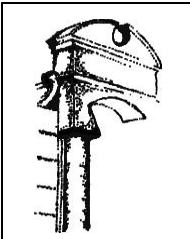


2003 Housing Availability Study



Middle Georgia Regional Development Center

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EXECUTIVE SUMMARY

The Middle Georgia Regional Development Center was requested by the 21st Century Partnership to develop and prepare a report which provided current data on overall housing availability and, in particular, housing available to military personnel within the greater of a 60-minute commute or 20-mile boundary. This report will focus on the housing supply available and within the Basic Allowance for Housing (BAH) provided by the Military based on personnel grade. Specifically, availability of housing was examined in relation to the existing and projected needs of military personnel at Robins Air Force Base (RAFB) by the year 2008. Geographically, the report data is limited to a seven-county study area which includes: Bibb, Crawford, Houston, Jones, Monroe, Peach, and Twiggs.

Ninety-six percent of all housing units located in Houston County are within a fifteen-mile radius of RAFB. The Department of Labor has calculated the average commuting time of Houston County residents to their place of work to be 20 minutes. This demonstrates that virtually all housing in Houston County is easily accessible to RAFB.

Report data was collected between July and October of 2003 with the results being presented in a "stop time" view. Hence, the results, while accurate, cannot be considered absolute since market conditions are never static.

The findings of this report demonstrate that sufficient quantities of affordable, suitable, and available housing units in the study area exist to meet the current and projected demand required by military personnel for two and three-bedroom housing units within the BAH. However, there is a deficiency of four-bedroom housing units in the rental and homeowner markets based on the BAH.

It should be noted that while the BAH covers basic costs, many service members may in fact elect to secure housing where the rents or mortgage payments exceed the BAH. The market area has substantial housing available to address the housing preferences of military personnel where the individual elects to apply resources in excess of the BAH.

It is important to note that both the rental and housing stocks are understated because many units are not listed with professional management or leasing services and, therefore, are difficult to track. Additionally, single-unit apartments such as garages and guesthouses for lease or rent by the owners are more difficult to identify, quantify, and monitor. The effect is understatement of the total number of units that may be available in the market.

Furthermore, the Southern states surpassed all other regions of the country with the lowest homeowner costs between 1990 and 2000 according to the U.S. Census Bureau. Specifically, housing costs in Warner Robins are at 79.1 percent of the national average according to ACCRA's Consumer Price Index data for the fourth quarter of 2003. These low costs provide military personnel more choices to purchase a larger home or homes with more amenities.

INTRODUCTION

The *2003 Housing Availability Study* is an update to the *2000 Housing Availability Report* conducted by the Middle Georgia Regional Development Center at the request of the 21st Century Partnership. This study has been expanded beyond the 2000 study which only addressed Houston County's market; whereas, this study includes Houston, Bibb, Crawford, Jones, Monroe, Peach and Twiggs Counties. These additional counties are all included in the Macon and Warner Robins MSA (Metropolitan Statistical Area).

In this study, the availability of housing in relation to the existing and projected needs of the military personnel at Robins Air Force Base (Robins AFB) is examined. Since there are no comprehensive housing studies conducted in Middle Georgia, much of the analysis is based on the 2000 Census as a benchmark for aggregating comparative results. Census information is also supplemented with building permit data, survey information, and other statistical comparisons from a variety of internet sources. This information was supported by housing data derived from the Houston and Macon Multiple Listing Service (MLS), statistical information provided by the Housing Office at Robins AFB, and phone interviews with apartment complexes and realty companies.

THE HOUSING MARKET AREA

In 1941, the United States Air Force established a military depot in the small community originally known as Wellston, Georgia. This depot grew into Robins Air Force Base, and the community around it became the City of Warner Robins. Robins AFB covers 8,722 acres and is Georgia's largest industrial complex, providing an important economic boost to central Georgia.¹

Robins AFB is located east of the City of Warner Robins in central Georgia, within Houston County. Bibb County, the most populous county in the study area, is to the north of Robins AFB. Twiggs County is located to the east and Peach County to the west of Robins AFB. Crawford, Monroe, and Jones Counties are all located to the north of Robins AFB.

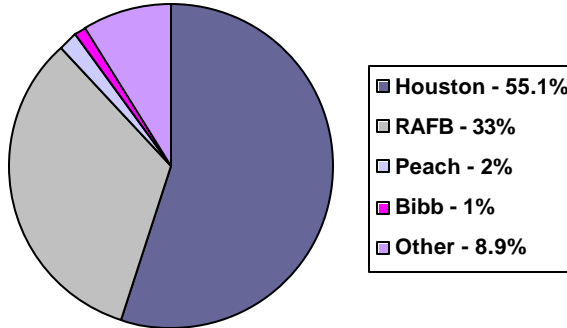
Currently, the Air Force defines the housing market area as the geography in the greater of a 60-minute commute or a 20-mile radius from the Base headquarters building, or a major work center during peak traffic in privately owned vehicles.² This suitable driving time includes an average wait of 15 minutes at the Base access gates. Robins AFB has indicated over 90 percent of military personnel appear to live within 60 minutes of the base. Graph 1 reflects the location and percentage where military personnel live.



Figure 1

This 60-minute commute or 20-mile imaginary boundary would actually include nine counties, but for this study's purpose those counties that have the most significant numbers of military personnel have been used. Even though we have highlighted housing for the entire geographic area within all seven counties, only 11.9% of the personnel have chosen to live in counties other than Houston. Even though Warner Robins and Macon provide the largest population centers in the housing market area, there are other communities which provide viable housing options for military personnel depending on an individual's discretionary income and/or preferences for quality of life issues.

LOCATION OF MILITARY PERSONNEL



Graph 1

personnel depending on an individual's discretionary income and/or preferences for quality of life issues.

METHODOLOGY

For the purpose of clarification in this study, the terms "household" and "housing or housing units" are used in contexts with entirely different meanings. The term "household" is defined as all of the people who occupy a particular housing unit as their residence, and have no other residence elsewhere. The terms "housing and housing unit" are defined as a house, apartment, group of rooms, or single room occupied or intended for occupancy as separate living quarters. All uses of these terms in this study correspond with these definitions.

According to the *Robins Air Force Base 2003-2008 Preliminary Housing Requirements and Market Analysis*, Air Force standards for judging suitability of community housing are based on Department of Defense (DoD) 4165.63 (U.S. Department of Defense, 1993) as interpreted by the Air Force. Housing must be within a reasonable commuting distance of the base and not in an area designated by the base commander as unacceptable for health or safety reasons. The housing must be no more expensive than Basic Allowance for Housing (BAH) amount set annually by the DoD. Housing must meet minimum standards; however, size alone is generally not a sufficient consideration to make housing unsuitable.

The January 2004 BAH rates as published by the DoD were used throughout this study. According to the DoD, BAH was not originally intended to cover all of a service member's housing costs nor was it intended to cover mortgage costs. It was initially intended to cover 80% of the housing costs. The percentage of coverage has over time been increased with DOD's stated goal of reaching 100% coverage by 2005. This study only addresses how much rental cost and mortgage costs can be covered within a service member BAH. It does not take into consideration additional resources which the individual may elect to apply to their housing cost.

The study area for this report is the area encompassed with the Macon and Warner Robins Metropolitan Statistical Area. The general concept of a metropolitan area (MA) is one of a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that nucleus.

Each MA must contain either a place with a minimum population of 50,000 or a Census Bureau-defined urbanized area and a total MA population of at least 100,000. A MA comprises one or more counties. A MA may also include one or more outlying counties that have close economic and social relationships with the central county. An outlying county must have a specified level of commuting to the central counties and also must meet certain standards regarding metropolitan character, such as population density, urban population, and population growth.

Suitable housing is considered to be single-family detached units, duplexes, apartments, townhouses, and condominiums in good condition and repair. Thus, this study information would have excluded mobile or manufactured homes, boats, recreational vehicles and vans, furnished units, conventional public housing, age-restricted facilities, substandard units, and seasonal units.

This data was collected over a four-month period from July – October 2003 with the results being captured in a “stop time” view. Hence, the results cannot be considered absolute since market conditions are never static. This study is not intended as a substitute for specific market analysis, which should be undertaken by persons or firms considering investments or undertaking construction or development projects.

Information on housing units for sale was obtained through Real Estate Listing Services. Information such as price, location, number of bedrooms, etc., can be readily obtained from the listing services in both Houston and Bibb Counties to cover the seven-county area. Projected housing needs were obtained from the *Robins Air Force Base 2003-2008 Preliminary Housing Requirements and Market Analysis Report* prepared by Parsons Corporation (August 2003) and 2003 State Profiles by Woods & Poole Economics, Inc.

Rental unit data was collected via telephone surveys with results provided either verbally or in writing. Although efforts were made to contact as many apartment complexes and property managers as is commonly advertised, responses were not 100 percent; therefore, this study is limited to those that were willing to participate.

The anticipated housing need for 2008 was provided by Robins Air Force Base Family Housing Office in an aggregated format. Historical analysis was applied to these numbers based on historical data to estimate the number of units for rental occupancy and home ownership.

Special thanks must be given to Houston and Bibb Counties' Multiple Listing Services (MLS) and the Apartment Guide. This report is not intended as a substitute for specific market analysis, which should be undertaken by persons or firms considering investments or undertaking construction or development projects.

POPULATION

The number of residents per county is one of the primary indicators of housing needs. Similarly, the population change, gaining or losing residents, is a gauge for future housing demand. The total population for the combined counties used in this study is represented in Table 1 below.

