



## MILITARY ECONOMIC IMPACT ANALYSIS FOR EAST TENNESSEE | JUNE 2021

IN COOPERATION WITH



## **EAST TENNESSEE MILITARY AFFAIRS COUNCIL (ETMAC)**

**ETMAC is a non-profit organization that was founded in 1990 to recognize, encourage, support and advocate on behalf of military and veteran activities in East Tennessee. In cooperation with the Knoxville Chamber, ETMAC:**

- Informs community, business, education, and government leaders about East Tennessee military units, their missions, and their contribution to the local economy.
- Serves as a liaison between military units, military-related organizations, and the public.
- Helps the community avoid “loss by default” of military offices, detachments, and installations.
- Helps veterans and military members along with their families understand that East Tennessee values them as members of the community.
- Promotes and supports military and veteran events and functions.
- Supports area military recruiters.
- Promotes the Employer Support of the Guard and Reserve (ESGR) Program.
- Supports charitable, scientific, and educational programs and events.

**ETMAC sponsors and supports several military-related activities and organizations including:**

- Annual ETMAC Veterans Appreciation and Awards Luncheon
- Colonel Jack K. Westbrook (USAF, Ret.) Army and Air Force ROTC Scholarships, University of Tennessee
- American Legion Post 2 Veteran’s Day Parade
- *HonorAir* Knoxville
- East Tennessee Veterans Memorial Association’s Medal of Honor Evening
- Pearl Harbor Day Remembrance Ceremony
- Vietnam Veterans Day Ceremony
- Mountain Man Memorial March
- Military Units’ Family Days and Special Events
- Smoky Mountain Air Show

ETMAC membership is open to any individual, business, or organization. Visit the ETMAC website at [www.ETMAC.org](http://www.ETMAC.org) or contact the Knoxville Chamber at 865-637-4550 and ask for the “ETMAC representative.”

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## EXECUTIVE SUMMARY

This Military Economic Impact Analysis is an update of the last analysis completed in 2017. ETMAC had planned to release this report in Spring 2020; however, due to COVID 19 the release was postponed until 2021.

Like previous analyses, the purpose is to provide business and civic leaders, and the public at large, a complete picture of the very significant contribution the military and defense programs make to the economy of East Tennessee.

Methodology: The analysis follows standard Department of Defense methodology for determining the cumulative economic impact within fifty miles of Knoxville. The following factors are included:

- Annual payroll of Active Duty, Guard and Reserve, and civilian personnel.
- Expenditure for construction, supplies, services, contracts, and materials.
- Indirect jobs resulting from the personnel and their salaries.
- Military contracts to private businesses.
- Other military expenditures, including pay to military retirees, veterans' benefits, etc.

We included Active Duty, National Guard, and Reserve components of the Air Force, Army, Navy, and Marine Corps, and other Department of Defense related expenditures such as retiree benefits, assistance to veterans, and DoD contracts. The Department of Energy activities at Oak Ridge that support the Department of Defense were not included as their impact is well publicized elsewhere.

The economic impact has increased steadily since we completed the first analysis 19 years ago, and for several reasons the amount is over 50% higher than the last report in 2017.

- There has been a significant increase in the number and dollar amounts of Department of Defense contracts awarded to firms in the Knoxville area.
- The number of military retirees living in East Tennessee continues to remain over 9,000.
- There has also been a significant increase in the benefits our veterans are receiving, both in terms of medical care as well as educational assistance.
- Both the Army and Air Force missions in East Tennessee have continued to be relevant and very active; an example is the 119<sup>th</sup> Command and Control Squadron at McGhee Tyson converted to a new mission of supporting Cyber Security Operations.
- Finally, there is a continued increase in military and civilian salaries, including the salaries of the indirect jobs created by the military activity.

The military continues to be one of the major drivers of the economic activity in our area. As such, business and civic leaders should consider policies and actions that attract and retain this valuable resource to East Tennessee.

***The total impact of military activity in East Tennessee is estimated to be more than \$2.9 Billion for 2019.***

## **PURPOSE OF THE ANALYSIS**

The purpose of this Military Economic Impact Analysis is to estimate the economic effect the military bases, installations, and other related military activities have on the local community. It can provide business and civic leaders, and the public at large, a complete picture of the very significant contribution that the military and defense programs make to the economy of East Tennessee.

Unlike some areas that have a very large active-duty military installation, the military presence in East Tennessee is characterized by several small- to medium-sized military units. The largest units are part of the Guard or Reserve components of their respective services. As such, the scope of their activities and number of personnel assigned may not be apparent daily since many of the personnel serve “part time.” There are relatively few Active-Duty military personnel in the area. While there are several small contractors who perform DoD work, there is no large-scale defense contractor in the region. (The Department of Energy facility at Oak Ridge does support the Department of Defense; the DOE facility’s financial impact is included in other reports and therefore excluded here).

Given the unique situation described above, one of ETMAC’s goals is to collect the various military and military-related economic data into a single document and then explain the cumulative effect. It is hoped that this analysis will raise awareness of the importance of our local military to the economy of East Tennessee, as well as increase the appreciation of the public at large for the critical national defense missions these units perform.

## **METHODOLOGY AND SCOPE**

This economic analysis uses the standard methodology and parameters of the DoD Economic Impact Analysis (EIA) Model. The total economic impact is computed by summing the payroll of all personnel, annual base/installation/activity expenditures for services, supplies, construction, maintenance, etc., and the estimated annual dollar value of indirect jobs created. As in the DoD model, the impact area is assumed to be within fifty miles of Knoxville. Appendix 2 contains additional details on the DoD EIA model.

We included Active Duty, National Guard, and Reserve components of the Air Force, Army, Navy, and Marine Corps as applicable, plus DoD contracts, various veterans’ benefits, and military retiree pay. Data was provided by the individual units and organizations over the past several months and we have tried to obtain the most accurate, up-to-date information available.

Detailed data sheets for each unit included in the analysis can be found in Appendix 3. The Department of Energy activities at Oak Ridge that support the DoD was not included, as their impact is well publicized elsewhere.

The units, organizations, and activities in the analysis can be found in Appendix 1.

## COMPARISON OF ECONOMIC IMPACT MILITARY VERSUS KNOXVILLE AREA MAJOR EMPLOYERS

**Comparison to Other Businesses:** While it is difficult to directly compare the results of this analysis to other activities in the area, the military is among the largest economic drivers in the area. Shown below is a list of Knoxville Area Major Employers ranked according to number of employees. The number of individuals included in our analysis (Active Duty, Guard, Reserve, retirees, and civilian employees) would rank tops on this list. To make a reasonable comparison, the *JobsEQ* model was used which differs from the DoD Economic Impact Model shown in Appendix 2.

<u>Top Major Employers</u>	<u>Direct Jobs</u>	<u>Indirect Jobs</u>	<u>Induced Jobs</u>	<u>Total Jobs</u>	<u>\$ Economic Impact</u>
U.S. DOE - Oak Ridge	15,862	16,831	23,898	56,591	\$17,502,971,516
<b>*Military</b>	<b>6,955</b>	<b>9,254</b>	<b>13,499</b>	<b>29,708</b>	<b>\$9,891,460,245</b>
DENSO Manufacturing	5,350	2,936	2,238	10,525	\$3,418,173,002
Covenant Health	9,792	2,573	2,907	15,272	\$2,336,082,897
State of Tennessee	3,286	1,208	2,694	7,187	\$1,922,933,741
Clayton Homes	4,883	861	1,302	7,046	\$1,655,248,040
University of Tennessee	9,384	906	2,029	12,319	\$1,434,098,225
University Health System	5,458	1,434	1,620	8,513	\$1,302,118,102
Knox County Schools	7,949	685	1,478	10,113	\$1,004,309,727
The Dollywood Co.	4,500	788	870	6,158	\$833,101,003
Walmart	6,863	579	924	8,367	\$791,255,043

Sources:

- Knoxville News-Sentinel Book of Lists 2020
- Chmura Economics - JobsEQ Economic Impact Model Q1 2020

*\*Military economic impact figures in this table exclude: Cadets/Trainees, DoD contracts, UT aerospace & defense-related programs, GI Bill data, and other veteran benefits.*

*\*Please note: The Chmura Economics JobsEQ Economic Impact Model has changed from the last 2017 ETMAC Economic Impact Report to now include “induced jobs” added as a result of the household spending of both the “direct jobs” and “indirect jobs.” Previous reports did not include the “induced” impacts and therefore cannot be compared to the current report. See all three impact definitions below:*

