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Strategic Army Initiatives Effect on Retiree Beneficiary Population Changes for William Beaumont Army Medical Center (WBAMC), Fort Bliss Texas

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Abstract

This study examines the relationships of Active Duty and Retiree Enrollment to predict future enrollment and the relationships of migration patterns for retirees surrounding military treatment facilities to the attractiveness of the local community, using non-experimental design. A multiple regression analysis determined if a relationship exists between local amenities and migration patterns for retirees (ages 40 - 64 and over 65). The enrollment results show an inverse relationship between ADSM growth and Retiree enrollment. Regression results show there is a relationship between the decisions to migrate for young retirees with a college education, presence of family nearby, reside within their state of birth, retirement income over $50K, and property valued over $150K. With an alpha level of .05, the results are statistically significant for ages 40 - 64, $F(6, 19) = 5.07$, $p < .01$, $R^2 = .72$, adjusted $R^2 = .58$. There is no significant relationship for the over 65, $F(6, 19) = 1.35$, $p > .31$, and $R^2 = .40$, adjusted $R^2 = .10$. Migration to a home state is the most statically significant variable when deciding to relocate.

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Introduction

William Beaumont Army Medical Center (WBAMC), a 144 - bed, level III trauma, metropolitan based, teaching facility located within the border town of El Paso, Texas. The medical center supports the Fort Bliss TRICARE beneficiary populations and serves as a referral bases for White Sands Missile Range New Mexico, Cannon Air Force Base New Mexico, Holloman Air Force Base New Mexico, and Fort Huachuca Arizona. The facility offers primary pediatric and adult care, all adult medical specialties and surgical specialties, except for transplant surgery. Additionally, WBAMC provides labor and delivery services, inpatient/outpatient mental health services, and clinical investigation services, along with full pharmacy, laboratory, and x-ray departments (William Beaumont Army Medical Center, 2007).

WBAMC is one of two trauma centers in El Paso County and is geographically isolated from other major metropolitan cities. Outside of El Paso, the nearest major metropolitan area that can provide equivalent or greater health services to the El Paso community is Albuquerque, New Mexico, nearly four hours away (William Beaumont Army Medical Center History, n.d). In 2004, according to Texas Department of State Health Services, El Paso County reached an estimated population of 714,945 (Texas Department of State Health Services, 2004). However, there are five other major medical facilities that help serve the local community, Thomason Hospital (University Medical Center), Sierra Medical Center, Providence Memorial Hospital, Del Sol Medical Center and Las Palmas Medical Center (McCune, Almanzan, Schauer, Soden, 2003).

WBAMC is collocated with the El Paso Veteran's Administration Health System and currently has limited infrastructure for expansion and growth capabilities, primarily

due to a lack of space. Although the surrounding El Paso communities exceed 714,000 in population (Texas Department of State Health Services, 2004), according to a technical report submitted by the Institute for Policy and Economic Development, the health service community has limited access to care family medicine, internal medical, pediatrics, and in sub-specialty care services for urology, dermatology, and diagnostic radiology (Dalton, 2002).

WBAMC and the Fort Bliss Army Installation are undergoing a massive transition. Historically, Fort Bliss has served as an educational training post, home of the U.S. Army Air Defense Artillery School and the U.S. Army Sergeant Major Academy, however under the Army's new initiatives to expand the Army's mission capabilities, the post has been selected to transition from a training installation to an Army Forces Command (FORSCOM) installation. This will mean the arrivals of new troops, family members, and units with the capability to quickly adapt and deploy to the Army's fast moving transformation pace (Fort Bliss Official Website, 2008). Just as Fort Bliss transitions, other FORSCOM installations like Fort Lewis Washington, Fort Hood Texas, and Fort Bragg North Carolina have already undergone transformations to become more deployable, more maneuverable, and more lethal. In a matter of time, Fort Bliss will transform to a FORSCOM installation, as those others mentioned (U.S. Army, 2007).

WBAMC is strategically positioning its resources for the planned growth driven by the Department of Defense (DoD) Strategic initiatives: Global Posture Review or Integrated Global Presence and Basing Strategy (IGPBS), Base Realignment and Closure (BRAC) 2005, Grow the Army (GTA) and Army Modularity. It is clear that a

growth in military forces for Fort Bliss will increase the enrolled beneficiary population for WBAMC's health plan, best known as TRICARE. However, what is unclear is how WBAMC will manage the enrolled TRICARE beneficiary populations with its current facility and staffing constraints (William Beaumont Army Medical Center, 2007).

Army Initiatives

The United States (U.S.) Army is at the brink of its most significant restructuring and transformation since World War II. The September 2001 Quadrennial Defense Review (QDR) (a study that Congress mandates Department of Defense to accomplish every four years to allocate missions and guide military procurement) directed combatant commanders, in coordination with the Joint Staff and the Office of the Secretary of Defense to posture the U.S. forces to meet the future strategic environment (McCormack, 2005).

In August, 2004, President Bush revealed the global posture strategy, now known as the Global Posture Review or Integrated Global Presence and Basing Strategy (IGPBS), which would redeploy or return roughly 70,000 troops, plus 100,000 family members and civilian workers from Europe and Asia to bases in the Continental United States (CONUS) over a six-to-eight year timeline. Additionally, other overseas forces in Germany and South Korea would be redistributed and new bases established in Eastern Europe, Central Asia, and Africa (Critchlow, 2005).

Current DoD IGBPS recommendations projections are to realign Fort Bliss by: 1) relocating air defense artillery units from Fort Bliss to Fort Sill, Oklahoma 2) relocating the 1st Armor Division and various units from Germany and Korea to Fort Bliss 3) relocating an artillery (fires) brigade from Fort Sill to Fort Bliss, 4) relocating maneuver

battalions, support battalions, and aviation units from Fort Hood Texas to Fort Bliss Texas, 5) relocating the Fort Bliss Air Defense Artillery Center & School to Fort Sill Oklahoma, and 6) relocating all mobilization processing functions to Fort Bliss to establish a Joint Mobilization Site (Defense Base Closure and Realignment Commission, 2005).

Global Posture Review or IGPBS is just one of many on-going force transformation efforts that will affect Fort Bliss and thus increase the WBAMC beneficiary populations. The DoD continues with Base Realignment and Closure (BRAC) 2005, which is the Pentagon's fifth round of base closures in the U.S. since 1988. BRAC is designed to reorganize, realign, and reconfigure installation infrastructure to increase operational capabilities and efficiencies (U.S. Army, 2007). The 2005 BRAC will affect seventy-four installations.

In addition to IGPBS and BRAC 2005 strategic initiatives, the President has also directed to grow the U.S Army. The Grow the Army (GTA) initiative will essentially add 74,200 active and reserve component Soldiers to its total end strength. As part of the 2001 and 2006 QDR directives, the U.S. Army forges ahead with the implementation of more flexible and maneuverable strategic forces (Federal Registry, 2007).

The Army Modularity initiative is a critical component of the Army's transformation into a more agile and maneuverable force. Under the Army Modularity initiative, installations like Fort Bliss are amidst a paradigm shift from large division-level units to a modular almost "Lego©-like" force, with a number of smaller, more maneuverable units known as brigade combat teams (BCTs) (U.S. Army Forces Command Mission, 2007).

The modularity of the new BCTs will allow the Army to tailor forces for each operational mission (U.S. Army Reserve Officer Training Course, 2005). In addition, Army Modularity and Grow the Army initiatives will include "right-sizing" to add high demand critical skills, such as explosive ordinance detachments, engineers, and military police to support the operational tempo and global war on terrorism in the future. The modularity and growth initiatives will add six highly maneuverable BCTs and the support units required to augment the new additions to the total Army's end strength (Federal Registry, 2007).

According to Army officials, Fort Bliss is projected to receive an additional 27,000 active duty Soldiers and family members, a total of four armored brigade combat teams, beginning in fiscal year (FY) 2011 and ending in FY 2015, as a result of IGPBS and BRAC 2005. (Command Management System, 2010).

Due to Grow the Army Initiatives, Fort Bliss is scheduled to receive an additional two infantry BCTs. These two initiatives will add an additional 18,908 beneficiaries to the WBAMC support and referral base support system (Reyes, 2007).

Current BRAC commission recommendations, IGPBS, Army Modularity and Grow the Army initiatives project that from FY 08 through FY 2012, WBAMC will gain over 55,700 enrolled TRICARE active duty and active family members over the next five years, yet these numbers are flawed (INNOVA Group, 2007).

Problem Statement

None of the current staffing models, the Enrollment Based Stationing Model or the Army Stationing and Installation Plan (ASIP) for active duty strength projections account for the potential fluctuation of retiree beneficiary populations in or around the

WBAMC medical service area. All of the planning models for BRAC and Grow the Army, have purposely omitted the retiree population or maintained the 2007 retiree beneficiary populations, as a constant through 2015. Leaders at WBAMC and the El Paso VA Health System are cautiously aware that the reality will be different than future planning models indicate.

Background

Those outside the Department of Defense do not commonly understand health care within the Military Health System (MHS). The MHS operates much like a managed care system. TRICARE is the DoD's health care program for uniformed service members and their families (TRICARE Management Activity, 2009a). TRICARE consists of several health plan options and of these health plan options, TRICARE Prime offers the most comprehensive coverage within the TRICARE system. There are a number of other health plan options, i.e., TRICARE Standard, TRICARE Extra, TRICARE for Life, and TRICARE PLUS (TRICARE Management Activity, 2009b). For the purpose of this study, the discussion will be limited to TRICARE Prime beneficiaries and will explain the impact of TRICARE Plus on WBAMC health care system.

What is unique about WBAMC is its TRICARE Plus program. TRICARE Plus is not a health plan, but rather an avenue of access to primary care (TRICARE Management Activity, 2009a). TRICARE Plus programs are intended to assist Graduate Medical Education programs, by ensuring a sufficient patient base to maintain accreditation and to help manage excess primary care capacity (Koening, 2001). This is important because WBAMC is a teaching hospital that must maintain accreditation.

TRICARE Plus enables beneficiaries, who are normally only eligible for space available treatment at a military treatment facility (MTF), to enroll and receive primary care appointments at the MTF within the same TRICARE access standards as Prime enrolled beneficiaries (TRICARE Management Activity, 2009a). For example, TRICARE for Life (a health plan for all Medicare-eligible who are in receipt of retired pay from the DoD, usually over 65 years of age) beneficiaries can enroll in TRICARE Plus and be guaranteed a primary care appointment within seven days; the same access standard for Prime enrolled beneficiaries (TRICARE Management Activity, 2009b). TRICARE Plus affords otherwise non-eligible or non-priority patients the opportunity to receive Specialty Care in the medical treatment facility, if space is available.

Nevertheless, TRICARE Plus is only available at certain treatment facilities at the discretion of the local hospital commander. The commander may limit enrollment to specific categories of beneficiaries, and retain the discretion to continue or discontinue the program depending on capacities and missions at any time (TRICARE Management Activity, 2009a). . TRICARE Plus is significant to leaders at WBAMC because as the active duty populations grow decisions may be made to determine at what capacity to continue or discontinue the TRICARE Plus program option.

TRICARE Plus is not the only unique characteristic of WBAMC, few living outside of border towns within the U.S. grasp the dynamics of a border town. Eighty-one percent of the population in El Paso is Hispanic (U.S. Census Bureau, 2007). According to a study conducted by ProMatura for the El Paso City Council, people outside the region know little about El Paso, but have formed opinions based on El Paso's close proximity to the Mexican border. The El Paso is perceived to be isolated

with limited opportunities for higher-skilled professionals (ProMatura, 2007). What may also be considered a negative, El Paso borders Juarez Mexico, the deadliest city in Mexico with over 1,400 people murdered in 2008 (Beaubien, 2009)

El Paso is riddled with health services access to care challenges. The federal government has designated a large portion of El Paso County as a health professional shortage area (HPSA) for primary care, dental care, and mental health (Dalton, 2002). According to Institute for Policy and Economic Development Technical Report written in 2002, the El Paso regional health delivery system of doctors, clinics, and health facilities is too small for the population it serves (Dalton, 2002).

El Paso ranks last among 85 metropolitan statistical areas in the U.S. for the uninsured, with 37 percent uninsured for the non-elderly (ages 0-64) and 50 percent uninsured for low and moderate income populations (Dalton, 2002). This rate is much higher when compared to Texas as a whole, at 25.7 percent (Texas Department of State Health Services, 2004).

To further the health care complexities, capitation rates for managed care organizations are lower in El Paso than other major urban counties of Texas. There is a disparity varying from five up to 28 percent for lower reimbursement rates, mainly attributed to utilization rates (Dalton, 2002). In the state of Texas, utilization rates are a key contributor for establishing Medicaid capitation rates. Consequently, the disproportionately low numbers of health care providers, along with the large number of uninsured result in a lack of access for the city. As the utilization appears to be disproportionately low to the population, the Medicaid capitation rates will continue to reflect lower than average rates (Dalton, 2002).

The low rates of reimbursement and the high percentage of uninsured make it difficult for providers to operate a profitable practice, thus attracting providers to the region is equally difficult. A comparison of El Paso County with other major urban counties in Texas, El Paso clearly showed an undersupply of health care providers of primary care physicians, specialist, registered nurses and dentist (Dalton, 2002).

Research Question

Historical data show that seventy-five percent of Fort Bliss active duty family members (ADSM) and over ninety-nine percent of active duty services member (ADFM) populations enroll in the TRICARE Prime health care plan (TRICARE Operation Center, 2009). Therefore, historically Fort Bliss active duty populations have served as significant predictors for active duty TRICARE Prime enrollee populations. Is there similar historical data that show what percentage of Fort Bliss retiree populations enroll in TRICARE Prime?

