

Part 2

Demographic Projections



The following is a demographic forecast of the authorized military personnel, civilian personnel, and their associated dependents that will be relocated to Fort Carson between 2007 and 2011. The new troops, civilians, and dependents will arrive at Fort Carson between 2007 and 2011 due to troop movements as directed by Base Realignment and Closure (BRAC), Global Defense Posture Realignment (GDPR), and Army Modular Force (AMF) directives.

It should be noted that this demographic forecast was developed in the spring of 2007 using the best available information at the time. Its purpose was not to serve as an accurate predictor of the actual number of additional military personnel authorized for Fort Carson from fiscal year (FY) 2007 through 2011. Rather, it was developed in order to provide a reasonable estimate and scenario for population growth that could then be used as the basis for projecting impacts in other resource areas such as housing, education, and transportation. As the actual growth attributable to Fort Carson continues to unfold and hard numbers on troop increases become available,

that information will be tracked and used to update these demographic projections as well as impacts in other resource areas.

In fact, the number of additional military personnel authorized for Fort Carson has already changed. In December 2007, the Pentagon announced an additional brigade of approximately 4,900 troops would be added to Fort Carson by 2013. The impact of these additional troops is not assessed in this Plan.

For these reasons the projected increase in military personnel through 2011 used in this document is referred to as the "Expected Growth Scenario". The "Expected Growth Scenario" assumes 11,400 additional troops will be authorized for Fort Carson (see Table 2.1). This number is based on information provided by officials at Fort Carson in early 2007 and will function as the projected total number of additional troops that will be authorized for the installation between 2007 and 2011 for the purposes of this Plan (see Table 2.1).

Table 2.1 - Military Personnel Authorized for Fort Carson

Date	Expected Growth Scenario
New Troops by FY 07	4,700
New Troops by FY 08	100
New Troops by FY 09	5,200
New Troops by FY 10	700
New Troops by FY 11	700
Total Estimated Authorized Military Personnel	11,400

Source: Fort Carson; RKG Associates for the Alternative Growth Scenario.

The overall goal of this analysis is to provide an "end state" as a basis for examining the long-term impacts of Fort Carson's growth on the region. For example, it is important to understand housing impacts at the conclusion of installation growth in order to answer questions such as: "Does the regional homebuilder community have the

capability of building the required number of dwelling units?" "Is there available developable land?" "What type of off-post housing can military personnel afford?"

Data from a survey of off-post housing conducted by Fort Carson in 2005 related to military personnel location indicate roughly 97 percent of personnel lived and worked in El Paso County, with less than 2.5 percent of personnel residing in Pueblo County, and less than 0.5 percent living in Fremont County. The regional housing supply (both current and future real estate development) suggests that the vast majority of housing will remain in El Paso County, specifically Colorado Springs, unincorporated El Paso County (specifically Security and Widefield) and the Fountain area. While Pueblo and Fremont counties will increase their housing supply, unless there is a dramatic change in housing affordability or a change in base commuting patterns, the location of future housing will most likely mirror recent housing trends.

The summary of the scenario for the forecast military personnel and dependents is presented below. For the "Expected Growth Scenario", the total gain in military personnel is estimated to be 11,400, with 21,287 military dependents, 430 civilian personnel, 692 civilian dependents, for a total population increase of 33,810, as presented in Table 2. 2.

which means that for every military personnel, it can be assumed that 1.87 additional dependents would be added to the community. (Please note that the figures presented in tables throughout this section, including multipliers, have been rounded.) If the average multiplier of 2.87 were applied to the "Expected Growth Forecast" with 11,400 troops proposed to be relocated to Fort Carson, this would thus represent a total population of 32,687 ($11,400 \times 2.87 = 32,687$), with 21,287 dependents. For comparative purposes, the multiplier for civilian dependents based on 2000 U.S. Census data is 2.61.

The average multiplier of 2.87 is further refined in order to analyze the incoming troops and dependents in order to assess housing needs and demand for schools and other facilities. Thus, three groups of military personnel have been identified and are presented in Figure 2.1 with their respective percentages of the current Fort Carson personnel.

The first group, "E-1 to E-3" represents the smallest portion of the population (17 percent), and is made up of new recruits and Privates. The second group, "E-4 to E-6" includes mid-level enlisted personnel, but make up 59 percent of the current population of Fort Carson. The third group, "E-7 to E-9, Warrant Officers, and Officers" make up approximately 23 percent of the total population.

Table 2.2 - Projection of New Personnel to Fort Carson – Expected Growth Scenario

	Military Personnel	Military Dependents	Total Military Personnel and Dependents	Civilian Personnel	Civilian Dependents	Total Civilian Personnel and Dependents	Total Population
Number	11,400	21,287	32,687	430	692	1,122	33,810
Multiplier		1.87	2.87			2.61	

Source: RKG Associates, Inc., US Census, and Fort Carson.