POPULATION BY COUNTY				POPULATION CHANGE	
Location	*1990	*2000	**2010	1990 - 2000	2000 - 2010
HOUSTON	89,208	110,765	128,220	24.16%	15.76%
BIBB	150,134	153,887	155,680	2.50%	1.17%
PEACH	21,189	23,668	26,200	11.70%	10.70%
JONES	20,739	23,639	27,290	13.98%	15.44%
MONROE	17,113	21,757	24,880	27.14%	14.35%
CRAWFORD	8,991	12,495	13,890	38.97%	11.16%
TWIGGS	9,806	10,590	10,710	8.00%	1.13%
TOTAL	317,180	356,801	386,870		

Source: *U.S. Census Bureau 1990 and 2000, **Estimates from Woods & Poole Economics, Inc. (State Profiles 2003)

Table 1

Of the cities located in the housing market area, Macon and Warner Robins currently have the largest populations. As this table demonstrates, Crawford (38.97%), Monroe (27.14%), and Houston (24.16%) Counties have experienced the largest percentage of growth over the last ten years. Houston County, the second most populous county in the study area in 2000, is projected to continue its growth pattern into 2010 and rank 16th in population change among all 159 counties in Georgia.³

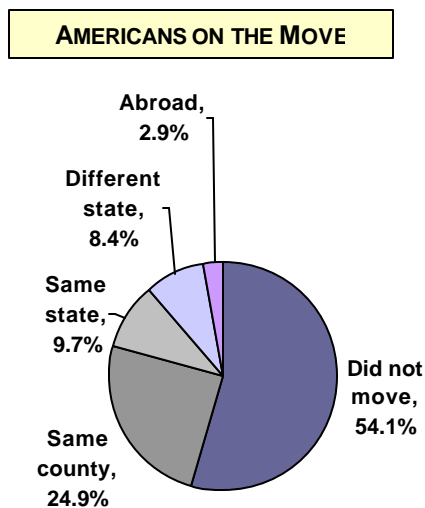
POPULATION ESTIMATES					
	Census 2000	July 1, 2000	July 1, 2001	July 1, 2002	July 1, 2003
HOUSTON	110,765	111,309	113,544	116,987	120,434
BIBB	153,887	153,811	153,811	154,384	154,287
PEACH	23,668	23,806	23,947	24,093	24,320
JONES	23,639	23,693	24,165	24,778	25,472
MONROE	21,757	21,856	22,068	22,638	23,244
CRAWFORD	12,495	12,455	12,498	12,560	12,553
TWIGGS	10,590	10,592	10,598	10,486	10,466
GEORGIA	8,186,453	8,230,094	8,394,795	8,544,005	8,684,715
USA	281,421,906	282,177,754	285,093,813	287,973,924	290,809,777

Source: <http://eire.census.gov/popest/data/counties/CO-EST2003-01.php>

Table 2

ON THE MOVE

According to a report by the Census Bureau, between 1995 and 2000 almost half of the U.S. population moved to a different home. Nearly one-quarter of the country's 262.4 million people age five and older moved to a new address in the same county. The Bureau's analysis evaluated responses from the 2000 head count, showed the South had the highest level of in-migration – 1.8 million more people moved into the region than out. States in the mid-west, mid-Atlantic, and Deep South had the highest proportion of people living in the state in which they were born, including people who moved away and then returned. Communities near military bases and college towns have the highest proportion of transient residents.



Graph 2

According to the Census Bureau, during the 1990s Bibb County usually had more people moving out of the county than it had moving into the county. During the past five years, the largest numbers of people leaving Bibb County were moving into the surrounding counties. Whereas, many people moved into Houston County from other states and countries. Often their former address was associated with a military base address.

HOUSING ASSESSMENT

Housing markets are dynamic in nature, with supply and demand driven by multiple factors. Preferences are made by the availability of housing including age, condition, and affordability. Another factor affecting the availability of housing is the absorption rate which correlates to shifts of availability.

It is the policy of the Department of Defense to promote “excellent housing facilities for military members, their families, generally reflecting contemporary living standards.” For the purpose of this study boats, recreational vehicles, vans, tents, mobile homes, and those structures being used for nonresidential purposes such as an office, or a store, are not considered suitable by Air Force standards and have been excluded.

According to the U.S. Census, the total number of housing units in the study area has increased by 16 percent from 1990-2000 (see Table 3). With the

largest percentage of growth in Houston, Monroe, and Crawford Counties, this correlates to the population increase in these areas. Utilizing these Census figures of housing units as a base and the number of permits issued, a better picture of the actual number of units available can be portrayed.

HOUSING UNITS 1990 AND 2000				
	1990	2000	Increase	% Change
HOUSTON	30,294	38,753	8,459	28%
BIBB	58,666	64,971	6,305	11%
PEACH	6,157	7,283	1,126	18%
JONES	5,291	6,348	1,057	20%
MONROE	4,831	6,235	1,404	30%
CRAWFORD	2,107	2,826	719	34%
TWIGGS	2,376	2,613	237	10%
TOTAL	111,712	129,029	17,317	16%

Source: U.S. Census 1990 and 2000

Table 3

Houston County experienced the most construction activity in the study area with 4,558 permits issued over the past three years. It is predicted that an additional 52 apartments will soon be permitted in the Warner Robins area. Bibb County experienced the second largest amount of permit activity and is planning for an additional 224-unit apartment complex.

HOUSING PERMITS ISSUED BY COUNTY (2001 – 2003)					
	2000 Baseline Housing Units	Permits issued per year			TOTAL (housing units + permits)
		2001	2002	2003*	
HOUSTON	38,753	2,050	1,411	1,097	43,311
BIBB	64,971	531	586	858	66,946
PEACH	7,283	135	123	86	7,627
JONES	6,348	249	254	169	7,020
MONROE	6,235	143	12	140	6,530
CRAWFORD	2,826	145	162	48	3,181
TWIGGS	2,613	18	26	32	2,689
TOTAL	129,029	3,271	2,574	2,430	137,304

*Includes permits issued Jan. through Aug. 2003.

Source: U.S. Census 2000 housing structures; local govt building permit offices

Table 4

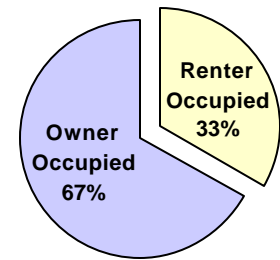
Table 5 and Graph 3 demonstrate those individuals in the counties surrounding Robins AFB have traditionally chosen owner-occupied, single-family homes over rental units. In some of the more rural areas, mobile homes have become more prevalent than traditional apartment complexes which are less expensive to own than a single-family dwelling, but still allow the element of home ownership. This also accounts for the lessened availability of rental units in these areas.

PROFILE OF HOUSING BY COUNTY (CENSUS 2000)				
	Total Housing Units	Total Occupied Housing Units	% Owner Occupied	% Renter Occupied
HOUSTON	44,509	40,911	68%	32%
BIBB	67,194	59,667	59%	41%
PEACH	9,093	8,436	68%	32%
JONES	9,272	8,659	86%	14%
MONROE	8,425	7,719	80%	20%
CRAWFORD	4,872	4,461	85%	15%
TWIGGS	4,291	3,832	83%	17%

Source: U.S. Census Bureau, Census 2000 & National Low Income Housing Coalition

Table 5

Study Area Overall Occupancy

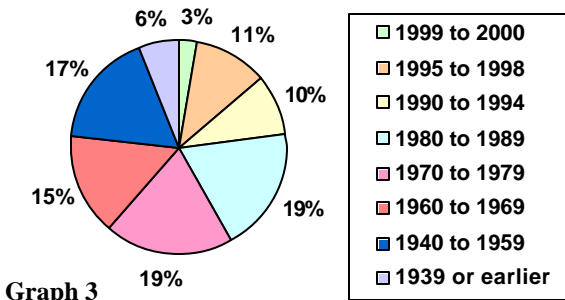


Graph 2

AGE AND CONDITION OF HOUSING

As indicated by the 2000 Census, the development trends for the study area show the majority of housing units (includes all structures) were built in the 1970s and 1980s (see Graph 3). The median years these structures were built are: 1977 in Houston, Monroe, and Peach Counties and 1971 in Bibb County. Except for Bibb County, at least 66 percent of construction has occurred since 1970, making a large percentage of housing only 30 years old – this should be very acceptable for military personnel choosing to live within this area.

Age of Housing in Study Area



Graph 3

The City of Warner Robins conducted a windshield survey of properties in February 2000 (survey will be updated in 2005) within neighborhoods just west of Robins AFB, it was estimated that 17 percent of the city's units in that area, were substandard. The

definition of "substandard" in this case referred to units which do not meet local, state, or federal codes for existing structures and which require a minimum of \$2,000 in work to meet the codes.⁴

Attributes of substandard housing vary and can include structural problems, faulty wiring, leaking roofs, and lack of heat, lack of plumbing facilities, and a host of other problems. As can be seen in Table 6, on a broader scale, the condition of housing has improved significantly as those units that lack complete plumbing or complete kitchen facilities has dropped from 1990 – 2000. In each of the seven counties in the housing market area, dramatic improvements can be observed, especially in Crawford and Jones Counties.

While the proportion of the region's housing stock has improved over time in terms of the adequacy of plumbing, there is neither a precise standard nor any agency that collectively measures and inventories substandard housing in this region. In examining the age of structures and the value of homes in the study area, it is estimated that less than 30 percent of the current housing market is unsuitable by Air Force standards.

PHYSICAL CHARACTERISTICS OF HOUSING				
	Units Lacking Complete Plumbing Facilities		Units Lacking Complete Kitchen Facilities	
	1990	2000	1990	2000
HOUSTON	175	95	199	78
BIBB	333	319	528	303
PEACH	134	55	102	49
JONES	190	19	100	12
MONROE	181	91	132	67
CRAWFORD	187	27	132	17
TWIGGS	238	80	151	54

Source: U.S. Census 1990 & 2000 Housing Characteristics

Table 6

A base and community initiated effort to improve housing availability was established through the privatized housing development in an older section of Warner Robins, two miles from the Robins AFB main entrance. In the fourth quarter of 2000 and the beginning of 2001, Air Force officials and a developer joined together and signed a contract to build and renovate 670 homes in the Robins West housing area. The primary market for the four planned developments that make up Huntington Village is for active duty, accompanied military members. The renovated units include three and four-bedroom homes, while the new units include two, three, and four-bedroom homes for rent.

COST OF HOMES

According to a corporate survey by *Area Development Magazine*, housing availability and housing costs rank number four and five respectively under quality of life factors when companies look at various sites to locate or relocate. Corporate executives want to ensure there is available and affordable housing for all compensation levels.⁵

In determining the availability of housing for military personnel in Houston and surrounding counties, the buying power of one dollar within the MSA must be understood. A \$100 salary in Warner Robins, Georgia (where the highest percentages of Robins AFB employees live) equates to \$142 in Atlanta, Georgia.⁶ In comparison with national housing costs in metropolitan areas, housing costs in Warner Robins are at 79.1 percent of the national average according to ACCRA's Consumer Price Index data for the fourth quarter of 2003.