All of the staffing models used for the planning purposes of the future growth of the WBAMC patient population are based on the fluctuation of the Fort Bliss active duty population. Can the fluctuation in the active duty population also serve as a predictor for the retiree beneficiary populations for WBAMC or are there other significant factors that influence the local retiree population changes such as attractiveness of the location or the demographics of the population?

Literature Review

Enrollment

Historically, retiree populations at WBAMC fluctuate with the number of active duty assigned at Fort Bliss (TRICARE Operation Center, 2008). Based on data

reviewed in the TRICARE Operation Center (TOC) database), TRICARE Eligible populations change with the change in active duty populations.

According to the Department of Defense Health Affairs policy for access to care and prime service area standards, there are priorities for receiving care in military treatment facilities. Active Duty Services members are ranked as top priority, followed by active duty family members enrolled to the Prime healthcare plan, and then retirees enrolled to prime. If routine access to care is limited, all ADSMs must be offered access with the access to standards before other beneficiaries (Department of Defense Health Affairs, 2006). This policy may impact retiree access to WBAMC as ADSM populations increase as a result of BRAC and Grow the Army initiatives.

Migration Patterns

Literature reviews suggest that two conceptual frameworks, the push-pull model and the life-course model, help in determining the migration patterns of retirees over the age of 40. Understanding these frameworks will greatly assist WBAMC leaders in determining the likelihood of a significant change in the retiree beneficiary population over the next five years for strategic planning purposes.

Life-Course Model

First, the life-course model suggests that retiree/migrant preferences vary in response to ones' personal attributes and stage in life-course. For example, a recent retiree in good health and adequate income tends to move towards destinations of leisure and amenities. On the other hand, those who experience widowhood or severe disability tend to show migration towards nursing homes or other long-term care facilities (Walters, 2002).

The life-model is effective in showing how retiree personal attributes condition their migration behavior in response to life-course events. According to Walters, the life-course model has three primary objectives: first, identify the life course events associated with the decision to move; second, classify and describe retirees most likely to move as a result of each event; and last, evaluate the characteristics of the destinations associated with each migrant group. Walters used life-course events model to define three retiree migrant groups: amenity migrants, assistance migrants, and severely disabled migrants. Research suggests that only 16 percent of all retirees fail to fall into any of these three categories (Walters, 2002).

Life Course Model Destination Selection

Surveys taken of actual migrants show that retirees' decision to move align with their personal characteristics. As well, investigations suggest that the characteristics of a destination may be effective predictors of migration: climate, natural environment, coastal location, health care facilities, region, cultural amenities, opportunities for outdoor recreation and leisure, and the availability of low-cost or low maintenance housing units (Walters, 2002).

The first group, *Amenity- migrants*, is in search of pleasant communities and account for 46 percent of the retiree population. These retirees are typically healthy, married, and financially secure and generally migrate towards sunbelt destinations. Lower income seniors and those with moderate disabilities can also fit among amenity migrants (Walters, 2002).

Walters suggests that the migration patterns of young married retirees are extremely sensitive to amenity factors such as climate and employment growth

(Walters, 2002). Young retirees tend to leave areas with high rentals or high crime rates and seem to be concerned about the economic conditions of the surrounding community (Kallan, 1993).

The second group, *Assistance-migrants* are generally both economic disadvantaged (below the average poverty threshold) and without a spouse (Walters, 2002). Assistance-migrants account for 28 percent of the retirees. Unlike amenity-migrants, research does not reveal a distinct pattern of migration however a high portion live with their adult children, with other labor force members or low cost housing. Studies suggest that economic concerns and desire for kinship are the most important motivating factors for destination selection among assistance migrants, 72 percent of assistance-migrants moves take place within a single county or metropolitan service area (Walters, 2002).

The final group, *severely-disable-migrants* require day-to-day assistance and only account for 25 percent of the retirees, more than 40 percent reside in nursing homes, while 22 percent live with adult children. Severely disable-migrants exist at all levels of income (Walters, 2002).

Amenity-migrants resist moving to larger places with high population density. Research shows retirees prefer towns and small cities, but seem to favor locations where healthy amenity group retirees already live (Brown, Fuguitt, Heaton, and Waseem, 1997). According to Walters, amenity migrants are more strongly influenced by their destination characteristics than by origin characteristics (original residence location) - thus are more likely to relocate.

Like amenity migrants, the second group, assistance-migrants are attracted to destination locations with high rentals, low population, low population density, mild winters, low wind speed, a high portion of older residents, and relatively low number of nursing home beds (Walters, 2002). Despite their low incomes, these destination characteristics typically influence their behavior on a local scale - meaning when the decision is made to move, it is generally local.

Assistance-migrants select low-cost housing within areas with high rentals and leave areas lacking adequate nursing home facilities. Although assistance-migrants will leave an area for inadequate nursing homes, initially, adequate long-term facilities are not a factor when seeking a destination location (Walters, 2002).

Like amenity and assistance-migrants, severely disable-migrants also seek low population, high rentals, mild winters, hot summers, low wind speed, and relatively few nursing home beds. In addition, like assistance-migrants, severely disable migrants are more likely to leave a destination with inadequate nursing home facilities and are more likely to stay put in areas where long-term care is readily available. Generally, the availability of nursing home beds is the most important factor on the decision for the severely disable-migrants to relocate (Walters, 2002).

Walters discovered a similarity among all three groups. All are less likely to move to destinations with high portions of homeowners rather than renters. According to the Walters, the reasoning is that it is most likely easier to relocate to areas where there are a number of rental units available (Walters, 2002).

Push-Pull Model

The push-pull model suggests that retirees/migrants move in response to the attractiveness and unattractiveness of a destination. Desirable locations encourage in-migration (pull) and discourage out-migration (push), while undesirable locations encourage out-migration and discourage in-migration. Wiseman's theoretical model of elderly migration is probably the best-known migration model and features the "push" and "pull" factors of out-migration and in-migration (Schiamberg & McKinney, 2003).

Wiseman explains that the decision to move is under constant re-evaluation based on ones residential satisfaction. Factors can push an individual out of a location or pull another towards a location. These factors or "trigger mechanisms" are weighted by ones desire and need outcomes, and are greatly influenced by an individual's health or socio-economic ability to facilitate or inhibit migration. Wiseman explains that once the decision to move is made, the location, and type of housing must also be determined (Wiseman, 1980).

According to Wiseman, migration later in retirement is much different from early retirement migrations (Wiseman,1980). Wiseman suggests that the decision to move is based on satisfaction and that the first move may be to improve amenities, (cost of living, housing, neighborhood dissatisfaction) while later-life moves are attributed to the need for assistance, triggered by a decline in health or loss of spouse (Wiseman, 1980).

Push/pull amenities (e.g. comparing location taxes, employment opportunities, and the housing markets) and family/social influences are the factors that contribute to the decision to retire and remain in place or relocate. Statistically, push/pull amenities

are more significant than family influences, however both factors are clearly considered by potential migrant retirees (Schiamberg & McKinney, 2003).

Push-Pull Model and Other Studies Destination Selection

Destination selection for some is determined before or by the decision to move. Some retirees decide to move near kin or family, while others are influenced by vacation destinations or word of mouth. Some couples that relocate return to an area of origin after losing a spouse or their health declines (Wiseman, 1980). According to Cuba, destination selection commonly only involves a few places for consideration. (Cuba, 1989,1991). According to a 2003 Serow study, climate and cost of living were the most frequently cited factors in determining a retirement location (Serow, 2003).

One study shows that during a five-year period 28 percent of all Americans over the age of 64 changed residences at least once (Flynn, Biggar, Longino, and Wiseman, 1979) – However, only 14 percent of residential change is interstate relocation. Interstate migrants are typically younger, better educated, and married. According to Longino, there is growing evidence to support that returning to one's state of birth is a very important aspect of long distance migration (Longino, 1979). Evidence shows that those of lower socio-economic status tend to relocate locally when the need arises (Wiseman, 1980).

Schiamberg and McKinney framed their research around factors that influence the decision to retire and remain in place or move away from a current home or community. According to Schiamberg and McKinney, retirees that decide to relocate have incomes over $50,000 and are more dissatisfied with the size of their current

home. Those that stay in place rate their proximity to family and community very high (Schiamberg & McKinney, 2003)

Evidence shows that those ages 40 – 50 are more likely to move than remain in place. As retirees age, the decision to age in place increases, according to the study, those over 60 were convincingly, more likely to remain in place than move (Schiamberg & McKinney, 2003).

Research by Shields, Deller, and Stallman and contributed to retiree research by differentiating migration patterns between wealthier and poorer retirees and younger and older retirees. The researchers provide evidence that young retirees may provide larger positive fiscal impact for the community than the older retirees (Shields, Deller, and Stallman, 2001; Serow, 2003).

Duncombe, Robbins, and Wolf suggest that 80 percent of those 65 years or older fail to move at all. These researchers further investigated the migration differences among education levels and racial groups. According to their study, older individuals are uniformly attracted to warmer climates. Non-Whites are attracted to sunnier climates with low humidity, whereas the opposite appears to be found for college-educated Whites. Duncombe et al. found that college educated Whites appear to avoid areas with large non-White populations, while non-Whites and Whites without college educations prefer such urban destinations (Duncombe, Robbins, Wolf, 2003).

According to Duncombe, Robbins and Wolf, in regards to health services, retirees appear to be attracted to destinations with broader range of hospital services, and the importance is positively correlated with age (Duncombe, Robbins, Wolf, 2003).

Another group, Fagan and Reeder, researched military retirees. Military retirees are such a unique group because many are still relatively young, believed to be healthier and better educated. According to a Fagan and Reeder, officers typically retire at 46, while enlisted Soldiers the age 42. With age on their side, military retirees have ample time to start a second career upon retirement from the armed forces. Employment opportunities hold a high level of significance for young military retirees (Fagan & Reader, 1994).

Fagan and Reeder also revealed a phenomenon for armed forces retirees to congregate near existing military treatment facilities because of the access to health care in the military hospitals provided (Fagan & Reeder, 1994).

Applying the Wiseman's model for the theory of elderly migration, a significant event or "trigger mechanism" initiates the process for retirees to begin thinking about the decision to move or to remain in place. Will El Paso's population growth, employment opportunities or access to health care influenced by BRAC and Grow the Army initiatives cause retirement aged individuals to consider leaving the El Paso community upon retirement or encourage them to stay? Will these strategic initiatives "push" or "pull" retirees in the El Paso community beyond the historical norms?

Texas is ranked fourth in the top ten destination states that receive retirees from other states, only preceded by Florida, California, and Arizona (Longini & Bradley, 2003). Since 2000, there has been a growing trend for retirees to migrate to primarily desert and mountain states, this migration pattern has been coined the "New West" (Longini & Bradley, 2003). Can El Paso, Texas capitalize on this growing migration trend?

Fagan and Reeder identify military retirees as a unique subculture because they retiree relatively young, healthy, better educated, and seeking employment. The question is what effects (if any) the BRAC and Grow the Army initiatives have on the retired veteran population and their decisions to stay in the area after retirement or move to other more attractive destinations.

Purpose

The purpose of this study is to determine how the growth in active duty populations attributed to the Army strategic initiatives will affect the TRICARE Prime retiree beneficiary populations and the El Paso retiree populations through FY 2015. This study will address what percentage of Fort Bliss retiree populations enroll into the TRICARE Prime programs for healthcare. Additionally, this study will attempt to determine a predictor for TRICARE PRIME retiree beneficiaries populations through 2015 based upon population changes caused by the Army strategic initiatives. Last, this study will investigate whether the city of El Paso (Fort Bliss) possesses enough desirable characteristics to influence the retiree population to migrate/relocate to El Paso or remain in place after retirement.

Leaders of the Army Medical Command (MEDCOM), WBAMC, and El Paso community must strategically position themselves for future population growth, in a regionally underserved health services community according to the U.S. Department of Health and Human Services, Health Resources and Services Administration, (U.S. Department of Health and Human Services, 2008).

Several predictive staffing models have been used by WBAMC leaders to plan for the appropriate staffing levels and staffing mix for the forth-coming TRICARE

enrollment increases of active duty service members (ADSM) and Prime active duty family members (ADFM). Despite detailed planning and coordination, for policy reasons the predictive models have intentionally held the enrolled prime retiree (RET) and prime retiree family member (RETFM) beneficiary populations constant. Public Law 101-510, Title XXIX, Defense Base Closure and Realignment Act of 1990 only authorizes the use of BRAC 2005 for construction, planning and design, civilian severance pay, civilian permanent change of station, transportation, and other cost related to the realignment or closure of the subject bases, but there are no allocations for retirees. Despite the bureaucratic budgetary constraints, in reality WBAMC leaders must consider retiree population growth in future health services planning for its beneficiaries (DoD Financial Management Regulation, 2008).

The significance of this study is to provide predictive models to determine whether the Army strategic initiatives influencing active duty growth at Fort Bliss will result in an increase in the retiree beneficiary populations, and seek to determine whether the greater El Paso community will increase in retirees because of its attractiveness and local amenities in the Western Texas region.

Hypotheses

Research suggests that five factors affect a retiree's decision to move: age, wealth, health, cost of living, and amenities. Those more educated, healthy, and wealthy (identified as earning over $50,000) are more likely to move to destinations that attract them (Schiamberg & McKinney, 2003).

Early-life (ages 40-64) El Pasoans or military retirees and later-life (ages 65 and older) retirees' decision to move are based on residential satisfaction in response to

different sets of personal attributes impacted by health, wealth and destination characteristics, like family presence and cost of living.

The null hypothesis is there is no relationship between the decisions to move after retirement near Army medical treatment facilities for early-life and late –life retirees with income, family nearby, low –cost living, and local amenities to entice retirees to remain in the area.

