

DEPARTMENT OF VETERANS AFFAIRS  
Southeast Louisiana Veterans Health Care System  
P.O. Box 61011  
New Orleans, LA 70161-1011



In Reply Refer To: 629/00

Dear Dylan,

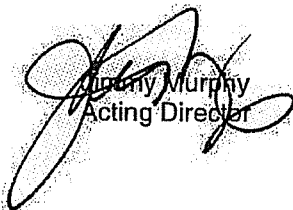
As the Acting Director of the Southeast Louisiana Veterans Health Care System (SLVHCS), I am committed to fostering innovative community partnerships. The recently published strategic plan by the Department of Veterans Affairs emphasizes community partnerships as a top priority. We recognize the importance of Bastion in our expanding effort to provide seamless care especially for those whom Bastion will serve, namely returning warriors with lifelong rehabilitative needs.

I understand that your development team, comprised of Renaissance Property Group and Mercy Family Center, will be responding to the 2015 Qualified Allocation Plan by the Louisiana Housing Corporation (LHC). You have my full endorsement. Based on our ongoing collaboration and pending cooperative endeavor agreement, and for the purposes of your application with LHC, SLVHCS stands ready to perform the following for eligible recipients who reside at Bastion:

- Facilitate the coordination of benefits, services, and other resources.
- Provide on-site care and case management with VA personnel or third parties contracted through established programs.
- Provide transportation to/from our medical center for scheduled appointments.

After you have secured financing with LHC, SLVHCS is also prepared to work closely with your development team to educate and refer our patients and prospective residents about Bastion from within our OIF/OEF coordination team and caseload. We will leverage our partnership with Bastion to the full extent possible to supplement our services in this urgent gap in care for veterans and family members struggling with complex injuries, post-traumatic stress disorder, traumatic brain injuries, and other emerging needs unique to the battlefields in Iraq and Afghanistan. Please keep me updated on your progress with the Louisiana Housing Corporation, and contact me anytime if I can be of assistance.

Sincerely,

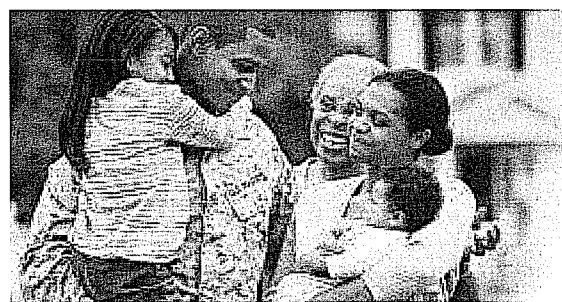
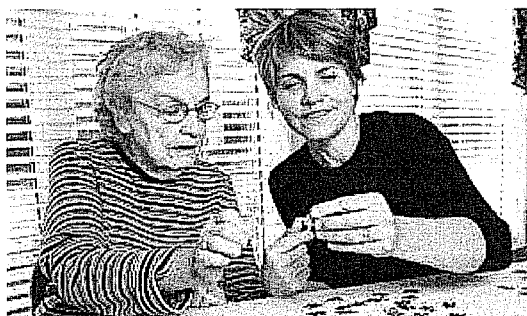
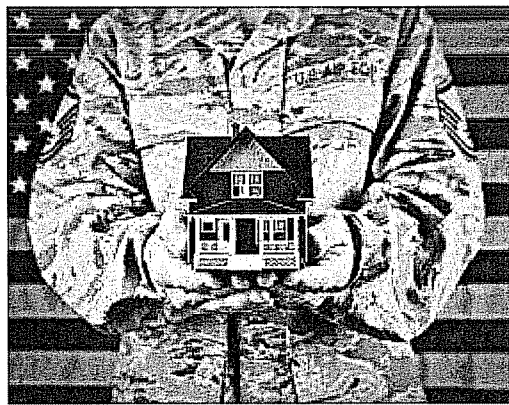
  
Timothy Murphy  
Acting Director

# [ *bastion* ]

community of resilience

## Population Assessment

April 2013



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## Executive Summary

### Purpose of this Analysis

In order to assist Bastion and its real estate development partner, Providence Community Housing, approach the next phase of development of the Bastion Community of Resilience, this population assessment analyzes the three population groups targeted by Bastion. This population assessment can be read as three separate demand descriptions tailored to the unique aspects of each tenant group to understand the volume of demand for each tenant population and, where appropriate, to identify a pipeline or referral sources for specific segments of unique populations. This analysis also identifies the features of each population group that will influence the financing and management of a real estate development.

### About Bastion

Bastion is an intentional, intergenerational community serving returning veterans and military families from OEF/OIF who have been negatively impacted by trauma and loss to sustain a thriving recovery from the wounds and casualties of war by providing a unique combination of services and supports in addition to housing in a community setting. The goal of Bastion is to strengthen resilience and reduce trauma by expanding the role of community while committing adequate resources toward the healthcare, continuing education, and career development needs of its community members.

### Key findings about Bastion

- Every veteran expert interviewed for this analysis confirmed the demand for Bastion and felt that Bastion would receive more interest and demand than it could possibly accommodate. However, every expert interviewed for this analysis also;
  - acknowledged that there are no consistent diagnosis labels or severity indices shared by all the institutions that a veteran will access in the process from active duty to veteran and beyond.
  - confirmed the complex and variant impacts and symptoms of TBI making diagnosis of severity and a corresponding prescription of treatment challenging and nuanced; complicating an evaluation of their "case load" for Bastion referral possibilities
- Bastion's population combination is unique, there is no other community like it in existence. However Bastion builds on a tested model of community-as-therapy model for another vulnerable population, namely, Generations of Hope which provides housing and community-based services for youth in and aging-out of the foster care system along with housing for senior citizens who live in the community and provide volunteer time for service provision.
- Due to the delicate challenge of sustaining a therapeutic environment for all residents, the analysts suggest that Bastion establish a tenant review committee to evaluate each application for residency. This committee should have a clear and common vision for the objectives of Bastion and contain, at least, representatives from the mental health profession, veterans affairs, the on-site service provider as well as the property manager. Each of these perspective will be needed to make the difficult and nuanced decisions to select residents to obtain the right environment which mere tenant eligibility requirements will not achieve.

- **Bastion's Target Populations - VETERANS**

(Approximately 24 units) Bastion focuses on two key population subsets of veterans. Both subsets share the diagnosis Moderate to Severe Traumatic Brain Injury (TBI), and/or polytrauma (a combination of injuries affecting multiple parts of the body such as amputation, severe burns, or spinal cord injury). The two subsets differ in the intensity/acuity of care required.



*Veterans Requiring Higher-Acuity Care* - This population subset is typically, though not exclusively, transitioning from post-acute care. In this group, injuries are such that the veteran needs skilled support on a regular basis. The injured veteran resides in dormitory style housing pods (private bedrooms with shared common baths and kitchen) that can accommodate 3-4 wounded warriors. This assisted-living environment features skilled staff support with rehabilitative and structured activities provided on-site. This housing is permanent, in as much as there is no fixed or pre-determined time period of stay.

*Veterans Requiring Lower-Acuity Care* - The living situation proposed for this group is an environment where light to moderate supportive care is available, but there are no significant services or treatments offered on-site. A caretaker dedicated to specific residents can be provided but is not required.

#### **Key Findings about Veterans**

- The population of injured veterans with Severe or Moderate TBI is between 29,000 and 35,000 nationally. Adding non-combat and non-theater TBI injuries sustained by service members could increase this amount by at least 25%.
- From the Veterans Benefit Administration data we estimate that there are about 64 beneficiaries currently in the Bastion market area that fit the Bastion resident profile (for 16 units) of injured veterans diagnosed with Severe (21 vets) to Moderate (43 vets) TBI. About half of these potential Bastion residents live in the New Orleans MSA. **This is a ratio of 4:1 or four eligible vets for every one unit at Bastion.**
- Analysis of the Veterans Health Administration data reveals that there could be a demand pool ranging from 37-99 individuals for the veteran units at Bastion currently living within the market area. The number of TBI diagnosed veterans fitting the Bastion profile indicates that there is an adequate size demand pool in the SE Louisiana region to fill the 24 "beds" proposed specifically for injured veteran population diagnosed with Severe and Moderate TBI. **There are 1.6-3 eligible individuals for each veterans housing unit available at Bastion. This is an acceptable demand pool for special needs housing**
- **Demand feeders are from multiple sources:** the major military medical centers, (particularly Walter Reed and Brooks Army Hospital), the 5- regional VA polytrauma centers, Southeast Louisiana VA Healthcare System and non-profits like the Wounded Warrior Projects. According to the Regional Director for Wounded Warrior – Southeast Region, the New Orleans area caseload is approximately 300 with 18 identified diagnosed with TBI.

- **Bastion's Target Populations – SURVIVORS**

(Approximately 15 units) Bastion will also provide housing for families who have experienced trauma or loss. This includes the following types of circumstances:

- a) Bereaved Families of Fallen Service Members - Bereaved families that have lost a spouse/parent to combat-related injuries or suicide
- b) Extended Families/support group of severely injured veterans - mainly those diagnosed with Severe and Moderate TBI or poly-trauma
- a) Other Vulnerable Veteran Populations who are dealing with Traumatic Stress – such as homeless female veterans with children, veterans and families with severe PTSD, and or veterans and families who are at-risk of suicide



### Key Findings About Survivors

- Nationally, there are 6,655 fallen service members since 9/11/01. According to the non-profit Tragedy Assistance Program for Survivors (TAPS), a single military death in the Iraqi conflict (OIF) impacted about 10 family members, this results in approximately 67,800 family members left behind that are significantly impacted.
- Through April 5, 2013, there were 134 casualties from Louisiana, 44 casualties from the 17-Parish Southeast Louisiana region and 26 casualties from the New Orleans MSA. Employing the TAPS overall multiplier results in the following number of Bereaved Families-Survivors at the local geographies: 1,340 in Louisiana, 860 in the 17-Parish Southeast Louisiana region and 260 in the New Orleans MSA.
- The TAPS caseload nationally is approximately 40,000, and locally TAPS has a caseload of nearly 3,600 in Louisiana, Arkansas, Mississippi and Texas. TAPS' Louisiana caseload is 374.
- Nearly 10% of TAPS cases are suicide related. Suicide-related assistance is growing with just over 300 suicides reported last year by the DoD.

To fill the 15 units for this population at Bastion:

- a) Bereaved families-survivors of fallen service members – Bastion could expect as many as 10-12 households fitting the TAPS demographic profile (a capture rate of 2%-3%) to seek housing at Bastion.
- b) Extended families/support group of severely injured veterans – 1-2 units could be set aside to meet the needs of the extended families/support group for the 24 injured veterans diagnosed with Severe or Moderate TBI or poly-trauma identified earlier.



- c) Other vulnerable veterans - The remaining units could be filled by the over 2,000 vets in the regional VA healthcare system diagnosed with PTSD, or the sizable homeless veterans population (1,453) in New Orleans. There is considerable demand for "vulnerable vet" units at Bastion.

- **Bastion's Target Populations - SENIORS**

(Approximately 40 units) Any household, retired military veterans or civilians, ages 55+ who are willing to provide a minimum of six hours of volunteer service to the Bastion community each week.



### Key Findings About Seniors

- The capture rate for the proposed senior component of the subject, is **extremely low – 1%**. There are over 100 age/income/size qualified renter households in the City for each unit proposed. The demand pools in each tranche are quite deep. In fact, 44% of senior renter households in the City can afford to pay market-oriented rents.
- Senior rental housing in New Orleans is characterized as being mildly supply-constrained today and will become more acute over time as the population ages.
- Over the next five years, approximately 3,000 households headed by a householder age 55+ are forecasted to be annually added to the population; nearly 1,050 of these new annual senior household additions are expected to be renters; **over 200 senior renter household formations are income/size appropriate for the proposed subject**. LIHTC eligible (50%/60% AMI) annual senior renter household formations are enough for five projects the size of the subject annually.
- Approximately 42% of senior renter households are in 2-person households. The initial mix of seniors living at the subject would have at least half of the units composed of households with 2-persons. According to David Hopping (Generations of Hope), the most productive mix of senior volunteers is a couple that can share the volunteer workload. Notably, as the senior population ages in place, there will be an increase in the number of 1-person households and with that, a need to monitor and rebalance the senior volunteer workload.
- Though residency in the senior component is not exclusive to Veterans, the largest source of volunteers will most likely come from Vietnam-era veterans who are age appropriate for senior apartments. Nearly half the veterans living in New Orleans are between ages 55 and 74; 37% of veterans in New Orleans are from the Vietnam-era. We deduced that there are roughly 2,200 senior renter households in the City headed by a householder age 55-74 who is a veteran. Of that number, **there are likely 450 veteran-headed senior renter households that are income/size eligible for the subject**. We can imagine easily filling half of the senior units from the veteran's demand pool and the balance from service motivated seniors from the general population.
- The overall demand pool of senior renters is so deep that the need to quantify a motivational demand driver among seniors is unnecessary.





## Background: The Bastion Model

Since the beginning of the wars in Afghanistan and Iraq in 2001, over 1.9 million US military personnel have been deployed in 3 million tours of duty lasting more than 30 days as part of Operation Enduring Freedom (OEF) or Operation Iraqi Freedom (OIF). OEF and OIF together make up the longest sustained US military operation since the Vietnam War, and they are the first extended conflicts to depend on an all-volunteer force.

# *[ bastion ]*

## community of resilience

The veterans returning from these conflicts have challenges and needs that the American veteran support system is struggling to meet. The trauma of war and loss reaches beyond the borders of Iraq and Afghanistan and into the homes of our military families. The historic rate of military suicide, depression and mental illness, broken marriages, and other challenges exemplify a tragic, national crisis. These symptoms are characteristic of a profuse sense of isolation which can be exasperated when a loved one is severely wounded or killed in action. It is not surprising that the most widely cited concern among military families is the greater community not understanding what military life is like. There is a remedy, however, and military families need our help now more than ever.

**Bastion is an innovative community-based intervention that will address the unmet needs of veterans and surviving families. Bastion is an intentional, intergenerational community serving returning veterans and military families from OEF/OIF who have been negatively impacted by trauma and loss to sustain a thriving recovery from the wounds and casualties of war by providing a unique combination of services and supports in addition to housing in a community setting. The goal of Bastion is to strengthen resilience and reduce trauma by expanding the role of community while committing adequate resources toward the healthcare, continuing education, and career development needs of its community members.**

Bastion builds on a tested model of community-as-therapy model for another vulnerable population, namely, Generations of Hope which provides housing and community-based services for youth in and aging-out of the foster care system along with housing for senior citizens who live in the community and provide volunteer time for service provision.

Bastion will offer community-based supports through both trained personnel hired by the community and volunteers who live within the community. Bastion's community-based supports will be provided from an Intergenerational Center (IGC) that will consist of a multi-purpose space for various activities. Three core program areas will be provided consisting of health, activity, and social support.