The methodology used in this analysis is based on 2006 data provided by Fort Carson, including the existing number of military personnel by rank and paygrade, on-post housing data, off-post housing data, and the Basic Allowance for Housing (BAH) reports.

The key assumption in this demographic information is the dependent multiplier. This multiplier represents the number of dependents one military personnel member will contribute to the community and may consist of a spouse, children, and/or other family member. This multiplier represents an average of dependents, and is further refined by rank and group below. The average multiplier used in this analysis is 2.87,

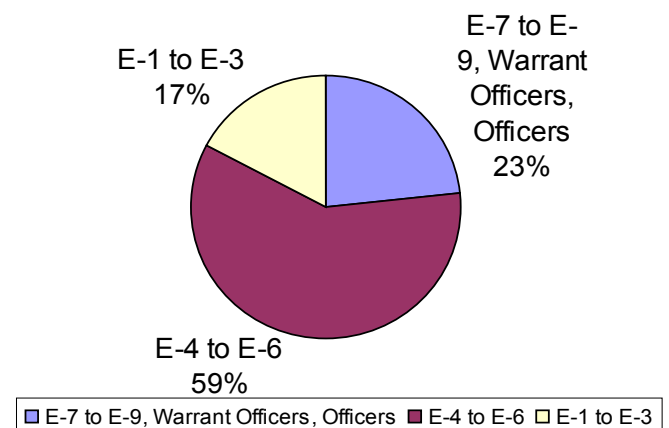


Figure 2.1. Existing Military Personnel by Rank

It is assumed that under the "Expected Growth Scenario", 11,400 troops will be relocated to Fort Carson. The troops will likely break down along similar groups, unless other information is made available that suggests otherwise. Table 2.3 presents the breakdown of troops by rank.

Table 2.3 - Forecast New Military Personnel by Rank

Rank	Expected Growth Scenario	
	Percent of Military Personnel	Allocation of Military Personnel
E7-Officers	23%	2,660
E4-E6	59%	6,769
E1-E3	17%	1,971
Total Military Personnel	100%	11,400

Source: RKG Associates

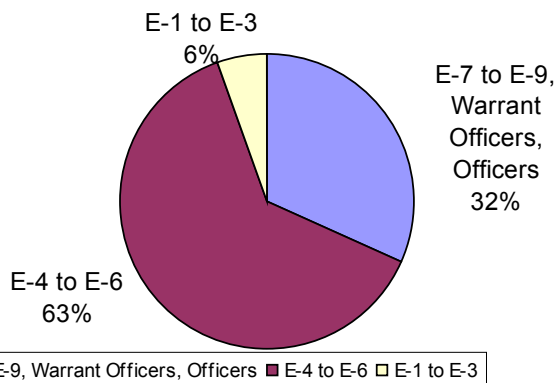


Figure 2.2 - Military Dependents by Rank from Sample Data

Table 2.4 presents the data used to analyze the breakdown of dependents. These breakdowns provide more detail for the allocation of dependents by rank. Thus, "E-7 to E-9s, Warrant Officers and Officers" appear to have dependent

ratios of 2.54, "E-4 to E-6" have dependent ratios of 1.97, and "E-1 to E-3" have much lower dependent ratios of 0.61. These multipliers may be rounded to 2.5, 2.0 and 0.6 in future analysis.

Table 2.4 - Multipliers by Group

Rank	Personnel On-Post		Personnel Receiving BAH		Total Personnel	Percent of Dependents by Rank	Assumed Dependents for Families with Dependents	Percent of Dependents by Rank	Implied Multiplier
	Barracks	On-Post Housing	Personnel W/Out Dependents	Personnel With Dependents					
	Office of Garrison Commander	Directorate of Public Works	Fort Carson BAH Report	Fort Carson BAH Report			Factor provided by RKG Associates		
O-8	0	0	0	0	0	0%	0	0%	
O-7	0	3	0	0	3	0%	9	0%	
O-6	0	10	1	46	57	0%	171	1%	
O-5	0	26	17	160	203	1%	569	2%	
O-4	0	34	40	251	325	2%	872	3%	
O-3	0	95	238	383	716	5%	1,462	5%	
O-2	0	50	144	114	308	2%	502	2%	
O-1	0	25	36	28	89	1%	162	1%	
W-5	0	2	1	4	7	0%	18	0%	
W-4	0	7	1	42	50	0%	150	1%	
W-3	0	25	6	69	100	1%	287	1%	
W-2	0	46	15	99	160	1%	443	2%	
W-1	0	6	5	44	55	0%	153	1%	
E-9	0	20	7	51	78	0%	217	1%	
E-8	0	65	29	227	321	2%	893	3%	
E-7	0	234	86	888	1,208	8%	3,432	12%	
E-7 to E-9, Warrant Officers, Officers	0	648	626	2,406	3,680	23%	9,341	32%	2.54
E-6	0	370	279	1,473	2,122	13%	5,637	19%	
E-5	764	598	294	1,689	3,345	21%	6,995	24%	
E-4	1,812	778	185	1,122	3,897	25%	5,811	20%	
E-4 to E-6	2,575	1,746	758	4,284	9,363	59%	18,442	63%	1.97
E-3	1,185	173	27	202	1,587	10%	1,147	4%	
E-2	567	97	6	50	720	5%	450	2%	
E-1	397	0	0	22	419	3%	67	0%	
E-1 to E-3	2,149	270	33	274	2,726	17%	1,664	6%	0.61
Total	4,725	2,864	1,417	6,964	15,770	100%	29,447	100%	1.87

