family housing <Anywhere AFB> should maintain is 113 housing units in <20FY> (Table 4-15). The bedroom requirements are set by the bedroom requirements of the criteria on which the minimum is based for each pay grade.

Table 4-15. Floor Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | 5 | 5 |
| O5 | - | 5 | - | 5 |
| O4 | - | 6 | 2 | 8 |
| O3 | 11 | 4 | 1 | 16 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 14 | 15 | 10 | 39 |
| E9 | - | 1 | - | 1 |
| E8 | - | 3 | - | 3 |
| E7 | - | 13 | 2 | 15 |
| E6 | 9 | 6 | 3 | 18 |
| E5 | 17 | 4 | 2 | 23 |
| E4 | 9 | 2 | - | 11 |
| E3 | 3 | - | - | 3 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 38 | 29 | 7 | 74 |
| Total | 52 | 44 | 17 | 113 |

4.3.2 UNACCOMPANIED MINIMUM HOUSING REQUIREMENT

The minimum housing requirement is set by Air Force policy which requires that unaccompanied personnel in grade E4 (less than three years of service) and below reside in government furnished quarters. In <201Y>, the initial year of the analysis, 165 unaccompanied personnel require government quarters (Table 4-16). By the final year of the transition period, 165 unaccompanied personnel will require government quarters (Table 4-17).

Table 4-16. Unaccompanied Personnel Minimum Housing Requirement, <201Y>

| Pay Grade | Unaccompanied Personnel | Minimum Housing Requirement |
|--------------|-------------------------|-----------------------------|
| E4 | 152 | 38 |
| E3 | 103 | 103 |
| E2 | 16 | 16 |
| E1 | 8 | 8 |
| Enlisted | 419 | 165 |
| Total | 550 | 165 |

Table 4-17. Unaccompanied Personnel Minimum Housing Requirement, <20FY>

| Pay Grade | Unaccompanied Personnel | Minimum Housing Requirement |
|--------------|-------------------------|-----------------------------|
| E4 | 152 | 38 |
| E3 | 103 | 103 |
| E2 | 16 | 16 |
| E1 | 8 | 8 |
| Enlisted | 419 | 165 |
| Total | 550 | 165 |

4.4 MILITARY MEMBERS REQUIRING PRIVATE SECTOR HOUSING

Military members not residing in the Floor Housing requirement or government quarters for unaccompanied personnel will require housing in the private sector. In the private sector, they will either become homeowners or require rental housing.

4.4.1 MILITARY FAMILIES REQUIRING PRIVATE SECTOR HOUSING

The number of military families requiring private sector housing in the Housing Market Area is determined for each year of the transition period. For the initial year, it is the number of military families currently living in the private sector. For the final year, it is the military family housing requirement less those families who reside in housing that meets the Floor Housing Requirement. [Enter a description of the basis for setting the manpower in the private sector for the interim years. This may be a uniform transition, based on the actual military housing that will be available each year, etc.]

Table 4-18. Military Families Requiring Private Sector Housing, <201Y through 20FY>

| | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|-------------------------------------|--------|--------|--------|--------|--------|--------|
| Military Families | 1,068 | 1,068 | 1,068 | 1,068 | 1,068 | 1,068 |
| Military Family Housing Supply | 544 | 458 | 372 | 285 | 199 | 113 |
| Occupied Military Family Housing | 544 | 458 | 372 | 285 | 199 | 113 |
| Military Families in Private Sector | 524 | 610 | 696 | 783 | 869 | 955 |

Military families that require housing in the initial year of the transition period are derived from the total number of military families less those families currently occupying military family housing (Table 4-19). For the final year of the transition period, military families requiring private sector housing are the total military families less those occupying military housing that meet the Floor Housing Requirement (Table 4-20).

Table 4-19. Military Families Requiring Private Sector Housing, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | 29 | - | 29 |
| O4 | - | 28 | - | 28 |
| O3 | 66 | 35 | 7 | 108 |
| O2 | 9 | 2 | - | 11 |
| O1 | 5 | 2 | 2 | 9 |
| Officers | 80 | 96 | 12 | 188 |
| E9 | - | 6 | 1 | 7 |
| E8 | - | 10 | - | 10 |
| E7 | - | 48 | 10 | 58 |
| E6 | 47 | 29 | 22 | 98 |
| E5 | 87 | 24 | 13 | 124 |
| E4 | 39 | - | - | 39 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 173 | 117 | 46 | 336 |
| Total | 253 | 213 | 58 | 524 |

Table 4-20. Military Families Requiring Private Sector Housing, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 8 | 8 |
| O5 | - | 40 | 4 | 44 |
| O4 | - | 53 | 17 | 70 |
| O3 | 96 | 40 | 10 | 146 |
| O2 | 13 | 3 | - | 16 |
| O1 | 7 | 2 | 3 | 12 |
| Officers | 116 | 138 | 42 | 296 |
| E9 | - | 7 | 2 | 9 |
| E8 | - | 24 | - | 24 |
| E7 | - | 118 | 18 | 136 |
| E6 | 83 | 47 | 30 | 160 |
| E5 | 153 | 39 | 17 | 209 |
| E4 | 78 | 16 | - | 94 |
| E3 | 20 | 2 | - | 22 |
| E2 | 4 | - | - | 4 |
| E1 | 1 | - | - | 1 |
| Enlisted | 339 | 253 | 67 | 659 |
| Total | 455 | 391 | 109 | 955 |

Military families who seek housing in private sector housing must compete in the market for both homeowner and rental housing. Homeownership rates are used to estimate homeowner and rental demand for military families. These rates can be

expected to vary with income, allowances, mortgage interest rates, and the general price levels of the real estate market.

Homeownership and rental rates applied in this study are derived from [Describe source of ownership data or methodology used to estimate homeownership] (Table 4-21). This analysis is based on the assumption that military families currently occupying military family housing would rent private sector housing if military housing were not available to them. Military family homeownership rates are assumed to remain at their <201Y> levels over the study period.

The housing requirements for military families are presented in Tables 4-22 through 4-25. In the initial year, 391 families are estimated to require homeowner housing and the remaining 133 families require rental housing.

For the final year, 391 families are estimated to require homeowner housing and the remaining 564 families are expected to require rental housing. Approximately 50 percent of the rental requirements will be in the two-bedroom category, while three- and four-bedroom rental requirements will respectively account for 39 and 11 percent of the total rental demand.

Table 4-21. Homeownership Rates for Military Families

| Pay Grade | Percentage Homeowners | Percentage Renters |
|------------------|------------------------------|---------------------------|
| O7+ | 100.0% | 0.0% |
| O6 | 75.0% | 25.0% |
| O5 | 75.0% | 25.0% |
| O4 | 75.0% | 25.0% |
| O3 | 70.0% | 30.0% |
| O2 | 60.0% | 40.0% |
| O1 | 50.0% | 50.0% |
| E9 | 90.0% | 10.0% |
| E8 | 90.0% | 10.0% |
| E7 | 90.0% | 10.0% |
| E6 | 85.0% | 15.0% |
| E5 | 70.0% | 30.0% |
| E4 | 45.0% | 55.0% |
| E3 | 0.0% | 100.0% |
| E2 | 0.0% | 100.0% |
| E1 | 0.0% | 100.0% |

Table 4-22. Military Family Homeowner Requirement, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 2 | 2 |
| O5 | - | 22 | - | 22 |
| O4 | - | 22 | - | 22 |
| O3 | 46 | 25 | 5 | 76 |
| O2 | 5 | 2 | - | 7 |
| O1 | 3 | 2 | 2 | 7 |
| Officers | 54 | 73 | 9 | 136 |
| E9 | - | 6 | 1 | 7 |
| E8 | - | 9 | - | 9 |
| E7 | - | 43 | 9 | 52 |
| E6 | 40 | 25 | 18 | 83 |
| E5 | 61 | 17 | 9 | 87 |
| E4 | 17 | - | - | 17 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 118 | 100 | 37 | 255 |
| Total | 172 | 173 | 46 | 391 |

Table 4-23. Military Family Homeowner Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 2 | 2 |
| O5 | - | 22 | - | 22 |
| O4 | - | 22 | - | 22 |
| O3 | 46 | 25 | 5 | 76 |
| O2 | 5 | 2 | - | 7 |
| O1 | 3 | 2 | 2 | 7 |
| Officers | 54 | 73 | 9 | 136 |
| E9 | - | 6 | 1 | 7 |
| E8 | - | 9 | - | 9 |
| E7 | - | 43 | 9 | 52 |
| E6 | 40 | 25 | 18 | 83 |
| E5 | 61 | 17 | 9 | 87 |
| E4 | 17 | - | - | 17 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 118 | 100 | 37 | 255 |
| Total | 172 | 173 | 46 | 391 |

Table 4-24. Military Family Rental Requirement, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 7 | - | 7 |
| O4 | - | 6 | - | 6 |
| O3 | 20 | 10 | 2 | 32 |
| O2 | 4 | - | - | 4 |
| O1 | 2 | - | - | 2 |
| Officers | 26 | 23 | 3 | 52 |
| E9 | - | - | - | - |
| E8 | - | 1 | - | 1 |
| E7 | - | 5 | 1 | 6 |
| E6 | 7 | 4 | 4 | 15 |
| E5 | 26 | 7 | 4 | 37 |
| E4 | 22 | - | - | 22 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 55 | 17 | 9 | 81 |
| Total | 81 | 40 | 12 | 133 |

Table 4-25. Military Family Rental Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | 6 | 6 |
| O5 | - | 18 | 4 | 22 |
| O4 | - | 31 | 17 | 48 |
| O3 | 50 | 15 | 5 | 70 |
| O2 | 8 | 1 | - | 9 |
| O1 | 4 | - | 1 | 5 |
| Officers | 62 | 65 | 33 | 160 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 15 | - | 15 |
| E7 | - | 75 | 9 | 84 |
| E6 | 43 | 22 | 12 | 77 |
| E5 | 92 | 22 | 8 | 122 |
| E4 | 61 | 16 | - | 77 |
| E3 | 20 | 2 | - | 22 |
| E2 | 4 | - | - | 4 |
| E1 | 1 | - | - | 1 |
| Enlisted | 221 | 153 | 30 | 404 |
| Total | 283 | 218 | 63 | 564 |

Military families requiring rental housing are allocated to price-bedroom market segments based on the MAHC (Table 4-26) of accompanied service members and the assumed expenditures pattern by the personnel within each pay grade. [If OOP is not applicable, the column in the table may be deleted.]

There are many external factors that affect housing choices. However, the HRMA objective is to assess if there is sufficient affordable private sector of acceptable quality. While the MAHC defines the highest affordable cost, a minimum rental cost by bedroom is used to represent the minimum cost for acceptable rental units setting a spending band for each pay grade.

Service members are allocated to market segments between the minimum cost and their MAHC (Tables 4-27 and 4-28). The analysis assumes that rental costs are constant over the transition period.

Table 4-26. Maximum Allowable Housing Cost With Dependents, <201Y>

| Pay Grade | BAH | OOP | MAHC |
|-----------|---------|------|---------|
| O7+ | \$1,550 | \$60 | \$1,610 |
| O6 | \$1,550 | \$57 | \$1,607 |
| O5 | \$1,550 | \$55 | \$1,605 |
| O4 | \$1,480 | \$50 | \$1,530 |
| O3 | \$1,380 | \$50 | \$1,430 |
| O2 | \$1,190 | \$40 | \$1,230 |
| O1 | \$970 | \$35 | \$1,005 |
| E9 | \$1,410 | \$50 | \$1,460 |
| E8 | \$1,340 | \$45 | \$1,385 |
| E7 | \$1,260 | \$40 | \$1,300 |
| E6 | \$1,200 | \$40 | \$1,240 |
| E5 | \$940 | \$35 | \$975 |
| E4 | \$815 | \$30 | \$845 |
| E3 | \$815 | \$30 | \$845 |
| E2 | \$815 | \$30 | \$845 |
| E1 | \$815 | \$30 | \$845 |

Table 4-27. Military Family Rental Requirement by Price Category, <201Y>

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | 3 | - | 3 |
| \$1,400 - \$1,599 | 2 | 6 | 1 | 9 |
| \$1,200 - \$1,399 | 18 | 16 | 2 | 36 |
| \$1,100 - \$1,199 | 7 | 7 | 4 | 18 |
| \$1,000 - \$1,099 | 4 | 1 | 1 | 6 |
| \$900 - \$999 | 11 | 2 | 1 | 14 |
| \$800 - \$899 | 24 | 5 | 3 | 32 |
| \$700 - \$799 | 15 | - | - | 15 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 81 | 40 | 12 | 133 |

Table 4-28. Military Family Rental Requirement by Price Category, <20FY>

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | 7 | 3 | 10 |
| \$1,400 - \$1,599 | 5 | 26 | 15 | 46 |
| \$1,200 - \$1,399 | 47 | 65 | 19 | 131 |
| \$1,100 - \$1,199 | 29 | 74 | 13 | 116 |
| \$1,000 - \$1,099 | 20 | 6 | 4 | 30 |
| \$900 - \$999 | 34 | 9 | 4 | 47 |
| \$800 - \$899 | 84 | 21 | 5 | 110 |
| \$700 - \$799 | 64 | 10 | - | 74 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 283 | 218 | 63 | 564 |

4.4.2 UNACCOMPANIED HOUSEHOLDS REQUIRING PRIVATE SECTOR HOUSING

Unaccompanied personnel requiring private sector housing is determined for each year of the transition period. Included are all personnel [Enter Air Force policy here regarding the grades and length of service not required to reside in government quarters. Also, identify any personnel required to reside in government quarters but are unable to do so due to an insufficient number of quarters.] In the final year of the transition period, all unaccompanied personnel required to reside in government quarters are assumed to do so. [Enter a discussion on how the interim years are estimated (Table 4-29).]

Table 4-29. Unaccompanied Personnel Requiring Private Sector Housing, <201Y through 20FY>

| | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|---------------------------------|--------|--------|--------|--------|--------|--------|
| Unaccompanied Personnel | 550 | 550 | 550 | 550 | 550 | 550 |
| Required in Gov't Quarters | 165 | 165 | 165 | 165 | 165 | 165 |
| Unaccompanied Military Housing | 165 | 165 | 165 | 165 | 165 | 165 |
| Unaccompanied in Gov't Quarters | 165 | 165 | 165 | 165 | 165 | 165 |
| Unaccompanied in Private Sector | 385 | 385 | 385 | 385 | 385 | 385 |

Unaccompanied personnel who are not required to reside in military quarters compete against civilian and military families seeking private sector housing (Tables 4-30 and 4-31). Unaccompanied personnel who elect to purchase homes are considered suitably housed and are not competed in the rental housing market. The proportion of unaccompanied personnel who seek rental housing in the private sector is estimated based on homeownership rates derived [Describe the basis for homeownership estimates for unaccompanied personnel] (Table 4-32).

Table 4-30. Unaccompanied Personnel Private Sector Housing Requirement by Bedroom, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 8 | 8 |
| O4 | - | - | 21 | 21 |
| O3 | - | 82 | - | 82 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 99 | 32 | 131 |
| E9 | - | 2 | - | 2 |
| E8 | - | 6 | - | 6 |
| E7 | - | 22 | - | 22 |
| E6 | - | 28 | - | 28 |
| E5 | 82 | - | - | 82 |
| E4 | 114 | - | - | 114 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 196 | 58 | - | 254 |
| Total | 196 | 157 | 32 | 385 |

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**Table 4-31. Unaccompanied Personnel Private Sector
Housing Requirement by Bedroom, <20FY>**

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 8 | 8 |
| O4 | - | - | 21 | 21 |
| O3 | - | 82 | - | 82 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 99 | 32 | 131 |
| E9 | - | 2 | - | 2 |
| E8 | - | 6 | - | 6 |
| E7 | - | 22 | - | 22 |
| E6 | - | 28 | - | 28 |
| E5 | 82 | - | - | 82 |
| E4 | 114 | - | - | 114 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 196 | 58 | - | 254 |
| Total | 196 | 157 | 32 | 385 |

Table 4-32. Homeownership Rates for Unaccompanied Personnel

| Pay Grade | Percentage Homeowners | Percentage Renters |
|-----------|-----------------------|--------------------|
| O7+ | 100.0% | 0.0% |
| O6 | 0.0% | 100.0% |
| O5 | 50.0% | 50.0% |
| O4 | 0.0% | 100.0% |
| O3 | 40.0% | 60.0% |
| O2 | 0.0% | 100.0% |
| O1 | 0.0% | 100.0% |
| E9 | 50.0% | 50.0% |
| E8 | 50.0% | 50.0% |
| E7 | 40.0% | 60.0% |
| E6 | 40.0% | 60.0% |
| E5 | 20.0% | 80.0% |
| E4 | 5.0% | 95.0% |
| E3 | 0.0% | 100.0% |
| E2 | 0.0% | 100.0% |
| E1 | 0.0% | 100.0% |

There are currently 385 unaccompanied personnel in pay grade E4 (over three years of service) and above that comprise the private sector unaccompanied requirement for homeowner and rental housing. An estimated 84 unaccompanied service members require homeowner housing (Table 4-33), and the remaining 301 unaccompanied service members require rental housing (Table 4-34).

For the final year of the transition period, there are 385 unaccompanied personnel in pay grade E4 (over three years of service) and above. An estimated 84 unaccompanied service members will require homeowner housing (Table 4-35), and 301 unaccompanied service members will require rental housing (Table 4-36).

Table 4-33. Unaccompanied Personnel Homeowner Requirement, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|----------|-----------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | 5 | 5 |
| O4 | - | - | - | - |
| O3 | - | 33 | - | 33 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 33 | 5 | 38 |
| E9 | - | 1 | - | 1 |
| E8 | - | 4 | - | 4 |
| E7 | - | 9 | - | 9 |
| E6 | - | 11 | - | 11 |
| E5 | 16 | - | - | 16 |
| E4 | 5 | - | - | 5 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 21 | 25 | - | 46 |
| Total | 21 | 58 | 5 | 84 |

Table 4-34. Unaccompanied Personnel Rental Requirement, <201Y>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 3 | 3 |
| O4 | - | - | 21 | 21 |
| O3 | - | 49 | - | 49 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 66 | 27 | 93 |
| E9 | - | 1 | - | 1 |
| E8 | - | 2 | - | 2 |
| E7 | - | 13 | - | 13 |
| E6 | - | 17 | - | 17 |
| E5 | 66 | - | - | 66 |
| E4 | 109 | - | - | 109 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 175 | 33 | - | 208 |
| Total | 175 | 99 | 27 | 301 |

Table 4-35. Unaccompanied Personnel Homeowner Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|----------|-----------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | 5 | 5 |
| O4 | - | - | - | - |
| O3 | - | 33 | - | 33 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 33 | 5 | 38 |
| E9 | - | 1 | - | 1 |
| E8 | - | 4 | - | 4 |
| E7 | - | 9 | - | 9 |
| E6 | - | 11 | - | 11 |
| E5 | 16 | - | - | 16 |
| E4 | 5 | - | - | 5 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 21 | 25 | - | 46 |
| Total | 21 | 58 | 5 | 84 |

Table 4-36. Unaccompanied Personnel Rental Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | - | 3 | 3 |
| O4 | - | - | 21 | 21 |
| O3 | - | 49 | - | 49 |
| O2 | - | 5 | - | 5 |
| O1 | - | 12 | - | 12 |
| Officers | - | 66 | 27 | 93 |
| E9 | - | 1 | - | 1 |
| E8 | - | 2 | - | 2 |
| E7 | - | 13 | - | 13 |
| E6 | - | 17 | - | 17 |
| E5 | 66 | - | - | 66 |
| E4 | 109 | - | - | 109 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 175 | 33 | - | 208 |
| Total | 175 | 99 | 27 | 301 |

MAHC sets the upper limit of affordable housing for unaccompanied personnel (Table 4-37) [If OOP is not applicable, the column in the table may be deleted.] Unaccompanied personnel are allocated to the rental housing market segments based on their assumed expenditures pattern by the personnel within each pay grade (Tables 4-38 and 4-39).