The Executive Director for the Macon Multiple Listing Service states that the average price of a home sold during the past twelve months in the Macon geographic area was \$127,000. The Director said that size, age, and location of houses in the \$127,000 price range can vary greatly. For example, a house for \$127,500 in Bibb County's North Highland subdivision will buy a two-story, 3,100-

square foot three-bedroom, three-bath house built on a city lot 27 years ago. The house has a fireplace, central air and heat, one-car garage, finished basement and a storage building.

By comparison, the same money will buy a 1,300 square-foot newly constructed house in Chapman Place subdivision in Jones County with three bedrooms, two baths, on three-fourths acre. The house also has a fireplace, central heat, a two-car garage and a deck.

In Houston County, two houses were listed that came close to the \$127,000 benchmark. Both were single-level homes built in 2003 with three bedrooms, two baths with about 1,600 square feet. Both included a two-car garage, central air and heat, a great room and public water and sewer service. The average price of a house in Houston County is \$132,200, according to the Central Georgia Multiple Listing Service.⁵

ABSORPTION RATE OF HOUSING

The absorption rate is the rate at which homes are purchased based on shifts in available housing units, changes in population, and changes in individuals per household over time. With a 24 percent increase in population for Houston County from 1990 - 2000, the demand for housing facilities has increased rapidly (see Table 1). Houston County averaged constructing 846 new housing units each year during that time period (see Table 3). To keep up with the population growth, 813 new units must be constructed each year. This is derived by dividing Houston County's population growth by the average household size of 2.65.

In comparing the 832 new housing units that were constructed in Houston County to an average net increase of 813 additional households per year, we can determine the absorption rate of new housing in Houston County (see Appendix A). By dividing 813 households by 832 new housing units, we find that 97.7 percent of all new housing was absorbed due to population growth and shift. This indicates that an average of 2.3 percent of all the new housing construction is carried over in the housing stock each year.

Conversely, Bibb County has experienced a 2.5 percent increase in population between the years 1990 and 2000. Within Bibb County 615 new housing units were constructed each year. The average net increase of households during the decade was 151 households per year. Therefore, Bibb County experienced a 24.5 percent absorption rate with 75.5 percent of all new construction remaining in the housing market.

Jones and Peach Counties have similar absorption rates to Houston County as over 90 percent of all new housing is absorbed each year. Jones County has 6.9 percent of all new housing construction carried over, and Peach has 4.2 percent. Crawford, Monroe and Twiggs have experienced approximately 100% absorption of all newly constructed homes in the housing market.

VACANCY RATE

Nationally, vacancy rates in the second quarter for 2003 were 9.6 percent in rental housing and 1.7 percent in homeowner housing according to the Census Bureau. Among regions, the rental vacancy rate is highest in the South at 12.3 percent, and 2.1 percent for homeowner vacancy rates. In June 2003, the Macon/Warner Robins Apartment Guide reported occupancy rates at or slightly below the average national occupancy rate.

MILITARY HOUSING NEEDS ASSESSMENT

A military member on permanent duty within the 50 United States, who is not furnished with government housing, is eligible for BAH, based on the member's dependency status at the permanent duty ZIP Code. In general, the amount of BAH a military member receives depends on their location, pay grade, and whether they have dependents. Therefore, the military member receives BAH for the location where they are assigned, not where they live.

HOUSING ALLOWANCE (BAH)		
Pay Grade	Without Dependents	With Dependents
O7+	\$942.00	\$1,077.00
O6	\$923.00	\$1,064.00
O5	\$905.00	\$1,056.00
O4	\$894.00	\$982.00
O3	\$837.00	\$922.00
O2	\$784.00	\$872.00
O1	\$695.00	\$807.00
E9	\$824.00	\$935.00
E8	\$809.00	\$911.00
E7	\$753.00	\$892.00
E6	\$703.00	\$874.00
E5	\$658.00	\$803.00
E1 TO E4	\$582.00	\$749.00

Source: www.dod.mil/militarypay/pay/bah: 7/2/2003

Table 7

As Table 7 demonstrates, the housing allowance for a military member at or above the rank O7 receives \$942 if they have no dependents and \$1077 with dependents. While an E1 – E4 receives \$582 per month if they do not have dependents, those with dependents receive \$749 per month.

Tables 8 and 9 highlight the military needs based on rank and bedroom entitlements as provided by Robins Air Force Base. Bedroom entitlements are assigned by rank and family size. One bedroom is allocated per dependent child; junior enlisted families require a minimum of a two-bedroom unit, while families of field grade officers require a

minimum of a three-bedroom unit and senior officers require a minimum of a four-bedroom unit. It should be noted that E4 personnel with over three years of service are no longer required to live on-base.⁷

According to Robins AFB, it is anticipated that 3,232 accompanied personnel and 1,056 unaccompanied personnel assigned to Robins AFB will be seeking housing in the study area in 2008.⁵ With historical analysis, these numbers were broken down into rental and homeowners. This breakdown demonstrated that 1,794 accompanied personnel would rent, and an estimated 1,438 would own a home; whereas, 920 unaccompanied personnel would rent and 136 own a housing unit. These numbers are based on the movement of military personnel currently located on base into the private sector due to the military's goal of maintaining only units on base.

2008 WITHOUT DEPENDENTS

HOMEOWNER NEEDS					RENTAL NEEDS				
Pay Grade	Number of Bedrooms			Total	Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7+	0	0	0	0	O7+	0	0	0	0
O6	0	0	3	3	O6	0	0	4	4
O5	0	0	6	6	O5	0	0	7	7
O4	0	0	6	6	O4	0	0	10	10
O3	0	57	0	57	O3	0	38	0	38
O2	0	32	0	32	O2	0	5	0	5
O1	0	42	0	42	O1	0	3	0	3
Officers	0	131	15	146	Officers	0	46	21	67
E9	0	2	0	2	E9	0	2	0	2
E8	0	4	0	4	E8	0	3	0	3
E7	0	30	0	30	E7	0	7	0	7
E6	0	52	0	52	E6	0	19	0	19
E5	230	0	0	230	E5	30	0	0	30
E1 to E4	456	0	0	456	E1 to E4	8	0	0	8
Enlisted	686	88	0	774	Enlisted	38	31	0	69
Total	686	219	15	920	Total	38	77	21	136

Source: RAFB 2003-2008 Preliminary Housing Requirements and Market Analysis **Table 8**

2008 WITH DEPENDENTS

HOMEOWNER NEEDS					RENTAL NEEDS				
Pay Grade	Number of Bedrooms			Total	Pay Grade	Number of Bedrooms			Total
	Two	Three	Four+			Two	Three	Four+	
O7+	0	0	1	1	O7+	0	0	0	0
O6	0	0	35	35	O6	0	0	27	27
O5	0	94	9	103	O5	0	27	17	44
O4	0	108	30	138	O4	0	22	20	42
O3	90	18	19	127	O3	35	52	21	108
O2	14	2	3	19	O2	12	11	4	27
O1	7	1	1	9	O1	13	8	5	26
Officers	111	223	98	432	Officers	60	120	94	274
E9	0	53	12	65	E9	0	15	2	17
E8	0	76	11	87	E8	0	36	20	56
E7	0	223	36	259	E7	0	105	61	166
E6	98	103	49	250	E6	147	92	97	336
E5	172	68	0	240	E5	248	119	76	443
E1 to E4	98	7	0	105	E1 to E4	394	84	24	502
Enlisted	368	530	108	1006	Enlisted	789	451	280	1520
Total	479	753	206	1438	Total	849	571	374	1794

Source: RAFB 2003-2008 Preliminary Housing Requirements and Market Analysis **Table 9**

HOUSING AVAILABILITY

In order to determine the availability of housing, the Base's projected needs were compared to the quantity of suitable and available housing and the BAH for grades E1 to O7+ of personnel stationed at Robins AFB. The data is presented in chart and table form to permit quick examination of the number of units available to any particular military personnel for the BAH provided by the DoD. Additional resources available to any individual may result in a decision to acquire more or less expensive housing based on individual preferences.

For the purpose of this study, those properties comprised of 50 percent or less income-based, Project Based Section 8, or Rural Rental housing were included as available and suitable rental units. The income limits for affordable housing compared to the military basic pay demonstrates that those personnel in E1 through E5 with up to 26 years of service are within the income limits; E6s with 10 years or less, and E7s with 4 years or less are eligible as well.⁸ The overall subsidized units in the study area included: 286 units in Houston County, 781 units in Bibb County, and an aggregated total of 324 for Crawford, Jones, Peach and Monroe Counties.

The following sections present the survey results for the needs of military personnel in 2008 in both rental and owner-occupied housing units, broken out by dependents and number of bedrooms.

HOUSING UNITS FOR RENT

The survey of housing conducted in the study area from July through October 2003 sampled 5,095 apartment units in Houston County, 7,830 apartment units in Bibb County, and a sampling of 986 from the other five counties (see Appendix B for a complete listing).

Apartment complexes were surveyed to determine the number of bedrooms within a unit and rent charge to ascertain whether the specified rent was less than or equal to the BAH for military personnel. Of the 58 complexes identified in Houston County, 79 percent responded to survey inquiries, while 86 percent of Bibb County's 105 complexes responded. Survey results demonstrated there are a larger number of one and two-bedroom apartments available than three and four-bedroom apartments.

Also included in the units available for rent are homes located in Huntington Chase, the privatized housing complex located just outside Robins AFB. Huntington Chase has a total of 670 two, three and four-bedroom homes available to military personnel. These numbers have been aggregated into the total available rental units.

Survey results indicated that in Houston County there was a 7.22 percent overall vacancy rate as 347 sample units were vacant and for rent. Whereas preliminary 2000 Census data indicated an overall vacancy rate within Houston County of 11.2 percent for rental properties. This difference could be attributed to those units that did not respond to the survey. In Bibb County, an 11.92 percent vacancy rate was identified as 834 sample units were vacant and for rent and the other five counties had only eight vacancies.

For markets experiencing rapid growth, these numbers are well within an acceptable range due to frequent turnover. Military communities and metropolitan cities tend to have higher vacancy rates, due in part to the need for available housing for an influx of new residents. Within these unique housing markets, a vacancy rate between 6.0 percent and 9.0 percent is desirable from the consumer side as it ensures available housing in the market and helps moderate cost.