Bastion will not offer professional clinical services but rather maintain close partnerships with the VA and civilian healthcare providers. However, third-party providers may conduct professional services on site. The future of this type of on-site care could be extended to other veterans and military families living in the greater community.

The Bastion housing model analyzed in this study was presented to the analysts as the following:

Table 1: Preliminary Housing Mixture Provided By Client (since refined)

Group	Description of trauma or loss	Singles	Families	No. Unit	No. Residen t
Injured Veterans <sup>1</sup>	Mostly young, transitioning service members who are diagnosed with severe traumatic brain injury (or other polytrauma) and who are exiting post-acute care or referred through third party.	8	8	16	40
AL-TBI Veterans	Referrals from the VA's Assisted Living – TBI Pilot Program who reside within Bastion's dormitory-style housing.	8	0	8	8
Other trauma or loss <sup>2</sup>	Mostly single-parent families with young children that have lost a spouse/parent to combat-related injuries or suicide and referred by T.A.P.S. May also include single female veterans with children who are homeless, or other group with trauma/loss.	4	8	12	36
Seniors <sup>3</sup>	Retired military veterans or civilians ages 55+ who provide a minimum of six hours of service each week.	20	20	40	60
Return-to-Duty Warriors	Single warriors who have been severely injured but may continue their military service at a local installation.	3	0	3	3
				<b>79</b>	<b>147</b>

<sup>1</sup>A veteran in this group has a severe traumatic brain injury or other polytrauma such as amputation, severe burns, or spinal cord injury. Veterans with debilitating PTSD may also be considered. Bastion's first group of veterans will focus on injuries that are OEF/OIF service-connected as opposed to training accidents, for example, but not exclusively (depending on the need). While the number of veterans exiting post-acute care in the Department of Defense medical system diminishes over time due to reduced combat operations from OEF/OIF, there are many who develop symptoms after their transition and many who fall on hard times as a result of their injury after their exit from post-acute care. These cases must be considered as well.

<sup>2</sup>Survivors are immediate family members, i.e. spouse, parent, child, or sibling, who has lost a loved one due to injuries sustained from combat or suicide. Family members may include survivors without a legal connection to their loved one, i.e. fiancé or stepchild, or other special circumstance such as a guardian aunt. Surviving children include ages 0-18 although preference for entry will favor families with smaller children in order to maximize the impact. The Other Trauma or Loss group is not exclusive to survivors, however, and may include others who are experiencing the corrosive impact of trauma and/or loss. There are a growing number of homeless female veterans, for example. There are homeless programs for veterans already but few that address the unique needs of women.

<sup>3</sup>The seniors are volunteers who commit service in support of the vulnerable groups. Selection will favor those with military backgrounds, professional licenses, religious order, or other special characteristic that could be useful to serving Bastion's vulnerable groups. In the context of New Orleans, Bastion may be viewed as an alternative senior housing solution. The minimum age is 55 to enter the community and preference will be given to seniors closer to 55 in order to maximize the number of years to give service.

## Understanding the Tenant Populations & Methodology

Bastion serves returning veterans and military families since Sept 11th who have been negatively impacted by trauma and loss as well as service oriented senior citizens. These three populations represent three separate categories of demand for the housing at Bastion, therefore it is important to begin the analysis with a description each tenant population.

### Methodology

While traditional demand analysis will start by strictly defining eligibility for each tenant group, Bastion's tenant population groups do not lend themselves to clearly defined boundaries of eligibility. While the veteran population is the most complex population to track for reasons described later in this chapter, the Survivor and Senior populations are equally difficult to define. Articulating specific eligibility guidelines became an exercise in identifying population segments to be excluded from Bastion and many of these exclusions were rejected by the client because they are counter to the objective of the community.

It became clear that the attainment of a therapeutic community environment is the objective of Bastion, and there are many permutations or combinations of population segments that could achieve a successful therapeutic environment.

Therefore the analysts chose to define eligibility separately for each tenant population and to identify an eligibility definition with the correct balance of broad and narrow aspects that would accurately capture the range of appropriate tenants for that tenant population.

Further, the exact number of units in Bastion is not fixed (since a specific site and property design have not been identified) nor is the specific allocation of units between tenant populations groups final. These decisions will be influenced by this analysis.

At first glance this lack of specificity to eligibility, number of units and allocation of units between tenant populations is a severe limitation to a traditional approach to housing demand analysis. Due the unique nature of the Bastion community and it's stage of development a nuanced analysis was required.

This population assessment can be read as three separate demand descriptions tailored to the unique aspects of each tenant group to understand the volume of demand for each tenant population and, where appropriate, to identify a pipeline or referral sources for specific segments of unique populations. When possible and appropriate capture rates have been provided given the preliminary program provided by the client, and in that sense this analysis can be used as an evaluation to understand the feasibility of the preliminary unit mix, however this analysis is provided in a descriptive (rather than evaluative) format so that it can be used by the client as they continue to refine the program to test the feasibility of certain population combinations, to evaluate the appropriateness of certain funding programs, and to identify where risks may lay.

As a final note on the subject of the complicated nature of Bastions tenant combinations; due to the delicate nature of sustaining a therapeutic environment, the analysts suggest that the client establish a tenant selection committee to evaluate each application for residency. This committee should have a clear and common vision for the objectives of Bastion and contain, at least, representatives from the mental health profession, veterans affairs, the on-site service provider as well as the property manager. Each of these perspective will be needed to make the difficult and nuanced decisions to select residents to obtain the right environment which mere tenant eligibility requirements will not achieve.

**NOTE:** This feasibility study will not address the needs of each tenant group for services nor define the programs and services that will best address the needs of each tenant group.

**NOTE:** The analysis will focus on renter households and rental housing resources. While homeownership maybe an element of the ultimate development, this analysis will focus on exploring the rental component.

### Population Category Definitions Used in Analysis

Primary category labels for the target populations include:

- **Veterans**

- a) Injured Veterans - service members who are diagnosed with severe Traumatic Brain Injury (TBI) and/or Polytrauma (diagnoses described more fully in following pages)
- b) Veterans Requiring Assisted Living - Veterans with TBI and/or polytrauma who require some form of assisted living.



- **Survivors**

- a) Bereaved Families of Fallen Service Members - Bereaved families that have lost a spouse/parent to combat-related injuries or suicide
- b) Extended Families/support group of severely injured veterans - mainly those diagnosed with Severe and Moderate TBI or poly-trauma
- b) Other Vulnerable Veteran Populations who are dealing with Traumatic Stress – such as homeless female veterans with children, veterans and families with severe PTSD, and or veterans and families who are at-risk of suicide



- **Seniors** - Any household, retired military veterans or civilians, ages 55+ who are willing to provide a minimum of six hours of volunteer service to the Bastion community each week.



### About the combination of targeted populations

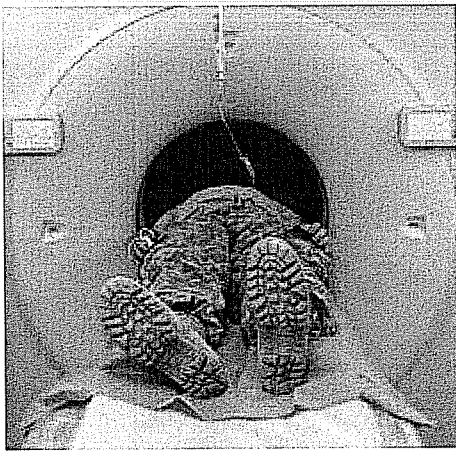
1. Veterans - this population was targeted because of their need for life-long rehabilitative care and community support which supports a permanent supportive housing model.
2. Survivors - this population was targeted because of the positive reciprocal impact of service between an injured veteran and the child of a deceased service member or other vulnerable and grieving households.
3. Seniors - The model bolsters aging-in-place for its seniors who become in effect, foster grandparents to other members in the community.

The combination of population groups was provided by the client and identified through their own psychology-sociology methodology.

Bastion's population combination is unique, there is no other community like it in existence. However, as mentioned before, Bastion builds on a tested model of community-as-therapy model for another vulnerable population, namely, Generations of Hope which provides housing and community-based services for youth in and aging-out of the foster care system along with housing for senior citizens who live in the community and provide volunteer time for service provision. There are many relevant aspects of Generations of Hope, for Bastion which will be more fully explored in the comparative property portion of this analysis.

### About Injured Veterans

In this section we will further describe TBI and/or polytrauma , then review the results of interviews with veteran experts, and describe the process a veteran goes through from injury event to (ultimately) arrive at Bastion.



Bastion will serve veterans with severe Traumatic Brain Injury (TBI), and/or polytrauma (a combination of injuries affecting multiple parts of the body such as amputation, severe burns, or spinal cord injury).

Bastion's first group of veterans will focus on those who have sustained injuries that are OEF/OIF combat related meaning obtained during deployment. However veterans who have experienced non-combat "service-connected" injuries such as training accidents will also be considered eligible. While the number of veterans exiting post-acute care in the Department of Defense medical system diminishes over time due to reduced combat operations from OEF/OIF, there are many

veterans who develop TBI symptoms after their transition out of active duty and many who fall on hard times as a result of their injury after their exit from post-acute care.

### Understanding Polytrauma

Polytrauma or multiple trauma is a medical term describing the condition of a person who has been subjected to multiple traumatic injuries, affecting more than one part of the body. One anecdote related to the analysts to describe polytrauma involves a service member who experienced an explosion and fell multiple stories down to the ground. The service member had a TBI from the blast, a broken leg, spinal cord injuries and severe burns. Each one of these medical conditions requires doctors with specific medical expertise, diagnostic equipment, surgery and rehabilitation facilities.

The Veterans Health Administration has established polytrauma medical centers so described to indicate that they have the breadth and variety of medical faculty and facilities required to treat veterans that experience polytrauma. New Orleans does not have facilities

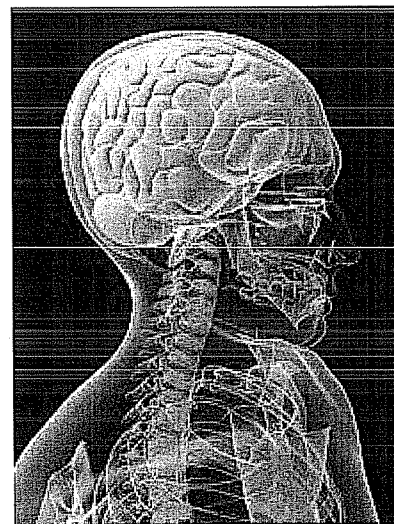
to serve these vets because it does not have an active hospital. New Orleans currently can only provide out-patient care.

Unfortunately polytrauma is not tracked as a separate condition (apart from TBI etc.) by either the Veterans Health or Benefits Administrations. Therefore it is not possible to track how many veterans in the New Orleans area experienced polytrauma.

## Understanding Traumatic Brain Injury<sup>1</sup>

**What is TBI?** a trauma to the head that either temporarily or permanently disrupts the brain's function.

**Causes of TBI** – In today's battlefields, the use of improvised explosive devices (IEDs) has made TBI a major concern for service members – as blasts are the primary cause of TBI for active duty military personnel in war zones. Many military personnel returning from OEF and OIF appear to have more complex and emotional trauma than has been seen in past wars. That observation may be due, in part, to an improved chance of survival because of the widespread use of body armor, improved battlefield medical response, and advances in aeromedical evacuation.



**History of TBI** - The term TBI appears in the medical literature at least as far back as the 1950s, in reference to severe cases of brain trauma, application to mild concussive injuries began in the 1990s, with a significant increase in usage and diagnosis since the onset of the OIF-OEF conflicts. Many recent reports have referred to TBI and post-traumatic stress disorder as the signature wounds of the Afghanistan and Iraq conflicts.

**Effects of TBI** – TBI causes disruptions in brain functioning and the effects can be wide-ranging depending on what part of the brain was affected and to what level of severity. The term TBI itself refers simply to the injury to the brain the exact nature of the symptoms depends upon the type and severity of the injury. TBI can lead to decreased level of consciousness, amnesia, or other neurological or neuropsychological abnormalities. In its most severe forms, TBI is associated with skull fracture, intracranial lesions, and it can lead to death. However, several symptoms can result from even mild TBI, including unprovoked seizures, depression, aggression, and post concussive symptoms, such as memory problems, headaches, dizziness, and irritability. TBI can cause life-long impairments, and rehabilitation and recovery might take many years. Although some impairments might be related to injuries to other parts of the body sustained at the time of TBI, moderate to severe TBI leads to more functional impairment than do injuries to other parts of the body alone.

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<sup>1</sup> Source: "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery" published in 2008 by the RAND Corporation Center for Military Health Policy Research  
And "Returning Home from Iraq and Afghanistan: Preliminary Assessment of Readjustment Needs of Veterans, Service Members and Their Families" published in 2010 by the Institute of Medicine of the National Academies for the Committee on the Initial Assessment of Readjustment Needs of Military Personnel, Veterans, and Their Families.

TBI can also lead to disruptions in higher-level functions of everyday life, including social relationships, independent living, and employment. Numerous studies have documented that penetrating brain injuries have adverse consequences for long-term employment outcomes.

TBI, PTSD and depression affects mood, thoughts, and behavior, bringing with it a host of difficulties in addition to the symptoms themselves. Previous research has demonstrated significant impairments in daily lives, as well as linkages with suicide, homelessness, and substance abuse, even when a mental disorder is not diagnosed. The array of potential health outcomes associated with TBI suggests that injured service members will have long-term psychosocial and medical needs from both persistent deficits and problems that develop in later life.

**Diagnosing TBI** - TBI diagnoses can range from mild to severe. Although penetrating brain injuries are easily identified, closed TBI is more common and, when mild, can go unnoticed. In some cases a TBI can go undetected until the service member returns home and can no longer function as he or she did before deployment; this can result in frustration and problems for both service member and family alike. While some indices of severity have been developed, there is still much ambiguity in definitions within and across military agencies and in understanding of the possible long-term repercussions of exposure to blast.

**Timing of TBI** - Although some acute outcomes, such as some neurocognitive and psychosocial dysfunction, resolve or lessen over time, others psychiatric outcomes, become more apparent several years after injury. The adverse effects of TBI on leisure and recreation, social relationships, functional status, quality of life, and independent living clearly affect readjustment and family life and relationships. By one year after injury, psychosocial problems appear to be greater than problems in basic activities of daily living.

**Treating TBI** - The extent to which mental health and cognitive problems are being detected and appropriately treated is unclear. Unlike the physical wounds of war that maim or disfigure, PTSD, major depression, and TBI are often invisible to other service members, family members, the military, and the broader society. Because of the complex nature of health care associated with severe combat injuries, including moderate and severe TBI, an individual's need for treatment, as well as for supportive and rehabilitative services, will change over time and involve multiple transitions across systems. Access to rehabilitation therapies—including psychological, social, and vocational—is required initially with the onset of deficits and will persist over time as personal and environmental factors change leading to loss of functional abilities.

