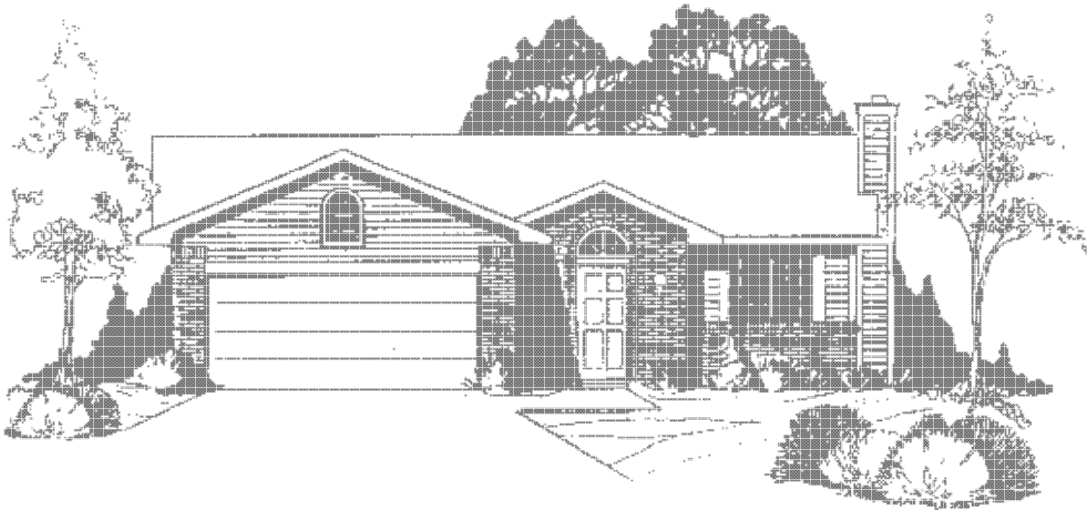


# 2008 HOUSING MARKET ANALYSIS

FINAL REPORT



**FORT BLISS  
TEXAS**

**Headquarters, Department of the Army  
Assistant Chief of Staff for Installation Management**

*Prepared by ROBERT D. NIEHAUS, INC.*



**FORT BLISS, TEXAS  
2008 HOUSING MARKET ANALYSIS**

**FINAL REPORT**

Prepared for

Headquarters, Department of the Army,  
Office of the Assistant Chief of Staff for Installation Management  
and U.S. Army Corps of Engineers, Louisville District

Prepared by

ROBERT D. NIEHAUS, INC.  
140 East Carrillo Street  
Santa Barbara, CA 93101  
(805) 962-0611

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## EXECUTIVE SUMMARY

This Housing Market Analysis (HMA) evaluates the availability of housing for both accompanied and unaccompanied military personnel stationed at Fort Bliss meeting Army and Department of Defense (DoD) standards for affordability, location, quality, and number of bedrooms. This report is based on criteria and methods approved by Headquarters, Department of the Army, and reflects current guidance by the Office of the Secretary of Defense (OSD) regarding market analyses for military housing. The principal assumptions and results of the analysis are shown in Table ES-1.

**Table ES-1. Military Housing Requirements and Key Assumptions, Fort Bliss, 2008-2013**

<b>Assumptions/Results</b>						
1. Methodology Consistent with OSD Guidance for All Services						
2. Total Personnel Based on 02 May 08 ASIP Report (SAMAS as of 14 February 08)						
3. Market Area is Based on a 20-Mile Commute						
4. Rental Mobile Homes are Inadequate for Military Members						
5. 2008 Basic Allowance for Housing (BAH) and 2008 Community Rental Costs						
6. One Bedroom Per Family Member for Accompanied, BAH Standard for Unaccompanied						
7. Floor Requirement for Unaccompanied Personnel is E1-E5 Personnel						
8. Straight-Line Transition from Current Occupancy of On-Post Housing in 2008 to Floor Requirement in 2013						
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Total Permanent-Party Personnel [1]</b>	19,188	22,335	30,314	35,174	37,999	37,999
<b>Total Military Families</b>	10,769	12,306	16,329	18,781	20,212	20,212
Post Occupancy in 2008; Floor Requirement in 2013	2,712	2,275	1,853	1,411	997	542
Community Housing Demand	8,057	10,031	14,476	17,370	19,215	19,670
Military Family Homeowners	3,601	4,130	5,046	5,675	6,052	6,016
Military Family Renters	4,456	5,901	9,430	11,695	13,163	13,654
Community Housing Shortfall	2,287	2,663	4,469	5,451	6,885	6,377
Initial Housing Requirement	4,999	4,938	6,322	6,862	7,882	6,919
10 Percent Military Community Adjustment [2]	-	-	-	-	-	27
<b>TOTAL MILITARY FAMILY HOUSING REQUIREMENT</b>	4,999	4,938	6,322	6,862	7,882	<b>6,946</b>
Military Family Housing Inventory [3]	3,064	3,396	3,728	4,060	4,392	4,723
Deficit/(Surplus) of Military Family Housing	1,935	1,542	2,594	2,802	3,490	2,223
<b>Total Unaccompanied Personnel</b>	7,417	8,872	12,433	14,598	15,853	15,853
In On-Post Housing (E5 and below)	6,318	7,655	10,809	12,753	13,877	13,877
Community Housing Demand	1,099	1,217	1,624	1,845	1,976	1,976
Unaccompanied Personnel Homeowners	289	327	397	440	465	462
Unaccompanied Personnel Renters	810	890	1,227	1,405	1,511	1,514
Community Housing Shortfall	306	253	389	438	466	449
<b>Total Unaccompanied Housing Requirement</b>	6,624	7,908	11,198	13,191	14,343	14,326

Notes: [1] Total Permanent-Party Personnel includes voluntarily-separated personnel and military spouses in dual military couples, which are not shown separately in this table. See Chapter 4, tables 4-1 and 4-3, for details.

[2] The ten percent military community adjustment reflects any increases when the initial housing requirement is less than ten percent of total families on a grade by grade basis and is only applied in 2013 (see text).

[3] Military family housing inventory assumes straight-line transition from current inventory in 2008 to end-state inventory in 2013.

Sources: Headquarters, Department of the Army, 2008; and estimates prepared for this study.

For 2013, the on-post accompanied housing requirement totals 6,946 units. The on-post unaccompanied housing requirement totals 14,326 units in 2013.

This analysis is consistent with current OSD guidance for the preparation of HMAs (U.S. Department of Defense, 2003). Chapter 1 of this report describes the OSD-approved methodology in detail. In summary, the projected requirement for on-post housing consists of three components – the floor requirement, the community housing shortfall, and if needed a military community adjustment factor.

The floor housing requirement for accompanied personnel is based on four components as projected for the fifth year of the analysis (2013). These requirements are not additive but are calculated as the greatest of the four criteria for each grade. The four components are:

- Military On-Post Community
- Key and Essential Personnel
- Historic Housing
- Quality of Life

The floor requirement in this analysis has been initially calculated assuming there is no military on-post community housing requirement component. If the initial estimate of the total requirement for on-post military family housing for any individual pay grade is less than ten percent of total families in that grade, the requirement in that grade is increased to equal ten percent of families by adding a military community adjustment factor. The initial requirement was raised in this analysis to equal ten percent of families in the O4 and O3 pay grades (Table ES-2).

For unaccompanied personnel, the floor housing requirement is defined as all unaccompanied E1-E5 personnel. These unaccompanied personnel are assumed to be housed in on-post unaccompanied quarters.

The community housing shortfall is the number of military renters projected not to find suitable housing off post. Summaries of the projected floor, community housing shortfall, and total on-post accompanied and unaccompanied personnel housing requirements, by grade, are presented in Tables ES-2 and ES-3.

**Table ES-2. Floor Requirement, Private Sector Shortfall, and Total Military Family Housing Requirement, Fort Bliss, 2013**

Pay Grade	Military Families	Military Community	Key and Essential	Historic Units	Quality of Life	Floor Requirement	Private Sector Shortfall	Initial Housing Requirement	10-Percent Military Community	Total Military Housing Requirement
O7 & Above	6	-	6	5	-	6	-	6	1	6
O6	88	-	47	27	-	47	-	47	9	47
O5	260	-	48	32	-	48	1	49	26	49
O4	564	-	1	32	-	32	18	50	56	56
O3	791	-	-	5	-	5	53	58	79	79
O2	244	-	-	-	-	-	25	25	24	25
O1	162	-	-	-	-	-	43	43	16	43
Officers	2,115	-	102	101	-	138	140	278	211	305
W5	13	-	-	1	-	1	-	1	1	1
W4	84	-	-	5	-	5	5	10	8	10
W3	181	-	-	-	-	-	23	23	18	23
W2	228	-	-	-	-	-	33	33	23	33
W1	191	-	-	-	-	-	38	38	19	38
Warrants	697	-	-	6	-	6	99	105	69	105
E9	597	-	72	1	-	72	61	133	60	133
E8	996	-	228	-	-	228	132	360	100	360
E7	1,689	-	-	-	-	-	261	261	169	261
E6	3,421	-	-	-	-	-	669	669	342	669
E5	4,282	-	-	-	-	-	1,642	1,642	428	1,642
E4	4,294	-	-	-	-	-	2,276	2,276	429	2,276
E3	1,500	-	-	98	-	98	770	868	150	868
E2	518	-	-	-	-	-	277	277	52	277
E1	103	-	-	-	-	-	50	50	10	50
Enlisted	17,400	-	300	99	-	398	6,138	6,536	1,740	6,536
<b>Total</b>	<b>20,212</b>	<b>-</b>	<b>402</b>	<b>206</b>	<b>-</b>	<b>542</b>	<b>6,377</b>	<b>6,919</b>	<b>2,020</b>	<b>6,946</b>

Note: The total military housing requirement is the greater of the initial housing requirement and the ten percent community component for each grade.

Source: Estimates prepared for this study.

**Table ES-3. Floor Requirement, Private Sector Shortfall, and Total Unaccompanied Housing Requirement, Fort Bliss, 2013**

<b>Pay Grade</b>	<b>Total Unaccompanied Personnel</b>	<b>Floor Requirement</b>	<b>Private Sector Shortfall</b>	<b>Total Military Housing Requirement</b>
O7 & Above	-	-	-	-
O6	4	-	-	-
O5	24	-	-	-
O4	62	-	7	7
O3	418	-	22	22
O2	479	-	87	87
O1	369	-	156	156
Officers	1,356	-	272	272
W5	-	-	-	-
W4	8	-	-	-
W3	9	-	-	-
W2	3	-	-	-
W1	22	-	7	7
Warrants	42	-	7	7
E9	25	-	2	2
E8	46	-	6	6
E7	81	-	22	22
E6	426	-	140	140
E5	1,531	1,531	-	1,531
E4	5,296	5,296	-	5,296
E3	3,984	3,984	-	3,984
E2	2,495	2,495	-	2,495
E1	571	571	-	571
Enlisted	14,455	13,877	170	14,047
<b>Total</b>	<b>15,853</b>	<b>13,877</b>	<b>449</b>	<b>14,326</b>

Source: Estimates prepared for this study.

The total accompanied and unaccompanied housing requirements by grade and bedroom entitlements are presented in Tables ES-4 and ES-5.

**Table ES-4. Total Military Family Housing Requirement by Grade and Bedroom Entitlement, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	6	6
O6	-	-	47	47
O5	-	15	34	49
O4	-	25	31	56
O3	34	11	34	79
O2	12	3	10	25
O1	18	15	10	43
<b>Officers</b>	<b>64</b>	<b>69</b>	<b>172</b>	<b>305</b>
W5	-	-	1	1
W4	-	5	5	10
W3	1	3	19	23
W2	2	4	27	33
W1	5	6	27	38
<b>Warrants</b>	<b>8</b>	<b>18</b>	<b>79</b>	<b>105</b>
E9	-	68	65	133
E8	-	201	159	360
E7	-	53	208	261
E6	92	82	495	669
E5	423	533	686	1,642
E4	958	785	533	2,276
E3	463	264	141	868
E2	146	85	46	277
E1	34	4	12	50
<b>Enlisted</b>	<b>2,116</b>	<b>2,075</b>	<b>2,345</b>	<b>6,536</b>
<b>Total</b>	<b>2,188</b>	<b>2,162</b>	<b>2,596</b>	<b>6,946</b>

Source: Estimates prepared for this study.

**Table ES-5. Total Unaccompanied Housing Requirement by Grade and Bedroom Entitlement, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three	
O7 & Above	-	-	-	-
O6	-	-	-	-
O5	-	-	-	-
O4	-	-	7	7
O3	-	22	-	22
O2	-	87	-	87
O1	-	156	-	156
Officers	-	265	7	272
W5	-	-	-	-
W4	-	-	-	-
W3	-	-	-	-
W2	-	-	-	-
W1	-	7	-	7
Warrants	-	7	-	7
E9	-	2	-	2
E8	-	6	-	6
E7	-	22	-	22
E6	-	140	-	140
E5	1,531	-	-	1,531
E4	5,296	-	-	5,296
E3	3,984	-	-	3,984
E2	2,495	-	-	2,495
E1	571	-	-	571
Enlisted	13,877	170	-	14,047
<b>Total</b>	<b>13,877</b>	<b>442</b>	<b>7</b>	<b>14,326</b>

Source: Estimates prepared for this study.

The following points compare the results of this study to those of the 2007 Housing Requirements Update (Robert D. Niehaus, Inc., 2008a):

- The projected 2013 requirement is 6,946 family housing units, 518 more than the projected 2012 requirement of 6,428 units.
- The 2013 projection of total active-duty permanent-party military personnel is 37,999, which is 6,263 more than the 31,736 projected personnel in the 2007 Update.
- The projected number of military families in 2013 is 20,212, or 1,160 more than the projected 2012 family count of 19,052. Accompaniment rates for this study were derived from data provided by the Fort Bliss RCI Office (2008).
- Rental housing affordability remained relatively unchanged between the analyses of 2007 and 2008, as increases in MAHC kept pace with increases in rental costs over this period. Weighted-

average MAHC increased by a total of 1.2 percent over the past year, while median rental costs (rent, plus utilities, plus renter's insurance) increased by 1.3 percent overall.

- The projected number of accompanied homeowners in this analysis is 6,016 (29.8 percent of families), which is 861 more than the 5,155 homeowners projected in the 2007 Update (27.1 percent of families). Projected homeownership rates for this analysis were derived from the Fort Bliss 2008 Military Personnel Housing Survey, adjusted for anticipated changes in homeownership affordability between 2008 and 2013 (Robert D. Niehaus, Inc., 2008b). Projected homeownership rates in the 2007 Update were derived from the 1997 VHA survey adjusted for anticipated changes in homeownership affordability between 1997 and 2012 (U.S. Air Force, 1998).

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## 1. INTRODUCTION

This Housing Market Analysis (HMA) evaluates the availability of housing for both accompanied and unaccompanied military personnel stationed at Fort Bliss, meeting Army and Department of Defense (DoD) standards for affordability, location, quality, and number of bedrooms. This report is based on criteria and methods approved by Headquarters, Department of the Army, and reflects current guidance by the Office of the Secretary of Defense (OSD) regarding market analyses for military housing.

### 1.1 STUDY PURPOSE AND SCOPE

The purpose of this HMA is to assess the capacity of the area housing market to provide military personnel with housing meeting Army and DoD criteria for acceptability. These criteria are of four principal types:

- (1) **Location** – Housing must be located within a reasonable commute distance of the principal work areas of an installation.
- (2) **Affordability** – Rent plus utilities plus renter's insurance must be affordable for the military member, based on accompaniment status and pay grade.
- (3) **Quality** – Housing must meet or exceed minimum Army and DoD standards for decent, safe, and sanitary housing.
- (4) **Number of Bedrooms** – Housing must have the proper number of bedrooms for the military member, based on accompaniment status, number of dependents, and pay grade.

This analysis is conducted for two points in time: current (2008) and projected (2013). Addressing projected conditions permits decision-makers to plan, budget, and implement actions to provide for future needs.

This HMA includes an assessment of the private and public-assisted housing inventories and the demands for housing from all sources.

### 1.2 METHODOLOGY

The analysis is consistent with current OSD guidance for the preparation of HMAs (U.S. Department of Defense, 2003). The following summarizes the principal features of this guidance:

**A.** The primary focus of the HMA process is to assess the balance between projected acceptable off-post rental housing and the projected off-post military rental housing demand. However, the off-post housing balance is not the sole determinant of the total on-post military housing requirement. For accompanied personnel, current OSD guidance allows for a projected minimum on-post housing requirement, or the floor requirement, as the greatest of four criteria for each pay grade:

- **Military On-Post Community** – Ten percent of military families in each grade, with a minimum of one on-post housing unit for any pay grade with at least one family. The floor requirement is initially calculated assuming there is no military community housing requirement component (i.e. this component is zero). If the total requirement for on-post military family housing for any

individual pay grade is less than ten percent of total families in that grade, the requirement in that grade is then increased to equal ten percent of families in that grade.

- **Key and Essential Personnel** – All key and essential, or Priority 1, personnel.
- **Historic Housing** – On-post family housing listed on or eligible for listing on the National Register of Historic Places under the National Historic Preservation Act.
- **Quality of Life** – Housing for members whose annual regular military compensation (RMC) falls below 50 percent of the median family income for the housing market area.

**B.** No corresponding floor requirement is calculated for the current year of the analysis for accompanied personnel. For analysis of current year conditions, on-post military family housing is considered to be occupied at recent actual levels.

**C.** For unaccompanied personnel, the floor housing requirement is defined as all unaccompanied E1-E5 personnel. These personnel are assumed to be housed in on-post unaccompanied quarters in both the current and projected years.

**D.** For accompanied personnel, total potential community housing demand is defined in 2008 as those families in excess of the current occupants of on-post housing and in 2013 as those families in excess of the projected floor requirement. For unaccompanied personnel the potential community housing demand includes those personnel in excess of the floor requirement in both years.

**E.** The analysis assumes, in accordance with OSD guidance, that military homeowners are acceptably housed (U.S. Department of Defense, 1993). This study therefore focuses primarily on the rental market within the market area. The number of potential military renters is the difference between the overall community housing demand and the number of military homeowners. The HMA determines if the private sector could potentially provide sufficient affordable, suitable-quality rental housing for military renters in the local community.

**F.** The methodology used in this HMA simulates a dynamic process of adjustment between market area housing demand and supply. The analysis incorporates changes in military manpower, competing civilian demand, and rental housing supply over a five-year period, estimating the military market share for each year of the analysis. The military market share is based on competition among accompanied personnel, unaccompanied personnel, and civilians who actively seek housing during the year.

**G.** This analysis distinguishes between all market area rental housing and that rental housing estimated to be of acceptable quality (see below) for military personnel within the installation's housing market area. The analysis uses a market segment approach, dividing the housing market into segments by cost (rent, utility costs, and renter's insurance) and number of bedrooms. The military share of adequate-quality housing in each segment (also termed expected suitable rental housing) is equal to the proportion of the military requirement in the total competing housing demand within the segment.

**H.** This analysis also evaluates the community's ability to absorb the potentially transitioning accompanied personnel over the five-year planning horizon. The potentially transitioning accompanied personnel are those families in excess of the projected floor requirement currently living in on-post quarters.

**I.** The projection process applies these major assumptions:

- The on-post family housing inventory is hypothetically adjusted to the floor housing requirement in five years. The number of military families occupying on-post housing would change each year until by the fifth year of the analysis only the floor housing would be occupied.
- Market competition only occurs 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 additional housing units enter the rental market through new construction or net conversions from owner-occupancy. Estimated changes, if any, in the rental housing supply are based on the potential rental market response to any projected changes in demand – from civilian population growth, military families moving from on-post housing to the private sector, or any increases in military personnel authorizations.
- Competing demand each year is generated by those households, both military and civilian, that actively seek rental housing during the year. These include households occupying suitable housing that choose to seek different rental housing; military households currently occupying unsuitable housing; and new households entering the housing market. The new households include military households newly authorized to the installation, military families who are part of the simulated transition from on-post housing to the private sector, and civilian households new to the housing market. Current on-post military residents are assumed to compete for rental housing during the transition phase.
- Unaccompanied personnel who are not required to live on post compete in the private sector as well.
- Military households who own their homes are considered suitably housed under current policy.
- The shortfall or surplus in the private-sector housing market is determined in the fifth year of the analysis as the difference between the military's share of adequate-quality rental housing (expected suitable rentals) and the military rental requirement. When there is insufficient private-sector rental housing of adequate quality in a cost-band/bedroom segment, a community housing shortfall exists in that segment.

**J.** Finally, the HMA determines the total housing requirement for the installation as the sum of the projected floor housing requirement and the projected community housing shortfall. If the sum of the projected floor housing requirement and the projected community housing shortfall is not at least ten percent of the total families in each pay grade, a military community adjustment factor is added so that the total requirement equals ten percent of families in each pay grade.