Furthermore, the multi-unit rental housing stock is understated because some units are not listed with professional management or leasing services and, therefore, is difficult to track. Additionally, single-unit apartments such as garages and guesthouses for lease or rent by the owners are more difficult to identify, quantify, and monitor. The effect is understatement of the total number of units that may be available in the market.

Rental Availability within Study Area

Without Dependents					With Dependents				
	BAH	Two	Three	Four		BAH	Two	Three	Four
O1	\$695	564	94	4	O1	\$ 807	716	133	12
O2	\$784	715	120	8	O2	\$ 872	726	145	13
O3	\$837	723	139	13	O3	\$ 922	729	160	15
O4	\$894	729	159	13	O4	\$ 982	729	168	15
O5	\$905	729	160	13	O5	\$1,056	736	168	15
O6	\$923	729	160	15	O6	\$1,064	736	168	15
O7	\$942	729	160	15	O7	\$1,077	736	168	15
E1-E4	\$582	410	56	0	E1-E4	\$ 749	642	113	7
E5	\$658	516	82	0	E5	\$ 803	716	133	12
E6	\$703	569	96	4	E6	\$ 874	726	145	13
E7	\$753	644	114	8	E7	\$ 892	729	159	13
E8	\$809	716	133	12	E8	\$ 911	729	160	13
E9	\$824	719	137	12	E9	\$ 935	729	160	15

Table 10

BREAKDOWN OF RENTAL NEED VS. AVAILABILITY

At the time of the survey, there were a total of 1,187 units available for rent. One thousand one hundred and sixty-eight of these units were apartments, and 21 units were located in Huntington Chase. Data indicates the greatest need for rental units is between grades E1 to E5 for military personnel with families. According to survey data, there are currently 598 rental units available to meet the identified demand of 207 rental units needed by grades E1 to E5 with dependents in 2008.

Further analysis of the numbers indicate there will be an overall need for 113 two-bedroom rental units in 2008, while survey results demonstrate there are currently 516 units vacant to meet the expected need. There is an expected need for 111 three-bedroom rental units while survey results demonstrate there are currently 160 three-bedroom units available. Survey results indicate a shortfall in the available four-bedroom units to meet the anticipated need in 2008. There are 83 four-bedroom units projected to be needed compared to the 15 four-bedroom units which were available.

Change between 2003 and 2008 Need Rental - Without Dependents Need vs. Availability						
	Two-Bedroom		Three-Bedroom		Four-Bedroom	
	Need	Available	Need	Available	Need	Available
O1	0	564	0	94	0	4
O2	0	715	0	120	0	8
O3	0	723	-2	139	0	13
O4	0	729	0	159	0	13
O5	0	729	0	160	0	13
O6	0	729	0	160	0	15
O7	0	729	0	160	0	15
E1-E4	53	410	0	56	0	0
E5	-2	516	0	82	0	0
E6	0	569	0	96	0	4
E7	0	644	-1	114	0	8
E8	0	716	-1	133	0	12
E9	0	719	0	137	0	12

Table 11

Change between 2003 and 2008 Need Rental - With Dependents Need vs. Availability						
	Two-Bedroom		Three-Bedroom		Four-Bedroom	
	Need	Available	Need	Available	Need	Available
O1	-1	564	4	94	2	4
O2	0	715	5	120	1	8
O3	-1	723	11	139	3	13
O4	0	729	0	159	2	13
O5	0	729	0	160	4	13
O6	0	729	0	160	3	15
O7	0	729	0	160	0	15
E1-E4	-15	410	37	56	16	0
E5	49	516	27	82	33	0
E6	30	569	14	96	21	4
E7	0	644	9	114	10	8
E8	0	716	3	133	3	12
E9	0	719	1	137	0	12

Table 12

HOUSING UNITS FOR SALE

Monthly payment estimates were made based on prevailing interest rates, insurance averages, and estimates (See Table 13). For purposes of the study, several mortgage brokers were interviewed and concluded that a 5 percent down payment was the average for this area. Down payments can vary depending on the lending institution and an individual's credit. Information and analysis was also conducted on an individual choosing a VA loan. Various mortgage companies confirmed lower ranking personnel often choose a VA loan to take advantage of 100 percent financing. Whereas, higher ranking officers tend to use both options of financing.

HOUSING MORTGAGE DATA	
Years Financed	30 years
Interest Rate (APR)	6.00%
One-Time Costs	
Closing Costs	3.00%
Down Payment	5.00%
Recurring Costs	
Average Tax Rate	0.10%
Mortgage Insurance	0.50%
Homeowners Insurance	0.20%

Table 13

The Southern states surpassed all other regions of the country with the lowest homeowner costs between 1990 and 2000 according to the U.S. Census Bureau. Housing costs are significantly below the state average in the seven counties providing military personnel more choices to purchase a larger or homes with more amenities.

Tables 14 and 15 compare the availability of housing based on the above criteria for individuals choosing a VA loan and a Conventional loan. The results demonstrate that even though an individual may qualify to purchase a house for less upfront by using a VA loan, the amount of home that individual can afford is less. Due to the increased portion being financed under a VA loan, an O-7 without dependents could afford a house in the \$124,000 range using conventional financing, whereas using a VA loan would only make a house in the \$105,000 range affordable within the BAH. It is beneficial to have both options available to military personnel offering flexibility and the opportunity to become a homeowner.

**HOUSING AVAILABILITY WITHIN STUDY AREA
CONVENTIONAL LENDING**

HOUSING AVAILABILITY WITHIN STUDY AREA WITHOUT DEPENDENTS				
Rank		2 BR	3 BR	4BR+
O1	<=91,000	34	274	25
O2	<=103,000	40	469	46
O3	<=110,000	46	568	52
O4	<=117,000	46	625	63
O5	<=119,000	46	639	63
O6	<=121,000	46	653	74
O7	<=124,000	46	672	77
E1 – E4	<=76,000	15	125	9
E5	<=86,000	27	221	21
E6	<=92,000	36	283	28
E7	<=99,000	39	412	40
E8	<=106,000	42	511	47
E9	<=108,000	43	531	48

HOUSING AVAILABILITY WITHIN STUDY AREA WITH DEPENDENTS				
Rank		2 BR	3 BR	4BR+
O1	<=106,000	42	511	47
O2	<=114,000	46	602	55
O3	<=121,000	46	653	74
O4	<=129,000	46	716	87
O5	<=139,000	48	777	111
O6	<=140,000	48	797	121
O7	<=142,000	49	808	122
E1 - E4	<=98000	39	390	40
E5	<=105,000	42	501	47
E6	<=115,000	46	618	59
E7	<=117,000	46	625	63
E8	<=119,000	46	639	63
E9	<=123,000	46	667	76

Table 14

**HOUSING AVAILABILITY WITHIN STUDY AREA
VA**

HOUSING AVAILABILITY WITHIN STUDY AREA WITHOUT DEPENDENTS				
Rank		2 BR	3 BR	4BR+
O1	<=\$78,000	18	137	11
O2	<=\$88,000	30	234	24
O3	<=\$93,000	36	295	28
O4	<=\$100,000	40	440	44
O5	<=\$101,000	40	441	44
O6	<=\$103,000	40	469	46
O7	<=\$105,000	42	501	47
E1 – E4	<=\$65,000	0	12	2
E5	<=\$73,000	12	65	6
E6	<=\$78,000	15	117	9
E7	<=\$84,000	20	156	17
E8	<=\$90,000	29	230	23
E9	<=\$92,000	35	273	26

HOUSING AVAILABILITY WITHIN STUDY AREA WITH DEPENDENTS				
Rank		2 BR	3 BR	4BR+
O1	<=90,000	34	269	25
O2	<=97,000	39	377	40
O3	<=103,000	40	469	46
O4	<=109,000	43	542	49
O5	<=117,000	46	625	63
O6	<=118,000	46	632	63
O7	<=120,000	46	652	74
E1 – E4	<=83000	19	188	17
E5	<=89,000	30	242	24
E6	<=97,000	39	377	40
E7	<=99,000	39	412	40
E8	<=101,000	40	441	44
E9	<=104,000	40	480	46

