



T E N N E S S E E • N A T I O N A L • G U A R D

Economic & Fiscal Assessment

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Tennessee
NATIONAL GUARD
Volunteer Traditions, Modern Missions



Department of
Military

**MIDDLE
TENNESSEE**
STATE UNIVERSITY.

JONES COLLEGE OF BUSINESS
Business and Economic Research Center



Tennessee NATIONAL GUARD

Tennessee Leaders,

I commissioned this Tennessee National Guard Economic and Fiscal Assessment to inform future decision making by increasing our understanding of the synergetic relationship between the Military Department, the communities in which we serve, private sector business, and the state as a whole. Over the ensuing several months, scholars at the Business and Economic Research Center of Middle Tennessee State University gathered and analyzed hundreds of relevant data points to produce this detailed study of the economic and fiscal impact of the Tennessee National Guard and the Military Department. The results were astounding...

- The Military Department directly employed 14,637 people, and generated a total of over 18,000 jobs across the state*
- We have a significant employment, economic, and fiscal impact in every congressional district, and in 82% of Tennessee counties*
- With \$557 million in personal income, our presence generated over \$888 million in business revenue, and \$24 million in taxes – the rough equivalent in business revenue of General Motors and Nissan combined*
- We provide our state and local stakeholders noteworthy services including emergency management, response, and recovery assistance, robust youth development programs, safety and security at special events, and a substantial contribution to Tennessee's counterdrug effort and the Governor's Task Force on Marijuana Eradication*

Aside from these business related statistics, our citizen Soldiers represent the very best of the Tennessee Volunteer spirit. Whether responding to the call to assist those in need here at home or fighting for our freedom around the globe, our young men and women get the job done in exemplary fashion. With that in mind, I invite your consideration of this informative study.

Terry M. Haston

Acknowledgment and Study Contributions

This study analyzes the economic and fiscal impact of the Tennessee National Guard. I would like to thank the National Guard of Tennessee for sponsoring this initiative, with special thanks to Lt. Col. Robert Graves and Maj. Benjamin Smith for helping throughout the data collection and review process. Additionally, I would like to thank BERC senior editor Sally Govan and project coordinator Allison Logan for their efforts in completing this project.

This report is a product of teamwork. The following undergraduate and graduate research assistants contributed:

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Table of Contents

I. Key Findings	4
II. Introduction	5
III. Literature Review and Methodology	6
Literature Review	6
Geography and Scope	7
Modeling Approach and Methodology	7
Data Identification and Extraction	10
IV. Characteristics of Tennessee National Guard	11
V. Economic Impact of National Guard in Tennessee	14
VI. Economic Impact of National Guard on Districts	18
Core Impact by District	18
VII. Economic Impact of Tennessee Military on Districts	22
Extended Impact by District	22
Broader Impact by District	23
VIII. Scenario 1: Relocating a Brigade outside Tennessee	25
IX. Scenario 2: Economic Impact of 10 Percent Spending Cut	27
X. Investments Impact	29
XI. Comparative Perspective on Force Strength	31
XII. Other Impacts of Tennessee National Guard	37
XIII. Conclusion	39
XIV. References	40
XV. Appendix: Templates	44

Glossary of Terms and Guide to Acronyms

Glossary of Terms	
Grant	Financial assistance awarded by the government to recipients to pursue a public project or service.
NAICS	NAICS—North American Industry Classification System, which groups contractors by industry.
SOC	A classification system used by government agencies to classify workers into occupational categories.
Recipient	A state or local government, or a private, non-profit organization that receives a federal award.
Contractor	A prime recipient that is under contract with a federal agency to provide goods or services.
Economic Impact	The impact of new economic activity in an existing regional economy, measured by net change.
Economic Contribution	Gross economic activity driven by dollars cycled, compiled in a descriptive analysis.
IMPLAN	An economic assessment modeling software system that uses an extensive database to estimate local economic impact.
Direct Impact	Total employment, sales, and personal income due to the presence of the National Guard in the economy.
Indirect Impact	Total employment, sales, and personal income driven by business-to-business transactions in a local economy.
Induced Impact	Total employment, sales, and personal income driven by employee spending in a local economy.
Counterfactual Analysis	A measurement of the economic impact that subtracts the entire organization, industry, or event from the economy.
Net New	In terms of economic impact, net new includes changes from outside sources (out of region) or a previously uncaptured component.
Nonfarm employment	The total amount of paid workers, excluding general government, private household, non-profit employees, or farm employees determined by the U.S. Bureau of Labor Statistics.
Total Output	The total value of all goods and services produced in an economy.
Capital Expenditures	Fixed assets purchased or value added to existing assets that extend beyond the given tax year.
Operating Expenditures	Any expenses incurred during regular business, such as sales, general, and administrative expenses.
Congressional District	A geographic division of territory in which members of Congress are elected based upon population.
Brigade	Unit within the army, which usually includes a small number of infantry battalions.
Guardsmen/Service Members	Interchangeable terms used to collectively represent both Tennessee Army and Air National Guard personnel regardless of service affiliation or specific gender.
Acronyms	
AGR	Active Guard Reserve
DoD	Department of Defense
DVA	Department of Veterans' Affairs
TEMA	Tennessee Emergency Management Agency

I. Key Findings

The Business and Economic Research Center (BERC), Middle Tennessee State University, under the sponsorship of the Tennessee National Guard (TNG), has completed a detailed assessment of the Tennessee National Guard's economic impact on the Tennessee economy. Study findings show the Tennessee National Guard has greatly impacted employment, personal income, business revenue, and taxes in the state.

Characteristics of Tennessee National Guard (TNG) in 2015

- TNG had a presence in 82 percent of Tennessee's counties and employed over 14,000 people.

Core Impact of TNG in 2015

- TNG, which includes Army and Air National Guard, Joint Force Headquarters, and the Tennessee Emergency Management Agency (TEMA), created more than 18,000 jobs, \$557 million in personal income across the state, over \$888 million in business revenue, and \$24 million in taxes.

Extended Impact of Tennessee Military in 2015

- The extended impact of the military in Tennessee, made up of Department of Defense (DoD) contracts, totaled more than 6,000 jobs, \$313 million in personal income, \$1.4 billion in business revenue, and \$41 million in taxes, all due to direct, indirect, and induced effects.

Broader Impact of Tennessee Military in 2015

- The broader impact of the military in Tennessee, comprised of Department of Veterans Affairs (DVA) contracts and assistance, totaled almost 30,000 jobs, \$1.4 billion in personal income, \$3.9 billion in business revenue, and \$217 million in taxes, all due to direct, induced, and induced effects.

In conclusion, the Tennessee National Guard not only provides a secure environment for Tennesseans but also plays an essential role in the state's economic development. Its impact on employment, personal income, business revenue, and taxes makes TNG a key economic driver in building a strong future for Tennessee.

II. Introduction

The Tennessee National Guard is a substantial and dynamic organization. In fiscal year 2015, TNG had total of 14,637 employees, ranging from civilians to traditional reservists.

Through a variety of methods, this study examines the reasons the state has so greatly profited from the presence of the Tennessee National Guard. In addition, it provides a detailed assessment of the impact of TNG on the economy.

This study aims to answer the following seven questions:

1. What role does the Tennessee National Guard play in Tennessee?
2. What is the economic and fiscal contribution of TNG to Tennessee?
3. What is the economic and fiscal impact of TNG on the state?
4. What economic and fiscal impact will Tennessee experience if we eliminate one brigade from Tennessee?
5. What businesses currently benefit from TNG activities?
6. What are some potential synergies between TNG and businesses in Tennessee in terms of training and supplying the next-generation workforce?
7. How does the contribution of TNG to Tennessee's economy compare with recent private business investments and relocation activities?

The rest of this study is organized as follows. Chapter 3 thoroughly details the literature review and methodology. Chapter 4 assesses characteristics of the Tennessee National Guard. Chapter 5 examines the impact of TNG on the state, while chapters 6 and 7 examine district-level impact by type. Chapters 8 and 9 develop two scenarios for examining TNG from a comparative perspective. In chapter 10, we look at the investments made in Tennessee during the past decade. Chapter 11 takes a bird's-eye view and looks at the military in Tennessee compared with the other 49 states. Last, we look at additional benefits TNG brings to the state.