*Direct Jobs – jobs within the specific industry being analyzed.*

*Indirect Jobs – jobs added within the support industries/suppliers of the industry being analyzed.*

*Induced Jobs – jobs added in all the other industries as a result of the household spending of the industry being analyzed and its suppliers – examples include dry cleaners, restaurants, grocery stores, etc.*

**Military Impact – Beyond Dollars:** In addition to the purely economic factor, the military presence pays big dividends to the community in several other ways. Military personnel know the value of “service to others” and are valuable members of the community. Listed below are examples of the civic activities that Active Duty, Guard, and Reserve personnel, as well as veterans and retirees, are supporting daily:

- Boy and Girl Scouts
- Boys and Girls Clubs
- Charity runs/walks
- Church leadership roles
- Civic Events/Color Guards
- Combined Federal Campaign/United Way
- Habitat for Humanity
- High School Career Counseling
- High School Junior ROTC
- Homeless Veterans Stand Down Volunteers
- Honor Air Knoxville
- Military Funerals
- Mountain Man Memorial March
- President’s Reading Program – children in schools
- Knoxville Red Cross Chapter - Support for the Armed Forces
- Red Cross Armed Forces Emergency Services Committee
- Salvation Army
- Service clubs such as Kiwanis and Rotary
- Toys for Tots
- United Way
- Veterans Appreciation and Awards Luncheon
- American Legion Post 2 Veterans Day Parade
- Youth mentoring
- Youth sports

Military veterans and retirees are skilled, reliable, hard-working, motivated, well-educated, and quickly become active in the local community.

Clearly, the military is one of the major drivers of the economic activity in our area. As such, business and civic leaders must consider policies and actions that attract and retain this invaluable resource to East Tennessee.



## ***East Tennessee Military Affairs Council***

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# **The Military Economic Impact in East Tennessee**

June 2021



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***Supporting the Military in East Tennessee***

- This presentation summarizes the results of the Military Economic Impact Study conducted by the East Tennessee Military Affairs Council (ETMAC), in cooperation with the Knoxville Chamber.
- The study uses data from Fiscal Year 2019/2020 and updates the previous study of 2017
- The detailed report is available at the ETMAC web site: [www.etmac.org](http://www.etmac.org)
- For more information, contact the Knoxville Chamber at 865-637-4550 and ask for the “ETMAC representative.”

Updated: 05/10/2021





## *Economic Impact Analysis Overview*



- ETMAC – Who we are
- Purpose of the analysis and methodology
- Results
- Questions



*Supporting the Military in East Tennessee*

- This presentation will cover these topics.
  - First, some brief background on ETMAC, the purpose of the analysis, and the approach that was used.
  - The focus of the presentation will be on the results of the analysis.
  - And there will be an opportunity to ask questions at the end.

### Photos

- Knoxville Sun Sphere
- Veterans Day Parade – Knoxville



## Economic Impact Analysis ETMAC



- East Tennessee Military Affairs Council
  - Founded in 1990 to recognize, encourage, support & advocate for area military activities
  - Strong partnership with the Knoxville Chamber
- Military support – some examples
  - Veterans Appreciation & Awards Luncheon
  - Colonel Jack K. Westbrook ROTC scholarships at UT
  - Veterans Day Parade
  - *HonorAir* Knoxville
  - Smoky Mountain Air Show
  - Economic Impact Analysis
  - Mountain Man Memorial March



*Supporting the Military in East Tennessee*

- ETMAC has been in existence since 1990. Most large military bases or posts have a chamber-sponsored military affairs committee to link the military and the civilian-business community.
  - ETMAC serves that role here – to help the public, business leaders, and others understand military activities in the area, and also to facilitate coordination among the many military units and related organizations in the area. ETMAC is currently comprised of 19 military organizations and 42 veteran or veteran related organizations.
- ETMAC is involved in a number of events and activities.
  - Since 1996, ETMAC has sponsored the Knoxville Veteran's Appreciation and Awards Luncheon and the Colonel Jack K. Westbrook (USAF, Retired) ROTC Scholarships to an Army and Air Force cadet at the University of Tennessee.
  - Other events include supporting the Veterans Day Parade, and *HonorAir* Knoxville which takes WW II, Korean, and now Vietnam War veterans to DC to see the memorials built in their honor.
  - This is the sixth Military Economic Impact Analysis completed by ETMAC.

### Photos

- The late Sam Hardman, ETMAC and Honor Air "Ambassador", and Patrice Collins of the Knoxville Chamber.
- Veterans Day Parade





## ***Economic Impact Analysis***

### ***Purpose - Methodology***



- Purpose of the analysis
  - Provide business and civic leaders and the public a complete picture of the military and defense contributions to the local economy
- Methodology -- DoD Economic Impact Model
  - Total impact = payroll + other expenditures + indirect jobs



***Supporting the Military in East Tennessee***

- The purpose of the analysis is shown here. Most large military installations do an annual economic impact report and publicize it widely. East Tennessee does not have a single, large installation (such as Fort Campbell), but a number of smaller National Guard or Reserve units.
- While support for the local military units is quite strong in our area, the cumulative economic impact is not well understood.
- We applied the same model/formula used by other DoD installations to calculate the economic impact. This “formula” includes:
  - The military and civilian salaries
  - Other expenditures such as construction, utilities, service contracts, rent, supplies, etc.
  - Finally, military and civilian personnel will create some number of “indirect jobs” in the community. Obviously, these personnel and their families need housing, food, and other community goods and services, thereby creating a demand in the local economy.
- The total economic impact is the sum of these three factors.

#### Photo

- A tribute to a fallen hero.- Mountain Man Memorial March



## ***Economic Impact Analysis***

### ***Purpose - Methodology***



#### ■ Units/organizations included (50 miles of Knoxville)

- Active Duty, Guard, and Reserve
- Military retirees
- Veterans' benefits – disability, VA medical, GI Bill, etc.
- DoD Contracts

#### ■ Not included – DOE/Oak Ridge



***Supporting the Military in East Tennessee***

- We included military units within 50 miles of Knoxville. This is the same area (50 miles) as the DoD model.
  - While there are a few active duty military personnel such as the ROTC Detachments at the University of Tennessee, the Military Entrance Processing Station (MEPS) and military recruiters, the predominant military presence is Guard and Reserves. The largest are the units at McGhee Tyson Air National Guard Base, the 278<sup>th</sup> Armored Cavalry Regiment – US Army – on Sutherland Avenue in Knoxville, and the 1-230<sup>th</sup> Assault Helicopter Battalion at the Air Base. There is also the Navy Operational Support Center (NOSC) and Marine Corps Reserve Center on Alcoa Highway.
  - There is a large military retiree presence in East Tennessee. We obtained the number and annual retired pay from the Defense Finance and Accounting Service (DFAS) in Cleveland, OH.
  - In addition, there are many veterans in the area who are entitled to disability pay, medical services, and educational benefits such as the GI Bill.
  - Finally, there are numerous local civilian business with contracts with the Department of Defense.
- The full report contains detailed data sheets on each activity, the source of the data, and a further explanation of the DoD Economic Impact Model.
- As in previous analyses, we have not included the work at the Department of Energy (DOE) facility in Oak Ridge in support of the military. That activity and associated economic impact are well publicized and included in other studies.