Table 4-37. Maximum Allowable Housing Cost Without Dependents, <20IY>

| Pay Grade | BAH | OOP | MAHC |
|-----------|---------|------|---------|
| O7+ | \$1,400 | \$45 | \$1,445 |
| O6 | \$1,380 | \$44 | \$1,424 |
| O5 | \$1,320 | \$44 | \$1,364 |
| O4 | \$1,270 | \$43 | \$1,313 |
| O3 | \$1,100 | \$39 | \$1,139 |
| O2 | \$900 | \$34 | \$934 |
| O1 | \$750 | \$30 | \$780 |
| E9 | \$1,100 | \$38 | \$1,138 |
| E8 | \$990 | \$36 | \$1,026 |
| E7 | \$820 | \$33 | \$853 |
| E6 | \$750 | \$30 | \$780 |
| E5 | \$700 | \$28 | \$728 |
| E4 | \$650 | \$25 | \$675 |
| E3 | \$650 | \$25 | \$675 |
| E2 | \$650 | \$25 | \$675 |
| E1 | \$650 | \$25 | \$675 |

Table 4-38. Unaccompanied Personnel Rental Requirement by Price Category, <201Y>

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - |
| \$1,200 - \$1,399 | - | - | 12 | 12 |
| \$1,100 - \$1,199 | - | 7 | 15 | 22 |
| \$1,000 - \$1,099 | - | 26 | - | 26 |
| \$900 - \$999 | - | 18 | - | 18 |
| \$800 - \$899 | - | 10 | - | 10 |
| \$700 - \$799 | 24 | 28 | - | 52 |
| \$600 - \$699 | 151 | 10 | - | 161 |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 175 | 99 | 27 | 301 |

Table 4-39. Unaccompanied Personnel Rental Requirement by Price Category, <20FY>

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|-----------|------------|
| | One | Two | Three | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - |
| \$1,200 - \$1,399 | - | - | 12 | 12 |
| \$1,100 - \$1,199 | - | 7 | 15 | 22 |
| \$1,000 - \$1,099 | - | 26 | - | 26 |
| \$900 - \$999 | - | 18 | - | 18 |
| \$800 - \$899 | - | 10 | - | 10 |
| \$700 - \$799 | 24 | 28 | - | 52 |
| \$600 - \$699 | 151 | 10 | - | 161 |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 175 | 99 | 27 | 301 |

5.0 COMPETING DEMAND

The military's share of the suitable rental housing supply is determined by the competition for the housing in each market segment. The competing demand for private sector rental housing for which the military will compete is described in the following sections:

- ◆ Civilian Households
- ◆ Other Households

5.1 CIVILIAN HOUSEHOLDS

Civilian housing demand is comprised of the housing demand by civilian households residing within the housing market area and any military personnel residing in the area who are not a housing responsibility of the installation. Housing demand by these households is determined by their housing decisions based on factors such as income, location, and personal preferences.

In the initial year of the transition period, <201Y>, civilian demand for rental housing with whom the military households will compete is 40,091 households (Table 5-1). The civilian rental housing demand in <20FY> is 44,007 (Table 5-2) based on household trends.

Table 5-1. Civilian Rental Demand, <201Y>

| Rental Cost ¹ | Number of Bedrooms | | | | | Total |
|--------------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 8 | 70 | 120 | 266 | 54 | 518 |
| \$1,400 - \$1,599 | 10 | 72 | 132 | 282 | 59 | 555 |
| \$1,200 - \$1,399 | 14 | 110 | 174 | 404 | 80 | 782 |
| \$1,100 - \$1,199 | 19 | 125 | 351 | 554 | 92 | 1,141 |
| \$1,000 - \$1,099 | 19 | 134 | 565 | 613 | 100 | 1,431 |
| \$900 - \$999 | 29 | 230 | 1,123 | 1,150 | 205 | 2,737 |
| \$800 - \$899 | 72 | 576 | 2,174 | 1,819 | 314 | 4,955 |
| \$700 - \$799 | 173 | 1,704 | 3,509 | 1,152 | 197 | 6,735 |
| \$600 - \$699 | 163 | 1,774 | 4,161 | 1,219 | 240 | 7,557 |
| \$500 - \$599 | 240 | 2,136 | 2,794 | 643 | 106 | 5,919 |
| \$400 - \$499 | 355 | 1,800 | 1,291 | 274 | 62 | 3,782 |
| Below - \$400 | 576 | 1,872 | 1,162 | 312 | 57 | 3,979 |
| Total | 1,678 | 10,603 | 17,556 | 8,688 | 1,566 | 40,091 |

Table 5-2. Civilian Rental Demand, <20FY>

| Rental Cost ¹ | Number of Bedrooms | | | | | Total |
|--------------------------|--------------------|---------------|---------------|--------------|--------------|---------------|
| | None | One | Two | Three | Four+ | |
| \$1,600 & Above | 9 | 77 | 131 | 294 | 59 | 570 |
| \$1,400 - \$1,599 | 10 | 79 | 145 | 306 | 64 | 604 |
| \$1,200 - \$1,399 | 16 | 121 | 195 | 443 | 87 | 862 |
| \$1,100 - \$1,199 | 21 | 137 | 381 | 612 | 101 | 1,252 |
| \$1,000 - \$1,099 | 21 | 147 | 624 | 666 | 109 | 1,567 |
| \$900 - \$999 | 31 | 252 | 1,225 | 1,257 | 225 | 2,990 |
| \$800 - \$899 | 79 | 629 | 2,385 | 1,988 | 342 | 5,423 |
| \$700 - \$799 | 189 | 1,875 | 3,841 | 1,259 | 216 | 7,380 |
| \$600 - \$699 | 181 | 2,008 | 4,546 | 1,335 | 262 | 8,332 |
| \$500 - \$599 | 267 | 2,294 | 3,061 | 706 | 114 | 6,442 |
| \$400 - \$499 | 391 | 1,999 | 1,426 | 302 | 68 | 4,186 |
| Below - \$400 | 635 | 2,080 | 1,278 | 343 | 63 | 4,399 |
| Total | 1,850 | 11,698 | 19,238 | 9,511 | 1,710 | 44,007 |

5.2 OTHER HOUSEHOLDS

[Describe other households not part of the civilian demand identified in the section above that compete for the rental housing]

6.0 RENTAL HOUSING SHORTFALL

This section summarizes the private sector rental housing market analysis that determines if there is sufficient private sector rental housing to meet the military requirements at the end of the five-year transition period. The analysis starts with military families and unaccompanied personnel households currently residing in the housing market. Military families currently residing in military housing in excess of the Floor Housing Requirement are assumed to transition to the private sector housing over a five-year period. A proportion of these families are assumed to make the change each year so that by the final transition year, only those families occupying military housing that meets the Floor Housing Requirement remain.

For military families requiring rental housing, the sufficiency of the market to meet their requirements is determined through an allocation process in which only the currently available, suitable rental housing is allocated to those military and civilian households currently actively seeking available rental housing. Available, suitable rental housing is those suitable units vacated by military and civilian personnel during the year as they seek other housing in the market area or are relocating outside of the area, plus any net additions to the rental supply through conversions or new construction. The analysis estimates the number of available units each year of the five-year study period. Net changes to the supply are determined through market response to changes in demand accounting for local contingencies and historical building cycles.

The active demand in each year is only those military and civilian families seeking housing in the market area including those moving from rental units in the market area and new military and civilian families moving into the market area. A portion of the families will continue to remain in their suitable housing units each year and not actively seek new housing.

The allocation of the available, suitable supply for the military is based on a competitive market share concept. As military personnel compete against civilian and other military demand in each market segment that are also seeking housing, they are expected to be able to rent their share of the then-available rental units.

6.1 RENTAL HOUSING SUPPLY AVAILABLE TO THE MILITARY

The private sector housing market inventory available to military families and unaccompanied personnel is based on the turnover of those military and civilian households currently residing in the housing market plus net changes to the rental supply. Separate turnover rates are determined for military family, unaccompanied personnel and civilian households (Table 6-1). [Describe the source of the information on turn over rates for military and civilian households. For example: Military turnover rates were estimated from data supplied by base housing staff. Civilian turnover rates were derived from interviews with property managers and apartment managers in communities surrounding the installation and combined with U.S. Bureau of the Census or other data as necessary.]

Table 6-1. Turnover Rates for Households in Rental Housing

| Household | Turnover Rate Percent per Year |
|-------------------------|-----------------------------------|
| Civilians | 50 % |
| Military Families | 25 % |
| Unaccompanied Personnel | 35 % |

6.2 RENTAL HOUSING SUPPLY ALLOCATED TO THE MILITARY

The dynamic process assesses the housing market each year of the five-year period. It considers annual changes, if any, in total authorized manpower and changes in the demand for private sector housing from military personnel assuming the installation adjusts its current supply of military housing to its Floor Housing Requirement. A military market share is computed for each year of the analysis based on competition of only those military and civilian households actively seeking housing during the year and available rental units either vacant, turning over or newly constructed in the market.

The changes in the rental supply and demand over the transition period are presented in Table 6-2. Table 6-3 displays the available rental supply and the active demand.

The annual share of suitable rental housing to military requirements is shown in Table 6-4. [Summarize the results presented in Table 6-4. For example: The analysis indicates that 525 military families would be successful in obtaining suitable rental units over the next five years. There is still an additional requirement or shortfall of 39 suitable community rentals if <Anywhere AFB> were to retain only the Floor Housing Requirement by <20FY>. Unaccompanied personnel acquire 286 suitable rentals over the study period and require 15 additional units in order to meet their requirement.]

Table 6-2. Total Rental Supply and Demand, <201Y to 20FY>

| | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|---|--------|--------|--------|--------|--------|--------|
| Rental Supply | | | | | | |
| Unsuitable | 6,579 | 6,579 | 6,579 | 6,579 | 6,579 | 6,579 |
| Suitable | 35,635 | 36,548 | 37,461 | 38,374 | 39,287 | 40,200 |
| Total Rental Housing | 42,214 | 43,127 | 44,040 | 44,953 | 45,866 | 46,779 |
| Demand | | | | | | |
| Civilian Rental | 40,091 | 40,874 | 41,657 | 42,441 | 43,224 | 44,007 |
| Military Families | 524 | 610 | 696 | 783 | 869 | 955 |
| Owner Occupied | 391 | 391 | 391 | 391 | 391 | 391 |
| Rental | 133 | 219 | 305 | 392 | 478 | 564 |
| Manpower Changes | - | 133 | 219 | 305 | 392 | 478 |
| Unaccompanied Off-Base | 385 | 385 | 385 | 385 | 385 | 385 |
| Owner Occupied | 84 | 84 | 84 | 84 | 84 | 84 |
| Rental | 301 | 301 | 301 | 301 | 301 | 301 |
| Manpower Changes | - | 301 | 301 | 301 | 301 | 301 |
| Total Rental Demand | 40,525 | 41,394 | 42,264 | 43,133 | 44,003 | 44,872 |
| Rental Supply Less Rental Demand | 1,689 | 1,733 | 1,776 | 1,820 | 1,863 | 1,907 |

Table 6-3. Available Rental Supply and Active Demand, <201Y to 20FY>

| | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|--------------------------------|--------|--------|--------|--------|--------|--------|
| Available Rental Supply | | | | | | |
| Available for Rent | - | 17,951 | 19,004 | 19,438 | 19,872 | 20,306 |
| From Turnovers | - | 17,038 | 18,091 | 18,525 | 18,959 | 19,393 |
| Net Changes to Supply | - | 913 | 913 | 913 | 913 | 913 |
| Active Rental Demand | | | | | | |
| Civilian | | | | | | |
| New Demand | - | 783 | 783 | 783 | 783 | 783 |
| Turnover | - | 16,923 | 17,939 | 18,354 | 18,768 | 19,182 |
| Suitable Housing | 33,846 | 20,829 | 21,220 | 21,612 | 22,004 | 22,395 |
| Unsuitable Housing | 6,245 | 4,995 | 4,949 | 4,904 | 4,860 | 4,815 |
| Military Families | | | | | | |
| New Demand | - | 86 | 86 | 86 | 86 | 86 |
| Turnover | - | 28 | 51 | 71 | 91 | 111 |
| Suitable Housing | 112 | 135 | 152 | 179 | 205 | 230 |
| Unsuitable Housing | 21 | 15 | 22 | 28 | 33 | |
| Unaccompanied Personnel | | | | | | |
| New Demand | - | 0 | 0 | 0 | 0 | 0 |
| Turnover | - | 87 | 100 | 100 | 100 | 100 |
| Suitable Housing | 248 | 140 | 115 | 115 | 115 | 115 |
| Unsuitable Housing | 53 | 14 | 15 | 15 | 15 | |

Table 6-4. Market Share of Suitable Rental Housing, <201Y to 20FY>

| | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|-------------------------|--------|--------|--------|--------|--------|--------|
| Market Share | | | | | | |
| Civilians | | | | | | |
| Suitably Housed | 33,846 | 35,879 | 36,709 | 37,536 | 38,364 | 39,192 |
| Unsuitably Housed | 6,245 | 4,995 | 4,949 | 4,904 | 4,860 | 4,815 |
| Military Families | | | | | | |
| Suitably Housed | 112 | 204 | 283 | 364 | 445 | 525 |
| Unsuitably Housed | 21 | 15 | 22 | 28 | 33 | 39 |
| Unaccompanied Personnel | | | | | | |
| Suitably Housed | 248 | 287 | 286 | 286 | 286 | 286 |
| Unsuitably Housed | 53 | 14 | 15 | 15 | 15 | 15 |

6.3 PRIVATE SECTOR SHORTFALL

As determined by the allocation analysis through <20FY>, the Private Sector Shortfall of 39 units for military families is presented in Table 6-5. The Private Sector Shortfall of 15 units for unaccompanied personnel is presented in Table 6-6.

Table 6-5. Private Sector Shortfall for Military Families, <20FY>

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|-----------|----------|-----------|
| | Two | Three | Four+ | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | 2 | 2 | 4 |
| \$1,200 - \$1,399 | 5 | 6 | 3 | 14 |
| \$1,100 - \$1,199 | 2 | 7 | 1 | 10 |
| \$1,000 - \$1,099 | 1 | - | - | 1 |
| \$900 - \$999 | 1 | - | 1 | 2 |
| \$800 - \$899 | 4 | 1 | - | 5 |
| \$700 - \$799 | 3 | - | - | 3 |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 16 | 16 | 7 | 39 |

**Table 6-6. Private Sector Shortfall
for Unaccompanied Personnel, <20FY>**

| Rental Cost | Number of Bedrooms | | | Total |
|-------------------|--------------------|----------|----------|-----------|
| | One | Two | Three+ | |
| \$1,600 & Above | - | - | - | - |
| \$1,400 - \$1,599 | - | - | - | - |
| \$1,200 - \$1,399 | - | - | 1 | 1 |
| \$1,100 - \$1,199 | - | - | 1 | 1 |
| \$1,000 - \$1,099 | - | 1 | - | 1 |
| \$900 - \$999 | - | 1 | - | 1 |
| \$800 - \$899 | - | 1 | - | 1 |
| \$700 - \$799 | 1 | 1 | - | 2 |
| \$600 - \$699 | 7 | 1 | - | 8 |
| \$500 - \$599 | - | - | - | - |
| \$400 - \$499 | - | - | - | - |
| Below - \$400 | - | - | - | - |
| Total | 8 | 5 | 2 | 15 |

7.0 TOTAL HOUSING REQUIREMENT

This chapter summarizes the results and determination of the Total Military Housing Requirement for <Anywhere AFB>. The dynamic analysis produces results for each year of the transition period.

7.1 TOTAL MILITARY FAMILY HOUSING REQUIREMENT

There is an initial year Private Sector Shortfall of 21 units at <Anywhere AFB>. The Floor Housing Requirement for <20FY> is 113 housing units. As more military families are transitioned to the private sector to increase reliance on the private sector housing, more suitable private sector rental units are allocated to the military families. By <20FY>, the Private Sector Shortfall is 39 units, coupled with the Floor Housing Requirement result in a Total Military Family Housing Requirement of 152 units.

Table 7-1. Total Military Family Housing Requirement, <201Y to 20FY>

| Component | <201Y> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|--|------------|------------|------------|------------|------------|------------|
| Military Families | 1,068 | 1,068 | 1,068 | 1,068 | 1,068 | 1,068 |
| Military Housing Supply | 544 | 544 | 544 | 544 | 544 | 544 |
| Occupied Military Housing Supply | 544 | 458 | 372 | 285 | 199 | 113 |
| Floor Housing Requirement, <20FY> | 113 | 113 | 113 | 113 | 113 | 113 |
| Units Occupied in Excess of <20FY> Floor Housing Requirement | 431 | 345 | 259 | 172 | 86 | - |
| Military Families in Private Sector Housing | 524 | 610 | 696 | 783 | 869 | 955 |
| Private Sector Shortfall | 21 | 15 | 22 | 28 | 33 | 39 |
| Total Military Family Housing Requirement | 565 | 473 | 394 | 313 | 232 | 152 |

[Enter appropriate criterion that impact the Floor Housing Requirement. For example: The Floor Housing Requirement is comprised of the Community Housing Requirement and the Key and Essential Housing Requirement. There are no historic housing units at the installation (Table 7-2 and 7-3). About 82 percent of the 39 units Private Sector Shortfall is in two and three bedroom units with the remaining 18 percent in four bedrooms units (Table 7-4). The Total Military Family Housing Requirement by bedroom categories is the sum of the Floor Housing Requirement and the Private Sector Shortfall (Table 7-5.)