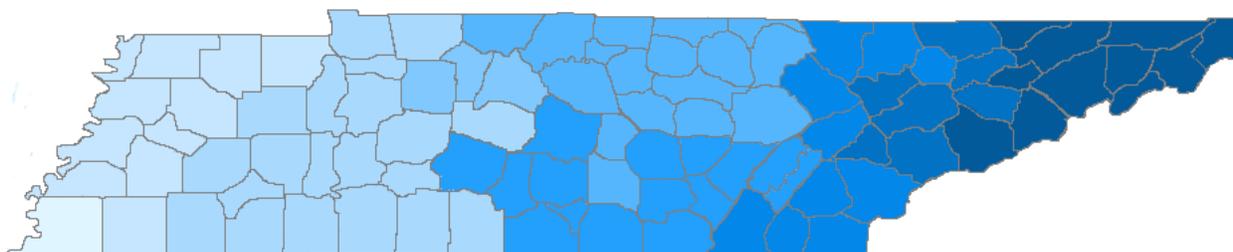
III. Literature Review and Methodology

Review of Selected Literature

Study	State	Year	Scope	Model Utilized	Method	Employment Impact of National Guard
Report on the Comprehensive Military Value and Economic Impact of Department of Defense Activities in Colorado	Colorado	2015	Economic Impact of Total State Military, National Guard, & DoD Contracts	IMPLAN, Summit Economics	This study utilized IMPLAN and Summit Economics models. It included DoD military installations, contracts and assistance. Contracts are by county. It separates into direct, indirect, and induced employment, earnings, and output.	National Guard: 11,085 DoD Contracts: 5,258
Economic Impact on Delaware Economy: Delaware National Guard (2011)	Delaware	Fiscal Year 2011	Economic Impact of Total State Military, National Guard	REMI	This study examines employment and wages, recurring non-labor spending, construction, and taxes in order to determine the impact.	1,648
Economic Impact: MN Air National Guard (2002)	Minnesota	2002	Economic Impact of the 148th Fighter Wing, Jet Fuel Contracts	IMPLAN	Inputs include employment, income, construction expenditure, and contracts.	1,809
New York National Guard Economic Impact 2014	New York	2015	Economic Impact of New York National Guard	Standard U.S. Government Economic Multiplier	Total output is calculated separately by region using salaries, drill pay, construction expenditure, education assistance, and contracts.	N/A
2013-2014 Nevada National Guard Biennial Report	Nevada	2013-2014	Economic Impact of Nevada National Guard		Gross dollar influx by county was calculated with payroll and state and federal operating expenditures. This was then aggregated and multiplied using the multiplier provided by the UNV Economics Dept. This does not measure the impact of construction spending.	N/A
Economic Impact of the Military on North Carolina	North Carolina	2015	Total Military, National Guard, DoD Contracts	REMI	This study examines the entire military's impact in North Carolina, but also looks at only National Guard's impact. In the REMI model, the economic impact was determined using the counterfactual approach. Inputs were total military spending with the inclusion of military pensions and nonfederal spending on the military.	13,000
Economic Impact of OK National Guard (2014)	Oklahoma	2014-2018 Projection	Economic Impact of National Guard	REMI	Inputs include employment, wage adjustment, productivity adjustment, construction expenditure, and equipment. The study had two scenarios: counterfactual and impact with new construction.	13,602
Rhode Island National Guard Annual Report (FY 2014)	Rhode Island	Fiscal Year 2013-2014	Economic Impact of National Guard		Total Output = Total Federal Expenditures (Military and Civilian Pay, Goods and Services, and Military Construction) * Multiplier	N/A
Economic Impact of the Military Community in South Carolina (FY 2011)	South Carolina	2012	Economic Impact of Military, National Guard, and DoD Contracts	IMPLAN	Inputs include employment, payroll, procurement, and visitors. Impacts of construction, contracts, and equipment are also calculated.	14,662
Military Economic Impact Analysis for East Tennessee	Tennessee	2014	Total Military, DoD Contracts, Veterans	DoD Economic Impact Analysis (EIA) Model	Includes payroll, base/installation/activity expenditures, supplies, construction, and maintenance. The impact area is within 50 miles of Knoxville, TN. This includes DoD contracts, veterans' benefits, and retiree pay.	8,225

Geography and Scope of Tennessee National Guard

The geographical scope of this study is confined to two categories. First, we look at TNG's impact on the state as a whole. Then we look at the impact of each of the nine congressional districts, displayed in the map below. A clearly defined study area allows us to identify out-of-area flows. If the source of TNG's revenue is from outside a clearly defined area, we then argue the monetary activity is net addition to the area's economy. This treatment is an important component of the economic impact estimates in the following sections.



Geographic assumptions. Because eight Tennessee counties are in two congressional districts, BEREC has to make an assumption regarding the district the county should be placed in. We assume the county should be placed in the district in which it contains the largest geographic area. This assumption is used for all economic impact figures.

Who is examined? This study calculates economic impact based on the total number of Tennessee National Guard employees. This includes traditional and full-time guardsmen as well as civilian state employees working for the National Guard. The table below provides a guide to the types of employment.

A Guide to National Guard Classifications

Title	Definition
Traditional Reservist	Member who attends monthly drills 2 days per month and 15 days of annual training
Federal GS Technician	Dual-status technician who is a civilian employee for TNG during the work week and drills on the weekend like traditional reservists
Active Guard Reserve	Member of the full-time force, paid like regular Army/Airforce members
State Employee	Civilian who works for the National Guard

Modeling Approach and Methodology

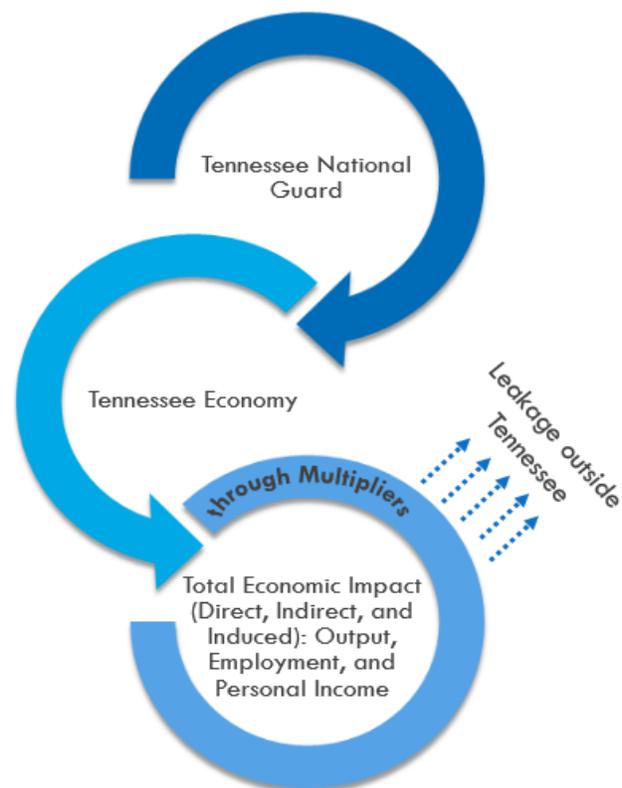
Economic Impact Definition. What is economic impact, and how do we estimate it? Economic impact refers to economic activities that are net new to the local economy. Such activities include exporting of goods and services by local business to areas outside of the region, out-of-area visitor spending, and recapturing of economic activities sent outside of region due to lack of local business services.

IMPLAN Model. To estimate *indirect* and *induced* effects of economic activities, BEREC uses the IMPLAN model developed for the state of Tennessee. IMPLAN is a nationally recognized input-output model commonly used to measure economic and fiscal effects of economic development projects.

What does this study not measure? It is important to note this analysis omits three important data points whose uncaptured impact may be quite sizable: (1) any type of DoD reimbursable loan, (2) impact of visitors from DoD and DVA to Tennessee, and (3) DoD grants. In this context, the estimates in this report may be considered conservative.

Conceptual Framework for Impact Analysis

This study analyzes the economic and fiscal impact of the Tennessee National Guard on the state's economy. The report presents three categories of impact: output, employment, and personal income. For each category, BEREC reports direct, indirect, and induced effects of these impacts. Also reported are leakages outside Tennessee and the relationship between TNG and other sectors of the economy: specifically, the impact of TNG on private investments and synergies with potential to create the next generation's skilled workforce. BEREC assumes that IMPLAN regional purchasing coefficients (RPC) represent the current situation, and that the difference between 100 percent local purchasing and default model RPCs determines leakages outside Tennessee. The chart at right highlights the conceptual framework of the procedure used to calculate the economic impact of the Tennessee National Guard.



Assessments Covered

This study analyzes Tennessee's military from three perspectives. First, BEREC analyzes the impact of the Tennessee National Guard, or Core Impact. The core impact takes the narrowest point of view, viewing TNG's impact as a result of its expenditures.