#### Photos

- Blackhawk Helicopter performing a litter extraction
- A KC-135 Stratotanker aircraft of the 134<sup>th</sup> Air Refueling Wing, McGhee Tyson ANGB





## Economic Impact Analysis What's Changed



### ■ What has changed since the 2017 analysis

- Significant increase in number and amount of DoD Contracts
- Number of retirees continues to hover around 9,000
- Growth of Air Force National Guard – personnel, expenditures
- Increased veterans benefits
- Cost of living/salary increases
  - Retiree benefits, military/civilian pay
  - Average annual salary (indirect jobs) increased



*Supporting the Military in East Tennessee*

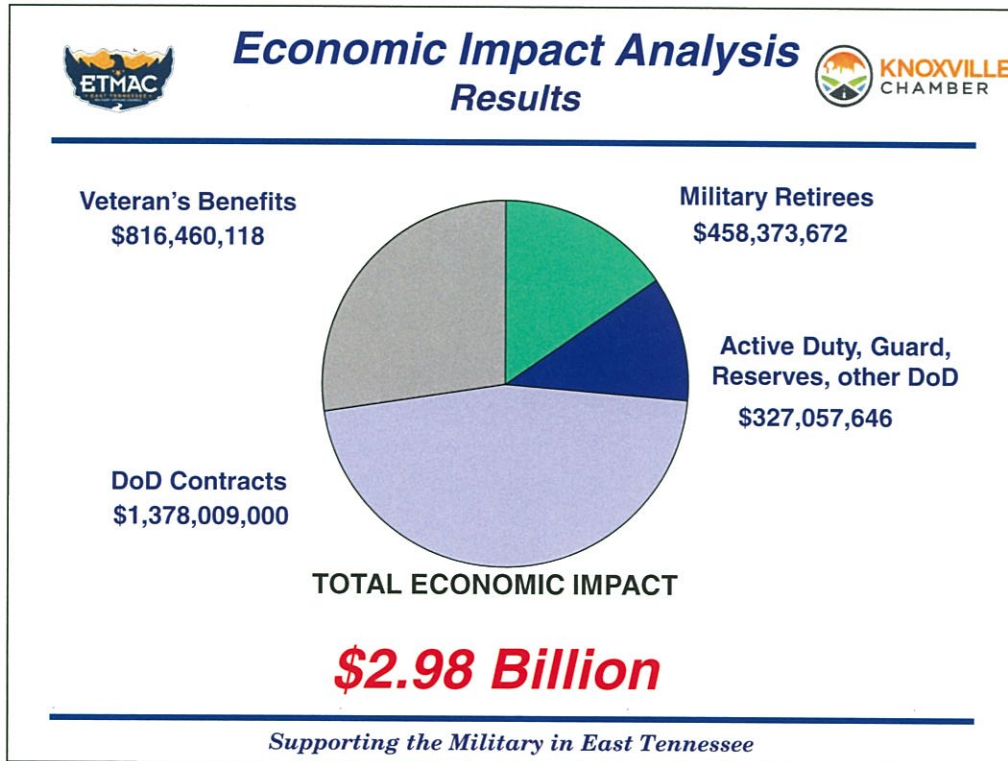
• There have been a number of changes since the last analysis was completed about three years ago that have contributed to an increase in the economic impact.

- Military contracts represent the largest increase in the economic impact. The number and amount for military contracts in the area around Knoxville increased significantly as compared to the 2017 analysis with an increase of over \$900 Million. Since ETMAC updates the analysis figures every three or four years, there may be a “spike” in the dollar amount simply because of the timing.
- The number of retirees continues to hover around 9,000 in the 16-county region within 50 miles of Knoxville.
- There has also been a significant increase in the benefits our veterans are receiving, both in terms of medical care as well as educational assistance
- Mission change, reorganization, and funding have resulted in a 10% growth in the Active Duty, Guard and Reserve unit’s funding.

As expected, with a rising cost of living, military and civilian salaries/payroll also increase. The average wage of the “indirect jobs” created by the military activity also tends to increase over time, although not with as much certainty or regularity. The average annual salary in the Knoxville area is almost \$46,000. (Source: Bureau of Labor Statistics).

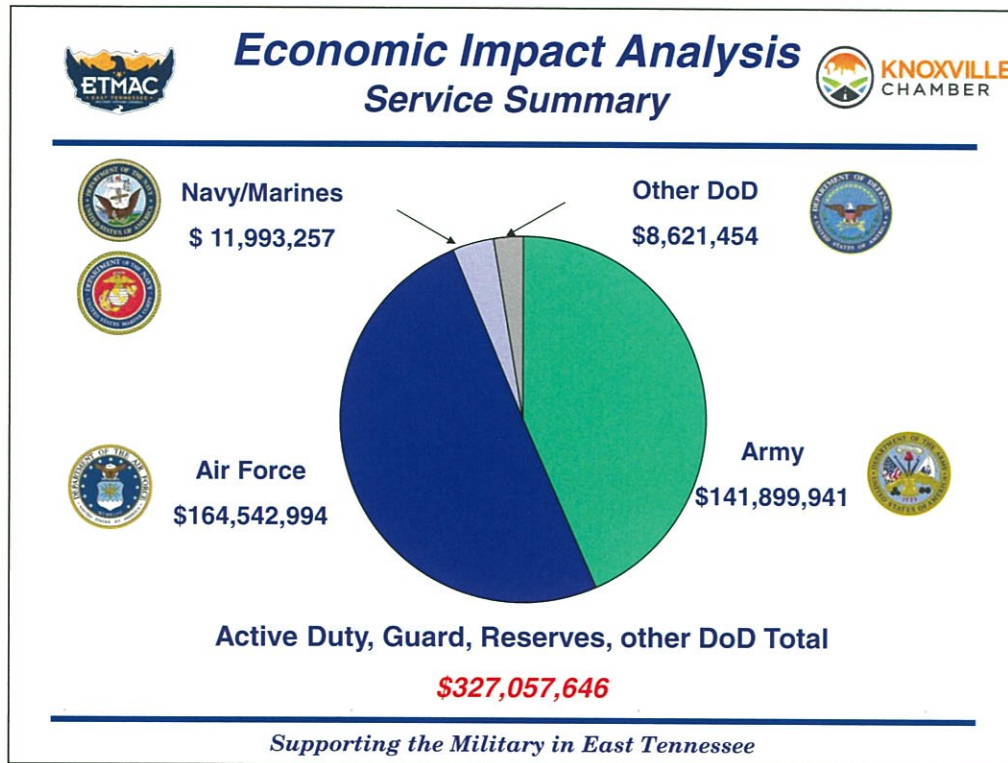
#### Photos

- Both Guard and Reserve units supported COVID vaccine distribution across the state
- Naval Operations and Support Center



- The four major categories of military and related spending included are shown on the pie chart.
  - Active duty, Guard and Reserve units and other DoD account for almost \$330 million. We will break out this amount on the next chart to show the various service contributions. (2017: \$299 million / 2013: \$240 million)
  - DoD Contracts are \$1.378 billion. This number is \$900 million higher than last reported and could reflect the timing of the contract. (2017: \$467 million / 2013: \$102 million)
  - With over 9,000 retirees in the area, their annual pay and indirect jobs created amount to some \$458 million. This speaks to the desirability of East Tennessee as an attractive place to settle. (2027: \$436 million / 2013: \$375 million)
  - Veterans Benefits is normally the highest category and again showed significant growth at more than \$816 million. (2017: \$655 million / 2013: \$224 million)
- The total military economic impact is estimated to be **\$2.98 Billion** for 2019. (This compares to \$1.8 billion in the previous analysis).





- Breaking down the Active, Guard, Reserve, and other DoD, the Air Force and Army capture the bulk of the funding.
  - Most of the \$164 million for the Air Force results from the activities at McGhee Tyson, which includes not only the 134<sup>th</sup> Air Refueling Wing and their tanker aircraft, but several other units at the base that are not as well known: The I. G. Brown Air National Guard Training and Education Center, the 119<sup>th</sup> Cyber Operations Squadron (new mission), and the 572<sup>nd</sup> Air Force Band of the South. (2017: \$140 million / 2013: \$141 million)
  - The Army total is almost \$142 Million, with an increased number of Army personnel due in part to a realignment of forces across the state and mission conversion of the Blackhawk Helicopter Battalion at the airport. (2017: \$139 million / 2013 Army: \$80 million)
  - Other DoD includes the Military Entrance Processing Station and education and research programs at UT that support the Department of Defense. (2017: \$10 million / 2013 Other DoD: \$10 million)
  - Finally, the Naval Operations Support Center on Alcoa Highway makes up the bulk of the Navy and Marines total at nearly \$12 million. (2017: \$9.3 million / 2013 Navy/Marines: \$8.1 million)



## Economic Impact Analysis Comparison



Top Major Employers	Direct Jobs	Indirect Jobs	Induced Jobs	Total Jobs	\$ Economic Impact
U.S. DOE - Oak Ridge	15,862	16,831	23,898	56,591	\$17,502,971,516
<b>*Military</b>	<b>6,955</b>	<b>9,254</b>	<b>13,499</b>	<b>29,708</b>	<b>\$9,891,460,245</b>
DENSO Manufacturing	5,350	2,936	2,238	10,525	\$3,418,173,002
Covenant Health	9,792	2,573	2,907	15,272	\$2,336,082,897
State of Tennessee	3,286	1,208	2,694	7,187	\$1,922,933,741
Clayton Homes	4,883	861	1,302	7,046	\$1,655,248,040
University of Tennessee	9,384	906	2,029	12,319	\$1,434,098,225
University Health System	5,458	1,434	1,620	8,513	\$1,302,118,102
Knox County Schools	7,949	685	1,478	10,113	\$1,004,309,727
The Dollywood Co.	4,500	788	870	6,158	\$833,101,003
Walmart	6,863	579	924	8,367	\$791,255,043