The alternate hypothesis is there is a relationship between the decision to move (migrate) in the local community after retirement near Army medical treatment facilities for early-life and late-life retirees with income, family nearby, low cost of living, and local amenities to entice retirees to remain in area.

Method and Procedures

Research Design

Non-experimental research design will be used to study the relationships of ADSMs and Retiree Prime Enrollment; and the relationships of migration patterns for retirees over 40 in communities surrounding MTFs with inpatient capability and the attractiveness of the local community. Both studies are based on historical data, either from the Army Medical Command's Enrollment Based Stationing Model or U.S. Census Data.

For the scope of this study, components of both the Life-Course Model and the Wiseman's elderly migration models will be applied to evaluate retiree preferences when deciding to relocate, by examining individual attributes (age, wealth, and education) and the attractiveness of their current location. From the Wiseman model, the differentiation of "early-life retirees" and "late-life retirees," along with the use of a

trigger will be incorporated with decision to move and the determinant of a destination selection from the Life-Course Model.

This study will examine the TRICARE Eligible retiree populations, trend what percentage historically enroll to the TRICARE Prime healthcare plan and predict enrollment based on historical fluctuations in active-duty population. Further, this study will use a regression analysis to identify the common characteristics that influence retirees' decisions to migrate or remain locally in areas that are within close proximity to military medical treatment facilities.

Enrollment

This study will trend the TRICARE Eligible and Enrolled retiree populations using the trend statistical function in Excel© based on historical retiree data from fiscal year 2005 through 2010 queried from the TRICARE Operation Center, an online website and the Army Medical Command Management System, Enrollment Based Stationing Model IV (EBSM) (April 2010) (Command Management System, 2010) . The data will determine what percentage of WBAMC retirees that are eligible to enroll to the MTF actually enroll to the MTF for healthcare (see Figure 1).

According to the Enrollment Based Stationing Model (EBSM), over the past five years retirees at William Beaumont Army Medical Center enroll to the MTF at ratio of 0.69 retirees to every 1.0 ADSM. The relationship between ADSMs and retirees will be used to predict enrollment through FY 15, based on predetermined active duty projections from the Army Stationing and Installation Planning (ASIP) numbers for Fort Bliss and the trend statistical function in Excel©. ASIP numbers are published quarterly for each Army installation for strategic planning purposes.

The dependent variable, Enrolled Retiree Population, is based on historical enrollment at WBAMC from FY 05 through FY 10 from the EBSM. The independent variable, ADSM Enrollment is also based on historical enrollment at WBAMC from FY 05 through FY 10 and future assignment projections from Fort Bliss for FY 11 through FY 15 from the ASIP. As mentioned earlier, only 99 percent of all assigned ADSMs to Fort Bliss enrolled to WBAMC. Using the trend statistical function, this study will provide a predictor for Retiree Enrollment projections through FY 15 for WBAMC based on the known independent variables to determine the unknown dependent variables (see Figure 2).

Migration Patterns

The second part of the study will observe the characteristics and amenities of El Paso, TX, and determine if the migration patterns for the El Paso community are similar to other similar military installations. This study will determine if there are relationships between the city's attractiveness and historical migration patterns.

To determine the migration patterns, this study will look at two subgroups of retiree populations to examine the characteristics of those subgroups (that surround military installations) as it relates to the likelihood of either population migrating either in or out of military communities surrounding Army medical treatment facilities. This study will determine what is significant to each sub-group population when deciding whether to migrate.

The methodology for migration patterns was derived from a 2002 study by Walters that used Public Use Microdata Area. Walter's study used regression analysis to test three subgroups based on the stages of life an individual had reached that

affected the decisions for migration, known as the life-course model. Based on research by Wiseman and Duncombe, Robbins, and Wolf, this study will use age to differentiate stages of life instead of characteristics to describe the sub-group. Additionally, this study used variables that were found in U.S Census Public Use Microdata Area (PUMA) but tested in more than one study. Duncombe, Robbins, and Wolf used PUMA data for migration patterns, but tested a larger set of independent variables to include climate, crime rates, healthcare options, and unemployment rates. This study was limited to variables found in the PUMA.

Age Group Participants

During an examination of U.S. Census data for retirees over 40 year (limited to the continental United States) the retiree population was separated into two subgroups, ages 40 – 64 and over 65 that surround Army Medical Treatment facilities with inpatient capability. The age subgroups selected were based on research from Duncombe, Robbins, and Wolf that differentiated a change in migration patterns distinctly different for ages 65 to 74 years old (Duncombe, Robbins, and Wolf, 2003). Wiseman and researchers Shields, Deller, and Stallman suggest that young retirees versus older retirees differentiate by migration patterns and destination selection(Shields, Deller, and Stallmann, 2001). According to Wiseman, if migration changes are to occur the likelihood increases during peak retirement years, usually during the ages 60 – 69 (Wiseman, 1980). Schiamberg and McKinney conducted a study on migration plans for ages specifically 40 to 65 in *Factors Influencing Expectations to Move or Age in Place at Retirement Among 40 to 65 Year Olds* and found a distinction in age groups under 50 and ages over 50 when deciding to move (Schiamberg & McKinney, 2003).

Similar to these studies, within the military healthcare system retirees are also distinguishable by age group: young retirees, retirees under 65, and older retirees, those 65 and older. Retirees under 65 are eligible as Prime Retirees while retirees over 65 are commonly known as TRICARE for Life populations are Medicare eligible. Several studies suggests the significance of ages 40 to 65 and the differentiation of migration patterns among the two sub-groups. For the purposes of comparing studies done that differentiate between "young old" and "old-old" or "early-life" and "late-life" subgroups and incorporating military retirees in Army communities, the ages 40 to 64 and over 65 will be used to examine retiree characteristics of retirees comparable to TRICARE Eligibility.

Geographic Participants

First, the over 40-year population for nineteen military installations with Army medical treatment facilities were queried from the 2000 Public Use Micro Files from the U.S Census (See Appendix A). PUMAs (Public Use Microdata Areas) are terms that define counties, census tracts, and/or places that are (re)defined every ten years for use in the decennial census. Like census tracts, many PUMAs retain their definitions across decades (U.S. Census Bureas, 2003). Seventy-seven PUMAs are consolidated into retiree data for 19 Army installations for each sub-group. Many of the 19 Installations have multiple PUMAs surrounding the Army installation.

The data captured approximately 5 percent of populations surrounding a 40-mile radius of the 19 Army Installations. These installations were selected because they are indentified as Army Forces Command (FORSCOM) or Training Doctrine Commands (TRADOC) installations with inpatient treatment capability. Due to missions related to

the Global War on Terrorism, Fort Sam Houston and Walter Reed Army Medical Center were excluded from the study.

To further refine the retiree population characteristics, geographic limits were placed to examine retiree populations that are more likely eligible for TRICARE benefits, unlike other retiree migration studies that examined all PUMAs for specific age groups. When determining the impact of retirees around Army military installations, eligible retirees within the 40-mile radius (TRICARE Catchment Area) are typically the largest consumers of military treatment facilities, when compared to retirees that must travel greater distances. The 40-mile radius is significant because understanding the characteristics of this population will provide an indication of the likelihood for demand of services from retirees in the local areas. Additionally, the 40-mile radius (or 30 minute drive time) is the common distance associated with a catchment area or geographic area surrounding a military treatment facility (MTF) with inpatient capabilities (Department of Defense Health Affairs, 1997). Active duty family members and retirees residing outside of the area may chose to receive health care from other sources.

Using a census related PUMA map legend, 40-mile circumferences were determined for each installation. Populations within the 40-mile radius of an Army military treatment facility (MTF) and those PUMAs with greater than 50 percent of the PUMA circumference lie within the 40-mile radius of each Army Installation MTF, were also included in the study.

Each PUMA that met the aforementioned criteria were queried in the census database, for 18 variables. Although 20 variables were analyzed, two of the variables "Migration Instate" and "Migration Out of State" were computed manually by querying

the population that migrated (moved) and determining from census data if the previous residence was from within the state or from an out-of-state location. These two data points were obtained to gain additional information about the migration population for discussion but were not run as part of a test. In the literature review researchers, Flynn, Biggar, Longino, and Wiseman observed that only 14 percent of migration was interstate. Sample will be compared to the Flynn et al study in the discussion.

The sum of the PUMAs within the 40-mile radius of each of the 19 installations were averaged and the average represented the characteristics of the population surrounding the 19 Army Installation with inpatient military treatment facilities. The Census datasets were recoded for binary distribution (See Table 1) to allow comparison between different samples sizes. Each independent variable in the query was recoded to be an "either or" situation and converted to percentages, therefore the sum of two datasets for each variable equaled 100%. Although the sample sizes varied by installation, the sum of the variables within the same relationship, i.e. "degree or no degree, veteran or non-veteran, family present or no family present" equaled 100% of the total sample size for each installation. Further, each of the 20 variables in Appendix A were reduced to 10 variables because the data were recoded in a binary distribution only one representation of the sample for each variable was need for comparison of each installation (See Table 1 and Table 2).

Exclusions

Before any testing, "Same Residence" and "Different Residence" variables were removed because raw data for "Different Residence" variables closely resembled the data for migrating population. To prevent collinearity the variables were removed and

not tested. Also, the "Veteran" variable was removed before testing because it was not supported by any literature review. Additionally, based on knowledge of the Military Healthcare System, the "Veteran" variable is not representative of the characteristics of the entire retiree household. The "Veteran" variable does not include the spouse, or family members present within the household that may also be of retirement age affected by the decisions to migrate. The other variables are a better representation of the entire household. For that purpose, the "Veteran" variable was excluded. A correlation test was conducted to check for strong correlations among each variable or collinearity among the remaining variables (see Table 6). Any variables found over .95 will be omitted. According to the correlation matrix no variables tested greater than.88. No other variables were omitted.

Procedure

Looking at different variables will provide insight on the socioeconomic status and familial bonds of retirees in surrounding Army communities and their likelihood to remain in the area or migrate. Based on studies Schiamberg and McKinney (age, wealth, health, cost of living, and amenities), Fagan and Reeder (near military treatment facility, education, wealth), and Walters (age, health, wealth, presence of family) suggest that the queried data are indicators for the likelihood to migrate. The wealthier and healthier an individual is the more likely the individual will relocate if the local community does not meet his or her needs. It is suggested that these specific needs are age specific when analyzing populations over age 40. This study will test if there is any relationship between six independent variables, as it relates to the dependent

variable, migration. As previously stated, "Migration Instate" and "Migration Out-of-State" will not be tested as variables, but rather included for discussion purposes.

The dependent variable, migration, was constructed from 2000 U.S. Census PUMA data for 1,198,748 retirees . The data included five percent of retirees in two age groups (40 to 64 and Over 65) that migrated into or out of the PUMA. The retirees were identified as those who reported different areas of residence in 1995 and 2000. The remaining populations constituted the percentage of retirees that no relocation were observed. The independent variables are defined in Table 3.

Two different multiple regressions analysis were undertaken using Excel© based on the two age groups, 40 to 64 and Over 65. The tests were constructed using Public Use Microdata Samples from the 2000 U.S. Census with these following dependent and independent variables (See Table 3).

Table 1

Census Data Definition Sheet

Variable	Definition
Dependent	
Migration	Population that migrated during 2000 Census
Independent	
Veterans	Served in any war since WWII
None Veterans	No military service
Degree	No college degree earned
No Degree	Associates degree or higher earned
Family Present	Relative, spouse, unmarried partner, children to include adoptive and step-children present in local area
No Family Present	No relatives, spouse, partner, or children present in the local area
Place of Birth Out of State	Manually determined from Place of Birth data by subtracting those born In-State from the sum of the sample size for the age group
Place of Birth In- State	Manually determined from Place of Birth data by subtracting those born Out of State from the sum of the sample size for the age group
Same Residence	Resided in the same residence for the last 5 years
Different Residence	Resided in a different residence within the last 5 years
Income Under $50K	Total retirement income to include social security, other income under $50K
Income Over $50K	Total retirement income to include social security, or other income over $50K
Proper Value Under $150K	Property valued under $150K or no proper
Proper Value Over $150K	Property valued over $150K
Proper Tax Under $1000	Property tax under $1000 or no proper tax
Proper Tax Over $1000	Property tax over $1000
Migration From In-State	Manually calculated from migration state data by subtracting those that migrated from the state of the installation from the sum of the total migration for the age group
Migration from Out of State	Manually calculated from migration state data by selected subtracting those that migrated instate from sum of all state migration data for the age group

Note. Data queried from Cenus DataFerrett Database based on 2000 PUMA (5%) population file.