### 1.3 KEY ASSUMPTIONS

This HMA uses the best available information to assess housing supply and demand in the market area, from both military and civilian sources. Any analysis involving interaction of economic forces, individual behavior, and public policies must necessarily rely on assumptions regarding those factors not easily observed or unknown in advance (such as the future course of population growth and housing development). This HMA likewise relies on assumptions in utilizing available information, as discussed here:

1. Fort Bliss is assumed to remain open and functioning through the year 2013. Current and projected authorized permanent party military personnel strength is provided by Headquarters, Department of the Army from the Army Stationing Installation Plan (ASIP). Current (2008) and projected (2013) permanent party personnel were obtained from the 2 May 2008 ASIP report (14 February 08 SAMAS).
2. The market area is defined as an approximate 20-mile commute along the area road network to and from the principal work areas of the installation.
3. Housing is considered to be affordable if rent plus utilities plus renter's insurance does not exceed Maximum Acceptable Housing Cost (MAHC). In 2008 and 2013 MAHC equals the military Basic Allowance for Housing (BAH). Military personnel are assumed to pay approximately 85 percent to 100 percent of MAHC for rent, utilities, and renter's insurance.
4. Accompanied personnel were estimated to have requirements for two-, three-, or four-bedroom units based on the number of family members and grade of the military member. Each family member, other than the spouse, is entitled to his or her own bedroom. Accompanied military personnel in grades E7-E9, W4-W5, and O4-O5 were assigned a minimum of three bedrooms due to seniority. Accompanied personnel in grades O6 and above were assigned a minimum of four bedrooms. The bedroom entitlements for unaccompanied personnel are one-bedroom units for grades E1-E5; two-bedroom units for grades E6-E9, W1-W3, and O1-O3; and three-bedroom units for grades W4-W5 and O4 and above.
5. A community rental housing unit is classified as adequate and is considered adequate in this analysis if it meets the following standards (Headquarters, Department of the Army, 2008 and Runzheimer International, 2008):
  - (a) is a complete unit with private entrance, bath and kitchen for the sole use of its occupants and so arranged that each bedroom can be entered without passing through another bedroom;
  - (b) is well maintained and structurally sound;
  - (c) has hot and cold running potable water;
  - (d) has a shower or bathtub, lavatory, and flushable toilet;
  - (e) has a heating system and air conditioning;

- (f) has adequate electrical service;
  - (g) has kitchen cabinets, space and connections for a stove and refrigerator, and space for food preparation;
  - (h) affords convenient access to parking;
  - (i) has convenient access to roadways and sidewalks;
  - (j) has or can readily be equipped with smoke detectors;
  - (k) has washer and dryer connections or access to laundry facilities within one-quarter mile;
  - (l) has adequate sanitary and sewage disposal facilities;
  - (m) meets DoD minimum size standards;
  - (n) is not a mobile or manufactured home;
  - (o) is not in an area subject to unacceptably high risk of crime; and
  - (p) is not in an area, subdivision, or housing complex designated by a local commander as not acceptable for reasons of health and safety.
6. Information on the current distribution of personnel by grade and the current and projected accompaniment status of these personnel (including the number of military personnel married to another military member) were provided by the Fort Bliss RCI Office (2008). Information on the projected distribution of personnel by grade was provided by the Fort Bliss Transformation Office (2008). Information on the current and projected number of voluntarily separated personnel was derived from the 1997 VHA survey (U.S. Air Force, 1998). Bedroom entitlements for families assigned to Fort Bliss were calculated using family size data derived from the Fort Bliss 2008 Military Personnel Housing Survey (Robert D. Niehaus, Inc., 2008b).
7. As directed by OSD policy, all military homeowners are considered adequately housed. The number of military family homeowners in this analysis is derived from the Fort Bliss 2008 Military Personnel Housing Survey. Mobile homes owned by their military occupants were assumed to be acceptable, just as all other military owner-occupied units are considered acceptable housing regardless of any other factors involved.
8. Current market area population and housing stock estimates were prepared using data from the 1990 and 2000 censuses, current information on population and housing levels provided by state and local planning and research organizations, and trends extrapolated from these sources.
9. The rental vacancy rate in the market area was estimated using 1990 and 2000 structural relationships, information from interviews with property managers, housing development trends, and population growth trends.

## 1.4 ORGANIZATION OF THE REPORT

The remaining sections of this report are organized to provide a comprehensive and non-technical assessment of housing supply and demand conditions in the market area, particularly as these affect housing availability for military personnel.

**Chapter 2** describes the housing market area, its population, and local economic structure.

**Chapter 3** presents a detailed analysis of the area's housing stock and characteristics. This analysis is provided for both current (2008) and projected (2013) conditions, and addresses both supply and demand factors in evaluating future trends in area housing.

**Chapter 4** discusses military housing demand, affordability, and adequacy in the context of total area demand.

**Chapter 5** presents the total requirement for on-post military housing.

**Chapter 6** summarizes the key findings of the study.

**Chapter 7** identifies the persons and organizations contacted in the course of preparing this analysis.

**Chapter 8** presents references used in the study.

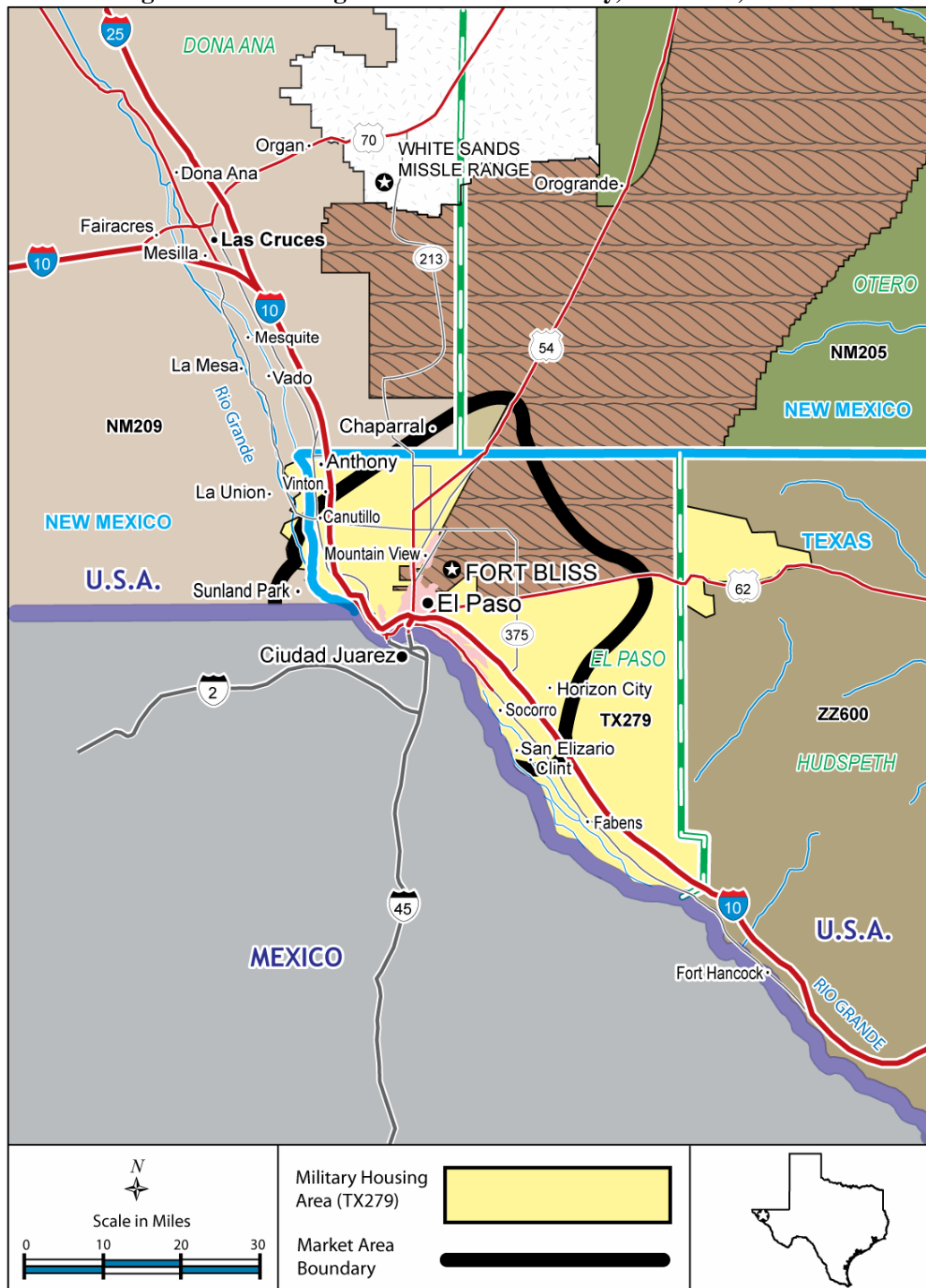
## 2. HOUSING MARKET AREA

This chapter defines the housing market area for Fort Bliss and describes its general population and economic characteristics.

### 2.1 MARKET AREA DEFINITION

Figure 2-1 shows the housing market area for Fort Bliss, which is located in the city of El Paso, Texas.

**Figure 2-1. Housing Market Area Boundary, Fort Bliss, Texas**



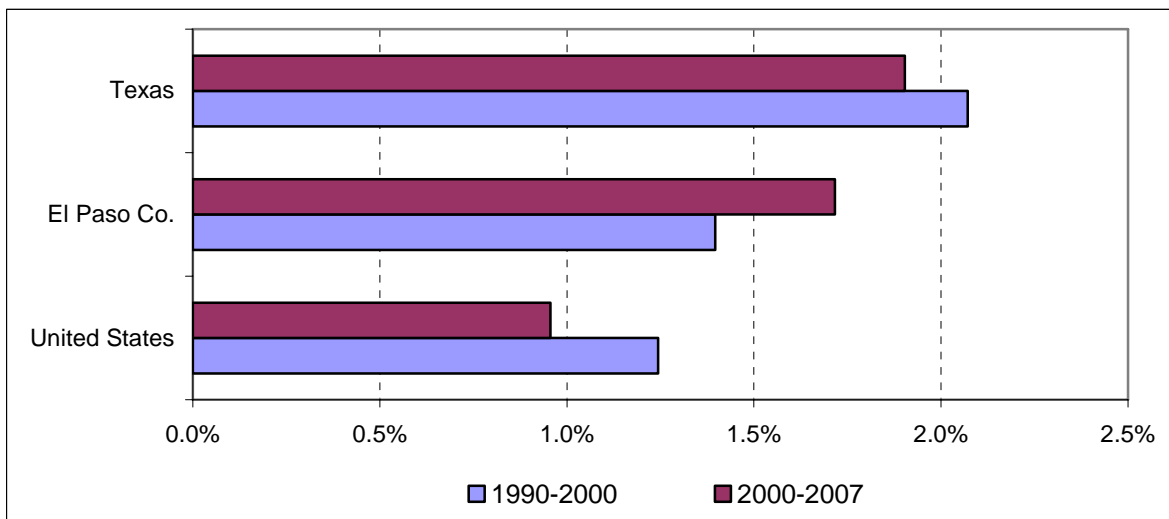
Fort Bliss is located approximately 8 miles north of the United States/Mexico border, and just a few miles north of the city center of El Paso, Texas. The housing market area for Fort Bliss encompasses those communities within a 20-mile commute of the installation’s principal work areas. The Fort Bliss market area includes the city of El Paso, and the communities of Canutillo, Horizon City, Mountain View, San Elizario, and Socorro in El Paso County, Texas, as well as Chaparral and Sunland Park in Dona Ana County, New Mexico (see Figure 2-1). Figure 2-1 also shows the Fort Bliss Military Housing Area (MHA TX279), which is used for the determination of BAH rates for the post.

## 2.2 POPULATION

The market area boundary was overlaid on census tract maps of area counties to determine which census tracts are within the market area. Data for these census tracts were then extracted from 1990 and 2000 census files to compile a comprehensive database of population and housing characteristics within the market area as of April 1990 and April 2000. The population of the off-post market area in 2000 was 648,289 persons, having increased at an average annual rate of 1.4 percent since 1990 (U.S. Bureau of the Census, 1992, 2002). Population has grown since 2000 at an estimated annual average rate of 1.7 percent, for a 2008 population of 743,731 persons. The forecasted rate of population growth in the area is 2.3 percent per year, for a projected market area population of 833,409 persons in 2013 (El Paso Regional Economic Development Corporation, 2007 and estimates prepared for this study).

Population growth rates in El Paso County have been consistently higher than U.S average growth rates, but lower than Texas state averages, over the 1990 to 2000 and 2000 to 2007 periods (Figure 2-2). Population in El Paso County increased at a rate of 1.4 percent annually from 1990 to 2000 (U.S. Bureau of the Census, 1992, 2002), and at an estimated 1.7 percent per year between 2000 and 2007 (El Paso Regional Economic Development Corporation, 2007).

**Figure 2-2. Population Growth, El Paso County, State of Texas, and United States, 1990-2007**



Source: El Paso Regional Economic Development Corporation, 2007 and U.S. Bureau of the Census, 2008.

## 2.3 ECONOMIC CONDITIONS

Table 2-1 displays key economic indicators for the period 1990 to 2006 for El Paso County, the state of Texas, and the United States. In El Paso County total jobs (including civilian, military, wage and salary, and self-employed persons in all sectors) stood at 358,334 in 2006, the most recent year for which this comprehensive measure is available. Job growth averaged 2.2 percent per year from 1990 to 1995, but declined to 1.7 percent annually between 1995 and 2000. From 2000 to 2006 job growth in El Paso County averaged 1.6 percent per year, which was higher than the national average, but lower than the state average over this period (1.1 percent and 1.7 percent annual growth, respectively).

**Table 2-1. Economic Indicators, El Paso County, State of Texas, and the United States, 1990, 1995, 2000, and 2006**

Jurisdiction/Indicator	1990	1995	2000	2006
<b>El Paso County</b>				
Total Jobs[1]	269,744	300,045	326,272	358,334
Average Annual Change (%) [2]		2.2%	1.7%	1.6%
Earnings per Job[3]	\$32,147	\$33,918	\$36,870	\$42,736
Average Annual Change (%)		1.1%	1.7%	2.5%
Per Capita Income[3]	\$18,375	\$19,451	\$22,364	\$26,228
Average Annual Change (%)		1.1%	2.8%	2.7%
<b>Texas</b>				
Total Jobs	9,304,146	10,507,238	12,244,699	13,514,130
Average Annual Change (%)		2.5%	3.1%	1.7%
Earnings per Job	\$37,923	\$39,747	\$48,148	\$52,317
Average Annual Change (%)		0.9%	3.9%	1.4%
Per Capita Income	\$26,060	\$27,617	\$34,094	\$36,927
Average Annual Change (%)		1.2%	4.3%	1.3%
<b>United States</b>				
Total Jobs	139,380,900	148,982,800	166,758,800	178,332,900
Average Annual Change (%)		1.3%	2.3%	1.1%
Earnings per Job	\$39,733	\$41,150	\$46,970	\$49,653
Average Annual Change (%)		0.7%	2.7%	0.9%
Per Capita Income	\$29,136	\$30,344	\$35,938	\$38,551
Average Annual Change (%)		0.8%	3.4%	1.2%

Notes: [1] Total Jobs are average annual full- and part-time jobs, by place of work.

[2] Average Annual Change in the 1995 column is for 1990-1995; in the 2000 column, for 1995-2000; and in the 2006 column, for 2000-2006.

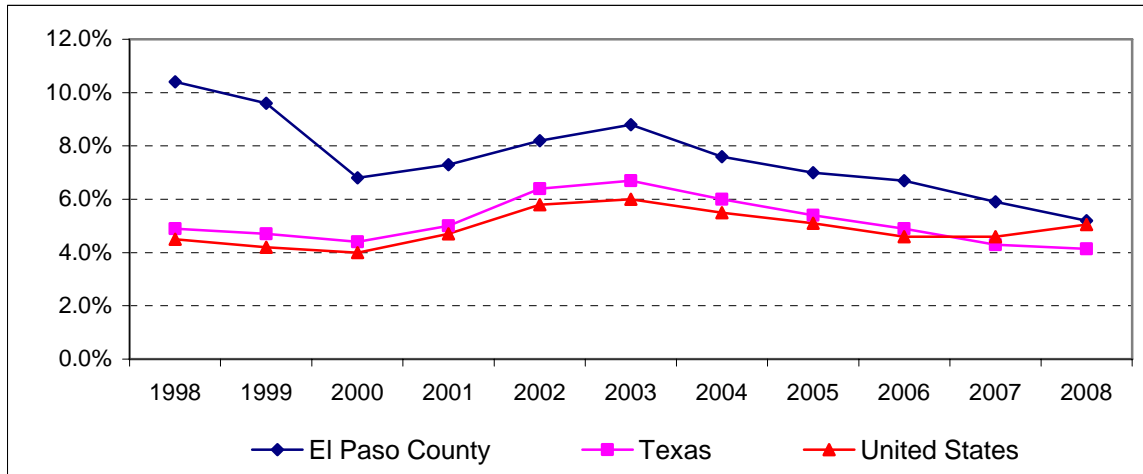
[3] Average Earnings per Job and Per Capita Income were converted to constant 2008 dollars using the implicit price deflator for personal consumption expenditures.

Sources: U.S. Bureau of Economic Analysis, 2008; Congressional Budget Office, 2008.

Average earnings per job and per capita income are lower in El Paso County than in the state of Texas and the U.S. overall. In 2006, per capita income in El Paso County was \$26,228 (in constant 2008 dollars; U.S. Bureau of Economic Analysis, 2008), compared to \$36,927 in Texas and \$38,551 in the United States. However, in El Paso County per capita income increased from 2000 to 2006 at an average annual rate of 2.7 percent per year, while per capita income increased 1.3 percent per year in Texas and 1.2 percent per year in the U.S. as a whole.

Figure 2-3 shows unemployment rates for these areas over the past decade. El Paso County experienced higher unemployment rates than the state of Texas and the United States on average between 1998 and 2008. However, the unemployment rate in El Paso County has declined since 2003 to an estimated end-of-year average unemployment rate of 5.2 percent in 2008. The estimated end-of-year average unemployment rates in 2008 for Texas and the U.S. are 4.1 percent and 5.0 percent, respectively.

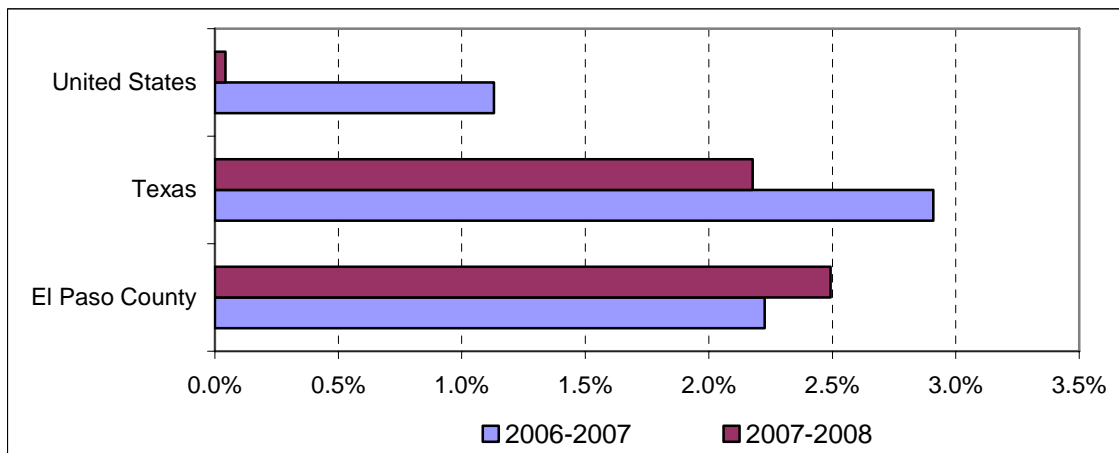
**Figure 2-3. Unemployment Rates, El Paso County, State of Texas, and the United States, 1998-2008**



Note: 2008 estimates based on data through March 2008 relative to data through March 2007.  
 Source: U.S. Bureau of Labor Statistics, 2008.

Figure 2-4 illustrates the change in total non-farm jobs during the past year (2007 – 2008) in comparison to the change measured in the previous year (2006 – 2007). Over the past year total non-farm jobs in El Paso County increased by 2.5 percent. Job growth improved in El Paso County over the past two years in contrast to a deceleration in job growth experienced in the state of Texas and the U.S. as a whole during this same period.

**Figure 2-4. Change in Total Non-Farm Jobs, El Paso County, Texas, and the United States, 2006-2007 and 2007-2008**



Note: Non-farm jobs for 2008 based on data through April.  
 Source: U.S. Bureau of Labor Statistics, 2008.

A large portion of the employment base in El Paso County is concentrated in government and government related organizations. The share of jobs in government is greater in El Paso County than in the state of Texas and the nation overall. In 2006, 21.0 percent of county jobs were in government and government enterprises (Table 2-2). The majority of the government jobs were in state and local government, which accounted for 14.2 percent of total county employment. The next largest employment sector in El Paso County is retail trade, with 12.0 percent of jobs. An additional 9.9 percent of jobs are in health care and social assistance, followed by administrative and waste services with 7.6 percent of jobs.

**Table 2-2. Employment by Major Economic Sector, El Paso County, State of Texas, and U.S., 2006**

<b>Sector</b>	<b>El Paso County</b>	<b>Texas</b>	<b>United States</b>
Government and government enterprises	21.0%	13.8%	13.5%
Federal, civilian	2.7%	1.4%	1.6%
Military	4.1%	1.3%	1.1%
State and local	14.2%	11.2%	10.8%
Retail Trade	12.0%	10.7%	10.8%
Health care and social assistance	9.9%	8.9%	9.9%
Administrative and waste services	7.6%	6.4%	6.0%
Accommodation and food services	7.3%	6.7%	6.7%
Manufacturing	6.6%	7.2%	8.3%
Other services, except public administration	5.9%	5.9%	5.7%
Construction	5.7%	6.9%	6.5%
Transportation and warehousing	5.0%	3.7%	3.2%
Real estate and rental and leasing	3.8%	4.2%	4.3%
Professional and technical services	3.6%	6.3%	6.6%
All other sectors	11.6%	19.3%	18.6%

Source: U.S. Bureau of Economic Analysis, 2008.