Next, BEREC looks at the extended impact of Tennessee's military by determining the impact of DoD contracts. *BEREC does not imply that TNG is responsible for this impact; however it is apparent from the literature and our analysis that these two components are interconnected.* For example, "Defense contractors provide products and services to the DoD and state military installations" (Wang, Carlsen, and Clayton, 2012, 48). This approach is also used in a recent study conducted by the East Tennessee Military Affairs Council, "The Economic Impact of the Military on North Carolina," and is cited as follows: "Another area yielding significant economic impacts is military

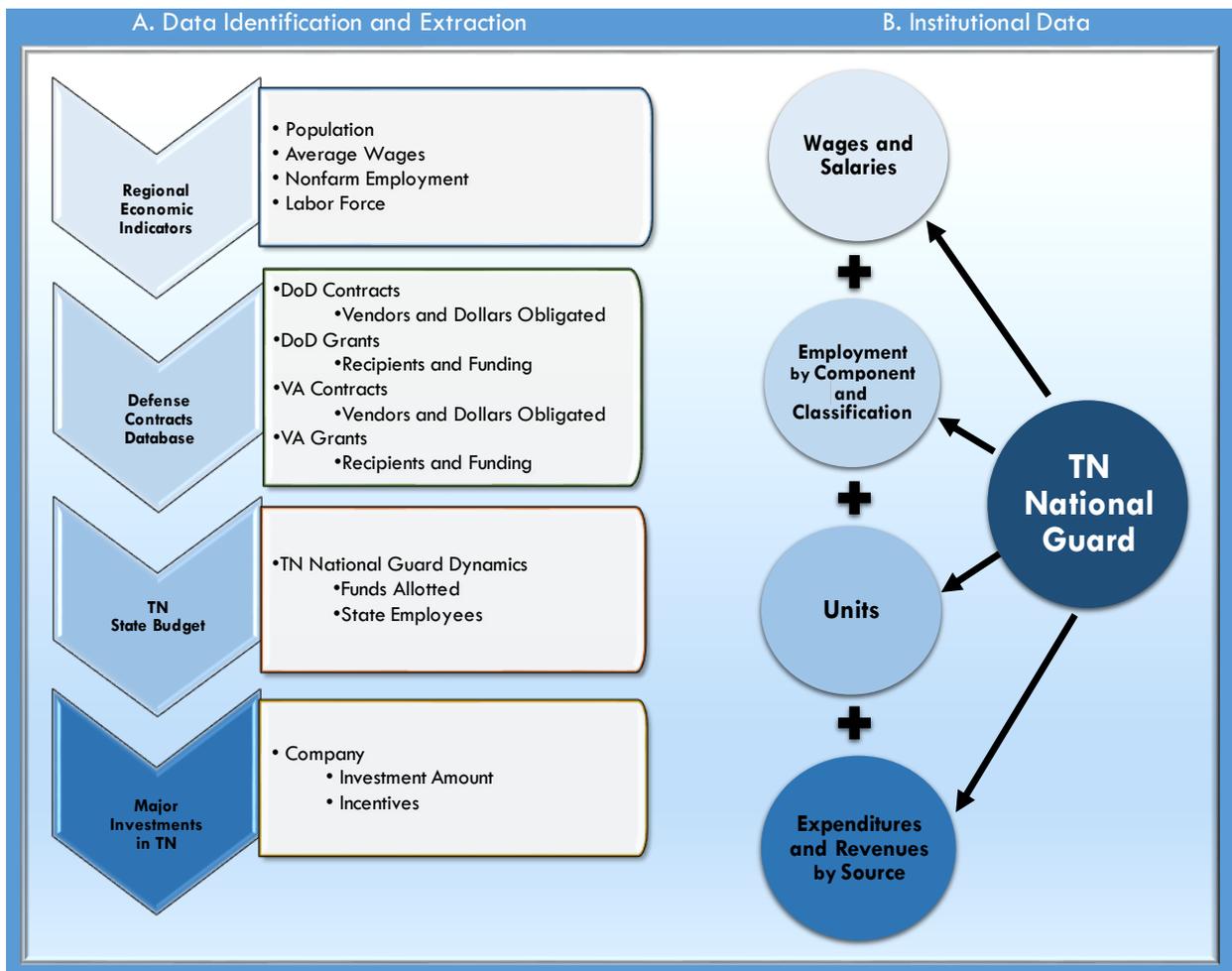
contracting. . . . In order to meet the military’s demand for goods and services, defense contractors require intermediate inputs for their own production processes. Demand for intermediate inputs translates into demand for supplier and service providers further ‘upstream’ in the value chain” (Oliver, Levy, and DeBellis, 2013, 9). In this study, our goal is to demonstrate that including these extended and broader impact assessments provides an opportunity to see further business synergies between TNG and the overall economy.



Finally BERC examines the broader impact of Tennessee’s military through the lens of Department of Veterans Affairs (DVA) contracts and grants. *BERC does not suggest a correlation between the National Guard and DVA contracts and grants, but there is reasonable belief that the two elements reinforce each other.* As highlighted in a *Forbes* article, “Veterans are more likely to live (1) near military bases and areas with active-duty residents and (2) in more affordable, lower density areas.” Exemplified by Clarksville’s veteran population of 24 percent, this fact, along with Tennessee’s strong VA healthcare system, makes Tennessee a desirable place for veterans to live. An economic impact study of Colorado’s military found: “The availability of veterans provides a more flexible workforce which can lower contractor costs, thereby making Colorado more competitive for DoD and other major contracts, both public and private, which furthers economy diversification. The lower contractor costs may come from lower wages and salaries, but often comes from a labor force acculturated to DoD, with more suitable training, and with security clearances” (Report on the Comprehensive Military Value and Economic Impact of Department of Defense Activities in Colorado, 2015, 55). The presence of these veterans creates strong business synergies through DoD and DVA contracts and grants.

Data Identification and Extraction

Where did the data originate? This study used multiple sources to construct the input database. In determining core impact, BEREC looked at the Tennessee state budget and institutionally provided data on employment, revenues, and expenditures. The extended impact takes into account core impact plus DoD contractors and grants. Finally, the broader impact examines core and extended impacts, adding DVA. For a comparative perspective, BEREC collected data on major investments in Tennessee for the past 10 years, primarily collected from the Tennessee Newsroom and Media Center.



Employment Dynamics

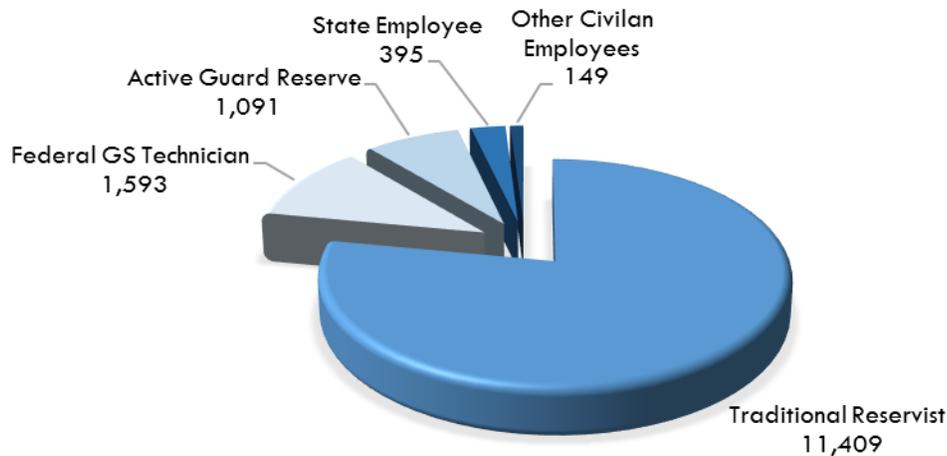
Types of Employees.

In FY 2015, the Tennessee National Guard had 14,637 employees. Of these, nearly 400 were state civilian employees, and 14,200 were guardsmen. A breakdown of employment by category and branch can be seen in the following table and chart.