Table 2

Raw Data from Census in Percentages

Installation	Degree	Family Present	POB InState	RET INC Over $50K	PropVal Over $150 K	PropTax under $1000	Migration	Migration From OutofState	Migration from InState
Ages 40 to 64									
Fort Belvior	0.52	0.96	0.21	0.31	0.73	0.10	0.30	0.33	0.67
Fort Benning	0.25	0.97	0.67	0.08	0.19	0.70	0.26	0.18	0.82
Fort Bliss	0.31	0.98	0.67	0.07	0.13	0.26	0.23	0.21	0.79
Fort Bragg	0.26	0.97	0.69	0.07	0.18	0.66	0.24	0.27	0.73
Fort Campbell	0.25	0.98	0.60	0.07	0.19	0.72	0.24	0.26	0.74
Fort Carson	0.38	0.97	0.26	0.09	0.47	0.63	0.35	0.32	0.68
Fort Eustis	0.32	0.96	0.47	0.09	0.28	0.32	0.29	0.24	0.76
Fort Gordon	0.26	0.97	0.62	0.07	0.19	0.70	0.26	0.23	0.77
Fort Hood	0.32	0.98	0.48	0.08	0.15	0.34	0.30	0.23	0.77
Fort Irwin	0.23	0.95	0.52	0.10	0.24	0.63	0.35	0.15	0.85
Fort Jackson	0.33	0.97	0.63	0.09	0.24	0.76	0.26	0.21	0.79
Fort Knox	0.24	0.99	0.61	0.09	0.17	0.84	0.23	0.22	0.78
Fort Leanardwood	0.18	0.99	0.65	0.05	0.22	0.86	0.31	0.22	0.78
Fort Lewis	0.40	0.96	0.42	0.17	0.68	0.08	0.28	0.20	0.80
Fort Polk	0.22	0.99	0.77	0.06	0.15	0.91	0.24	0.15	0.85
Fort Riley	0.28	0.98	0.67	0.05	0.15	0.57	0.25	0.19	0.81
Fort Rucker	0.23	0.98	0.67	0.06	0.14	0.97	0.25	0.24	0.76
Fort Sill	0.22	0.99	0.61	0.05	0.08	0.89	0.24	0.24	0.76
Fort Stewart	0.20	0.98	0.67	0.06	0.16	0.68	0.30	0.27	0.73
Ages 65 and Older									
Fort Belvior	0.27	0.96	0.30	0.09	0.68	0.11	0.23	0.39	0.61
Fort Benning	0.18	0.98	0.66	0.04	0.15	0.77	0.18	0.21	0.79
Fort Bliss	0.15	0.95	0.51	0.04	0.10	0.41	0.15	0.19	0.81
Fort Bragg	0.17	0.98	0.69	0.03	0.21	0.65	0.19	0.30	0.70
Fort Campbell	0.13	0.99	0.65	0.01	0.12	0.75	0.17	0.36	0.64
Fort Carson	0.20	0.98	0.22	0.03	0.40	0.70	0.27	0.39	0.61
Fort Eustis	0.16	0.98	0.41	0.05	0.24	0.31	0.18	0.28	0.72
Fort Gordon	0.17	0.97	0.66	0.03	0.16	0.78	0.18	0.35	0.65
Fort Hood	0.14	0.98	0.61	0.06	0.12	0.56	0.23	0.39	0.61
Fort Irwin	0.17	0.96	0.23	0.02	0.17	0.58	0.21	0.38	0.62
Fort Jackson	0.18	0.98	0.66	0.04	0.19	0.83	0.19	0.30	0.70
Fort Knox	0.09	0.99	0.69	0.02	0.11	0.89	0.12	0.37	0.63
Fort Leanardwood	0.09	0.99	0.67	0.02	0.15	0.88	0.23	0.25	0.75
Fort Lewis	0.23	0.97	0.34	0.05	0.61	0.16	0.21	0.21	0.79
Fort Polk	0.12	0.99	0.79	0.03	0.12	0.92	0.16	0.20	0.80
Fort Riley	0.13	0.97	0.76	0.02	0.10	0.57	0.17	0.15	0.85
Fort Rucker	0.13	0.99	0.72	0.02	0.14	0.96	0.20	0.33	0.67
Fort Sill	0.11	1.00	0.71	0.03	0.08	0.90	0.14	0.21	0.79
Fort Stewart	0.11	0.99	0.74	0.03	0.16	0.73	0.23	0.19	0.81

Note. Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file.

Table 3

Variable Code Sheet for Retiree Regression Analysis

				Group Ages 40 - 65 $Y_{(1)}$ Ages Over 65 $Y_{(2)}$	
Variables		Nomenclature	Category	Definition	Source
		Included Variables			
$Y_{(1)}$ =	$Y_{(2)}$ =	Migration	Population Characteristic	Percentage migrated after retirement	1. U.S. Bureau of the Census. (2003). *Census 2000 Public Use Microdata Five-Percent Sample* [Data file]. Washington, DC: U.S. Department of Commerce, Bureau of the Census.
$x1_{(1)}$ =	$x1_{(2)}$ =	Degree	Individual Characteristic	Percentage with at least an associates degree	1
$x2_{(1)}$ =	$x2_{(2)}$ =	Family Present	Population Characteristic	Percentage with a relative or spouse/partner present	1
$x3_{(1)}$ =	$x3_{(2)}$ =	Place of Birth	Population Characteristic	Percentage that were born in the state of current residence	1
$x4_{(1)}$ =	$x4_{(2)}$ =	Retirement Income Over $50K	Individual Socioeconomic status	Percentage with retirement income over $50K	1
$x5_{(1)}$ =	$x5_{(2)}$ =	Property Value Over $150K	Individual Socioeconomic status	Percentage with retirement income over $50K	1
$x6_{(1)}$ =	$x6_{(2)}$ =	Property Tax Under $1000	Location Characteristic	Percentage with low property taxes	1
		Omitted Variables			
$x7_{(1)}$ =	$x7_{(2)}$ =	Different Residence	Population Characteristic	Resided in a different residence within the last 5 years	1
$x8_{(1)}$ =	$x8_{(2)}$ =	Veteran Status	Population Characteristic	Percentage that served in any war since WWII	

Note. All coded as ratios or percentages in order to compare different sample sizes

The dependent data, Y = migration, was analyzed in two groups, those 40 to 64 and Over 65. The search criteria consisted of the percent of the population that met the age criteria, resided within PUMAs that fell within a 40-mile radius, and received retirement income. The independent data consisted of six variables: college degree, family present, place of birth in state, retirement income over $50K, property value over $150K, and property tax under $1000.

Limitations

This study is limited by the number of Army installations with inpatient military treatment facilities (MTFs). The small sample size limits the number of variables that can be tested. In addition, U.S. Census Data used in the model are updated every 10 years. Additionally, this study does not take in account local moves that occur with the same geographic census tract, county, or metropolitan statistical area and only included Army MTFs within the continental United States. To compare the characteristics of retirees surrounding Army communities that may affect the demand on services at the Army military treatment facility, a 40-mile geographic radius (surrounding Army installations with inpatient treatment capabilities) was used to only define the characteristics of the retiree populations that may be eligible for healthcare at the Army facility.

Results

Enrollment Results

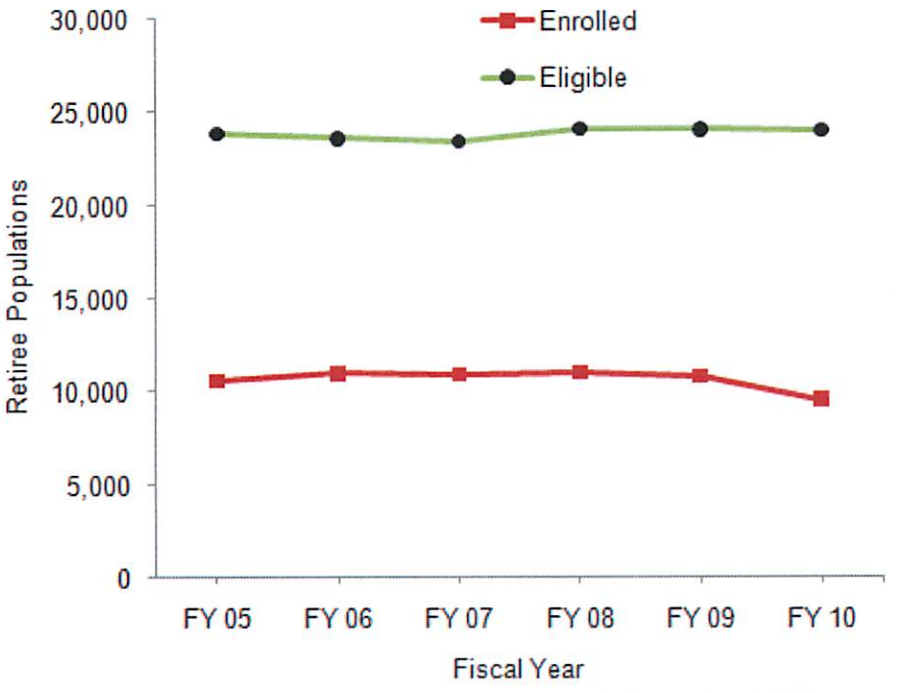
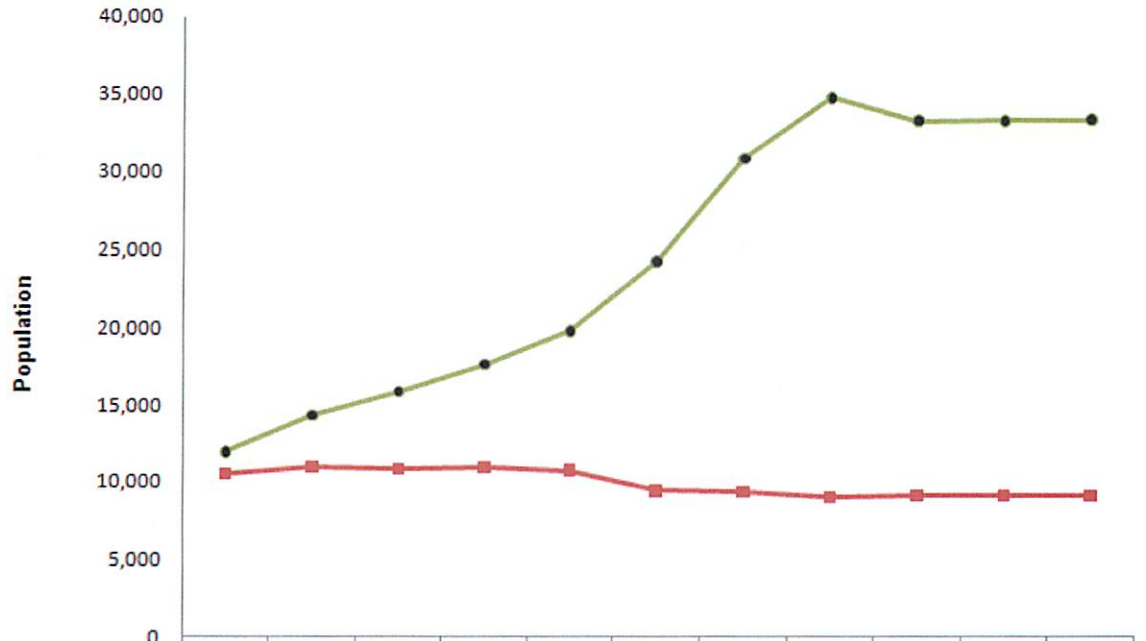


Figure 1. TRICARE retiree populations for William Beaumont Army Medial Center based on data from TRICARE Operation Center and the Enrollment Based Stationing Model.

According to data from the TRICARE Operation Center and the Command Management System Enrollment Based Stationing Model, approximately 45 percent of the TRICARE Eligible Retirees enrolled to WBAMC over the past five years. However, in FY 10 the Retiree enrollment dropped to 40 percent. In FY 10, Fort Bliss experienced the largest increase in ADSMs in over five years due to BRAC and Grow the Army initiatives. Despite a drop in enrollment, the Eligible Retiree populations remained relatively constant through the trigger of FY 10

Overall, data show that the Enrolled TRICARE Retiree population will continue to decrease slightly between FY 11 through FY 15 (see Figure 2). The data trend shows an inverse relationship between ADSM growth and TRICARE Retiree enrollment at WBAMC. In FY 13, ASIP projections show a decrease in ADSMs enrollment;



	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Retiree Enrollment	10,542	10,967	10,870	10,986	10,772	9,492	9,415	9,065	9,194	9,194	9,185
ADSM Enrollment	11942	14320	15879	17683	19846	24,327	30,934	34,929	33,449	33,454	33,556

Figure 2. The population projections for William Beaumont Army Medical Center retiree enrollment when compared to active duty service member projections for enrollment from the Command Management System Enrollment Based Stationing Model.

consequently, there is a slight increase in Retiree Population enrollment for FY 13, however still below current enrollment levels. Despite the large increase in ADSM enrollment numbers, the data shows that the change in enrollment over time for retirees at WBAMC is small, less than 1,600 over the next 5 years.

Migration Regression Analysis Results

. The descriptive statistics and regression results for those that migrate upon retirement in communities surrounding Army military installations with inpatient medical treatment facilities are presented in Table 4.

Table 4

Multiple Regression Model for Migration Sample Ages 40 to 64 and Over 65 (N=19)

Variable	*SE B*	*t*	*M*	*SD*	*R2*	*F*
Ages 40 to 64						
Degree	0.20	-1.57	0.28	0.08	0.72	5.07
Family Present	0.72	-1.73	0.98	0.01		
Place of Birth	0.08	**-3.21**	0.57	0.15		
Retirement Income Over $50K	0.23	-0.98	0.09	0.06		
Property Value Over $150K	0.08	0.88	0.25	0.18		
Property Tax Under $1000	0.04	0.19	0.61	0.27		
Ages Over 65						
Degree	0.47	-0.01	0.16	0.05	0.40	1.35
Family Present	1.38	0.44	0.98	0.01		
Place of Birth	0.08	-1.35	0.58	0.19		
Retirement Income Over $50K	0.78	0.24	0.04	0.02		
Property Value Over $150K	0.13	0.70	0.21	0.17		
Property Tax Under $1000	0.07	0.58	0.66	0.25		

NOTE: *p level* < *.01, F Critical Value* = *3.00,* α = 2.18,

Descriptive Statistics

There are noted similarities among age groups, 40-64 years and over 65 (see Table 5). The mean for Migration or the decision to move is less than 30 percent for ages 40 – 64 (*M* = 27, SD = .04) and less than 20 percent for ages over 65 (*M* = 19, SD = .04). The skewness and kurtosis were less than the absolute value of one for both age groups, suggesting reasonable normal distribution. Also, for both age groups the descriptive data indicated a slight positive skewness for degree (education), income over $50K, and property value over $150K.