Sources/Notes: Knoxville News Sentinel, Book of Lists 2020

\* Economic impact dollars computed using JobsEQ; Chmura Economics  
(Excludes DoD Contracts, Veterans Benefits, and UT Defense-related programs)

### Supporting the Military in East Tennessee

- While it is difficult to make a direct comparison of the military economic impact with other area businesses and industries, one comparison does give some insight as to the impact.
  - We compared the number of individuals included in our analysis (Active Duty, Guard, Reserve, retirees, and civilian employees) with other major employers in the area. The military ranks number two behind Oak Ridge.
  - To make a reasonable comparison from an economic impact standpoint, the *JobsEQ* model was used. This model differs from the DoD Economic Impact Model shown in Appendix 2 of the report. Therefore, the \$9.9 billion shown in this comparison for the military differs from the total overall economic impact figure of \$2.98 billion
  - Using this model, the military would exceed all other employers other than the Dept of Energy at Oak Ridge.
  - *\*Military economic impact figures in this table exclude: Cadets/Trainees, DoD contracts, UT aerospace & defense-related programs, GI Bill data, and other veteran benefits.*

#### Sources:

- Knoxville News-Sentinel Book of Lists 2020
- Chmura Economics - JobsEQ Economic Impact Model Q1 2020





## ***Economic Impact Analysis*** ***Our Military – More than Dollars***



- Active Duty, Guard/Reserve, veterans and retirees are valuable community resources
  - Highly trained, dependable, disciplined, loyal
  - Many start local businesses
- Military people know the meaning of service: they get **involved**
  - Boys & Girls Clubs, United Way, Dogwood Arts, Rotary/Kiwanis, *Honor Air*, Habitat for Humanity, Red Cross, Toys for Tots, Salvation Army, and more!



***Supporting the Military in East Tennessee***

• While this report focuses on dollars, we know that our local military performs vital missions in defending our nation which included a significant number of personnel involved in various aspects of COVID response this past year. In addition, military personnel are valuable members of the community.

- Veterans are exceptionally capable employees. They are highly trained, dedicated, reliable, and patriotic. A number of organizations have targeted job fairs especially for veterans.
- There are numerous veteran-owned businesses in the local area and there are organizations that team with the Chamber to mentor veteran entrepreneurs.
- Veterans know the meaning of “service”. They take active roles in the community, with the activities listed just a few of the many examples.

### Photos

- Veterans returning from Honor Air flights to Washington, DC.
- Holding the UT flag is (now retired) General Mike Holmes, a UTK graduate.



## ***Economic Impact Analysis*** ***Thanks***



■ A very special thanks to:

- Unit commanders & organizations for the data
- Patrice Collins - Knoxville Chamber/ETMAC
- Joe Riley - Knoxville Chamber



***Supporting the Military in East Tennessee***

• The Economic Impact Report took a total team effort to complete, and a few people deserve a special thanks:

- All the military commanders and their staffs who provided the economic and other data for their units.
- Patrice Collins and Joe Riley of the Knoxville Chamber. Patrice serves as the ETMAC liaison at the Chamber and is our “Command Sergeant Major”. Joe Riley researched and collected all the data, crunched the numbers, and produced the detailed work sheets in the report.
- Finally, Joe Sutter and Owen Ragland, Past Presidents of ETMAC, rode herd on the entire effort.

Photos

- Blue Angels over Knoxville – Smoky Mountain Air Show
- Patrice Collins – ETMAC Administrator and Board Member



## ***Economic Impact Analysis***



Full report/analysis available in hard copy and at our website  
[www.etmac.org](http://www.etmac.org)

***Supporting the Military in East Tennessee***

Photo: UT Army and Air Force ROTC units paint the "rock" on Veterans Day - Nov. 11, 2020

## Appendix 1

### Units, Organizations and Activities Included

Service	Unit	Location	Mission
<b>US Army</b>			
Active Duty	Army ROTC – Rocky Top Battalion	University of Tennessee - Knoxville	Officer training and commissioning
	US Army Recruiters	Throughout the Area	Recruit officer & enlisted members for the Army
National Guard	278 Armored Cavalry Regiment & 1-230 <sup>th</sup> Assault Helicopter Battalion	Knoxville – Sutherland Ave and McGhee Tyson ANGB	Reconnaissance, surveillance, and security
Reserves	489 <sup>th</sup> Civil Affairs Battalion	Army Reserve Center – Middlebrook Pike	Assist other military units – Create, restore, and maintain public order
	844 <sup>th</sup> Engineer Combat Battalion	Army Reserve Center – Middlebrook Pike	Heavy construction
	1 <sup>st</sup> Battalion, 100 <sup>th</sup> Regiment, 3 <sup>rd</sup> Brigade, 100 <sup>th</sup> Division	Army Reserve Center – Middlebrook Pike	Engineer training
	AMSA 148	Army Reserve Center – Middlebrook Pike	Heavy vehicle maintenance
Other	Army High School Junior ROTC	Gibbs, Jefferson County, Campbell County, Grainger County, and South Doyle HS	Educate and train HS cadets in citizenship, promote community service, instill responsibility, character, and self-discipline

### Units, Organizations and Activities Included (con't)

Service	Unit	Location	Mission
<b>US Navy</b>			
Active Duty	USN Recruiters	Throughout the Area	Recruit officer & enlisted members for the Navy
Reserves	Naval Operations Support Center	Alcoa Highway – Reserve Center	Training, logistical, & administrative support to the fleet
Other	Sea Cadets	Throughout the Area	Promote interest in seamanship and skills, encourage good citizenship and public service
<b>US Marine Corps</b>			
Active Duty	USMC Recruiters	Throughout the Area	Recruit officer & enlisted members for the Marine Corps
Reserves	Company D, 4 <sup>th</sup> Combat Engineer Battalion (includes some A/D)	Alcoa Highway – Reserve Center	Combat engineer support
	Detachment, Surgical Company A, 4 <sup>th</sup> FSSG	Alcoa Highway – Reserve Center	Medical support
<b>US Air Force</b>			
Active Duty	AFROTC Detachment 800	University of Tennessee	Officer training and commissioning
	332 <sup>nd</sup> USAF Recruiters	Throughout the Area	Recruit officer & enlisted members for the USAF
National Guard	134 <sup>th</sup> Air Refueling Wing	McGhee Tyson ANGB	Aerial refueling
	119 <sup>th</sup> Cyberspace Operations Squadron	McGhee Tyson ANGB	Provides command and control (C2) of full-spectrum cyberspace operations for Air Force and Air National Guard cyberspace forces.
	I.G. Brown Training and Education Center	McGhee Tyson ANGB	Professional military education such as the Non-Commissioned Officer (NCO) Academy
	572 <sup>nd</sup> Air Force Band of the South	McGhee Tyson ANGB	Support for USAF; public relations and recruiting
Other	Junior ROTC	William Blount, Heritage, Clinton, Karns, and Austin East HS	Educate and train HS cadets in citizenship, promote community service, instill responsibility, character, and self-discipline
	Civil Air Patrol	Throughout area	Support search and rescue, disaster relief and other emergencies and contingencies.