Major private sector employers in the El Paso area include Sierra Providence Health Network, Wal-Mart, Echostar Satellite Corporation, Las Palmas and Del Sol Regional Healthcare System, and MCI Services (El Paso, City of, 2007).

El Paso is situated just north of Juarez, Mexico. The cities of Juarez and El Paso combine to form one of the largest production-sharing centers within North America. Approximately 3,500 commercial trucks cross the border into El Paso daily. A total of five international bridges link the city of Juarez and the city of El Paso. As a result, some companies choose to maintain twin factories, one on each side of the border, which perform different steps in the manufacturing process of a single system or product (El Paso Regional Economic Development Corporation, 2007 and El Paso, City of, 2007).

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### 3. AREA HOUSING STOCK

This chapter is divided into two sections covering private-sector housing and public-assisted housing. Data and forecasts were compiled and are presented for the housing market area defined in Chapter 2.

#### 3.1 PRIVATE SECTOR HOUSING

Private-sector owners control most of the area's housing stock. Therefore the availability and cost of housing are subject to market forces. An integrated assessment of relevant demand and supply factors is presented in this section, covering recent trends, current conditions, and projected future changes in the availability and cost of housing to military families.

#### Total Housing Units, Tenure of Occupied Units, and Vacancy Rates

##### *Trends to Date*

The off-post population in the market area is currently estimated to total 743,731 persons, having increased at an average rate of 1.7 percent per year since 2000 (Table 3-1). The household population (persons in occupied housing units exclusive of group quarters) is an estimated 734,751 persons in 2008. Average household size declined from 1990 to 2000 and is assumed to continue to decline, although at a slower rate, over the forecast period. The number of occupied units has increased from 172,967 units in 1990 to an estimated 238,348 units in 2008. There are currently an estimated 83,920 renter-occupied housing units in the market area, representing about 35.2 percent of the occupied housing stock in 2008.

**Table 3-1. Recent Trends and Baseline Projections of Housing Demand, Fort Bliss Housing Market Area, 1990, 2000, 2008, and 2013**

Housing Market Indicator	1990	2000	2008	2013
Total Population	565,474	648,289	743,731	833,409
Average Annual Change (%)	N.A.	1.4%	1.7%	2.3%
Household Population	559,286	640,461	734,751	823,346
Average Annual Change (%)	N.A.	1.4%	1.7%	2.3%
Average Household Size	3.23	3.15	3.08	3.07
Occupied Housing Units	172,967	203,055	238,348	267,799
Average Annual Change (%)	N.A.	2.0%	2.0%	2.4%
Owner-Occupied Units	102,656	128,762	154,428	171,654
Percent of Baseline Total	59.4%	63.4%	64.8%	64.1%
Renter-Occupied Units	70,311	74,293	83,920	96,145
Percent of Baseline Total	40.6%	36.6%	35.2%	35.9%

Note: Average annual change in 2000 column is for 1990-2000; 2008 column is for 2000-2008, and in 2013 column for 2008-2013.

Sources: U.S. Bureau of the Census, 1991, 2002; and 2008; El Paso Regional Economic Development Corporation, 2007; and estimates prepared for this study.

The off-post market area housing stock is currently estimated to total 253,654 units (Table 3-2). Single-family homes comprise 71.5 percent of the total. The share of the housing stock in mobile homes

is estimated to be 6.7 percent. (Mobile homes accounted for 6.5 percent of all housing units in the U.S. in 2000.) The remainder (about 21.8 percent) of the housing stock consists of multi-family units. The share of multi-family units decreased over the 1990-2008 period.

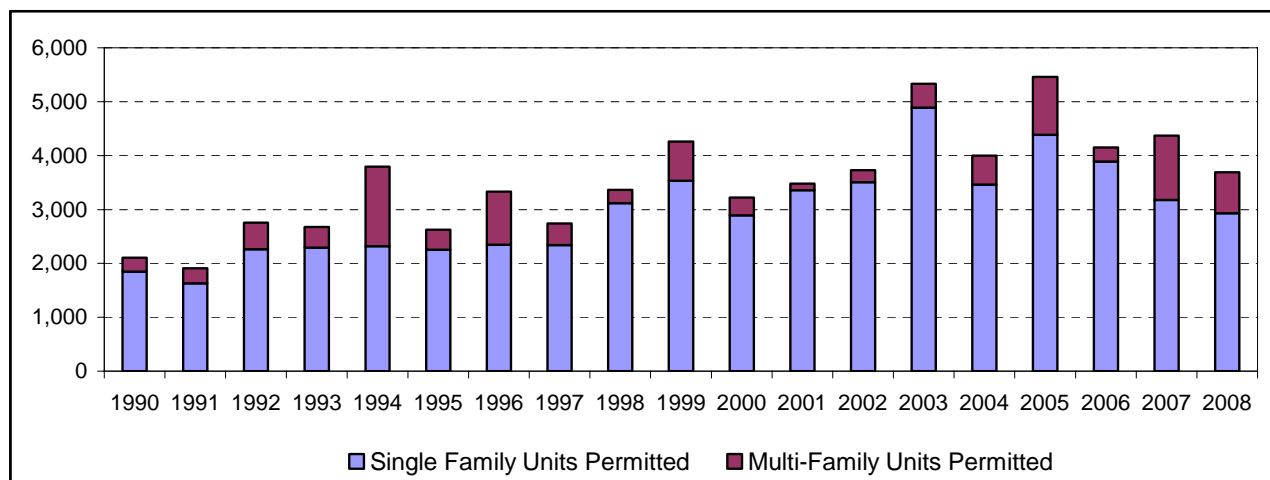
**Table 3-2. Recent Trends and Baseline Projections of Housing Supply, by Type of Structure, Fort Bliss Housing Market Area, 1990, 2000, 2008, and 2013**

Housing Market Indicator	1990	2000	2008	2013
Total Housing Units	181,823	216,363	253,654	281,685
Average Annual Change (#)	N.A.	3,454	4,710	5,606
Average Annual Change (%)	N.A.	1.8%	2.0%	2.1%
Single Family Units	118,582	147,363	181,255	205,572
Average Annual Change (#)	N.A.	2,878	4,281	4,863
Share of Total Housing (%)	65.2%	68.1%	71.5%	73.0%
Multiple Family Units	50,805	53,430	55,338	58,053
Average Annual Change (#)	N.A.	263	241	543
Share of Total Housing (%)	27.9%	24.7%	21.8%	20.6%
Manufactured/Trailers/Other	12,436	15,569	17,061	18,060
Average Annual Change (#)	N.A.	313	188	200
Share of Total Housing (%)	6.8%	7.2%	6.7%	6.4%

Sources: U.S. Bureau of the Census, 1991, 2002, and 2008; and estimates prepared for this study.

As in most housing markets, residential development in the market area is cyclical. The trend in annual permits in El Paso County, Texas and Sunland Park, New Mexico, which together comprise most of the market area, is illustrated in Figure 3-1. Residential development peaked in 2005 with about 5,461 units permitted. Multi-family unit development peaked in 1994 with 1,474 units permitted.

**Figure 3-1. Building Permits for New Residential Units, Fort Bliss Market Area Communities, 1990-2008**

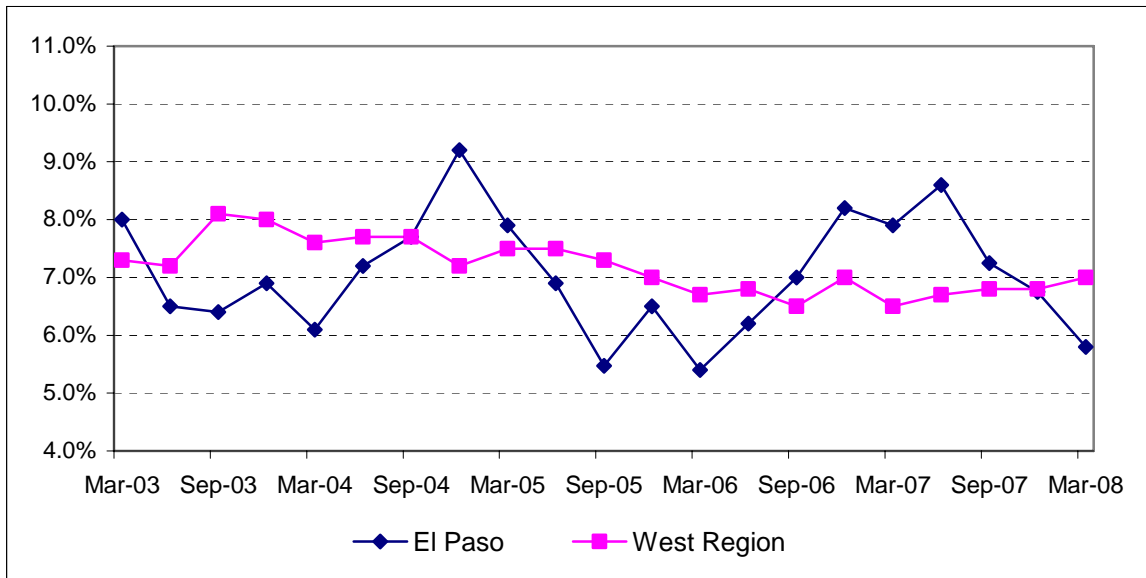


Note: 2008 estimates based on data through March 2008 relative to data through March 2007.

Source: U.S. Bureau of the Census, 2007.

Rental vacancy rates in the greater El Paso area have fluctuated significantly over the past five years. Figure 3-2 displays the trend in the rental vacancy rate in El Paso, and in the West region, from March 2003 through March 2008. Rental vacancy rates in El Paso peaked in the fourth quarter of 2004. The overall rental vacancy rate for apartments in El Paso was 5.8 percent in the first quarter of 2008, as measured by the El Paso Apartment Association (2008). The rental vacancy rate for all unit types in the West Region of the United States was 7.0 percent in the first quarter of 2008 (U.S. Bureau of the Census, 2008).

**Figure 3-2. Rental Vacancy Rates, El Paso and the West Region, March 2003 - March 2008**



Note: El Paso data are for apartments only.

Source: El Paso Apartment Association, 2008; and U.S. Bureau of the Census, 2008.

Table 3-3 shows recent trends in vacancy rates in the market area. This analysis estimates the rental vacancy rate to be 6.0 percent at the present time. This is less than the rental vacancy rate observed in the 2000 census (see Table 3-3). The overall vacancy rate in the market area is currently estimated to be 6.0 percent. This includes vacant units for sale, vacant units for rent, and vacant units held for seasonal or recreational use. The vacancy rate for homes in the for-sale market is estimated to be 1.6 percent.

Vacancy rates in the rental market are lower than the national average. The U.S. Bureau of the Census estimates that the national average rental vacancy rate in the first quarter of 2008 stood at 10.1 percent (U.S. Bureau of the Census, 2008).

**Table 3-3. Recent Trends and Baseline Projections of Vacant Units, Fort Bliss Housing Market Area, 1990, 2000, 2008, and 2013**

Housing Market Indicator	1990	2000	2008	2013
Total Vacant Units	8,856	13,308	15,306	13,886
Total Vacancy Rate (%)	4.9%	6.2%	6.0%	4.9%
Vacant Units for Sale	1,513	1,951	2,454	2,398
For Sale Vacancy Rate (%)	1.5%	1.5%	1.6%	1.4%
Vacant Units for Rent	4,020	6,393	5,331	5,467
Rental Vacancy Rate (%)	5.4%	7.9%	6.0%	5.4%
Other Vacant Units (see note)	3,323	4,964	7,521	6,021
Vacancy Rate (%)	1.8%	2.3%	3.0%	2.1%

Note: Other vacant units include units rented or sold but not yet occupied; boarded-up units; units held for seasonal or recreational use; units held for migrant workers; and other units.

Sources: U.S. Bureau of the Census, 1991, 2002, and 2008; and estimates prepared for this study.

### **Future Outlook**

Market area population is projected to grow by 2.3 percent per year over the forecast period (El Paso Regional Economic Development Corporation, 2007 and estimates prepared for this study). Baseline housing development in the market area is forecast to add about 5,606 units per year to the housing stock, assuming on-post housing is occupied at its recent level (see Table 3-1 and Table 3-2). The influx of military personnel into the Fort Bliss market area will lead to declining vacancy rates over the next five years. Vacancy rates for 2013 are projected to be 5.4 percent in the rental market and 1.4 percent in the for-sale market (see Table 3-3).

### **Bedroom Composition of Housing**

The market area's renter-occupied housing stock is comprised mostly of one- and two-bedroom units, with a distribution as shown below (U.S. Bureau of the Census, 2002; and estimates prepared for this study):

- Studio units – 8.0 percent;
- One-bedroom units – 32.7 percent;
- Two-bedroom units – 32.3 percent;
- Three-bedroom units – 22.6 percent; and
- Four-plus-bedroom units – 4.4 percent.

The breakdown of housing units by number of bedrooms (one-, two-, three-, and four-plus-bedroom units) is displayed in Table 3-4.

**Table 3-4. Units by Number of Bedrooms in Unit, with Military Transition, Fort Bliss Market Area, 1990, 2000, 2008, and 2013**

Housing Market Indicator	1990	2000	2008	2013
One Bedroom Units	29,367	32,999	37,863	42,996
Owner-occupied	4,977	6,230	7,507	8,364
Renter-occupied	22,233	23,566	26,661	31,333
Vacant	2,157	3,203	3,695	3,299
Vacant for Rent	1,323	2,126	1,747	1,831
Two Bedroom Units	42,659	49,675	57,169	63,922
Owner-occupied	16,182	20,448	24,122	26,588
Renter-occupied	23,587	24,842	28,016	32,711
Vacant	2,890	4,385	5,031	4,623
Vacant for Rent	1,324	2,086	1,760	1,846
Three Bedroom Units	75,776	92,456	109,860	122,443
Owner-occupied	57,105	71,497	86,094	95,892
Renter-occupied	15,878	16,778	18,952	22,204
Vacant	2,793	4,181	4,814	4,347
Vacant for Rent	863	1,370	1,146	1,201
Four-plus Bedroom Units	26,499	32,738	38,974	43,359
Owner-occupied	22,727	28,506	34,190	38,003
Renter-occupied	3,227	3,394	3,826	4,462
Vacant	545	838	958	894
Vacant for Rent	138	212	186	196

Sources: U.S. Bureau of the Census, 1991, 1992, 2002; and estimates prepared for this study.

### Mobile Homes

Information on mobile homes is included here because the mobile home inventory exhibits somewhat different tenure, condition, cost, and vacancy characteristics than other housing units. There are an estimated 17,061 mobile homes in the market area, representing approximately 6.7 percent of all market area housing units (see Table 3-2). Most of the market area mobile homes are owner-occupied (73.4 percent), while 17.4 percent are renter-occupied and 9.2 percent are vacant (Table 3-5).

The vacancy rate in the rental mobile home market is 11.0 percent, which is greater than the vacancy rate for non-mobile home rental units (Table 3-5; U.S. Department of Housing and Urban Development, 2001). Renter-occupied mobile homes and mobile homes vacant and for rent currently represent 3.7 percent of all rental units in the market area.

**Table 3-5. Recent Trends and Baseline Projections of Tenure and Occupancy of Mobile Homes, Fort Bliss Housing Market Area, 1990, 2000, 2008, and 2013**

Housing Market Indicator	1990	2000	2008	2013
Owner-occupied				
Number of Units	8,740	11,391	12,522	13,282
Share of All Mobile Homes (%)	70.3%	73.2%	73.4%	73.5%
Renter-occupied				
Number of Units	2,875	2,761	2,963	3,096
Share of All Mobile Homes (%)	23.1%	17.7%	17.4%	17.1%
Total Vacant				
Number of Units	821	1,417	1,575	1,682
Share of All Mobile Homes (%)	6.6%	9.1%	9.2%	9.3%
Vacant for Rent				
Number of Units	261	334	366	387
Share of All Mobile Homes (%)	2.1%	2.1%	2.1%	2.1%
Total Mobile Homes	12,436	15,569	17,061	18,060
Rental Vacancy Rate	8.3%	10.8%	11.0%	11.1%
Rental MH Share of All Rentals (%)	4.2%	3.8%	3.7%	3.4%

Sources: U.S. Bureau of the Census, 1991, 2002; U.S. Department of Housing and Urban Development, 2001; and estimates prepared for this study.

### Quality of Housing

Housing quality is one of the primary criteria used by DoD to determine the acceptability of community housing for military households. The minimum acceptable quality standards used in this analysis are discussed in Chapter 1 of this report.

Market area housing exhibits a wide range of quality, depending on age, type of construction, building materials, location, surrounding land use, maintenance, and other factors. Although quality of housing cannot be correlated directly with age, building materials and components in newer units generally are less likely to have experienced high levels of deferred maintenance, and newer units are generally more likely to meet current building codes and living standards. Older units, however, may have other desirable qualities, such as mature landscaping, larger lot sizes, or well-established neighborhoods.

Table 3-6 displays the renter-occupied and total housing stock in the market area by year constructed. An estimated 19.7 percent of the rental housing stock was constructed prior to 1960 and therefore is approaching 50 years of age.

**Table 3-6. Housing Stock by Year Unit Constructed, Fort Bliss Housing Market Area, 2008**

Year Housing Unit Constructed	Renter-Occupied Units			Total Units		
	Number	Percent	Cumulative Percent	Number	Percent	Cumulative Percent
1939 or earlier	5,025	6.0%	6.0%	12,163	4.8%	4.8%
1940 to 1949	3,624	4.3%	10.3%	10,196	4.0%	8.8%
1950 to 1959	7,887	9.4%	19.7%	28,130	11.1%	19.9%
1960 to 1969	11,799	14.1%	33.8%	31,817	12.6%	32.5%
1970 to 1979	19,430	23.2%	56.9%	48,648	19.2%	51.7%
1980 to 1989	15,795	18.8%	75.8%	42,951	16.9%	68.6%
1990 to 1994	4,967	5.9%	81.7%	17,653	7.0%	75.6%
1995 to 1998	4,784	5.7%	87.4%	18,426	7.3%	82.9%
1999-March 2000	965	1.1%	88.5%	6,132	2.4%	85.3%
April 2000-2008	9,627	11.5%	100.0%	37,291	14.7%	100.0%

Sources: U.S. Bureau of the Census, 1991, 1992, 2002; and estimates prepared for this study.

Interviews with local property managers, realtors, and planning officials indicated the share of the non-mobile home rental housing stock that is substandard with respect to quality and safety issues ranges from 3.0 percent up to 30.0 percent depending on the neighborhood (Guerro, Elizabeth, 2008; Jaquez, Fernie, 2008; Madrid, Linda, 2008; Rodriguez, Armando, 2008; Telles, Louis, 2008; Underwood, Jo Ann, 2008; Valenzuela, Bob, 2008; Wheeler, Rachel, 2008; Wiggins, Tom, 2008; Zuluaga, Fernando, 2008). In addition, windshield surveys were conducted in the market area to assess the quality of housing at the census tract level.

This analysis uses an estimate of 22.0 percent of the non-mobile home rental inventory as unsuitable by DoD criteria, reflecting an evaluation of interview data, windshield survey data, and available published data for market area communities.

Rental mobile homes represent about 3.7 percent of the rental housing stock and by definition are unsuitable for military members. This analysis therefore uses an estimate of 24.9 percent of the entire rental inventory as unsuitable by DoD criteria, while the remaining 75.1 percent is adequate in quality for military families. This figure represents a weighted average of the condition assessment for the non-mobile home rental housing stock and the mobile home portion (100 percent of the 3.7 percent of the rental housing stock that are mobile homes plus 22.0 percent of the remaining 96.3 percent that are non-mobile home rentals). This percentage was scaled across all market-area units such that the largest shares of poor-quality units are in the lowest cost ranges.

Interviews with property managers indicated that annual turnover rates for rental properties in the market area depend upon the type of unit, location, cost, and amenities of the property. This study uses an average annual turnover rate of 50.7 percent, representing a weighted average of responses from market area property managers.