The literature recognizes that improving access to mental health services for OEF/OIF veterans will require reaching beyond DoD and VA health care systems. Given the diversity and the geographic dispersal of the OEF/OIF veteran population, other options for providing health services must be considered; including Vet Centers, nonmedical centers that offer supportive counseling and other services to veterans and other community-based providers like Bastion.

## Veterans Experts Interview Results

Specific information gleaned from expert interviews is referenced throughout this analysis, however there are a few over-arching themes worth noting here.

**Every veteran expert interviewed for this analysis confirmed the demand for Bastion and felt that Bastion would receive more interest and demand than it could possibly accommodate.**

However, every expert interviewed for this analysis also;

- reiterated the complicated nature of defining, labeling, diagnosing and tracking the veteran population
- acknowledged that there are no consistent diagnosis labels or severity indices shared by all the institutions that a veteran will access in the process from active duty to veteran and beyond.
- confirmed the complex and variant impacts and symptoms of TBI making diagnosis of severity and a corresponding prescription of treatment challenging and nuanced; complicating an evaluation of their “case load” for Bastion referral possibilities

The complications in tracking veterans are due in part to the disconnections and lack of data sharing between the Active Service / Department of Defense, Veterans Health Administration and Veterans Benefits Administration.

## Veterans Process from Injury Event to (ultimately) Bastion

There is a terrific volume of literature and research that has been done on veterans of OIF/OEF and on TBI in particular. While reviewing this body of literature and during the course of this analysis it became clear that there are several key institutions with responsibility for and data about military service members. It is possible to get a snapshot of the veterans population from each of these perspectives. Each institution and data source reflects only a specific sphere of influence which roughly correspond to (mostly sequential) stages in the life of an individual service member. While there is (often) a wealth of information about the population in a specific phase, there is very little information or data connecting one phase to another or tracking the overall process an individual service member experiences from active duty to discharge to veteran.

**It is important for this analysis to understand the overall process a service member experiences as they move from active duty to discharge to veteran. Understanding the process makes it clear how the various data sets relate, what it means and what is most relevant for Bastion. Therefore we have provided an info-graphic on the following page sketching out the process of a Veteran to arrive at Bastion.**

The process is dis-jointed, complicated, often repetitive and seemingly never ending. It involves multiple federal agencies; the Department of Defense, Veterans Administration (VA), both mega-organizations with enormous bureaucracies. Even the sub-divisions or departments within these mega-organizations; the branches of the military, VA – Health and VA – Benefits, fail to coordinate within themselves, let alone with each other.





### Department of Defense (DoD) - Active Duty

Focusing on the process of an individual with a combat-related injury, when an injury event happens in theatre, a service member is transferred first to a medical facility in Germany where they are stabilized. Then they are transferred, depending on their injuries to one of 6 DoD hospitals with various medical specialties to receive medical treatment. This phase can take a few months to a few years depending on the level of severity of the injury. Then they will be evaluated the DoD Medical and Physical Evaluation boards to determine their fitness to return to duty and or recommendation for discharge. After discharge the individual service member becomes a veteran. The evaluation boards will issue the veteran with a letter describing the nature of the discharge which will be a key document to complete paperwork for additional steps for receiving benefits and services as a veteran.

For non-combat related injuries, the processes of evaluation and discharge are identical to those veterans experiencing a combat-related injury. The only difference is that a service member that experiences a non-combat related injury (on a US military base, during training etc.) will receive medical treatment at whatever health care facility is closest and most appropriate to their injuries. They will not receive medical treatment at the DoD hospitals such as Walter Reed.

The process of completing the evaluation boards and achieving discharge can be lengthy. A service member is called "transitioning" while they are moving away from active duty towards veteran status and return to civilian live. While this process is underway they can move forward to future steps in the process by registering with the Veterans Administration (VA).

### The Veterans Administration (VA) – Health & Benefits

After discharge the burden of any further interaction falls upon the veteran who must register themselves separately with the Veterans Health Administration (VHA) for medical services and also with the Veterans Benefits Administration to receive financial benefits and ultimately a pension.



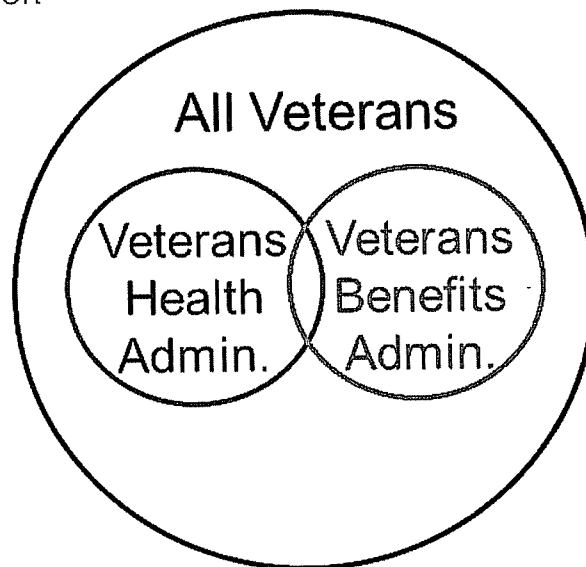
Department of  
Veterans Affairs

- To register with the VA for healthcare services – a veteran can be "referred" by a DoD doctor or facility, can "transfer" from another VA Health facility, or can "self present" and register independently. Nationally only 50% of veterans actually register with the VA for healthcare services. There is a series of paperwork to submit (such as the discharge letter from the DoD) and a sequence of medical evaluations to undergo which screen veterans for various health conditions including TBI.
- To register with the VA for benefits (Veterans Benefit Administration - VBA) – a veteran submits a series of paperwork (such as the discharge letter from the DoD) and fills out additional VBA forms stating the various benefits they believe they are eligible for. A vet can fill these forms out themselves or receive assistance to do so from a variety of service providers. Upon receipt of the veterans forms, the VA conducts their own evaluation of the veterans' claims reviewing medical records (from DoD health facilities, or for up to one year after discharge, civilian health facility medical records). Submission fo the VBA forms also triggers the local VA Health facility to schedule an evaluation and the VA will also sent out a Disabilities Benefits Questionnaire to be filled out by doctors who have treated the vet.

The VA Health and Benefits side use separate paperwork and separate processes to determine the appropriate services and benefits in response to a veteran's circumstances. Because veterans register separately for VA Health and VA Benefits this represents a number of challenges:

- There is no one data source tracking all veterans, only the vets who register for either VA Health or Benefits get counted
- VA Health and Benefits keep separate records and data sets and do not compare data, making it difficult to tell how much overlap there is between their data sets. Veterans maybe double counted – appearing once in the data as accessing VA Health services and again in another dataset as receiving VA Benefits. Therefore these data sets will be considered in this analysis comparatively (A total vs. B total) rather than as cumulatively ( $A + B = \text{Total}$ ).
- VA Health and Benefits also utilize different categorizations. For example, VA health uses TBI "severity" (mild, moderate, and severe) and specific symptoms to determine appropriate medical services, while the VA benefits used percentage disabled to determine the level of financial compensation to provide. Making it difficult to make exact correlations between the two datasets.

Figure 1: Veterans Administration: Two Separate Departments, Some Overlapping Population



... now you are  
at Bastion  
as a

	You are in the military... (In Active Service or in Reserve)	... now you are a Veteran	... at Bastion as a
		<p>... apply to VA - HEALTH</p> <p>Register For Service</p> <p>Diagnostic</p> <p>... apply to VA - BENEFITS</p> <p>Register For Benefits</p> <p>Determ. % Disabled</p> <p>Treatment &amp; Benefits from VA</p> <ul style="list-style-type: none"> <li>• Housing</li> <li>• Specially Designed Services</li> </ul>	<p>Vulnerable Veteran</p> <p>Injured Veteran</p> <p>Veteran Requiring Assisted Living</p>
Receive	<p>Designation Wounded Warrior</p> <p>Determination of fitness to return to duty</p>	<p>Eligibility for:</p> <ul style="list-style-type: none"> <li>• VA services</li> <li>• Services from network of non-profits</li> </ul>	<p>Diagnosis (TBI, PTSD etc.)</p> <ul style="list-style-type: none"> <li>• Medical Treatment</li> <li>• Determination of the extent of disability</li> <li>• Determination of Benefits &amp; eligibility for pension</li> </ul>
Federal Players	<p>Dept. of Defense (Various Branches of military)</p>	<p>-</p>	<p>Dept. of Veterans Affairs – Health &amp; Benefits (separately)</p>
Time	<p>Medical Treatment: 1 mo. - 3 yrs. Depending on severity of injury</p>	<p>-</p>	<p>Veterans can wait up to 1 yr. to progress through evaluations &amp; receive diagnosis</p>
Geo- graphy	<p>Treatment received at 6 DoD hospitals with various medical specialties</p>	<p>-</p>	<p>Veteran receives service at their local VA Health Facility: 8 in LA: Baton Rouge, Bogalusa, Franklin, Hammond, Houma, Slidell, St. John &amp; New Orleans</p>
Bastion Referral	<p>Inpatient Traumatic Brain Injury Program at the 6 DoD hospitals, especially Walter Reed &amp; Brook Army Medical Center</p>	<p>Referrals from non-profits &amp; veteran advocacy groups</p>	<p>Referrals</p> <p>New Orleans VA staff In Health and in Benefits</p>

## Volume and Location Of Tenants

With a full understanding the various tenant populations, in this section we will explore the volume of demand for and location of each of Bastion's tenant populations; Veterans, Survivors and Seniors.

### 1. Veterans with Traumatic Brain Injury (TBI) and Poly-trauma

Most, but not all, veterans with TBI and/or poly-trauma will have been deployed in theater (OIF/OEF/OND) since 9/11/01. Veteran's injuries are not limited exclusively to combat-related injuries, and this additional non-combat-injured population is considered in our estimates. The VA utilizes the terminology "service-related injury" to include all injuries a service member/vet could experience during the course of their military service whether it be an "in-theatre" "combat-related" injury or a "non-combat injury" incurred in the United States. "Service related" injuries are eligible for different benefits than an injury incurred (e.g. a car accident) that occurred after discharge, however all injuries are eligible for medical treatment at a VA health facility.

**Bastion focuses on two key population subsets of veterans. Both subsets share the diagnosis of Severe to Moderate Traumatic Brain Injury (TBI) or poly-trauma (defined in Table 2). The two subsets differ in the intensity/acuity of care required.**

#### Subset 1: Higher Acuity Care (Assisted Living)

This population subset is typically, though not exclusively, transitioning from post-acute care. In this group, injuries are such that the veteran needs skilled support on a regular basis. The injured veteran resides in dormitory style housing pods (private bedrooms with shared common baths and kitchen) that can accommodate 3-4 wounded warriors. This assisted-living environment features skilled staff support with rehabilitative and structured activities provided on-site.



The Assisted Living environment at Bastion will operate similarly to the VA Assisted Living (AL) Pilot program described to us by Dr. David Williamson<sup>2</sup>. Where "residential placement" or housing, with skilled staff, is provided along with structured activities and rehabilitation activities on-site. Veterans enrolled in the AL Pilot have moderate to severe TBI, often with significant medical and psychiatric co-morbidities that require intensive care coordination. Case management services for Veterans enrolled in the AL-TBI pilot program are provided by VA Social Work/Case Managers, Registered Nurses, or other health care professionals trained in TBI care. At present, the VA AL-TBI Pilot program is small scale, serving 60-70 injured veterans nationally.

Eight one-bedroom Assisted Living units are proposed for Bastion. This housing is permanent, in as much as there is no fixed or pre-determined time period of stay.

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<sup>2</sup> Neuropsychiatrist and Medical Director, Inpatient Traumatic Brain Injury (TBI) program at the Walter Reed Military Medical Center.

### Subset 2: Lower Acuity Care (Independent Living)

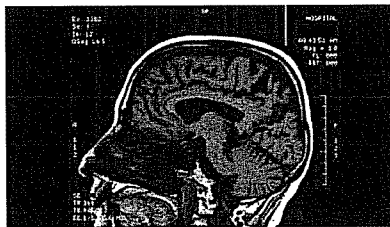
This group does not require the higher level of care provided for Subset 1. The living situation proposed for this group is an environment where light to moderate supportive care is available, but there are no significant services or treatments offered on-site. A caretaker dedicated to specific residents can be provided but is not required.



For this group, 16 “units” are proposed: 8-singles and 8 two-bedroom units that will house an injured veteran population totaling between 16 and 20 individuals. The unit mix anticipates recurring instances where a spouse, significant other or other family caregiver lives at the facility with the injured veteran. This type of living arrangement has been successful at one building on the Walter Reed campus as described by Dr. Goldberg<sup>3</sup>. A design with “lockout” options might provide the flexibility needed to tailor the unit mix to accommodate this group. A “lockout” is a bedroom type that is common in time share rentals – it is a bedroom that is in between two one-bedroom units with doors to each unit which can be locked or unlocked making the unit on either side a two-bedroom. The housing is permanent in as much as there is no fixed or pre-determined time period of stay.

We developed population estimates for these two subsets of injured veterans. Though there is no single source for directly estimating the number of injured veterans with TBI or poly-trauma at the local geographies, utilization data provided by the VA (both Healthcare and Benefits) gives perspective on the number of injured veterans diagnosed with TBI receiving VA healthcare services and VA benefits in Southeast Louisiana.

### Veterans Diagnosed with TBI



We begin our consideration of the population of injured veterans diagnosed with TBI.

#### *Nationally*

Worldwide numbers are available from two sources by TBI classification for the period 2000-YE 2012. The source is the same for both data sets; the DoD numbers are slightly more current than the DoD numbers used by the Congressional Research Service (CRS) in its most recent report on U.S. Military Casualty Statistics. Comparing the two data sets, there are more TBI injured categorized as unclassifiable in the DoD estimate than in the CRS estimate, but it appears that once the TBI injury is classified, most are classified as Moderate Acuity Level. **Nationally, since 2000, there are 6,700-6,900 injured veterans diagnosed with Severe TBI and between 22,000 and 41,000 diagnosed with Moderate TBI.** Anecdotal information provided by Dr. David Williamson, Director of Inpatient TBI program at Walter Reed Military Medical Center, suggests that non-combat related TBI injures to service members could increase the TBI population by up to 25%.