Tennessee National Guard Employment		
FY 2015	Air National Guard	Army National Guard
Traditional Reservist	3,109	8,300
Federal GS Technician	845	748
Active Guard Reserve	346	745
Other Civilian Employees	109	40
Total	4,409	9,833
State Employees: 395		
Total National Guard Employment: 14,637		

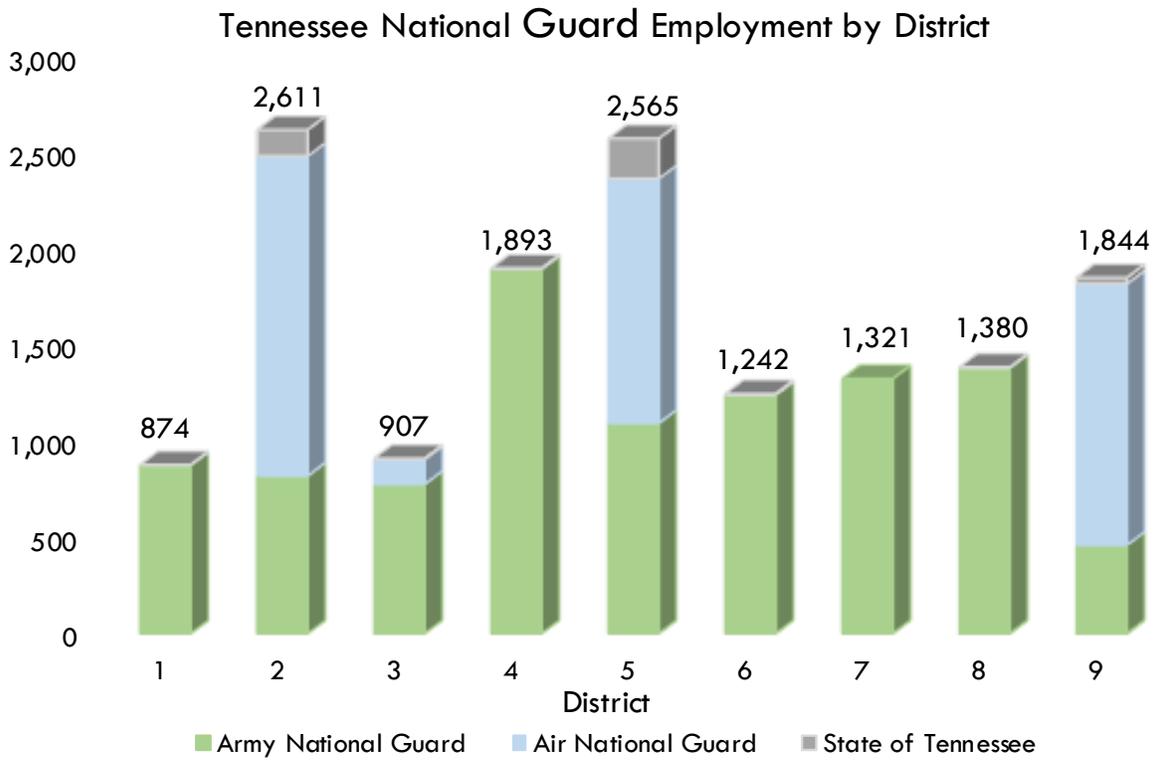
Source: Tennessee National Guard

As the chart below shows, the overwhelming majority, 78 percent, of National Guard employment is in the form of traditional reservists. The second and third largest components of TNG employment are Federal GS Technicians¹ (11 percent) and members of the Active Guard Reserve (7 percent).



1. BERC considers Federal GS Technicians a separate entity. Although they drill on the weekend like traditional reservists, they are also full-time employees.

Looking at the state as a whole, TNG has an average of 1,646 employees in each district. District 2 (containing Knox County) has the largest number of employees, 2,611, making up almost 18 percent of the state's National Guard employment, closely followed by District 5 (containing Davidson County) with 2,565 employees.



V. Economic Impact of the National Guard in Tennessee

In this study, BEREC identified three areas of impact: core, extended, and broader. For core impact, we examine the dynamics of the Tennessee Military Department, including Tennessee Army National Guard, Tennessee Air National Guard, Joint Force Headquarters, and Tennessee military state employees. Next we look at the Tennessee military from a larger perspective, examining the impact of DoD contracts. Last, we examine the Tennessee military from the broadest point of view and analyze the impact of the Department of Veterans Affairs on the state.

Economic Impact

Economic impact refers to an economic activity's net new contribution to the region in which the activity takes place. Some examples include a visitor from out of town spending money on a motel, a new manufacturing plant operating in the region, federal or out-of-region money flowing to an area to support a new program, or an activity that is unique in the region. Economic impact analysis is different from economic contribution or economic significance analysis in which we often counterfactually remove an institution, program, or event from an economy without determining whether that given institution, event, or program may be considered net new to the region. This section will analyze the economic impact of the National Guard on the Tennessee economy.

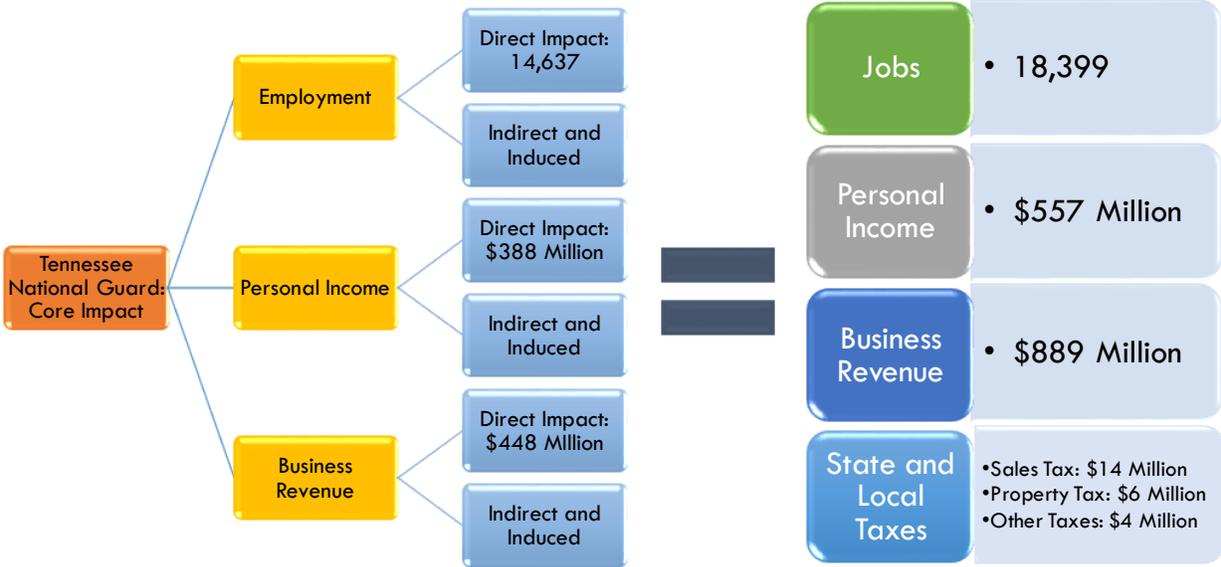
How is the direct economic impact figure determined? BEREC used the Tennessee state budget and institutional data provided by the National Guard to determine what portion of revenue flows from outside the study region.² This estimate is a conservative figure. In reporting economic impact and economic contribution estimates, we follow the procedure outlined below:

- 1) *Business revenue (output) effect*—direct, indirect (the effect of business-to-business interactions), and induced (the effect of employee spending of wages and salaries) by TNG and major industries. These measures (indirect and induced) are also called the ripple effect. The business revenue effect represents all economic activities (i.e., trades, value added, income, taxes, proprietary income, etc.) associated with the activity. Therefore, this figure should not be aggregated with any other measures reported here.
- 2) *Employment effect*—direct, indirect, and induced by TNG and major industries.
- 3) *Personal income effect*—direct, indirect, and induced by TNG and major industries.
- 4) *Local and state taxes*—total taxes related to TNG and major industries.

² The study region is the entire state of Tennessee, as a whole and by congressional district. A detailed map of the study region can be seen in the methodology section.

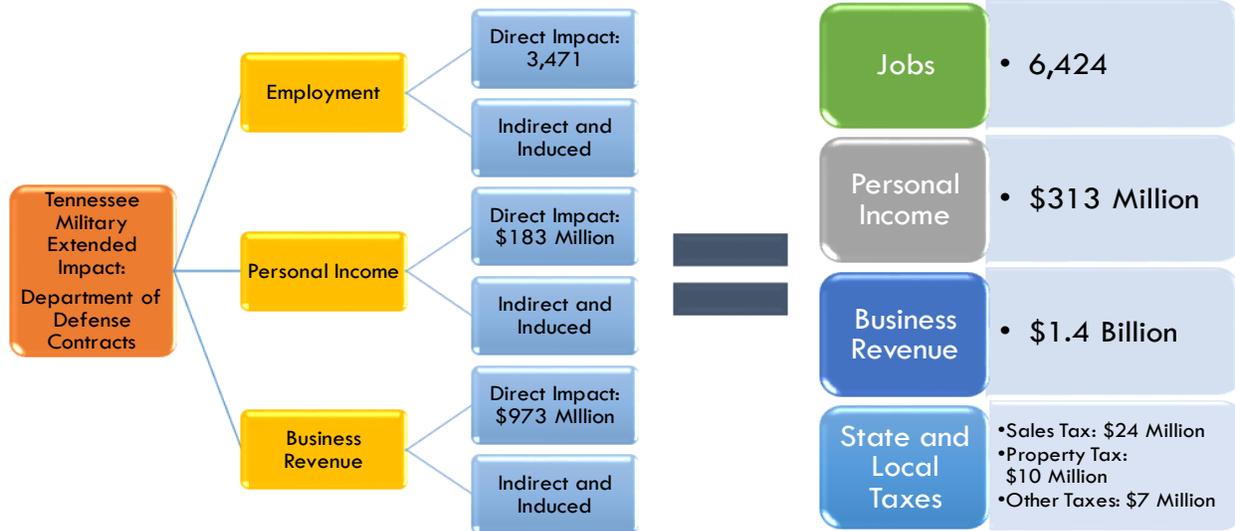
The flow charts below show TNG’s impact from the three categories, core, extended, and broader. This is further broken down into employment, labor income, and business impact through direct, indirect, and induced measures.