Table 5

Descriptive Statistics for Mutiple Regression

	Degree	Family Present	POB InState	RET INC Over $50K	PropVal Over $150 K	PropTax under $1000	Migration	Migration From OutofState	Migration from InState
Ages 40 to 64									
Mean	0.28	0.98	0.57	0.09	0.25	0.61	0.27	0.23	0.77
Standard Error	0.02	0.00	0.03	0.01	0.04	0.06	0.01	0.01	0.01
Median	0.26	0.98	0.62	0.07	0.19	0.68	0.26	0.23	0.77
Standard Deviation	0.08	0.01	0.15	0.06	0.18	0.27	0.04	0.05	0.05
Sample Variance	0.01	0.00	0.02	0.00	0.03	0.07	0.00	0.00	0.00
Kurtosis	2.39	0.81	1.31	11.07	3.31	-0.36	-0.02	0.45	0.45
Skewness	1.43	-0.74	-1.34	3.16	2.03	-0.80	0.86	0.52	-0.52
Range	0.33	0.04	0.55	0.26	0.65	0.88	0.13	0.18	0.18
Minimum	0.18	0.95	0.21	0.05	0.08	0.08	0.23	0.15	0.67
Maximum	0.52	0.99	0.77	0.31	0.73	0.97	0.35	0.33	0.85
Ages Over 65									
Mean	0.16	0.98	0.58	0.04	0.21	0.66	0.19	0.29	0.71
Standard Error	0.01	0.00	0.04	0.00	0.04	0.06	0.01	0.02	0.02
Median	0.15	0.98	0.66	0.03	0.15	0.73	0.19	0.30	0.70
Standard Deviation	0.05	0.01	0.19	0.02	0.17	0.25	0.04	0.08	0.08
Sample Variance	0.00	0.00	0.03	0.00	0.03	0.06	0.00	0.01	0.01
Kurtosis	0.94	-0.45	-0.46	4.78	3.68	0.08	0.03	-1.55	-1.55
Skewness	0.85	-0.61	-1.00	1.80	2.11	-0.95	0.21	-0.11	0.11
Range	0.18	0.04	0.57	0.08	0.60	0.85	0.15	0.25	0.25
Minimum	0.09	0.95	0.22	0.01	0.08	0.11	0.12	0.15	0.61
Maximum	0.27	1.00	0.79	0.09	0.68	0.96	0.27	0.39	0.85

Note. Variable "Migration from Out of State" and "Migration from Instate" were not run as part of the regression analysis but were included for discussion purposes only.

In this study, young retirees tend to move eight percent more than old retirees. Both groups chose destinations with family within the community, over 97 percent, and within their birth states, ages 40 to 64 (*M* = .57, SD = .01) and ages over 65 (*M* = *.60, SD* = .01). Less than a third of retirees that chose to migrate obtained a college education, the average was higher for the young retirees (*M* = .28, SD = .08) when compared to those over 65 (*M* = .16, SD = .05). Less than 10 percent of both age groups earned retirement income over $50K and on average 25 percent of both age groups claimed property that was valued over $150K.

In the correlation matrix (see Table 6) for retirees ages 40 -65 Property Tax, Degree, and Retirement Income over $50K showed the weakest relationship to the dependent variable Migration, while Place of Birth Instate and Family Present had the strongest relationships, both with inverse relationships to migration. For retirees over 65, Property tax, Family present (-.17) and Retirement Income over $50K (.33) showed the weakest relationship to the dependent variable, while Place of Birth (-.51) and Property Value Over $150K (0.53) showed the strongest relationships to migration.

With a significant level of alpha =.05, the critical value is .47. This means that if a correlation is greater .47 or less than -.47 the findings are statistically significant. There are statistically significant relationships for ages 40-65 between migration and Family Present, $r(17) = -.58$, $p < .05$, Place of Birth, $r(17) = -.64$, $p < .05$ and for ages over 65 between migration and Place of Birth $r(17) = -.51$, $p < .05$ and Property Value Over $150K, $r = .53$, $p < .05$.

Table 6

Correlation Matrix for Dependent Variable (Migration)

	Degree	Family Present	POB InState	RET INC Over $50K	PropVal Over $150 K	PropTax under $1000	Migration
Ages 40 - 64							
Degree	1.00						
Family Present	-0.48	1.00					
POB InState	-0.83	0.56	1.00				
RET INC Over $50K	0.86	-0.52	-0.75	1.00			
PropVal Over $150 K	0.85	-0.55	-0.83	0.88	1.00		
PropTax under $1000	-0.78	0.57	0.63	-0.67	-0.66	1.00	
Migration	0.27	-0.58	-0.64	0.27	0.46	-0.25	1.00
Ages Over 65							
Degree	1.00						
Family Present	-0.66	1.00					
POB InState	-0.69	0.68	1.00				
RET INC Over $50K	0.75	-0.45	-0.46	1.00			
PropVal Over $150 K	0.86	-0.45	-0.69	0.71	1.00		
PropTax under $1000	-0.71	0.73	0.67	-0.70	-0.72	1.00	
Migration	0.44	-0.17	-0.51	0.33	0.53	-0.27	1.00

Results

A multiple linear regression analysis was used to test the relationship between migration and six variables. There are differences in the way each subgroup reacted to the six variables as supported by the literature review by a differentiation between the factors that are important to the "young-old" versus factors important to the "old-old" when deciding to migrate.

Ages 40 to 64

Those ages 40 to 64, the "young old" have an F (6,19) = 5.07, p = .00, which is significant with a F critical value of = 3.00 and alpha level of .05, indicating that it is acceptable to reject the null hypothesis and the results did not occur by chance. There is a relationship between the decision to migrate after retirement in communities surrounding inpatient military treatment facilities with obtaining a college education, having family nearby, within the state of birth, retirement income over $50K, and property valued over $150K.

In populations under 65, the model can explain 72% of relationship to migrate after retirement with an R^2 = .72 with an adjusted R^2 = .58. Based on the results of the t-tests , there was one only variable, "Place of Birth" that was significant in determining migration for young retirees t (19) = -3.21, α = 2.18. The data indicates that the "Place of Birth" is indirectly correlated with migration, a retiree is more likely to migrate if not already living is the state of birth.

Ages Over 65

In the test for those over 65, the results are much different. The F(6, 19) = 1.35, p = .31 is not significant with a F critical value of 3.00 and and alpha level of .05. There is no significant relationship between the decision to migrate after retirement in communities surrounding inpatient military treatment facilities with obtaining a college education, having family nearby, within the state of birth, retirement income over $50K, property valued over $150K, and property tax.. The R^2 = .40 in the model and explains 40% of decision to migrate after retirement, with an adjusted R^2 = .10. Based on t – test results there were no significant variables for the over 65 model.

Discussion

Enrollment

This study trended the retiree enrollment at WBAMC based on historical enrollment to determine future enrollment trends; and tested the characteristics of the retiree age populations(ages 40 to 64 and over 65) to determine if factors like having a college degree, wealth, the attractiveness of community, presence of family, or affordable housing would encourage individuals to migrate.

Based on historical enrollment at WBAMC, it does not appear that there will be a growth in retiree enrollment at the MTF for at least the next five years. The study showed, that as the active duty enrollment increases, the retiree enrollment slightly decreases. Based on the Health Affairs priorities of care, active duty service members have the highest priority of care. In instances were available access to care is limited, ADSMs will always receive the highest enrollment to MTF status, while retiree enrollment may be limited or reduced to ensure space to ADSMs and their families. This appears to be the case in FY 10 (Department of Defense Health Affairs, 2006). WBAMC showed a five percent drop in retiree enrollment to the MTF (when compared to the last five years) during a period of the largest ADSM growth for Fort Bliss, TX. Despite growing troop populations as result of BRAC and Grow the Army initiatives, this study shows that retiree enrollment at WBAMC will not increase beyond current states of enrollment and will slightly decrease over the next five years.

Migration Patterns

The second study observed the migration patterns of retirees surrounding military communities with inpatient military treatment facilities earning retirement income from U.S. Census data. The study revealed that 28 percent of young retires (ages 40-64) can expect to move based on similar army communities throughout the continental U.S. The most significant factor in relocation destinations are locations where family is present. The findings in the study supports research by Walters. According to research by Walters desire for kinship is one of two most important motivating factors for destination selection (Walters, 2002). Research by Shiamberg and McKinney, revealed than proximity to family was high when deciding to relocate (Schiamberg and McKinney, 2003).

A 2002 study by Walters also indicated that 46 percent of retirees account for amenity-migrants in search of pleasant communities. This study (on average), revealed that only 27 percent of young retirees actually migrated. Walters indentified amenity-migrants as married, typically health, and financially secure. Fewer than 10 percent of the sample population surrounding army installations for this study, earned a retirement income over $50K. Schiamberg and McKinney used income over $50K in their 2003 study as an indicator of wealth during retirement. Because young retirees often continue to work, it is possible that many retirees earn additional income that is not designated as retirement income; and therefore is not captured in this study.

According to Wiseman, migration later in retirement is much different from early retirement migration (Wiseman, 1980). This study also supports Wiseman's research. Although a relationship could be determined in the young retirees, the same model did

not observe a relationship in older retirees. This study did not reveal a migration pattern model for the ages over 65. Education, presence of family, place of birth in state, retirement income over $50K and property valued over $150K revealed no significant relationship for retirees over 65.

Review of Migration of Instate and Out-of-State Migration Patterns

After a review of migration data for instate versus out-of-state migration (gathered earlier for discussion purposes from census data and included in the descriptive results) in Table 5, it is possible to review the city of El Paso, home of Ft Bliss Texas, when compared to other retiree populations for Army communities with inpatient military treatment facilities. The data revealed some interesting facts (see Table 6). For ages 40-65, Ft Bliss/El Paso, TX experienced the lowest migration rates of all 19 installations at 23 percent, only tied with Ft Knox/Radcliff, KY. For the over 65 population, El Paso experienced the third lowest migration, only followed by Ft Sill/Lawton, OK (14%) and Ft Knox/Radcliff, KY (12%). Also interesting, data from this study revealed that for both retiree age groups that for retirees that chose to migrate, moved to locations within their state of birth. According to Longino, there is evidence that returning to one's state of birth is a very important aspect of long distance migration (Longino, 1979). For the El Paso community, more than 79 percent (M = .77) of young retirees moved to or from locations within the state of Texas, (their place of birth) and 81 (M = .71) percent of those over 65. The data indicates that many retirees chose to stay in El Paso far above the average for other Army communities with MTFs.

Based on enrollment projections from this study, strategically William Beaumont Army Medical Center will not experience a growth in retiree enrollment for at least the

next five years based due to BRAC and Grow the Army strategic initiatives. These findings are significant because BRAC and Grow the Army initiatives actually resulted in a slight decrease in overall enrollment for WBAMC enrolled retirees. For planning purposes, the patient mix in the future will consist of more active duty and active duty family members than ever before.

Conclusion and Recommendations

For the city of El Paso, this study is important because of the possible financial gains for the city from an influx over 55,000 active duty Soldiers and family members arriving in El Paso. The opportunity exists to understand what variables are likely to attract retirees to remain in the local area after retirement. It is unprecedented for the city of El Paso to have such a large influx of personnel resulting in a residential population increase. Findings from this study, show that individuals born in the state of Texas are those most likely willing to stay in the city of El Paso. Equally, for other Army Installations with military treatment facilities, retirees relocate to areas within their state of birth.

Migration rates for El Paso/Fort Bliss are far less, on average than other communities surrounding MTFs with inpatient facilities. El Paso, TX is unlikely to significantly grow with retirees, however, data do support that young retirees (ages 40-64) from Texas are more likely to remain in El Paso after retiring than those born out of state. Also, this study indicates that retirees over 65 years old or influenced by different variables not included in this study.

Similar to a 2003 Duncome, Robbins,and Wolf study, that used PUMA data for migration patterns, I recommend conducting a study that tests a larger set of independent variables to include climate, crime rates, healthcare options, and unemployment rates. By including more variables in the model and adding healthcare options, climate, and crime rate variables, a future study is likely to identify significant variables for retirees over 65 within the 40-mile radius of Army inpatient military treatment facilities. Unlike this study, a future study with more variables may provide better insight on what factors are important to the population of retirees that also may be eligible for "TRICARE for Life" benefits.