### Units, Organizations and Activities Included (con't)

Service	Unit	Location	Mission
<b>Other DoD</b>			
Active Duty	Military Entrance Processing Station (MEPS)	Knoxville	Process and enlist members into all branches of the service
Various DoD Agencies	University of Tennessee	University of Tennessee	Research and Development, Executive Education and Training, etc.
Defense Contracts	Various	Counties within 50 miles of Knoxville (Congressional Districts One, Two, and Three)	Manufacturing and services for DoD in 2016
<b>Other Military</b>			
Department of Veterans Affairs	VA Medical Center – Outpatient Clinic	Knoxville – Ray Mears Blvd.	Primary care, specialty care, extended care, and related services for veterans
	Veteran's Affairs – Advisor/Registrar	University of Tennessee – Knoxville, Maryville College, Tusculum College, Pellissippi, Roane, and Walters State Community Colleges, and South College	Montgomery GI Bill and other education benefits
	Other Benefits	Knoxville Area	Veterans' rehabilitation, disability benefits, etc.
TN Department of Veterans Affairs	Ben Atchley State Veterans Nursing Home	Knoxville – One Veterans Way	Safe, secure, and pleasant home for veterans
Retirees	Retired Military Personnel	Within 50 miles of Knoxville	Retired pay



## Appendix 2

### DoD ECONOMIC IMPACT ANALYSIS MODEL

#### PAYROLL

_____ # ACTIVE DUTY PERSONNEL	TOTAL ANNUAL SALARY _____
_____ # GUARD/RESERVE PERSONNEL	TOTAL ANNUAL SALARY _____
_____ # CIVILIAN PERSONNEL	TOTAL ANNUAL SALARY _____

\$ \_\_\_\_\_ TOTAL PAYROLL

#### OTHER EXPENDITURES

CONSTRUCTION \_\_\_\_\_  
SERVICES \_\_\_\_\_  
MATERIALS \_\_\_\_\_  
CONTRACTS \_\_\_\_\_  
UTILITIES \_\_\_\_\_  
RENT \_\_\_\_\_  
SUPPLIES \_\_\_\_\_  
ENVIRONMENTAL \_\_\_\_\_  
OTHER \_\_\_\_\_

\$ \_\_\_\_\_ TOTAL OTHER EXPENDITURES

#### INDIRECT JOBS\*

#ACTIVE DUTY x 0.41 =	_____	INDIRECT JOBS CREATED
#GUARD/RESERVE x 0.16 =	_____	INDIRECT JOBS CREATED
#CIVILIANS x 0.55 =	_____	INDIRECT JOBS CREATED

JOBS CREATED x \$ 45,997 \* = \$ \_\_\_\_\_ IMPACT OF JOBS CREATED

**TOTAL ECONOMIC IMPACT = PAYROLL + EXPENDITURES + INDIRECT JOBS**

#### \*Notes

1. Indirect jobs multipliers were obtained from the DoD EIA model and are based on the size of the employment base for each region. (AFMAN 65-506 Economic Impact Analysis).
2. The annual salary estimates for the indirect jobs are from the Bureau of Labor Statistics (BLS) files for Knoxville 2018 through [www.bls.gov](http://www.bls.gov).

## Appendix 3

ARMY ROTC		2019	ARMY -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	6	\$610,000	
GUARD/RESERVE	1	\$78,000	
CIVILIAN	3	\$157,000	
SCHOLARSHIP CADETS	124	\$1,850,000	Includes stipends (scholarship & non-scholarship) books, tuition, fees
<b>Totals</b>	<b>134</b>	<b>\$2,695,000</b>	
<b>INDIRECT JOBS</b>	<b>4</b>	<b>\$200,160</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	2.46		
Guard/Reserve x 0.16	0.16		
Civilian x 0.55	1.65		
<b>EXPENDITURES</b>		<b>\$54,000</b>	
Contract Services		\$15,000	
Materials/Supplies/Equip		\$19,000	
Utilities			
Healthcare			
Education			
TDY/TAD Expenses		\$20,000	
Other			
<b>TOTAL ECO. IMPACT</b>	<b>138</b>	<b>\$2,949,160</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Army ROTC - Rocky Top Battalion		University of Tennessee	



ARMY JROTC (Junior ROTC)		2019	ARMY -- Active Duty
	Personnel	Payroll	Comments
ACTIVE DUTY	0	\$0	Data covers five units at area high schools including: Campbell Co., Gibbs,
GUARD/RESERVE	0	\$0	Grainger Co., Jefferson Co., and South-Doyle.
CIVILIAN	10	\$590,000	
CADETS	75	\$0	
<b>Totals</b>	<b>85</b>	<b>\$590,000</b>	
<b>INDIRECT JOBS</b>	<b>6</b>	<b>\$300,240</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	5.50		
<b>EXPENDITURES</b>		<b>\$90,325</b>	
Contract Services		\$3,750	Bus contracts for transportation of cadets
Materials/Supplies/Equip		\$75,000	Uniforms & equipment
Utilities			
Healthcare			
Education		\$1,575	Summer Camp at local Boy Scout camp (this year Davey Crockett)
TDY/TAD Expenses			
Other		\$10,000	Military balls and/or awards ceremonies at the schools
<b>TOTAL ECO. IMPACT</b>	<b>91</b>	<b>\$980,565</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
<i>Source: LTC Bill Woodcock; Senior Army Instructor; South-Doyle High School</i>			

<b>Army Recruiters</b>		<b>2019</b>	<b>ARMY -- Active Duty</b>
<b>UNIT DID NOT PROVIDE DATA</b>			
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	NA	NA	Unit did not provide data.
GUARD/RESERVE	NA	NA	
CIVILIAN	NA	NA	
OTHER	NA	NA	
<b>Totals</b>			
<b>INDIRECT JOBS</b>			Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	0.00		
<b>EXPENDITURES</b>			
Contract Services		NA	
Supplies		NA	
Materials		NA	
Utilities		NA	
Education		NA	
TDY/TAD Expenses		NA	
Rent		NA	
<b>TOTAL ECO. IMPACT</b>			Total Impact = Payroll + Indirect Job \$ + Expenditures
<i>Source: U.S. Army - Knoxville Recruiting Company</i>			

ARMY -- National Guard		2019	ARMY -- National Guard
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	692	\$47,502,016	Active Duty includes full-time guard personnel.
GUARD/RESERVE	3,390	\$36,659,483	Army National Guard numbers include the 278th Armored Cavalry
CIVILIAN	0	\$0	Regiment & the 1-230th Assault Helicopter Battalion in the first, second &
OTHER	0	\$0	third congressional districts of Tennessee.
<b>Totals</b>	<b>4,082</b>	<b>\$84,161,499</b>	
<b>INDIRECT JOBS</b>	<b>826</b>	<b>\$41,333,040</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	283.72		
Guard/Reserve x 0.16	542.40		
Civilian x 0.55	0.00		
<b>EXPENDITURES</b>		<b>NA</b>	Expenditure data was not available.
Armory Maintenance			
Contract Services & Supplies			
Rent			
Utilities			
<b>TOTAL ECO. IMPACT</b>	<b>4,908</b>	<b>\$125,494,539</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Army - 278th Armored Cavalry Regiment			

ARMY Reserve		2019	ARMY Reserve
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	40		Active Duty payroll included in Reserve payroll total.
GUARD/RESERVE	373	\$6,237,843	Reserve units include: 489th Civil Affairs Battalion;
CIVILIAN	21	\$1,601,418	844th Engineer Battalion; 1-100th Engineer Battalion;
OTHER	0	\$0	321st Engineer Detachment; 630th Engineer Detachment
<b>Totals</b>	<b>434</b>	<b>\$7,839,261</b>	
<b>INDIRECT JOBS</b>	<b>88</b>	<b>\$4,403,520</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	16.40		
Guard/Reserve x 0.16	59.68		
Civilian x 0.55	11.55		
<b>EXPENDITURES</b>		<b>\$232,896</b>	
Municipal Services		\$35,418	
Rent		\$0	
Utilities		\$51,597	
Maintenance/Repair/Minor Construction		\$133,381	
Environmental		\$12,500	
<b>TOTAL ECO. IMPACT</b>	<b>522</b>	<b>\$12,475,677</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
<i>Source: U.S. Army Reserve - Electronic Congressional Data Reporting System</i>			

NAVY JROTC (Junior ROTC)		2019	NAVY -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	0	\$0	Five area high school units include: Bearden, Central, Farragut, Fulton & West.
GUARD/RESERVE	0	\$0	
CIVILIAN	10	\$362,567	
CADETS	18	\$0	
<b>Totals</b>	<b>28</b>	<b>\$362,567</b>	
<b>INDIRECT JOBS</b>	<b>6</b>	<b>\$300,240</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	5.50		
<b>EXPENDITURES</b>		<b>\$19,088</b>	
Contract Services			
Materials/Supplies/Equip		\$19,088	Uniform maintenance, orientation, in-service training, and unit support
Utilities			
Healthcare			
Education			
TDY/TAD Expenses			
Other			
<b>TOTAL ECO. IMPACT</b>	<b>34</b>	<b>\$681,895</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Sources: Mike Fisk, NJROTC Instructor Compensation, U.S. Department of the Navy; and Danny Trent; Executive Director of Secondary Education; Knox County Schools			