Table 7-2. Total Military Family Housing Requirement, <20FY>

| Pay Grade | Military Families | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Housing Requirement | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------|--------------------|-----------------|------------------|--------------------------|---------------------------|--------------------------|------------------------------------|
| O7+ | 1 | - | 1 | 2 | - | 2 | - | 2 |
| O6 | 13 | 1 | 5 | - | - | 5 | 1 | 6 |
| O5 | 49 | 5 | 2 | - | - | 5 | 1 | 6 |
| O4 | 78 | 8 | - | - | - | 8 | 5 | 13 |
| O3 | 162 | 16 | - | - | - | 16 | 5 | 21 |
| O2 | 18 | 2 | - | - | - | 2 | - | 2 |
| O1 | 13 | 1 | - | - | - | 1 | - | 1 |
| Officers | 334 | 33 | 8 | 2 | - | 39 | 12 | 51 |
| E9 | 10 | 1 | - | - | - | 1 | - | 1 |
| E8 | 27 | 3 | - | - | - | 3 | 1 | 4 |
| E7 | 151 | 15 | - | - | - | 15 | 8 | 23 |
| E6 | 178 | 18 | - | - | - | 18 | 6 | 24 |
| E5 | 232 | 23 | - | - | - | 23 | 7 | 30 |
| E4 | 105 | 11 | - | - | - | 11 | 4 | 15 |
| E3 | 25 | 3 | - | - | - | 3 | 1 | 4 |
| E2 | 4 | - | - | - | - | - | - | - |
| E1 | 2 | - | - | - | - | - | - | - |
| Enlisted | 734 | 74 | - | - | - | 74 | 27 | 101 |
| Total | 1,068 | 107 | 8 | 2 | - | 113 | 39 | 152 |

Table 7-3. Floor Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | 5 | 5 |
| O5 | - | 5 | - | 5 |
| O4 | - | 6 | 2 | 8 |
| O3 | 11 | 4 | 1 | 16 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 14 | 15 | 10 | 39 |
| E9 | - | 1 | - | 1 |
| E8 | - | 3 | - | 3 |
| E7 | - | 13 | 2 | 15 |
| E6 | 9 | 6 | 3 | 18 |
| E5 | 17 | 4 | 2 | 23 |
| E4 | 9 | 2 | - | 11 |
| E3 | 3 | - | - | 3 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 38 | 29 | 7 | 74 |
| Total | 52 | 44 | 17 | 113 |

Table 7-4. Military Family Private Sector Shortfall, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|----------|-----------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 1 | - | 1 |
| O4 | - | 3 | 2 | 5 |
| O3 | 4 | - | 1 | 5 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | 4 | 4 | 4 | 12 |
| E9 | - | - | - | - |
| E8 | - | 1 | - | 1 |
| E7 | - | 7 | 1 | 8 |
| E6 | 3 | 2 | 1 | 6 |
| E5 | 5 | 1 | 1 | 7 |
| E4 | 3 | 1 | - | 4 |
| E3 | 1 | - | - | 1 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 12 | 12 | 3 | 27 |
| Total | 16 | 16 | 7 | 39 |

Table 7-5. Total Military Family Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | 2 | 2 |
| O6 | - | - | 6 | 6 |
| O5 | - | 6 | - | 6 |
| O4 | - | 9 | 4 | 13 |
| O3 | 15 | 4 | 2 | 21 |
| O2 | 2 | - | - | 2 |
| O1 | 1 | - | - | 1 |
| Officers | 18 | 19 | 14 | 51 |
| E9 | - | 1 | - | 1 |
| E8 | - | 4 | - | 4 |
| E7 | - | 20 | 3 | 23 |
| E6 | 12 | 8 | 4 | 24 |
| E5 | 22 | 5 | 3 | 30 |
| E4 | 12 | 3 | - | 15 |
| E3 | 4 | - | - | 4 |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 50 | 41 | 10 | 101 |
| Total | 68 | 60 | 24 | 152 |

7.2 TOTAL UNACCOMPANIED PERSONNEL HOUSING REQUIREMENT

There is an initial year Private Sector Shortfall of 53 units. The Minimum Unaccompanied Housing Requirement will house all unaccompanied personnel in grade E4 with three years of service and below in <20FY> (Table 7-6). By <20FY>, the Private Sector Shortfall is 15 units coupled with the Minimum Unaccompanied Housing Requirement result in a Total Unaccompanied Personnel Housing Requirement of 180 units.

Table 7-6. Market Share of Suitable Rental Housing, <20IY to 20FY>

| | <20IY> | <20xw> | <20xx> | <20xy> | <20xz> | <20FY> |
|--|------------|------------|------------|------------|------------|------------|
| Total Unaccompanied Personnel | 550 | 550 | 550 | 550 | 550 | 550 |
| E4 (three years of service & below) | 165 | 165 | 165 | 165 | 165 | 165 |
| Government Quarters | | | | | | |
| Minimum Housing Requirement | 165 | 165 | 165 | 165 | 165 | 165 |
| Private Sector Rental Housing Requirement | 385 | 385 | 385 | 385 | 385 | 385 |
| E4 over three years of service | 114 | 114 | 114 | 114 | 114 | 114 |
| E5 and Above | 271 | 271 | 271 | 271 | 271 | 271 |
| Private Sector Shortfall | 53 | 14 | 15 | 15 | 15 | 15 |
| Total Unaccompanied Personnel Housing Requirement | 218 | 179 | 180 | 180 | 180 | 180 |

The Private Sector Shortfall for unaccompanied personnel is 15 units (Table 7-7).

Table 7-7. Unaccompanied Personnel Private Sector Shortfall, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|----------|----------|-----------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | 2 | 2 |
| O3 | - | 2 | - | 2 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 2 | 2 | 4 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | 1 | - | 1 |
| E6 | - | 1 | - | 1 |
| E5 | 3 | 1 | - | 4 |
| E4 | 5 | - | - | 5 |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | - | - | - | - |
| Enlisted | 8 | 3 | - | 11 |
| Total | 8 | 5 | 2 | 15 |

The Total Unaccompanied Personnel Housing Requirement is 180 units (Table 7-7).

Table 7-8. Total Unaccompanied Personnel Housing Requirement, <20FY>

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|----------|----------|------------|
| | Two | Three | Four | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | 2 | 2 |
| O3 | - | 2 | - | 2 |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | 2 | 2 | 4 |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | 1 | - | 1 |
| E6 | - | 1 | - | 1 |
| E5 | 3 | 1 | - | 4 |
| E4 | 43 | - | - | 43 |
| E3 | 103 | - | - | 103 |
| E2 | 16 | - | - | 16 |
| E1 | 8 | - | - | 8 |
| Enlisted | 173 | 3 | - | 176 |
| Total | 173 | 5 | 2 | 180 |

7.3 SUMMARY

[Summarize the findings as appropriate. For example:

Housing Market Area

<Anywhere AFB> is near [Enter brief description of market area.]

Housing Supply

There is a total private housing stock of 160,968 units, including 117,139 homeowner units and 43,829 rental units. At an estimated annual growth rate of 2 percent total private housing supply would increase to 191,183 units in <20FY>.

<Anywhere AFB> currently has 544 military family housing units and no privatized units.

Military Housing Demand

The <Anywhere AFB> housing office is currently responsible for supporting 1,715 military personnel including both Air Force and tenant personnel. This number is expected to not change in <20FY>.

Currently, there are 1,068 military families after subtracting military couples and voluntary separated personnel. There are 550 unaccompanied personnel, of which 385 require private sector housing.

In <20FY>, there are projected to be 1,068 military families and 550 unaccompanied personnel, of which 385 will require private sector housing.

Military Community Housing Requirement

The on-base community criterion requires military housing for 10 percent of all military families by pay grade. This requirement is projected to total 107 housing units.

Key and Essential Housing Requirement

There are projected to be eight key and essential positions at <Anywhere AFB>.

Historic Housing Requirement

There are two historic housing units at <Anywhere AFB>.

Targeted Economic Relief Housing Requirement

There are no projected members with RMC below 50 percent of the median family income in the housing market area.

Floor Housing Requirement

The Floor Housing Requirement, based on the greater of each of its components by pay grade, totals 113 military housing units.

Private Sector Housing for Military Families

There is a projected requirement for 39 additional suitable private sector rental units for military families.

Total Military Family Housing Requirement

The Total Military Family Housing Requirement, based on the sum of the Floor Housing Requirement and the Private Sector Shortfall by pay grade, totals 152 military housing units.

Private Sector Shortfall for Unaccompanied Personnel

There is a projected requirement for 15 additional suitable private sector rental housing units for unaccompanied personnel in pay grade E4 (over three years of service) and above.

Total Unaccompanied Personnel Housing Requirement

The Total Unaccompanied Personnel Housing Requirement, based on the sum of the Minimum Unaccompanied Personnel Housing Requirement and the Private Sector Shortfall by pay grade, totals 180 military housing units.

8.0 REFERENCES

(Listing of References and Contacts)

<Published Date>

Housing Requirements and Market Analysis
<Anywhere Air Force Base, 20FY – 20FY>

8-1

APPENDIX F. HRMA UPDATE SAMPLE REPORT

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Housing Requirements and Market Analysis
Update

McChord Air Force Base

2004 – 2009

October 2004

Housing
Requirements and
Market
Analysis

Update

McChord Air Force Base
Washington

2004 – 2009

Prepared for:

Air Force Center for Environmental Excellence
Air Force Housing Division
Air Mobility Command
McChord Air Force Base

Prepared by:

Analyst/Contractor

Published:

October 1, 2004

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MCCHORD AIR FORCE BASE HOUSING REQUIREMENTS AND MARKET ANALYSIS UPDATE

EXECUTIVE SUMMARY

A Housing Requirements and Market Analysis (HRMA) was completed on September 5, 2003, for McChord Air Force Base (AFB), Washington, covering the period 2003 to 2008. The 2003 HRMA concluded that with 982 Military Family Housing (MFH) Units projected for 2008, 602 units would be in excess of the Total Military Family Housing Requirement of 380 units projected for that year. This HRMA Update (Update) estimates the impact of the U.S. Army's decision to station additional Stryker personnel at nearby Fort Lewis. In addition, it re-assesses the market conditions on which the 2003 HRMA is based, incorporating housing market conditions for 2004 and 2009. Three alternatives are examined in this analysis: Scenario 1) Status Quo - No additional Army personnel are stationed at Fort Lewis; Scenario 2) One Stryker Brigade - 3,900 additional Stryker Army personnel stationed at Fort Lewis; and Scenario 3) Two Stryker Brigades - 7,800 additional Stryker Army personnel stationed at Fort Lewis.

Based on 2004 market conditions and assumed manpower and demographics of Army personnel, the Total Military Family Housing Requirement for 2009 is projected for each of the three scenarios at 350, 367, and 383 units, respectively (Table 1). The addition of the Stryker unit(s) at Fort Lewis, combined with updated market conditions (with results updated from 2008 to 2009), do not yield significant changes to McChord AFB's housing requirement. Table 2 displays the Unaccompanied Personnel Housing Requirement for 2009 in each of the three scenarios.

Table 1. Total Military Family Housing Requirement, 2009

| | 2003 HRMA | 2004 HRMA Update | | |
|---|--------------|--------------------------------------|--|---|
| | | <i>Scenario 1</i> | <i>Scenario 2</i> | <i>Scenario 3</i> |
| | | Status Quo w/o Stryker Brigade | w/Stryker Brigade @ 3,900 Personnel | w/Stryker Brigade @ 7,800 Personnel |
| | 2008 | 2009 | 2009 | 2009 |
| Military Families | | | | |
| Floor Requirement | 270 | 260 | 260 | 260 |
| Private Sector Housing Shortfall | 110 | 90 | 107 | 123 |
| Total Military Family Housing Requirement | 380 | 350 | 367 | 383 |
| MFH Inventory | 982 | 982 | 982 | 982 |
| Projected Deficit/(Surplus) | (602) | (632) | (615) | (599) |

Table 2. Total Unaccompanied Personnel Housing Requirement, 2009

| | 2003 HRMA | 2004 HRMA Update | | |
|---|-------------|------------------------|---------------------------------|-------------------------------|
| | | <u>Scenario 1</u> | <u>Scenario 2</u> | <u>Scenario 3</u> |
| | | Status Quo | w/Stryker Brigade @ 3,900 | w/Stryker Brigade 7,800 |
| | | w/o Stryker Brigade | Personnel | Personnel |
| | 2008 | 2009 | 2009 | 2009 |
| Unaccompanied Personnel | | | | |
| On-Base Housing Requirement | 696 | 696 | 696 | 696 |
| Private Sector Housing Shortfall | 58 | 53 | 60 | 67 |
| Total Unaccompanied Housing Requirement | 754 | 749 | 756 | 763 |

These results are based on many assumptions including McChord's total manpower authorizations remain at 2003 McChord AFB HRMA levels with the same demographics as well as numerous assumptions about Army personnel authorizations, accompaniment rates, voluntary separation rates, military-married-to-military rates, family bedroom requirements and homeownership rates that were derived from Air Force Housing Division instructions and the 2002 *Family Housing Market Analysis for HQ I Corps and Fort Lewis, Washington*.

ANALYST ASSESSMENT

Certain factors mitigate the impact to the McChord's housing requirement:

- 1) The McChord AFB Housing Market Area is a very large market with 131,636 suitable rental units projected for 2009. Military rental demand represents a very small proportion of the total rental demand.
- 2) Vacancies increased by over one percent from 2003 to 2004 and rental prices are flat or slightly down, indicating a softening rental market.
- 3) MAHC increases for military families range from 2.7 to 6.7 percent from 2003 to 2004.
- 4) Increases in MAHC and RMC decreased McChord's Floor Requirement by 10 units to 260 units by eliminating the Targeted Economic Relief Requirement for E2 families.
- 5) With 68 percent of the incoming Fort Lewis personnel categorized as unaccompanied, actual increases to rental demand competing against McChord military family renters is not significant, particularly given the sizable rental market. Increased rental demand in two- to four-plus bedroom market segments totals 1,230 members in Scenario 2, and 2,468 in Scenario 3. The balance of the projected 3,900 (Scenario 2) or 7,800 (Scenario 3) Stryker personnel compete for one bedrooms or are assumed to reside in on-post dormitory spaces.

Thus, the Total MFH Requirement for McChord AFB is 30 fewer units under Scenario 1 as 10 fewer families reside on-base under the Floor Requirement and families are able to secure more suitable rental units due to MAHC increases and a softening rental market. Under Scenarios 2 and 3, the additional rental demand results in only a nominally higher private sector shortfall and resulting Total MFH Requirement than the 2003 HRMA results.

The assumptions incorporated into the analysis regarding the accompaniment rates and pay grade mixes of the Stryker Brigade personnel have the most significant impact on McChord's housing requirements. For example, if the unaccompaniment rate was, in fact, lower than the 68 percent used in the analysis, there would be more Fort Lewis families seeking suitable, affordable rental housing. To test the sensitivity of Fort Lewis' demographic assumptions, an adjustment to the additional Fort Lewis Military Family Rental Requirement by Price Category (Tables 32 and 33) was made. The private sector shortfall was estimated under alternative assumptions based on the number of Fort Lewis military families requiring rental housing. Table 3 displays the results of alternative increases up to double the baseline estimate under each scenario.

Table 3. Sensitivity Analysis of Fort Lewis Accompanied Personnel

| | <i>Baseline Families</i> | <i>Increase in the Number of Ft. Lewis Military Families</i> | | | |
|--|------------------------------|--|--------------|---------------|---------------|
| | | <i>1.25 x</i> | <i>1.5 x</i> | <i>1.75 x</i> | <i>2.00 x</i> |
| Scenario 2 | | | | | |
| Ft. Lewis Military Family Rental Requirement | 966 | 1,208 | 1,449 | 1,691 | 1,932 |
| McChord Military Family Private Sector Shortfall | 107 | 110 | 114 | 118 | 121 |
| Scenario 3 | | | | | |
| Ft. Lewis Military Family Rental Requirement | 1,931 | 2,414 | 2,897 | 3,379 | 3,862 |
| McChord Military Family Private Sector Shortfall | 123 | 130 | 137 | 144 | 151 |

INTRODUCTION

BACKGROUND

The Air Force conducts Housing Requirements and Market Analysis (HRMA) studies to determine Military Family Housing (MFH) assets the U.S. Government must provide to ensure that all families the installation has responsibility to house have access to acceptable housing. These studies are conducted every three years or sooner if a major event occurs or is expected to occur. McChord AFB and Fort Lewis are adjoining military installations located just south of Tacoma, Washington. As such, major changes to one installation's authorized total manpower may have an impact on the other installation's Total Military Family Housing Requirement.

SUBJECT

This study evaluates McChord AFB's housing requirements under three alternatives in which military personnel stationed at Fort Lewis are treated as competing private sector demand. Accordingly, housing requirements for Fort Lewis are not examined in this study.

PURPOSE

This study updates the 2003 McChord AFB HRMA study incorporating current housing market conditions and assesses the impact to McChord's Total Military Family Housing Requirement for three scenarios that include the U.S. Army's decision to station additional Stryker brigades at Fort Lewis.

METHODS AND ASSUMPTIONS

SCENARIOS AND DATA

This Update incorporates the most recent (2004) private sector market conditions in the Housing Market Area. As directed by Air Force Housing Division, this study evaluates the impact to McChord housing requirements by stationing additional Stryker brigades at Fort Lewis. Scenario 1 serves as a baseline for comparison. The Status Quo considers only the changes in the private sector rental housing market from 2003 to 2004 and new projections of the market conditions to 2009, with no additional influx of military personnel to Fort Lewis. Scenario 2 assumes the addition of one Stryker brigade at Fort Lewis while Scenario 3 assumes the addition of two Stryker brigades.

Total manpower authorizations and accompaniment rates under the two Stryker brigade scenarios was provided by Air Force Housing Division. The *2002 Family Housing Market Analysis for HQ I Corps and Fort Lewis, Washington*, serves as the source for the demographics and other characteristics of the Army's Stryker brigades. Total manpower

authorizations, personnel demographics, and other data on the military households that McChord has the responsibility to house were taken directly from the *2003 Housing Requirements and Market Analysis, McChord Air Force Base*. Current private sector housing market information including market trends were obtained from real estate professionals, apartment advisors, government agencies and other organizations.

SCOPE

The effective dates of the analysis cover the years 2004 to 2009.