Table 15

VA Loan vs. Conventional Loan

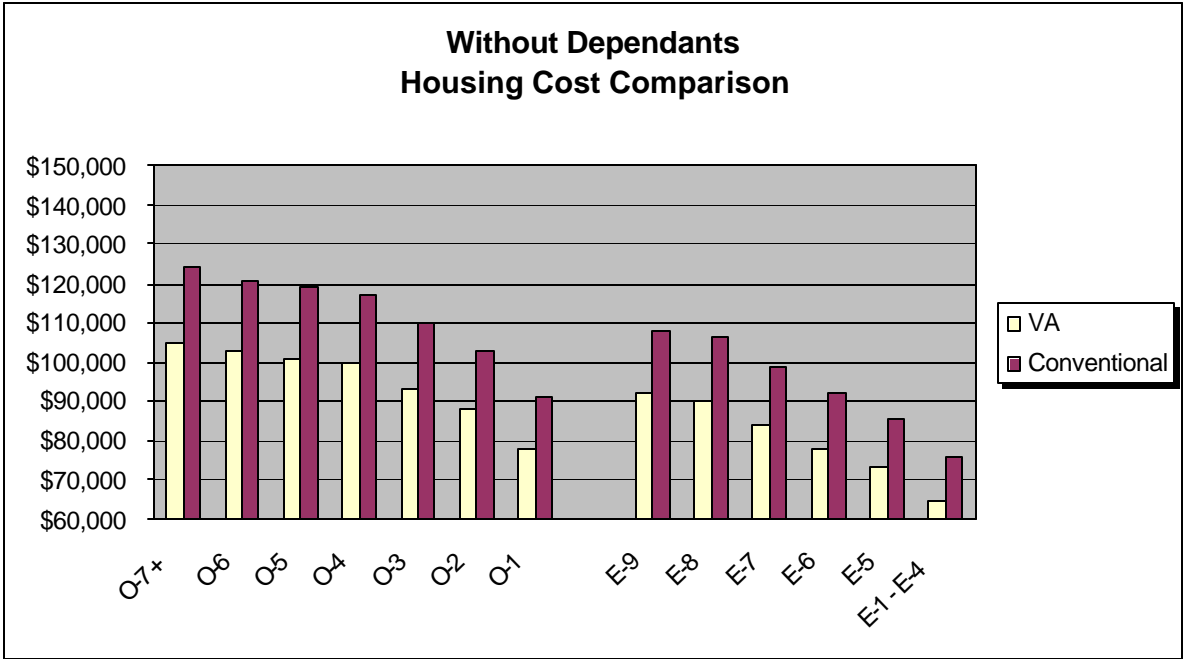


Chart 2

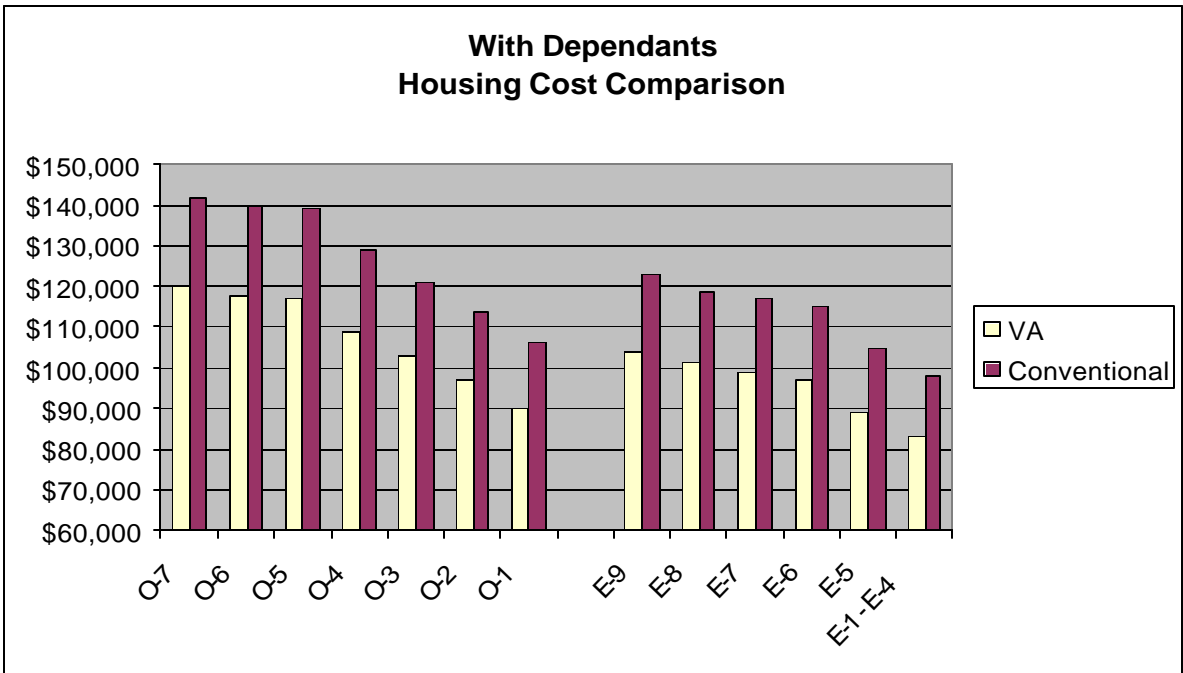
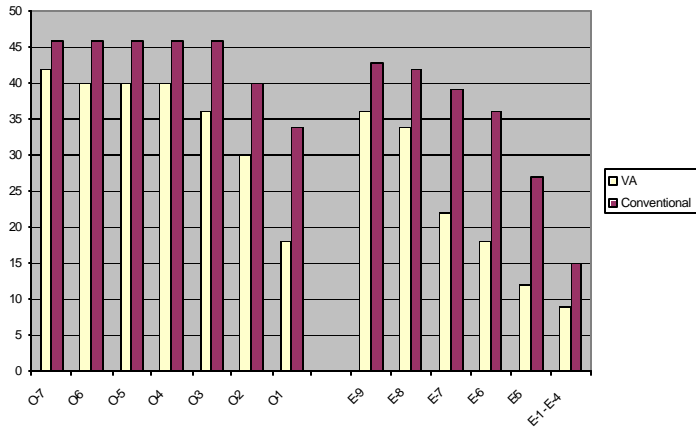


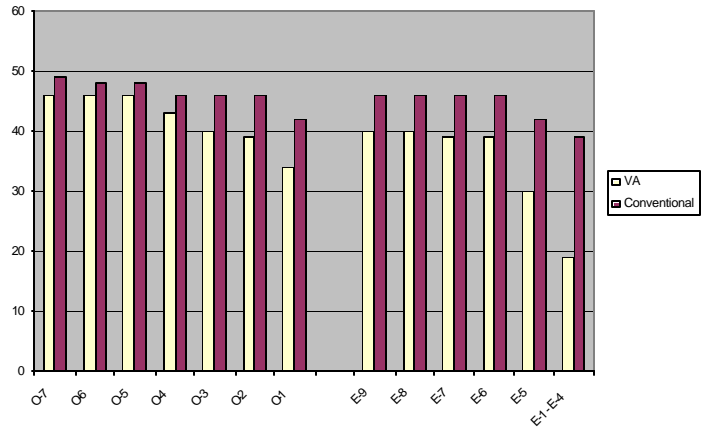
Chart 3

Bedroom Availability VA vs. Conventional

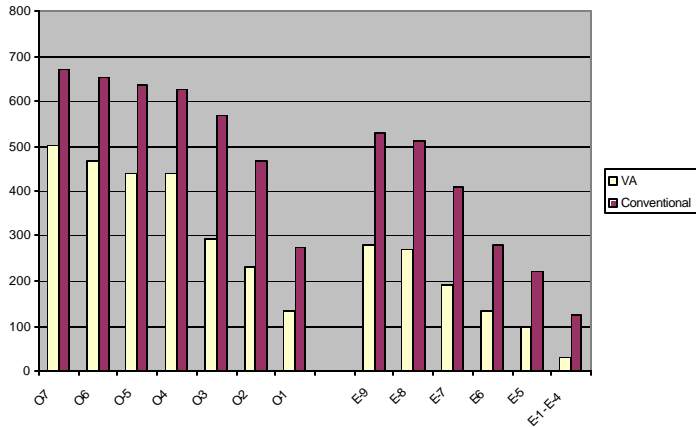
**2-Bedroom Availability
Without Dependents**



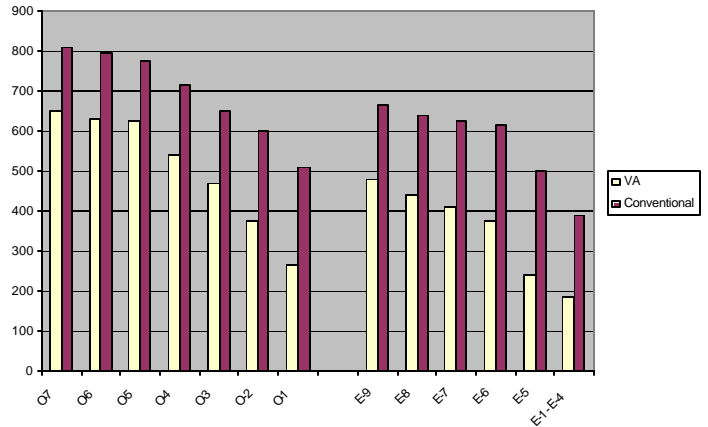
**2-Bedroom Availability
With Dependents**



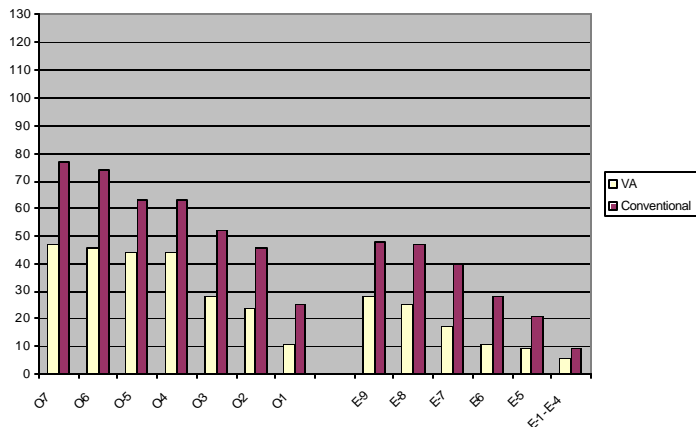
**3-Bedroom Availability
Without Dependents**



**3-Bedroom Availability
With Dependents**



**4-Bedroom Availability
Without Dependents**



**4-Bedroom Availability
With Dependents**

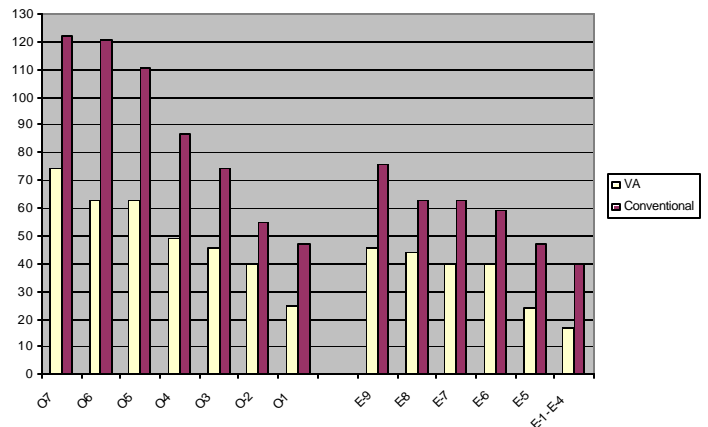


Chart 4

BREAKDOWN OF HOUSING NEED VS. AVAILABILITY

Change between 2003 and 2008 Need Military Homeowners - Without Dependents Need vs. Availability									
	Two Bedrooms			Three Bedrooms			Four Bedrooms		
	Need	Available		Need	Available		Need	Available	
		VA	Conv.		VA	Conv.		VA	Conv.
O1	0	18	34	0	137	274	0	11	25
O2	0	30	40	0	234	469	0	24	46
O3	0	36	46	-1	295	568	0	28	52
O4	0	40	46	0	440	625	0	44	63
O5	0	40	46	0	441	639	0	44	63
O6	0	40	46	0	469	653	0	46	74
O7	0	42	46	0	501	672	0	47	77
E1-E4	23	9	15	0	32	125	0	6	9
E5	-30	12	27	19	97	221	0	9	21
E6	0	18	36	-11	137	283	0	11	28
E7	0	22	39	-5	192	412	0	17	40
E8	0	34	42	-1	269	511	0	25	47
E9	0	36	43	-2	283	531	0	28	48

Table 16

Change between 2003 and 2008 Need Military Homeowners - With Dependents Need vs. Availability									
	Two Bedrooms			Three Bedrooms			Four Bedrooms		
	Need	Available		Need	Available		Need	Available	
		VA	Conv.		VA	Conv.		VA	Conv.
O1	0	34	42	4	269	511	1	25	47
O2	1	39	46	5	377	602	1	40	55
O3	-3	40	46	32	469	653	10	46	74
O4	0	43	46	3	542	716	12	49	87
O5	0	46	48	0	625	777	11	63	111
O6	0	46	48	0	632	797	6	63	121
O7	0	46	49	0	652	808	0	74	122
E1-E4	-5	19	39	14	188	390	5	17	40
E5	62	30	42	35	242	501	43	24	47
E6	77	39	46	36	377	618	54	40	59
E7	0	39	46	36	412	625	40	40	63
E8	0	40	46	12	441	639	13	44	63
E9	0	40	46	7	480	667	0	46	76

Table 17

There were 1,946 housing units listed for sale by the MLS at the time of the survey within the study area; 979 are within the means of the O7 personnel grade with dependents through Conventional financing; whereas, 772 homes could be purchased through VA financing. Because O7 personnel receive a greater housing allowance, personnel within this grade have the financial ability to select from a larger pool of housing units.