Navy Recruiters		2019	NAVY -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	18	\$1,296,000	
GUARD/RESERVE	0	\$0	
CIVILIAN	1	\$52,000	
OTHER	0	\$0	
<b>Totals</b>	<b>19</b>	<b>\$1,348,000</b>	
<b>INDIRECT JOBS</b>	<b>8</b>	<b>\$400,320</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	7.38		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	0.55		
<b>EXPENDITURES</b>		<b>\$0</b>	
Contract Services		\$0	
Materials/Supplies/Equip		\$0	
Utilities		\$0	
Healthcare		\$0	
Education		\$0	
TDY/TAD Expenses		\$0	
Rent		\$0	
<b>TOTAL ECO. IMPACT</b>	<b>27</b>	<b>\$1,748,320</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Naval Operations Support Center - Knoxville			

NAVY SEA CADETS		2019	NAVY -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	0	\$0	This is a non-profit with no federal funding. The source of funds comes from the cadet families from all over East Tennessee.
GUARD/RESERVE	1	\$0	
CIVILIAN	5	\$0	
CADETS	30	\$0	
<b>Totals</b>	<b>36</b>	<b>\$0</b>	
<b>INDIRECT JOBS</b>	<b>3</b>	<b>\$150,120</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.16		
Civilian x 0.55	2.75		
<b>EXPENDITURES</b>		<b>\$12,700</b>	
Contract Services			
Materials/Supplies/Equip		\$12,700	
Utilities			
Healthcare			
Education			
TDY/TAD Expenses			
Other			
<b>TOTAL ECO. IMPACT</b>	<b>39</b>	<b>\$162,820</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: LTJG Todd Johnson, retired USN, Commanding Officer Knoxville Anchor Division			

Naval Operations Support Center		2019	NAVY - Active Duty and Reserves
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	13	\$1,100,000	
GUARD/RESERVE	220	\$1,400,000	
CIVILIAN	1	\$39,000	
OTHER	0	\$0	
<b>Totals</b>	<b>234</b>	<b>\$2,539,000</b>	
<b>INDIRECT JOBS</b>	<b>41</b>	<b>\$2,051,640</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	5.33		
Guard/Reserve x 0.16	35.20		
Civilian x 0.55	0.55		
<b>EXPENDITURES</b>		<b>\$1,625,000</b>	
Contract Services		\$250,000	
Materials/Supplies/Equip		\$75,000	
Utilities/Healthcare/Education		\$370,000	
TDY/TAD Expenses		\$930,000	
Other			
<b>TOTAL ECO. IMPACT</b>	<b>275</b>	<b>\$6,215,640</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
<i>Source: U.S. Naval Operations Support Center - Knoxville</i>			



USMC Reserve/Recruiters		2019	MARINES -- Active Duty and Reserves
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	12	\$685,832	
GUARD/RESERVE	119	\$501,571	
CIVILIAN	0	\$0	
OTHER	0	\$0	
<b>Totals</b>	<b>131</b>	<b>\$1,187,403</b>	
<b>INDIRECT JOBS</b>	<b>24</b>	<b>\$1,200,960</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	4.92		
Guard/Reserve x 0.16	19.04		
Civilian x 0.55	0.00		
<b>EXPENDITURES</b>		<b>\$796,219</b>	
Contract Services		\$55,749	
Supplies		\$10,000	
Construction			
Materials		\$315,000	
Rent		\$415,470	
TDY/TAD Expenses			
Healthcare			
Clothing Allowances			
Other			
<b>TOTAL ECO. IMPACT</b>	<b>155</b>	<b>\$3,184,582</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Marine Corps. Company D, 4th CEB Reserve Unit			Includes "D" Company Marines, "A" Detachment Marines, & RS Knoxville Recruiter

AFROTC - UT		2019	USAF -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	13	\$900,840	Includes AFIT students (8)
GUARD/RESERVE	0	\$0	
CIVILIAN	0	\$0	
SCHOLARSHIP CADETS		\$650,550	Includes stipends (scholarship & non-scholarship), books, tuition, fees
<b>Totals</b>	<b>13</b>	<b>\$1,551,390</b>	
<b>INDIRECT JOBS</b>	<b>5</b>	<b>\$250,200</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	5.33		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	0.00		
<b>PENDITURES</b>		<b>\$0</b>	
Contract Services			Expenditures are covered with university funds.
Materials/Supplies/Equip			
Utilities			
Healthcare			
Education			
TDY/TAD Expenses			
Other			
<b>TOTAL ECO. IMPACT</b>	<b>18</b>	<b>\$1,801,590</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Air Force - ROTC Detachment 800, University of Tennessee			

AFJROTC (Junior ROTC)		2019	USAF -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	0	\$0	Data covers 5 AFJROTC units within 50 miles of Knoxville.
GUARD/RESERVE	0	\$0	
CIVILIAN	10	\$289,563	Instructors at four units within 50-mile radius of Knoxville.
CADETS	608	\$0	Austin-East, Clinton, Heritage, William Blount, & Karns High Schools
<b>Totals</b>	<b>618</b>	<b>\$289,563</b>	
<b>INDIRECT JOBS</b>	<b>6</b>	<b>\$300,240</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	5.50		
<b>EXPENDITURES</b>		<b>\$397,423</b>	
Supplies		\$13,049	
Uniforms		\$181,510	
Utilities			
Rent			
Education			
TDY/TAD Expenses			
Other		\$202,864	
<b>TOTAL ECO. IMPACT</b>	<b>624</b>	<b>\$987,226</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: R. Wayne Barron, GS-12, USAF; Director - Region 7; Headquarters, Air Force Junior ROTC; Holm Center, Maxwell AFB, AL			

AF Recruiters		*2016	USAF -- Active Duty
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	9	\$344,926	<i>*No data provided for 2019. Data for this unit has been carried over from 2016 report.</i>
GUARD/RESERVE	0	\$0	
CIVILIAN	1	\$37,113	
<b>Totals</b>	<b>10</b>	<b>\$382,039</b>	
<b>INDIRECT JOBS</b>	<b>4</b>	<b>\$200,160</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	3.69		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	0.55		
<b>EXPENDITURES</b>		<b>\$73,338</b>	
Contract Services		\$2,823	
Supplies		\$5,555	
Utilities		\$3,650	
Construction		\$15,085	
Rent		\$42,025	
TDY/TAD Expenses			
Other		\$4,200	
<b>TOTAL ECO. IMPACT</b>	<b>14</b>	<b>\$655,537</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Air Force - 332nd Recruiting Command			

McGhee Tyson ANGB -- All Units		2019	USAF -- Air National Guard
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	218	\$16,642,337	
GUARD/RESERVE	966	\$31,710,293	
CIVILIAN	425	\$34,056,150	Includes federal civilians, BX & Club, and other civilians
TRAINEES/CADETS	10,676	\$27,450,522	
<b>Totals</b>	<b>12,285</b>	<b>\$109,859,302</b>	
<b>INDIRECT JOBS</b>	<b>478</b>	<b>\$23,919,120</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	89.38		
Guard/Reserve x 0.16	154.56		
Civilian x 0.55	233.75		
<b>EXPENDITURES</b>		<b>\$27,241,429</b>	
Contract Services	\$8,521,603		
Construction	\$16,463,945		
Materials, Equipment & Supplies	\$2,255,881		
<b>TOTAL ECO. IMPACT</b>	<b>12,763</b>	<b>\$161,019,851</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Air Force - McGhee Tyson Air National Guard Base			Includes: 134th Air Refueling Wing, 119th Cyber Operations Squadron, 241st Engineering Installation Squadron, I.G. Brown ANG Training & Education Center, and the 572nd Air Force Band of the South

Civil Air Patrol		2019	USAF Auxiliary -- Civil Air Patrol
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	0	\$0	
GUARD/RESERVE	0	\$0	
CIVILIAN	1	\$28,750	
TRAINEES/CADETS	0	\$0	
<b>Totals</b>	<b>1</b>	<b>\$28,750</b>	
<b>INDIRECT JOBS</b>	<b>1</b>	<b>\$50,040</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	0.55		
<b>EXPENDITURES</b>			No expenditure data provided.
Training			
1st Air Force Missions			
Cadet Programs			
Miscellaneous Expenses			
<b>TOTAL ECO. IMPACT</b>	<b>2</b>	<b>\$78,790</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
<i>Source: Dent Young, Lt. Col., Civil Air Patrol, Tennessee Wing</i>			

U.S. Coast Guard Recruiters		2019	U.S. COAST GUARD -- Active Duty
- NO DATA PROVIDED			
	Personnel	Payroll	Comments
ACTIVE DUTY	NA	NA	
GUARD/RESERVE	NA	NA	
CIVILIAN	NA	NA	
<b>Totals</b>			
<b>INDIRECT JOBS</b>			Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	0.00		
<b>EXPENDITURES</b>			
Contract Services		NA	
Supplies		NA	
Utilities		NA	
Construction		NA	
Rent		NA	
TDY/TAD Expenses		NA	
Other		NA	
<b>TOTAL ECO. IMPACT</b>	<b>0</b>	<b>\$0</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Coast Guard			