Core Impact



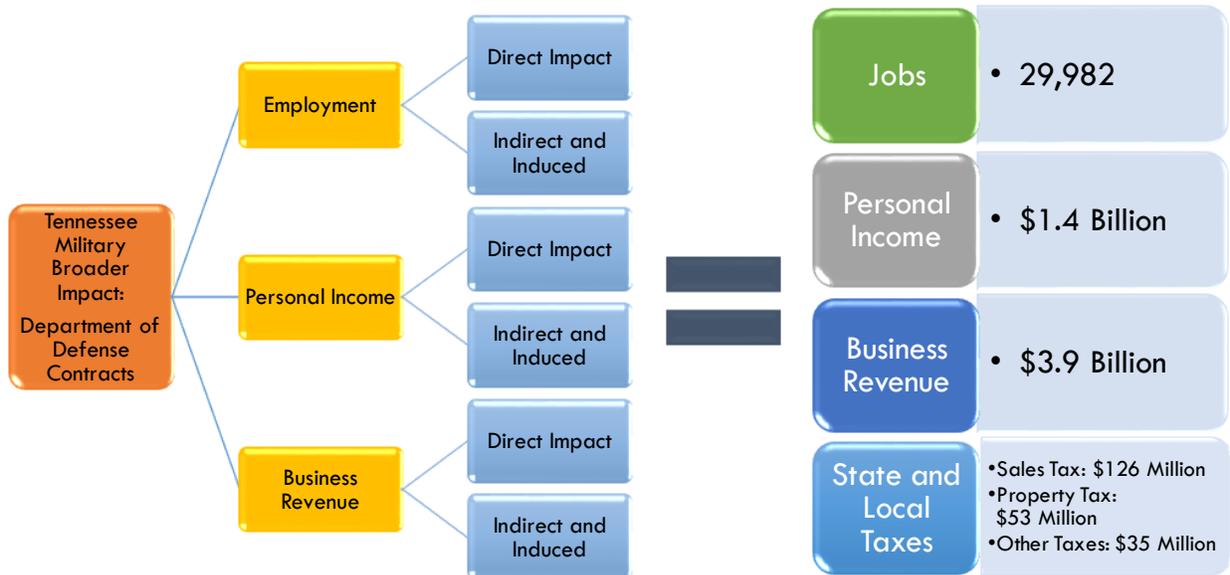
Core National Guard spending (Tennessee Air and Army National Guard, state employees) is accountable for more than 18,000 jobs, \$557 million in personal income, nearly \$900 million in business revenue, and \$24 million in state and local taxes.

Extended Impact



The extended impact is the economic impact as a result of DoD contracts in the area. These figures do not account for DoD grants, which have a sizable impact on the state's economy. Because of the large number of contracts, the extended impact of TNG is nearly 6,500 jobs, \$313 million in labor income, \$1.4 billion in business revenue, and \$41 million in local and state taxes.

Broader Impact



The broader impact of the Tennessee military is the impact as a result of DVA contracts and other assistance. The broader impact of TNG is almost 30,000 jobs, \$1.4 billion in labor income, \$3.9 billion in business revenue, and \$214 million in state and local taxes.

Cumulative Impact

The cumulative impact, or the sum of the core, extended, and broader impacts, is displayed in the table below.

	Current Presence			
	Cumulative Impact (\$Millions)			
	Employment	Personal Income	Business Revenue	Fiscal Impact
<i>Direct</i>	18,108	\$570.91	\$1,421.07	
<i>Indirect and Induced</i>	36,696	\$1,655.48	\$4,724.07	
Total	54,804	\$2,226.39	\$6,145.14	\$279.22

Together, the impact as a result of Tennessee defense and military-related activities is almost 55,000 jobs, \$2.2 billion in personal income, \$6.2 billion in business revenue, and \$279 million in state and local taxes.

What do these numbers mean? In Tennessee, defense and military-related economic activities account for nearly two percent of non-farm jobs, about one percent of personal income and total business revenues, and 1.3 percent of taxes collected.

Tennessee Military and Related Activities and Tennessee's Economic Snapshot

Economic Indicators	Accounted for by Tennessee Military and Related Activities	Tennessee's Economy	Tennessee Military and Related Activities as Percent of Tennessee's Economy
Employment	54,804	2,915,800	1.88%
Personal Income	\$2,226,386,831	\$266,260,300,000	0.84%
Business Revenue	\$6,145,140,000	\$613,445,207,000	1.00%
Taxes	\$279,215,264	\$22,112,202,687	1.26%

Source: IMPLAN, BLS, BERG

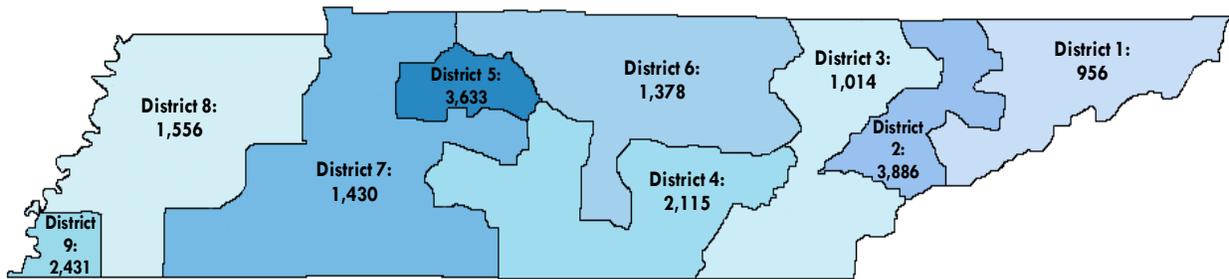
VI. Economic Impact of National Guard on Districts

BERC examined the impact of the Tennessee National Guard at the district level. To see a district's profile and geographic boundary, please see the appendix.

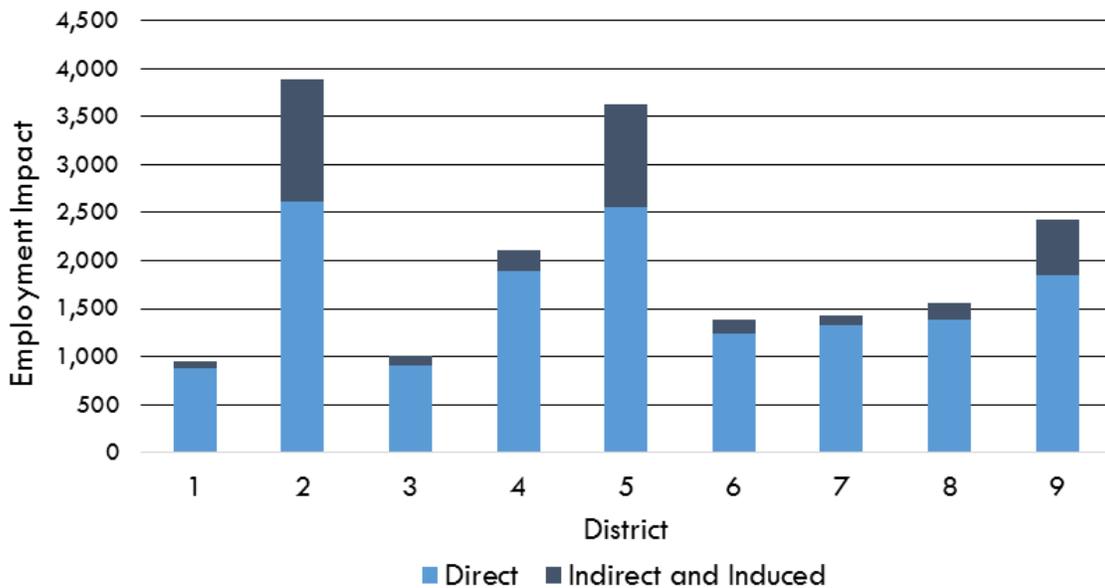
Core Economic Impact

Employment. Tennessee National Guard spending impacts, on average, 2,044 jobs across all nine congressional districts. Overall, it has created more than 18,000 jobs in Tennessee through direct, indirect, and induced effects. District two has the highest percentage of total TNG employment impact with 21 percent.