Additionally, data indicates the greatest need for homes is for military personnel between grades E1 to E5 with dependents. According to survey data, there are currently 590 homes conventionally available to meet the identified demand of 154 homes needed by grades E1 to E5 for military personnel with dependents. However, if personnel choose a VA loan, there would only be 296 homes available to meet the same need.

Based on the projected need in 2008, a closer analysis of the data demonstrates a need for two and four-bedroom homes. Data indicates a total need in 2008 for 499 homes, while there were 979 units that met the need during the survey. In 2008, there is an anticipated need for 124 two-bedrooms; however, there are currently 49 units on the market. Additionally, there is an expected need for 180 three-bedroom homes, and 808 were available during the survey. With such an abundance of three-bedroom homes, personnel of all ranks can afford a two or three-bedroom home with the BAH allocation. Therefore, the excess three-bedrooms can compensate for the shortage of two-bedroom homes in the market area. Furthermore, evaluation of the four-bedroom units reveals that only 122 units are available for an expected need of 195 homes.

Summary

In summary, the *Robins Air Force Base 2003-2008 Preliminary Housing Requirements and Market Analysis Report* shows a need for 4,288 total housing units in 2008. This number includes personnel interested in renting and owning a home. The findings of this study demonstrate that with the projected injection of an additional 700 military personnel into the local housing market by 2008, there will be a shortfall of suitable and available four-bedroom units in the study area. Unless measures are taken to construct additional, affordable rental and homeowner opportunities for military personnel will be unmet in 2008.

It is important to note that both the rental and housing stocks are understated because many units are not listed with professional management or leasing services and, therefore, are difficult to track. Additionally, single-unit apartments such as garages and guesthouses for lease or rent by the owners are more difficult to identify, quantify, and monitor. The effect is understatement of the total number of units that may be available in the market.

LAND USE ANALYSIS

A factor that attributes to the future growth of a community is the availability of land. In order to identify the future planned or potential use for land, the most recent City and County Comprehensive plans were evaluated. Most of the plans were completed during the last decade.

HOUSTON COUNTY - In 1991, Houston County and the cities of Warner Robins, Perry, and Centerville prepared a Joint County/City Comprehensive Plan. On the whole it was identified that 6,390 acres of land in Warner Robins came under residential land use, constituting 51.42 percent of the total acreage. For Centerville, residential land on the whole occupied 52.46 percent (610 acres) of the land in that community. Residential use of land in Perry represents 20.66 percent of the city's total land area. Residential land use in the county as a whole in Houston County represents 5.89 percent of the total land area with the highest concentrations of residents in the areas north of Perry. At that time, approximately 23,262.48 acres of land in Houston County had not been developed; 2,283.25 acres in Warner Robins, 199.59 acres in Centerville, and 3,385.4 acres in Perry.

BIBB COUNTY - In the 1995 Joint County/City Comprehensive Plan for Bibb County and the City of Macon, it is reported that within the City of Macon, 20 percent of the land or 9,000 acres is available for future development. Much of this land is scattered throughout the City and consists of small sites. There is a limited amount of new development that can be expected to occur within the existing city limits of Macon. However, in Bibb County, there is about 53 percent of the land or 64,000 acres available for future development. Future land use must be somewhat realistic as to what can reasonably be expected to be developed over the next ten years (to 2015). This is illustrated by the fact that the current residential land use in Bibb County is approximately 27,000 acres. An additional 4,000 to 5,000 acres of residential development is expected by 2015, for a total of 32,000 acres of residential development in Macon-Bibb County.⁹

PEACH COUNTY – Because rapid residential growth is not anticipated within the city limits, some areas of incorporated Fort Valley may be reserved for agricultural and rural residential uses. The unincorporated areas of Peach County are largely undeveloped, agricultural land and are suitable for many types of residential, commercial, and industrial uses. Significant development is occurring in the northeastern and eastern areas of the County near Byron and in the areas adjacent to Houston County. The county has a more than adequate supply of developable land to meet growth demands.¹⁰

JONES COUNTY - According to the 1991 Jones County and the City of Gray Comprehensive Plan, about 76 percent of the total acreage of Jones County is composed of land which is vacant, used for agriculture, or covered by forest. This is an indication of the lack of urbanization in the county which, therefore, lends Jones County to planned future growth and development. While the county has approximately 15.5 percent of its total land under residential uses, including manufactured housing, the city has 31.5 percent of its land use classified as

residential. The county has a greater percentage of its land utilized for manufactured housing than does the city. There is little two-family and multi-family development in the area. The city and county have a wealth of land available which is suitable for nearly any purpose. However, development limitations do exist which need to be considered in the regulatory process. In addition, the level of development currently being experienced may exhaust land reserves in some areas of the county more quickly than anticipated.¹¹

MONROE COUNTY – The land use data in the 1992 Monroe County and the City of Forsyth Comprehensive Plan states the land use survey shows that in 1992 15,068.82 acres or 5.96% of the total land in the county were under residential use. The City of Forsyth appears to be heavily concentrated with residential development, while the county overall has a much lower proportion of its total land acreage under such use. The major portion of the county is classified as an agricultural/rural zone. A large chunk of land in the southeast section of the county is classified as a residential district. The growth areas are located in the northwest corner of the county, and the second extends from Forsyth to the southeast boundary of the county, roughly in the shape of a triangle.¹²

CRAWFORD COUNTY – As part of the 1991 Crawford County and the City of Roberta Comprehensive Plan it notes that residential uses of all types comprise slightly more than four percent of the County's land area. The low density residential areas along U.S. 80, U.S. 341, Georgia Route 128, and Georgia Route 42 are the most logical areas for future placement of large concentrations of single family dwellings. Transportation access is good, soil conditions are capable of supporting septic waste disposal, and the areas are already substantially residential in character. The county's wealth of undeveloped land, most of which is generally suitable for a wide range of uses, indicates no serious space availability problems for additional development in the foreseeable future.¹³

TWIGGS COUNTY – Land use data obtained from the Twiggs County land use survey indicates that in 1992, only 2,689 acres or approximately one percent of the total land in the county was under residential use. In comparison, 1,469 acres, less than one percent of the total acreage is under mobile home residential use. The need for residential growth in Twiggs County is recognized; however, to avoid conflicts between farmland and residential inhabitants, the county should guide development away from heavily farmed areas. The intent is to maintain a rural character of the county and encourage development in a dense area so that future community facilities can more readily be provided.¹⁴

APPENDIX A

HOUSTON COUNTY ABSORPTION RATE

2000 Population*	110,765	2000 Housing Units**	38,753
1990 Population*	- 89,208	1990 Housing Units**	- 30,438
Change in Population	21,557	Change in Housing Units	8,315

Change in Housing Units $\frac{8,315}{10 \text{ Years}} = 832 \text{ Housing Units per Year}$

Change in Population $\frac{21,557}{2.65} = 8,134 \text{ Additional Households}$
 People per Household

Change in Households $\frac{8,134}{10 \text{ Years}} = 813 \text{ Households per Year}$

Households $\frac{813}{832} = 97.7\% \text{ Absorption Due to Population Shift}$
 Housing Units

2.3% of all new housing construction is carried over each year .

*Based on Census Information

**Excludes mobile homes, boats, RVs, vans, campers, etc.

BIBB COUNTY ABSORPTION RATE

2000 Population*	153,887	2000 Housing Units**	64,971
1990 Population*	- 150,134	1990 Housing Units**	- 58,818
Change in Population	3,753	Change in Housing Units	6,153

Change in Housing Units $\frac{6,153}{10 \text{ Years}} = 615 \text{ Housing Units per Year}$

Change in Population $\frac{3,753}{2.49} = 1,507 \text{ Additional Households}$
 People per Household

Change in Households $\frac{1,507}{10 \text{ Years}} = 151 \text{ Households per Year}$

Households $\frac{151}{615} = 24.5\% \text{ Absorption Due to Population Shift}$
 Housing Units

75.5% of all new housing construction is carried over each year .