**Sales Market**

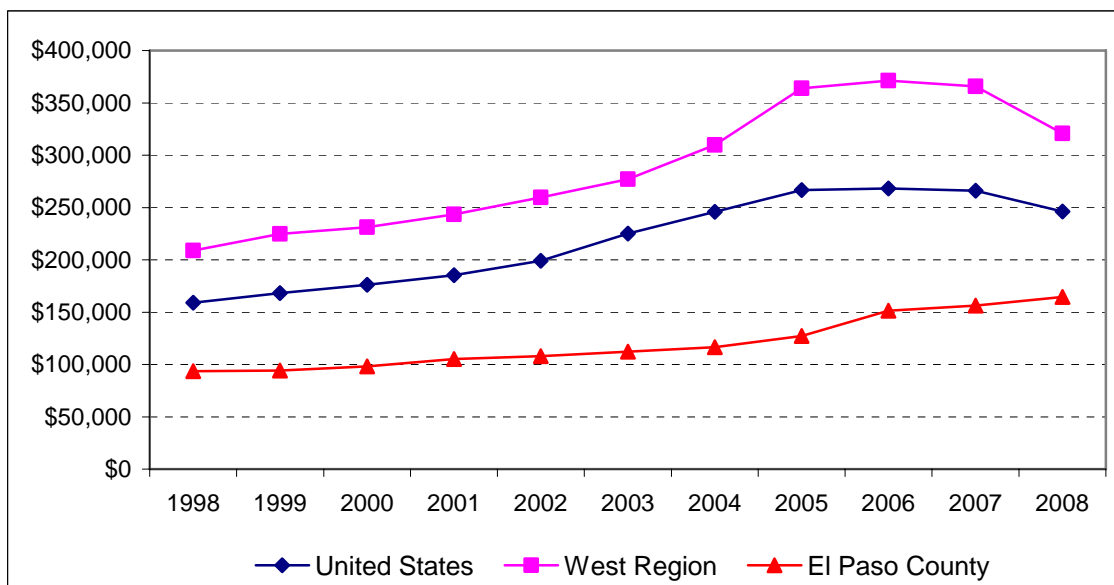
**General Market Conditions**

An estimated 154,428 housing units in the market area in 2008 are occupied by their owners. Thus, owner-occupied housing represents 64.8 percent of the occupied housing stock. The vacancy rate in the for-sale market is estimated to be 1.6 percent (see Tables 3-1 and 3-3).

**Sales Prices**

The estimated end-of-year average sales price of a home in El Paso County is \$164,490 (Texas A&M University, 2008). By comparison, the estimated end-of-year average sales price of a home in the United States is \$246,263 (National Association of Realtors, 2008). Figure 3-3 plots the trend in local, regional, and national average sales prices since 1998. Annual increases in home prices from 2000 to 2008 are estimated to average 6.7 percent in El Paso County, compared to 4.3 percent for the U.S. as a whole.

**Figure 3-3. Average Sales Price of a Home, El Paso County, West Region, and the U.S., 1998-2008**



Note: Average sales price data for 2008 is based on data through the first quarter of 2008  
 Source: National Association of Realtors, 2008 and Texas A&M University, 2008.

**Rental Market**

**General Market Conditions**

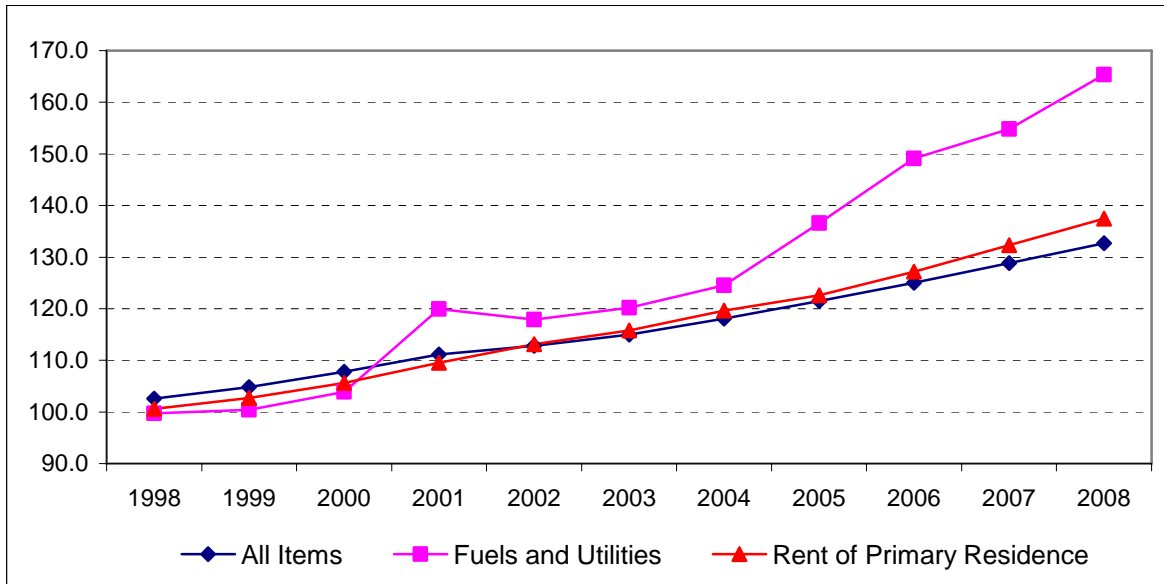
An estimated 83,920 housing units in the market area in 2008 are renter-occupied, which represents 35.2 percent of the occupied housing stock. The vacancy rate for units for rent is estimated to be 6.0 percent (see Tables 3-1 and 3-3).

**Recent Rent Trends**

Rent levels for small to medium sized cities in the West, as measured by the Consumer Price Index (CPI) program of the U.S. Bureau of Labor Statistics (2008), have increased at an average annual rate of 3.2 percent between 1998 and 2008. During this time, the smallest region-wide average rent increase

was 2.1 percent (from 1998 to 1999) while the largest increase was 4.0 percent (from 2006 to 2007). Figure 3-4 charts this recent trend.

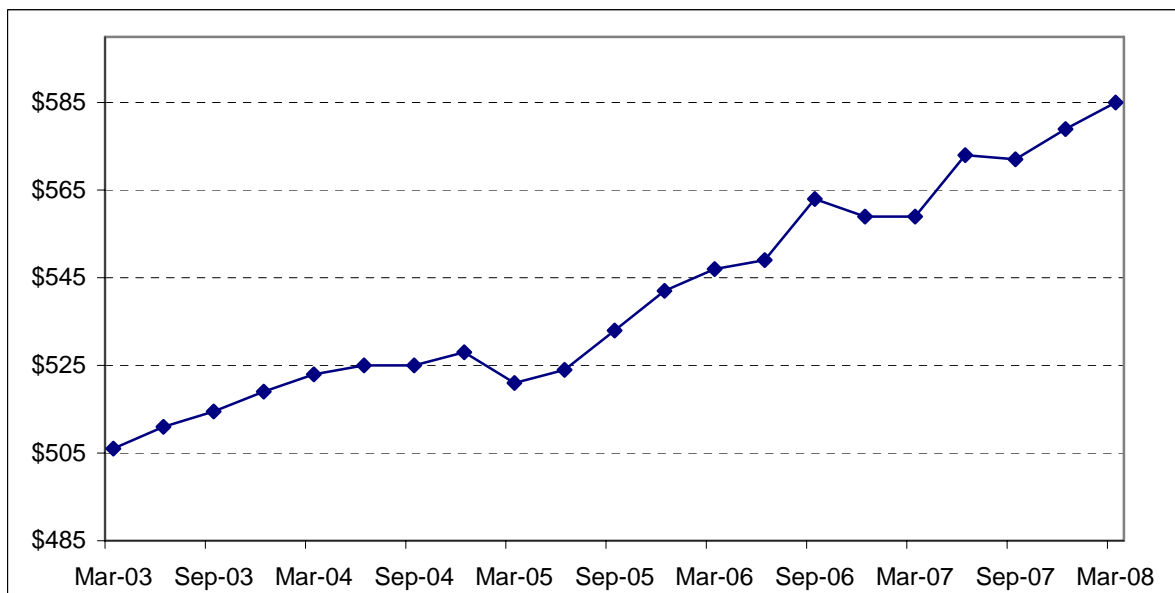
**Figure 3-4. Recent Trends in Consumer Price Index Components, West Size Class B/C 1998-2008**



Source: U.S. Bureau of Labor Statistics, 2008.

Figure 3-5 charts the recent trend in apartment rents for El Paso County (El Paso Apartment Association, 2008). Apartment rents increased by 2.9 percent per year between March 2003 and March 2008.

**Figure 3-5. Recent Trends in Rental Prices for El Paso County Apartments, March 2003 – March 2008**



Source: El Paso Apartment Association, 2008.

### ***Current Rents***

This study compiled a rental database for the market area based on the classified listings of apartments and houses for rent from the *El Paso Times*, listings from area real estate agents and property managers, and internet website listings. This study calculated the distribution of rents using a database of 9,421 rental units within the market area. Utility costs were estimated from interviews with area property managers, data provided by the Housing Authority of the City of El Paso (2007), and data derived from the Fort Bliss 2008 Military Personnel Housing Survey (Robert D. Niehaus, Inc., 2008b). Renter's insurance costs were estimated from quotes obtained from an area insurance provider (Allstate Insurance, 2008) and data derived from the Fort Bliss 2008 Military Personnel Housing Survey. The market area has a wide range of rental opportunities, which can be summarized as follows:

- Based on a sample of 3,799 non-mobile home rental units, ranging in rent from \$295 per month to \$795 per month, the median rent for one-bedroom units is \$535 per month. Utility costs are estimated to average \$122 per month. Renter's insurance costs are estimated to be \$19 per month. Median rent plus utilities plus renter's insurance is thus \$676 per month for a one-bedroom rental.
- Based on a sample of 4,012 non-mobile home rental units, ranging in rent from \$300 per month to \$1,650 per month, the median rent for two-bedroom units is \$675 per month. Utility costs are estimated to average \$149 per month. Renter's insurance costs are estimated to be \$29 per month. Median rent plus utilities plus renter's insurance is thus \$853 per month for a two-bedroom rental.
- Based on a sample of 1,369 non-mobile home rental units, ranging in rent from \$495 per month to \$2,975 per month, the median rent for three-bedroom units is \$820 per month. Utility costs are estimated to average \$211 per month. Renter's insurance costs are estimated to be \$33 per month. Median rent plus utilities plus renter's insurance consequently is \$1,064 per month for a three-bedroom rental.
- Based on a sample of 241 non-mobile home rental observations, ranging in rent from \$592 per month to \$3,000 per month, the median rent for units with four or more bedrooms is \$1,100 per month. Utility costs are estimated to average \$260 per month. Renter's insurance costs are estimated to be \$36 per month, so median rent plus utilities plus renter's insurance is \$1,396 per month for a rental unit with at least four bedrooms.

### ***Occupied and Vacant Rental Units by Cost and Number of Bedrooms***

Based on the distribution of rental costs identified above, Table 3-7 presents the distribution of the renter-occupied housing stock among cost band segments, by number of bedrooms, within the market area for 2008. Table 3-8 presents the comparable distribution of the vacant for rent units. The rental cost bands shown in the tables were chosen based on the pattern of rental costs in the market area as well as the MAHC amounts of military personnel at Fort Bliss.

**Table 3-7. Renter-Occupied Housing Units, Fort Bliss Housing Market Area, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	214	306	520
2,000	-	-	-	53	136	189
1,900	-	-	7	134	118	259
1,800	-	-	4	67	265	336
1,700	-	-	4	134	280	418
1,600	-	-	7	174	265	446
1,500	-	-	7	561	309	877
1,400	-	-	5	922	519	1,446
1,300	-	-	7	1,095	591	1,693
1,200	-	-	633	2,551	460	3,644
1,100	-	-	777	6,228	375	7,380
1,000	46	188	6,410	4,235	101	10,980
900	124	509	10,761	2,517	101	14,012
800	2,328	9,540	6,240	67	-	18,175
\$700 & Below	3,967	16,424	3,154	-	-	23,545
<b>Total</b>	<b>6,465</b>	<b>26,661</b>	<b>28,016</b>	<b>18,952</b>	<b>3,826</b>	<b>83,920</b>

Source: Estimates prepared for this study.

**Table 3-8. Vacant For Rent Housing Units, Fort Bliss Housing Market Area, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	12	11	23
2,000	-	-	-	3	5	8
1,900	-	-	-	8	4	12
1,800	-	-	-	4	10	14
1,700	-	-	-	8	10	18
1,600	-	-	-	10	10	20
1,500	-	-	-	32	11	43
1,400	-	-	-	53	30	83
1,300	-	-	-	63	33	96
1,200	-	-	38	147	28	213
1,100	-	-	46	386	22	454
1,000	3	12	383	261	6	665
900	9	33	645	155	6	848
800	175	623	372	4	-	1,174
\$700 & Below	305	1,079	276	-	-	1,660
<b>Total</b>	<b>492</b>	<b>1,747</b>	<b>1,760</b>	<b>1,146</b>	<b>186</b>	<b>5,331</b>

Source: Estimates prepared for this study.

***Distribution of Unsuitable Market Area Rental Units***

As discussed above, an estimated 24.9 percent of the overall rental housing stock is considered unsuitable due to quality and/or safety concerns. This percentage was scaled among cost band segments assuming a higher incidence of poor quality housing is found in the less expensive units while rental units at the higher end of the market have a lower incidence of poor quality housing. Table 3-9 presents the percentage distribution of unsuitable units across bedroom types and cost band segments for market

area rental units. All studio units, by definition, are considered inadequate for occupancy by military personnel. These percentages were scaled among the cost band segments so that the number of unsuitable rental units (with at least one bedroom) was 24.9 percent of all rental units with at least one bedroom (see quality of housing discussion above).

**Table 3-9. Percentage of Rental Housing Unsuitable, by Rental Cost and Number of Bedrooms, Fort Bliss Housing Market Area, 2008**

2008 Rental Cost	Number of Bedrooms				
	Studios	One	Two	Three	Four+
Above \$2000	100.0%	0.0%	0.0%	0.0%	1.0%
2,000	100.0%	0.0%	0.0%	0.0%	2.0%
1,900	100.0%	0.0%	0.0%	1.0%	3.0%
1,800	100.0%	0.0%	0.0%	2.0%	5.0%
1,700	100.0%	0.0%	0.0%	4.0%	10.0%
1,600	100.0%	0.0%	1.0%	8.0%	13.0%
1,500	100.0%	0.0%	2.0%	10.0%	15.0%
1,400	100.0%	0.0%	3.0%	13.0%	20.0%
1,300	100.0%	0.0%	5.0%	15.0%	28.0%
1,200	100.0%	1.0%	8.0%	18.0%	36.0%
1,100	100.0%	3.0%	12.0%	22.0%	50.0%
1,000	100.0%	5.0%	15.0%	26.0%	60.0%
900	100.0%	11.0%	21.5%	35.0%	65.0%
800	100.0%	17.8%	30.0%	45.0%	70.0%
\$700 & Below	100.0%	25.0%	35.0%	55.0%	80.0%

Source: Estimates prepared for this study.

The number of unsuitable rental housing units in the market area in 2008 is thus estimated to be 27,652 units (Table 3-10).

**Table 3-10. Unsuitable Rental Housing Supply (Renter-Occupied and Vacant for Rent), Fort Bliss Housing Market Area, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	-	3	3
2,000	-	-	-	-	3	3
1,900	-	-	-	1	4	5
1,800	-	-	-	1	14	15
1,700	-	-	-	5	29	34
1,600	-	-	-	15	35	50
1,500	-	-	-	59	48	107
1,400	-	-	-	127	170	297
1,300	-	-	-	173	238	411
1,200	-	-	54	485	224	763
1,100	-	-	99	1,742	229	2,070
1,000	49	10	1,019	1,348	71	2,497
900	133	60	2,453	1,028	75	3,749
800	2,503	1,809	1,984	32	-	6,328
\$700 & Below	4,272	4,530	2,518	-	-	11,320
<b>Total</b>	<b>6,957</b>	<b>6,409</b>	<b>8,127</b>	<b>5,016</b>	<b>1,143</b>	<b>27,652</b>

Source: Estimates prepared for this study.

***Suitable Natural Vacancies***

Not all vacant units for rent are available for occupancy by military members. Under current guidance for preparing housing studies for military installations, vacant units for rent are only included in the suitable rental housing supply to the extent the number of vacant units exceeds a natural, equilibrium, or “market-clearing” level of vacancies. There is a natural vacancy rate below which there is upward pressure on rental prices at a rate greater than the general rate of price inflation. Natural vacancies are not considered part of the available supply for market area households. In this analysis no excess vacancies are projected for the market area, as the current and projected rental vacancy rates are assumed to be at or below the estimated natural vacancy rate in the market area. Thus, no vacant units are included in the available suitable rental housing supply in either year. Table 3-11 presents the number of suitable natural vacant rental units in the market area for 2008.

**Table 3-11. Suitable Natural Vacancies, Fort Bliss Housing Market Area, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	12	11	23
2,000	-	-	-	3	5	8
1,900	-	-	-	8	4	12
1,800	-	-	-	4	9	13
1,700	-	-	-	8	9	17
1,600	-	-	-	9	9	18
1,500	-	-	-	29	9	38
1,400	-	-	-	46	14	60
1,300	-	-	-	54	14	68
1,200	-	-	35	121	10	166
1,100	-	-	40	268	6	314
1,000	-	11	326	172	1	510
900	-	29	506	90	1	626
800	-	512	260	2	-	774
\$700 & Below	-	795	51	-	-	846
<b>Total</b>	<b>-</b>	<b>1,347</b>	<b>1,218</b>	<b>826</b>	<b>102</b>	<b>3,493</b>

Source: Estimates prepared for this study.

***Suitable Rental Supply***

The suitable rental housing supply is the total occupied supply (Table 3-7) plus the total vacant supply (Table 3-8), less the unsuitable rental housing supply (Table 3-10) less the suitable natural vacant units (Table 3-11). The distribution of the suitable rental housing supply for the Fort Bliss market area by cost band and bedrooms is presented in Table 3-12. The suitable rental housing supply is thus 58,106 units in 2008 (Table 3-12).

**Table 3-12. Suitable Rental Housing Supply, Fort Bliss Housing Market Area, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	214	303	517
2,000	-	-	-	53	133	186
1,900	-	-	7	133	114	254
1,800	-	-	4	66	252	322
1,700	-	-	4	129	252	385
1,600	-	-	7	160	231	398
1,500	-	-	7	505	263	775
1,400	-	-	5	802	365	1,172
1,300	-	-	7	931	372	1,310
1,200	-	-	582	2,092	254	2,928
1,100	-	-	684	4,604	162	5,450
1,000	-	179	5,448	2,976	35	8,638
900	-	453	8,447	1,554	31	10,485
800	-	7,842	4,368	37	-	12,247
\$700 & Below	-	12,178	861	-	-	13,039
<b>Total</b>	<b>-</b>	<b>20,652</b>	<b>20,431</b>	<b>14,256</b>	<b>2,767</b>	<b>58,106</b>

Source: Estimates prepared for this study.

### Rental Market Outlook

New residential housing development in the market area is forecast to expand the housing stock by 2.1 percent per year. Population is projected to grow at a slightly faster pace than housing construction (2.3 percent per year), and household sizes are projected to continue to decline. Employment is expected to continue to grow, and interest rates are projected to increase slightly. As a result, the vacancy rate in the rental real estate market is projected to decline to 5.4 percent by 2013.

By 2013 there will be an estimated 98,315 renter-occupied units and 5,590 vacant units for rent. Table 3-13 presents the distribution among cost bands and bedroom types of the occupied rental housing supply projected for 2013. These projections include the simulated transition of military personnel from on-post housing to private-sector housing between 2008 and 2013 (see chapter 4).

**Table 3-13. Renter-Occupied Housing Units, With Military Transition, Fort Bliss Housing Market Area, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	251	359	610
2,000	-	-	-	63	160	223
1,900	-	-	8	157	138	303
1,800	-	-	5	79	312	396
1,700	-	-	5	157	329	491
1,600	-	-	8	204	312	524
1,500	-	-	8	660	363	1,031
1,400	-	-	6	1,084	609	1,699
1,300	-	-	8	1,288	663	1,959
1,200	-	-	745	3,001	540	4,286
1,100	-	-	914	7,277	439	8,630
1,000	54	221	7,539	4,961	119	12,894
900	146	598	12,658	2,943	119	16,464
800	2,739	11,221	7,339	79	-	21,378
\$700 & Below	4,666	19,293	3,468	-	-	27,427
<b>Total</b>	<b>7,605</b>	<b>31,333</b>	<b>32,711</b>	<b>22,204</b>	<b>4,462</b>	<b>98,315</b>

Source: Estimates prepared for this study.

Table 3-14 presents the comparable distribution of the vacant for rent housing stock.

**Table 3-14. Vacant For Rent Housing Units, With Military Transition, Fort Bliss Housing Market Area, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	13	12	25
2,000	-	-	-	3	5	8
1,900	-	-	-	8	5	13
1,800	-	-	-	4	10	14
1,700	-	-	-	8	11	19
1,600	-	-	-	11	10	21
1,500	-	-	-	34	12	46
1,400	-	-	-	56	31	87
1,300	-	-	-	66	33	99
1,200	-	-	40	154	30	224
1,100	-	-	49	403	25	477
1,000	4	13	401	274	6	698
900	10	35	675	163	6	889
800	183	653	390	4	-	1,230
\$700 & Below	319	1,130	291	-	-	1,740
<b>Total</b>	<b>516</b>	<b>1,831</b>	<b>1,846</b>	<b>1,201</b>	<b>196</b>	<b>5,590</b>

Source: Estimates prepared for this study.

The projected unsuitable rental housing supply is calculated in the same manner as for the current year and is presented in Table 3-15.

**Table 3-15. Unsuitable Rental Housing Supply (Renter-Occupied and Vacant for Rent), With Military Transition, Fort Bliss Housing Market Area, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	-	4	4
2,000	-	-	-	-	3	3
1,900	-	-	-	2	4	6
1,800	-	-	-	2	17	19
1,700	-	-	-	6	34	40
1,600	-	-	-	17	42	59
1,500	-	-	-	69	56	125
1,400	-	-	-	148	196	344
1,300	-	-	-	203	245	448
1,200	-	-	63	568	261	892
1,100	-	-	116	1,985	268	2,369
1,000	58	12	1,191	1,556	82	2,899
900	156	70	2,934	1,184	88	4,432
800	2,922	2,138	2,319	38	-	7,417
\$700 & Below	4,985	5,267	2,692	-	-	12,944
<b>Total</b>	<b>8,121</b>	<b>7,487</b>	<b>9,315</b>	<b>5,778</b>	<b>1,300</b>	<b>32,001</b>

Source: Estimates prepared for this study.