Source: RKG Associates, Fort Carson As of Spring 2007.

These dependent ratios are then applied to the forecast expansion for the "Expected Growth Scenario" as presented in Table 2.5.

Table 2.5 - Allocation of New Military Personnel and Dependents by Rank

Rank	Percent of Military Personnel	Allocation of Military Personnel	Implied Multiplier	Allocation of Dependents	Total New Military Personnel and Dependents
Expected Growth Scenario					
E7-Officers	23%	2,660	2.54	6,752	9,413
E4-E6	59%	6,769	1.97	13,332	20,101
E1-E3	17%	1,971	0.61	1,203	3,174
Total Military Personnel	100%	11,400	1.87	21,287	32,687

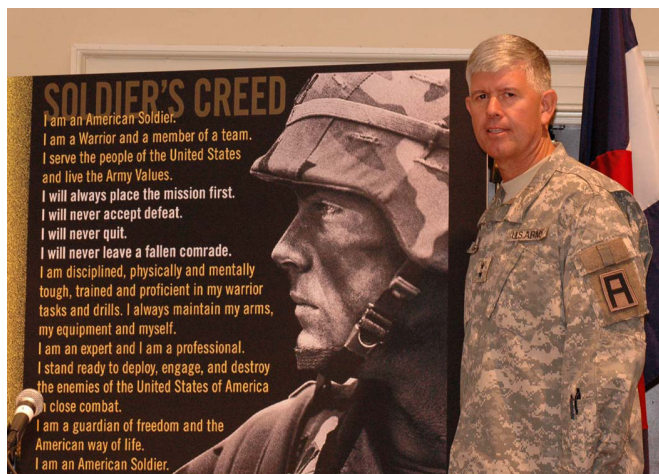
Source: RKG, Associates

Table 2.6 provides an annual breakdown of net military personnel and dependents for the "Expected Growth Scenario".

Table 2.6 - Forecast New Personnel and Dependents by Year – Expected Growth Scenario

Fiscal Year/ Rank	Additional Personnel	Allocation By Rank	Multiplier	Additional Dependents	Total New Residents	Cumulative Personnel	Cumulative Dependents	Cumulative Total	
FY 07	4,700								
E7-Officers		23%	1,097	2.54	2,784	3,881			
E4-E6		59%	2,791	1.97	5,497	8,287			
E1-E3		17%	812	0.61	496	1,308			
Total			4,700		8,776	13,476	4,700	8,776	13,476
FY 08	100								
E7-Officers		23%	23	2.54	59	83			
E4-E6		59%	59	1.97	117	176			
E1-E3		17%	17	0.61	11	28			
Total			100		187	287	4,800	8,963	13,763
FY 09	5,200								
E7-Officers		23%	1,213	2.54	3,080	4,294			
E4-E6		59%	3,088	1.97	6,081	9,169			
E1-E3		17%	899	0.61	549	1,448			
Total			5,200		9,710	14,910	10,000	18,673	28,673
FY 10	700								
E7-Officers		23%	163	2.54	415	578			
E4-E6		59%	416	1.97	819	1,234			
E1-E3		17%	121	0.61	74	195			
Total			700		1,307	2,007	10,700	19,980	30,680
FY 11	700								
E7-Officers		23%	163	2.54	415	578			
E4-E6		59%	416	1.97	819	1,234			
E1-E3		17%	121	0.61	74	195			
Total			700		1,307	2,007	11,400	21,287	32,687
End State	11,400								
E7-Officers			2,660		6,752	9,413			
E4-E6			6,769		13,332	20,101			
E1-E3			1,971		1,203	3,174			
Total			11,400		21,287	32,687			

Source: RKG Associates, Inc. and Fort Carson.



As information related to troop authorization is updated through 2011, the Plan will be monitored and adjusted to examine impacts based on the actual troop population. It is vital that as the troops are authorized for and arrive at Fort Carson, an ongoing informational exchange occur on a quarterly or other consistent basis.

A regional organization working closely with Fort Carson can function as a conduit to provide information to the local and regional community. This type of periodic monitoring will require continued cooperation between military officials at Fort Carson and regional organizations such as the Pikes Peak Area Council of Governments (PPACG).