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<sup>3</sup> Gary Goldberg BAsc MD, Medical Director, PolyTrauma Transitional Rehabilitation Program, Physical Medicine and Rehab. Service, McGuire VA Medical Center, Richmond, VA

Table 2: Incident Diagnoses of Traumatic Brain Injury (TBI) DoD Worldwide Numbers 2000-2012

	Severe/ Penetrating	% of Total TBI	Moderate	% of Total TBI	Mild	% of Total TBI	Non Classifiable	% of Total TBI	Total All TBI
2000	450	4.1%	4,150	37.9%	6,326	57.7%	37	0.3%	10,963
2001	478	4.0%	3,553	30.0%	7,760	65.6%	39	0.3%	11,830
2002	380	3.0%	3,077	24.7%	8,974	72.0%	39	0.3%	12,470
2003	449	3.5%	2,643	20.5%	9,770	75.7%	36	0.3%	12,898
2004	463	3.5%	2,281	17.1%	10,536	79.1%	32	0.2%	13,312
2005	407	3.3%	1,906	15.6%	9,857	80.7%	41	0.3%	12,211
2006	521	3.1%	2,466	14.5%	13,919	82.1%	52	0.3%	16,958
2007	591	2.6%	3,708	16.0%	18,665	80.5%	210	0.9%	23,174
2008	686	2.4%	3,343	11.7%	21,859	76.5%	2,679	9.4%	28,567
2009	809	2.8%	3,751	12.8%	22,673	77.5%	2,022	6.9%	29,255
2010	553	1.8%	4,294	13.7%	24,989	79.6%	1,571	5.0%	31,407
2011	525	1.6%	4,822	14.5%	25,564	77.1%	2,238	6.8%	33,149
2012	341	1.1%	1,377	4.6%	25,370	85.5%	2,580	8.7%	29,668
<b>Total A/</b>	<b>6,653</b>	<b>2.5%</b>	<b>41,371</b>	<b>15.6%</b>	<b>206,262</b>	<b>77.6%</b>	<b>11,576</b>	<b>4.4%</b>	<b>265,862</b>
<b>Total B/</b>	<b>6,922</b>	<b>2.6%</b>	<b>21,779</b>	<b>8.2%</b>	<b>219,921</b>	<b>82.4%</b>	<b>18,188</b>	<b>6.8%</b>	<b>266,810</b>

Percentage Distribution							
Severe/ Penetrating	2.5% - 2.6%	Moderate	8.2% - 15.6%	Mild	77.6% - 82.4%	Non Classifiable	4.4% - 6.8%

**The DoD categorizes TBI cases as mild, moderate, severe, or penetrating.**

Mild TBI= characterized as a confused or disoriented state lasting less than 24 hours; loss of consciousness for up to 30 minutes; memory loss lasting less than 24 hours and structural brain imaging that yields normal results.

Moderate TBI= characterized as a confused or disoriented state lasting more than 24 hours; loss of consciousness for more than 30 minutes, but less than 24 hours; memory loss lasting more than 24 hours but less than 7 days and structural brain imaging that yields normal or abnormal results.

Severe TBI= characterized as a confused or disoriented state that lasts more than 24 hours; loss of consciousness that lasts more than 24 hours; memory loss for more than 7 days and structural brain imaging that yields normal or abnormal results.

Penetrating TBI or open head injury is a head injury where the dura mater, the outer layer of the system of membranes that envelops the central nervous system is penetrated. Penetrating injuries can be caused by high velocity projectiles or objects of lower velocity, such as knives, or bone fragments from a skull fracture that are driven into the brain.

Polytrauma= injury to the brain in addition to other body parts resulting in physical, cognitive, psychological and psycho-social impairments and functional disability. Concurrent injury to two or more body parts or systems.

A/	Congressional Research Service (CRS) - U.S. Military Casualty Statistics: Operation New Dawn, Operation Iraqi Freedom and Operation Enduring Freedom
B/	DoD Worldwide TBI Numbers

Source: Reformatted by SI/AREA, 3/13

Unfortunately this national or "worldwide" TBI injury data is not provided in a geographic format that would allow us to drive down from the national data to the local level to see how many veterans in the New Orleans area experience TBI. However, we have attempted to apply the distribution of TBI injuries to other data available about the military services to create a general expectation of how many TBI injuries we could expect to see in the New Orleans Region assuming that all TBI injuries are equally distributed across service members. Data about veterans accessing the Veterans Administration (detailed in the following sections) should be considered as a more relevant estimation of demand. However, since we know that not all veterans register/access VA health or benefits, this analysis (applying TBI distribution data to other data about service members) should be regarded as an attempt to set expectations about the potential size of the market.

By simply taking the worldwide DoD numbers and assuming that TBI and other combat related injuries are distributed across the small area geographies based on the ratios of total theater deployed (active and reserves) for the geography to total deployed nationally. For example, 1.6% of total service members deployed since 9/11/01 are from Louisiana; service

members living in the New Orleans MSA represent 21.4% of total deployment from Louisiana.

Roughly 7.6% of total deployed in Louisiana are from the City of New Orleans.

Using this back of the envelope methodology results in estimates that are approximately 3 times the size of the VA derived estimates but exposes this technique's limitation (namely nuance).

Table 3: Analysis Applying the Distribution of TBI from the DoD Worldwide to Other Data About the Military Services

1	Total Deployed				
	State	Active	Reserves	Total	% Total Deployed
<b>4 State Region</b>	LA	16,236	13,876	30,112	1.6%
	TX	101,718	39,143	140,861	7.5%
	MS	11,454	14,973	26,427	1.4%
	AR	8,674	10,829	19,503	1.0%
	<b>Total</b>				<b>11.6%</b>

Source: Defense Manpower Data Center, as of 10/31/11. DoD through 2010 for active and 2011 for reserves

2	Worldwide Numbers - TBI (2000-2012)					
	Severe/ Penetrating	Moderate	Mild	Unclassifiable	Total	
	# of Diagnoses	6,922	21,779	219,921	18,188	266,810
	% Distribution	2.6%	8.2%	82.4%	6.8%	100.0%

Source: DoD Worldwide TBI Numbers

3	4-State Region				
	Severe/ Penetrating	Moderate	Mild	Unclassifiable	Total
	% of Total Deployment	11.6%	11.6%	11.6%	--
	Estimated TBI Diagnoses in 4-State Region	802	2,525	25,493	2,108

State Louisiana					
	Severe/ Penetrating	Moderate	Mild	Unclassifiable	Total
% of Total Deployment	1.61%	1.61%	1.61%	1.61%	---
Estimated TBI Diagnoses in LA	111	350	3,539	293	4,294

New Orleans MSA (7-Parishes)					
	Severe/ Penetrating	Moderate	Mild	Unclassifiable	Total
% of State Total	21.4%	21.4%	21.4%	21.4%	--
Estimated TBI Diagnoses in MSA	24	75	757	63	918

Orleans Parish / City of New Orleans					
	Severe/ Penetrating	Moderate	Mild	Unclassifiable	Total
% of State Total	7.6%	7.6%	7.6%	7.6%	--
Estimated TBI Diagnoses in NOLA	9	27	270	22	328

Assumes Pro-rata distribution of TBI by % of State deployment to Total Deployment and % of Region and City Deployment to State Total.

Note: Does not capture all TBI. Non combat TBI could add 25% to totals, per Dr. David Williamson, Neuropsychiatrist & Medical Director, Inpatient TBI program, Walter Reed National Military Medical Center.

Source: SI/AREA, 3/13

### *Defining Bastion's Market Area for Veterans*

A note about the geographies used in the data sets below; the market area for the unique services provided by Bastion for injured veterans diagnosed with Severe or Moderate TBI extends beyond the City of New Orleans and New Orleans MSA. The market area is regional. There is no comparable supply alternative in the region with the mix of support and services proposed for Bastion. While it is worth nothing that because of the uniqueness of its services and the population it serves, Bastion could attract injured veterans from adjoining states, particularly Texas, we do not rely on this attraction to determine demand for this analysis.

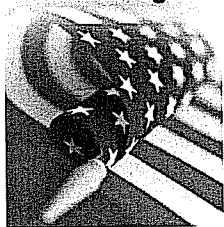
We have organized the data into the following geographies for analysis:

1. the parish level
2. the 7- parish New Orleans MSA,
3. **the 17-parish southeast Louisiana region is the selected market area for Bastion** whose service area includes the 10-parishes that surround the 7-parish New Orleans MSA. This area approximates the service region of the Southeast Louisiana VA Healthcare System (SE-LA VA Healthcare) where the overwhelming majority of veterans reside.
4. the balance of the state (outside the New Orleans MSA)
5. the state of Louisiana level



### *In the New Orleans Region – Veterans Benefits Administration*

#### **Veterans Benefits Planning**



The Veterans Benefits Administration and the Southeast Louisiana VA Healthcare System provide benefits and medical services to veterans diagnosed with TBI. We look at both the Benefits and Healthcare systems to estimate the TBI population in the Southeast Louisiana region that fit the Bastion profile.

Information on those registered for benefits and diagnosed with TBI is provided through the Veterans Benefits Administration (VBA) for the State of Louisiana and its individual parishes. The data from the VBA delineates veterans receiving benefits connected to a diagnosed TBI by percentage (%) of disability. Our VBA contact and guide to understanding the VA disability levels and compensation converted disability levels to the DoD acuity levels (mild, moderate & severe) for TBI injuries.

- Disability levels of 0%-30% fall in the Mild TBI category.
- Disability levels between 40% and 60% will likely be categorized as Moderate TBI.
- Disability levels above 60% are mostly categorized as Severe TBI.

The data on percentage disability and acuity level are presented side-by side and by varying levels of geography in the following table.



TABLE 4: Veterans Benefits Administration - Veterans Registered for Benefits Diagnosed with TBI in the State of Louisiana

Percent Disabled (determined by the Veterans Benefits Administration)		0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Severity of TBI		Mild				Moderate		Severe				
	Total w TBI				Total for Severit		Total for Severit					Total for Severit
Orleans	33	9	18	1	28	5	5					0
Jefferson	55	10	30	4	44	7	1	8	1		2	3
Plaquemine	4		2	1	3	1		1				0
St Bernard	7	1	2	1	4	2		2	1			1
St. Charles	4	1	3		4			0				0
St. John the Baptist	6	1	4		5	1		1				0
St Tammany	57	11	31	3	45	10	1	11	1			1
<b>New Orleans MSA Subtotal</b>	<b>166</b>	<b>33</b>	<b>90</b>	<b>0</b>	<b>10</b>	<b>26</b>	<b>2</b>	<b>28</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>
% of Subtotal		20%	54%	0%	6%	16%	1%	17%	0%	2%	0%	1%
Male	157	95%										
Female	9	5%										
Ascension	15	1	9		10	3		3	1	1		2
Assumption	1				0			0			1	1
East Baton Rouge	43	12	18	2	32	6		6	2		3	5
Lafourche	8	7			7			0			1	1
Livingston	14	3	6		9	3		3	2			2
St. James	3	1	1		2	1		1				0
Tangipahoa	14	1	6	1	2			0	1	1	1	4
Terrebonne	16	5	10		15	1		1				0
Washington	6	2	2		4	1		1	1			1
West Baton Rouge	4	1	3		4			0				0
<b>17 SE LA Parishes Subtotal (includes NOLA MSA)</b>	<b>290</b>	<b>66</b>	<b>145</b>	<b>1</b>	<b>14</b>	<b>41</b>	<b>2</b>	<b>43</b>	<b>1</b>	<b>10</b>	<b>2</b>	<b>1</b>
% of Subtotal		23%	50%	0%	5%	14%	1%	15%	0%	3%	1%	0%
Acadia	14	2	10		12	1		1	1			1
Allen	3		2		2	1		1				0
Avoyelles	7	1	6		7			0				0
Beauregard	27	4	15	1	20	7		7				0
Bienville	1		1		1			0				0
Bossier	41	12	18	1	31	8	1	9	1			1
Caddo	49	13	24	4	41	5	1	6	1		1	2
Calcasieu	28	13	8		21	2		2	5			5
Catahoula	3		1	2	3			0				0
Claiborne	1		1		1			0				0
Concordia	1			1	1			0				0
DeSoto	5	2	2		4	1		1				0
East Feliciana	3	1	1		2	1		1				0
Franklin	2		1		1	1		1				0
Grant	6	1	4		5	1		1				0
Iberia	11	3	7		10	1		1				0
Iberville	6	1	2	1	4	1		1			1	1
Jackson	1				0			0			1	1
Jefferson Davis	7	2	3		5	1		1	1			1
La Salle	1				0		1	1				0
Lafayette	32	10	15	2	27	1		1	3		1	4
Lincoln	2	1			1	1		1				0
Morehouse	4	2	2		4			0				0
Natchitoches	8	1	4	1	6	2		2				0
Ouachita	18	5	11		16	1		1			1	1
Pointe Coupee	2				0	2		2				0
Rapides	36	6	19	1	26	9		9	1			1
Richland	2		1		1	1		1				0
Sabine	6	2	1	1	4	2		2				0
St Martin	9	2	3		5	1	1	2	2			2
St. Joseph	5	1	2		3	1		1			1	1
St. Landry	12	2	6		8	3		3	1			1
St. Mary	5		3	2	5			0				0
Tensas	1		1		1			0				0
Union	2		1		1	1		1				0
Vermilion	12	5	6		11			0	1			1
Vernon	52	19	26	1	46	6		6				0
Webster	7	2	3		5		1	1	1			1
West Carroll	1		1		1			0				0
West Feliciana	1	1			1			0				0
Winn	1		1		1			0				0
<b>Subtotal Rest of the State</b>	<b>435</b>	<b>114</b>	<b>212</b>	<b>1</b>	<b>17</b>	<b>62</b>	<b>5</b>	<b>67</b>	<b>2</b>	<b>16</b>	<b>0</b>	<b>0</b>
% of Subtotal		26%	49%	0%	4%	14%	1%	15%	0%	4%	0%	0%
<b>Entire State of Louisiana</b>	<b>601</b>	<b>147</b>	<b>302</b>	<b>1</b>	<b>27</b>	<b>88</b>	<b>7</b>	<b>95</b>	<b>2</b>	<b>19</b>	<b>0</b>	<b>0</b>
% of Total	100%	24%	50%	0%	4%	15%	1%	16%	0%	3%	0%	0%
Male	561	93%										8
Female	40	7%										29

Source: Veterans Benefits Administration, SI/AREA 3/2013

Findings of note:

- The New Orleans Region has a higher percentage (7%) of vets with "severe" TBI (as defined by VA benefits as being 60% or more disabled) than the DoD worldwide average (of 2.5-2.6% of the vet population with severe TBI).
- The percentage of veterans in the New Orleans region with Moderate TBI classification (15-17%), is at the top end of the range of total TBI diagnosed worldwide as having Moderate TBI (8-16%).
- From the VBA data we estimate that there are about 64 beneficiaries that fit the Bastion resident profile (for 16 units) of injured veterans diagnosed with Severe (21 vets) to Moderate (43 vets) TBI. About half of these potential Bastion residents live in the New Orleans MSA. This is a ratio of 4:1 or four eligible vets for every one unit at Bastion.

*In the New Orleans Region – Southeast Louisiana VA Healthcare System*



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The second step in the analysis considers the population diagnosed with TBI that is being treated in the SE-LA VA Healthcare system.