National Guard (Core) Total Employment Impact (Direct, Indirect, and Induced)

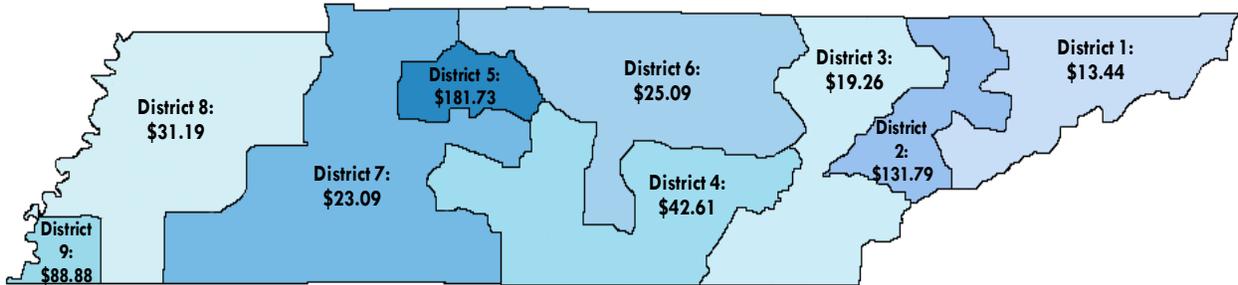


National Guard (Core) Employment Impact

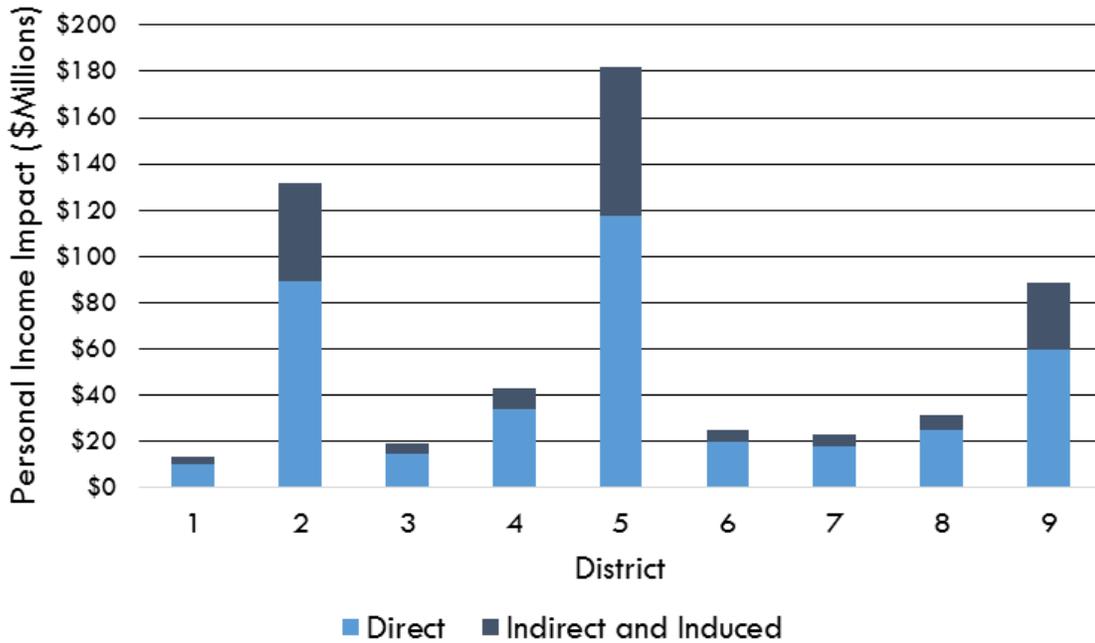


Personal Income. Labor income is also affected by TNG spending, with almost \$62 million on average among the districts and \$557 million total accruing to the state through labor income.

National Guard (Core) Total Personal Income Impact (Direct, Indirect, and Induced)

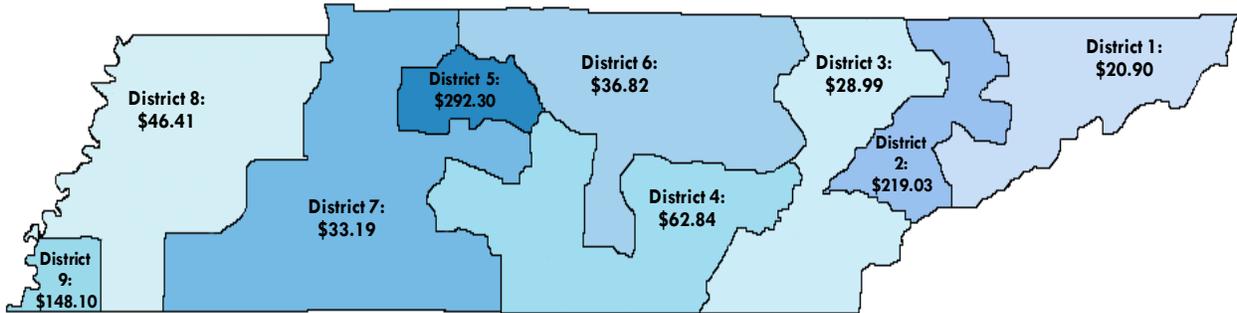


National Guard (Core) Personal Income Impact

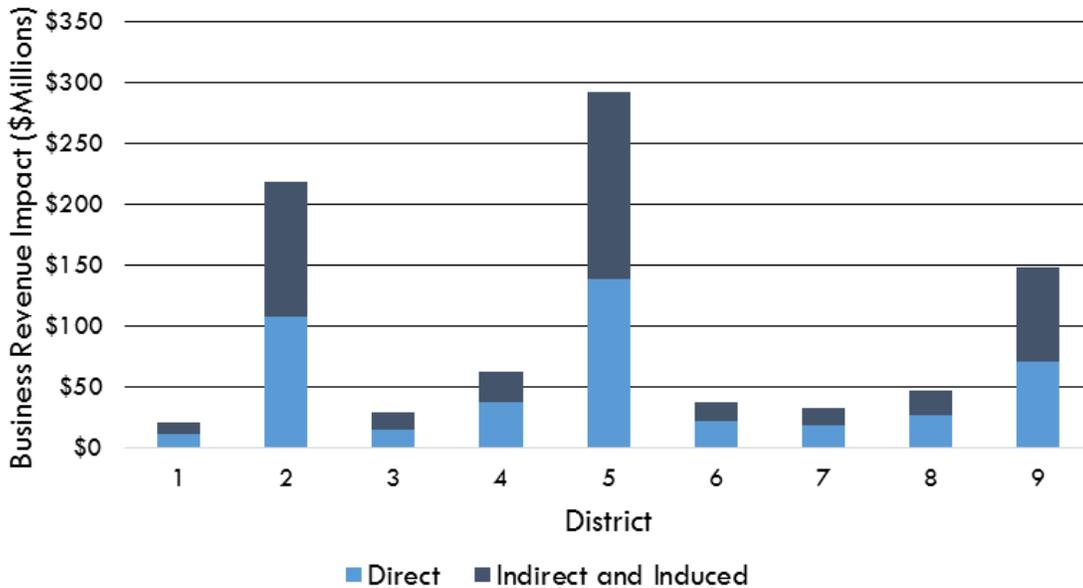


Business Revenue. TNG produces business revenues of almost \$889 million in the Tennessee economy. The fifth district has the largest amount of this business revenue with 33 percent of the total, followed by District 2 with 25 percent.

National Guard (Core) Total Personal Income Impact (Direct, Indirect, and Induced)

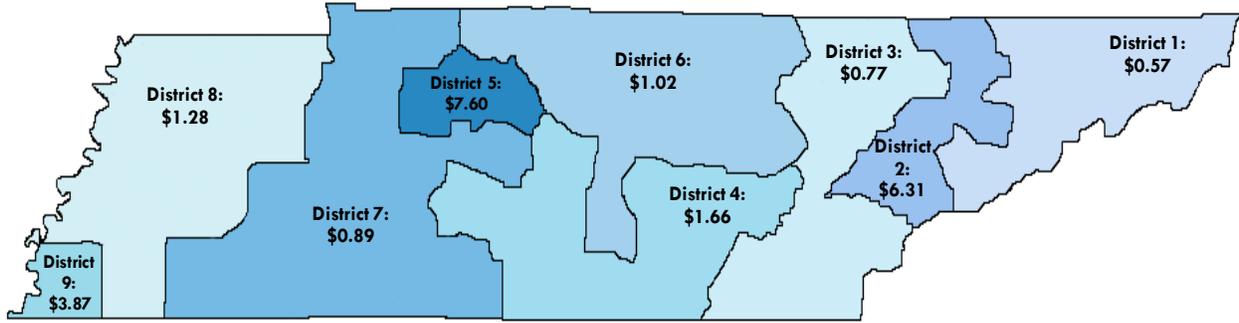


National Guard (Core) Business Revenue Impact



Fiscal Impact. Core National Guard fiscal impact for the state is \$24 million, made up primarily of sales tax revenue (\$14 million) as well as property taxes (\$6 million) and other taxes and fees (\$4 million). The National Guard's impact is at least half a million dollars in all districts; however, the largest impacts are in District 5 (\$7.6 million) and District 2 (\$6.3 million).