Table 3-16 presents the projected suitable natural vacancies and Table 3-17 presents the projected suitable rental housing supply for the Fort Bliss housing market area.

**Table 3-16. Suitable Natural Vacancies, With Military Transition, Fort Bliss Housing Market Area, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	13	12	25
2,000	-	-	-	3	5	8
1,900	-	-	-	8	5	13
1,800	-	-	-	4	9	13
1,700	-	-	-	8	10	18
1,600	-	-	-	10	9	19
1,500	-	-	-	31	10	41
1,400	-	-	-	49	14	63
1,300	-	-	-	56	15	71
1,200	-	-	37	126	10	173
1,100	-	-	43	279	6	328
1,000	-	12	341	180	1	534
900	-	31	526	94	1	652
800	-	535	273	2	-	810
\$700 & Below	-	832	54	-	-	886
<b>Total</b>	-	<b>1,410</b>	<b>1,274</b>	<b>863</b>	<b>107</b>	<b>3,654</b>

Source: Estimates prepared for this study.

**Table 3-17. Suitable Rental Housing Supply, With Military Transition, Fort Bliss Housing Market Area, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	251	355	606
2,000	-	-	-	63	157	220
1,900	-	-	8	155	134	297
1,800	-	-	5	77	296	378
1,700	-	-	5	151	296	452
1,600	-	-	8	188	271	467
1,500	-	-	8	594	309	911
1,400	-	-	6	943	430	1,379
1,300	-	-	8	1,095	436	1,539
1,200	-	-	685	2,461	299	3,445
1,100	-	-	804	5,416	190	6,410
1,000	-	210	6,408	3,499	42	10,159
900	-	532	9,873	1,828	36	12,269
800	-	9,201	5,137	43	-	14,381
\$700 & Below	-	14,324	1,013	-	-	15,337
<b>Total</b>	-	<b>24,267</b>	<b>23,968</b>	<b>16,764</b>	<b>3,251</b>	<b>68,250</b>

Source: Estimates prepared for this study.

### 3.2 PUBLIC-ASSISTED HOUSING

Some Fort Bliss uniformed personnel may qualify for assistance and may choose to occupy public-assisted housing units in the market area. The federal government and the state of Texas encourage and provide funding for local efforts to increase the availability of safe and affordable housing.

## Programs Available

Public-assisted housing near Fort Bliss is available through programs administered by the City of El Paso Community and Human Development Department, the Housing Authority of the City of El Paso, and the Housing Authority of the County of El Paso (National Association of Housing and Redevelopment Officials, 2004).

Using funds from the U.S. Department of Housing and Urban Development (HUD) and other sources, these agencies provide rental assistance to low-income families to enable them to rent acceptable and safe housing. Waiting lists for public housing assistance, however, tend to be long and wait times often exceed a military member's tour of duty.

## Eligibility Requirements

Households are generally eligible for housing assistance if their incomes fall below 50 percent of the median household income in the area. Some service personnel in the lowest grades without other sources of household income may qualify. Because of the long waiting lists, however, it is unlikely that any significant number of service personnel would actually receive housing assistance during the course of their duty tours. Table 3-18 presents the income limits for eligibility for local housing programs in El Paso County.

**Table 3-18. Annual Family Income Limits for HUD Housing Assistance Eligibility, El Paso County, 2008**

Family Size	Very Low Income	Low Income
1	\$15,250	\$24,450
2	\$17,450	\$27,900
3	\$19,600	\$31,400
4	\$21,800	\$34,900
5	\$23,550	\$37,700
6	\$25,300	\$40,500
7	\$27,050	\$43,300
8	\$28,800	\$46,050

Source: U.S. Department of Housing and Urban Development, 2008.

Table 3-19 displays fair market rents for federally assisted housing in these areas.

**Table 3-19. Monthly Fair Market Rent Schedules for HUD Housing Assistance Programs, El Paso County, 2008**

Bedrooms	Monthly Rent
0	\$444
1	\$476
2	\$567
3	\$813
4	\$964

Source: U.S. Department of Housing and Urban Development, 2008.

**Availability to Uniformed Services Personnel**

In practice eligibility for most units is based on very-low-income standards. These limits effectively disqualify nearly all military personnel from available public housing, as service personnel have incomes (including housing allowances) too high to qualify. Those uniformed personnel in the lowest pay grades who may be able to qualify based on the number of their dependents generally wait one to three years. Since their tours of duty are generally two to four years, personnel may transfer out of the area or be promoted to pay grades that eliminate their eligibility before a public-assisted unit becomes available.

Future availability of public-assisted housing in the market area depends on the continuation of funding for such programs. Continued availability to service personnel also depends on future changes to HUD-specified income limits as compared to changes in service pay and allowances. No long-term forecasts of funding levels are available and future changes in funding cannot be anticipated.

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## **4. MILITARY HOUSING DEMAND**

This chapter is divided into five sections covering: total military housing demand, on-post housing occupancy, analysis of the floor requirements at Fort Bliss, analysis of the off-post community rental housing demand by military households, and the affordability and adequacy of community housing.

### **4.1 MILITARY PERSONNEL AND THEIR HOUSING REQUIREMENTS**

This HMA reports both the accompanied and unaccompanied housing requirements for military personnel stationed at Fort Bliss. Current (2008) and projected (2013) permanent party personnel totals were obtained from the 2 May 2008 ASIP report (14 February 2008 SAMAS; Headquarters, Department of the Army, 2008).

These personnel totals include all current authorized active duty military personnel identified as Compo 1 (Army) units as well as Compo Z units such as Air Force, Navy, Marine Corps, and Coast Guard personnel authorized for Fort Bliss. Total personnel also include independent-duty service members within the market area, such as recruiters, ROTC instructors, and others. Total personnel values do not include TDY students, trainees, or other transient personnel.

Information on the current distribution of personnel by grade and the current and projected accompaniment status of these personnel (including the number of military personnel married to another military member) were provided by the Fort Bliss RCI Office (2008). Information on the projected distribution of personnel by grade was provided by the Fort Bliss Transformation Office (2008). Information on the current and projected number of voluntarily separated personnel was derived from the 1997 VHA survey (U.S. Air Force, 1998).

Bedroom entitlements for families assigned to Fort Bliss were calculated using family size data from the Fort Bliss 2008 Military Personnel Housing Survey (Robert D. Niehaus, Inc., 2008b).

#### **Current Requirements**

A total of 19,188 active duty permanent party military personnel are authorized for Fort Bliss in 2008. Table 4-1 presents this total broken down by accompaniment status. There are an estimated 7,417 unaccompanied members, 294 military couples, 708 voluntarily separated personnel, and 10,769 military families in 2008.

Table 4-1 also provides a breakdown of military families by bedroom entitlements. Accompanied personnel are estimated to have requirements for two-, three-, or four-bedroom units depending on family size and seniority. Following current guidance to assign one bedroom per family member (other than spouse), and including seniority assignments, 4,300 families (39.9 percent of families) are entitled to two-bedroom units, 3,938 families (36.6 percent of families) are entitled to three-bedroom units, and 2,531 families (23.5 percent of families) are entitled to units with at least four bedrooms (Table 4-1).

**Table 4-1. Military Personnel by Accompaniment Status and Bedroom Entitlements, Fort Bliss, 2008**

Pay Grade	Number of Bedrooms			Military Families	Military Couples	Voluntarily Separated	Unaccompanied	Permanent Party Personnel
	Two	Three	Four+					
O7 & Above	-	-	4	4	-	-	-	4
O6	-	-	61	61	-	3	3	67
O5	-	109	62	171	2	9	16	198
O4	-	229	102	331	3	13	36	383
O3	251	126	61	438	20	13	228	699
O2	114	27	13	154	5	4	300	463
O1	55	19	5	79	2	3	181	265
<b>Officers</b>	<b>420</b>	<b>510</b>	<b>308</b>	<b>1,238</b>	<b>32</b>	<b>45</b>	<b>764</b>	<b>2,079</b>
W5	-	2	1	3	-	-	-	3
W4	-	32	18	50	-	2	4	56
W3	19	33	33	85	1	2	4	92
W2	16	38	47	101	7	3	1	112
W1	24	33	22	79	6	2	9	96
<b>Warrants</b>	<b>59</b>	<b>138</b>	<b>121</b>	<b>318</b>	<b>14</b>	<b>9</b>	<b>18</b>	<b>359</b>
E9	-	288	104	392	11	27	16	446
E8	-	468	211	679	24	45	31	779
E7	-	627	375	1,002	29	72	47	1,150
E6	675	606	576	1,857	70	143	223	2,293
E5	1,138	621	446	2,205	55	177	757	3,194
E4	1,343	498	299	2,140	42	143	2,548	4,873
E3	464	137	66	667	12	35	1,717	2,431
E2	163	43	20	226	3	10	1,055	1,294
E1	38	2	5	45	2	2	241	290
<b>Enlisted</b>	<b>3,821</b>	<b>3,290</b>	<b>2,102</b>	<b>9,213</b>	<b>248</b>	<b>654</b>	<b>6,635</b>	<b>16,750</b>
<b>Total</b>	<b>4,300</b>	<b>3,938</b>	<b>2,531</b>	<b>10,769</b>	<b>294</b>	<b>708</b>	<b>7,417</b>	<b>19,188</b>

Notes: Voluntarily Separated personnel are married personnel who do not have family members living with them in the local area. Military Couples are families in which both the husband and wife are permanent-party military personnel and form one family. Only one spouse is counted in the military families column.

Source: Headquarters, Department of the Army, 2008; Fort Bliss RCI Office, 2008 Robert D. Niehaus, Inc., 2008b; and estimates prepared for this study.

Table 4-2 presents unaccompanied personnel by grade and bedroom entitlement for 2008.

**Table 4-2. Unaccompanied Personnel by Grade and Bedroom Entitlements, Fort Bliss, 2008**

2008 Pay Grade	Number of Bedrooms			Total
	One	Two	Three	
O7 & Above	-	-	-	-
O6	-	-	3	3
O5	-	-	16	16
O4	-	-	36	36
O3	-	228	-	228
O2	-	300	-	300
O1	-	181	-	181
Officers	-	709	55	764
W5	-	-	-	-
W4	-	-	4	4
W3	-	4	-	4
W2	-	1	-	1
W1	-	9	-	9
Warrants	-	14	4	18
E9	-	16	-	16
E8	-	31	-	31
E7	-	47	-	47
E6	-	223	-	223
E5	757	-	-	757
E4	2,548	-	-	2,548
E3	1,717	-	-	1,717
E2	1,055	-	-	1,055
E1	241	-	-	241
Enlisted	6,318	317	-	6,635
<b>Total</b>	<b>6,318</b>	<b>1,040</b>	<b>59</b>	<b>7,417</b>

Source: Estimates prepared for this study.

### Projected Requirements

By 2013, the total personnel strength at Fort Bliss is projected to increase to 37,999 permanent party personnel (Table 4-3). The total number of families requiring housing is forecast to increase to 20,212 families, and the number of unaccompanied personnel requiring housing increases to 15,853 military members. The distribution of these requirements among bedroom types is presented in Table 4-3 for families and in Table 4-4 for unaccompanied personnel. Based on seniority assignments and current guidance to assign one bedroom per family member (other than spouse), 8,535 families are entitled to two-bedroom units, 7,079 families are entitled to three-bedroom units, and 4,598 families are entitled to units with at least four bedrooms (see Table 4-1).

**Table 4-3. Military Personnel by Accompaniment Status and Bedroom Entitlements, Fort Bliss, 2013**

Pay Grade	Number of Bedrooms			Military Families	Military Couples	Voluntarily Separated	Unaccompanied	Permanent Party Personnel
	Two	Three	Four+					
O7 & Above	-	-	6	6	-	-	-	6
O6	-	-	88	88	-	4	4	96
O5	-	165	95	260	2	14	24	300
O4	-	390	174	564	5	21	62	652
O3	454	227	110	791	37	24	418	1,270
O2	181	42	21	244	8	6	479	737
O1	113	38	11	162	3	5	369	539
<b>Officers</b>	<b>748</b>	<b>862</b>	<b>505</b>	<b>2,115</b>	<b>55</b>	<b>74</b>	<b>1,356</b>	<b>3,600</b>
W5	-	12	1	13	-	-	-	13
W4	-	53	31	84	-	3	8	95
W3	41	70	70	181	1	5	9	196
W2	37	85	106	228	17	7	3	255
W1	58	81	52	191	15	6	22	234
<b>Warrants</b>	<b>136</b>	<b>301</b>	<b>260</b>	<b>697</b>	<b>33</b>	<b>21</b>	<b>42</b>	<b>793</b>
E9	-	438	159	597	18	42	25	682
E8	-	687	309	996	36	67	46	1,145
E7	-	1,057	632	1,689	50	125	81	1,945
E6	1,244	1,116	1,061	3,421	134	274	426	4,255
E5	2,209	1,206	867	4,282	110	359	1,531	6,282
E4	2,694	1,000	600	4,294	88	297	5,296	9,975
E3	1,043	310	147	1,500	28	81	3,984	5,593
E2	374	98	46	518	8	25	2,495	3,046
E1	87	4	12	103	4	5	571	683
<b>Enlisted</b>	<b>7,651</b>	<b>5,916</b>	<b>3,833</b>	<b>17,400</b>	<b>476</b>	<b>1,275</b>	<b>14,455</b>	<b>33,606</b>
<b>Total</b>	<b>8,535</b>	<b>7,079</b>	<b>4,598</b>	<b>20,212</b>	<b>564</b>	<b>1,370</b>	<b>15,853</b>	<b>37,999</b>

Notes: Voluntarily Separated personnel are married personnel who do not have family members living with them in the local area. Military Couples are families in which both the husband and wife are permanent-party military personnel and form one family. Only one spouse is counted in the military families column.

Source: Headquarters, Department of the Army, 2008; Fort Bliss RCI Office, 2008; Fort Bliss Transformation Office, 2008; Robert D. Niehaus, Inc., 2008b; and estimates prepared for this study.

**Table 4-4. Unaccompanied Personnel by Grade and Bedroom Entitlements, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three	
O7 & Above	-	-	-	-
O6	-	-	4	4
O5	-	-	24	24
O4	-	-	62	62
O3	-	418	-	418
O2	-	479	-	479
O1	-	369	-	369
Officers	-	1,266	90	1,356
W5	-	-	-	-
W4	-	-	8	8
W3	-	9	-	9
W2	-	3	-	3
W1	-	22	-	22
Warrants	-	34	8	42
E9	-	25	-	25
E8	-	46	-	46
E7	-	81	-	81
E6	-	426	-	426
E5	1,531	-	-	1,531
E4	5,296	-	-	5,296
E3	3,984	-	-	3,984
E2	2,495	-	-	2,495
E1	571	-	-	571
Enlisted	13,877	578	-	14,455
<b>Total</b>	<b>13,877</b>	<b>1,878</b>	<b>98</b>	<b>15,853</b>

Source: Estimates prepared for this study.

## 4.2 CURRENT ON-POST HOUSING OCCUPANCY

For analysis of current year conditions, on-post military family housing is considered occupied at recent actual levels. Table 4-5 presents the current occupancy of military family housing at Fort Bliss and is based on the bedroom entitlements of the personnel. Because the mix among bedroom types is based on the military members' bedroom entitlements, the bedroom totals may not correspond to the actual distribution of bedroom types in the on-post inventory. The Fort Bliss RCI Office (2008) reports that 2,712 accompanied military personnel reside in on-post military family housing at the present time.

For unaccompanied personnel, all E1-E5 personnel are assumed to be housed in on-post unaccompanied quarters. Table 4-6 presents the current floor housing requirement for unaccompanied personnel.

**Table 4-5. On-Post Military Family Housing  
Occupancy by Grade and by Bedroom  
Entitlement, Fort Bliss, 2008**

2008 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	4	4
O6	-	-	27	27
O5	-	24	14	38
O4	-	27	12	39
O3	29	15	7	51
O2	22	5	3	30
O1	32	11	3	46
<b>Officers</b>	<b>83</b>	<b>82</b>	<b>70</b>	<b>235</b>
W5	-	-	-	-
W4	-	4	2	6
W3	1	3	3	7
W2	3	6	8	17
W1	4	6	4	14
<b>Warrants</b>	<b>8</b>	<b>19</b>	<b>17</b>	<b>44</b>
E9	-	61	22	83
E8	-	147	67	214
E7	-	96	58	154
E6	126	114	108	348
E5	295	161	115	571
E4	374	139	83	596
E3	181	53	26	260
E2	117	31	14	162
E1	38	2	5	45
<b>Enlisted</b>	<b>1,131</b>	<b>804</b>	<b>498</b>	<b>2,433</b>
<b>Total</b>	<b>1,222</b>	<b>905</b>	<b>585</b>	<b>2,712</b>

Note: Occupancy is based on the bedroom entitlements of the personnel. Thus, the bedroom totals may not correspond to the actual distribution of bedroom types in the on-post inventory.

Source: Fort Bliss Housing Office, 2008.

**Table 4-6. Unaccompanied Floor Housing  
Requirement, Fort Bliss, 2008**

2008 Pay Grade	Number of Bedrooms			Total
	One	Two	Three	
O7 & Above	-	-	-	-
O6	-	-	-	-
O5	-	-	-	-
O4	-	-	-	-
O3	-	-	-	-
O2	-	-	-	-
O1	-	-	-	-
<b>Officers</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
W5	-	-	-	-
W4	-	-	-	-
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
<b>Warrants</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
E9	-	-	-	-
E8	-	-	-	-
E7	-	-	-	-
E6	-	-	-	-
E5	757	-	-	757
E4	2,548	-	-	2,548
E3	1,717	-	-	1,717
E2	1,055	-	-	1,055
E1	241	-	-	241
<b>Enlisted</b>	<b>6,318</b>	<b>-</b>	<b>-</b>	<b>6,318</b>
<b>Total</b>	<b>6,318</b>	<b>-</b>	<b>-</b>	<b>6,318</b>

Source: Estimates prepared for this study.

### 4.3 FLOOR ANALYSIS

Chapter 1 of this HMA defines the four components of the floor requirement for accompanied personnel and the on-post floor requirement for unaccompanied personnel. The following sections present the individual components of the floor requirements analysis by grade and bedroom entitlements for 2013.

#### Accompanied Personnel

##### *Accompanied On-Post Community Requirements*

The ten percent on-post community housing requirement is 2,020 family housing units, assuming there is an on-post unit for each grade in which there is at least one family (Table 4-7). However, for this analysis the on-post community housing requirement is initially set to zero (see Chapter 1).

##### *Key and Essential Requirements*

There are 402 key and essential personnel at Fort Bliss, including students who are required to live on the installation (Table 4-8).

**Table 4-7. On-Post Military Community Housing Requirement, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	1	1
O6	-	-	9	9
O5	-	16	10	26
O4	-	39	17	56
O3	45	23	11	79
O2	18	4	2	24
O1	11	4	1	16
<b>Officers</b>	<b>74</b>	<b>86</b>	<b>51</b>	<b>211</b>
W5	-	1	-	1
W4	-	5	3	8
W3	4	7	7	18
W2	3	9	11	23
W1	6	8	5	19
<b>Warrants</b>	<b>13</b>	<b>30</b>	<b>26</b>	<b>69</b>
E9	-	44	16	60
E8	-	69	31	100
E7	-	106	63	169
E6	124	112	106	342
E5	220	121	87	428
E4	269	100	60	429
E3	104	31	15	150
E2	37	10	5	52
E1	8	1	1	10
<b>Enlisted</b>	<b>762</b>	<b>594</b>	<b>384</b>	<b>1,740</b>
<b>Total</b>	<b>849</b>	<b>710</b>	<b>461</b>	<b>2,020</b>

Source: Estimates prepared for this study.

**Table 4-8. Key and Essential Personnel, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	6	6
O6	-	-	47	47
O5	-	14	34	48
O4	-	1	-	1
O3	-	-	-	-
O2	-	-	-	-
O1	-	-	-	-
<b>Officers</b>	<b>-</b>	<b>15</b>	<b>87</b>	<b>102</b>
W5	-	-	-	-
W4	-	-	-	-
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
<b>Warrants</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
E9	-	48	24	72
E8	-	171	57	228
E7	-	-	-	-
E6	-	-	-	-
E5	-	-	-	-
E4	-	-	-	-
E3	-	-	-	-
E2	-	-	-	-
E1	-	-	-	-
<b>Enlisted</b>	<b>-</b>	<b>219</b>	<b>81</b>	<b>300</b>
<b>Total</b>	<b>-</b>	<b>234</b>	<b>168</b>	<b>402</b>

Source: Fort Bliss RCI Office, 2008.

**Historic Housing Requirements**

There are 206 historic housing units on Fort Bliss (Table 4-9).