We were provided information on the number of veterans receiving services at one of 8 VA health

facilities in SE-LA VA Healthcare system that have been diagnosed with TBI since September 2006 – 277 veterans in Southern Louisiana have TBI. We were provided with geographic and demographic information on all 8,051 veterans who have accessed the SE-LA VA Healthcare system but not detailing the geographic or demographics of the 277 diagnosed with TBI, so for this analysis we have made the following assumptions:

- that veterans with TBI are distributed geographically in the same percentages as the veteran population accessing the SE-LA VA Healthcare system.
- The SE LA VA healthcare provided data does not classify those treated for TBI by acuity level. Therefore we applied the acuity level ratios extracted from the VBA data to segment the TBI population (277) provided by SE-LA VA healthcare.

Findings of note:

- Veterans residing in the New Orleans region represent more than half (62%) of those veterans receiving health care services in Southern Louisiana.
- Demo profile of veterans in the SE-LA VA healthcare system. See Table 5 for detail.
  - While a significant number are young (30% are age 18-39), the largest group (42%) is 30-39 years of age.
  - Eighty-six percent (86%) are men
  - Most enrollees are presently single (59% including Never Married, Divorced, Separated and Single); 41% are married and together
  - The racial distribution of veterans in the area approximately matches racial distribution of the region.

Table 5: Southern LA VA Healthcare System - Home Address of Veterans Accessing a VA Health Facility\* Since Sept 2006

Parish	Individual Veterans	% of Total	Total w TBI	Severity of TBI			Eligible for Bastion
				Mild	Moderate	Severe	
Orleans	559	7%	19	15	3	0.6	
Jefferson	1,059	13%	36	29	6	1.1	
Plaquemine	44	1%	2	1	0	0.0	
St Bernard	83	1%	3	2	0	0.1	
St. Charles	74	1%	3	2	0	0.1	
St. John the Baptist	96	1%	3	3	1	0.1	
St Tammany	723	9%	25	20	4	0.7	
<b>Subtotal New Orleans MSA</b>	<b>2,638</b>	<b>33%</b>	<b>91</b>	<b>73</b>	<b>15</b>	<b>2.7</b>	<b>18</b>
			<b>33%</b>	<b>80%</b>	<b>17%</b>	<b>3%</b>	
Ascension	277	3%	10	7	1	0.7	
Assumption	12	0%	0	0	0	0.0	
East Baton Rouge	1,042	13%	36	28	5	2.5	
Lafourche	98	1%	3	3	1	0.2	
Livingston	341	4%	12	9	2	0.8	
St. James			-	-	-	-	
Tangipahoa	235	3%	8	6	1	0.6	
Terrebonne	207	3%	7	6	1	0.5	
Washington	55	1%	2	1	0	0.1	
West Baton Rouge	48	1%	2	1	0	0.1	
<b>Subtotal 17 SE LA Parishes (includes NOLA MSA)</b>	<b>4,953</b>	<b>62%</b>	<b>170</b>	<b>133</b>	<b>26</b>	<b>11.9</b>	<b>37</b>
			<b>62%</b>	<b>78%</b>	<b>15%</b>	<b>7%</b>	
East Feliciana	45	1%	2	1.22	0.23	0.09	
Iberia	30	0%	1	0.82	0.15	0.06	
Iberville	55	1%	2	1.49	0.28	0.11	
Lafayette	90	1%	3	2.45	0.46	0.19	
Mississippi	72	1%	2	1.96	0.37	0.15	
Rapides	25	0%	1	0.68	0.13	0.05	
St Martin	52	1%	2	1.41	0.27	0.11	
St. Joseph	83	1%	3	2.26	0.43	0.17	
St. Landry	17	0%	1	0.46	0.09	0.04	
St. Mary	79	1%	3	2.15	0.41	0.16	
Vernon	11	0%	0	0.30	0.06	0.02	
West Feliciana	21	0%	1	0.57	0.11	0.04	
All Other Zip Codes with 9 or fewer veterans	2,518	31%	87	68.44	13.00	5.20	
<b>Subtotal Rest of State</b>	<b>3,098</b>	<b>38%</b>	<b>106.59</b>	<b>84.21</b>	<b>15.99</b>	<b>6.40</b>	
			<b>38%</b>	<b>79%</b>	<b>15%</b>	<b>6%</b>	
			<b>277</b>	<b>219</b>	<b>44</b>	<b>14</b>	
<b>Southern Louisiana Total</b>	<b>8,051</b>	<b>100%</b>	<b>100%</b>	<b>79%</b>	<b>16%</b>	<b>5%</b>	

Source: Veterans Health Administration, SI/AREA 3/2013

\* Veteran accessed one of following 8 facilities in Southern Louisiana: Baton Rouge, Bogalusa, Franklin, Hammond, Houma, Slidell, St. John, New Orleans

Table 6: Southern LA VA Healthcare System - Demographics of OEF OIF Veterans Enrolled Since Sept 2006 and Who Have Accessed Services Recently (in the month of Feb 2013)

	Since 2006	Accessed VA		
		% of Total	Health in Feb 2013	% of Feb
Total Enrolled as of 9/18/2006	8,051		2,322	
<b>Diagnosed with:</b>				
TBI	277	3%	34	1%
PTSD	2,113	26%	426	18%
Mental Health	3,551	44%	1,043	45%
	5,941	74%	1,503	65%
<b>Race</b>				
White	4,340	54%	1,224	53%
Black	2,424	30%	896	39%
Unkown	1,128	14%	162	7%
Asian or Pacific Islander	98	1%	23	1%
American Indian or Alaskan Native	60	1%	17	1%
Hispanic	1	0%	0	0%
	8,051	100%	2,322	100%
<b>Gender</b>				
Male	6,936	86%	1,923	83%
Female	1,115	14%	399	17%
	8,051	100%	2,322	100%
<b>Age Group</b>				
18-29	2,395	30%	746	32%
30-39	3,368	42%	892	38%
40-49	1,545	19%	454	20%
50-59	592	7%	175	8%
60-69	148	2%	55	2%
70-79	3	0%	0	0%
	5,656	70%	1,576	68%
<b>Marital Status</b>				
Married	3,285	41%	968	42%
Never Married	2,733	34%	753	32%
Divorced	1,119	14%	398	17%
Separated	309	4%	88	4%
Single	291	4%	82	4%
Unkown	287	4%	21	1%
Widowed	27	0%	12	1%
	8,051	100%	2,322	100%
Source: Veterans Health Administration, SI/AREA 3/2013				

## Summary of Key Findings and Conclusions on Veterans Demand

Table 7: Comparing Various Estimates of TBI

	Total-w-TBI	Severity of TBI				Eligible-for-Bastion
		Unclassified	Mild	Moderate	Severe	
Analysis Applying the Distribution of TBI from the DoD Worldwide to Other Data About the Military						
State of LA	4,294	293	3,539	350	111	99
New Orleans MSA	918	63	757	75	24	
City of New Orleans	328	22	270	27	9	
Veterans Benefit Administration (VBA)						
State of LA	601		477	95	24	64
17 SE LA Parishes	290		226	43	21	
New Orleans MSA	166		133	28	5	
City of New Orleans	33		28	5	0	
Southeast Louisiana VA Healthcare System						
Southern Louisiana	277		219	44	14	37
17 SE LA Parishes	170		133	26	12	
New Orleans MSA	91		73	15	3	
City of New Orleans	19		15	3	0.6	
Source: SI/AREA Compraison of Data 4/2013						

Source: SI/AREA Comparison of Data 4/2013

In theory, estimates of the size of the TBI population and profile in terms of TBI acuity levels from various data sources should be similar to one another. However there is some variety across the data sets analyzed for this study. As demonstrated in the table above, there could be a demand pool ranging from 37-99 individuals for the veteran units at Bastion. Note: the figures above should not be added together – they are not cumulative, rather they are various ways of looking at the demand pool for Bastion.

The number of TBI diagnosed veterans fitting the Bastion profile indicates that there is an adequate size demand pool in the SE Louisiana region to fill the 24 “beds” proposed specifically for injured veteran population diagnosed with Severe and Moderate TBI. There are 1.6-3 eligible individuals for each veterans housing unit available at Bastion. This is an acceptable demand pool for special needs housing.

Factors influencing the range of demand from various data sources:

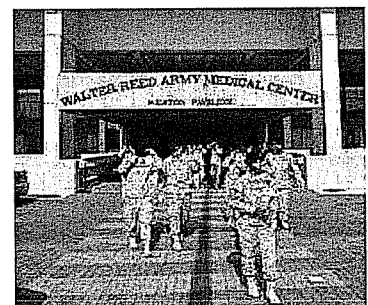
- The Worldwide DoD figures are the largest possible estimate of demand and are larger than the VA figures because they represent an estimate of military service members with TBI prior to discharge (while they are still “active duty”), before they could register with the VA for either healthcare or benefits. This indicates that there may be more TBI cases than are currently counted in the VA figures and therefore more TBI cases may be coming for the New Orleans region.
- As described in the Understanding the Tenant Populations section of this report, it is unclear how many veterans appear in both the VA healthcare and benefits data, some

double counting may occur, however because the registration processes are different, it is likely that they are not entirely identical populations. For example, a veteran could have completed in-patient healthcare treatment receipt at a DoD hospital, returned to New Orleans, registered for and received VA benefits and have a job that provides for on-going healthcare needs and never register with the VA Healthcare system. Conversely, a veteran could be receiving healthcare benefits and not yet begun the process of registration for benefits.

- VA Healthcare data includes veterans with “non service-connected” injuries which are ineligible for “additional compensation” and some veteran benefits.
- The proof of eligibility process for VA benefits requires that medical treatment has already been received because a veteran needs medical records to support their benefits claim. This could account for some difference in figures.
- The analysts feel that the VBA data is the strongest data as it provides the most points of data.

#### Additional findings:

- According to the DoD, there are approximately 266,000 Incident Diagnoses of TBI worldwide between 2000 and 2012. Adding non-combat and non-theater TBI injuries sustained by service members can increase this amount by at least 25%.
- The population of injured service members diagnosed with Severe TBI nationally is about 7,000 and adding 25% for non-combated sustained TBI, the number could be as high as 8,800. While the Bastion mission focuses on the population subset diagnosed with Severe TBI, those diagnosed with Moderate TBI are not excluded from consideration but may not fit the profile that matches the acuity level found in the VA Residential Treatment and Assisted Living programs. The population of injured veterans with Severe or Moderate TBI is between 29,000 and 35,000 nationally.
- While potentially there is a larger population that could be attracted to Bastion, particularly from those diagnosed with Severe TBI, the journey back to the New Orleans is complicated by a number of factors, including the availability of health care and rehabilitative services, family circumstances and opportunities (employment, education and community support). There are no existing facilities locally that can accommodate high acuity care cases like envisioned for Bastion. There will be soon when the new VA hospital is built, but the data now represents only veterans with moderate to severe TBI who no longer need in-patient healthcare services. When the new VA hospital opens, more veterans with moderate to severe TBI may come to the area and add to the demand pool for Bastion.
- Demand feeders are from multiple sources: the major military medical centers, (particularly Walter Reed and Brooks Army Hospital), the 5- regional VA polytrauma centers, Southeast Louisiana VA Healthcare System and non-profits like the Wounded Warrior Projects. According to the Regional Director for Wounded Warrior – Southeast Region, the New Orleans area caseload is approximately 300 with 18 identified diagnosed with TBI.



## 2. Survivors - Bereaved Families, Survivors of Fallen Service Members and Other Vulnerable Veteran Populations who are dealing with Traumatic Stress



The second tenant population in the Bastion model includes surviving families (primary and extended) of fallen service members and other vulnerable veterans and their families who are navigating a range of survival and reentry issues and can benefit from Bastion (housing and community support) to help cope with physical, psychological, emotional and financial trauma and hardships. Bastion focuses on OIF/OEF/OND theater veterans and their families but does not exclude other veteran populations. Vietnam era veterans ("boomer vets"), as a group overrepresented with PTSD, come to mind as potentially benefiting from the Bastion concept of community as the therapeutic intervention. For this Bastion model third link, 15 units are proposed: 7 units for singles and 8 family units (likely residents are small families with 1-2 children). The housing is permanent in as much as there is no fixed or pre-determined time period for stay.

Targeted populations for the Bastion survivor tenant population include:

1. Bereaved Families – Survivors of fallen service members, including those whose deaths were due to suicide.
2. Extended Families/support group of severely injured veterans (mainly those diagnosed with Severe and Moderate TBI or poly-trauma).
3. Other Vulnerable Veterans and their families (including children) coping with Traumatic Stress. Examples of potential residents from this population are: homeless female veterans with children and return to service warriors.

### Bereaved Families

The most recognizable and largest non-profit organization focusing on the full array of issues confronting Bereaved Families-Survivors is the Tragedy Assurances Program for Survivors (TAPS)<sup>4</sup>. Its scope is national. While it may not cover 100% of the Bereaved Families – Survivors population in need of support, it represents the majority. Other groups providing services to this group are: Wounded Warrior Projects, the DoD and VA and other government and private social service agencies (mainly local)



Demographics derived from TAPS caseload are used to flesh out the size and contour of the population of Bereaved Families. Though it is logical to assume that TAPS could be a major source of referrals to Bastion, the community's success is not contingent on active referrals from TAPS. Our assumption for this discussion is that the community and service environment created at Bastion makes it a reasonable alternative for therapeutic and housing referrals in the greater New Orleans regional area.

<sup>4</sup> "The TAPS mission is to provide immediate and ongoing emotional help, hope and healing, to all who are grieving death of a loved one in military service to America. In addition to those suffering loss due to combat death, TAPS also serves military families whose loved ones have died in peacetime circumstances, (veterans whose death was related to the service mission), including death from vehicular training and industrial accidents". TAPS serves a growing population of survivors in need of assistance after the suicide of loved one. Source: TAPS 2011 Annual Report; expanded mission statement and suicide-risk caseload from interview with Kim Ruocco, TAPS.

We assume that Bastion will satisfy the community/environmental and micro-location requisites of the targeted population group. Among these are: availability and proximity to sources of therapeutic support, community security, service support (shopping and institutional) and opportunity (schools and employment).