National Guard (Core) Total Fiscal Impact (Sales, Property, and Other Taxes and Fees)



National Guard (Core) Fiscal Impact



VII. Economic Impact of the Tennessee Military on Districts

Extended Impact

As defined in the study methodology, the extended impact is the effect of Department of Defense contracts in the state. A more detailed look at DoD contracts by district can be seen in the district templates in the appendix.

Employment. As a result of DoD contract spending, more than 6,000 jobs were created in Tennessee's economy, 3,400 as a direct result and almost 3,000 as a result of indirect and induced effects. Districts 4 and 9 received the largest concentrations for the state.

Employment	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Direct	422	351	496	719	131	573	97	118	565	3,471
Indirect	400	130	98	575	51	108	106	24	191	1,682
Induced	174	175	114	214	59	140	58	54	283	1,271
Total	996	656	709	1,508	241	820	261	196	1,039	6,424

Personal Income. In the state of Tennessee, nearly \$313 million in personal income was created as a result of DoD contracts. Of this, \$183 million was directly related to the Department of Defense. The highest individual impacts were seen in District 9 (\$71 million) and District 4 (\$56 million).

Labor Income	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Direct	\$15.24	\$20.65	\$19.39	\$27.98	\$11.29	\$25.96	\$7.77	\$10.02	\$44.69	\$183.00
Indirect	\$16.04	\$7.19	\$4.97	\$19.49	\$3.25	\$4.71	\$6.59	\$0.97	\$12.45	\$75.66
Induced	\$6.35	\$7.78	\$4.89	\$8.10	\$3.44	\$5.14	\$2.79	\$1.87	\$13.71	\$54.07
Total	\$37.64	\$35.62	\$29.25	\$55.58	\$17.98	\$35.80	\$17.15	\$12.86	\$70.85	\$312.73

Business Revenue. In terms of total business revenue, the broadest form of impact we measure, the state made almost \$1.4 billion, of which almost \$1 billion was directly related to the Department of Defense. Districts most greatly affected include Districts 4 and 1, receiving more than half a billion dollars combined.

Business Revenue	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Direct	\$204.17	\$75.25	\$56.76	\$321.08	\$32.37	\$58.73	\$97.92	\$13.77	\$112.95	\$972.99
Indirect	\$56.62	\$19.45	\$13.93	\$57.29	\$8.49	\$13.43	\$19.82	\$3.27	\$35.75	\$228.04
Induced	\$20.61	\$22.67	\$14.76	\$26.54	\$8.71	\$16.70	\$7.97	\$6.10	\$38.08	\$162.13
Total	\$281.39	\$117.37	\$85.45	\$404.91	\$49.57	\$88.85	\$125.70	\$23.14	\$186.78	\$1,363.16

Fiscal Impact. Fiscal impact as a result of DoD contract activities totals more than \$41 million in Tennessee. Fifty-nine percent of DoD's impact is a result of sales tax (\$24 million), followed by property tax (\$10 million) and other taxes (\$7 million).

DoD Spending Impact: Fiscal Impact (\$Millions)

Fiscal	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Sales	\$5.40	\$1.94	\$1.73	\$7.66	\$0.72	\$1.78	\$1.60	\$0.51	\$2.80	\$24.14
Property	\$2.26	\$0.82	\$0.73	\$3.21	\$0.31	\$0.75	\$0.67	\$0.22	\$1.19	\$10.15
Other Taxes and Fees	\$1.35	\$0.58	\$0.43	\$1.75	\$0.28	\$0.32	\$0.64	\$0.17	\$1.25	\$6.77
Total	\$9.01	\$3.34	\$2.88	\$12.61	\$1.31	\$2.85	\$2.91	\$0.90	\$5.23	\$41.06

Broader Economic Impact

This portion of this study takes a step back and analyzes Tennessee military from a broader perspective by including Veterans Affairs in the equation. We examine Veterans Affairs contracts and other forms of assistance to fully assess the Tennessee military's presence in the region.

Employment. In Tennessee, the Department of Veterans Affairs adds almost 30,000 jobs to the state economy, the large majority through the impact of other forms of assistance. The highest job creation is in District 9 (6,300 jobs) and District 1 (4,500 jobs).

VA Economic Impact: Employment

Employment	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Contracts: Total	143	359	66	64	416	716	109	109	223	2,204
Other Assistance: Total	4,354	2,611	2,062	2,148	2,759	2,397	3,743	1,621	6,083	27,779
VA Total	4,497	2,970	2,127	2,213	3,175	3,112	3,852	1,730	6,306	29,982

Personal Income. DVA impact on labor income is estimated at nearly \$1.4 billion for the entire state. Of this, other DVA assistance accounts for \$1.2 billion, and the direct, indirect, and induced effects of contracts account for \$107. The highest impact is in District 9, receiving a total of \$311 million, and District 5, with \$195 million.

VA Economic Impact: Personal Income (\$Millions)

Personal Income	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Contracts: Total	\$5.46	\$18.45	\$3.12	\$3.49	\$29.41	\$27.50	\$4.85	\$4.59	\$9.79	\$106.66
Other Assistance: Total	\$161.60	\$117.98	\$89.79	\$82.92	\$165.58	\$89.07	\$184.95	\$56.78	\$301.25	\$1,249.92
VA Total	\$167.06	\$136.44	\$92.91	\$86.41	\$194.99	\$116.57	\$189.80	\$61.36	\$311.03	\$1,356.58

Business Revenue. Tennessee’s total business revenue as a result of DVA totaled nearly \$4 billion. Ninety-three percent of this impact is a result of other assistance provided by DVA. The largest impact is seen in District 9, with a total of \$868 million, and District 7, with \$533 million.

VA Economic Impact: Business Revenue (\$Millions)

Business Revenue	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Contracts: Total	\$14.5	\$38.3	\$6.5	\$13.0	\$55.9	\$71.7	\$12.1	\$13.9	\$28.8	\$254.7
Other Assistance: Total	\$517.5	\$340.8	\$268.6	\$265.2	\$417.4	\$285.4	\$521.1	\$183.3	\$839.5	\$3,638.7
VA Total	\$532.0	\$379.1	\$275.1	\$278.2	\$473.2	\$357.0	\$533.2	\$197.2	\$868.3	\$3,893.4

Fiscal Impact. DVA fiscal impact totaled more than \$214 million, with over \$126 million in sales taxes, \$53 million in property taxes, and \$35 million in other taxes and fees added to the state economy. Receiving the largest amount of tax revenues for the state were District 9 (\$42 million) and District 1 (\$32 million).

VA Spending Impact: Fiscal Impact (\$Millions)

Fiscal	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Tennessee
Sales	\$19.05	\$11.90	\$9.11	\$10.21	\$12.66	\$12.55	\$18.52	\$7.59	\$24.55	\$126.13
Property	\$7.99	\$5.00	\$3.82	\$4.28	\$5.32	\$5.26	\$7.78	\$3.18	\$10.31	\$52.95
Other Taxes and Fees	\$4.83	\$3.36	\$2.47	\$2.65	\$3.95	\$3.20	\$5.28	\$1.88	\$7.48	\$35.09
Total	\$31.87	\$20.26	\$15.39	\$17.13	\$21.94	\$21.01	\$31.57	\$12.66	\$42.33	\$214.17

VIII. Scenario 1: Economic Impact of Relocating a Brigade outside Tennessee

Economic Impact of Relocating One Brigade. What would be the impact on the state economy if one brigade were relocated out of state? In this scenario, we examine the impact of relocation of the 278th Heavy Brigade Combat Team (HBCT), which has a presence in Tennessee from Memphis to East Tennessee. If the 278th HBCT were relocated, Tennessee would lose more than 3,500 jobs, nearly \$90 million in wages and salaries, and more than \$150 million in total business revenue. For this analysis, we assume the relocation would be out of state.

Economic Impact of Relocating the 278th HBCT			
Impact	Employment	Labor Income	Business Revenue
Direct Impact	-3000	-\$58,150,709	-\$71,987,221
Indirect Impact	-578	-\$28,346,013	-\$79,854,076
Total Impact	-3,578	-\$86,496,722	-\$151,841,297

Fiscal Impact	
Sales	-\$2,380,117
Property Tax	-\$1,000,260
Other Taxes & Fees	-\$593,309
Total Impact	-\$3,973,686

How does this compare to investments made in Tennessee? The losses to the Tennessee economy due a potential closure of the 278th Brigade are comparable to the following investment impacts from the past 10 years.