<b>Military Entrance Processing Station</b>		<b>2019</b>	<b>Other DoD -- Active Duty</b>
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	7		Active Duty and Guard/Reserve payroll included in the civilian payroll total.
GUARD/RESERVE	2		
CIVILIAN	23	\$2,150,131	
OTHER	0	\$0	
<b>Totals</b>	<b>32</b>	<b>\$2,150,131</b>	
<b>INDIRECT JOBS</b>	<b>16</b>	<b>\$800,640</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	2.87		
Guard/Reserve x 0.16	0.32		
Civilian x 0.55	12.65		
<b>EXPENDITURES</b>		<b>\$1,900,783</b>	
Contract Services		\$874,300	
Materials/Supplies/Equip		\$51,413	
Rent		\$731,921	
Utilities		\$29,711	
TDY/TAD Expenses			
Other Expenditures		\$213,438	
Other Services			
<b>TOTAL ECO. IMPACT</b>	<b>48</b>	<b>\$4,851,554</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
<i>Source: Knoxville Military Entrance Processing Station</i>			



<b>UT Aerospace &amp; Defense MBA Program</b>		<b>2019</b>	<b>Other DoD -- Active Duty</b>
	<b>Personnel</b>	<b>Expenses</b>	<b>Comments</b>
STUDENTS	29	\$2,015,500	Student expenses include: tuition, fees & meals.
<b>EXPENDITURES</b>			
TDY/TAD Expenses		\$104,400	Student lodging
<b>TOTAL ECO. IMPACT</b>	<b>29</b>	<b>\$2,119,900</b>	
<i>Source: Joseph B. Skipper; Executive Director, Aerospace &amp; Defense Programs; Graduate &amp; Executive Education; UT Haslam College of Business</i>			

<b>Other Graduate &amp; Executive Education - UT Haslam College of Business</b>		<b>2019</b>	<b>Other DoD -- Active Duty</b>
<b>EXPENDITURES</b>	<b>Personnel</b>	<b>Expenses</b>	<b>Comments</b>
UT Non-Degree Programming		\$1,575,000	The University of Tennessee provides research, development, training, and studies to the U.S. Air Force in three major areas: (1) Acquisition & Integrated Life-Cycle Management System (ILCMS) (2) Continuous Process Improvement (CPI) (3) Leadership & Organizational Development
Visitors		\$75,000	
<b>TOTAL ECO. IMPACT</b>		<b>\$1,650,000</b>	
<i>Source: Joseph B. Skipper; Executive Director, Aerospace &amp; Defense Programs; Graduate &amp; Executive Education; UT Haslam College of Business</i>			

Ben Atchley State Veterans' Home		2019	State Veterans' Services
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
ACTIVE DUTY	0	\$0	
GUARD/RESERVE	0	\$0	
CIVILIAN	183	\$7,441,981	
OTHER	0	\$0	
<b>Totals</b>	<b>183</b>	<b>\$7,441,981</b>	
<b>INDIRECT JOBS</b>	<b>101</b>	<b>\$5,054,040</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Active Duty x 0.41	0.00		
Guard/Reserve x 0.16	0.00		
Civilian x 0.55	100.65		
<b>EXPENDITURES</b>		<b>\$4,488,002</b>	
Contract Services		\$634,566	
Materials/Supplies/Equip		\$2,646,971	
Utilities		\$412,465	
TDY/TAD Expenses			
Rent			
Other Services		\$794,000	
<b>TOTAL ECO. IMPACT</b>	<b>284</b>	<b>\$16,984,023</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: Ben Atchley State Veterans' Home			

DoD Prime Contracts		2019	Other DoD
DoD Contracts within 50-miles of Knoxville			
		Total Dollars	Comments
Total Area Dollars	134 contractors	\$1,378,009,000	The DoD Prime Contract Awards shown here represent grand total contract amounts awarded to Knoxville area companies from the Army, Air Force, Navy, Defense Logistics Agency, and all other defense agencies for FY 2019. Defense contract totals include all projects regardless single-year or multi-year. DOE contracts are not included.
<b>TOTAL ECO. IMPACT</b>		<b>\$1,378,009,000</b>	
Source: USAspending.gov			
<b>Top 20 Contractors -- \$\$</b>		<b>2019</b>	
<b>Contractor</b>	<b>County</b>	<b>Total Amounts</b>	<b>Products/Services</b>
Janus Global Operations	Loudon	\$539,117,764	Environmental remediation svcs; guard svcs; technical project planning
SES Civil & Engineering Contractors	Anderson	\$175,847,615	Civil engineers; construction
Vanquish Worldwide	Blount	\$105,677,252	Logistics support svcs
Relyant Global LLC	Blount	\$94,390,423	General contractor; runway construction
Aerostar SES LLC	Anderson	\$77,865,105	Environmental & ecological svcs; construction; building & infrastructure repairs
Specpro Environmental Services	Anderson	\$37,702,567	Engineering & maintenance svcs
Navarro Research & Engineering	Anderson	\$37,695,060	Environmental remediation & logistics support svcs
Siler Excavating	Claiborne	\$33,702,238	Excavating contractor; roadway maintenance
Valley Apparel	Knox	\$21,045,893	Military clothing
North Wind Solutions	Knox	\$17,162,405	Demolition & salvage of facilities; environmental remediation
Information International Associates	Anderson	\$16,379,228	Applied research & exploratory development
Jacobs Government Services Co.	Anderson	\$14,883,970	Environmental engineering & architectural svcs
Aqua-Chem	Knox	\$14,836,835	Water purification equipment
Anthony & Gordon Construction	Knox	\$13,964,859	Building construction
HGW & Associates	Knox	\$12,739,159	Education & training

<b>Contractors Continued:</b>	<b>County</b>	<b>Total Amounts</b>	<b>Products/Services</b>
Short Bark Industries	Monroe	\$11,898,453	Personal armor & gear; ballistic combat shirts; combat coats; navy trousers
Security Walls	Knox	\$9,697,876	Security guard svcs
Protection Strategies	Anderson	\$8,555,840	Maintenance & equipment repair svcs
Professional Project Services	Anderson	\$7,753,734	Engineering, architectural & research svcs
Phoenix Systems International	Roane	\$7,604,472	Heavy equipment transportation & logistics
<i>Source: USAspending.gov</i>			

<b>VA Veterans' Benefits - Knoxville</b>		<b>2019</b>	U.S. Veterans' Administration
	Personnel	Payroll	Comments
VETERANS			Veteran population in 16-county region within 50 miles of Knoxville is 89,848.
EXPENDITURES		\$772,747,000	There were also 28,591 unique patients. These are patients who received treatment at a VA healthcare facility.
Compensation & Pensions		\$482,519,000	
Construction		\$165,000	
Education/Vocational/Rehab/Employment		\$37,537,000	
General Operating Expenses		\$141,000	
Insurance/Indemnities		\$5,012,000	
Medical Care		\$247,373,000	
TOTAL ECO. IMPACT		\$772,747,000	
<i>Sources: VA Office of the Actuary; VA Financial Management System; Veterans Benefits Administration Insurance Center;</i>			
<i>USAspending.gov; Allocation Resource Center</i>			

**NOTES:**

* Veteran population estimates, as of September 30, 2019, are produced by the VA Predictive Analytics and Actuary Service (VetPop 2016).
# Prior to FY 08, "Loan Guaranty" expenditures were included in the Education & Vocational Rehabilitation and Employment (E&VRE) programs. Currently, all "Loan Guaranty" expenditures are attributed to Travis County, TX, where all Loan Guaranty payments are processed. VA will continue to improve data collection for future GDX reports to better distribute loan expenditures at the state, county and congressional district levels.
** Unique patients are patients who received treatment at a VA health care facility. Data are provided by the Allocation Resource Center (ARC).
Expenditure data sources: USAspending.gov for Compensation & Pension (C&P) and Education and Vocational Rehabilitation and Employment (EVRE) Benefits; Veterans Benefits Administration Insurance Center for the Insurance costs; the VA Financial Management System (FMS) for Construction, Medical Research, General Operating Expenses, and certain C&P and Readjustment data; and the Allocation Resource Center (ARC) for Medical Care costs.