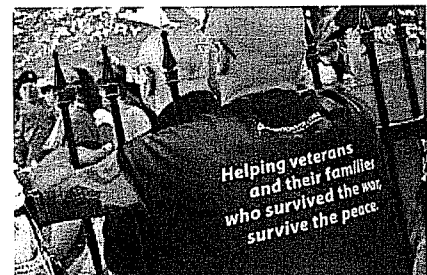
### *Findings of Note*

- There are 6,655 fallen service members since 9/11/01. The largest percentage of deaths is from the Army (65%), followed by the Marines at 14%.
- Of those seeking support from TAPS, 37% are either spouses or significant other, 34% are parents and 20% are from the children of conflict casualties.
- Over 30% of the TAPS caseload (based on home residence prior to deployment) is from the Southeast U.S. region (includes Louisiana). The TAPS caseload in all other regions does not exceed 15%-20% of total.
- The TAPS caseload nationally is approximately 40,000; nearly 10% of TAPS cases are suicide related. Suicide-related assistance is growing with just over 300 suicides reported last year by the DoD. TAPS has a caseload of nearly 3,600 in Louisiana and the surrounding states of Arkansas, Mississippi and Texas. The Louisiana caseload is 374. Over 70% of the TAPS caseload in the 4-state geography is in Texas.
- According to TAPS (#5a in the preceding table), a single military death in the Iraqi conflict (OIF) impacted about 10 family members. Using multipliers extracted from the TAPS OIF estimates, we generated an estimate of the impact on family members nationally from the current 6,655-person casualty estimate from the three post-9-11 conflicts (OIF, OEF and OND). Using the TAPS multipliers results in a national estimate of 67,800 family members left behind that are significantly impacted. This estimate then represents the minimum number of Bereaved Families-Survivors in the demand pool nationally.
- The Defense Casualty Analysis System breaks down casualty data from the three campaigns by home state, county and place. Through April 5, 2013, there are 134 casualties from Louisiana, 44 casualties from the 17-Parish Southeast Louisiana region and 26 casualties from the New Orleans MSA. Employing the TAPS overall multiplier results in the following number of Bereaved Families-Survivors at the local geographies: 1,340 in Louisiana, 860 in the 17-Parish Southeast Louisiana region and 260 in the New Orleans MSA.

### *About Suicide*

There is a growing pool of at-risk veterans and families experiencing traumatic stress resulting from their separation from the military. This population is comprised of discharged veterans, within 1-year of separation, experiencing financial and/or emotional/psychological problems. Comrade-in-arms loss issues are common.

The demographic profile of suicide survivors is younger, with the surviving spouse with 1-2 children. This group remains close to the base of deployment at least initially; the children are still in the local schools and the surviving spouse/significant other uses services and support available through the military command. This group may not return to their home county of record of the service member. The surviving spouses and





their children are more transient as a group than survivor parents or grandparents.) In the case of suicide, the trauma is compounded by financial hardship (obstacles regarding access to benefits, no life insurance payout and lack of family support).

Table 8: Tragedy Assistance Program for Survivors (TAPS) Survivor Demographics

<b>1 Fallen Service Members</b>			
<b>Branch of Service</b>	<b>%</b>	<b>#</b>	
Army	65.0%	4,326	
Marine Corps	14.0%	932	
Navy	6.0%	399	
Air Force	4.0%	266	
Other	11.0%	732	
<b>OEF/OND/OEF Killed in Action through 3/26/13</b>	<b>Total</b>	<b>6,655</b>	

<b>2 Relationship of Survivors to Fallen Service Members</b>		<b>%</b>
Parents		34.0%
Spouse		18.0%
Children		20.0%
Siblings		8.0%
Fiance/Significant Other		19.0%
Other		1.0%

<b>3 TAPS Geographic Region of Survivors Home of Record</b>		
	<b>% Distrib.</b>	<b>#</b>
Southeast	30.6%	5,702
Midwest	19.6%	3,645
West	19.2%	3,583
Northeast and Middle Atlantic	15.6%	2,910
Southwest	15.0%	2,792
<b>Total</b>		<b>18,632</b>

<b>4 TAPS Current Caseload - National, LA and Surrounding States</b>		
TAPS National Caseload (YE 2012)		40,000
Suicide Risk Caseload		3,500
Growing % - 312 Suicides in 2012		
Louisiana		374
Arkansas		406
Mississippi		216
Texas		2,594

<b>5a # of People Impacted by Military Death in Iraq</b>			
Fallen Service Members	4,422	Multiplier	
Family Members Left Behind Who are Significantly Impact	44,870	10.15	
# of Adults Losing a Spouse (TAPS estimate)	2,468	0.56	
# of Children Losing a Parent (TAPS estimate)	3,141	0.71	
# of Parents Impacted	8,974	2.03	
# of Grandparents Losing a Grandchild	13,461	3.04	
# of People Losing a Brother or Sister	3,679	0.83	

<b>5b # of People Impacted by Military Death in OIF/OEF/OND A/</b>			
Fallen Service Members	6,681	Multiplier	
Family Members Left Behind Who are Significantly Impact	67,812	10.15	
# of Adults Losing a Spouse	3,741	0.56	
# of Children Losing a Parent (TAPS estimate)	4,744	0.71	
# of Parents Impacted	13,562	2.03	
# of Grandparents Losing a Grandchild	20,310	3.04	
# of People Losing a Brother or Sister	5,545	0.83	

A/ SI/AREA extrapolation from TAPS estimate for Iraq conflict)

Source: TAPS Annual report (2011) and updated information provided by Kim Ruocco, TAPS; SI/AREA 3/13.

Extended Families/support group of severely injured veterans  
The second group contributing to the demand pool for Survivor units at Bastion are extended families/support group of severely injured veterans (mainly those diagnosed with Severe and Moderate TBI or poly-trauma). This group is not the primary caregiver (spouse or significant other) envisioned for the two-bedroom units in the Veterans Demand section of this report. This group reflects the possibility that there will be circumstances where the family support group to the injured veteran does not stay in the same unit as the injured veteran but does stay in the same community. As developed earlier in the Veterans Demand section of this report, we estimated that a minimum of 60 injured veterans diagnosed with either Severe or Moderate TBI reside in the 17-Parish Southeast Louisiana region. Bastion will provide residence to 24 injured veterans. This group of survivor units will meet the needs of extended families /support group of the 24 injured veterans in residence. We see only a couple of the survivor units utilized by this group.



Other Vulnerable Veterans and their families (including children) coping with Traumatic Stress. – Post Traumatic Stress Disorder  
In this group we looked at Post Traumatic Stress Disorder (PTSD) diagnoses for deployed and not deployed service members. Approximately 131,300 service members have been diagnosed with PTSD nationally since 2000. A more significant pool of vulnerable veterans is the Vietnam-era group that exhibits a higher incidence of PTSD than the post 9-11 veteran population.



According to Southeast Louisiana VA Healthcare, there have been over 2,100 veterans diagnosed with PTSD since September 2006. Adjusting back to 2000 suggests that there could be as many as 4,300 veterans in the 17-Parish Southeast Louisiana with PTSD. Table 10 below, summarizes the general demographics of OEF/OIF enrolled in the Southeast Louisiana VA Healthcare system for FY13. The population is overwhelming male; 61% of enrollees are between ages 30-49; 41% are married.

Table 9: PTSD and Other National Injury Statistics

Post Traumatic Stress Disorder (PTSD) Diagnoses - All Services*			Battle Injury Amputations		
Year	Not Deployed	Deployed	Theater	Type	#
2000	1,610	0	OIF/OND	Major Limb	797
2001	1,694	0		Minor Limb	194
2002	1,697	133	OEF	Major Limb	696
2003	1,609	1,100		Minor Limb	28
2004	1,777	3,095	Total		1715
2005	1,912	7,015	Source: CRS-U.S. Military Casualty Statistics, 3/5/13.		
2006	1,893	7,745			
2007	2,272	11,763	Deaths - Self Inflicted Wounds		
2008	2,589	14,405			
2009	2,676	13,975	Theater	#	
2010	2,638	14,828	OIF/OND	235	
2011	2,806	15,702	OEF	97	
2012	2,376	14,031	Total	332	
Total	27,549	103,792	Source: DoD Casualty Website as of 1/9/2013		

Source: CRS - U.S. Military Casualty  
Statistics: Operation New Dawn,  
Operation Iraqi Freedom and  
Operation Enduring Freedom, 3/5/13

\*A case of PTSD is defined as an individual having at least two outpatient visits or one or more hospitalizations at which PTSD was diagnosed. The threshold of two or more outpatient visits is used in the DMSS to increase the likelihood that the individual has, or had, PTSD. A single visit on record commonly reflects someone who was evaluated for possible PTSD, but did not actually meet the criteria for diagnosis. All those diagnosed as having PTSD during deployment were diagnosed at least 30 days after the individual deployed. Cannot be certain that PTSD was the result of an event associated with deployment.

Table 10: PTSD and Mental Health Issue Diagnoses & Demographics

	Since 2006	% of Total	Accessed VA Health in Feb 2013	% of Feb
Total Enrolled as of 9/18/2006	8,051		2,322	
Diagnosed with:				
TBI	277	3%	34	1%
PTSD	2,113	26%	426	18%
Mental Health	3,551	44%	1,043	45%
	5,941	74%	1,503	65%
Race				
White	4,340	54%	1,224	53%
Black	2,424	30%	896	39%
Unkown	1,128	14%	162	7%
Asian or Pacific Islander	98	1%	23	1%
American Indian or Alaskan Native	60	1%	17	1%
Hispanic	1	0%	0	0%
	8,051	100%	2,322	100%
Gender				
Male	6,936	86%	1,923	83%
Female	1,115	14%	399	17%
	8,051	100%	2,322	100%
Age Group				
18-29	2,395	30%	746	32%
30-39	3,368	42%	892	38%
40-49	1,545	19%	454	20%
50-59	592	7%	175	8%
60-69	148	2%	55	2%
70-79	3	0%	0	0%
	5,656	70%	1,576	68%
Marital Status				
Married	3,285	41%	968	42%
Never Married	2,733	34%	753	32%
Divorced	1,119	14%	398	17%
Separated	309	4%	88	4%
Single	291	4%	82	4%
Unkown	287	4%	21	1%
Widowed	27	0%	12	1%
	8,051	100%	2,322	100%

Source: Veterans Health Administration, SI/AREA 3/2013

Geographic Distribution	Total	# experiencing PTSD	# experiencing Mental Health Issues
New Orleans MSA	2,638	692	1,164
17 SE LA Parishes (includes NOLA MSA)	4,953	1,300	2,185
Rest of Southern LA	3,098	813	1,366
All of Southern Louisiana	8,051	2,113	3,551

## Other Vulnerable Veterans and their families (including children) coping with Traumatic Stress. – Homelessness

A final element of the third group of the Bastion model third link, are veterans with children who are threatened by homelessness. We note that there are other avenues locally for housing and supportive services for the homeless and those at risk of imminent homelessness. Notwithstanding this, Bastion could provide vital support in the more unique situations (i.e. female veteran with children).

To get a sense of the population at risk of homelessness and the veterans segment, we have included both national demographics on Veterans Served in VA Homeless Programs and local information. The national profile of homeless vets is that few are currently married, less than 5% are women, there is an overrepresentation of African-Americans and 75%-80% are Vietnam and Post Vietnam era veterans. We have also included the most current information on the local homeless population from the Continuum of Care for the New Orleans region. Nearly 7% of the New Orleans homeless population (point in time estimate) is comprised of veterans.

Table 11: Demographic Profile - Veterans Served in VA Homeless Programs (National)

	Healthcare for Homeless Vets	Domiciliary Care for Homeless Vets	Comp. Work Therapy Therapeutic Residences
Veteran Population Surveyed	40,216	6,311	759
Average Age	50.9	49.6	48.6
<b>Marital Status</b>			
% Married	6.4%	6.6%	5.6%
% Divorced/Separated/Widowed	64.2%	66.1%	62.0%
% Never Married	29.4%	27.3%	32.4%
<b>Gender</b>			
% Men	95.4%	95.1%	95.4%
% Women	4.6%	4.9%	4.6%
<b>Race/Ethnicity</b>			
% White, Non Hispanic	46.4%	48.5%	48.7%
% African American	42.8%	43.6%	43.9%
% Hispanic	7.3%	5.0%	3.8%
% American Indian/Alaskan	1.5%	1.6%	—
% Asian/Pacific Islander	0.9%	0.5%	—
% Other	1.0%	0.8%	3.6%
<b>Era Served</b>			
% Prior to Vietnam Era	3.2%	1.3%	0.3%
% Vietnam	35.9%	30.6%	26.0%
% Post-Vietnam	43.7%	50.3%	53.7%
% Gulf (1991-present)	17.1%	17.7%	20.0%
<b>Employment Pattern over Previous 3-years</b>			
% Employed Full Time	20.6%	37.2%	45.8%

Source: Congressional Research Service (CRS), FY 2009 Stats, February 2012

The VA estimates  
more than  
**300,000**  
Vets are homeless  
on any given night

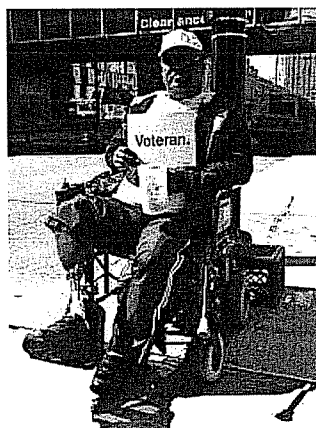


Table 12: Point in Time (PIT) Homeless Needs Assessment - Greater New Orleans Area

# Experiencing Homelessness ea yr. who received services per 2011 HMIS (includes		
Population	PSH)	% Distribution
Persons in Households w/ Adult(s) & Child(ren)	10,289	47.5%
Unaccompanied Child (17 Yrs & under)	159	0.7%
Persons in Households w/ Only Adults	11,228	51.8%
Total Population Receiving Services	21,676	100.0%
Chronically Homeless Individuals	3,040	14.0%
Chronically Homeless Families	--	
Veterans	1,453	6.7%
Unaccompanied Child (17 Yrs & under)	159	0.7%
Person W/ HIV	499	2.3%

Note: Represents only those persons receiving assistance and were recorded in HMIS; it does not represent those who did not seek access to services who may have been living on the street or in abandoned buildings.

Source: Homeless Management Information System (HMIS) 2011 for Consolidated Plan 2012-2016; reformatted by SI/AREA, 3/13.

Table 13 details the Inventory of # and Types of Housing Available for the Homeless in Greater New Orleans. We imagine that opportunities for housing homeless veterans, particularly female vets with children, will likely be limited but when instituted will be in a permanent supportive housing environment.

Table 13: 2012 Inventory of # of & Types of Housing Available for the Homeless in the Greater New Orleans Area

Type of Residential Program	# units (apts.) for Family HH	# Beds for Family HH	# Beds for Unacc. Indiv.	# Beds/Type of Housing
Emergency Shelter	43	125	544	669
Transitional Housing	178	511	331	842
Safe Haven	0	0	15	15
Perm.Supportive Housing (PSH)	185	610	1,506	2,116
Total per Subpopulation	406	1,246	2,396	3,642

Source: reported to HUD in CoC reports in 2012-2016 Consolidated Plan; reformatted by SI/AREA, 3/13.