*Based on Census Information

**Excludes mobile homes, boats, RVs, vans, campers, etc.

PEACH COUNTY ABSORPTION RATE

2000 Population*	23,668	2000 Housing Units**	7,283
1990 Population*	- 21,189	1990 Housing Units**	- 6,311
Change in Population	2,479	Change in Housing Units	972

$$\text{Change in Housing Units} \quad \frac{972}{10 \text{ Years}} = 97 \text{ Housing Units Per Year}$$

$$\begin{array}{l} \text{Change in Population} \\ \text{People per Household} \end{array} \quad \frac{2,479}{2.68} = 925 \text{ Additional Households}$$

$$\text{Change in Households} \quad \frac{925}{10 \text{ Years}} = 93 \text{ Households per Year}$$

$$\begin{array}{l} \text{Households} \\ \text{Housing Units} \end{array} \quad \frac{93}{97} = 95.8\% \text{ Absorption Due to Population Shift}$$

4.2% of all new housing construction is carried over each year

*Based on Census Information

**Excludes mobile homes, boats, RVs, vans, campers, etc.

JONES COUNTY ABSORPTION RATE

2000 Population*	23,639	2000 Housing Units**	6,348
1990 Population*	- 20,739	1990 Housing Units**	- 5,186
Change in Population	2,900	Change in Housing Units	1,162

$$\text{Change in Housing Units} \quad \frac{1,162}{10 \text{ Years}} = 116 \text{ Housing Units Per Year}$$

$$\begin{array}{l} \text{Change in Population} \\ \text{People Per Household} \end{array} \quad \frac{2,900}{2.69} = 1,078 \text{ Additional Households}$$

$$\text{Change in Households} \quad \frac{1,078}{10 \text{ Years}} = 108 \text{ Households per Year}$$

$$\begin{array}{l} \text{Households} \\ \text{Housing Units} \end{array} \quad \frac{108}{116} = 93.1\% \text{ Absorption Due to Population Shift}$$

6.9% of all new housing construction is carried over each year .

*Based on Census Information

**Excludes mobile homes, boats, RVs, vans, campers, etc.

MONROE COUNTY ABSORPTION RATE

2000 Population*	21,757	2000 Housing Units**	6,235
1990 Population*	- 17,113	1990 Housing Units**	- 4,912
Change in Population	4,644	Change in Housing Units	1,323

Change in Housing Units $\frac{1,323}{10 \text{ Years}}$ = 132 Housing Units per Year

Change in Population $\frac{4,644}{2.74}$ = 1,695 Additional Households
 People per Household

Change in Households $\frac{1,695}{10 \text{ Years}}$ = 170 Households per Year

Households $\frac{170}{132}$ = 128.7% Absorption Due to Population Shift
 Housing Units

No housing construction is carried over each year .

*Based on Census Information

**Excludes mobile homes, boats, RV's, vans, campers, etc.

CRAWFORD COUNTY ABSORPTION RATE

2000 Population*	12,495	2000 Housing Units**	2,826
1990 Population*	- 8,991	1990 Housing Units**	- 2,088
Change in Population	3,504	Change in Housing Units	738

Change in Housing Units $\frac{738}{10 \text{ Years}}$ = 74 Housing Units per Year

Change in Population $\frac{3,504}{2.78}$ = 1,260 Additional Households
 People per Household

Change in Households $\frac{1,260}{10 \text{ Years}}$ = 126 Households per Year

Households $\frac{126}{74}$ = 170.2% Absorption Due to Population Shift
 Housing Units

No housing construction is carried over each year .

*Based on Census Information

**Excludes mobile homes, boats, RVs, vans, campers, etc.

TWIGGS COUNTY ABSORPTION RATE

2000 Population*	10,590	2000 Housing Units**	2,613
1990 Population*	- 9,806	1990 Housing Units**	- 2,431
Change in Population	784	Change in Housing Units	182

Change in Housing Units $\frac{182}{10 \text{ Years}} = 18 \text{ Housing Units per Year}$

Change in Population $\frac{784}{2.73} = 287 \text{ Additional Households}$
 People per Household

Change in Households $\frac{287}{10 \text{ Years}} = 29 \text{ Households per Year}$

Households $\frac{29}{18} = 161.1\% \text{ Absorption Due to Population Shift}$
 Housing Units

No housing construction is carried over each year .

*Based on Census Information

**Excludes mobile homes, boats, RVs, vans, campers, etc.

APPENDIX B

HOUSTON COUNTY APARTMENTS

- ✍ 58 apartment complexes identified
- ✍ 20.7% No response or insufficient information provided (12 complexes/58 complexes)
- ✍ 13.8% eliminated because they are 100% subsidized housing (8 complexes/58 complexes)

<p>Ashton Landing Apartments Austin Pointe Apartments Bradford Place <u>Brandon Court (no info)</u> <u>Briardale Apartments (no info)</u> Castaways Hidden Harbor Cedar Pointe Apartments <u>Colonial-Kenwood Arms (no info)</u> Commodore Manor Apartments Corder Crossing Corder Place English North Apartments Foxwood Galleria Park <u>The Hamptons of Perry (no info)</u> The Hamptons of Warner Robins Heritage Apartments (Warner Robins) Heritage Apartments (Perry) Huntington Chase <u>Kings Villas (100% subsd)</u> LaClaire I <u>LaClaire II (100% subsd)</u> Lake Vista Apartments Lakeshore Pointe <u>Lenora Apartments (no info)</u> Lenox Park Apartments Lexington Place <u>Mullins Apartments (no info)</u> North Lake Apartments</p>	<p>Northcrest Apartments <u>Northside Garden Apartments (insuff. info)</u> Oakdale Villas Pacific Park <u>Pacific Coast Apartments (no info)</u> <u>Pinebrook Apartments (100% subsd)</u> <u>Pine Castle Apartments (no info)</u> <u>Randall Heights (100% subsd)</u> The Richmond Apartments Ridge Landing <u>Robins Landing (100% subsd)</u> Sandia East Apartments Sandpiper Apartments Savannah Apartments Shadowood Apartments <u>Sherwood Duplex (no info)</u> <u>Smith Heights Apartments (100% subsd)</u> Southland Station <u>Springfield Gardens (100% subsd)</u> Stonehenge Tanglewood Timberwood Apartments <u>Valley Forge Apartments (no info)</u> <u>Wellston Ridge (no info)</u> <u>Westwood Apartments (100% subsd)</u> Winslow Place Woodcrest I Woodland Apartments Woodvalley Apartments</p>
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BIBB COUNTY APARTMENTS

- ✍ Total 105 apartment complexes identified
- ✍ 14.3% No response or insufficient information provided (15 complexes/105)
- ✍ 19.0% eliminated because they are 100% subsidized housing (11 complexes/58)

<p>The Arbors Anthony Arms Ashley Tower Apartments Ashley Woods Austin Chase Apartment Community <u>Autumn Trace Apartments (100% subsd)</u> Baconsfield Blue Ridge Apartments Bon Ayer Townhomes Bowman Creek Apartments Bristol Park Broadway Lofts Brookhaven Townhomes Brookwood Apartments Carriage Hills Apartments Chambers Cove Chapman Poe Chateau Club Apartments Cherry Place Cherry Tree Hill Apartments Cobblestone Square College Street Apartments Colonial Grand (at Barrington Club) Colonial Grand (at Spring Creek) Colonial Grand (at Wesleyan) Colonial Village (at North Ingle) Colony West Apartments Cotton Avenue Apartments Courtyard Apartments Creekwood English Village Flynt Ridge Forest Hill Apartments <u>Forest Pointe (no info)</u> Forest Ridge Forest Village Glenwood Village Grayshire Landing <u>Green Meadows Townhouses (100% subsd)</u> Hampton Park (at Northside) Hendley Napier Hidden Lakes <u>Highland Hills (insuff info)</u> Highland Park <u>Highland Woods (100% subsd)</u> Historic Vineville Court Hunters Run Katherine Court Apartments <u>Kingston Garden Apartments (insuff info)</u> Kingstowne West La Tanya Village Lakeview Legacy at Wesleyan Corners</p>	<p><u>Macon Garden Apartments (100% subsd)</u> The Massee Merriwood North Napier Apartments North Pierce Circle Northgate Townhouses Northridge Apartments Northwood Apartment Homes Oak Hill <u>Oak Ridge (100% subsd)</u> <u>The Oaks (no info)</u> Overlook Gardens The Park at Wynfield <u>Parkview Apartments (100% subsd)</u> Poplar Pointe <u>Poppy Garden Apartments (100% subsd)</u> Raintree Apartments Ridge Pointe Ridgewood River Bend Apartments River Place River Ridge <u>Riverside Garden (100% subsd)</u> Riviera Court Rivoli Run Robin Hood Village <u>Rockland Apts (not suff info – 100% sub)</u> <u>Rutland Corners (no info)</u> <u>Sandy Springs Apartments (100% subsd)</u> Shadowood West <u>Sherwood (no info)</u> Tara Tara/Windy Hill The Terrace <u>Terrace Park (insuff info)</u> <u>Versailles Apartments (no info)</u> <u>Villa West Apartments (100% subsd)</u> <u>Village Oaks Apartments (no info)</u> <u>Vineville Court Apartments (no info)</u> <u>Vineville Gardens (no info)</u> Vineville North Apartments Vineville Villas <u>The Vistas (no info)</u> <u>Walnut Hills (no info)</u> Wesleyan Oaks <u>West Club (no info)</u> West Harbor Westminister Westwood Apartments Whispering Woods <u>Wilshire Woods (100% subsd)</u> Woodcreek</p>
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PEACH COUNTY

- ✍ Total 9 apartment complexes identified
- ✍ 11.1% No response or insufficient information provided (1 complex/9 complexes)
- ✍ 22.2% eliminated because they are 100% subsidized housing (2 complexes/9 complexes)

Brighton Park	Lakeview Apartments (100% subsd)
Byron Apartments	Peachtree Crossings Apartments
College Square Apartments	Valley Pines Apartments
Hancock Manor Apartments (insuff info)	Westside Villas
Indian Oak Apartments (100% subsd)	

JONES COUNTY

- ✍ Total 7 apartment complexes identified
- ✍ 0.0% No response or insufficient information provided (0 complexes/7 complexes)
- ✍ 14.2% eliminated because they are 100% subsidized housing (1 complexes/7 complexes)

Bridges Rental Properties	Northside Villas of Gray
Colonnade Apartments	The Villas at Gray
Edgewood Apartments	Whispering Pines
Gray Gardens (100% subsd)	

MONROE COUNTY

- ✍ Total 6 apartment complexes identified
- ✍ 50.0% No response or insufficient information provided (3 complexes/6 complexes)
- ✍ 33.3% eliminated because they are 100% subsidized housing (2 complexes/6 complexes)

Betsy Lynn Apartments	Piedmont Hills Apartments (100% subsd)
Forsyth Garden Apartments (100% subsd)	Union Hill Apartments (no info)
Holiday Cove Apartments (no info)	Village Oaks Apartments (no info)

CRAWFORD COUNTY

- ✍ Total 1 apartment complex identified
- ✍ 0.0% No response or insufficient information provided (0 complexes/1 complex)
- ✍ 100.0% eliminated because they are 100% subsidized housing (1 complex)