**Table 4-9. Historic Housing, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	5	5
O6	-	-	27	27
O5	-	16	16	32
O4	-	16	16	32
O3	5	-	-	5
O2	-	-	-	-
O1	-	-	-	-
<b>Officers</b>	<b>5</b>	<b>32</b>	<b>64</b>	<b>101</b>
W5	-	-	1	1
W4	-	4	1	5
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
<b>Warrants</b>	<b>-</b>	<b>4</b>	<b>2</b>	<b>6</b>
E9	-	1	-	1
E8	-	-	-	-
E7	-	-	-	-
E6	-	-	-	-
E5	-	-	-	-
E4	-	-	-	-
E3	98	-	-	98
E2	-	-	-	-
E1	-	-	-	-
<b>Enlisted</b>	<b>98</b>	<b>1</b>	<b>-</b>	<b>99</b>
<b>Total</b>	<b>103</b>	<b>37</b>	<b>66</b>	<b>206</b>

Source: Fort Bliss RCI Office, 2008.

### Quality of Life Requirements

The quality of life requirement is determined by the number of family personnel whose regular military compensation (RMC) falls below 50 percent of the median family income in the Fort Bliss market area. El Paso County has a 2008 median family income of \$37,200 (U.S. Department of Housing and Urban Development, 2008). One-half of this amount is \$18,600.

The RMC for 2008 for each individual pay grade is the sum of the average annual base pay for that grade, housing and subsistence allowances for that grade, and a tax adjustment reflecting the fact that housing and subsistence allowances are not taxed as income. Table 4-10 provides the annual RMC by individual grade for Fort Bliss family personnel for the year 2008. No pay grades collect a regular military compensation below 50 percent of the estimated median family income for the market area. Thus, the quality of life requirement is zero (Table 4-11).

**Table 4-10. Regular Military Compensation (RMC), Fort Bliss, 2008**

Pay Grade	Annual Basic Pay	Annual Local BAH	Annual BAS	Annual Allowances	National Avg Ann Allow	National Avg Tax Adv	National Avg Advantage%	Local Tax Adv	Annual RMC
O7 & Above	\$128,630	\$16,068	\$2,433	\$18,501	\$31,461	\$11,163	35.5%	\$6,565	\$153,696
O6	\$108,172	\$15,888	\$2,433	\$18,321	\$29,493	\$9,837	33.4%	\$6,111	\$132,604
O5	\$87,411	\$15,756	\$2,433	\$18,189	\$28,173	\$8,902	31.6%	\$5,747	\$111,347
O4	\$73,959	\$14,724	\$2,433	\$17,157	\$25,353	\$6,424	25.3%	\$4,347	\$95,463
O3	\$56,696	\$13,272	\$2,433	\$15,705	\$22,089	\$4,007	18.1%	\$2,849	\$75,250
O2	\$43,705	\$12,600	\$2,433	\$15,033	\$19,017	\$3,329	17.5%	\$2,632	\$61,370
O1	\$31,741	\$10,752	\$2,433	\$13,185	\$17,373	\$2,727	15.7%	\$2,069	\$46,995
W5	\$86,566	\$14,460	\$2,433	\$16,893	\$23,925	\$7,543	31.5%	\$5,326	\$108,786
W4	\$71,696	\$13,836	\$2,433	\$16,269	\$22,449	\$5,158	23.0%	\$3,738	\$91,703
W3	\$60,682	\$13,284	\$2,433	\$15,717	\$21,945	\$4,001	18.2%	\$2,865	\$79,265
W2	\$48,951	\$12,984	\$2,433	\$15,417	\$20,517	\$3,603	17.6%	\$2,708	\$67,075
W1	\$41,837	\$12,648	\$2,433	\$15,081	\$18,081	\$3,079	17.0%	\$2,568	\$59,486
E9	\$65,444	\$13,680	\$3,533	\$17,213	\$23,825	\$4,897	20.6%	\$3,538	\$86,195
E8	\$52,296	\$13,128	\$3,533	\$16,661	\$22,241	\$3,926	17.7%	\$2,941	\$71,898
E7	\$44,954	\$12,876	\$3,533	\$16,409	\$21,341	\$3,737	17.5%	\$2,873	\$64,236
E6	\$36,401	\$12,648	\$3,533	\$16,181	\$20,573	\$3,389	16.5%	\$2,666	\$55,247
E5	\$29,090	\$10,512	\$3,533	\$14,045	\$18,449	\$2,703	14.6%	\$2,058	\$45,193
E4	\$23,387	\$9,648	\$3,533	\$13,181	\$17,057	\$2,217	13.0%	\$1,713	\$38,282
E3	\$19,625	\$9,648	\$3,533	\$13,181	\$17,969	\$2,142	11.9%	\$1,571	\$34,378
E2	\$18,119	\$9,648	\$3,533	\$13,181	\$17,345	\$1,929	11.1%	\$1,466	\$32,766
E1	\$16,164	\$9,648	\$3,533	\$13,181	\$17,861	\$1,706	9.6%	\$1,259	\$30,604

Source: U.S Department of Defense, 2008.

**Table 4-11. Quality of Life Requirement, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	-	-
O6	-	-	-	-
O5	-	-	-	-
O4	-	-	-	-
O3	-	-	-	-
O2	-	-	-	-
O1	-	-	-	-
Officers	-	-	-	-
W5	-	-	-	-
W4	-	-	-	-
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
Warrants	-	-	-	-
E9	-	-	-	-
E8	-	-	-	-
E7	-	-	-	-
E6	-	-	-	-
E5	-	-	-	-
E4	-	-	-	-
E3	-	-	-	-
E2	-	-	-	-
E1	-	-	-	-
Enlisted	-	-	-	-
<b>Total</b>	-	-	-	-

Source: Estimates prepared for this study.

This analysis assumes the floor requirement is initially the greatest of three components, key and essential personnel, historic housing units, and quality of life (targeted economic relief) as there is no military community factor in the floor requirement under the current methodology. Since the quality of life component is zero, the projected floor requirement reflects the key and essential personnel and historic housing components or criteria (Table 4-12). The greatest component for each grade determines the floor requirement in that grade. The sum of the requirements by grade totals 542 units.

**Table 4-12. Floor Requirement by Criterion, Accompanied Personnel, 2013**

<b>Pay Grade</b>	<b>Military Families</b>	<b>Military Community</b>	<b>Key and Essential</b>	<b>Historic Units</b>	<b>Quality of Life</b>	<b>Floor Requirement</b>
O7 & Above	6	-	6	5	-	6
O6	88	-	47	27	-	47
O5	260	-	48	32	-	48
O4	564	-	1	32	-	32
O3	791	-	-	5	-	5
O2	244	-	-	-	-	-
O1	162	-	-	-	-	-
<b>Officers</b>	<b>2,115</b>	<b>-</b>	<b>102</b>	<b>101</b>	<b>-</b>	<b>138</b>
W5	13	-	-	1	-	1
W4	84	-	-	5	-	5
W3	181	-	-	-	-	-
W2	228	-	-	-	-	-
W1	191	-	-	-	-	-
<b>Warrants</b>	<b>697</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>-</b>	<b>6</b>
E9	597	-	72	1	-	72
E8	996	-	228	-	-	228
E7	1,689	-	-	-	-	-
E6	3,421	-	-	-	-	-
E5	4,282	-	-	-	-	-
E4	4,294	-	-	-	-	-
E3	1,500	-	-	98	-	98
E2	518	-	-	-	-	-
E1	103	-	-	-	-	-
<b>Enlisted</b>	<b>17,400</b>	<b>-</b>	<b>300</b>	<b>99</b>	<b>-</b>	<b>398</b>
<b>Total</b>	<b>20,212</b>	<b>-</b>	<b>402</b>	<b>206</b>	<b>-</b>	<b>542</b>

Source: Estimates prepared for this study (see text).

The total floor requirement by grade and number of bedrooms is presented in Table 4-13.

**Table 4-13. Floor Requirement by Bedrooms, Accompanied Personnel, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+	
O7 & Above	-	-	6	6
O6	-	-	47	47
O5	-	14	34	48
O4	-	16	16	32
O3	5	-	-	5
O2	-	-	-	-
O1	-	-	-	-
<b>Officers</b>	<b>5</b>	<b>30</b>	<b>103</b>	<b>138</b>
W5	-	-	1	1
W4	-	4	1	5
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
<b>Warrants</b>	<b>-</b>	<b>4</b>	<b>2</b>	<b>6</b>
E9	-	48	24	72
E8	-	171	57	228
E7	-	-	-	-
E6	-	-	-	-
E5	-	-	-	-
E4	-	-	-	-
E3	98	-	-	98
E2	-	-	-	-
E1	-	-	-	-
<b>Enlisted</b>	<b>98</b>	<b>219</b>	<b>81</b>	<b>398</b>
<b>Total</b>	<b>103</b>	<b>253</b>	<b>186</b>	<b>542</b>

Source: Estimates prepared for this study.

OSD policy is to rely on the private sector to house military personnel to the maximum possible extent. Following OSD guidance, this analysis interprets the policy to mean that the difference between current occupancy of on-post housing and the projected floor requirement is the number of families that would seek housing in the private sector over the next five years. Current occupancy of on-post family housing is 2,712 families. The projected floor requirement is 542 units. The difference between these two values (2,170) is the number of accompanied personnel who are assumed to seek private-sector housing between 2008 and 2013. For the purposes of this analysis it is assumed that the development community would respond to the potential increase in off-post renters by building an additional 469 units each year. This market response would be sufficient to accommodate all of the potentially transitioning military families. The extent to which private-sector housing meets Army standards for affordability, quality, and number of bedrooms is analyzed further below.

## Unaccompanied Personnel

For unaccompanied personnel, the floor housing requirement is defined as all unaccompanied E1-E5 personnel. These personnel are assumed to be housed in on-post unaccompanied quarters. Table 4-14 presents the projected floor housing requirement for unaccompanied personnel.

**Table 4-14. Unaccompanied Floor Housing Requirement, Fort Bliss, 2013**

2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three	
O7 & Above	-	-	-	-
O6	-	-	-	-
O5	-	-	-	-
O4	-	-	-	-
O3	-	-	-	-
O2	-	-	-	-
O1	-	-	-	-
Officers	-	-	-	-
W5	-	-	-	-
W4	-	-	-	-
W3	-	-	-	-
W2	-	-	-	-
W1	-	-	-	-
Warrants	-	-	-	-
E9	-	-	-	-
E8	-	-	-	-
E7	-	-	-	-
E6	-	-	-	-
E5	1,531	-	-	1,531
E4	5,296	-	-	5,296
E3	3,984	-	-	3,984
E2	2,495	-	-	2,495
E1	571	-	-	571
Enlisted	13,877	-	-	13,877
<b>Total</b>	<b>13,877</b>	<b>-</b>	<b>-</b>	<b>13,877</b>

Source: Estimates prepared for this study

#### 4.4 OFF-POST HOUSING DEMAND

For accompanied personnel, total potential community housing demand is defined for 2008 as those accompanied personnel in excess of the current occupants of on-post housing and for 2013 as those personnel in excess of the projected floor requirement. For unaccompanied personnel the potential community housing demand is those personnel in excess of the floor requirement in both years.

##### Accompanied Personnel

Off-post accompanied “community first” housing demand totals 8,057 families in 2008 and 19,670 families in 2013. The bedroom requirements of these personnel, by grade, are shown in Table 4-15.

**Table 4-15. Community-First Accompanied Housing Demand, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	34	34	O6	-	-	41	41
O5	-	85	48	133	O5	-	151	61	212
O4	-	202	90	292	O4	-	374	158	532
O3	222	111	54	387	O3	449	227	110	786
O2	92	22	10	124	O2	181	42	21	244
O1	23	8	2	33	O1	113	38	11	162
<b>Officers</b>	<b>337</b>	<b>428</b>	<b>238</b>	<b>1,003</b>	<b>Officers</b>	<b>743</b>	<b>832</b>	<b>402</b>	<b>1,977</b>
W5	-	2	1	3	W5	-	12	-	12
W4	-	28	16	44	W4	-	49	30	79
W3	18	30	30	78	W3	41	70	70	181
W2	13	32	39	84	W2	37	85	106	228
W1	20	27	18	65	W1	58	81	52	191
<b>Warrants</b>	<b>51</b>	<b>119</b>	<b>104</b>	<b>274</b>	<b>Warrants</b>	<b>136</b>	<b>297</b>	<b>258</b>	<b>691</b>
E9	-	227	82	309	E9	-	390	135	525
E8	-	321	144	465	E8	-	516	252	768
E7	-	531	317	848	E7	-	1,057	632	1,689
E6	549	492	468	1,509	E6	1,244	1,116	1,061	3,421
E5	843	460	331	1,634	E5	2,209	1,206	867	4,282
E4	969	359	216	1,544	E4	2,694	1,000	600	4,294
E3	283	84	40	407	E3	945	310	147	1,402
E2	46	12	6	64	E2	374	98	46	518
E1	-	-	-	-	E1	87	4	12	103
<b>Enlisted</b>	<b>2,690</b>	<b>2,486</b>	<b>1,604</b>	<b>6,780</b>	<b>Enlisted</b>	<b>7,553</b>	<b>5,697</b>	<b>3,752</b>	<b>17,002</b>
<b>Total</b>	<b>3,078</b>	<b>3,033</b>	<b>1,946</b>	<b>8,057</b>	<b>Total</b>	<b>8,432</b>	<b>6,826</b>	<b>4,412</b>	<b>19,670</b>

Source: Estimates prepared for this study.

## Change in Homeownership Rates

The current number of homeowners is based on data from the Fort Bliss 2008 Military Personnel Housing Survey. The projected number of homeowners is based on the expected change in homeownership affordability from 2008 through 2013 in the Fort Bliss housing market area. Numerous factors determine the extent of homeownership at a military installation. Simple comparisons of housing allowances to home prices are not sufficient to explain changes in homeownership. A more precise measurement of affordability is needed. Table 4-16 presents a method for calculating changes in affordability of home ownership for Fort Bliss personnel between 2008 and 2013.

**Table 4-16. Military Homeownership Affordability Analysis, Fort Bliss, Texas**

Indicator	Comment/description	2008	2013
Purchase Price	Average sales price of a residential home, Projection to 2013 assumes 4.5%/year increase	\$164,490	\$204,768
Down Payment	Assumed to be 10% of Purchase Price; varies with use of VHA financing, other factors	\$16,449	\$20,477
Loan Amount	Purchase Price less Down Payment	\$148,041	\$184,291
Interest Rate	Annual average yield on new home mortgages as compiled by Federal Reserve Board; 2013 projection assumes moderate increase in rates	5.9%	6.7%
Monthly Payment	Assumes 30-year fixed rate loan	\$880	\$1,195
Property Taxes	Annual amount assumed to be 1.5% of purchase price; shown as \$/month	\$206	\$256
Insurance	Annual amount assumed to be 0.75% of purchase price; shown as \$/month	\$103	\$128
Utility Costs	2008 cost is for a 3-BR unit as estimated for this analysis; 2013 projection assumes 4.5%/year increase	\$211	\$262
Monthly Cost	Loan payment plus property taxes plus insurance plus utilities	\$1,400	\$1,841
Military Allowances	Weighted average housing allowance for military personnel, \$/month	\$967	\$1,127
Affordability Gap (\$)	Monthly Cost minus military allowance equals cost to be borne from base pay or other income (spouse, second job, etc.)	\$433	\$714
Affordability Gap (%)	Monthly Cost as a percent of military allowance	144.8%	163.4%
Adjustment Factor	Relative Change in Affordability Gap (%)	100.0%	112.8%

Note: Total settlement/escrow costs are not shown.

Sources: Congressional Budget Office, 2008; Federal Reserve Bank of St. Louis, 2008; Texas A&M University, 2008; and estimates prepared for this study.

This method can be used to adjust the 2008 homeownership rates to 2013. If all other factors – availability of jobs for spouses, attractiveness of the area for retirement or multiple tours of duty, expected home price appreciation, extent of favorable tax treatment of homeownership – remained the same between 2008 and 2013, the adjustment for the change in affordability could potentially provide an accurate measure of homeownership in 2013.

The calculations shown in Table 4-16 use the average price of a home in El Paso County, Texas as reported by Texas A&M University (2008). Assuming a ten percent down payment, it is possible to calculate the amount of the mortgage carried by the purchaser. Assuming a 30-year fixed rate loan, it is possible to calculate monthly costs of principal and interest on the loan. Allowances are then made for property taxes, insurance, and utility costs to determine the total monthly cost of homeownership.

Assumptions about future interest rates, home prices, utility costs, and housing allowance escalation must be formulated in order to project changes in affordability. The trend in home mortgage rates is determined using the annual average yield on new home mortgages as compiled by the Federal Reserve Board. Home prices are estimated to increase at an average rate of 4.5 percent per year from 2008 to 2013 consistent with the historical change in the price of a home in the area and consistent with the projected rise in interest rates. Interest rates are assumed to increase to 6.7 percent by 2013 following the interest rate trend forecast by the Congressional Budget Office (2008). Utility costs are assumed to increase 4.5 percent per year, consistent with the changes in the household utility component of the Consumer Price Index (CPI) for small to medium sized cities in the West over the 1997 to 2007 period (U.S Bureau of Labor Statistics, 2008).

Weighted average housing allowances for Fort Bliss military families are projected to increase 3.1 percent per year from 2008 to 2013 (consistent with expected rental cost increases over the 2008 to 2013 period in the local area). Comparing the cost of owning a home to the weighted average housing allowance (BAH in 2008 and expected BAH in 2013) for personnel with dependents allows for a calculation of an Affordability Gap in dollar terms. As shown in Table 4-16, this gap is expected to increase from \$433 in 2008 to \$714 in 2013.

The Affordability Gap measured as a percent of the weighted average housing allowance is also shown. In 2008 Fort Bliss personnel had to pay, on average, about 144.8 percent of the average housing allowance to cover the cost of owning a home. However, the cost of owning a home is expected to rise faster than the weighted average housing allowance. As a result, the cost of owning a home in 2013 is about 163.4 percent of the average housing allowance. This is an expected increase of 18.6 percentage points. The relative change in the Affordability Gap is a 12.8 percent increase in this gap between 2008 and 2013 (see the Adjustment Factor shown as the last row in Table 4-16).

The purpose of the analysis shown in Table 4-16 is to forecast changes in affordability between 2008 and 2013. In addition, it is necessary to estimate how sensitive military home purchases are to these changes in cost. There is very little information available on which to base such an analysis. Therefore a formulaic estimate must be used until adequate data can be obtained. It is possible to calculate the change in homeownership propensities for each grade using the relative change in the affordability gap. Specifically, the share of off-base families that are not homeowners (that is, are renters) can be assumed to decline (or increase) proportionately with the relative affordability gap. Symbolically, this can be expressed as:

$$\text{Projected homeownership share} = \frac{1}{1 + \text{Ratio of renters to homeowners in 2008} \times \text{Relative affordability gap in the projected year}}$$

This adjustment factor can then be applied to each grade's homeownership propensity as calculated from the Fort Bliss 2008 Military Personnel Housing Survey to project homeowners. Applying the adjustment factor to 2008 data provides a projection of future homeowners given the assumed trends in home prices, housing allowances, and interest rates. Use of this formula is necessarily judgmental, and should be considered a preliminary measure subject to revision based on availability of better data (preferably an updated local survey of military personnel).

Based on the results of the Fort Bliss 2008 Military Personnel Housing Survey, 33.4 percent of families are estimated to be homeowners in the current year (3,601 homeowners; Table 4-17). At Fort Bliss the monthly cost of owning a home is projected to increase at a faster rate than housing allowances. Over the 2008 to 2013 period it is expected that military homeownership rates will decline as a result. In 2013, using the pro forma analysis it is projected that 29.8 percent of all families will be homeowners (6,016 homeowners; Table 4-17).

Military homeowners projected for 2013 are not affected by the definition of the floor requirement. All military members living on the installation in 2008 are considered renters. Therefore, those personnel simulated to be part of the transition from on-base housing into community housing between 2008 and 2013 are treated as renters – they are transitioning from “renting” on-base housing to renting community housing.

**Table 4-17. Accompanied Homeowners, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	26	26	O6	-	-	35	35
O5	-	75	42	117	O5	-	109	61	170
O4	-	158	71	229	O4	-	259	117	376
O3	179	89	43	311	O3	313	154	76	543
O2	57	14	6	77	O2	85	19	9	113
O1	10	3	1	14	O1	18	5	1	24
Officers	246	339	189	774	Officers	416	546	299	1,261
W5	-	2	1	3	W5	-	12	-	12
W4	-	25	14	39	W4	-	41	23	64
W3	13	22	22	57	W3	28	45	45	118
W2	11	27	33	71	W2	23	58	72	153
W1	10	13	9	32	W1	21	31	19	71
Warrants	34	89	79	202	Warrants	72	187	159	418
E9	-	130	47	177	E9	-	185	67	252
E8	-	200	90	290	E8	-	273	122	395
E7	-	389	232	621	E7	-	626	373	999
E6	312	279	266	857	E6	537	481	459	1,477
E5	218	119	86	423	E5	382	210	152	744
E4	149	55	33	237	E4	268	100	60	428
E3	12	4	2	18	E3	24	8	5	37
E2	2	-	-	2	E2	5	-	-	5
E1	-	-	-	-	E1	-	-	-	-
Enlisted	693	1,176	756	2,625	Enlisted	1,216	1,883	1,238	4,337
<b>Total</b>	<b>973</b>	<b>1,604</b>	<b>1,024</b>	<b>3,601</b>	<b>Total</b>	<b>1,704</b>	<b>2,616</b>	<b>1,696</b>	<b>6,016</b>

Source: Estimates prepared for this study

The number of accompanied personnel owning homes in the area is subtracted from the total community housing demand (see Table 4-15) to obtain the number of accompanied renters. The number of accompanied renters is thus 4,456 families in 2008 and 13,654 families in 2013 (Table 4-18).