ASSUMPTIONS

As a worst-case scenario, analytical assumptions were made to maximize the impact of Fort Lewis data on McChord's housing requirements. The following key assumptions used in the Update for McChord AFB have an impact on the results:

1. McChord AFB Data
 - a. All manpower authorizations and personnel demographics are applied as presented in the *2003 Housing Requirements and Market Analysis, McChord Air Force Base*.
 - b. The Housing Market Area used in this Update is the same as McChord AFB's 2003 HRMA.
 - c. The minimum rental price for acceptable housing is set at 85 percent of MAHC.
2. Fort Lewis Data
 - a. No MFH units at Fort Lewis or McChord AFB are available to accommodate any military families in the Stryker brigade(s).
 - b. All Fort Lewis Stryker brigade military families will seek either homeowner or rental housing in the private sector.
 - c. The Floor Requirement at Fort Lewis is assumed not to change as a result of the additional Stryker brigade families.
 - d. Stryker brigade manpower authorizations by pay grade are as directly provided by Air Force Housing Division (See Table 14).
 - e. Stryker brigade accompaniment rates are as provided directly by Air Force Housing Division (estimated at 68 percent unaccompanied).
 - f. Voluntary separation and military-married-to-military rates for the Stryker brigade accompanied personnel were derived from the 2002 Fort Lewis HMA based on grade groups. Factors for each grade group were applied to all pay grades within the grade group.
 - g. Family bedroom requirements from the 2002 Fort Lewis HMA for each grade group were applied to all pay grades within the grade group.
 - h. Homeownership rates for military families from the 2002 Fort Lewis HMA were applied to the Stryker brigade military families. Factors from each grade group were applied to all pay grades within the grade group.
 - i. All Stryker brigade unaccompanied personnel in pay grade E4 and below are assumed to reside on post. Fort Lewis dormitory spaces were not

reviewed to ascertain if sufficient units exist on-post to accommodate additional unaccompanied personnel.

- j. Homeownership rates as applied to unaccompanied personnel in the 2003 McChord AFB HRMA were assumed to apply to the unaccompanied personnel in the Stryker brigades.
- k. The Stryker brigade personnel are assumed to arrive at the post in 2005.

DATA

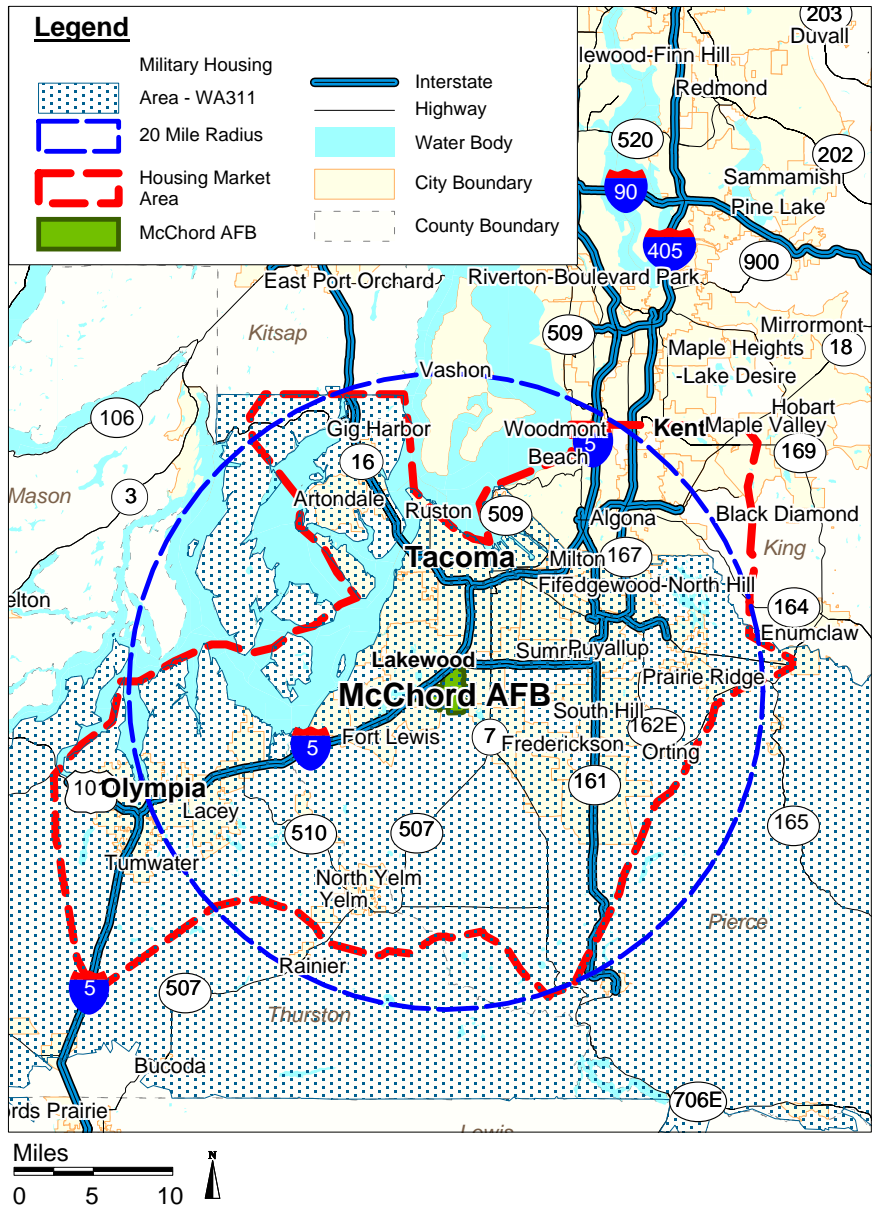
HOUSING MARKET

The Housing Market Area used in this Update is the same as in the 2003 McChord AFB HRMA (Figure 1). Important changes to market conditions are identified below (Table 4).

Table 4. Rental Housing Conditions, 2004

| | |
|---|--|
| ➤ | Vacancies – up from 6.1% to 7.2% as households transition from rental market to homeowner market due to low mortgage interest rates |
| ➤ | Rental Prices – rates flat or slightly down from 2003 as vacancies rise and additional inventory comes on-line |
| ➤ | Rental Supply – additional rental inventory due to steady multi-family permits |

Figure 1. McChord Air Force Base Housing Market Area, 2004



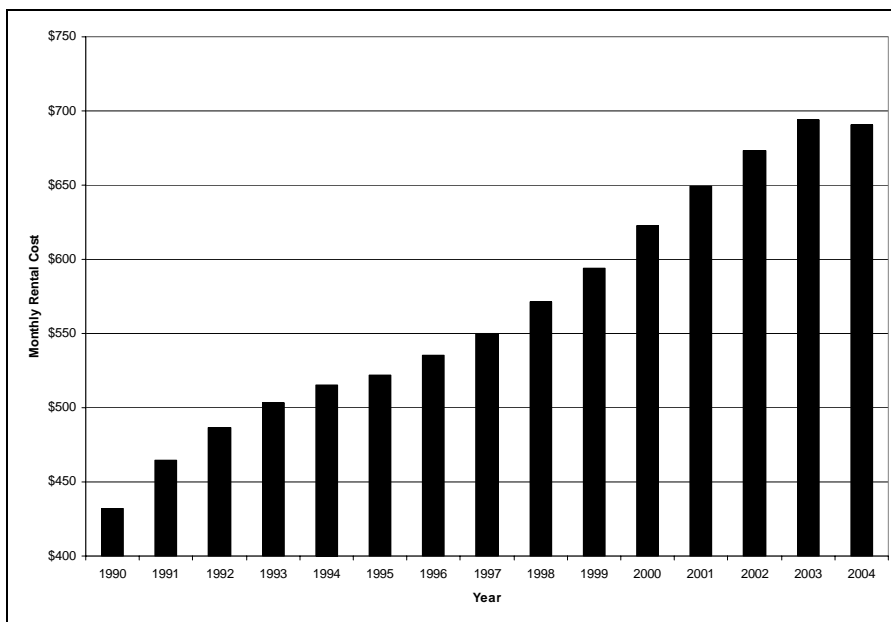
Apartment vacancies within the McChord Housing Market Area have increased from 6.1 percent in 2003 to 7.2 percent in 2004 (as of March 2004, Figure 2). This increase reflects the nationwide trend as renters capitalize on low mortgage interest rates and purchase homes. Although annual multi-family building permits have decreased in Pierce County reaching 752 units permitted in 2003, additional rental inventory continues to be added in the area. The combination of renters moving into homeownership coupled with continued nominal rental inventory growth has stagnated rental prices in the area (Figure 3). Apartment rental prices have decreased on average 0.5 percent in the market area since 2003.

Figure 2. Apartment Vacancy Rates in the Housing Market Area, 1990-2004



Source: Dupre + Scott Apartment Advisors, March 2004; SAIC, 2004.

Figure 3. Apartment Rental Prices in the Housing Market Area, 2000-2004



Source: Dupre + Scott Apartment Advisors, March 2004; SAIC, 2004.

HOUSING SUPPLY

Only rental housing within the Housing Market Area is considered in the analysis. Homeowners are considered suitably housed. Rental housing units are estimated at 160,872 in 2004 and are projected to increase to 172,711 by 2009 (Table 5). The number of households and the distribution of housing by market segment are based on the 2000 Census.

Table 5. Housing Units in the Market Area, 2004 & 2009

| Housing Units | 2004 | 2009 |
|---|----------------|----------------|
| Homeowner Units | 283,975 | 314,816 |
| Rental Housing Units ¹ | 160,872 | 172,711 |
| Total Housing Units | 444,847 | 487,527 |
| | | |
| McChord AFB Military Family Housing Units | 982 | 982 |

Housing Growth

The rental housing supply is estimated to grow by 1.4 percent per year between 2004 and 2009. A 1.6 percent rate for 2003 to 2008 was applied in the 2003 HRMA.

Housing Suitability

Approximately 75 percent of all rental housing (119,797) is considered suitable for military personnel in terms of physical conditions and health and safety concerns (Table 6). In 2009, approximately 76 percent of rental housing is considered suitable. Rental mobile homes are not considered suitable for military personnel.

Table 6. Suitable and Unsuitable Rental Housing, 2004 & 2009

| | 2004 | 2009 |
|--------------------------------|---------|---------|
| Total Rental Housing | 160,872 | 172,711 |
| Unsuitable Rental Units | 41,075 | 41,075 |
| Suitable Rental Housing | 119,797 | 131,636 |

Table 7. Total Rental Housing Supply, 2004

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 84 | 211 | 356 | 1,153 | 257 | 2,061 |
| \$1,500 -\$1,999 | 148 | 365 | 612 | 1,988 | 445 | 3,558 |
| \$1,300 -\$1,499 | 233 | 569 | 947 | 3,087 | 694 | 5,530 |
| \$1,200 -\$1,299 | 175 | 429 | 712 | 2,324 | 519 | 4,159 |
| \$1,100 -\$1,199 | 167 | 585 | 1,621 | 2,527 | 567 | 5,467 |
| \$1,000 -\$1,099 | 149 | 1,128 | 4,707 | 3,317 | 744 | 10,045 |
| \$900 -\$999 | 198 | 1,498 | 6,253 | 4,394 | 989 | 13,332 |
| \$800 -\$899 | 696 | 4,296 | 10,787 | 4,306 | 955 | 21,040 |
| \$700 -\$799 | 1,333 | 7,663 | 14,207 | 1,928 | 441 | 25,572 |
| \$600 -\$699 | 1,342 | 7,712 | 14,304 | 1,955 | 444 | 25,757 |
| \$500 -\$599 | 2,324 | 9,425 | 7,168 | 1,399 | 313 | 20,629 |
| Under -\$499 | 3,550 | 12,816 | 5,107 | 1,840 | 409 | 23,722 |
| Total | 10,399 | 46,697 | 66,781 | 30,218 | 6,777 | 160,872 |

Table 8. Suitable Rental Housing, 2004

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 68 | 173 | 321 | 1,061 | 228 | 1,851 |
| \$1,500 -\$1,999 | 112 | 277 | 533 | 1,776 | 379 | 3,077 |
| \$1,300 -\$1,499 | 180 | 453 | 792 | 2,779 | 595 | 4,799 |
| \$1,200 -\$1,299 | 136 | 347 | 588 | 2,098 | 446 | 3,615 |
| \$1,100 -\$1,199 | 128 | 473 | 1,384 | 2,217 | 469 | 4,671 |
| \$1,000 -\$1,099 | 113 | 914 | 4,090 | 2,719 | 562 | 8,398 |
| \$900 -\$999 | 158 | 1,220 | 5,492 | 3,641 | 748 | 11,259 |
| \$800 -\$899 | 568 | 3,642 | 9,274 | 3,543 | 728 | 17,755 |
| \$700 -\$799 | 1,034 | 6,318 | 11,332 | 1,352 | 296 | 20,332 |
| \$600 -\$699 | 933 | 6,034 | 10,726 | 1,142 | 255 | 19,090 |
| \$500 -\$599 | 1,356 | 6,474 | 4,621 | 692 | 157 | 13,300 |
| Under -\$499 | 1,290 | 7,073 | 2,304 | 814 | 169 | 11,650 |
| Total | 6,076 | 33,398 | 51,457 | 23,834 | 5,032 | 119,797 |

Table 9. Total Rental Housing Supply, 2009

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 113 | 282 | 479 | 1,545 | 343 | 2,762 |
| \$1,500 -\$1,999 | 187 | 459 | 771 | 2,502 | 558 | 4,477 |
| \$1,300 -\$1,499 | 261 | 639 | 1,063 | 3,466 | 779 | 6,208 |
| \$1,200 -\$1,299 | 193 | 470 | 781 | 2,549 | 571 | 4,564 |
| \$1,100 -\$1,199 | 184 | 643 | 1,786 | 2,778 | 623 | 6,014 |
| \$1,000 -\$1,099 | 164 | 1,245 | 5,198 | 3,662 | 822 | 11,091 |
| \$900 -\$999 | 218 | 1,650 | 6,883 | 4,837 | 1,089 | 14,677 |
| \$800 -\$899 | 765 | 4,737 | 11,998 | 4,868 | 1,079 | 23,447 |
| \$700 -\$799 | 1,427 | 8,201 | 15,202 | 2,062 | 471 | 27,363 |
| \$600 -\$699 | 1,404 | 8,073 | 14,971 | 2,046 | 465 | 26,959 |
| \$500 -\$599 | 2,383 | 9,671 | 7,365 | 1,436 | 321 | 21,176 |
| Under -\$499 | 3,589 | 12,957 | 5,158 | 1,856 | 413 | 23,973 |
| Total | 10,888 | 49,027 | 71,655 | 33,607 | 7,534 | 172,711 |

Table 10. Suitable Rental Housing, 2009

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 97 | 244 | 444 | 1,453 | 314 | 2,552 |
| \$1,500 -\$1,999 | 151 | 371 | 692 | 2,290 | 492 | 3,996 |
| \$1,300 -\$1,499 | 208 | 523 | 908 | 3,158 | 680 | 5,477 |
| \$1,200 -\$1,299 | 154 | 388 | 657 | 2,323 | 498 | 4,020 |
| \$1,100 -\$1,199 | 145 | 531 | 1,549 | 2,468 | 525 | 5,218 |
| \$1,000 -\$1,099 | 128 | 1,031 | 4,581 | 3,064 | 640 | 9,444 |
| \$900 -\$999 | 178 | 1,372 | 6,122 | 4,084 | 848 | 12,604 |
| \$800 -\$899 | 637 | 4,083 | 10,485 | 4,105 | 852 | 20,162 |
| \$700 -\$799 | 1,128 | 6,856 | 12,327 | 1,486 | 326 | 22,123 |
| \$600 -\$699 | 995 | 6,395 | 11,393 | 1,233 | 276 | 20,292 |
| \$500 -\$599 | 1,415 | 6,720 | 4,818 | 729 | 165 | 13,847 |
| Under -\$499 | 1,329 | 7,214 | 2,355 | 830 | 173 | 11,901 |
| Total | 6,565 | 35,728 | 56,331 | 27,223 | 5,789 | 131,636 |

Rental Cost Increases

For analytical purposes, rental costs are assumed to stay constant over the study period. As BAH rates are adjusted to changes in rental costs, it is assumed that military members will retain relative affordability of rental housing. However, military members have experienced an increase in purchasing power from 2003 to 2004. As rental rates have remained flat or declined slightly, accompanied personnel have seen MAHC increases ranging from 2.7 percent to 6.7 percent (Table 11).

Table 11. Maximum Allowable Housing Costs for Accompanied Personnel, 2003-2004

| Pay Grade | 2003 HRMA | 2004 HRMA Update | % Change 2003-2004 |
|-----------|-----------|------------------|--------------------|
| O7+ | \$1,505 | \$1,605 | 6.6% |
| O6 | \$1,488 | \$1,587 | 6.7% |
| O5 | \$1,476 | \$1,574 | 6.6% |
| O4 | \$1,403 | \$1,490 | 6.2% |
| O3 | \$1,298 | \$1,370 | 5.5% |
| O2 | \$1,121 | \$1,160 | 3.5% |
| O1 | \$1,040 | \$1,078 | 3.6% |
| E9 | \$1,329 | \$1,405 | 5.7% |
| E8 | \$1,258 | \$1,321 | 5.0% |
| E7 | \$1,186 | \$1,238 | 4.4% |
| E6 | \$1,123 | \$1,162 | 3.5% |
| E5 | \$1,029 | \$1,067 | 3.7% |
| E4 | \$911 | \$936 | 2.7% |
| E3 | \$911 | \$936 | 2.7% |
| E2 | \$911 | \$936 | 2.7% |
| E1 | \$911 | \$936 | 2.7% |

The 2004 BAH and MAHC for accompanied and unaccompanied military personnel are displayed in Tables 12 and 13.

Table 12. Maximum Allowable Housing Costs for Accompanied Personnel, 2004

| Pay Grade | BAH | OOP | MAHC |
|-----------|---------|------|---------|
| O7+ | \$1,548 | \$57 | \$1,605 |
| O6 | \$1,531 | \$56 | \$1,587 |
| O5 | \$1,518 | \$56 | \$1,574 |
| O4 | \$1,438 | \$52 | \$1,490 |
| O3 | \$1,323 | \$47 | \$1,370 |
| O2 | \$1,119 | \$41 | \$1,160 |
| O1 | \$1,042 | \$36 | \$1,078 |
| | | | |
| E9 | \$1,357 | \$48 | \$1,405 |
| E8 | \$1,276 | \$45 | \$1,321 |
| E7 | \$1,195 | \$43 | \$1,238 |
| E6 | \$1,121 | \$41 | \$1,162 |
| E5 | \$1,032 | \$35 | \$1,067 |
| E4 | \$903 | \$33 | \$936 |
| E3 | \$903 | \$33 | \$936 |
| E2 | \$903 | \$33 | \$936 |
| E1 | \$903 | \$33 | \$936 |

Table 13. Maximum Allowable Housing Costs for Unaccompanied Personnel, 2004

| Pay Grade | BAH | OOP | MAHC |
|-----------|---------|------|---------|
| O7+ | \$1,353 | \$48 | \$1,401 |
| O6 | \$1,326 | \$47 | \$1,373 |
| O5 | \$1,251 | \$45 | \$1,296 |
| O4 | \$1,202 | \$43 | \$1,245 |
| O3 | \$1,089 | \$39 | \$1,128 |
| O2 | \$987 | \$34 | \$1,021 |
| O1 | \$774 | \$30 | \$804 |
| | | | |
| E9 | \$1,077 | \$38 | \$1,115 |
| E8 | \$1,049 | \$36 | \$1,085 |
| E7 | \$912 | \$33 | \$945 |
| E6 | \$792 | \$30 | \$822 |
| E5 | \$741 | \$29 | \$770 |
| E4 | \$674 | \$25 | \$699 |
| E3 | \$674 | \$25 | \$699 |
| E2 | \$674 | \$25 | \$699 |
| E1 | \$674 | \$25 | \$699 |

MILITARY PERSONNEL

Authorized Manpower

The number of military personnel McChord AFB has the responsibility to house in 2004 is 3,866 service members and is projected to increase to 4,065 in 2009 (Table 14). Additional manpower due to the Stryker brigade(s) to be stationed at Fort Lewis in 2005 total 3,900 personnel in Scenario 2 and 7,800 personnel in Scenario 3. Stryker brigade members are assumed to arrive in the market area in 2005.