1. Expenditures are rounded to the nearest thousand dollars. For example, \$500 to \$1,000 are rounded to \$1; \$0 to \$499 are rounded to \$0; and "\$ -" = 0 or no expenditures.
2. The Compensation & Pension expenditures include dollars for the following programs: veterans' compensation for service-connected disabilities; dependency and indemnity compensation for service-connected deaths; veterans' pension for nonservice-connected disabilities; and burial and other benefits to veterans and their survivors.
3. Medical Care expenditures include dollars for medical services, medical administration, facility maintenance, educational support, research support, and other overhead items. Medical Care expenditures do not include dollars for construction or other non-medical support.
4. Medical Care expenditures are allocated to the patient's home location, not the site of care.

VA Outpatient Clinic - Knoxville		2019	Department of Veteran's Affairs
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
VA Clinic Employees	161	\$18,936,877	
VA Contract Employees	0	\$0	
<b>Totals</b>	<b>161</b>	<b>\$18,936,877</b>	
<b>INDIRECT JOBS</b>	<b>89</b>	<b>\$4,453,560</b>	Indirect Jobs x \$50,040 (Area Avg. Annual Pay)
Employees x 0.55	88.55		
<b>EXPENDITURES</b>		<b>\$3,454,446</b>	
Contract Services		\$473,205	includes security and facility contracts
Materials/Supplies/Equip		\$400,189	includes radiology, pharmacy and audiology supplies
Knoxville Lab Services			
Lease Payments		\$2,581,052	includes main, new and admin leases as well as utilities
Other Services			
<b>TOTAL ECO. IMPACT</b>	<b>250</b>	<b>\$26,844,883</b>	Total Impact = Payroll + Indirect Job \$ + Expenditures
Source: U.S. Veterans' Administration			

<b>GI Bill - UT</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	619	\$7,243,107	
<b>Totals</b>	<b>619</b>	<b>\$7,243,107</b>	
<i>Source: UT Admissions Office - Veterans' Affairs Advisor</i>			
<b>GI Bill - Pellissippi State</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	231	\$601,341	Chapter 33 - Post 9/11 GI Bill benefits & Chapter 31 - VA Vocational Rehab funds
<b>Totals</b>	<b>231</b>	<b>\$601,341</b>	
<i>Source: Pellissippi State; Nancy Ramsey; Executive Director of Institutional Effectiveness, Assessment &amp; Planning</i>			
<b>GI Bill - Roane State</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	135	\$675,000	
<b>Totals</b>	<b>135</b>	<b>\$675,000</b>	
<i>Source: Roane State Community College Business Office</i>			
<b>GI Bill - Walters State</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	204	\$572,244	Includes 146 veterans and 58 of their dependents
<b>Totals</b>	<b>204</b>	<b>\$572,244</b>	
<i>Source: Walters State Community College; Linda Mason; Veterans' Affairs Office</i>			



<b>GI Bill - South College</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	172	\$2,936,605	
<b>Totals</b>	<b>172</b>	<b>\$2,936,605</b>	
<i>Source: South College; President Steve South</i>			
<b>GI Bill - Tusculum College</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	74	\$470,271	
<b>Totals</b>	<b>74</b>	<b>\$470,271</b>	
<i>Source: Tusculum College; Dale Laney; Director of Veteran Services</i>			
<b>GI Bill - Maryville College</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	60	\$2,160,000	Includes both veterans & veteran dependents
<b>Totals</b>	<b>60</b>	<b>\$2,160,000</b>	
<i>Source: Maryville College; Stephen Kasper</i>			
<b>GI Bill - Lincoln Memorial University</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	110	\$1,372,667	Includes all campuses in region
<b>Totals</b>	<b>110</b>	<b>\$1,372,667</b>	
<i>Source: Lincoln Memorial University</i>			

<b>GI Bill - King University</b>		<b>2019</b>	
	<b>Personnel</b>	<b>Amount</b>	<b>Comments</b>
VETERANS	49	\$837,000	
<b>Totals</b>	<b>49</b>	<b>\$837,000</b>	
<i>Source: King University</i>			
<b>Military Retirees</b>		<b>2019</b>	<b>Other - DoD</b>
	<b>Personnel</b>	<b>Payroll</b>	<b>Comments</b>
RETIREES	9,053	\$272,625,192	Data from DFAS - Cleveland, OH - (50-mile radius of Knoxville)
INDIRECT JOBS	3,712	\$185,748,480	Indirect Jobs = Retirees x 0.41 (Payroll = Ind Job x \$50,040)
<b>TOTAL ECO. IMPACT</b>	<b>12,765</b>	<b>\$458,373,672</b>	
<i>Source: Defense Finance and Accounting Service</i>			

<b>ETMAC Economic Impact</b>		<b>2019</b>	<b>Summary</b>
<b>Unit/Categories</b>	<b>Total Jobs</b>	<b>Total \$ Impact</b>	<b>Comments</b>
Army ROTC	138	\$2,949,160	
Army JROTC	91	\$980,565	
Army Recruiters	0	\$0	
Army National Guard	4,908	\$125,494,539	
Army - Reserves	522	\$12,475,677	
			<b>Army Total = \$141,899,941</b>
Navy JROTC	34	\$681,895	
Navy Sea Cadets	39	\$162,820	
Navy Recruiters	27	\$1,748,320	
Naval Operations Support Center	275	\$6,215,640	
			<b>Navy Total = \$8,808,675</b>
Marine Reserve/Recruiters	155	\$3,184,582	
			<b>Marines Total = \$3,184,582</b>
Air Force ROTC - UT	18	\$1,801,590	
Air Force JROTC	624	\$987,226	
Air Force Recruiters	14	\$655,537	
Air Force --McGhee-Tyson ANGB	12,763	\$161,019,851	
Air Force Auxiliary - Civil Air Patrol	2	\$78,790	
			<b>Air Force Total = \$164,542,994</b>
Knoxville Military Entrance Processing Stn	48	\$4,851,554	
Aerospace & Defense MBA Program - UT	29	\$2,119,900	
Other Graduate & Executive Education - UT Haslam College of Business		\$1,650,000	
			<b>Other DoD Total = \$8,621,454</b>
Ben Atchley State Veterans' Home	284	\$16,984,023	
			<b>State Veterans Services Total = \$16,984,023</b>
DoD Prime Contracts		\$1,378,009,000	
			<b>Contracts Total = \$1,378,009,000</b>
VA Outpatient Clinic	250	\$26,844,883	
GI Bill - UT	619	\$7,243,107	
GI Bill -Maryville College	60	\$2,160,000	
GI Bill - Pellissippi State	231	\$601,341	
GI Bill - Roane State	135	\$675,000	

GI Bill - Walters State	204	\$572,244	
GI Bill - South College	172	\$2,936,605	
GI Bill - Tusculum College	74	\$470,271	
GI Bill - Lincoln Memorial University	110	\$1,372,667	
GI Bill - King University	49	\$837,000	
Other Veteran's Benefits		\$772,747,000	Includes disability payments, rehabilitation, etc.
			<b>VA Benefits Total = \$816,460,118</b>
Retirees	12,765	\$458,373,672	
			<b>Retiree Total = \$458,373,672</b>
<b>Total Impact (All Units/Categories)</b>	<b>34,640</b>	<b>\$2,996,884,459</b>	

## **Appendix 4**

### **Acronyms**

AASF	Army Aviation Support Facility
ACR	Armored Cavalry Regiment
A/D	Active Duty (personnel)
AFIT	Air Force Institute of Technology
AFMAN	Air Force Manual
AFROTC	Air Force Reserve Officer Training Corps
AMSA	Area Maintenance Support Activity
ANG	Air National Guard
ANGB	Air National Guard Base
ARW	Air Refueling Wing
BLS	Bureau of Labor Statistics
DoD	Department of Defense
DOE	Department of Energy
EIA	Economic Impact Analysis
ESGR	Employer Support for the Guard and Reserve
ETMAC	East Tennessee Military Affairs Council
FSSG	Force Service Support Group
JROTC	Junior Reserve Officer Training Corps (High School)
MEPS	Military Entrance Processing Station
MILCON	Military Construction
MGIB	Montgomery GI Bill
NCO	Non-Commissioned Officer
ROTC	Reserve Officer Training Corps
RPM	Real Property Maintenance

TAD	Temporary Assigned Duty
TDY	Temporary Duty
TEC	Training and Education Center
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
UT	University of Tennessee
VA	(Department of) Veteran's Affairs