**Table 4-18. Accompanied Renters, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	8	8	O6	-	-	6	6
O5	-	10	6	16	O5	-	42	-	42
O4	-	44	19	63	O4	-	115	41	156
O3	43	22	11	76	O3	136	73	34	243
O2	35	8	4	47	O2	96	23	12	131
O1	13	5	1	19	O1	95	33	10	138
<b>Officers</b>	<b>91</b>	<b>89</b>	<b>49</b>	<b>229</b>	<b>Officers</b>	<b>327</b>	<b>286</b>	<b>103</b>	<b>716</b>
W5	-	-	-	-	W5	-	-	-	-
W4	-	3	2	5	W4	-	8	7	15
W3	5	8	8	21	W3	13	25	25	63
W2	2	5	6	13	W2	14	27	34	75
W1	10	14	9	33	W1	37	50	33	120
<b>Warrants</b>	<b>17</b>	<b>30</b>	<b>25</b>	<b>72</b>	<b>Warrants</b>	<b>64</b>	<b>110</b>	<b>99</b>	<b>273</b>
E9	-	97	35	132	E9	-	205	68	273
E8	-	121	54	175	E8	-	243	130	373
E7	-	142	85	227	E7	-	431	259	690
E6	237	213	202	652	E6	707	635	602	1,944
E5	625	341	245	1,211	E5	1,827	996	715	3,538
E4	820	304	183	1,307	E4	2,426	900	540	3,866
E3	271	80	38	389	E3	921	302	142	1,365
E2	44	12	6	62	E2	369	98	46	513
E1	-	-	-	-	E1	87	4	12	103
<b>Enlisted</b>	<b>1,997</b>	<b>1,310</b>	<b>848</b>	<b>4,155</b>	<b>Enlisted</b>	<b>6,337</b>	<b>3,814</b>	<b>2,514</b>	<b>12,665</b>
<b>Total</b>	<b>2,105</b>	<b>1,429</b>	<b>922</b>	<b>4,456</b>	<b>Total</b>	<b>6,728</b>	<b>4,210</b>	<b>2,716</b>	<b>13,654</b>

Source: Estimates prepared for this study

## Unaccompanied Personnel

Total unaccompanied “community first” housing needs are those unaccompanied personnel in excess of the floor requirement. The total is 1,099 personnel in 2008 and 1,976 personnel in 2013. The bedroom requirements of these personnel by grade are shown in Table 4-19.

**Table 4-19. Community-First Unaccompanied Housing Demand, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms				2013 Pay Grade	Number of Bedrooms			
	One	Two	Three	Total		One	Two	Three	Total
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	3	3	O6	-	-	4	4
O5	-	-	16	16	O5	-	-	24	24
O4	-	-	36	36	O4	-	-	62	62
O3	-	228	-	228	O3	-	418	-	418
O2	-	300	-	300	O2	-	479	-	479
O1	-	181	-	181	O1	-	369	-	369
Officers	-	709	55	764	Officers	-	1,266	90	1,356
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	4	4	W4	-	-	8	8
W3	-	4	-	4	W3	-	9	-	9
W2	-	1	-	1	W2	-	3	-	3
W1	-	9	-	9	W1	-	22	-	22
Warrants	-	14	4	18	Warrants	-	34	8	42
E9	-	16	-	16	E9	-	25	-	25
E8	-	31	-	31	E8	-	46	-	46
E7	-	47	-	47	E7	-	81	-	81
E6	-	223	-	223	E6	-	426	-	426
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	317	-	317	Enlisted	-	578	-	578
<b>Total</b>	-	<b>1,040</b>	<b>59</b>	<b>1,099</b>	<b>Total</b>	-	<b>1,878</b>	<b>98</b>	<b>1,976</b>

Source: Estimates prepared for this study.

The estimated number of unaccompanied personnel owning homes in the community is presented in Table 4-20. A total of 289 unaccompanied personnel are estimated to own their homes in the area in 2008. This estimate was computed using unaccompanied homeownership rates by individual grade from the Fort Bliss 2008 Military Personnel Housing Survey. The projected number of unaccompanied military homeowners was estimated using the homeownership affordability analysis described above. The projected number of unaccompanied military homeowners in 2013 is 462.

**Table 4-20. Unaccompanied Homeowners, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	2	2	O6	-	-	3	3
O5	-	-	11	11	O5	-	-	16	16
O4	-	-	9	9	O4	-	-	14	14
O3	-	97	-	97	O3	-	166	-	166
O2	-	98	-	98	O2	-	144	-	144
O1	-	12	-	12	O1	-	21	-	21
Officers	-	207	22	229	Officers	-	331	33	364
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	1	1	W4	-	-	1	1
W3	-	2	-	2	W3	-	4	-	4
W2	-	-	-	-	W2	-	-	-	-
W1	-	1	-	1	W1	-	3	-	3
Warrants	-	3	1	4	Warrants	-	7	1	8
E9	-	2	-	2	E9	-	2	-	2
E8	-	2	-	2	E8	-	2	-	2
E7	-	13	-	13	E7	-	20	-	20
E6	-	39	-	39	E6	-	66	-	66
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	56	-	56	Enlisted	-	90	-	90
<b>Total</b>	-	<b>266</b>	<b>23</b>	<b>289</b>	<b>Total</b>	-	<b>428</b>	<b>34</b>	<b>462</b>

Source: Estimates prepared for this study.

The number of unaccompanied renters is thus 810 in 2008 and 1,514 in 2013. Table 4-21 displays the grade and bedroom entitlements of these renters.

**Table 4-21. Unaccompanied Renters, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	1	1	O6	-	-	1	1
O5	-	-	5	5	O5	-	-	8	8
O4	-	-	27	27	O4	-	-	48	48
O3	-	131	-	131	O3	-	252	-	252
O2	-	202	-	202	O2	-	335	-	335
O1	-	169	-	169	O1	-	348	-	348
Officers	-	502	33	535	Officers	-	935	57	992
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	3	3	W4	-	-	7	7
W3	-	2	-	2	W3	-	5	-	5
W2	-	1	-	1	W2	-	3	-	3
W1	-	8	-	8	W1	-	19	-	19
Warrants	-	11	3	14	Warrants	-	27	7	34
E9	-	14	-	14	E9	-	23	-	23
E8	-	29	-	29	E8	-	44	-	44
E7	-	34	-	34	E7	-	61	-	61
E6	-	184	-	184	E6	-	360	-	360
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	261	-	261	Enlisted	-	488	-	488
<b>Total</b>	-	<b>774</b>	<b>36</b>	<b>810</b>	<b>Total</b>	-	<b>1,450</b>	<b>64</b>	<b>1,514</b>

Source: Estimates prepared for this study.

#### 4.5 AFFORDABILITY AND ADEQUACY

Cost is one of four DoD criteria used to determine whether housing is acceptable for accompanied military personnel. Location (i.e., within the market area), adequate condition and facilities (that is, decent, safe, and sanitary housing), and bedroom entitlements are the three other criteria. However, all three non-cost criteria are related closely to cost. If market area housing is not affordable for military families, they are more likely to reside outside the market area, or to live in housing in substandard condition or with inadequate facilities, or in units with fewer bedrooms than their entitlements.

### Military Housing Allowances and Maximum Acceptable Housing Costs

Accompanied military personnel residing in community housing receive a Basic Allowance for Housing (BAH) in addition to base pay. In 2008 MAHC equals BAH. Military personnel are assumed to pay approximately 85 percent to 100 percent of MAHC for rent, utilities, and renters insurance. If a military member finds it necessary to pay more than MAHC to obtain adequate housing, that member is, by definition, in unacceptable housing. In the Fort Bliss area, MAHC for military families ranges from \$804 per month to \$1,339 per month depending on grade (Table 4-22). For unaccompanied personnel MAHC ranges from \$636 to \$1,129 per month (Table 4-22).

**Table 4-22. Maximum Acceptable Housing Cost, With Dependents and Without Dependents, Fort Bliss, 2008**

Pay Grade	With Dependents	Without Dependents
	BAH	BAH
O7 & Above	\$1,339	\$1,129
O6	\$1,324	\$1,107
O5	\$1,313	\$1,088
O4	\$1,227	\$1,075
O3	\$1,106	\$990
O2	\$1,050	\$851
O1	\$896	\$732
W5	\$1,205	\$1,078
W4	\$1,153	\$1,059
W3	\$1,107	\$972
W2	\$1,082	\$910
W1	\$1,054	\$792
E9	\$1,140	\$966
E8	\$1,094	\$911
E7	\$1,073	\$809
E6	\$1,054	\$791
E5	\$876	\$701
E4	\$804	\$636
E3	\$804	\$636
E2	\$804	\$636
E1	\$804	\$636

Source: U.S. Department of Defense, 2008.

### Accompanied and Unaccompanied Renters by Cost Band

Table 4-23 presents the current accompanied rental housing requirement by rental cost band and Table 4-24 presents the projected accompanied rental housing requirement by rental cost band.

**Table 4-23. Accompanied Renters, by Rental Cost, Fort Bliss, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	-	-	-
2,000	-	-	-	-	-	-
1,900	-	-	-	-	-	-
1,800	-	-	-	-	-	-
1,700	-	-	-	-	-	-
1,600	-	-	-	-	-	-
1,500	-	-	-	-	-	-
1,400	-	-	-	1	1	2
1,300	-	-	-	11	10	21
1,200	-	-	2	53	25	80
1,100	-	-	124	307	186	617
1,000	-	-	198	309	222	729
900	-	-	415	220	155	790
800	-	-	1,210	473	292	1,975
\$700 & Below	-	-	156	55	31	242
<b>Total</b>	-	-	<b>2,105</b>	<b>1,429</b>	<b>922</b>	<b>4,456</b>

Source: Estimates prepared for this study.

**Table 4-24. Accompanied Renters, by Rental Cost, Fort Bliss, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	-	-	-
2,000	-	-	-	-	-	-
1,900	-	-	-	-	-	-
1,800	-	-	-	-	-	-
1,700	-	-	-	-	-	-
1,600	-	-	-	-	-	-
1,500	-	-	-	-	-	-
1,400	-	-	-	3	1	4
1,300	-	-	-	38	9	47
1,200	-	-	6	134	44	184
1,100	-	-	380	809	522	1,711
1,000	-	-	593	875	657	2,125
900	-	-	1,275	661	464	2,400
800	-	-	3,950	1,510	917	6,377
\$700 & Below	-	-	524	180	102	806
<b>Total</b>	-	-	<b>6,728</b>	<b>4,210</b>	<b>2,716</b>	<b>13,654</b>

Source: Estimates prepared for this study.

Table 4-25 presents the current unaccompanied rental housing requirement by rental cost band and Table 4-26 presents the projected unaccompanied rental housing requirement by rental cost band.

**Table 4-25. Unaccompanied Renters, by Rental Cost, Fort Bliss, 2008**

2008 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	-	-	-
2,000	-	-	-	-	-	-
1,900	-	-	-	-	-	-
1,800	-	-	-	-	-	-
1,700	-	-	-	-	-	-
1,600	-	-	-	-	-	-
1,500	-	-	-	-	-	-
1,400	-	-	-	-	-	-
1,300	-	-	-	-	-	-
1,200	-	-	-	-	-	-
1,100	-	-	-	18	-	18
1,000	-	-	88	18	-	106
900	-	-	168	-	-	168
800	-	-	350	-	-	350
\$700 & Below	-	-	168	-	-	168
<b>Total</b>	-	-	<b>774</b>	<b>36</b>	-	<b>810</b>

Source: Estimates prepared for this study.

**Table 4-26. Unaccompanied Renters, by Rental Cost, Fort Bliss, 2013**

2013 Rental Cost	Number of Bedrooms					Total
	Studios	One	Two	Three	Four+	
Above \$2000	-	-	-	-	-	-
2,000	-	-	-	-	-	-
1,900	-	-	-	-	-	-
1,800	-	-	-	-	-	-
1,700	-	-	-	-	-	-
1,600	-	-	-	-	-	-
1,500	-	-	-	-	-	-
1,400	-	-	-	-	-	-
1,300	-	-	-	-	-	-
1,200	-	-	-	-	-	-
1,100	-	-	-	30	-	30
1,000	-	-	169	34	-	203
900	-	-	288	-	-	288
800	-	-	652	-	-	652
\$700 & Below	-	-	341	-	-	341
<b>Total</b>	-	-	<b>1,450</b>	<b>64</b>	-	<b>1,514</b>

Source: Estimates prepared for this study.

### Community Shortfall

Military rental housing demand was then compared to rental costs in the market area (rents plus utilities plus renter's insurance), the level of competing demand for rental housing in the market area, the overall

supply of rental housing, and the percentage of suitable rental housing in the market area to assess the availability, affordability, and adequacy of community rentals under the Army's definition of acceptable housing. Chapter 1 describes the methodology used in this analysis. The following sections present the results of the analysis for both accompanied and unaccompanied personnel.

### *Accompanied Personnel*

Table 4-27 presents the estimated number of expected suitable rentals likely to be captured by accompanied renters for 2008 and 2013. A total of 2,169 expected suitable rentals are estimated for 2008 and 7,277 expected suitable rentals are projected for 2013.

**Table 4-27. Expected Suitable Rentals for Accompanied Renters, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	7	7	O6	-	-	6	6
O5	-	9	4	13	O5	-	41	-	41
O4	-	37	11	48	O4	-	109	29	138
O3	37	17	2	56	O3	116	65	9	190
O2	31	6	-	37	O2	84	20	2	106
O1	9	2	-	11	O1	77	18	-	95
<b>Officers</b>	<b>77</b>	<b>71</b>	<b>24</b>	<b>172</b>	<b>Officers</b>	<b>277</b>	<b>253</b>	<b>46</b>	<b>576</b>
W5	-	-	-	-	W5	-	-	-	-
W4	-	3	1	4	W4	-	7	3	10
W3	4	6	2	12	W3	12	22	6	40
W2	2	3	1	6	W2	12	23	7	42
W1	8	10	1	19	W1	32	44	6	82
<b>Warrants</b>	<b>14</b>	<b>22</b>	<b>5</b>	<b>41</b>	<b>Warrants</b>	<b>56</b>	<b>96</b>	<b>22</b>	<b>174</b>
E9	-	76	12	88	E9	-	185	27	212
E8	-	89	12	101	E8	-	213	28	241
E7	-	104	15	119	E7	-	378	51	429
E6	209	151	34	394	E6	615	553	107	1,275
E5	459	122	13	594	E5	1,404	463	29	1,896
E4	468	8	1	477	E4	1,468	115	7	1,590
E3	154	3	-	157	E3	556	38	1	595
E2	26	-	-	26	E2	223	13	-	236
E1	-	-	-	-	E1	53	-	-	53
<b>Enlisted</b>	<b>1,316</b>	<b>553</b>	<b>87</b>	<b>1,956</b>	<b>Enlisted</b>	<b>4,319</b>	<b>1,958</b>	<b>250</b>	<b>6,527</b>
<b>Total</b>	<b>1,407</b>	<b>646</b>	<b>116</b>	<b>2,169</b>	<b>Total</b>	<b>4,652</b>	<b>2,307</b>	<b>318</b>	<b>7,277</b>

Source: Estimates prepared for this study.

Total acceptable housing for off-post accompanied personnel is the sum of area homeowners and expected suitable rentals in the area. There are 5,770 total acceptable housing units for accompanied personnel in 2008 and 13,293 acceptable housing units in 2013 (Table 4-28).

**Table 4-28. Total Acceptable Housing for Accompanied Personnel, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	33	33	O6	-	-	41	41
O5	-	84	46	130	O5	-	150	61	211
O4	-	195	82	277	O4	-	368	146	514
O3	216	106	45	367	O3	429	219	85	733
O2	88	20	6	114	O2	169	39	11	219
O1	19	5	1	25	O1	95	23	1	119
<b>Officers</b>	<b>323</b>	<b>410</b>	<b>213</b>	<b>946</b>	<b>Officers</b>	<b>693</b>	<b>799</b>	<b>345</b>	<b>1,837</b>
W5	-	2	1	3	W5	-	12	-	12
W4	-	28	15	43	W4	-	48	26	74
W3	17	28	24	69	W3	40	67	51	158
W2	13	30	34	77	W2	35	81	79	195
W1	18	23	10	51	W1	53	75	25	153
<b>Warrants</b>	<b>48</b>	<b>111</b>	<b>84</b>	<b>243</b>	<b>Warrants</b>	<b>128</b>	<b>283</b>	<b>181</b>	<b>592</b>
E9	-	206	59	265	E9	-	370	94	464
E8	-	289	102	391	E8	-	486	150	636
E7	-	493	247	740	E7	-	1,004	424	1,428
E6	521	430	300	1,251	E6	1,152	1,034	566	2,752
E5	677	241	99	1,017	E5	1,786	673	181	2,640
E4	617	63	34	714	E4	1,736	215	67	2,018
E3	166	7	2	175	E3	580	46	6	632
E2	28	-	-	28	E2	228	13	-	241
E1	-	-	-	-	E1	53	-	-	53
<b>Enlisted</b>	<b>2,009</b>	<b>1,729</b>	<b>843</b>	<b>4,581</b>	<b>Enlisted</b>	<b>5,535</b>	<b>3,841</b>	<b>1,488</b>	<b>10,864</b>
<b>Total</b>	<b>2,380</b>	<b>2,250</b>	<b>1,140</b>	<b>5,770</b>	<b>Total</b>	<b>6,356</b>	<b>4,923</b>	<b>2,014</b>	<b>13,293</b>

Source: Estimates prepared for this study.

The community-housing shortfall is thus estimated to be 2,287 units in 2008 and 6,377 units in 2013 (the total off-post community housing requirement less acceptable community housing for accompanied personnel). The grade and bedroom breakdown of these units is presented in Table 4-29.

**Table 4-29. Accompanied Community Housing Shortfall, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	1	1	O6	-	-	-	-
O5	-	1	2	3	O5	-	1	-	1
O4	-	7	8	15	O4	-	6	12	18
O3	6	5	9	20	O3	20	8	25	53
O2	4	2	4	10	O2	12	3	10	25
O1	4	3	1	8	O1	18	15	10	43
Officers	14	18	25	57	Officers	50	33	57	140
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	1	1	W4	-	1	4	5
W3	1	2	6	9	W3	1	3	19	23
W2	-	2	5	7	W2	2	4	27	33
W1	2	4	8	14	W1	5	6	27	38
Warrants	3	8	20	31	Warrants	8	14	77	99
E9	-	21	23	44	E9	-	20	41	61
E8	-	32	42	74	E8	-	30	102	132
E7	-	38	70	108	E7	-	53	208	261
E6	28	62	168	258	E6	92	82	495	669
E5	166	219	232	617	E5	423	533	686	1,642
E4	352	296	182	830	E4	958	785	533	2,276
E3	117	77	38	232	E3	365	264	141	770
E2	18	12	6	36	E2	146	85	46	277
E1	-	-	-	-	E1	34	4	12	50
Enlisted	681	757	761	2,199	Enlisted	2,018	1,856	2,264	6,138
<b>Total</b>	<b>698</b>	<b>783</b>	<b>806</b>	<b>2,287</b>	<b>Total</b>	<b>2,076</b>	<b>1,903</b>	<b>2,398</b>	<b>6,377</b>

Source: Estimates prepared for this study.

**Unaccompanied Personnel**

Table 4-30 presents the estimated number of expected suitable rentals likely to be captured by unaccompanied renters in 2008 and 2013. A total of 504 expected suitable rentals are estimated for unaccompanied renters in 2008 and 1,065 expected suitable rentals are projected for 2013.

**Table 4-30. Expected Suitable Rentals for Unaccompanied Renters, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms				2013 Pay Grade	Number of Bedrooms			
	One	Two	Three	Total		One	Two	Three	Total
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	1	1	O6	-	-	1	1
O5	-	-	3	3	O5	-	-	8	8
O4	-	-	21	21	O4	-	-	41	41
O3	-	114	-	114	O3	-	230	-	230
O2	-	141	-	141	O2	-	248	-	248
O1	-	62	-	62	O1	-	192	-	192
Officers	-	317	25	342	Officers	-	670	50	720
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	2	2	W4	-	-	7	7
W3	-	2	-	2	W3	-	5	-	5
W2	-	1	-	1	W2	-	3	-	3
W1	-	5	-	5	W1	-	12	-	12
Warrants	-	8	2	10	Warrants	-	20	7	27
E9	-	12	-	12	E9	-	21	-	21
E8	-	23	-	23	E8	-	38	-	38
E7	-	20	-	20	E7	-	39	-	39
E6	-	97	-	97	E6	-	220	-	220
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	152	-	152	Enlisted	-	318	-	318
<b>Total</b>	-	<b>477</b>	<b>27</b>	<b>504</b>	<b>Total</b>	-	<b>1,008</b>	<b>57</b>	<b>1,065</b>

Source: Estimates prepared for this study.

Total acceptable housing for off-post unaccompanied personnel is the sum of area homeowners and expected suitable rentals in the area. The total is 793 units for unaccompanied personnel in 2008 and 1,527 units for unaccompanied personnel in 2013 (Table 4-31).