Table 14. Military Authorizations

| Pay Grade | McChord AFB Scenario 1 | | Fort Lewis Additional Manpower | |
|--------------|---------------------------|--------------|--------------------------------|--------------------|
| | 2004 | 2009 | Scenario 2 2005 | Scenario 3 2005 |
| O7+ | - | - | - | - |
| O6 | 10 | 10 | 2 | 4 |
| O5 | 52 | 54 | 8 | 17 |
| O4 | 70 | 70 | 47 | 94 |
| O3 | 291 | 291 | 118 | 236 |
| O2 | 50 | 57 | 52 | 108 |
| O1 | 46 | 46 | 122 | 238 |
| Officers | 519 | 528 | 349 | 697 |
| E9 | 22 | 22 | 13 | 25 |
| E8 | 51 | 56 | 48 | 96 |
| E7 | 246 | 260 | 182 | 363 |
| E6 | 461 | 464 | 407 | 815 |
| E5 | 830 | 851 | 820 | 1,640 |
| E4 | 1,014 | 1,113 | 1,321 | 2,643 |
| E3 | 516 | 622 | 553 | 1,091 |
| E2 | 148 | 100 | 159 | 334 |
| E1 | 59 | 49 | 48 | 96 |
| Enlisted | 3,347 | 3,537 | 3,551 | 7,103 |
| Total | 3,866 | 4,065 | 3,900 | 7,800 |

Floor Requirement

The Floor Housing Requirement for McChord AFB is the larger of the Military Community, Key and Essential, Historic Housing and the Targeted Economic Relief requirements on the basis of pay grade. The Floor Requirement for 2009 in this analysis is 260 units, a reduction of 10 units from the projected 2008 Floor Requirement in the 2003 HRMA (Tables 15 and 16). The reduction is caused by a decrease in the Targeted Economic Relief requirement. In the 2003 HRMA, both E1 and E2 personnel qualified for the requirement. For the Update, Regular Military Compensation (RMC) for E2

personnel increased 5.1 percent vice the 3.2 percent increase in the 2004 median family income of \$62,100¹ to exclude that pay grade from the requirement (Tables 17 and 18).

Table 15. Floor Housing Requirement, McChord AFB, Projected Year

| | 2003 HRMA | 2004 HRMA Update |
|--|------------|------------------------|
| Military Family Housing Requirements | | |
| Military Community | 231 | 231 |
| Key and Essential Personnel | 33 | 33 |
| Historic Housing | 30 | 30 |
| Targeted Economic Relief | 21 | 10 |
| Floor Housing Requirement¹ | 270 | 260 |

Table 16. Floor Housing Requirement, McChord AFB, 2009

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 9 | 9 |
| O5 | - | 10 | 3 | 13 |
| O4 | - | 7 | 3 | 10 |
| O3 | 14 | 4 | 2 | 20 |
| O2 | 3 | - | - | 3 |
| O1 | 2 | 1 | - | 3 |
| Officers | 19 | 22 | 17 | 58 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 3 | 1 | 4 |
| E7 | - | 15 | 7 | 22 |
| E6 | 17 | 14 | 8 | 39 |
| E5 | 38 | 14 | 7 | 59 |
| E4 | 41 | 7 | 1 | 49 |
| E3 | 15 | 1 | - | 16 |
| E2 | 1 | - | - | 1 |
| E1 | 6 | 3 | 1 | 10 |
| Enlisted | 118 | 58 | 26 | 202 |
| Total | 137 | 80 | 43 | 260 |

Table 17. Regular Military Compensation, 2004

| Pay Grade | Base Pay | Basic Allowance for Housing | Basic Allowance for Subsistence | Tax Adjustment | Regular Military Compensation |
|-----------|-----------|-----------------------------|---------------------------------|----------------|-------------------------------|
| O7+ | \$113,172 | \$18,576 | \$2,103 | \$7,233 | \$141,084 |
| O6 | \$95,292 | \$18,372 | \$2,103 | \$6,816 | \$122,583 |
| O5 | \$77,332 | \$18,216 | \$2,103 | \$6,336 | \$103,987 |
| O4 | \$65,554 | \$17,256 | \$2,103 | \$4,655 | \$89,568 |
| O3 | \$50,989 | \$15,876 | \$2,103 | \$3,217 | \$72,185 |
| O2 | \$38,966 | \$13,428 | \$2,103 | \$2,712 | \$57,209 |
| O1 | \$28,300 | \$12,504 | \$2,103 | \$2,208 | \$45,115 |
| E9 | \$57,701 | \$16,284 | \$3,054 | \$3,744 | \$80,783 |
| E8 | \$46,008 | \$15,312 | \$3,054 | \$3,240 | \$67,614 |
| E7 | \$39,163 | \$14,340 | \$3,054 | \$3,035 | \$59,592 |
| E6 | \$32,217 | \$13,452 | \$3,054 | \$2,657 | \$51,380 |
| E5 | \$25,850 | \$12,384 | \$3,054 | \$2,145 | \$43,433 |
| E4 | \$20,811 | \$10,836 | \$3,054 | \$1,691 | \$36,392 |
| E3 | \$17,516 | \$10,836 | \$3,054 | \$1,527 | \$32,933 |
| E2 | \$16,052 | \$10,836 | \$3,054 | \$1,446 | \$31,388 |
| E1 | \$14,321 | \$10,836 | \$3,054 | \$1,201 | \$29,412 |

Source: Directorate of Compensation, 2004

Table 18. Targeted Economic Relief Requirement, 2009

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|----------|----------|-----------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | - | - |
| O3 | - | - | - | - |
| O2 | - | - | - | - |
| O1 | - | - | - | - |
| Officers | - | - | - | - |
| E9 | - | - | - | - |
| E8 | - | - | - | - |
| E7 | - | - | - | - |
| E6 | - | - | - | - |
| E5 | - | - | - | - |
| E4 | - | - | - | - |
| E3 | - | - | - | - |
| E2 | - | - | - | - |
| E1 | 6 | 3 | 1 | 10 |
| Enlisted | 6 | 3 | 1 | 10 |
| Total | 6 | 3 | 1 | 10 |

RENTAL HOUSING DEMAND

McChord Rental Housing Demand

For Air Force personnel, private sector homeownership and rental demand for accompanied personnel by pay grade remain the same as in the 2003 McChord HRMA, except the Floor Housing Requirement decreased by ten E2 personnel. Thus, for 2004, of the military families seeking housing in the private sector, 433 families are estimated to require homeowner housing and the remaining 790 families require rental housing. For the projected year, 459 families are estimated to require homeowner housing and the remaining 1,586 families are expected to require rental housing. Military members are allocated to market segments between a minimum rental cost for acceptable rental units and their MAHC (Tables 19 and 20).

**Table 19. McChord AFB Military Family
Rental Requirement by Price Category, 2004**

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | 1 | - | 1 |
| \$1,300 -\$1,499 | 11 | 23 | 7 | 41 |
| \$1,200 -\$1,299 | 23 | 15 | 6 | 44 |
| \$1,100 -\$1,199 | 30 | 23 | 15 | 68 |
| \$1,000 -\$1,099 | 155 | 12 | 27 | 194 |
| \$900 -\$999 | 198 | 2 | 17 | 217 |
| \$800 -\$899 | 225 | - | - | 225 |
| \$700 -\$799 | - | - | - | - |
| \$600 -\$699 | - | - | - | - |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 642 | 76 | 72 | 790 |

**Table 20. McChord AFB Military Family
Rental Requirement by Price Category, 2009**

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|------------|--------------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | 1 | - | 1 |
| \$1,300 -\$1,499 | 12 | 46 | 14 | 72 |
| \$1,200 -\$1,299 | 27 | 47 | 18 | 92 |
| \$1,100 -\$1,199 | 34 | 88 | 40 | 162 |
| \$1,000 -\$1,099 | 180 | 150 | 62 | 392 |
| \$900 -\$999 | 260 | 108 | 39 | 407 |
| \$800 -\$899 | 402 | 49 | 9 | 460 |
| \$700 -\$799 | - | - | - | - |
| \$600 -\$699 | - | - | - | - |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 915 | 489 | 182 | 1,586 |

For the current year, an estimated 86 unaccompanied service members require homeowner housing and 635 require rental housing. For 2009, an estimated 88 unaccompanied service members require homeowner housing and 678 require rental housing. Unaccompanied personnel with a rental housing requirement are allocated to market segments based on their without-dependent MAHC (Tables 21 to 23).

**Table 21. McChord AFB Maximum Allowable
Housing Cost without Dependents, 2004**

| Pay Grade | BAH | OOP | MAHC |
|-----------|---------|------|---------|
| O7+ | \$1,353 | \$48 | \$1,401 |
| O6 | \$1,326 | \$47 | \$1,373 |
| O5 | \$1,251 | \$45 | \$1,296 |
| O4 | \$1,202 | \$43 | \$1,245 |
| O3 | \$1,089 | \$39 | \$1,128 |
| O2 | \$987 | \$34 | \$1,021 |
| O1 | \$774 | \$30 | \$804 |
| E9 | \$1,077 | \$38 | \$1,115 |
| E8 | \$1,049 | \$36 | \$1,085 |
| E7 | \$912 | \$33 | \$945 |
| E6 | \$792 | \$30 | \$822 |
| E5 | \$741 | \$29 | \$770 |
| E4 | \$674 | \$25 | \$699 |

**Table 22. McChord AFB Unaccompanied Personnel
Rental Requirement by Price Category, 2004**

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|----------|------------|
| | One | Two | Three | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | - | - | - | - |
| \$1,200 -\$1,299 | - | - | - | - |
| \$1,100 -\$1,199 | - | 2 | 2 | 4 |
| \$1,000 -\$1,099 | - | 34 | - | 34 |
| \$900 -\$999 | - | 31 | - | 31 |
| \$800 -\$899 | - | 20 | - | 20 |
| \$700 -\$799 | 92 | 39 | - | 131 |
| \$600 -\$699 | 414 | 1 | - | 415 |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 506 | 127 | 2 | 635 |

**Table 23. McChord AFB Unaccompanied Personnel
Rental Requirement by Price Category, 2009**

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|----------|------------|
| | One | Two | Three | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | - | - | - | - |
| \$1,200 -\$1,299 | - | - | - | - |
| \$1,100 -\$1,199 | - | 2 | 2 | 4 |
| \$1,000 -\$1,099 | - | 34 | - | 34 |
| \$900 -\$999 | - | 33 | - | 33 |
| \$800 -\$899 | - | 22 | - | 22 |
| \$700 -\$799 | 94 | 39 | - | 133 |
| \$600 -\$699 | 451 | 1 | - | 452 |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 545 | 131 | 2 | 678 |

Fort Lewis Rental Housing Demand

Fort Lewis personnel scheduled to arrive in 2005 under the alternative scenarios must be allocated to accompanied and unaccompanied statuses. Additionally, the number of accompanied personnel must be adjusted for households with more than one military member and those households in which the accompanied member chooses to leave dependents at another location. Tables 24 and 25 provide the number of U.S. Army military families under Scenario 2 (3,900 personnel) and Scenario 3 (7,800 personnel), respectively.

Table 24. Scenario 2. Fort Lewis Breakdown of Personnel Requiring Housing, 2005

| Pay Grade | Accompanied Personnel | Military Couples | Voluntary Separations | Military Families | Unaccompanied Personnel |
|--------------|-----------------------|------------------|-----------------------|-------------------|-------------------------|
| O7+ | - | - | - | - | - |
| O6 | 2 | - | - | 2 | - |
| O5 | 7 | - | - | 7 | 1 |
| O4 | 42 | 1 | - | 41 | 5 |
| O3 | 47 | 1 | - | 46 | 71 |
| O2 | 14 | - | - | 14 | 38 |
| O1 | 31 | - | - | 31 | 91 |
| Officers | 143 | 2 | - | 141 | 206 |
| E9 | 12 | - | - | 12 | 1 |
| E8 | 43 | 1 | - | 42 | 5 |
| E7 | 137 | 2 | - | 135 | 45 |
| E6 | 305 | 4 | 1 | 300 | 102 |
| E5 | 205 | 3 | 1 | 201 | 615 |
| E4 | 264 | 4 | 1 | 259 | 1057 |
| E3 | 111 | 2 | - | 109 | 442 |
| E2 | 32 | - | - | 32 | 127 |
| E1 | 10 | - | - | 10 | 38 |
| Enlisted | 1,119 | 16 | 3 | 1,100 | 2,432 |
| Total | 1,262 | 18 | 3 | 1,241 | 2,638 |

Table 25. Scenario 3. Fort Lewis Breakdown of Personnel Requiring Housing, 2005

| Pay Grade | Accompanied Personnel | Military Couples | Voluntary Separations | Military Families | Unaccompanied Personnel |
|--------------|-----------------------|------------------|-----------------------|-------------------|-------------------------|
| O7+ | - | - | - | - | - |
| O6 | 4 | - | - | 4 | - |
| O5 | 15 | - | - | 15 | 2 |
| O4 | 85 | 1 | - | 84 | 9 |
| O3 | 94 | 1 | - | 93 | 142 |
| O2 | 29 | - | - | 29 | 79 |
| O1 | 60 | 1 | - | 59 | 178 |
| Officers | 287 | 3 | - | 284 | 410 |
| E9 | 23 | - | - | 23 | 2 |
| E8 | 86 | 1 | - | 85 | 10 |
| E7 | 272 | 4 | 1 | 267 | 91 |
| E6 | 611 | 9 | 2 | 600 | 204 |
| E5 | 410 | 6 | 1 | 403 | 1230 |
| E4 | 529 | 8 | 2 | 519 | 2114 |
| E3 | 218 | 3 | 1 | 214 | 873 |
| E2 | 67 | 1 | - | 66 | 267 |
| E1 | 19 | - | - | 19 | 77 |
| Enlisted | 2,235 | 32 | 7 | 2,196 | 4,868 |
| Total | 2,522 | 35 | 7 | 2,480 | 5,278 |

All Fort Lewis military families are assumed to seek housing in the private sector while all unaccompanied personnel in pay grade E5 and above seek housing in the private sector. Unaccompanied personnel in pay grade E4 and below are assumed to reside in on-post housing. Homeownership and rental rates as well as bedroom requirements for Fort Lewis military families are derived from the *2002 Family Housing Market Analysis for HQ 1 Corps and Fort Lewis, Washington*, while homeownership and rental rates for unaccompanied personnel are based on the 2003 McChord AFB HRMA (Tables 26 and 27). Bedroom entitlements are based on one bedroom per dependent child and a minimum bedroom requirement by rank.

Table 26. Tenure Rates for Fort Lewis Military Families

| Pay Grade | Percentage Homeowners | Percentage Renters |
|------------------|------------------------------|---------------------------|
| O7+ | 82.6% | 17.4% |
| O6 | 82.6% | 17.4% |
| O5 | 67.8% | 32.2% |
| O4 | 67.8% | 32.2% |
| O3 | 45.8% | 54.2% |
| O2 | 45.8% | 54.2% |
| O1 | 45.8% | 54.2% |
| E9 | 47.8% | 52.2% |
| E8 | 47.8% | 52.2% |
| E7 | 47.8% | 52.2% |
| E6 | 13.5% | 86.5% |
| E5 | 13.5% | 86.5% |
| E4 | 13.5% | 86.5% |
| E3 | 4.0% | 96.0% |
| E2 | 4.0% | 96.0% |
| E1 | 4.0% | 96.0% |

Table 27. Tenure Rates for Fort Lewis Unaccompanied Personnel

| Pay Grade | Percentage Homeowners | Percentage Renters |
|------------------|------------------------------|---------------------------|
| O7+ | 76.2% | 23.8% |
| O6 | 76.2% | 23.8% |
| O5 | 54.3% | 45.7% |
| O4 | 56.0% | 44.0% |
| O3 | 43.3% | 56.7% |
| O2 | 12.9% | 87.1% |
| O1 | 7.4% | 92.6% |
| E9 | 0.0% | 100.0% |
| E8 | 12.5% | 87.5% |
| E7 | 31.2% | 68.8% |
| E6 | 29.8% | 70.2% |
| E5 | 15.2% | 84.8% |

Under Scenario 2, of the military families seeking housing in the private sector, 275 families are estimated to require homeowner housing while the remaining 966 families are estimated to seek rental housing (Tables 28 and 29). Under Scenario 3, of the military families seeking housing in the private sector, 549 families are estimated to require homeowner housing while the remaining 1,931 are assumed to seek rental housing (Tables 30 and 31).