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Appendix

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	POB Out Diff Residence	oState	POB InState	RET INC Under $50K	RET INC Over $50K	PropVal Under $150	PropVal Over $150 K	PropTax under $1000	PropTax over $1000	No I
Puma# 04405, California	18 700	1 704	16 996	14 683	4 017	17792	908	12 887	5 813	10 612	8 088	17 311	1 389	14 543	4 157	10 591	8 109	
40 and 64	13 261	1 092	12 169	10 157	3 104	12562	699	8 585	4 676	6 400	6 861	11 994	1 267	10 051	3 210	7 233	6 028	
Between 65 and 94	5439	612	4 827	4526	913	5230	209	4 302	1 137	4 212	1 227	5317	122	4492	947	3 358	2 081	
Puma# 00602, Colorado	17 827	1 412	16 415	13 636	4 191	17308	519	13 040	4 787	7 190	10 637	16 678	1 149	14 106	3 721	13 247	4 580	
40 and 64	12886	905	11 981	9 296	3 591	12505	381	9 041	3 845	4 977	7 909	11 848	1 038	9 849	3 037	9 253	3 633	
Between 65 and 94	4941	507	4 434	4341	600	4803	138	3999	942	2 213	2 728	4830	111	4257	684	3994	947	
Puma# 00601, Colorado	13 566	1 033	12 533	7 633	5 933	13238	328	7 691	5 875	11 440	2 126	11 662	1 904	3 226	10 340	4 884	8 682	
40 and 64	11786	805	10 981	6 237	5 549	11494	292	6 471	5 315	9 850	1 936	9 957	1 819	2 593	9 193	4 073	7 713	
Between 65 and 94	1780	228	1 552	1396	384	1744	36	1220	560	1590	190	1705	85	633	1 147	811	969	
Puma# 00902, Colorado	12 628	1 395	11 243	5 902	6 726	12235	393	8 680	3 948	10 093	2 535	11 073	1 555	3 849	8 779	5 606	7 022	
40 and 64	9 877	1 027	8 850	4 006	5 871	9556	321	6 541	3 336	7 813	2 064	8 472	1 405	2 690	7 187	4 095	5 782	
Between 65 and 94	2751	368	2 393	1896	855	2679	72	2139	612	2280	471	2601	150	1 159	1 592	1 511	1 240	
Puma# 00903, Colorado	11 648	1 234	10 414	7 434	4 214	11312	336	8 528	3 120	9 334	2 314	10810	838	7 452	4 196	9 369	2 279	
40 and 64	8274	925	7 349	4 767	3 507	8013	261	5 643	2 631	6 570	1 704	7574	700	5 268	3 006	6 634	1 640	
Between 65 and 94	3374	309	3 065	2667	707	3299	75	2885	489	2764	610	3236	138	2 184	1 190	2735	639	
Puma# 00904, Colorado	11 887	1 096	10 791	7 137	4 750	11481	406	6 954	4 933	10 553	1 334	11073	814	5 256	6 631	6 689	5 198	
40 and 64	10378	892	9 486	5 923	4 455	10018	360	6 151	4 227	9 092	1 286	9576	802	4 603	5 775	5 949	4 429	
Between 65 and 94	1509	214	1 295	1214	295	1463	46	803	706	1461	48	1497	12	653	856	740	769	
Puma# 00905, Colorado	7737	853	6 884	6 564	1 173	7557	180	5 543	2 194	5 741	1 996	7398	349	6956	771	7251	446	
40 and 64	6320	757	5 563	5348	972	6176	144	4 420	1 900	4 654	1 666	5902	328	5655	654	5995	434	
Between 65 and 94	1417	96	1 321	1216	201	1381	36	1123	294	1087	330	1396	21	1300	117	1405	12	
Puma# 01000, Colorado	15 412	1 098	14 314	10 603	4 809	14953	459	8 891	6 521	11 392	4 020	14523	889	7 757	7 655	10 466	4 946	
40 and 64	12478	810	11 668	8 248	4 230	12064	414	7 041	5 437	9 217	3 261	11790	778	6 108	6 370	8 202	4 276	
Between 65 and 94	2934	288	2 646	2355	579	2889	45	1850	1 084	2175	759	2823	111	1649	1 285	2264	670	
Puma# 03300, Georgia	17 947	1 018	16 929	13 650	3 397	16781	265	12 586	4 461	4 444	12 633	16414	533	14 652	2 295	13 327	3 720	
40 and 64	13626	779	12 847	10 613	3 013	13399	227	9 792	3 834	3 566	10 060	13023	603	11 696	1 930	10 394	3 032	
Between 65 and 94	3421	239	3 182	3037	384	3382	39	2794	627	878	2 573	3391	30	2956	455	2733	688	
Puma# 03600, Georgia	15 130	1 375	13 755	12 586	2 544	14754	376	10 359	4 761	5 687	9 443	14 019	1 111	12 396	2 735	9 911	5 119	
40 and 64	12 825	1 226	11 599	10 552	2 273	12449	376	8 683	4 142	5 080	7 745	11826	999	10 503	2 322	7 497	5 328	
Between 65 and 94	2305	149	2 156	2034	271	2305	0	1686	619	607	1 698	2193	112	1892	413	1514	791	
Puma# 00300, Kansas	17616	912	16 704	12 773	4 843	17282	334	13 638	3 978	6 245	11 371	16826	790	14 538	3 078	9 288	8 328	
40 and 64	13435	593	12 842	9 169	4 266	13297	138	10 162	3 273	5 182	8 253	12981	754	10 872	2 563	7 076	6 359	
Between 65 and 94	4181	319	3 862	3604	577	3985	196	3476	705	1 063	3 118	4445	36	3726	455	2212	1 969	
Puma# 00900, Kansas	17416	923	16 493	13 811	3 605	17104	312	13 258	4 158	4 699	12 727	16922	734	15 555	1 861	10 625	6 791	
40 and 64	12541	521	12 020	9 486	3 055	12270	271	9 221	3 320	3 557	8 984	11932	609	11 133	1 408	7 645	4 896	
Between 65 and 94	4875	402	4 473	4326	549	4834	41	4037	838	1 142	3 743	4990	125	4432	453	2 980	1 895	

Note: Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	POB Out Diff Residence	oState	POB InState	RET INC Under $50K	RET INC Over $50K	PropVal Under $150	PropVal Over $150 K	PropTax under $1000	PropTax over $1000
Puma= 00300, Kentucky	11690	807	10,273	8,666	2,414	10853	217	8,681	2,359	3,444	7,636	10,489	591	9,187	1,893	9,630	1,450
40 and 64	8302	459	7,803	6,362	1,940	8126	176	6,457	1,845	2,368	5,934	7718	584	6,932	1,370	7,203	1,099
Between 65 and 94	2778	308	2,470	2,304	474	2737	41	2224	554	1,076	1,702	2771	7	2255	523	2427	351
Puma= 00700, Louisiana	14,478	1,113	13,365	11,683	3,355	14329	149	11,444	3,034	3,080	11,398	13,447	1,031	11,916	2,562	12,488	1,990
40 and 64	11373	769	10,604	8,332	3,041	11256	117	8,726	2,647	2,454	8,919	10474	899	9,247	2,126	9,784	1,589
Between 65 and 94	3105	344	2,761	2751	354	3073	32	2718	387	626	2,479	2973	132	2669	436	2704	401
Puma= 00800, Louisiana	13002	548	12,454	10,981	2,021	12863	139	9,847	3,155	3,128	9,874	12454	548	11,519	1,483	12464	538
40 and 64	10092	398	9,694	8,430	1,662	9956	126	7,518	2,574	2,482	7,610	9687	405	8,895	1,197	9611	471
Between 65 and 94	2910	150	2,770	2551	359	2907	13	2329	581	646	2,274	2867	53	2624	286	2853	57
Puma= 03100, North Carolina	17,965	1,187	16,778	13,833	4,132	17650	315	13,420	4,545	5,136	12,829	16,618	1,347	14,458	3,507	12,415	5,550
40 and 64	14021	873	13,148	10,620	3,401	13744	277	10,253	3,768	4,077	9,944	12,746	1,275	11,267	2,754	9,727	4,294
Between 65 and 94	3944	314	3,630	3213	731	3906	38	3167	777	1,059	2,885	3872	72	3171	773	2,688	1,256
Puma= 03200, North Carolina	13997	740	12,957	10,923	2,774	13415	282	11,118	2,579	1,658	12,039	13152	545	11,788	1,909	11,653	2,034
40 and 64	10953	547	10,116	8,448	2,215	10421	242	8,612	2,051	1,444	9,249	10258	405	9,323	1,340	9,173	1,490
Between 65 and 94	3034	193	2,841	2475	559	2994	40	2506	528	244	2,790	2894	140	2465	569	2490	544
Puma= 03600, North Carolina	11,701	1,548	10,153	7,680	4,021	11272	429	8,990	2,711	5,231	6,470	10839	862	9,232	2,469	8,481	3,220
40 and 64	8,660	1,333	7,327	5,212	3,448	8278	382	6,380	2,280	3,920	4,740	7653	707	6,814	1,846	6,550	3,110
Between 65 and 94	3041	215	2,826	2468	573	2994	47	2610	431	1,311	1,730	2895	155	2418	623	931	2,110
Puma= 03700, North Carolina	15,431	1,354	14,077	11,959	3,472	14893	538	12,363	3,068	6,108	9,323	14,686	845	13,358	2,033	9,655	5,776
40 and 64	13,197	1,146	12,051	9,970	3,227	12745	452	10,541	2,656	5,301	7,896	12374	823	11,480	1,717	8,034	5,163
Between 65 and 94	2234	208	2,026	2029	205	2148	86	1822	412	807	1,427	2212	22	1918	316	1621	613
Puma= 03900, North Carolina	27,026	2,077	24,949	19,754	7,272	26420	606	19,186	7,841	10,094	16,932	25,390	1,636	19,913	7,113	18,619	8,407
40 and 64	19,814	1,559	18,455	14,339	5,475	19215	599	13,658	6,156	6,140	13,674	18,477	1,337	15,287	4,527	14,294	5,520
Between 65 and 94	7212	518	6,494	5,415	1,797	7205	7	5,527	1,685	3,954	3,258	6913	299	4,626	2,586	4,325	2,887
Puma= 04100, North Carolina	19,300	1,257	18,043	15,473	3,827	18924	376	14,663	4,637	4,440	14,860	18,255	1,045	16,039	3,261	15,382	3,918
40 and 64	15044	912	14,132	11,814	3,230	14728	316	11,351	3,693	3,782	11,262	14120	924	12,569	2,475	12,079	2,965
Between 65 and 94	4256	345	3,911	3659	597	4196	60	3312	944	658	3,598	4135	121	3470	786	3303	953
Puma= 00300, Tennessee	12,993	1,444	11,339	9,930	3,063	12724	269	9,665	3,328	6,209	6,784	12293	700	10,627	2,366	7,479	5,514
40 and 64	10,725	1,175	9,550	7,876	2,849	10476	249	7,731	2,994	5,516	5,209	10064	661	8,462	2,263	6,053	4,672
Between 65 and 94	2268	269	2,039	2054	214	2248	20	1934	334	693	1,575	2229	39	2165	103	1426	842

Note: Data queried from Census DataFerret Database based on 2000 Puma (5%) population file

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	Diff Residence	POB Out of State	POB InState	RET INC Under $50K	RET INC Over $50K	PropVal Under $150	PropVal Over $150 K	PropTax under $1000	PropTax over $1000	No Migration	Migration
Puma# 03501, Texas	9126	687	8,439	4,549	4,577	8893	233	6,279	2,847	4,756	4,370	7,766	1,360	5,669	3,517	729	8,397	6,345	2
40 and 64	7445	445	7,000	3,356	4,089	7326	119	4,991	2,454	3,649	3,796	6,251	1,194	4,450	2,955	495	7,040	5,067	2
Between 65 and 94	1681	242	1,439	1193	488	1567	114	1288	393	1107	574	1515	156	1119	562	324	1,357	1288	
Puma# 03502, Texas	7082	687	6,395	5,291	1,791	6812	270	6,038	1,044	1,665	5,417	6787	295	6631	451	2,977	4,105	6,038	1
40 and 64	4861	365	4,496	3,309	1,552	4575	185	3955	905	906	3,955	4560	211	4485	375	1,792	3,069	3955	
Between 65 and 94	2221	322	1,899	1982	239	2137	84	2083	138	759	1,462	2137	84	2145	75	1,185	1,036	2083	
Puma# 03503, Texas	7,258	1,073	6,185	5,805	1,453	7027	231	6,018	1,240	3,904	3,354	6990	268	7095	163	2,699	4,589	6,063	1
40 and 64	4863	824	4,039	3,730	1,133	4699	164	3,851	1,012	2,335	2,528	4620	243	4618	45	1,390	3,493	3896	
Between 65 and 94	2395	249	2,145	2075	320	2328	67	2167	228	1569	826	2370	25	2277	118	1,309	1,096	2167	
Puma# 03504, Texas	8628	560	8,068	6,840	1,788	8462	166	6,431	2,197	2,645	5,983	8295	333	7921	807	2,832	5,796	6,509	2
40 and 64	7345	476	6,870	5,648	1,698	7264	82	5,451	1,885	2,125	5,221	7052	294	6565	780	2,326	5,020	5,512	1
Between 65 and 94	1282	84	1,193	1192	90	1198	84	970	312	520	762	1243	39	1255	27	505	775	997	
Puma# 03505, Texas	12022	764	11,258	9,487	2,535	11751	271	9,938	2,084	3,183	8,833	11355	527	11205	815	3,547	8,475	9,974	2
40 and 64	9385	667	8,718	7,250	2,135	9202	183	7,681	1,704	2,114	7,271	8757	518	8572	713	2,495	6,500	7,702	1
Between 65 and 94	2637	97	2,540	2237	400	2549	88	2257	380	1075	1,562	2598	43	2634	103	1,052	1,575	2272	
Puma# 03701, Texas	13129	889	12,240	9,360	3,769	12955	174	9,704	3,425	4,424	8,705	12145	994	10,865	2,274	5,452	7,657	9,731	3
40 and 64	9705	714	8,991	6,522	3,183	9570	135	6,888	2,817	3,575	6,130	8805	900	7,936	1,770	3,694	6,011	6,887	2
Between 65 and 94	3424	175	3,249	2838	586	3385	39	2816	608	849	2,575	3340	94	2929	504	1,758	1,595	2834	
Puma# 03702, Texas	6,771	1,096	5,675	4,399	2,372	6597	174	4,538	2,233	4,536	2,215	6254	477	5941	830	1,793	4,978	4,652	2
40 and 64	5,807	1,036	4,771	3,564	2,243	5672	135	3,829	1,978	3,597	1,810	5420	387	5102	705	1,253	4,554	3,943	1
Between 65 and 94	964	61	904	835	129	925	39	769	255	939	465	874	91	839	125	541	424	709	
Puma# 03703, Texas	6365	814	5,551	4,999	1,365	6227	138	4,517	1,848	2,835	3,455	5964	331	5541	824	2,958	3,416	4,541	1
40 and 64	4874	642	4,232	3,684	1,190	4754	120	3,384	1,491	2,328	2,465	4454	420	4699	595	2,062	2,822	3,468	1
Between 65 and 94	1491	162	1,329	1305	185	1473	18	1133	358	511	990	1410	81	1363	139	630	593	1133	
Puma# 01201, Washington	14,972	1,593	13,379	9,942	5,030	14415	557	10,369	4,613	8,733	6,239	12,914	2,234	6,628	8,144	2,794	12,269	10,416	4
40 and 64	12,202	1,169	11,034	7,767	4,435	11712	490	8,054	4,149	6,564	5,239	10,135	2,055	5,219	6,593	1,867	10,335	8,115	4
Between 65 and 94	2770	425	2,345	2175	595	2703	67	2305	465	1,709	1,031	2549	222	1,909	1,161	837	1,933	2305	
Puma# 01202, Washington	12,395	1,022	11,373	7,031	5,364	12140	255	8,449	3,945	7,832	4,503	11,555	1,843	6,593	5,612	1,251	11,134	8,558	3
40 and 64	9484	802	8,682	4,939	4,545	9299	185	6,395	3,118	6,113	3,371	7,720	1,754	4,999	4,791	649	8,835	6,432	3
Between 65 and 94	2911	220	2,651	2092	819	2841	70	2083	828	1,779	1,132	2835	75	1,890	1,021	612	2,299	2118	

Note. Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file.