## Summary of findings overall for Survivor Units:

To summarize, there are 15 units proposed for the Bastion model third link. Seven (7) units are singles and the remaining 8 units are for families. The 15 proposed units are expected to attract from three population groups:

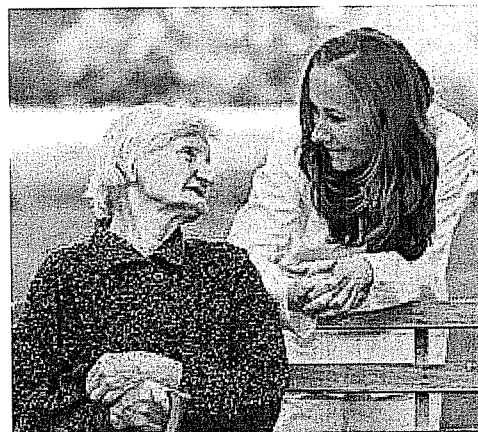
1. Bereaved families-survivors of fallen service members - We would expect 10-12 households fitting the TAPS demographic profile (capture of 2%-3% of the impacted families-survivors with home parish of the fallen service member in the 17-Parish Southeast Louisiana region)
2. Extended families/support group of severely injured veterans (mainly diagnosed with Severe and Moderate TBI or poly-trauma) - and another 1-2 units that could meet the needs of the extended families/support group for the 24 injured veterans diagnosed with Severe or Moderate TBI or poly-trauma identified earlier in the Veterans Demand section of the report.
3. Other vulnerable veterans and their families (including children) coping with traumatic stress - There are an overwhelming number of vulnerable vets in the regional VA healthcare system diagnosed and being treated for PTSD in family situations that would benefit from the couple of remaining units at Bastion.

There is enough demand from groups #1 and #3 alone to easily fill the 15 units.

## 3 Senior Citizens

The third tenant population in the Bastion model includes senior citizens, any household, retired military veterans or civilians, ages 55+ who are willing to provide a minimum of six hours of volunteer service to the Bastion community each week.

To evaluate the demand for this tenant population we have utilized two study areas for analysis purposes. The Primary Market Area (PMA) for the Senior Component of Bastion is the entire City of New Orleans (Orleans Parish). The Secondary Market Area (SMA) is the New Orleans-Meterie-Kenner MSA (7-Parishes). These two market areas provides an extended draw area due to the unique intended use which is likely to appeal to individuals from a wide area.



Senior demographics are provided in several tables:

Table S-1: Senior Population Trends

Table S-2: Senior Household Trends

Table S-3: Senior Household Median Income Trends

Table S-4: Additional Senior Demographics

Table S-5: and Distribution of Households by Age Cohort By Tenure

Table S-6: presents an Income and Rent Matrix – Affordability at 30% of Shelter Cost

Table S-7: Static Capture Analysis

Table S-8: Presents general demographics on Veterans living in the MSA and City of New Orleans along with the population by parish of OIF/OEF deployed service members (active and reserves) and dependents of active duty service members.

## Methodology

In this analysis all-senior households and senior renter households only are segmented by income into four tranches: households with incomes less than 50% of Area Median Income (AMI), those earning between 50% and 60% AMI (those that can afford LIHTC housing without rent subsidy or the need for deeper rent skewing), those earning between 60% and 80% AMI (bond eligible households), and households earning more than 80% AMI. This group (>80% AMI) can afford to pay market-oriented rents without severe cost-burden. In Table S-7 (Step-1), we highlighted this group as 100% AMI. In New Orleans, market –oriented rents can range anywhere from about 70% AMI to over 120% AMI, depending on the quality of the units.

For demonstration purposes we have assumed that all the senior units proposed are LIHTC (affordable to those earning between 50% and 60% AMI). In this analysis, a total of 40 rental units are considered with an even distribution between 1BR and 2BR types. Prototypical unit sizes are 575 SF for the 1BR and 800 SF for the 2BR type. The income set-asides are 50% of the units at 50% AMI and 50% at 60% AMI. In Table S-7 (Step-2), income eligible households are segmented by tranche. Step-3 in Table S-7 the effective age/income/size eligible demand pools are quantified for each income tranche.



## Summary of findings overall for Senior Units:

- The capture rate for the proposed senior component of the subject, is extremely low – 1%. There are over 100 age/income/size qualified renter households in the City for each unit proposed. The demand pools in each tranche are quite deep. In fact, 44% of senior renter households in the City can afford to pay market-oriented rents.
- Senior rental housing in New Orleans is characterized as being mildly supply-constrained today and will become more acute over time as the population ages.
- Over the next five years, approximately 3,000 households headed by a householder age 55+ are forecasted to be annually added; nearly 1,050 of these new annual senior household additions are expected to be renters; over 200 senior renter household formations are income/size appropriate for the proposed subject. LIHTC eligible (50%/60% AMI) annual senior renter household formations are enough for five projects the size of the subject annually.
- Approximately 42% of senior renter households are in 2-person households<sup>5</sup>. The initial mix of seniors living at the subject would have at least half of the units composed of

<sup>5</sup> Derived for data on senior renter households compiled by the Bureau of the Census for HUD in the Special Tabulation of Households that is used in the Consolidated Planning process. The estimate is based on 2010 Census data and the American Community Survey. Approximately 91% of senior renter households are 1-3

households with 2-persons. According to David Hopping (Generations of Hope), the most productive mix of senior volunteers is a couple that can share the volunteer workload. Notably, as the senior population ages in place, there will be an increase in the number of 1-person households and with that, a need to monitor and rebalance the senior volunteer workload.

- Though residency in the senior component is not exclusive to Veterans, the largest source of volunteers will most likely come from Vietnam-era veterans who are age appropriate for senior apartments. Nearly half the veterans living in New Orleans are between ages 55 and 74; 37% of veterans in New Orleans are from the Vietnam-era. We deduced that there are roughly 2,200 senior renter households in the City headed by a householder age 55-74 who is a veteran. Of that number, there are likely 450 veteran-headed senior renter households that are income/size eligible for the subject. We can imagine easily filling half of the senior units from the veteran's demand pool and the balance from service motivated seniors from the general population. The overall demand pool of senior renters is so deep that the need to quantify a motivational demand driver among seniors is unnecessary.



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person. According to the Special Tabulation of households, 49% of senior renter households are 1-person, 42% are 2-person and 2% are 3-person.



TABLE S-1

**Population Trends Age 55 and Over**  
**New Orleans-Metairie-Kenner MSA and City of New Orleans**

Area	2000-2018				Average Annual Change			
	2000	2013	2018		2000-2013	2013-2018		
	#	#	#		#	#	%	%
New Orleans MSA	260,912	320,227	371,889		4,237	10,332	1.6%	3.2%
City of New Orleans	94,392	94,031	116,709		-26	4,536	0.0%	4.8%

Source: Nielsen-Claritas Inc.; SI/AREA, 3/13.

**Population Trends Age 55 and Over By Age Cohort**  
**New Orleans-Metairie-Kenner MSA and City of New Orleans**

Cohorts	2000-2018				Average Annual Change			
	2000	2013	2018		2000-2013	2013-2018		
	#	#	#		#	#	%	%
Age 65+	149,681	160,856	197,547		798	7,338	0.5%	4.6%
Age 55+	260,912	320,227	371,889		4,237	10,332	1.6%	3.2%
Total Population	1,316,511	1,218,205	1,289,718		-7,022	14,303	-0.5%	1.2%
< Age 45	872,287	725,339	755,306		-10,496	5,993	-1.2%	0.8%
Age 45-54	183,312	172,639	162,523		-762	-2,023	-0.4%	-1.2%
Age 55-64	111,231	159,371	174,342		3,439	2,994	3.1%	1.9%
Age 65-74	81,394	93,744	121,414		882	5,534	1.1%	5.9%
Age 75-84	51,918	47,138	54,030		-341	1,378	-0.7%	2.9%
Age 85+	16,369	19,974	22,103		258	426	1.6%	2.1%

Source: Nielsen-Claritas Inc.; SI/AREA, 3/13.

**City of New Orleans**

Cohorts	2000-2018				Average Annual Change			
	2000	2013	2018		2000-2013	2013-2018		
	#	#	#		#	#	%	%
Age 65+	56,662	45,951	61,573		-893	-3,124	-1.6%	6.8%
Age 55+	94,392	94,031	116,709		-30	4,536	0.0%	4.8%
Total Population	484,690	380,895	429,616		-7,414	9,744	-1.5%	2.6%
< Age 45	326,606	236,191	261,263		-6,458	5,014	-2.0%	2.1%
Age 45-54	63,692	50,673	51,644		-930	194	-1.5%	0.4%
Age 55-64	37,730	48,080	55,136		863	1,411	2.3%	2.9%
Age 65-74	28,937	27,069	38,631		-156	2,312	-0.5%	8.5%
Age 75-84	20,310	13,155	16,366		-596	642	-2.9%	4.9%
Age 85+	7,415	5,727	6,576		-141	170	-1.9%	3.0%

TABLE S-2

**Household Trends Age 55 and Over**  
**New Orleans-Metairie-Kenner MSA and City of New Orleans**

Area	2000-2018				Average Annual Change			
	2000		2018		2000-2013		2013-2018	
	#		#		#	%	#	%
New Orleans MSA	166,163		202,461		3,025	1.8%	6,468	3.2%
City of New Orleans	62,345		77,674		21	0.0%	3,016	4.8%

Source: Nielsen-Claritas Inc.; SI/AREA, 3/13.

**Household Trends Age 55 and Over By Age Cohort**  
**New Orleans-Metairie-Kenner MSA and City of New Orleans**

Cohorts	2000-2018				Average Annual Change			
	2000		2018		2000-2013		2013-2018	
	#		#		#	%	#	%
Age 65+	98,319		105,811		624	0.6%	4,727	4.5%
Age 55+	166,163		202,461		3,025	1.8%	6,468	3.2%
All Households	498,742		479,109		-1,636	-0.3%	6,589	1.4%
Householder < Age 45	226,108		179,677		-3,869	-1.7%	1,257	0.7%
Householder Age 45-54	106,471		96,971		-792	-0.7%	-1,136	-1.2%
Householder Age 55-64	67,844		96,650		2,401	3.5%	1,741	1.8%
Householder Age 65-74	53,516		60,983		622	1.2%	3,550	5.8%
Householder Age 75-84	34,847		31,985		-239	-0.7%	901	2.8%
Householder Age 85+	9,956		12,843		241	2.4%	276	2.2%

**New Orleans-Metairie-Kenner MSA**

Cohorts	City of New Orleans				Average Annual Change			
	2000		2018		2000-2013		2013-2018	
	#		#		#	%	#	%
Age 65+	38,209		31,519		-558	-1.5%	2,134	6.8%
Age 55+	62,345		62,595		21	0.0%	3,016	4.8%
All Households	188,358		160,051		-2,359	-1.3%	4,658	2.9%
Householder < Age 45	87,829		67,696		-1,678	-1.9%	1,522	2.2%
Householder Age 45-54	38,184		29,760		-702	-1.8%	121	0.4%
Householder Age 55-64	24,136		31,076		578	2.4%	881	2.8%
Householder Age 65-74	19,778		18,631		-96	-0.5%	1,569	8.4%
Householder Age 75-84	14,287		9,173		-426	-3.0%	445	4.9%
Householder Age 85+	4,144		3,715		-36	-0.9%	121	3.2%

Source: Nielsen-Claritas Inc.; SI/AREA, 3/13.

TABLE S-3

## Median Household Incomes for Senior Households by Age Cohort

		New Orleans-Metairie-Kenner MSA			
		Median Household Income		Average Annual Change	
		2000	2013	2000-2013	2013-2018
		\$	\$	\$	%
Weighted Avg. 55+		\$30,615	\$41,253	\$42,593	2.5%
Weighted Avg. 60+		\$24,489	\$32,551	\$34,173	2.4%
Weighted Avg. 65+		\$21,222	\$25,307	\$26,302	1.4%
Householder Age 45-54		\$47,440	\$57,728	\$59,029	1.5%
Householder Age 55-64		\$39,491	\$51,693	\$53,319	2.2%
Householder Age 65-74		\$27,225	\$38,466	\$39,883	2.9%
Householder Age 75-84		\$22,229	\$26,622	\$27,782	1.4%
Householder Age 85+		\$17,697	\$21,908	\$22,719	1.7%

Note: Weighted average = considers the number of households in each age cohort as a percentage of total senior households before estimating the average of the median household incomes that comprise a particular senior age cohort.

## Median Household Incomes for Senior Households by Age Cohort

		City of New Orleans			
		Median Household Income		Average Annual Change	
		2000	2013	2000-2013	2013-2018
		\$	\$	\$	%
Weighted Avg. 55+		\$25,718	\$32,625	\$30,848	1.9%
Weighted Avg. 60+		\$21,654	\$27,089	\$26,277	1.8%
Weighted Avg. 65+		\$20,203	\$21,203	\$20,457	0.4%
Householder Age 45-54		\$36,660	\$42,573	\$40,637	1.2%
Householder Age 55-64		\$31,301	\$38,706	\$36,250	1.7%
Householder Age 65-74		\$22,955	\$31,459	\$30,102	2.6%
Householder Age 75-84		\$21,250	\$22,150	\$21,288	0.3%
Householder Age 85+		\$16,360	\$18,440	\$18,195	0.9%

Note: Weighted average = considers the number of households in each age cohort as a percentage of total senior households before estimating the average of the median household incomes that comprise a particular senior age cohort.

Source: Nielsen-Claritas Inc.; SI/AREA, 3/13.

TABLE S-4

## Additional Senior Demographics (2011 &amp; 2013)

	New Orleans-Metairie-Kenner MSA	City of New Orleans	City of New Orleans
% of Total Population that is 55+ (2013)	26.3%		24.7%
% of Total Population that is 65+ (2013)	13.2%		12.1%
Female % Age 55+ Population	54.5%		53.8%
Male % Age 55+ Population	45.5%		46.2%
Female % Age 65+ Population	57.3%		58.3%
Male % Age 65+ Population	42.7%		41.7%
% Renters in 2011 - Total Households	38.4%		54.6%
% Renters in 2011 - Age 55+	22.4%		34.7%
% Renters in 2011 - Age 65+	20.9%		32.3%
Median Housing Value (2013)	\$172,184		\$167,328
% of 65+ Population in Households	93.1%		94.0%
% in Family HH (Age 65+)	58.2%		53.6%
% in Non-Family HH (1-person) (Age 65+)	34.9%		40.4%
Age 65+ Below Poverty Level	12.0%		16.3%
Mobility/Care Limits (65+)	41.7%		40.3%
Mobility/Care Limits (Total Pop. Age 16+)	14.3%		14.4%

Source: ACS 2011 1 Yr. Estimate &amp; Nielsen Claritas, Inc.; SI/AREA, 3/13.