Table 28. Scenario 2. Fort Lewis Military Family Homeowner Requirement, 2005

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 2 | 2 |
| O5 | - | 3 | 1 | 4 |
| O4 | - | 20 | 8 | 28 |
| O3 | 13 | 5 | 3 | 21 |
| O2 | 4 | 1 | 1 | 6 |
| O1 | 9 | 4 | 2 | 15 |
| Officers | 26 | 33 | 17 | 76 |
| E9 | - | 4 | 2 | 6 |
| E8 | - | 14 | 6 | 20 |
| E7 | - | 45 | 20 | 65 |
| E6 | 24 | 10 | 6 | 40 |
| E5 | 16 | 7 | 4 | 27 |
| E4 | 21 | 9 | 5 | 35 |
| E3 | 4 | 1 | - | 5 |
| E2 | 1 | - | - | 1 |
| E1 | - | - | - | - |
| Enlisted | 66 | 90 | 43 | 199 |
| Total | 92 | 123 | 60 | 275 |

**Table 29. Scenario 2. Fort Lewis Military
Family Rental Requirement, 2005**

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | 2 | 1 | 3 |
| O4 | - | 9 | 4 | 13 |
| O3 | 16 | 6 | 3 | 25 |
| O2 | 5 | 2 | 1 | 8 |
| O1 | 10 | 4 | 2 | 16 |
| Officers | 31 | 23 | 11 | 65 |
| E9 | - | 4 | 2 | 6 |
| E8 | - | 15 | 7 | 22 |
| E7 | - | 49 | 21 | 70 |
| E6 | 156 | 67 | 37 | 260 |
| E5 | 104 | 45 | 25 | 174 |
| E4 | 134 | 58 | 32 | 224 |
| E3 | 84 | 14 | 6 | 104 |
| E2 | 25 | 4 | 2 | 31 |
| E1 | 8 | 1 | 1 | 10 |
| Enlisted | 511 | 257 | 133 | 901 |
| Total | 542 | 280 | 144 | 966 |

**Table 30. Scenario 3. Fort Lewis Military
Family Homeowner Requirement, 2005**

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 3 | 3 |
| O5 | - | 7 | 3 | 10 |
| O4 | - | 40 | 17 | 57 |
| O3 | 27 | 11 | 5 | 43 |
| O2 | 8 | 3 | 2 | 13 |
| O1 | 17 | 7 | 3 | 27 |
| Officers | 52 | 68 | 33 | 153 |
| E9 | - | 8 | 3 | 11 |
| E8 | - | 28 | 12 | 40 |
| E7 | - | 89 | 39 | 128 |
| E6 | 48 | 21 | 12 | 81 |
| E5 | 33 | 14 | 8 | 55 |
| E4 | 42 | 18 | 10 | 70 |
| E3 | 7 | 1 | - | 8 |
| E2 | 2 | - | - | 2 |
| E1 | 1 | - | - | 1 |
| Enlisted | 133 | 179 | 84 | 396 |
| Total | 185 | 247 | 117 | 549 |

Table 31. Scenario 3. Fort Lewis Military Family Rental Requirement, 2005

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|------------|--------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 1 | 1 |
| O5 | - | 4 | 1 | 5 |
| O4 | - | 19 | 8 | 27 |
| O3 | 31 | 12 | 7 | 50 |
| O2 | 10 | 4 | 2 | 16 |
| O1 | 20 | 8 | 4 | 32 |
| Officers | 61 | 47 | 23 | 131 |
| E9 | - | 8 | 4 | 12 |
| E8 | - | 31 | 14 | 45 |
| E7 | - | 97 | 42 | 139 |
| E6 | 311 | 134 | 74 | 519 |
| E5 | 208 | 90 | 50 | 348 |
| E4 | 268 | 116 | 65 | 449 |
| E3 | 165 | 29 | 12 | 206 |
| E2 | 51 | 9 | 4 | 64 |
| E1 | 14 | 3 | 1 | 18 |
| Enlisted | 1,017 | 517 | 266 | 1,800 |
| Total | 1,078 | 564 | 289 | 1,931 |

Fort Lewis military families seeking rental housing are allocated to market segments between a minimum rental cost for acceptable rental units and their MAHC (Tables 32 and 33).

Table 32. Scenario 2. Fort Lewis Military Family Rental Requirement by Price Category, 2005

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|------------|------------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 - \$1,999 | - | - | - | - |
| \$1,300 - \$1,499 | 3 | 16 | 7 | 26 |
| \$1,200 - \$1,299 | 8 | 22 | 10 | 40 |
| \$1,100 - \$1,199 | 31 | 56 | 27 | 114 |
| \$1,000 - \$1,099 | 167 | 75 | 40 | 282 |
| \$900 - \$999 | 125 | 55 | 31 | 211 |
| \$800 - \$899 | 208 | 56 | 29 | 293 |
| \$700 - \$799 | - | - | - | - |
| \$600 - \$699 | - | - | - | - |
| \$500 - \$599 | - | - | - | - |
| Under - \$499 | - | - | - | - |
| Total | 542 | 280 | 144 | 966 |

Table 33. Scenario 3. Fort Lewis Military Family Rental Requirement by Price Category, 2005

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|------------|--------------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | 7 | 33 | 14 | 54 |
| \$1,200 -\$1,299 | 14 | 45 | 23 | 82 |
| \$1,100 -\$1,199 | 63 | 110 | 54 | 227 |
| \$1,000 -\$1,099 | 333 | 150 | 79 | 562 |
| \$900 -\$999 | 250 | 111 | 58 | 419 |
| \$800 -\$899 | 411 | 115 | 61 | 587 |
| \$700 -\$799 | - | - | - | - |
| \$600 -\$699 | - | - | - | - |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 1,078 | 564 | 289 | 1,931 |

Under Scenario 2, of the unaccompanied personnel seeking housing in the private sector, 185 military members are estimated to require homeowner housing while the remaining 789 unaccompanied personnel are estimated to seek rental housing (Tables 34 and 35). Under Scenario 3, of the unaccompanied personnel seeking housing in the private sector, 367 unaccompanied members are estimated to require homeowner housing while the remaining 1,580 are assumed to seek rental housing (Tables 36 and 37).

Table 34. Scenario 2. Fort Lewis Unaccompanied Personnel Homeowner Requirement, 2005

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|-----------|----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | 1 | 1 |
| O4 | - | - | 3 | 3 |
| O3 | - | 31 | - | 31 |
| O2 | - | 5 | - | 5 |
| O1 | - | 7 | - | 7 |
| Officers | - | 43 | 4 | 47 |
| E9 | - | - | - | - |
| E8 | - | 1 | - | 1 |
| E7 | - | 14 | - | 14 |
| E6 | - | 30 | - | 30 |
| E5 | 93 | - | - | 93 |
| Enlisted | 93 | 45 | - | 138 |
| Total | 93 | 88 | 4 | 185 |

Table 35. Scenario 2. Fort Lewis Unaccompanied Personnel Rental Requirement, 2005

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | - | - |
| O4 | - | - | 2 | 2 |
| O3 | - | 40 | - | 40 |
| O2 | - | 33 | - | 33 |
| O1 | - | 84 | - | 84 |
| Officers | - | 157 | 2 | 159 |
| E9 | - | 1 | - | 1 |
| E8 | - | 4 | - | 4 |
| E7 | - | 31 | - | 31 |
| E6 | - | 72 | - | 72 |
| E5 | 522 | - | - | 522 |
| Enlisted | 522 | 108 | - | 630 |
| Total | 522 | 265 | 2 | 789 |

Table 36. Scenario 3. Fort Lewis Unaccompanied Personnel Homeowner Requirement, 2005

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|----------|------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | 1 | 1 |
| O4 | - | - | 5 | 5 |
| O3 | - | 61 | - | 61 |
| O2 | - | 10 | - | 10 |
| O1 | - | 13 | - | 13 |
| Officers | - | 84 | 6 | 90 |
| E9 | - | - | - | - |
| E8 | - | 1 | - | 1 |
| E7 | - | 28 | - | 28 |
| E6 | - | 61 | - | 61 |
| E5 | 187 | - | - | 187 |
| Enlisted | 187 | 90 | - | 277 |
| Total | 187 | 174 | 6 | 367 |

Table 37. Scenario 3. Fort Lewis Unaccompanied Personnel Rental Requirement, 2005

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|----------|--------------|
| | One | Two | Three | |
| O7+ | - | - | - | - |
| O6 | - | - | - | - |
| O5 | - | - | 1 | 1 |
| O4 | - | - | 4 | 4 |
| O3 | - | 81 | - | 81 |
| O2 | - | 69 | - | 69 |
| O1 | - | 165 | - | 165 |
| Officers | - | 315 | 5 | 320 |
| E9 | - | 2 | - | 2 |
| E8 | - | 9 | - | 9 |
| E7 | - | 63 | - | 63 |
| E6 | - | 143 | - | 143 |
| E5 | 1,043 | - | - | 1,043 |
| Enlisted | 1,043 | 217 | - | 1,260 |
| Total | 1,043 | 532 | 5 | 1,580 |

Fort Lewis unaccompanied personnel seeking rental housing are allocated to market segments between a minimum rental cost for acceptable rental units and their MAHC (Tables 38 and 39).

Table 38. Scenario 2. Fort Lewis Unaccompanied Rental Requirement by Price Category, 2005

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|----------|------------|
| | One | Two | Three | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 - \$1,999 | - | - | - | - |
| \$1,300 - \$1,499 | - | - | - | - |
| \$1,200 - \$1,299 | - | - | - | - |
| \$1,100 - \$1,199 | - | 2 | 2 | 4 |
| \$1,000 - \$1,099 | - | 32 | - | 32 |
| \$900 - \$999 | - | 42 | - | 42 |
| \$800 - \$899 | - | 46 | - | 46 |
| \$700 - \$799 | 338 | 135 | - | 473 |
| \$600 - \$699 | 184 | 8 | - | 192 |
| \$500 - \$599 | - | - | - | - |
| Under - \$499 | - | - | - | - |
| Total | 522 | 265 | 2 | 789 |

Table 39. Scenario 3. Fort Lewis Unaccompanied Rental Requirement by Price Category, 2005

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|------------|----------|--------------|
| | One | Two | Three | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | - | - | - | - |
| \$1,200 -\$1,299 | - | - | 1 | 1 |
| \$1,100 -\$1,199 | - | 5 | 3 | 8 |
| \$1,000 -\$1,099 | - | 64 | 1 | 65 |
| \$900 -\$999 | - | 87 | - | 87 |
| \$800 -\$899 | - | 97 | - | 97 |
| \$700 -\$799 | 680 | 264 | - | 944 |
| \$600 -\$699 | 363 | 15 | - | 378 |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 1,043 | 532 | 5 | 1,580 |

Civilian Rental Housing Demand

Civilian rental housing demand is comprised of the rental housing demand by civilian households residing within the market area and includes any Fort Lewis households residing within the Housing Market Area. For this Update, new Stryker brigade personnel demand is assumed to require private sector rental housing in 2005. Civilian demand for 2005 under each of the three scenarios is displayed in Tables 40 through 42.

Table 40. Scenario 1. Civilian Demand, 2005

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 90 | 224 | 379 | 1,225 | 273 | 2,191 |
| \$1,500 -\$1,999 | 153 | 376 | 632 | 2,050 | 458 | 3,668 |
| \$1,300 -\$1,499 | 228 | 558 | 914 | 3,007 | 673 | 5,381 |
| \$1,200 -\$1,299 | 171 | 416 | 671 | 2,242 | 499 | 3,998 |
| \$1,100 -\$1,199 | 163 | 569 | 1,539 | 2,436 | 537 | 5,244 |
| \$1,000 -\$1,099 | 145 | 1,098 | 4,431 | 3,218 | 703 | 9,596 |
| \$900 -\$999 | 193 | 1,457 | 5,886 | 4,268 | 947 | 12,752 |
| \$800 -\$899 | 676 | 4,180 | 10,329 | 4,231 | 936 | 20,353 |
| \$700 -\$799 | 1,281 | 7,292 | 13,564 | 1,848 | 419 | 24,405 |
| \$600 -\$699 | 1,277 | 7,018 | 13,559 | 1,861 | 421 | 24,137 |
| \$500 -\$599 | 2,194 | 8,838 | 6,749 | 1,322 | 296 | 19,398 |
| Under -\$499 | 3,332 | 11,965 | 4,791 | 1,726 | 382 | 22,196 |
| Total | 9,902 | 43,992 | 63,445 | 29,434 | 6,544 | 153,317 |

Table 41. Scenario 2. Civilian Demand, 2005

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 90 | 224 | 379 | 1,225 | 273 | 2,191 |
| \$1,500 -\$1,999 | 153 | 376 | 632 | 2,050 | 458 | 3,668 |
| \$1,300 -\$1,499 | 228 | 558 | 917 | 3,023 | 680 | 5,407 |
| \$1,200 -\$1,299 | 171 | 416 | 679 | 2,264 | 509 | 4,038 |
| \$1,100 -\$1,199 | 163 | 569 | 1,572 | 2,494 | 564 | 5,362 |
| \$1,000 -\$1,099 | 145 | 1,098 | 4,630 | 3,293 | 743 | 9,910 |
| \$900 -\$999 | 193 | 1,457 | 6,053 | 4,323 | 978 | 13,005 |
| \$800 -\$899 | 676 | 4,180 | 10,583 | 4,287 | 965 | 20,692 |
| \$700 -\$799 | 1,281 | 7,630 | 13,699 | 1,848 | 419 | 24,878 |
| \$600 -\$699 | 1,277 | 7,202 | 13,567 | 1,861 | 421 | 24,329 |
| \$500 -\$599 | 2,194 | 8,838 | 6,749 | 1,322 | 296 | 19,398 |
| Under -\$499 | 3,332 | 11,965 | 4,791 | 1,726 | 382 | 22,196 |
| Total | 9,902 | 44,514 | 64,252 | 29,716 | 6,688 | 155,072 |

Table 42. Scenario 3. Civilian Demand, 2005

| Price Category ¹ | Number of Bedrooms | | | | | Total |
|-----------------------------|--------------------|---------------|---------------|---------------|--------------|----------------|
| | None | One | Two | Three | Four+ | |
| \$2,000 -Above | 90 | 224 | 379 | 1,225 | 273 | 2,191 |
| \$1,500 -\$1,999 | 153 | 376 | 632 | 2,050 | 458 | 3,668 |
| \$1,300 -\$1,499 | 228 | 558 | 921 | 3,040 | 687 | 5,435 |
| \$1,200 -\$1,299 | 171 | 416 | 685 | 2,288 | 522 | 4,081 |
| \$1,100 -\$1,199 | 163 | 569 | 1,607 | 2,549 | 591 | 5,479 |
| \$1,000 -\$1,099 | 145 | 1,098 | 4,828 | 3,369 | 782 | 10,223 |
| \$900 -\$999 | 193 | 1,457 | 6,223 | 4,379 | 1,005 | 13,258 |
| \$800 -\$899 | 676 | 4,180 | 10,837 | 4,346 | 997 | 21,037 |
| \$700 -\$799 | 1,281 | 7,972 | 13,828 | 1,848 | 419 | 25,349 |
| \$600 -\$699 | 1,277 | 7,381 | 13,574 | 1,861 | 421 | 24,515 |
| \$500 -\$599 | 2,194 | 8,838 | 6,749 | 1,322 | 296 | 19,398 |
| Under -\$499 | 3,332 | 11,965 | 4,791 | 1,726 | 382 | 22,196 |
| Total | 9,902 | 45,035 | 65,055 | 30,003 | 6,833 | 156,828 |

PRIVATE SECTOR RENTAL HOUSING ANALYSIS

The dynamic process assesses the housing market each year of the five-year period. Fort Lewis personnel, in total, are assumed to require private sector rental housing in 2005. Separate turn over rates are determined for military families, unaccompanied personnel and civilians (Table 43). Turn over rates for military families and unaccompanied personnel are applied to McChord military members; Fort Lewis military personnel, since they are accounted for in civilian demand, turn over at the civilian rate.

Table 43. Turn Over Rates for Households in Rental Housing

| Household | Turn Over Rate |
|-------------------------|----------------|
| Civilians | 50% |
| Military Families | 39% |
| Unaccompanied Personnel | 39% |

The annual share of suitable rental housing to McChord military requirements is displayed in Tables 44 through 46.

Table 44. Scenario 1. McChord AFB Market Share of Suitable Rental Housing, 2004-2009

| Component | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|-------|-------|-------|-------|-------|-------|
| Military Family Renters | 1,772 | 1,787 | 1,802 | 1,816 | 1,831 | 1,846 |
| 2009 Floor Requirement | 260 | 260 | 260 | 260 | 260 | 260 |
| Units Occupied in Excess of 2009 Floor | 722 | 578 | 433 | 289 | 144 | 0 |
| Off-Base Military Renters | 790 | 949 | 1,108 | 1,268 | 1,427 | 1,586 |
| Military Family Market Share | 790 | 932 | 1,054 | 1,200 | 1,348 | 1,496 |
| Private Sector Rental Housing Shortfall | 0 | 17 | 54 | 67 | 79 | 90 |
| Off-Base Unaccompanied Renters | 635 | 644 | 652 | 661 | 669 | 678 |
| Unaccompanied Market Share | 630 | 619 | 608 | 612 | 619 | 625 |
| Private Sector Shortfall | 5 | 25 | 44 | 48 | 51 | 53 |

Table 45. Scenario 2. McChord AFB Market Share of Suitable Rental Housing, 2004-2009

| Component | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Military Family Renters | 1,772 | 1,787 | 1,802 | 1,816 | 1,831 | 1,846 |
| 2009 Floor Requirement | 260 | 260 | 260 | 260 | 260 | 260 |
| Units Occupied in Excess of 2009 Floor | 722 | 578 | 433 | 289 | 144 | 0 |
| Off-Base Military Renters | 790 | 949 | 1,108 | 1,268 | 1,427 | 1,586 |
| Military Family Market Share | 790 | 910 | 1,040 | 1,186 | 1,332 | 1,479 |
| Private Sector Rental Housing Shortfall | 0 | 39 | 69 | 82 | 94 | 107 |
| Off-Base Unaccompanied Renters | 635 | 644 | 652 | 661 | 669 | 678 |
| Unaccompanied Market Share | 630 | 606 | 600 | 605 | 611 | 618 |
| Private Sector Shortfall | 5 | 38 | 52 | 56 | 58 | 60 |

Table 46. Scenario 3. McChord AFB Market Share of Suitable Rental Housing, 2004-2009

| Component | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Military Family Renters | 1,772 | 1,787 | 1,802 | 1,816 | 1,831 | 1,846 |
| 2009 Floor Requirement | 260 | 260 | 260 | 260 | 260 | 260 |
| Units Occupied in Excess of 2009 Floor | 722 | 578 | 433 | 289 | 144 | 0 |
| Off-Base Military Renters | 790 | 949 | 1,108 | 1,268 | 1,427 | 1,586 |
| Military Family Market Share | 790 | 890 | 1,026 | 1,171 | 1,317 | 1,463 |
| Private Sector Rental Housing Shortfall | 0 | 59 | 83 | 96 | 110 | 123 |
| Off-Base Unaccompanied Renters | 635 | 644 | 652 | 661 | 669 | 678 |
| Unaccompanied Market Share | 630 | 595 | 593 | 598 | 604 | 611 |
| Private Sector Shortfall | 5 | 49 | 59 | 63 | 65 | 67 |

Private Sector Housing Shortfall

As determined by the allocation analysis through 2009, there is an additional requirement of 90, 107, and 123 community rentals under the three scenarios, respectively (Tables 47 to 49).