Hunter Village (100% subsd)

TWIGGS COUNTY

- ✍ Total 1 apartment complex identified
- ✍ 0.0% No response or insufficient information provided (0 complexes/1 complex)
- ✍ 100.0% eliminated because they are 100% subsidized housing (1 complex/1 complex)

Cedar Lane Apartments (100% Dept of Ag and Rural Dev)

APPENDIX C

HOUSING UNITS FOR RENT

HOUSTON COUNTY

Apartment Units without Dependents (survey data)					
Rank	Available Units**	1-BR	2-BR	3-BR	4-BR
O7+	383	133	177	73	0
O6	383	133	177	73	0
O5	383	133	177	73	0
O4	383	133	177	73	0
O3	383	133	177	73	0
O2	370	133	176	61	0
O1	332	133	145	54	0
E9	356	133	176	47	0
E8	368	133	176	59	0
E7	335	133	150	52	0
E6	328	133	148	47	0
E5	309	133	133	43	0
E1 TO E4	258	107	116	35	0

**Includes subsidized housing

Apartment Units with Dependents (survey data)					
Rank	Available Units**	1-BR	2-BR	3-BR	4-BR
O7+	389	133	176	80	0
O6	389	133	176	80	0
O5	389	133	176	80	0
O4	389	133	176	80	0
O3	382	133	176	73	0
O2	371	133	176	62	0
O1	368	133	176	59	0
E9	382	133	176	62	0
E8	382	133	176	73	0
E7	382	133	176	73	0
E6	369	133	176	60	0
E5	368	133	176	59	0
E1 TO E4	337	133	152	52	0

**Includes subsidized housing

BIBB COUNTY

Apartment Units without Dependents (survey data)					
Rank	Available Apartment Units for Rent*	1-BR	2-BR	3-BR	4-BR
O7+	897	268	498	127	4
O6	897	268	498	127	4
O5	897	268	498	127	4
O4	895	267	498	126	4
O3	881	267	492	118	4
O2	861	266	485	106	4
O1	704	246	365	89	4
E9	877	267	488	118	4
E8	870	267	485	114	4
E7	809	265	437	103	4
E6	707	246	366	91	4
E5	654	241	325	85	3
E1 TO E4	501	204	263	32	2

* Based upon 2003 BAH rates

Apartment Units with Dependents (survey data)					
Rank	Available Apartment Units for Rent*	1-BR	2-BR	3-BR	4-BR
O7+	905	268	505	128	4
O6	905	268	505	128	4
O5	905	268	505	128	4
O4	898	268	498	128	4
O3	896	268	497	127	4
O2	891	267	494	126	4
O1	870	267	485	114	4
E9	896	268	497	127	4
E8	896	268	497	127	4
E7	894	267	497	126	4
E6	889	267	494	124	4
E5	870	267	485	103	4
E1 TO E4	807	265	435	103	4

* Based upon 2003 BAH rates

OTHER COUNTIES

Apartment Units without Dependents (survey data)						
Rank	BAH without Dependents*	Available Apartment Units for Rent**	1-BR	2-BR	3-BR	4-BR
O7+	\$942.00	71	22	42	5	2
O6	\$923.00	71	22	42	5	2
O5	\$905.00	71	22	42	5	2
O4	\$894.00	71	22	42	5	2
O3	\$837.00	71	22	42	5	2
O2	\$784.00	71	22	42	5	2
O1	\$695.00	71	22	42	5	2
E9	\$824.00	71	22	42	5	2
E8	\$809.00	71	22	42	5	2
E7	\$753.00	71	22	42	5	2
E6	\$703.00	71	22	42	5	2
E5	\$658.00	70	22	42	5	1
E1 TO E4	\$582.00	66	22	42	2	0

* Based upon 2003 BAH rates

**Includes subsidized housing

Apartment Units with Dependents (survey data)						
Rank	BAH with Dependents*	Available Apartment Units for Rent**	1-BR	2-BR	3-BR	4-BR
O7+	\$1,077.00	18	3	8	5	2
O6	\$1,064.00	18	3	8	5	2
O5	\$1,056.00	18	3	8	5	2
O4	\$982.00	18	3	8	5	2
O3	\$922.00	18	3	8	5	2
O2	\$872.00	18	3	8	5	2
O1	\$807.00	18	3	8	5	2
E9	\$935.00	18	3	8	5	2
E8	\$911.00	18	3	8	5	2
E7	\$892.00	18	3	8	5	2
E6	\$874.00	18	3	8	5	2
E5	\$803.00	18	3	8	5	2
E1 TO E4	\$749.00	18	3	8	5	2

* Based upon 2003 BAH rates

**Includes subsidized housing

APPENDIX D

HOUSING UNITS FOR SALE

HOUSTON COUNTY

Housing Units without Dependents (survey data)					
Rank	Available Housing units for sale	1-BR	2-BR	3-BR	4-BR
O7+	551	1	37	471	42
O6	514	1	37	443	33
O5	487	1	37	420	29
O4	487	1	37	420	29
O3	414	1	37	349	27
O2	401	1	37	342	21
O1	316	1	37	260	18
E9	450	1	37	383	29
E8	450	1	37	383	29
E7	422	1	37	357	27
E6	364	1	37	305	21
E5	278	1	36	223	18
E1 TO E4	191	1	36	142	12

Housing Units with Dependents (survey data)					
Rank	Available Housing units for sale	1-BR	2-BR	3-BR	4-BR
O7+	577	1	37	466	73
O6	558	1	37	466	54
O5	544	1	37	452	54
O4	514	1	37	434	42
O3	476	1	37	405	33
O2	450	1	37	383	29
O1	422	1	37	357	27
E9	476	1	37	405	33
E8	476	1	37	405	33
E7	450	1	37	383	29
E6	450	1	37	383	29
E5	422	1	37	357	27
E1 TO E4	364	1	37	305	21

BIBB COUNTY

Housing Units without Dependents (survey data)						
Rank	BAH Without Dependents*	Available Housing units for sale	1-BR	2-BR	3-BR	4-BR
O7+	\$942.00	440	1	62	325	52
O6	\$923.00	420	1	62	314	43
O5	\$905.00	402	1	60	302	39
O4	\$894.00	402	1	60	302	39
O3	\$837.00	377	1	60	286	30
O2	\$784.00	356	1	60	272	23
O1	\$695.00	329	1	60	247	21
E9	\$824.00	402	1	60	302	39
E8	\$809.00	402	1	60	302	39
E7	\$753.00	377	1	60	286	30
E6	\$703.00	356	1	60	272	23
E5	\$658.00	329	1	60	247	21
E1 TO E4	\$582.00	287	1	57	212	17

* Based upon 2003 BAH rates

Housing Units with Dependents (survey data)						
Rank	BAH With Dependents*	Available Housing units for sale	1-BR	2-BR	3-BR	4-BR
O7+	\$1,077.00	479	1	63	348	67
O6	\$1,064.00	463	1	62	339	61
O5	\$1,056.00	463	1	62	339	61
O4	\$982.00	440	1	62	325	52
O3	\$922.00	420	1	62	314	43
O2	\$872.00	402	1	60	302	39
O1	\$807.00	377	1	60	286	30
E9	\$935.00	420	1	62	314	43
E8	\$911.00	420	1	62	314	43
E7	\$892.00	402	1	60	302	39
E6	\$874.00	402	1	60	302	39
E5	\$803.00	377	1	60	286	30
E1 TO E4	\$749.00	356	1	60	272	23

* Based upon 2003 BAH rates

OTHER COUNTIES

Housing Units without Dependents (survey data)						
Rank	*BAH Without Dependents	Available Housing units for sale	1-BR	2-BR	3-BR	4-BR
O7+	\$942.00	177	0	21	127	29
O6	\$923.00	161	0	20	115	26
O5	\$905.00	139	0	20	97	22
O4	\$894.00	139	0	20	97	22
O3	\$837.00	117	0	20	79	18
O2	\$784.00	105	0	20	68	17
O1	\$695.00	91	0	16	60	15
E9	\$824.00	139	0	20	97	22
E8	\$809.00	139	0	20	97	22
E7	\$753.00	117	0	20	79	18
E6	\$703.00	105	0	20	68	17
E5	\$658.00	91	0	16	60	15
E1 TO E4	\$582.00	62	0	14	39	9

* Based upon 2003 BAH rates

Housing Units with Dependents (survey data)						
Rank	*BAH With Dependents	Available Housing units for sale	1-BR	2-BR	3-BR	4-BR
O7+	\$1,077.00	213	0	21	149	43
O6	\$1,064.00	197	0	21	138	38
O5	\$1,056.00	197	0	21	138	38
O4	\$982.00	177	0	21	127	29
O3	\$922.00	161	0	20	115	26
O2	\$872.00	139	0	20	97	22
O1	\$807.00	117	0	20	79	18
E9	\$935.00	161	0	20	115	26
E8	\$911.00	161	0	20	115	26
E7	\$892.00	139	0	20	97	22
E6	\$874.00	139	0	20	97	22
E5	\$803.00	117	0	20	79	18
E1 TO E4	\$749.00	105	0	20	68	17

* Based upon 2003 BAH rates

¹ *Robins' Economic Impact Statement 2003*, Warner Robins Air Logistics Center Office of Public Affairs

² *Robins Air Force Base 2003-2008 Preliminary Housing Requirements and Market Analysis Report*, Parson Corporation, August 2003

³ Woods and Poole Economics, Inc

⁴ City of Warner Robins, *Georgia Final Interim Consolidated Plan 2001-2005*

⁵ "What can \$127,000 buy you?", Macon Telegraph, September 28, 2003

⁶ www.homefair.com, 9/27/03

⁷ *Robins AFB Housing Requirements and Market Analysis*, Parsons Corporation

⁸ www.dfas.mil/money/milpay

⁹ www.georgiaplanning.com/planspub/plans/94/26986.htm

¹⁰ www.georgiaplanning.com/planspub1/plans/97/26986.htm

¹¹ www.georgiaplanning.com/planspub1/plans/66/26986.htm

¹² www.georgiaplanning.com/planspub1/plans/130/26986.htm

¹³ www.georgiaplanning.com/planspub1/index.asp?plnid=95

¹⁴ www.georgiaplanning.com/planspub1/plans/231/27057.htm