TABLE S-5

Distribution of Households by Age of Householder - 2011									
New Orleans-Metairie-Kenner MSA									
Age Cohorts	Distribution By Age Cohort by Tenure					% Distr./Tenure			
	Total Occ.	# Owner	% Owner	# Renter	% Renter	Owner	Renter		
Householder 15-24	18,800	1,238	6.6%	17,562	93.4%	0.4%	10.0%		
Householder 25-34	76,239	24,661	32.3%	51,578	67.7%	8.8%	29.4%		
Householder 35-44	79,604	42,607	53.5%	36,997	46.5%	15.1%	21.1%		
Householder 45-54	98,762	70,444	71.3%	28,318	28.7%	25.0%	16.1%		
Householder 55-59	46,865	35,509	75.8%	11,356	24.2%	12.6%	6.5%		
Householder 60-64	44,095	33,769	76.6%	10,326	23.4%	12.0%	5.9%		
Householder 65-74	50,558	40,448	80.0%	10,110	20.0%	14.4%	5.8%		
Householder 75-84	30,927	24,618	79.6%	6,309	20.4%	8.7%	3.6%		
Householder 85+	11,028	8,087	73.3%	2,941	26.7%	2.9%	1.7%		
Total	456,878	281,381	61.6%	175,497	38.4%	100.0%	100.0%		
Households < 55	273,405	138,950	50.8%	134,455	49.2%	49.4%	76.6%		
Households 55+	183,473	142,431	77.6%	41,042	22.4%	50.6%	23.4%		
Households 65+	92,513	73,153	79.1%	19,360	20.9%	26.0%	11.0%		

Distribution of Households by Age of Householder - 2011									
Orleans Parish/City of New Orleans									
Age Cohorts	Distribution By Age Cohort by Tenure					% Distr./Tenure			
	Total Occ.	# Owner	% Owner	# Renter	% Renter	Owner	Renter		
Householder 15-24	9,002	211	2.3%	8,791	97.7%	0.3%	10.9%		
Householder 25-34	28,387	5,777	20.4%	22,610	79.6%	8.6%	28.0%		
Householder 35-44	25,928	9,972	38.5%	15,956	61.5%	14.9%	19.8%		
Householder 45-54	29,566	15,273	51.7%	14,293	48.3%	22.8%	17.7%		
Householder 55-59	14,618	8,756	59.9%	5,862	40.1%	13.1%	7.3%		
Householder 60-64	13,609	9,051	66.5%	4,558	33.5%	13.5%	5.6%		
Householder 65-74	14,790	9,838	66.5%	4,952	33.5%	14.7%	6.1%		
Householder 75-84	8,968	6,012	67.0%	2,956	33.0%	9.0%	3.7%		
Householder 85+	2,918	2,200	75.4%	718	24.6%	3.3%	0.9%		
Total	147,786	67,090	45.4%	80,696	54.6%	100.0%	100.0%		
Households < 55	92,883	31,233	33.6%	61,650	66.4%	46.6%	76.4%		
Households 55+	54,903	35,857	65.3%	19,046	34.7%	53.4%	23.6%		
Households 65+	26,676	18,050	67.7%	8,626	32.3%	26.9%	10.7%		

Source: American Community Survey 2011 1-Yr. Estimate; SI/AREA, 3/13.

Source: American Community Survey 2011 1-Yr. Estimate; SI/AREA, 3/13.

TABLE S-6

## INCOME AND RENT MATRIX -- AFFORDABILITY AT 30% OF SHELTER COST

New Orleans MSA -2013								
AMI	\$60,300 # per./unit	Adjustment Factor	20.0%	30.0%	50.0%	60.0%	80.0%	100.0%
	1	0.7	\$12,060	\$18,090	\$30,150	\$36,180	\$48,240	\$60,300
	2	0.8	\$8,442	\$12,663	\$21,105	\$25,326	\$33,768	\$42,210
	3	0.9	\$9,648	\$14,472	\$24,120	\$28,944	\$38,592	\$48,240
	4	1	\$10,854	\$16,281	\$27,135	\$32,562	\$43,416	\$54,270
	5	1.08	\$12,060	\$18,090	\$30,150	\$36,180	\$48,240	\$60,300
	6	1.16	\$13,025	\$19,537	\$32,562	\$39,074	\$52,099	\$65,124
	7	1.24	\$13,990	\$20,984	\$34,974	\$41,969	\$55,958	\$69,948
	8	1.32	\$14,954	\$22,432	\$37,386	\$44,863	\$59,818	\$74,772
			\$15,919	\$23,879	\$39,798	\$47,758	\$63,677	\$79,596
Voucher			Gross Permitted Rent					
\$700	FMR \$637	E	\$211	\$317	\$528	\$633	\$844	\$1,055
\$830	\$755	1BR	\$226	\$339	\$565	\$678	\$905	\$1,131
\$1,028	\$935	2BR	\$271	\$407	\$678	\$814	\$1,085	\$1,357
\$1,290	\$1,173	3BR	\$314	\$470	\$784	\$941	\$1,254	\$1,568
\$1,367	\$1,420	4BR	\$350	\$525	\$874	\$1,049	\$1,399	\$1,749
			PBE					
\$45	\$45	E	\$45	\$45	\$45	\$45	\$45	\$45
\$71	\$71	1BR	\$71	\$71	\$71	\$71	\$71	\$71
\$93	\$93	2BR	\$93	\$93	\$93	\$93	\$93	\$93
\$108	\$108	3BR	\$108	\$108	\$108	\$108	\$108	\$108
\$128	\$128	4BR	\$128	\$128	\$128	\$128	\$128	\$128
			Net Rent					
\$655	\$592	E	\$166	\$272	\$483	\$588	\$799	\$1,010
\$759	\$684	1BR	\$155	\$268	\$494	\$607	\$834	\$1,060
\$935	\$842	2BR	\$178	\$314	\$585	\$721	\$992	\$1,264
\$1,182	\$1,065	3BR	\$206	\$362	\$676	\$833	\$1,146	\$1,460
\$1,239	\$1,292	4BR	\$222	\$397	\$746	\$921	\$1,271	\$1,621

Fair Market Rent (FMR) for New Orleans is estimated annually by HUD. The voucher rent (voucher payment standard) are set by the Housing Authority of New Orleans (HANO).

Note: 2010 HANO Utility Allowance used. Assumes all electric units, with tenants paying electric and the landlord paying for water/sewer and trash.

Source: SI/AREA; 3/13

TABLE S-7

**DEMAND ESTIMATE - BASTION (SENIOR COMPONENT)  
INCOME SEGMENTATION OF RENTER DEMAND  
Mar-13**

**1 MAXIMUM PERMITTED LIHTC RENTS, CURRENT STREET ASKING LIHTC RENTS & INCOME ELIGIBILITY**

	1BR	1BR	1BR	1BR	2BR	2BR	2BR	2BR
Threshold	50.0%	60.0%	80.0%	100.0%	50.0%	60.0%	80.0%	100.0%
Gross Permitted Rent	\$565	\$678	\$905	\$1,131	\$678	\$814	\$1,085	\$1,357
Utility Allowance	\$71	\$71	\$71	\$71	\$93	\$93	\$93	\$93
Max Net Rent	\$494	\$607	\$834	\$1,060	\$585	\$721	\$992	\$1,264
Voucher Payment Standard	\$759	\$759	\$759	\$759	\$935	\$935	\$935	\$935
Maximum Income	\$21,105	\$25,326	\$33,768	\$42,210	\$21,105	\$25,326	\$33,768	\$42,210
# of Persons	1	1	1	1	1	1	1	1
Maximum Income	\$24,120	\$28,944	\$43,416	\$54,270	\$27,135	\$32,562	\$43,416	\$54,270
# of Persons	2	2	2	2	3	3	3	3
Minimum Income @ 40% Shelter Cost	\$16,950	\$20,340	\$27,150	\$33,930	\$20,340	\$24,420	\$32,550	\$40,710
Unit Size	575	575	575	575	800	800	800	800
Number of Units	10	10	0	0	10	10	0	0

**2 INCOME QUALIFIED HOUSEHOLDS -CITY OF NEW ORLEANS**

DEMAND ESTIMATE - CITY OF NEW ORLEANS - ALL HOUSEHOLDS													
SENIOR HOUSEHOLDS 55+					LIHTC <50% AMI			LIHTC 50%/60%			>60% >80% AMI (Bond)		
ALL HOUSEHOLDS	55-64	65-74	75-84	85+	Total	%	#	Eligible	%	#	Eligible	%	#
Less than \$15k	7,281	4,861	3,180	1,584	16,906	100.0%	16,906	16,906					
\$15k-\$24,999	3,859	2,892	1,967	795	9,513	19.5%	9,513	1,855	80.5%	1,855	1,493		
\$25k-\$34,999	3,294	2,419	1,275	445	7,433				75.6%	7,433	5,621		
\$35k-\$49,999	4,468	2,197	942	309	7,916							24.4%	7,433
\$50k-\$74,999	4,474	2,701	828	238	8,241							56.1%	7,916
\$75k-\$99,999	2,610	1,222	393	133	4,358								4,442
\$100k-\$124,999	1,625	791	232	77	2,725								
\$125k-\$149,999	1,057	389	91	33	1,570								
\$150k-\$199,999	1,099	441	140	38	1,718								
\$200K+	1,309	718	125	63	2,215								
<b>Total</b>	<b>31,076</b>	<b>18,631</b>	<b>9,173</b>	<b>3,715</b>	<b>62,595</b>			<b>18,761</b>			<b>7,115</b>		<b>6,253</b>

DEMAND ESTIMATE - CITY OF NEW ORLEANS - RENTERS ONLY													
SENIOR HOUSEHOLDS 55+					LIHTC <50% AMI			LIHTC 50%/60%			>60% >80% AMI (Bond)		
RENTERS ONLY	% 62+	% 55-61	55-61	62+	Total	%	#	Eligible	%	#	Eligible	%	#
Less than \$15k	19.9%	14.5%	143	3,600	3,743	100.0%	3,743	3,743					
\$15k-\$24,999	15.0%	14.0%	138	2,705	2,843	19.5%	2,843	555	80.5%	2,843	2,289		
\$25k-\$34,999	14.0%	13.0%	128	2,530	2,658				75.6%	2,658	2,011		
\$35k-\$49,999	12.8%	13.0%	128	2,320	2,448							24.4%	2,658
\$50k-\$74,999	14.3%	15.0%	148	2,575	2,723							56.1%	2,448
\$75k-\$99,999	7.6%	8.0%	79	1,365	1,444								648
\$100k-\$124,999	5.3%	7.0%	69	965	1,034								
\$125k-\$149,999	3.5%	5.0%	49	640	689								
\$150k-\$199,999	1.5%	2.5%	25	275	300								
\$200K+	6.0%	8.0%	79	1,085	1,164								
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>986</b>	<b>18,060</b>	<b>19,048</b>			<b>4,298</b>			<b>4,299</b>		<b>2,022</b>

1BR & 2BR Units	# of Units	% Distr.	Eligible Income Bands	
Senior Renter				
HHS <50% AMI	0	0.0%	\$0	to \$16,940
Senior Renter HHS				
50%/60% AMI	40	100.0%	\$16,950	to \$32,562
Senior Renter HHS				
>60%<80% AMI	0	0.0%	\$27,150	to \$43,416
Senior Renter HHS - Market	0	0.0%	\$33,930	to \$100,000

For analysis purposes, HH incomes for tenants in the market-rate units are capped @ \$100k.

**3 OVERALL CAPTURE RATE**

CAPTURE RATE - CITY OF NEW ORLEANS							
Age 55+ Households							
	LIHTC <50% AMI	LIHTC 50%/60% AMI	>60% < 80% AMI	>80% AMI/Market			
Income Eligible % of Total Senior Renters	22.6%	4,298	22.6%	4,299	10.6%	2,022	27.5%
Tenure Qualified	100.0%	4,298	100.0%	4,299	100.0%	2,022	100.0%
Size Qualified (1-3-person HHs)	91.3%	3,924	91.3%	3,925	91.3%	1,846	91.3%
Plus Income Qualified Current Homeowners	10.0%	1,446	10.0%	282	10.0%	423	10.0%
Effective Qualified Demand Pool		5,370		4,207		2,269	5,869
Number of Units		0		40		0	0
Section 8 Voucher Holders (Assume 0%)		0		0		0	0
To Be Leased w/o Subsidy		0		40		0	0
<b>Capture Rate</b>	<b>0.0%</b>		<b>1.0%</b>		<b>0.0%</b>		<b>0.0%</b>

A/ Special Tabulation of Households - Bureau of the Census for HUD Consolidated Planning.  
Source: SI/AREA, 3/13.

TABLE S-8

## New Orleans Veteran Population Estimates 2000-2030

Geography	# Veterans
Orleans Parish	11,527
Jefferson Parish	27,029
Plaquemines Parish	1,037
St. Bernard Parish	2,077
St. Tammany Parish	22,326
St. John the Baptist Parish	3,276
St. Charles Parish	3,465
<b>Total MSA</b>	<b>70,737</b>

Source: Office of the Actuary, Office of Policy & Planning Department of Veterans Affairs, Vetpop2007County

## New Orleans Veteran Population Demographics 2011

	New Orleans MSA	City of New Orleans
<b>POPULATION</b>		
# of Veterans	76,320	19,075
Population >18	912,531	283,055
% of Population > 18	8.4%	6.7%
<b>SEX</b>		
Male	93.9%	95.0%
Female	6.1%	5.0%
<b>AGE DISTRIBUTION</b>		
18-34 Years	10.3%	9.5%
35-54 Years	20.8%	22.9%
55-64 Years	29.0%	32.8%
65-74 Years	18.1%	16.4%
Age 75+	21.9%	18.4%
# 55-64	22,133	6,257
# 55-74	35,947	9,385
Average HH Size of Seniors	1.58	1.50
<b>SENIOR HHs w/ VETERAN HOUSEHOLDER</b>		
# 55-64	13,990	4,166
# 55-74	22,722	6,248
Overall Renter Tenure	22.4%	34.7%
<b>SENIOR RENTER HHs w/ VETERAN HOUSEHOLDER</b>		
# 55-64	3,134	1,445
# 55-74	5,090	2,168
Veteran's Median Household Income	\$30,595	\$32,440
Civilian Population 18+ w/ Income	\$21,547	\$24,586
<b>DISABILITY STATUS</b>		
% Veterans with Disability	30.8%	28.5%
% Civilian Population 18+	17.4%	17.1%

Source: Department of Veterans Affairs (2007 Population Estimate by County) and American Community Survey (ACS) 2011 1 Yr. Estimate; reformated by SI & AREA; 3/13.

## New Orleans Residents Deployed to OIF/OEF since 9/11/2001

	Active Duty	Eligible Depend.	Ineligible Depend.	Reserves
Orleans Parish	1,285	965	23	1015
Jefferson Parish	607	861	43	1,199
Plaquemines Parish	329	966	14	126
St. Bernard Parish	26	79	2	176
St. Tammany Parish	125	162	2	100
St. John the Baptist Parish	549	1,373	45	756
St. Charles Parish	48	110	5	96
<b>Total MSA</b>	<b>2,969</b>	<b>4,516</b>	<b>134</b>	<b>3,468</b>

Source: Defense Manpower Data Center 3/31/11 compiled by Citizen Soldier Support Program (CSSP) UNC Chapel Hill