Table 47. Scenario 1. Rental Housing Shortfall for Military Families, 2009

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|-----------|-----------|-----------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | - | 1 | 1 | 2 |
| \$1,200 -\$1,299 | 2 | 1 | 1 | 4 |
| \$1,100 -\$1,199 | 1 | 5 | 3 | 9 |
| \$1,000 -\$1,099 | 8 | 13 | 8 | 29 |
| \$900 -\$999 | 10 | 8 | 4 | 22 |
| \$800 -\$899 | 20 | 3 | 1 | 24 |
| \$700 -\$799 | - | - | - | - |
| \$600 -\$699 | - | - | - | - |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 41 | 31 | 18 | 90 |

Table 48. Scenario 2. Rental Housing Shortfall for Military Families, 2009

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | - | 1 | 1 | 2 |
| \$1,200 -\$1,299 | 2 | 2 | 1 | 5 |
| \$1,100 -\$1,199 | 1 | 6 | 4 | 11 |
| \$1,000 -\$1,099 | 11 | 15 | 9 | 35 |
| \$900 -\$999 | 13 | 8 | 5 | 26 |
| \$800 -\$899 | 24 | 3 | 1 | 28 |
| \$700 -\$799 | - | - | - | - |
| \$600 -\$699 | - | - | - | - |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 51 | 35 | 21 | 107 |

Table 49. Scenario 3. Rental Housing Shortfall for Military Families, 2009

| Rental Cost ¹ | Number of Bedrooms | | | Total |
|--------------------------|--------------------|-----------|-----------|------------|
| | Two | Three | Four+ | |
| \$2,000 -Above | - | - | - | - |
| \$1,500 -\$1,999 | - | - | - | - |
| \$1,300 -\$1,499 | - | 1 | 1 | 2 |
| \$1,200 -\$1,299 | 2 | 2 | 1 | 5 |
| \$1,100 -\$1,199 | 2 | 6 | 5 | 13 |
| \$1,000 -\$1,099 | 13 | 16 | 11 | 40 |
| \$900 -\$999 | 16 | 9 | 5 | 30 |
| \$800 -\$899 | 28 | 4 | 1 | 33 |
| \$700 -\$799 | - | - | - | - |
| \$600 -\$699 | - | - | - | - |
| \$500 -\$599 | - | - | - | - |
| Under -\$499 | - | - | - | - |
| Total | 61 | 38 | 24 | 123 |

TOTAL MILITARY FAMILY HOUSING REQUIREMENT

The Total Military Family Housing Requirement for McChord AFB is the sum of the Floor Requirement and the Private Sector Rental Housing Shortfall. The Total MFH Requirement under the three scenarios is shown in total and by pay grade in Tables 50 through 58.

Table 50. Scenario 1. Summary of the Total Military Family Housing Requirement, 2004-2009

| Component | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|------|-------|-------|-------|-------|-------|
| 2009 Floor Requirement | 260 | 260 | 260 | 260 | 260 | 260 |
| Units Occupied in Excess of 2009 Floor | 722 | 578 | 433 | 289 | 144 | 0 |
| Private Sector Housing Shortfall | 0 | 17 | 54 | 67 | 79 | 90 |
| Total Military Family Housing Requirement | 982 | 854 | 748 | 616 | 483 | 350 |
| Military Family Housing | 982 | 982 | 982 | 982 | 982 | 982 |
| Potential Deficit/(Surplus) | 0 | (128) | (234) | (366) | (499) | (632) |

**Table 51. Scenario 2. Summary of the Total
Military Family Housing Requirement, 2004-2009**

| Component | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| 2009 Floor Requirement | 260 | 260 | 260 | 260 | 260 | 260 |
| Units Occupied in Excess of 2009 Floor | 722 | 578 | 433 | 289 | 144 | 0 |
| Private Sector Housing Shortfall | 0 | 39 | 69 | 82 | 94 | 107 |
| Total Military Family Housing Requirement | 982 | 877 | 762 | 631 | 499 | 367 |
| Military Family Housing | 982 | 982 | 982 | 982 | 982 | 982 |
| Potential Deficit/(Surplus) | 0 | (105) | (220) | (351) | (483) | (615) |

**Table 52. Scenario 3. Summary of the Total
Military Family Housing Requirement, 2004-2009**

| Component | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| 2009 Floor Requirement | 260 | 260 | 260 | 260 | 260 | 260 |
| Units Occupied in Excess of 2009 Floor | 722 | 578 | 433 | 289 | 144 | 0 |
| Private Sector Housing Shortfall | 0 | 59 | 83 | 96 | 110 | 123 |
| Total Military Family Housing Requirement | 982 | 897 | 776 | 645 | 514 | 383 |
| Military Family Housing | 982 | 982 | 982 | 982 | 982 | 982 |
| Potential Deficit/(Surplus) | 0 | (85) | (206) | (337) | (468) | (599) |

**Table 53. Scenario 1. Total Military Family
Housing Requirement by Pay Grade, 2009**

| Pay Grade | Number of Bedrooms | | | Total |
|------------------|---------------------------|--------------|--------------|--------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 9 | 9 |
| O5 | - | 10 | 3 | 13 |
| O4 | - | 8 | 3 | 11 |
| O3 | 17 | 6 | 2 | 25 |
| O2 | 4 | - | - | 4 |
| O1 | 2 | 1 | - | 3 |
| Officers | 23 | 25 | 17 | 65 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 4 | 1 | 5 |
| E7 | - | 19 | 10 | 29 |
| E6 | 21 | 23 | 15 | 59 |
| E5 | 49 | 23 | 13 | 85 |
| E4 | 57 | 11 | 3 | 71 |
| E3 | 21 | 2 | - | 23 |
| E2 | 1 | - | - | 1 |
| E1 | 6 | 3 | 1 | 10 |
| Enlisted | 155 | 86 | 44 | 285 |
| Total | 178 | 111 | 61 | 350 |

Table 54. Scenario 2. Total Military Family Housing Requirement by Pay Grade, 2009

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 9 | 9 |
| O5 | - | 10 | 4 | 14 |
| O4 | - | 8 | 4 | 12 |
| O3 | 18 | 6 | 3 | 27 |
| O2 | 4 | - | - | 4 |
| O1 | 2 | 1 | 1 | 4 |
| Officers | 24 | 25 | 21 | 70 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 4 | 2 | 6 |
| E7 | - | 20 | 11 | 31 |
| E6 | 22 | 24 | 14 | 60 |
| E5 | 52 | 24 | 12 | 88 |
| E4 | 60 | 12 | 2 | 74 |
| E3 | 23 | 2 | - | 25 |
| E2 | 1 | - | - | 1 |
| E1 | 6 | 3 | 1 | 10 |
| Enlisted | 164 | 90 | 43 | 297 |
| Total | 188 | 115 | 64 | 367 |

Table 55. Scenario 3. Total Military Family Housing Requirement by Pay Grade, 2009

| Pay Grade | Number of Bedrooms | | | Total |
|--------------|--------------------|------------|-----------|------------|
| | Two | Three | Four+ | |
| O7+ | - | - | - | - |
| O6 | - | - | 9 | 9 |
| O5 | - | 10 | 4 | 14 |
| O4 | - | 8 | 4 | 12 |
| O3 | 18 | 6 | 3 | 27 |
| O2 | 4 | - | - | 4 |
| O1 | 2 | 1 | 1 | 4 |
| Officers | 24 | 25 | 21 | 70 |
| E9 | - | 1 | 1 | 2 |
| E8 | - | 4 | 2 | 6 |
| E7 | - | 20 | 11 | 31 |
| E6 | 23 | 25 | 16 | 64 |
| E5 | 55 | 26 | 13 | 94 |
| E4 | 65 | 12 | 2 | 79 |
| E3 | 24 | 2 | - | 26 |
| E2 | 1 | - | - | 1 |
| E1 | 6 | 3 | 1 | 10 |
| Enlisted | 174 | 93 | 46 | 313 |
| Total | 198 | 118 | 67 | 383 |

Table 56. Scenario 1. Total Military Family Housing Requirement, 2009

| Pay Grade | Military Families | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Requirement | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------|--------------------|-----------------|------------------|--------------------------|-------------------|--------------------------|------------------------------------|
| O7+ | - | - | - | - | - | - | - | - |
| O6 | 10 | 1 | 9 | - | - | 9 | - | 9 |
| O5 | 51 | 5 | 13 | 4 | - | 13 | - | 13 |
| O4 | 62 | 6 | 10 | 6 | - | 10 | 1 | 11 |
| O3 | 195 | 20 | - | 17 | - | 20 | 5 | 25 |
| O2 | 27 | 3 | - | 1 | - | 3 | 1 | 4 |
| O1 | 25 | 3 | - | 2 | - | 3 | - | 3 |
| Officers | 370 | 38 | 32 | 30 | - | 58 | 7 | 65 |
| E9 | 22 | 2 | 1 | 2 | - | 2 | - | 2 |
| E8 | 43 | 4 | - | - | - | 4 | 1 | 5 |
| E7 | 219 | 22 | - | - | - | 22 | 7 | 29 |
| E6 | 392 | 39 | - | - | - | 39 | 20 | 59 |
| E5 | 589 | 59 | - | - | - | 59 | 26 | 85 |
| E4 | 48 | 49 | - | - | - | 49 | 22 | 71 |
| E3 | 163 | 16 | - | - | - | 16 | 7 | 23 |
| E2 | 11 | 1 | - | - | - | 1 | - | 1 |
| E1 | 10 | 1 | - | - | 10 | 10 | - | 10 |
| Enlisted | 1,935 | 193 | 1 | 2 | 10 | 202 | 83 | 285 |
| Total | 2,305 | 231 | 33 | 32 | 10 | 260 | 90 | 350 |

Table 57. Scenario 2. Total Military Family Housing Requirement, 2009

| Pay Grade | Military Families | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Requirement | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------|--------------------|-----------------|------------------|--------------------------|-------------------|--------------------------|------------------------------------|
| O7+ | - | - | - | - | - | - | - | - |
| O6 | 10 | 1 | 9 | - | - | 9 | - | 9 |
| O5 | 51 | 5 | 13 | 4 | - | 13 | 1 | 14 |
| O4 | 62 | 6 | 10 | 6 | - | 10 | 2 | 12 |
| O3 | 195 | 20 | - | 17 | - | 20 | 7 | 27 |
| O2 | 27 | 3 | - | 1 | - | 3 | 1 | 4 |
| O1 | 25 | 3 | - | 2 | - | 3 | 1 | 4 |
| Officers | 370 | 38 | 32 | 30 | - | 58 | 12 | 70 |
| E9 | 22 | 2 | 1 | 2 | - | 2 | - | 2 |
| E8 | 43 | 4 | - | - | - | 4 | 2 | 6 |
| E7 | 219 | 22 | - | - | - | 22 | 9 | 31 |
| E6 | 392 | 39 | - | - | - | 39 | 21 | 60 |
| E5 | 589 | 59 | - | - | - | 59 | 29 | 88 |
| E4 | 48 | 49 | - | - | - | 49 | 25 | 74 |
| E3 | 163 | 16 | - | - | - | 16 | 9 | 25 |
| E2 | 11 | 1 | - | - | - | 1 | - | 1 |
| E1 | 10 | 1 | - | - | 10 | 10 | - | 10 |
| Enlisted | 1,935 | 193 | 1 | 2 | 10 | 202 | 95 | 297 |
| Total | 2,305 | 231 | 33 | 32 | 10 | 260 | 107 | 367 |

Table 58. Scenario 3. Total Military Family Housing Requirement, 2009

| Pay Grade | Military Families | Military Community | Key & Essential | Historic Housing | Targeted Economic Relief | Floor Requirement | Private Sector Shortfall | Total Military Housing Requirement |
|--------------|-------------------|--------------------|-----------------|------------------|--------------------------|-------------------|--------------------------|------------------------------------|
| O7+ | - | - | - | - | - | - | - | - |
| O6 | 10 | 1 | 9 | - | - | 9 | - | 9 |
| O5 | 51 | 5 | 13 | 4 | - | 13 | 1 | 14 |
| O4 | 62 | 6 | 10 | 6 | - | 10 | 2 | 12 |
| O3 | 195 | 20 | - | 17 | - | 20 | 7 | 27 |
| O2 | 27 | 3 | - | 1 | - | 3 | 1 | 4 |
| O1 | 25 | 3 | - | 2 | - | 3 | 1 | 4 |
| Officers | 370 | 38 | 32 | 30 | - | 58 | 12 | 70 |
| E9 | 22 | 2 | 1 | 2 | - | 2 | - | 2 |
| E8 | 43 | 4 | - | - | - | 4 | 2 | 6 |
| E7 | 219 | 22 | - | - | - | 22 | 9 | 31 |
| E6 | 392 | 39 | - | - | - | 39 | 25 | 64 |
| E5 | 589 | 59 | - | - | - | 59 | 35 | 94 |
| E4 | 48 | 49 | - | - | - | 49 | 30 | 79 |
| E3 | 163 | 16 | - | - | - | 16 | 10 | 26 |
| E2 | 11 | 1 | - | - | - | 1 | - | 1 |
| E1 | 10 | 1 | - | - | 10 | 10 | - | 10 |
| Enlisted | 1,935 | 193 | 1 | 2 | 10 | 202 | 111 | 313 |
| Total | 2,305 | 231 | 33 | 32 | 10 | 260 | 123 | 383 |

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APPENDIX G. VALIDATION LETTER SAMPLE

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Date: August 31, 2004
To: AF/ILEH
From: *Analyst*
Re: Alpha AFB HRMA Validation Letter

A Housing Requirements and Market Analysis (HRMA) was completed on August 30, 2003, for Alpha AFB, Texas, covering the period 2003 to 2008. The 2003 HRMA concluded that with 300 Military Family Housing Units (MFH) projected for 2008, 100 units would be in excess of the Total Military Family Housing Requirement of 200 units projected for that year. This letter confirms the installation data and market parameters incorporated into the 2003 HRMA.

Alpha AFB Data

Manpower Authorizations

At the time of the 2003 HRMA, manpower authorizations for Alpha AFB totaled 1,000 personnel for 2003 and projected 2,000 personnel for 2008. Alpha AFB's Housing Office and the MAJCOM XP have provided revised manpower estimates in 2004. Although initial year (2004) manpower remains the same at 1,000 personnel, final year authorizations have been adjusted to 2,500 as a new unit was added to Alpha AFB's mission. This new unit is scheduled to arrive at Alpha AFB in 2006. Although this unit was approved by AF/ILEH prior to the completion of the 2003 HRMA, such information was not disseminated to the MAJCOM and Alpha AFB until six months after completion of the 2003 HRMA.

The demographics of personnel stationed at Alpha AFB including military-married-to-military rates, voluntary separation rates and homeownership rates have not changed from the 2003 HRMA and are not anticipated to change in 2006 as a result of the new unit.

Rental Market Data

Rental Supply

At the time of the 2003 HRMA, the rental housing inventory within the Housing Market Area was increasing at about 5.0 percent annually. An estimate of 4.0 percent annual growth was projected for 2003 to 2008. Since 2003, the local university located adjacent to Alpha AFB has closed. Additionally, the anticipated opening of the new 1,000-employee call center in 2004 has been cancelled as the center will now be outsourced to India. These two events dropped demand for multi-family units in the county. Only 100 permits were issued in the final year as opposed to approximately 1,500 permits issued each of the last four years. Therefore, an annual increase in the rental housing supply of 0.6 percent from 2004 to 2009 may be more likely, based on current conditions.

Vacancies

At the time of the 2003 HRMA, vacancies were approximately 2.5 percent. For analytical purposes, a rate of 2.5 percent for both initial and projected years was used in the 2003 HRMA. With the university closing, vacancies have increased in 2004 to total nearly 8.0 percent currently.

Analyst Assessment

The university closing coupled with the outsourcing of the call center have had an impact on both the rental housing supply and demand in the Housing Market Area. The additional unit to be stationed at Alpha AFB may offset some of these impacts. An HRMA Update is recommended to evaluate any change to Alpha AFB's military housing requirements.

APPENDIX H. SAMPLE DELIVERABLES AND ACCEPTANCE LETTERS

This appendix provides sample letters of approval correspondence, transmittal documents and written comments.

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Approval Letter Example – Housing Market Area

Date

*Director of Housing
CES/CEH
100 Housing Office Drive
Anywhere AFB, TX 91350*

Subject: *Anywhere* AFB Housing Requirements and Market Analysis (HRMA)
Approval of Housing Market Area

Dear *Director of Housing*,

Enclosed please find a map containing the recommended boundary of the Housing Market Area in support of the Housing Requirements and Market Analysis for *Anywhere* AFB. Please review the proposed borders and provide approval of the market area via letter or e-mail (*e-mail address*) by *date*. The market area directly affects the available housing supply and competing demand analyzed in the HRMA. As such, please ensure a thorough review by appropriate personnel at *Anywhere* AFB.

If you have any questions concerning this submittal, do not hesitate to telephone me at (999) 999-999 or e-mail me at *e-mail address*.

Sincerely,

Analyst

Encl: Housing Market Area map

cc: HQ AETC/CEPH
HQ AF/ILEH
HQ AFCEE/TDD

Transmittal of HRMA Documents Example

Date

*Director of Housing
CES/CEH
100 Housing Office Drive
Anywhere AFB, TX 91350*

Subject: *Anywhere AFB Housing Requirements and Market Analysis (HRMA)
Preliminary Report*

Dear *Director of Housing*,

Enclosed please find one copy of the Preliminary Housing Requirements and Market Analysis for *Anywhere AFB*. Please forward any comments electronically to the AFCEE Program Manager at *e-mail address* by *date*.

If you have any questions concerning this submittal, do not hesitate to telephone me at (999) 999-999 or e-mail me at *e-mail address*.

Sincerely,

Analyst

Encl: Five (5) copies

cc: HQ AETC/CEPH
HQ AF/ILEH
HQ AFCEE/TDD

Comments on Preliminary Report Example

Date

Director of Housing
CES/CEH
100 Housing Office Drive
Anywhere AFB, TX 91350

Subject: *Analyst* Response to Consolidated Review Comments – HQ, MAJCOM,
date Anywhere AFB, Preliminary Housing Requirements and Market Analysis

Dear *Director of Housing*,

The following are consolidated installation, MAJCOM and AF/ILEH review comments as well as *analyst* responses for incorporation into the Draft HRMA for Anywhere AFB:

1. *Executive Summary: Table ES-3. Refer to attached spreadsheet showing projected manpower for Anywhere AFB through FY 08, current as of 9 July 2003. Total projected for the grade of O-6 is seven. The table shows a total of six. This number should be updated to show a need for housing seven O-6 personnel, and all applicable changes made throughout report. All seven O-6 positions are Key and Essential.*

Analyst Response: *Analyst* has been instructed to use the manpower data received in January 2003 during data collection. There are seven O-6 authorizations (Table 3-1) with one identified as unaccompanied (Table 3-4). Key and Essential for O-6 total six positions based on the data received.