**Table 4-31. Total Acceptable Housing for Unaccompanied Personnel, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	3	3	O6	-	-	4	4
O5	-	-	14	14	O5	-	-	24	24
O4	-	-	30	30	O4	-	-	55	55
O3	-	211	-	211	O3	-	396	-	396
O2	-	239	-	239	O2	-	392	-	392
O1	-	74	-	74	O1	-	213	-	213
Officers	-	524	47	571	Officers	-	1,001	83	1,084
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	3	3	W4	-	-	8	8
W3	-	4	-	4	W3	-	9	-	9
W2	-	1	-	1	W2	-	3	-	3
W1	-	6	-	6	W1	-	15	-	15
Warrants	-	11	3	14	Warrants	-	27	8	35
E9	-	14	-	14	E9	-	23	-	23
E8	-	25	-	25	E8	-	40	-	40
E7	-	33	-	33	E7	-	59	-	59
E6	-	136	-	136	E6	-	286	-	286
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	208	-	208	Enlisted	-	408	-	408
<b>Total</b>	-	<b>743</b>	<b>50</b>	<b>793</b>	<b>Total</b>	-	<b>1,436</b>	<b>91</b>	<b>1,527</b>

Source: Estimates prepared for this study.

The community-housing shortfall for unaccompanied personnel is thus estimated to be 306 units in 2008 and 449 units in 2013 (the total off-post community housing requirement less acceptable community housing for unaccompanied personnel). The grade and bedroom breakdown of these units is presented in Table 4-32.

**Table 4-32. Unaccompanied Community Housing Shortfall, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	One	Two	Three			One	Two	Three	
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	2	2	O5	-	-	-	-
O4	-	-	6	6	O4	-	-	7	7
O3	-	17	-	17	O3	-	22	-	22
O2	-	61	-	61	O2	-	87	-	87
O1	-	107	-	107	O1	-	156	-	156
Officers	-	185	8	193	Officers	-	265	7	272
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	1	1	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	3	-	3	W1	-	7	-	7
Warrants	-	3	1	4	Warrants	-	7	-	7
E9	-	2	-	2	E9	-	2	-	2
E8	-	6	-	6	E8	-	6	-	6
E7	-	14	-	14	E7	-	22	-	22
E6	-	87	-	87	E6	-	140	-	140
E5	-	-	-	-	E5	-	-	-	-
E4	-	-	-	-	E4	-	-	-	-
E3	-	-	-	-	E3	-	-	-	-
E2	-	-	-	-	E2	-	-	-	-
E1	-	-	-	-	E1	-	-	-	-
Enlisted	-	109	-	109	Enlisted	-	170	-	170
<b>Total</b>	-	<b>297</b>	<b>9</b>	<b>306</b>	<b>Total</b>	-	<b>442</b>	<b>7</b>	<b>449</b>

Source: Estimates prepared for this study.

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## 5. SUPPLY-DEMAND BALANCE

This chapter presents the total current and projected requirement for military family and unaccompanied housing. Estimates and forecasts of the requirement were calculated based on information presented in each of the previous chapters of this report.

### 5.1 TOTAL REQUIREMENT FOR HOUSING

#### Accompanied Personnel

As previously discussed, if the initial estimate of the total requirement for military family housing for any individual pay grade is not at least ten percent of total families in that grade, the requirement will be increased to equal ten percent of families in that grade. The initial requirement was raised to the ten percent community level in the O4 and O3 pay grades. As a result, the total military family housing requirement in 2013 is projected to be 6,946 units (see Table 5-1). The breakout of the requirement by pay grade and bedroom entitlement is presented in Table 5-2.

**Table 5-1. Total Military Family Housing Requirement, Fort Bliss, 2013**

Pay Grade	Military Families	Military Community	Key and Essential	Historic Units	Quality of Life	Floor Requirement	Private Sector Shortfall	Initial Housing Requirement	10-Percent Military Community	Total Military Housing Requirement
O7 & Above	6	-	6	5	-	6	-	6	1	6
O6	88	-	47	27	-	47	-	47	9	47
O5	260	-	48	32	-	48	1	49	26	49
O4	564	-	1	32	-	32	18	50	56	56
O3	791	-	-	5	-	5	53	58	79	79
O2	244	-	-	-	-	-	25	25	24	25
O1	162	-	-	-	-	-	43	43	16	43
Officers	2,115	-	102	101	-	138	140	278	211	305
W5	13	-	-	1	-	1	-	1	1	1
W4	84	-	-	5	-	5	5	10	8	10
W3	181	-	-	-	-	-	23	23	18	23
W2	228	-	-	-	-	-	33	33	23	33
W1	191	-	-	-	-	-	38	38	19	38
Warrants	697	-	-	6	-	6	99	105	69	105
E9	597	-	72	1	-	72	61	133	60	133
E8	996	-	228	-	-	228	132	360	100	360
E7	1,689	-	-	-	-	-	261	261	169	261
E6	3,421	-	-	-	-	-	669	669	342	669
E5	4,282	-	-	-	-	-	1,642	1,642	428	1,642
E4	4,294	-	-	-	-	-	2,276	2,276	429	2,276
E3	1,500	-	-	98	-	98	770	868	150	868
E2	518	-	-	-	-	-	277	277	52	277
E1	103	-	-	-	-	-	50	50	10	50
Enlisted	17,400	-	300	99	-	398	6,138	6,536	1,740	6,536
<b>Total</b>	<b>20,212</b>	<b>-</b>	<b>402</b>	<b>206</b>	<b>-</b>	<b>542</b>	<b>6,377</b>	<b>6,919</b>	<b>2,020</b>	<b>6,946</b>

Note: The total military housing requirement is the greater of the initial housing requirement and the ten percent community factor for each grade.

Source: Estimates prepared for this study.

The total accompanied housing requirement is 4,999 units in 2008, reflecting the sum of the community housing shortfall and current occupants of on-post military family housing (Table 5-2). The total accompanied housing requirement is 6,946 units in 2013, reflecting the sum of the floor requirement, the community housing shortfall, and the ten percent community adjustment in the O4 and O3 pay grades. In 2013, the accompanied housing requirement comprises 2,188 two-bedroom units, 2,162 three-bedroom units, and 2,596 units with four or more bedrooms.

**Table 5-2. Total Military Family Housing Requirement, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms			Total	2013 Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7 & Above	-	-	4	4	O7 & Above	-	-	6	6
O6	-	-	28	28	O6	-	-	47	47
O5	-	25	16	41	O5	-	15	34	49
O4	-	34	20	54	O4	-	25	31	56
O3	35	20	16	71	O3	34	11	34	79
O2	26	7	7	40	O2	12	3	10	25
O1	36	14	4	54	O1	18	15	10	43
Officers	97	100	95	292	Officers	64	69	172	305
W5	-	-	-	-	W5	-	-	1	1
W4	-	4	3	7	W4	-	5	5	10
W3	2	5	9	16	W3	1	3	19	23
W2	3	8	13	24	W2	2	4	27	33
W1	6	10	12	28	W1	5	6	27	38
Warrants	11	27	37	75	Warrants	8	18	79	105
E9	-	82	45	127	E9	-	68	65	133
E8	-	179	109	288	E8	-	201	159	360
E7	-	134	128	262	E7	-	53	208	261
E6	154	176	276	606	E6	92	82	495	669
E5	461	380	347	1,188	E5	423	533	686	1,642
E4	726	435	265	1,426	E4	958	785	533	2,276
E3	298	130	64	492	E3	463	264	141	868
E2	135	43	20	198	E2	146	85	46	277
E1	38	2	5	45	E1	34	4	12	50
Enlisted	1,812	1,561	1,259	4,632	Enlisted	2,116	2,075	2,345	6,536
<b>Total</b>	<b>1,920</b>	<b>1,688</b>	<b>1,391</b>	<b>4,999</b>	<b>Total</b>	<b>2,188</b>	<b>2,162</b>	<b>2,596</b>	<b>6,946</b>

Source: Estimates prepared for this study.

## Unaccompanied Personnel

The total unaccompanied housing requirement is 6,624 units in 2008 and 14,326 units in 2013, reflecting the sum of the community housing shortfall and the unaccompanied floor housing requirement (Table 5-2).

**Table 5-3. Total Unaccompanied Housing Requirement, Fort Bliss, 2008 and 2013**

2008 Pay Grade	Number of Bedrooms				2013 Pay Grade	Number of Bedrooms			
	One	Two	Three	Total		One	Two	Three	Total
O7 & Above	-	-	-	-	O7 & Above	-	-	-	-
O6	-	-	-	-	O6	-	-	-	-
O5	-	-	2	2	O5	-	-	-	-
O4	-	-	6	6	O4	-	-	7	7
O3	-	17	-	17	O3	-	22	-	22
O2	-	61	-	61	O2	-	87	-	87
O1	-	107	-	107	O1	-	156	-	156
Officers	-	185	8	193	Officers	-	265	7	272
W5	-	-	-	-	W5	-	-	-	-
W4	-	-	1	1	W4	-	-	-	-
W3	-	-	-	-	W3	-	-	-	-
W2	-	-	-	-	W2	-	-	-	-
W1	-	3	-	3	W1	-	7	-	7
Warrants	-	3	1	4	Warrants	-	7	-	7
E9	-	2	-	2	E9	-	2	-	2
E8	-	6	-	6	E8	-	6	-	6
E7	-	14	-	14	E7	-	22	-	22
E6	-	87	-	87	E6	-	140	-	140
E5	757	-	-	757	E5	1,531	-	-	1,531
E4	2,548	-	-	2,548	E4	5,296	-	-	5,296
E3	1,717	-	-	1,717	E3	3,984	-	-	3,984
E2	1,055	-	-	1,055	E2	2,495	-	-	2,495
E1	241	-	-	241	E1	571	-	-	571
Enlisted	6,318	109	-	6,427	Enlisted	13,877	170	-	14,047
<b>Total</b>	<b>6,318</b>	<b>297</b>	<b>9</b>	<b>6,624</b>	<b>Total</b>	<b>13,877</b>	<b>442</b>	<b>7</b>	<b>14,326</b>

Source: Estimates prepared for this study.

## 5.2 HOUSING DEFICIT/(SURPLUS)

This report addresses the current and projected requirement for housing at Fort Bliss. Comparison of these requirements to existing and planned future assets to determine the overall housing deficit/surplus is the responsibility of Headquarters, U.S. Department of the Army in the course of planning and budgeting for housing at Fort Bliss.

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## **6. SUMMARY OF FINDINGS**

### **6.1 HOUSING MARKET AREA**

Fort Bliss is located in El Paso County, in west Texas. The housing market area for Fort Bliss includes those communities within a 20-mile commute of the installation's main work areas. The off-post population in the market area currently totals 743,731 persons, having increased at an average annual rate of 1.7 percent since 2000. Population is forecast to grow 2.3 percent per year, for a projected market area population of 833,409 persons in 2013.

### **6.2 HOUSING SUPPLY**

The area's housing stock is currently estimated to total 253,654 units. Owner-occupants claim 64.8 percent of occupied homes, while renters occupy the remaining 35.2 percent. The rental vacancy rate is currently estimated to be 6.0 percent, down from 7.9 percent in 2000. The rental vacancy rate is forecast to drop to 5.4 percent by 2013.

The median monthly rental cost (rent, utilities, and renter's insurance) for one-bedroom units in the market area is \$676. The median monthly rental cost for two-bedroom units in the market area is \$853. For three-bedroom units, the median rental cost is \$1,064 per month. The median rental cost for units with four or more bedrooms is \$1,396 per month.

### **6.3 HOUSING DEMAND**

Fort Bliss has a current authorized military personnel strength of 19,188 active-duty permanent-party members. Of this total, there are 10,769 families requiring housing. In 2013, personnel strength is projected to total 37,999 personnel, with 20,212 families. The projected floor requirement is 542 units. In 2013, 6,016 families are projected to own a home locally, and the remaining 13,654 families would be renters.

Currently, Fort Bliss has 7,417 unaccompanied personnel, of which 1,099 are assumed to seek housing in the private sector. An estimated 289 unaccompanied service members are homeowners, and 810 are renters in 2008. In 2013, there are projected to be 15,853 unaccompanied personnel, of which 1,976 would seek private sector housing. Of these, 462 unaccompanied personnel would be homeowners and 1,514 would be renters.

### **6.4 TOTAL ON-POST HOUSING REQUIREMENTS**

There is a total military family housing requirement of 4,999 units in 2008 and a projected total requirement of 6,946 units in 2013. The projected requirement is for 2,188 two-bedroom units, 2,162 three-bedroom units, and 2,596 units with at least four bedrooms. There is a total unaccompanied housing requirement of 6,624 units in 2008, and a projected total unaccompanied housing requirement of 14,326 units in 2013.

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## 7. ORGANIZATIONS CONTACTED

<b>Organization</b>	<b>Representative</b>
Acacia Park Apartment Homes 5848 Acacia Cir. El Paso, TX 79912	Mercy <i>Leasing Agent</i> 915/833-7408
Athens Gate Apartments 4554 Hercules Ave. El Paso, TX 79904	Brian Sanchez <i>Assistant Manager</i> 915/755-4261
Bartlett Apartments 330 Bartlett Dr. El Paso, TX 79912	Lila Sias <i>Property Manager</i> 915/584-6911
Benchmark Realty 1852 Dale Douglas El Paso, TX 79936	Elizabeth Guerrero <i>Property Manager</i> 915/593-7218
Butterfield Trail Apartments 10330 Gateway North El Paso, TX 79924	Tony Lara <i>Assistant Manager</i> 915/821-8282
Canyon Hills Apartments 9010 Magnetic Street El Paso, TX 79904	Martha Gomez <i>Property Manager</i> 915/751-8531
Cardon Real Estate, LLC 10105 Montwood. El Paso, TX 79925	Fernie Jaquez <i>Realtor</i> 915/593-8484
Celina Plaza Apartments 8500 Viscount Blvd. El Paso, TX 79925	Irene Bargas <i>Leasing Agent</i> 915/779-3741
Century 21 APD Associates 6601 Montana Ave., Ste. J El Paso, TX 79925	Linda Madrid <i>Property Manager</i> 915/779-5611
Century 21 Clark Brothers 2150 Trawood, Ste. B-100 El Paso, TX 79935	Armando Rodriguez <i>Maintenance Coordinator</i> 915/592-0259
Century 21 the Edge 1201 Airway Blvd. El Paso, TX 79925	Guy Forisha <i>Property Manager</i> 915/772-0553

Chimney Apartments  
200 N. Festival  
El Paso, TX 79912

Valerie Vipela  
*Property Manager*  
915/584-4323

Cielo Vista Apartments  
6812 Cielo Vista Dr.  
El Paso, TX 79925

Richard Jackson  
*Leasing Agent*  
915/772-5223

Dana Properties  
222 S. Resler  
El Paso, TX 79912

Sheldon Wheeler  
*Broker*  
915/581-0900

Desert Tree Apartments  
9300 Montana Ave  
El Paso, TX 79925

Yami Grijalva  
*Lease Agent*  
915/593-7997

DKD Associates  
1160 Airway Blvd, Ste. B-2  
El Paso, TX 79925

Fernando Zuluaga  
*Broker/Property Manager*  
915/772-9177

Double Tree Apartments  
200 N. Mesa Hills Dr.  
El Paso, TX 79912

Danielle Valenzuela  
*Assistant Manager*  
915/833-1104

El Paso Apartment Association  
1155 Larry Mahan, Ste. H-2  
El Paso, TX 79925

Jerry Carlson  
*Executive Director*  
915/598-0800

El Paso Association of Realtors  
6400 Gateway Blvd. East  
El Paso, TX 79905

Angela Gramacy  
*MLS Manager*  
915/783-6095

El Paso Rentals & Realty  
11200 Montwood  
El Paso, TX 79936

Tom Wiggins  
*Realtor*  
915/594-3377

El Paso, City of  
2 Civic Center Plaza  
El Paso, TX 79901

Larry Nichols  
*Deputy Director*  
915/541-4556

Matthew McElroy  
*Military Expansion Coordinator*  
915/541-4925

Fairbanks Apartments  
5241 Fairbanks Dr.  
El Paso, TX 79924

Donna Navar  
*Property Manager*  
915/751-8611

Fort Bliss  
1 Pershing Road  
Fort Bliss, TX 79916

Col. Bob Burns  
*Garrison Commander*  
915/568-2833

David Shafii  
*Director of Public Works*  
915/568-6200

Clark McChesney  
*Transformation Office Director*  
915/568-5609

Richard Ybarra  
*RCI Project Manager*  
915/568-5314

Estrella Martinez  
*Housing Services Office, Chief*  
915/568-2538

Foxglove Apartments  
210 W. Redd Rd.  
El Paso, TX 79932

Veronica Otero  
*Property Manager*  
915/584-3453

High Ridge Apartments  
9353 Viscount Blvd  
El Paso, TX 79925

Maria O'Connor  
*Assistant Manager*  
915/598-0842

High Vista Apartments  
5041 Alabama  
El Paso, TX 79930

Jackie Bauerkemper  
*Assistant Manager*  
915/565-2703

Home Finders USA  
2267 Trawood Dr., Ste. A-1  
El Paso, TX 79935

Bob Valenzuela  
*Realtor*  
915/593-0331

Installation Management Command – West Region  
2450 Stanley Road, Ste. 101  
San Antonio, TX 79905

Ron Whited  
*Residential Community Specialist*  
210/224-2203

La Estancia Apartments  
7900 Viscount Blvd.  
El Paso, TX 79925

Eddie Quesada  
*Assistant Manager*  
915/778-9561

La Mirada Apartments  
10550 McCombs St.  
El Paso, TX 79924

Guadalupe Villagran  
*Property Manager*  
915/821-7721

La Privada Apartments 9030 Betel Dr. El Paso, TX 79907	Terry Carrera <i>Property Manager</i> 915/858-1002
Las Ventanas Apartments 2000 Saul Kleinfeld El Paso, TX 79936	Heather Arellano <i>Property Manager</i> 915/856-1150
Lynwood Gardens Apartments 10650 Pico Norte Rd. El Paso, TX 79935	Tina Haney <i>Property Manager</i> 915/592-0764
Mesa Village Apartments 7227 Mesa Street El Paso, TX 79912	Jenny Guzman <i>Leasing Agent</i> 915/584-6141
Missile Realty 8533 Dyer St. El Paso, TX 79904	Louis Telles <i>Realtor</i> 915/751-1223
Mountain Plaza Apartments 3334 Zion Ln. El Paso, TX 79904	Mary Meza <i>Leasing Agent</i> 915/755-1354
Mountain Village Apartments 5890 Bandolero Dr. El Paso, TX 79912	Leticia Steven <i>Property Manager</i> 915/581-8798
Park Ridge Apartments 6938 Alto Rey El Paso, TX 79912	Paula Hill <i>Assistant Manager</i> 915/581-0032
Patriot Apartments 4600 Fairbanks El Paso, TX 79924	Irma Reyes <i>Leasing Agent</i> 915/757-6901
Pear Tree Apartments 222 Bartlett El Paso, TX 79912	Lauren <i>Assistant Manager</i> 915/833-7327
Pebble Hills Apartments 10865 Edgemere Blvd. El Paso, TX 79935	Terry Zapata <i>Leasing Agent</i> 915/592-7212
Phoenix Apartments 7401 Phoenix Ave. El Paso, TX 79915	Sylvia Moreno <i>Assistant Manager</i> 915/595-5487

Pointe Apartments 5525 N. Stanton St. El Paso, TX 79912	Erika Avila <i>Property Manager</i> 915/581-9706
Rushfair Villa Apartments 5205 Fairbanks Dr. El Paso, TX 79924	Steven Bishop <i>Property Manager</i> 915/751-2171
Ryan's Crossing Apartments 535 South Mesa Hills Drive El Paso, TX 79912	Laura Esquibel <i>Leasing Agent</i> 915/584-5411
Ryan's Mill Apartments 601 South Mesa Hills El Paso, TX 79912	Jessica Harris <i>Assistant Manager</i> 915/584-9330
Shadow Ridge Apartments 9375 Viscount Blvd. El Paso, TX 79925	Nora Aguilar <i>Property Manager</i> 915/593-5250
Spring Park Apartments 9535 Acer El Paso, TX 79925	Noemi Perez <i>Property Manager</i> 915/594-7411
Sun Hollow Apartments 1601 N. Lee Trevino Dr. El Paso, TX 79936	Maggie Smith <i>Property Manager</i> 915/592-5666
Sundance Apartments 7133 N. Mesa El Paso, TX 79912	Daisy Duran <i>Property Manager</i> 915/584-8844
Sunrise Apartments 1515 Resler Drive El Paso, TX 79912	Brandy Johnson <i>Leasing Agent</i> 915/584-9486
Texas Realty 6410 Gateway Blvd. East El Paso, TX 79905	Jo Ann Underwood <i>Real Estate Agent</i> 915/779-3572
Trevino Place Apartments 10891 Edgemere El Paso, TX 79935	Claudie Escajeda <i>Leasing Agent</i> 915/750-0932
Valley Ridge Apartments 1650 George Dieter El Paso, TX 79936	Marissa Dent <i>Property Manager</i> 915/855-0454

West Town Apartments  
734 S. Mesa Hills Dr.  
El Paso, TX 79912

Staff

915/584-3497

Whispering Pines Apartments  
1530 George Dieter Dr.  
El Paso, TX 79936

Jonathan Persall  
*Assistant Manager*  
915/855-0457

Windtree Apartments  
2990 Trawood Dr.  
El Paso, TX 79936

Sharon Amaya  
*Leasing Agent*  
915/594-8154

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