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	Diff Residence	POB Out oState	POB InState	RET INC Under $50K	RET INC Over $50K	PropVal Under $150	PropVal Over $150 K	PropTax under $1000	PropTax over $1000	No Hlx
40 and 64	13.365	1.137	12.229	9.404	3.962	12644	722	9.696	3.669	7.167	6.199	11.503	1.453	8.274	5.092	1.012	12.354	
Between 65 and 94	3652	624	3.228	3119	733	3594	158	3176	676	2.382	1.470	3709	143	2.469	1.393	365	3.487	
Puma# 01401, Washington	18.201	1.118	17.083	13.783	4.418	17771	430	13.186	5.015	9.475	8.726	16.223	1.958	7.055	11.146	2.519	15.682	
40 and 64	14597	838	13.759	10.614	3.983	14193	404	10.449	4.148	7.079	7.518	12.650	1.947	5.251	9.346	1.779	12.818	
Between 65 and 94	3604	280	3.324	3169	435	3578	26	2737	867	2.396	1.208	3553	51	1.804	1.800	740	2.864	
Puma# 01402, Washington	16.959	1.894	15.105	13.260	3.749	16189	801	11.393	5.606	9.419	7.580	15.264	1.735	8.866	8.113	3.037	13.952	
40 and 64	14.061	1.507	12.554	10.632	3.429	13426	635	9.295	4.766	7.782	6.279	12.471	1.590	7.001	7.060	2.281	11.780	
Between 65 and 94	2938	387	2.551	2618	320	2772	166	2098	840	1.637	1.301	2793	145	1.865	1.053	756	2.182	
Puma# 01403, Washington	10.438	1.178	9.260	6.036	4.402	10203	235	7.943	2.495	6.574	3.864	9.051	1.377	4.033	6.405	721	9.717	
40 and 64	7924	859	7.065	4.182	3.742	7750	174	5.918	2.006	4.725	3.199	6.714	1.210	3.145	4.779	446	7.478	
Between 65 and 94	2514	319	2.195	1854	660	2453	61	2025	489	1849	665	2347	167	888	1.626	275	2.239	
Puma# 01701, Washington	15.881	1.657	14.224	9.036	6.845	15431	450	11.334	4.577	10.214	5.667	13.679	2.202	4.674	11.207	1.493	14.388	
40 and 64	12.806	1.398	11.408	6.635	6.171	12379	427	9.656	3.750	8.104	4.702	10.735	2.071	3.818	8.988	1.053	11.743	
Between 65 and 94	3075	349	2.726	2401	674	3052	23	2248	827	2110	965	2944	131	856	2.219	439	2.645	
Puma# 01702, Washington	14.611	1.648	12.963	11.032	3.579	14195	416	10.633	3.978	8.900	5.711	13.267	1.344	8.877	5.734	2.093	12.528	
40 and 64	11.664	1.320	10.344	8.527	3.137	11325	339	8.316	3.348	6.918	4.746	10.407	1.257	6.891	4.773	1.455	10.169	
Between 65 and 94	2947	328	2.619	2505	442	2870	77	2317	630	1982	965	2860	87	1986	961	638	2.359	
Puma# 01900, Washington	13.434	1.031	12.403	5.748	7.686	12904	530	10.100	3.334	9.079	4.355	10.711	2.723	573	12.861	500	12.934	
40 and 64	9869	625	9.244	3.760	6.109	9417	452	6.948	2.921	6.509	3.360	7.360	2.509	473	9.396	433	9.436	
Between 65 and 94	3565	406	3.159	1.988	1.577	3487	78	3152	413	2570	995	3351	214	100	3.465	67	3.498	
Puma# 02002, Washington	14859	939	13.960	7.644	7.255	14489	410	11.253	3.645	9.480	5.419	11.865	3.034	847	14.052	559	14.340	
40 and 64	12349	574	11.775	6.114	6.235	12014	335	9.236	3.113	7.716	4.633	9.636	2.713	690	11.659	495	11.943	
Between 65 and 94	2510	365	2.165	1.530	1.020	2475	75	2017	533	1764	786	2229	321	157	2.393	153	2.397	
Puma# 02003, Washington	15181	875	14.306	5.872	9.309	14745	436	10.570	4.611	10.678	4.503	11.506	3.275	233	14.853	369	14.812	
40 and 64	12639	714	11.925	4.288	8.351	12258	381	8.572	4.067	8.900	3.739	9.567	3.072	173	12.466	215	12.424	
Between 65 and 94	2542	161	2.381	1584	958	2487	55	1998	544	1778	764	2336	203	110	2.432	154	2.388	
Puma# 02004, Washington	11560	955	10.595	7.795	3.765	11226	324	9.002	2.558	6.517	5.033	9.590	1.969	2.457	9.093	755	10.795	
40 and 64	9422	761	8.661	6.022	3.400	9130	292	7.246	2.176	5.029	4.393	7.578	1.852	1.734	7.688	415	9.007	
Between 65 and 94	2128	194	1.934	1763	365	2096	32	1756	372	1488	640	2020	169	723	1.405	340	1.788	
Puma# 02005, Washington	12.760	1.513	11.247	8.554	4.206	12154	606	9.661	3.099	7.015	5.745	11.269	1.491	4.552	8.208	1.365	11.394	
40 and 64	9411	947	8.464	6.049	3.362	8933	478	6.990	2.431	4.984	4.427	8.124	1.287	3.427	5.984	956	8.455	
Between 65 and 94	3349	566	2.783	2505	844	3221	128	2671	668	2.031	1.318	3155	193	1.125	2.224	410	2.939	
Puma# 02006, Washington	11971	947	10.124	7.437	3.634	10430	641	7.794	3.277	6.379	4.892	9.395	1.985	2.835	8.236	913	10.158	
40 and 64	9130	781	8.349	5.907	3.223	8957	453	6.346	2.784	5.009	4.122	7.434	1.636	2.192	7.028	665	8.525	
Between 65 and 94	1941	166	1.775	1530	411	1763	178	1448	493	1371	570	1892	49	733	1.208	308	1.633	
Puma# 02007, Washington	11912	922	10.990	7.648	4.264	11432	480	8.977	3.035	7.067	4.855	10.233	1.679	2.764	9.149	930	10.982	
40 and 64	9351	590	8.831	5.585	3.806	9058	333	6.726	2.602	5.430	3.951	7.838	1.513	1.955	7.356	533	8.658	
Between 65 and 94	2521	362	2.159	2063	458	2374	147	2118	403	1627	854	2395	126	759	1.752	397	2.124	
Puma# 02008, Washington	14.653	1.018	13.635	10.988	3.665	14111	542	10.816	3.837	8.355	6.298	12.744	1.909	4.657	9.996	1.882	12.771	
40 and 64	12214	797	11.417	8.847	3.367	11834	380	8.790	3.424	6.809	5.394	10.323	1.891	3.476	8.738	1.337	10.877	
Between 65 and 94	2439	221	2.218	2141	298	2277	162	2026	413	1525	914	2421	18	1.181	1.258	545	1.894	

Note: Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	Diff Residence	POB Out of State	POB In State	RET INC Under $50K	RET INC Over $50K	Prop Val Under $150	Prop Val Over $150 K	Prop Tax under $1000	Prop Tax over $1000	No Migration	Migration
Puma# 02500 Alabama	15,336	1,070	14,266	12,258	3,078	15142	194	11,995	3,341	4,296	11,040	14620	716	13,526	1,810	14967	369	12,064	
40 and 64	11849	724	11,125	9,230	2,619	11696	153	9,161	2,688	3,419	8,430	11214	635	10,490	1,359	11573	276	9,230	
Between 65 and 94	3487	346	3,141	3028	459	3446	41	2834	653	877	2,610	3406	81	3046	441	3394	93	2834	
Puma# 02600 Alabama	17,940	1,214	16,726	14,023	3,917	17642	298	13,074	4,866	6,530	11,410	16,812	1,128	15,147	2,793	17112	828	13,130	
40 and 64	13835	861	12,974	10,463	3,372	13596	239	9,861	3,974	5,228	8,607	12,813	1,022	11,640	2,195	13244	591	9,883	
Between 65 and 94	4105	353	3,752	3560	545	4046	59	3213	892	1,302	2,803	3999	106	3507	598	3868	237	3247	
Puma# 02300 Georgia	19,066	2,095	16,971	14,182	4,884	18158	908	14,872	4,194	7,892	11,174	17,621	1,445	16,692	2,374	14,362	4,704	15,018	
40 and 64	14,465	1,609	12,856	10,339	4,126	13712	753	10,835	3,630	6,274	8,191	13,253	1,212	12,771	1,694	10,712	3,753	10,981	
Between 65 and 94	4601	486	4,115	3843	758	4446	155	4037	564	1,618	2,983	4368	233	3921	680	3950	651	4037	
Puma# 02400 Georgia	14813	964	13,849	10,065	4,748	14570	243	10,718	4,125	7,720	7,093	13,607	1,236	9,805	5,008	8,069	6,784	10,740	
40 and 64	12511	871	11,740	8,349	4,262	12469	202	9,106	3,505	6,556	6,055	11,425	1,086	8,076	4,535	6,389	6,222	9,128	
Between 65 and 94	2232	123	2,109	1745	487	2191	41	1612	620	1,224	1,008	2182	50	1759	473	1570	662	1612	
Puma# 02500 Georgia	13738	759	12,979	11,760	1,978	13451	287	10,646	3,092	2,395	11,343	13259	479	12,195	1,543	11,449	2,289	10,646	
40 and 64	10664	541	10,123	9,107	1,557	10450	214	8,013	2,651	1,987	8,677	10273	391	9,532	1,132	8,988	1,676	8,003	
Between 65 and 94	3074	218	2,856	2653	421	3001	73	2643	431	408	2,666	2986	88	2663	411	2452	622	2643	
Puma# 02900 Georgia	17,151	1,064	16,087	13,619	3,532	16564	587	13,024	4,127	5,635	11,516	16208	943	13,286	3,865	12,142	5,009	13,111	
40 and 64	13522	719	12,803	10,710	2,812	13043	479	10,215	3,307	4,460	9,062	12734	788	10,292	3,230	9,338	4,184	10,264	
Between 65 and 94	3629	345	3,284	2909	720	3521	108	2809	820	1,175	2,454	3474	155	2993	636	2804	825	2847	
Puma# 03000 Georgia	16,811	1,893	14,918	11,645	5,166	16419	392	12,180	4,631	7,839	8,972	14,963	1,848	13,325	3,486	11,373	5,438	12,232	
40 and 64	13,154	1,307	11,847	8,824	4,330	12836	318	9,075	4,079	6,006	7,148	11,543	1,611	10,239	2,915	8,521	4,633	9,127	
Between 65 and 94	3657	586	3,071	2821	836	3583	74	3105	552	1,833	1,824	3420	237	3086	571	2852	805	3105	
Puma# 03100 Georgia	12748	659	12,089	10,291	2,457	12504	244	10,033	2,715	2,413	10,335	12130	618	11,390	1,358	9,686	3,062	10,065	
40 and 64	9899	513	9,386	7,774	2,125	9683	216	7,652	2,247	1,882	8,017	9336	563	8,860	1,039	7,565	2,334	7,672	
Between 65 and 94	2849	146	2,703	2517	332	2821	28	2391	458	531	2,318	2794	55	2500	349	2131	718	2393	