2. *Chapter 1, page 1-4, key assumptions. Do not see consideration of time it takes for routine average delay at the gate due to enhanced security (time delay during peak traffic while in FPCON Alpha). Need to indicate whether or not this was taken into account with the 60-minute commute line.*

Analyst Response: Enhanced security at the gate was addressed and incorporated into the Housing Market Area. A comment addressing this concern will be added to the Draft Report.

3. *Chapter 2, no comments.*
4. *Chapter 3, no comments.*
5. *Chapter 4, no comments.*
6. *Chapter 5, no comments.*
7. *Chapter 6, no comments.*

8. *Chapter 7, general comment. There is no mention of availability of suitable housing during the peak-PCS months. Average annual civilian turnover rates only show how much housing is opening up during the year, but not on a monthly basis and in particular during the summer months when military personnel are most often looking for a place to live. This could drive up the private sector shortfall number.*

Comments on Preliminary Report Example (continued)

Analyst Response: The Dynamic Model only incorporates turnover on an annual basis.

9. Chapter 8, no comments.

10. Chapter 9, no comments.

11. Chapter 10, no comments.

Analyst Response to AF/ILEH Comments

- 1. Page ES-2, first bullet: The unaccompanied seeking private sector housing is 578 per Table ES-2 vs. 532. Compare to 583 in Table 7-9. Revise as appropriate.*

Analyst Response: The value will be corrected in the Draft Report. 532 reflects rental unaccompanied personnel only while 578 includes homeowners.

- 2. Page ES-2, fourth bullet, last sentence: Clarify that the 911 military families are retained on base due to the constrained market. This is in addition to the 194 requirement for floor and shortfall.*

Analyst Response: Military families retained on base due to the constrained market total 911 and is in addition to the Floor Housing Requirement and Private Sector Shortfall. A comment to clarify this issue will be added to the Draft Report.

If you have any questions concerning this submittal, do not hesitate to telephone me at (999) 999-999 or e-mail me at *e-mail address*.

Sincerely,

Analyst

cc: HQ AETC/CEPH
HQ AF/ILEH
HQ AFCEE/TDD

APPENDIX I. THE DYNAMIC MODEL

As a consequence of changes in policies, mission objectives and conditions, the housing market analysis process continues to evolve. This appendix describes the Dynamic Adjustment Housing Model (Dynamic Model) developed by OSD as incorporated by the Air Force into its Housing Requirement and Market Analysis process in 2002.

I.1 THE DYNAMIC MODEL

The Dynamic Model is described as an add-on to the housing market analysis models used by the armed forces. The model draws on the inputs to the housing market analysis incorporating additional information on changes in rental housing supply in response to vacancy rates as well as the turnover of rental housing in estimating an annual allocation of housing to military households. The Dynamic Model estimates how the local rental housing market is likely to absorb and /or respond with additional housing as the military transitions to off-base housing over a five-year planning period.

The major features of the Dynamic Model include:

- A dynamic, community based adjustment methodology that is an add-on module to housing market analysis models.
- Explicitly accounts for housing supply adjustments in response to private sector vacancy rates.
- Allows for cross-leveling between price bedroom categories.
- Allocates only those rental housing units to military households that become available through tenant turnover or are new additions to the rental housing supply during that year.
- Captures the time profile of the dynamic adjustments in the local housing market by estimating results for each year of the analysis.
- Estimates year-by-year private sector market adjustments over a five-year period.

The Dynamic Model may base increases in the rental supply on differences between the actual vacancy rate and the natural vacancy rate. A vacancy rate below the natural rate suggests that rental rate increases would hold and that there may be sufficient demand to absorb additional rental supplies. A proportion of the difference between the actual and natural vacancies may be constructed in the following year of the analysis. The model uses the difference in the vacancy rate and the natural rate as a surrogate for the market's response to changes in market prices.

I.2 BACKGROUND

To place the Dynamic Model in perspective, it is useful to understand the evolution of the housing market analysis methodology that has been implemented by the Air Force. Housing market analyses require a blending of housing policies and regulations as promulgated by DoD and the respective Service with a model of the housing market. Policies set the role that various factors play in the market analysis. Bedroom entitlements for each pay grade determine a minimum size of housing with respect to pay grade. At the same time, housing market analyses must reflect the economic relationship between supply and demand and be consistent with economic theory to assure that the analysis is defensible.

Notwithstanding the theoretical limitations of any model, there are still practical limitations that must be considered. A general equilibrium model that specifies both supply and demand response to changing economic conditions may be limited by the ability to measure changing conditions and responses within the allotted time frame and the level of effort and budgets of the analysis. Large multi-equations economic models have been applied to housing market analyses only to have their usefulness limited by large standards error of estimates, particularly in housing markets where there is little available data. Not all factors can be measured with precision, even with time and extensive resources.

In the early 1990s, the housing market analysis analyzed the housing market in the aggregate. Market segments were not considered. The market share was based on the proportion of the military families to the total demand for both rental and homeowner occupied housing. Military families were allocated a proportional share of total vacancies in the Housing Market Area. Separate analyses were conducted for the current year and a projected year five years subsequent.

The housing market analysis guidance adopted in 1993 introduced the concept of a market segment. Continuing to apply an on-base first policy, MFH units were assumed to be fully occupied before considering housing in the private sector. Military families not accommodated in the MFH would then “seek” owner occupied or rental housing in the private sector. This model introduced the concept of natural vacancies in which a certain level (the natural level) of vacancies is expected to exist when the housing market reaches a balance between supply and demand.

A separate analysis was conducted for the current year and the projected year. While practitioners often estimated/assumed that for the projected year, the market would be in balance, the model did not require this condition/assumption to exist. There is no implicit assumption in the model that market equilibrium would be reached between current and projected years. The rationale often applied, given the objective of the housing market analysis is to determine the number of housing units the military service should own and operate over a 40 to

50 year period, is that the assessment should be based on average or typical conditions over the term of the investment and not on a particular phase of a building cycle that may exist at the time of the analysis.

Military families seeking rental housing were allocated to affordable market segments defined by their MAHC. This reflects the model's objective to determine if there is sufficient housing that is both affordable and suitable. A market share in each market segment of the suitable housing, less natural vacant suitable units, was allocated to the military households depending on their proportion of total demand in that market segment. Provisions were made for excess vacancies.

The model was not a behavior model. It did not address the time it may take to reach equilibrium or whether the military would actually achieve their allocated share within some reasonable time frame. Rather, the model was based on the concept that military families are able to compete equally with civilian households for the same cost of rental housing and, on average, are able to secure a proportional share. The intent was to provide a consistent approach in computing a market share for military households.

In 2000, the policy of fully utilizing the MFH before considering the private sector was abandoned and the housing market analysis implemented an off-base first policy. The Floor Housing Requirement criteria were introduced but the Floor was only applied if the Floor Housing Requirement was in excess of the Private Sector Shortfall, if any. The off-base first model assumed that existing MFH units were no longer available and that all military households occupying MFH would be renters in the private sector. Particularly in smaller housing markets, this implied a potential dislocation in the rental market in that excess demand may result from the assumed loss of MFH units.

The Floor First model was adopted in 2001 for the Air Force Family Housing Master Planning initiative. In this model, the Floor Housing Requirement is assumed to be fully occupied before considering the private sector housing market. The market share allocated to military households was again based on their share of suitable housing less natural vacant units in each market segment.

All of the off-base first models were static in nature. They contained no direct mechanism that would adjust the supply of rental housing based on an increase in demand such as may occur should the MFH inventory be adjusted to the Floor Housing Requirement. While growth in the rental supply and competing civilian demand may be projected between the current year and projected year of the analysis, it would most likely be based on historical growth trends unless there was specific demand changes forecasted for the market area.

As the model shifted from on-base first, to off-base first, to the Floor first, the current year and projected year analyses continued to be treated independently.

The objective remained the same — determine the long-term housing requirement for an installation. The analysis assumed that MFH units projected for that year of analysis would be initially occupied and then evaluated if the private sector would be able to house suitably the increased number in the military households, given the Floor Housing Requirement. The static models did not incorporate possible rental cost changes that may occur from the increase in demand. Rental cost increases may in turn stimulate additional rental housing. In both small and large markets, for each year of the analysis, the market share allocation was based only on the military families' proportion to the total demand. Military households in excess of their market share would become a requirement for government housing.

I.3 DYNAMIC MODEL STRUCTURE

As an add-on to the housing market analysis model, the Dynamic Model uses the current year and the projected year from the housing market analysis model as the end points for its analysis. The starting point is the current authorized manpower occupying an installation's existing number of military housing units or rental housing in the private sector. The end point is based on the projected authorized manpower occupying military housing as defined by the Floor Housing Requirement or requiring rental housing. For each year between the starting and ending points, the Dynamic Model allocates the available, affordable, suitable rental housing only to those military households seeking rental housing that year. The Dynamic Model also incorporates a response mechanism that allows for rental housing additions in the market based on changes in the vacancy rates.

Market segment, defined by rental cost/number of bedrooms categories, form the unit of analysis for the Dynamic Model. The Dynamic Model separately addresses the availability of rental housing within each market segment and provides no direct mechanism for allocating housing shortfalls within any segment back to the one or more pay grades that may be "shopping" within that market segment. The estimates of demand for and the supply of rental housing in each market segment incorporate all of the assumptions and input data applied to the housing market analysis model. This includes authorized manpower, accompaniment rates, homeownership patterns, estimates of civilian and other competing demand, and the spending limits based on defined affordability and acceptability of housing.

The housing market analysis model generates the following estimates for rental market supply for each market segment for the current year:

- Total rental housing,
- Unsuitable rental housing,
- Total vacant rental housing, and
- Suitable vacant rental housing

For rental demand by market segment, the housing market analysis model estimates:

- Total military family and unaccompanied rental demand in the Housing Market Area - current and projected year,
- Civilian rental demand - current and projected year, and
- Military families and unaccompanied personnel suitably housed in the Housing Market Area - current year

The Dynamic Model requires additional information for each rental market segment including:

- The proportion of civilian households that move from their rental unit during the year,
- The proportion of military family households that move from their rental unit during the year,
- The proportion of unaccompanied personnel households that move from their rental unit during the year, and
- The total number of rental houses that would be added to each market segment over the five year period of analysis, or the number or rental units added each year to the total rental supply, or a percentage representing the proportion of the difference between the number of vacant housing and the number of housing that would be vacant at the natural vacancy rate.

For each of the five years of the analysis, the Dynamic Model allocates suitable housing that becomes available for rent through turnover of the housing (the tenant moves out of the unit), that are vacant, or as a new addition to the rental supply, to those households seeking housing during that year. The proportion of housing equal to the natural vacant housing is removed from the available housing.

The available suitable housing is allocated only to active demand households. For military families, the active demand are households turning over, households considered unsuitably housed, households requiring rental housing as a result of the transitioning from the current level of the military controlled housing to the Floor level, as well as new PCS households at an installation. If only 20 percent of the suitable rental housing is available, the Dynamic Model will only allocate 20 percent of the suitable rental housing (less the natural vacancies) amongst the competing households.

The available suitable rental housing is allocated to each of the competing groups (military families, unaccompanied, and civilian households) based on its proportion of the total active demand in each market segment. If the military families are 1/10 of the total active demand in a market segment, they are allocated 1/10 of the available suitable housing in that segment. For each year of the analysis and each market segment, the number of available suitable rental

units is computed along with the number of active demand households in each competing group. The model then allocates the available supply to the active demand and determines the total number of households in each competing group who has suitable housing as the sum of the active demand allocated suitable housing plus those who were already with suitable housing. The total number of military family and unaccompanied households not in suitable housing at the fifth year of the analysis becomes a respective housing requirement for an installation.

The Dynamic Model also allows cross leveling, a process in which any excess supply or demand in a specific market segment is used to offset housing shortfalls or additional supply in other market segments. The allocation process could result in excess supply or excess demand within a market segment. While the Dynamic Model provided steps to implement cross-leveling, the Air Force provided guidance that, in general, cross leveling is not implemented for the Dynamic Model.

I.4 DYNAMIC MODEL INPUTS

The model inputs are based on the computational model provided by OSD in a spreadsheet format. The computational model draws on inputs from the housing market analysis model and then computes certain variables relating to the rental housing and military families and unaccompanied personnel living in either suitable or unsuitable housing. The inputs are listed by category below:

Rental Supply

- 1. Total Rental Supply Start Year**
Input from Housing Market Analysis Model Current Year
- 2. Unsuitable Rentals Start Year**
Input from Housing Market Analysis Model Current Year
- 3. Suitable Rentals Start Year**
Total Rental Supply Start Year less Unsuitable Rentals Start Year
- 4. Vacancies Starting Year**
Input from Housing Market Analysis Model Current Year
- 5. Suitable Vacancies Start Year**
Input from Housing Market Analysis Model Current Year
- 6. Unsuitable Vacancies Start Year**
Vacancies Starting Year less the Suitable Vacancies Starting Year
- 7. Occupied Suitable Rentals Start Year**
Suitable Rentals Starting Year less Suitable Vacancies Starting Year

Military Families

- 8. Military Family Suitably Housed Start Year**
Input from Housing Market Analysis Model Current Year
- 9. Military Family Unsuitably Housed Start Year**
Input from Housing Market Analysis Model Current Year
- 10. Military Family Off-Base Demand Start Year**
Military Family Suitably Housed plus Military Family Unsuitably Housed Starting Year
- 11. Military Family Off-Base Demand End Year**
Input from Housing Market Analysis Model Projected Year
- 12. Military Family Off Base Demand Year 1 – 4**
A linear interpolation between the start year and the end year for each market segment

Unaccompanied

- 13. Unaccompanied Suitably Housed Start Year**
Input from Housing Market Analysis Model Current Year
- 14. Unaccompanied Unsuitably Housed Start Year**
Input from Housing Market Analysis Model Current Year
- 15. Unaccompanied Off-Base Demand Start Year**
Unaccompanied Suitably Housed Start Year plus Unaccompanied Unsuitably Housed Start Year
- 16. Unaccompanied Off-Base Demand End Year**
Input from Housing Market Analysis Model Projected Year
- 17. Unaccompanied Off Base Demand Year 1 – 4**
A linear interpolation between the start year and the end year for each market segment

Civilians

- 18. Civilian Rental Demand Start Year**
Input from Housing Market Analysis Model Current Year
- 19. Civilian Rental Demand End Year**
Input from Housing Market Analysis Model Projected Year

20. Civilian Rental Demand Suitably Housed Start Year

Occupied Suitable Housing Start Year less the sum of the Military Family Suitably Housed Start Year and the Unaccompanied Suitably Housed Start Year

21. Civilian Rental Demand Unsuitably Housed Start Year

Unsuitable Rentals Start Year less Unsuitable Vacancies Start Year less the sum of the Military Family Unsuitable Housed Start Year and the Unaccompanied Unsuitably Housed Start Year

22. Civilian Demand Start Year

Civilian Rental Demand Suitably Housed Start Year plus Civilian Rental Demand Unsuitably Housed Start Year

23. Civilian Demand Year 1 – 4

A linear interpolation between the start year and the end year for each market segment

APPENDIX J. THE CONSTRAINED MARKET ANALYSIS MODEL

The analyst must pay special attention to situations when standard assumptions or procedures may not yield a reasonable model of the housing market, housing requirements, or the housing analysis as a whole. The analyst must provide detailed justification when deviating from the standard methodology. Variations must be discussed and reviewed with the installation, MAJCOM and AF/ILEH program managers before proceeding. The Constrained Market Analysis Model (Constrained Model) is one of the adjustments to the standard methodology used in prior HRMA analyses.

J.1 METHODOLOGY

The Constrained Model was developed to address a potential situation where the local market may be unable to accommodate both military and civilian rental housing requirements. A determined number of military families and unaccompanied personnel are retained as on-base housing requirements so that civilians are not theoretically displaced from the housing market and rental rates do not escalate at an abnormal pace. A constrained approach is triggered under the following conditions:

- The local community for the installation is one and one-half hours commute from the next reasonably sized community; and,
- The sum of civilian demand, military demand in excess of the Floor Housing Requirement and naturally vacant units is greater than the total rental housing supply.

Military members retained on-base (or precluded from competing in the private sector for rental housing), for the final transition year is calculated as follows:

| | |
|---|---|
| | Civilian Rental Demand |
| + | Military Family Competitive Rental Housing Demand |
| + | Unaccompanied Personnel Competitive Rental Housing Demand |
| + | Natural Vacant Units |
| = | <hr/> Total Rental Demand <hr/> |
| - | Total Rental Housing Supply (Suitable and Unsuitable) |
| = | <hr/> <hr/> Military Members Retained On-Base <hr/> <hr/> |

Any military members not retained on-base are allowed to compete in the private sector for rental housing in accordance with the standard methodology and the

Dynamic Model. The Total Military Housing Requirement, therefore, is determined as the sum of the minimum housing requirement, the retained housing requirement and the Private Sector Shortfall in the final year of the transition period.

J.2 DISCUSSION

The following issues concern application of the Constrained Model:

- OSD has declared that the standard model may not work in all markets.
- The OSD model is based on market share; thus, the more military in the community, the more units they will capture. Military presence in some communities can double or even triple over a five year period.
- Factors such as environmental regulations, zoning restrictions, available land, cost of construction and availability of natural resources may all give indications of the ability of the market to respond. However, the same data may also indicate the inability of the market to respond. Yet, military personnel would capture more units in these types of markets unless a constrained approach is used.
- The Constrained Model should not be used in a metropolitan area (e.g., Albuquerque or Spokane) regardless of the criteria used to implement the Constrained Model.
- Both assumptions and results should be reviewed for consistency and logic when using the Constrained Model.

The following modifications to the Constrained Model may be evaluated:

- No metropolitan area would qualify (except maybe Honolulu).
- Vacancy rates removed from excess demand calculations (military member retention on-base).
- Civilians can theoretically be relocated to mobile homes or poor quality housing without the perception that the U.S. Government is adversely affecting the market or “subsidizing homes for civilians.”

The Constrained Model ensures a private sector rental unit exists for all private sector rental demand and excludes general competitive economic theory. As indicated throughout the Manual, any change or deviation from the standard methodology must be well documented and approved by AF/ILEH prior to implementation.

APPENDIX K. POLICY REFERENCES

Policy references used throughout the Manual include the following:

- 1) DoD 4165.63-M, DoD Housing Management, September 1993
- 2) Deputy Secretary of Defense Memorandum dated January 8, 2003, Subject: Housing Requirements Determination Process Policy Guidance
- 3) AFI 32-6001, Family Housing Management
- 4) AFI 32-6003, General Officer Quarters
- 5) AFI 32-6005, Unaccompanied Housing Management and Operations
- 6) DoD 5400.7-R, DoD Freedom of Information Act Program, September 1998