Note. Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	Diff Residence	POB Out of State	POB InState	RET INC Under $50K	RET INC Over $50K	PropVal Under $150	PropVal Over $150 K	PropTax under $1000	PropTax over $1000	No Migration	M
Puma# 01400 Kentucky	14109	1135	12974	11098	3011	13992	117	11182	2927	5261	8848	13081	1028	11893	2216	11955	2154	11203	
40 and 64	11281	954	10327	8527	2754	11191	90	8698	2583	4375	6906	10319	962	9382	1899	9445	1836	8719	
Between 65 and 94	2828	181	2647	2571	257	2801	27	2484	344	886	1942	2762	66	2511	317	2510	318	2484	
Puma# 01300 Missouri	23722	1505	22217	19774	3948	23461	261	15347	8375	10864	12863	22781	941	18192	5530	20136	3587	15473	
40 and 64	17612	998	16614	14183	3429	17377	235	10964	6648	8232	9390	16777	835	13155	4457	14832	2780	11079	
Between 65 and 94	6110	507	5603	5591	519	6084	26	4383	1727	2622	3469	6004	106	5037	1073	5303	807	4394	
Puma# 01400 Missouri	20868	1059	19809	17641	3227	20597	271	15955	4913	5008	15860	20031	837	17367	3501	18430	2438	15977	
40 and 64	16250	731	15519	13454	2796	16019	231	12201	4049	3934	12316	15524	726	13320	2930	14272	1978	12223	
Between 65 and 94	4618	328	4290	4187	431	4578	40	3754	864	1074	3544	4507	111	4047	571	4158	460	3754	
Puma# 00400 Oklahoma	24848	1676	23172	20039	4809	24546	302	19514	5334	9070	15778	23819	1029	22817	2031	22115	2733	19572	
40 and 64	18481	1256	17225	14377	4104	18204	277	14031	4450	7237	11244	17625	856	16942	1539	16356	2125	14089	
Between 65 and 94	6367	420	5947	5662	705	6342	25	5483	884	1833	4534	6194	173	5875	492	5759	608	5483	
Puma# 00600 South Carolina	18645	1143	17502	15610	3035	18296	349	15116	3529	3921	14724	17982	663	16196	2449	17492	1153	15116	
40 and 64	14786	793	13993	12233	2553	14470	316	11730	3056	3090	11696	14162	624	12830	1956	13772	1014	11730	
Between 65 and 94	3859	350	3509	3377	482	3826	33	3386	473	831	3028	3820	39	3366	493	3720	139	3386	
Puma# 01001 South Carolina	15444	914	14530	9960	5484	15149	295	11502	3942	6900	8544	13845	1599	11173	4271	11255	4188	11539	
40 and 64	12295	676	11619	7366	4929	12027	268	8996	3299	5596	6699	10820	1475	8700	3595	8704	3591	9033	
Between 65 and 94	3149	238	2911	2594	555	3122	27	2506	643	1304	1845	3025	124	2473	676	2551	593	2506	
Puma# 01002 South Carolina	15906	1155	14751	11834	4072	15762	144	11410	4496	6185	9721	14695	1220	11559	4347	12462	3444	11455	
40 and 64	13256	801	12455	9502	3754	13145	111	9272	3984	5250	8006	12099	1157	9449	3807	10146	3110	9317	
Between 65 and 94	2650	354	2296	2332	318	2617	33	2138	512	935	1715	2597	63	2110	540	2316	334	2138	
Puma# 01100 South Carolina	8992	678	8314	4790	4202	8668	324	6797	2195	3076	5916	7834	1158	6074	2913	5232	3760	6849	
40 and 64	6883	454	6429	3257	3626	6605	278	5007	1876	2513	4370	5891	992	4454	2420	3784	3099	5058	
Between 65 and 94	2109	224	1885	1533	576	2063	46	1790	319	563	1546	1943	166	1620	493	1448	661	1790	
Puma# 01200 South Carolina	26750	2597	24153	16908	9842	25899	851	19692	7058	11439	15312	23780	2970	18934	7815	17814	8936	19710	
40 and 64	21918	2009	19909	13215	8703	21200	718	15945	5973	9197	12721	19291	2627	15568	6360	14554	7364	15551	
Between 65 and 94	4832	588	4244	3693	1139	4699	133	3747	1085	2241	2591	4489	343	3366	1455	3260	1572	3759	
Puma# 01700 South Carolina	12766	1049	11717	10155	2611	12387	379	9346	3420	4310	8456	12188	578	11605	1151	12059	667	9548	
40 and 64	9842	836	9006	7702	2140	9550	292	7067	2775	3433	6409	9297	545	8931	911	9262	580	7269	
Between 65 and 94	2924	213	2711	2453	471	2837	87	2279	645	877	2047	2891	33	2674	260	2837	87	2279	

Note. Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file

Appendix A

Raw 2000 Census Data for Before Conversion to 19 Army Installations

Puma and Age Group	Sample Size	VET	NO VET	No Degree	Degree	Family Present	No Family Present	Same Residence	POB Out Diff Residence	POB Out of State	POB In State	RET INC Under $50K	RET INC Over $50K	PropVal Under $150	PropVal Over $150 K	PropTax under $1000	PropTax over $1000	No Migrat
Puma# 00100, Virginia	13 420	1 543	11 877	4 518	8 902	12880	620	10 003	3 417	11 824	1 596	7 993	5 427	947	12 473	655	12 765	1
40 and 64	10 864	1 185	9 679	3 106	7 758	10325	539	7 662	3 002	9 624	1 240	5 769	5 095	763	10 101	569	10 295	
Between 65 and 94	2556	358	2 198	1 412	1 144	2475	81	2141	415	2200	356	2224	332	184	2 372	86	2 470	
Puma# 00200, Virginia	8 368	1 091	7 277	3 115	5 253	7584	384	5 566	2 802	6 715	1 653	5 137	3 231	1 786	6 582	669	7 679	
40 and 64	6755	883	5 872	2 178	4 577	6427	328	4 195	2 560	5 483	1 272	3 823	2 932	1 444	5 311	582	6 173	
Between 65 and 94	1613	208	1405	937	676	1557	56	1371	242	1232	381	1314	299	342	1 271	107	1 506	
Puma# 00301, Virginia	19 520	1 848	17 672	7 835	11 685	18 493	1 027	15 071	4 449	17 402	2 118	12 902	6 618	2 026	17 494	773	18 747	1
40 and 64	14 669	1 132	13 537	4 857	9 772	14065	604	11 095	3 574	13 196	1 513	8 466	6 203	1 458	13 211	650	14 019	1
Between 65 and 94	4851	716	4 135	2 958	1 913	4428	423	3976	875	4246	695	4436	415	568	4 283	123	4 728	
Puma# 00501, Virginia	16 748	1 355	15 393	10 572	6 176	16169	579	11 232	5 516	12 112	4 636	13 646	3 102	4 256	12 452	959	15 789	1
40 and 64	14 513	1 209	13 304	8 700	5 813	13996	517	9 606	4 707	10 511	4 002	11 522	2 991	3 743	10 770	801	13 712	
Between 65 and 94	2235	186	2 049	1872	363	2173	62	1426	809	1601	634	2124	111	513	1 682	158	2 077	
Puma# 00502, Virginia	16 623	2 088	14 535	10 612	6 011	16124	499	11 796	4 827	13 154	3 469	13 163	3 460	9 033	7 590	1 067	15 556	1
40 and 64	14 917	1 871	13 046	9 155	5 762	14474	443	10 586	4 331	11 896	3 061	11 578	3 339	7 828	7 089	877	14 040	1
Between 65 and 94	1706	217	1 489	1457	249	1650	56	1210	496	1298	408	1585	121	1205	501	190	1 516	
Puma# 00600, Virginia	33 211	2 541	30 670	20 637	12 574	32 121	1 090	21 900	11 311	22 349	10 862	27 301	5 910	9 467	23 744	5 962	27 249	2
40 and 64	27 945	1 983	25 962	16 326	11 619	27042	903	18 098	9 847	19 362	8 583	22 491	5 454	7 498	20 447	4 635	23 310	1
Between 65 and 94	5266	558	4 708	4311	955	5079	187	3 802	1 464	2 987	2 279	4810	456	1 969	3 297	1 327	3 939	
Puma# 00800, Virginia	14 612	1 557	13 055	9 873	4 739	14126	486	10 229	4 383	9 480	5 132	11 819	2 793	6 453	8 159	3 179	11 433	1
40 and 64	12 608	1 350	11 258	8 191	4 417	12145	463	8 678	3 930	8 718	3 890	9 919	2 689	5 412	7 196	2 764	9 844	
Between 65 and 94	2004	207	1 797	1682	322	1981	23	1551	453	782	1 242	1900	104	1041	963	415	1 589	
Puma# 02000, Virginia	17 073	1 800	15 473	12 619	4 454	16373	700	12 956	4 117	9 226	7 747	15 659	1 423	14 279	2 794	5 702	11 371	1
40 and 64	13 360	1 228	12 132	9 620	3 740	12747	613	9 934	3 426	7 216	6 144	12 169	1 218	11 127	2 233	4 627	8 733	1
Between 65 and 94	3713	372	3 341	2999	714	3626	87	3022	691	2 110	1 603	3500	213	3152	561	1 075	2 638	
Puma# 02100, Virginia	15 443	1 750	13 693	11 595	3 848	14920	523	11 595	3 448	8 662	6 781	14537	906	13 510	1 933	5 776	9 667	1
40 and 64	11 701	1 426	10 275	8 423	3 278	11257	444	8 683	3 018	6 251	5 450	10962	739	10 264	1 437	4 406	7 295	
Between 65 and 94	3742	324	3 418	3172	570	3663	79	3312	430	2 411	1 331	3575	167	3246	496	1 370	2 372	
Puma# 02200, Virginia	27 852	2 300	25 552	17 073	10 779	27439	413	19 336	8 516	16 266	11 583	25 067	2 755	13 623	14 229	9 641	18 211	1
40 and 64	21 422	1 614	19 808	12 314	9 108	21099	323	14 392	7 030	12 546	8 876	19 005	2 417	10 653	10 769	7 470	13 952	1
Between 65 and 94	6430	686	5 744	4 759	1 671	6340	90	4 944	1 486	3 723	2 707	6062	378	2 970	3 460	2 171	4 259	
Puma# 02803, Virginia	16 810	2 024	14 786	11 424	5 386	16343	467	11 532	5 278	11 355	5 455	15 178	1 632	11 473	5 337	2 773	14 037	1
40 and 64	14 205	1 727	12 478	9 127	5 078	13738	467	9 537	4 668	9 447	4 758	12 718	1 487	9 620	4 585	2 471	11 734	1
Between 65 and 94	2605	297	2 308	2297	308	2605	0	1995	610	1908	697	2460	145	1853	752	302	2 303	
Puma# 02900, Virginia	13 934	2 259	16 605	14 184	4 720	17 887	1 017	13 799	5 105	9 470	9 434	17 167	1 737	15 074	3 830	6 201	12 703	1
40 and 64	13 485	1 641	11 844	9 664	3 821	12626	859	9 656	4 429	6 738	6 747	12 114	1 371	10 803	2 682	4 540	8 945	1
Between 65 and 94	5419	658	4 761	4520	899	5261	158	4 143	676	2 732	2 687	5053	366	4471	948	1 661	3 758	
Puma# 03000, Virginia	26 656	2 569	24 149	18 996	7 660	26011	645	19 218	7 438	13 832	12 824	24 524	2 132	17 826	9 630	5 556	21 100	1
40 and 64	21 883	2 009	19 874	14 773	7 110	21294	589	15 398	6 485	11 071	10 812	19 913	1 970	13 310	8 573	4 372	17 511	1
Between 65 and 94	4773	499	4 274	4223	550	4717	56	3820	953	2 761	2 012	4611	162	3 716	1 057	1 184	3 589	
Puma# 03100, Virginia	25 682	2 533	23 149	19 966	5 716	24951	731	19 543	6 139	10 674	15 008	23 695	1 966	20 245	5 437	11 603	14 079	1
40 and 64	19 622	1 800	17 822	14 625	4 997	19066	556	14 597	5 025	7 714	11 908	17 803	1 814	15 057	4 565	8 721	10 901	1
Between 65 and 94	6060	733	5 327	5341	719	5885	175	4 946	1 114	2 960	3 100	5888	172	5188	872	2 882	3 178	

Note: Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file

Appendix B

In and Out of State Migration for Army Installations

Installation	Migration	Migration From OutofState	Migration from InState
Ages 40 to 64			
Fort Belvior	0.30	0.33	0.67
Fort Benning	0.26	0.18	0.82
Fort Bliss	**0.23**	**0.21**	**0.79**
Fort Bragg	0.24	0.27	0.73
Fort Campbell	0.24	0.26	0.74
Fort Carson	0.35	0.32	0.68
Fort Eustis	0.29	0.24	0.76
Fort Gordon	0.26	0.23	0.77
Fort Hood	0.30	0.23	0.77
Fort Irwin	0.35	0.15	0.85
Fort Jackson	0.26	0.21	0.79
Fort Knox	0.23	0.22	0.78
Fort Leanardwood	0.31	0.22	0.78
Fort Lewis	0.28	0.20	0.80
Fort Polk	0.24	0.15	0.85
Fort Riley	0.25	0.19	0.81
Fort Rucker	0.25	0.24	0.76
Fort Sill	0.24	0.24	0.76
Fort Stewart	0.30	0.27	0.73
Ages 65 and Older			
Fort Belvior	0.23	0.39	0.61
Fort Benning	0.18	0.21	0.79
Fort Bliss	**0.15**	**0.19**	**0.81**
Fort Bragg	0.19	0.30	0.70
Fort Campbell	0.17	0.36	0.64
Fort Carson	0.27	0.39	0.61
Fort Eustis	0.18	0.28	0.72
Fort Gordon	0.18	0.35	0.65
Fort Hood	0.23	0.39	0.61
Fort Irwin	0.21	0.38	0.62
Fort Jackson	0.19	0.30	0.70
Fort Knox	0.12	0.37	0.63
Fort Leanardwood	0.23	0.25	0.75
Fort Lewis	0.21	0.21	0.79
Fort Polk	0.16	0.20	0.80
Fort Riley	0.17	0.15	0.85
Fort Rucker	0.20	0.33	0.67
Fort Sill	0.14	0.21	0.79
Fort Stewart	0.23	0.19	0.81

Note. Data queried from Census DataFerrett Database based on 2000 Puma (5%) population file.