<p>278th Brigade Employment Impact: -3,578</p>	<p>Jack Daniels: 231 Eastman Chemical: 1,538 Nissan: 1,450</p>
<p>278th Brigade Labor Income Impact: -\$86.5 Million</p>	<p>Fresenius Medical Care: \$85.0 Million</p>
<p>278th Brigade Total Business Revenue Impact: -\$151.84 Million</p>	<p>Microport: \$81.7 Million Kruger: \$75.3 Million</p>
<p>278th Brigade Fiscal Impact: -\$3.97 Million</p>	<p>Mitsubishi Electric: \$3.75 Million</p>

IX. Scenario 2: Economic Impact of 10 Percent Spending Cut

Economic Impact of a 10 Percent Cut in TNG Operations. What would happen if Tennessee National Guard's operations were cut by 10 percent?

Core Impact			
	Current Impact	Impact with 10% Cut	Total Loss
Employment	18,399	16,559	-1,840
Labor Income	\$557,080,247	\$501,372,222	-\$55,708,025
Business Revenue	\$888,571,206	\$799,714,085	-\$88,857,121
Total Taxes	\$23,990,139	\$21,591,125	-\$2,399,014

If operations were cut, the state's economy would be greatly affected, losing more than 1,800 jobs, nearly \$56 million in personal income, almost \$89 million in business revenue, and over \$2 million in taxes.

Economic Impact of a 10 Percent Cut in DoD Contracts. What would happen if the Department of Defense cut contracts by 10 percent in Tennessee?

Extended Impact			
	Current Impact	Impact with 10% Cut	Total Loss
Employment	6,424	5,781	-642
Personal Income	\$312,729,450	\$281,456,505	-\$31,272,945
Business Revenue	\$1,363,162,381	\$1,226,846,143	-\$136,316,238
Total Taxes	\$41,057,157	\$36,951,441	-\$4,105,716

If DoD contracts were cut, the state would lose more than 600 jobs, \$31 million in labor income, over \$136 million in business revenue, and \$4 million in taxes.

Economic Impact of a 10 Percent Cut in DVA Contracts and Grants. What would happen if DVA cut contracts and other assistance by 10 percent in Tennessee?

Broader Impact			
	Current Impact	Impact with 10% Cut	Total Loss
Employment	29,982	26,984	-2,998
Personal Income	\$1,356,577,136	\$1,220,919,422	-\$135,657,714
Business Revenue	\$3,893,405,174	\$3,504,064,657	-\$389,340,517
Total Taxes	\$214,167,968	\$192,751,171	-\$21,416,797

If DVA contracts and other assistance were cut, the state would lose nearly 3,000 jobs, almost \$136 million in labor income, over \$389 million in business, and more than \$21 million in taxes.

Cumulative Loss. If every area (core, extended, and broader) experienced a 10 percent cut, the state’s economy would drastically change, with a loss of more than 5,400 jobs, \$223 million in personal income, \$615 million in business revenue, and \$28 million in local and state taxes.

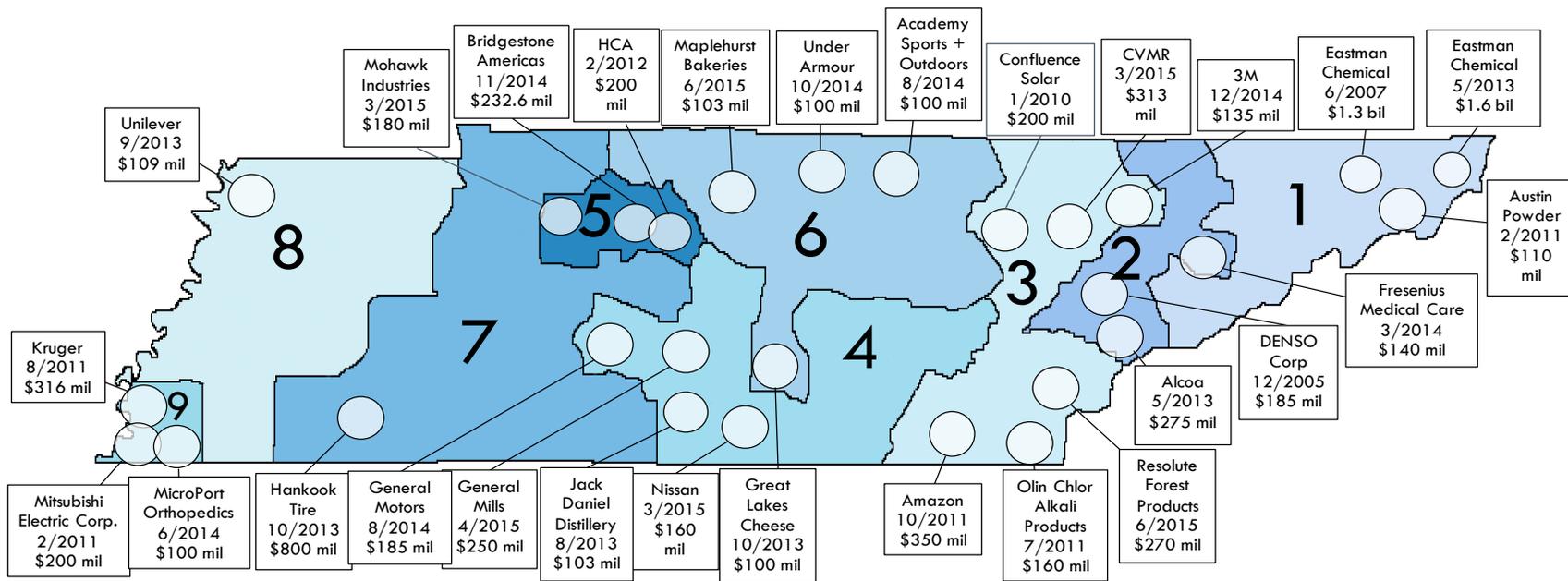
Future Scenarios: Cumulative Loss (\$Millions)

	Employment	Personal Income	Business Revenue	Fiscal Impact
Total	-5,480	-\$222,638,683	-\$614,513,876	-\$27,921,526

X. Investments Impact

BERC collected data on major investments in Tennessee within the past 10 years.

This map shows the announced private sector investments in Tennessee over the past 10 years by congressional district. Presenting these investments helps us to compare the private sector's investment activities with district-level National Guard, DoD, and DVA investments. It is important to note figures on the map represent announced investment amount (direct) rather than the total economic impact of each announced investment. For a detailed district-level economic impact comparison, please see the appendix.



Major Investments in Tennessee since 2005

Company Name	Amount Invested	Total Impact	Total Incentives
Amazon	\$350,000,000	3,500 new jobs	No sales tax collection until 2014
Confluence Solar	\$200,000,000	250 new jobs	Job training assistance, infrastructure development, and two tax credits, which could total \$20 to \$30 million over the life of the project
3M	\$135,000,000	100 new jobs	Training and tax incentives and infrastructure upgrades
Alcoa	\$275,000,000	200 new jobs, 400 construction jobs	Training money incentives and road improvements
DENSO Corporation	\$185,000,000	500 new jobs	\$3 million state grant for construction and training, also local property tax breaks
Olin Chlor Alkali Products	\$160,000,000	estimated 400 construction workers	\$41 million of tax-exempt variable rate Recovery Zone Facility bonds
Great Lakes Cheese	\$100,000,000	200 new jobs	Property tax breaks over the next 20 years
Bridgestone Americas Inc.	\$232,600,000	607 new jobs	\$50 million in incentives
HCA	\$200,000,000	155 new jobs	\$66 million in city incentives and \$7.5 million in state incentives for new employees, plus job grants
Mohawk Industries	\$180,000,000	320 new jobs	
Austfin Powder	\$110,000,000	80 new jobs	Tax breaks and other state and local government incentives
Fresenius Medical Care	\$140,000,000	665 new jobs	\$3.9 million in county tax incentives
General Motors	\$185,000,000	create or retain 1,800 jobs	Possible \$166 million incentive package
Resolute Forest Products	\$270,000,000	105 new jobs	A training grant for its workforce
Hankook Tire Company	\$800,000,000	1,800 new jobs	Total of \$120 million in incentives
The Jack Daniel Distillery	\$103,000,000	94 new jobs	Incentive package details still being worked out
Academy Sports + Outdoors	\$100,000,000	700 new jobs	
CVMR	\$313,000,000	620 new jobs	\$292 million in personal property not taxed for 14 years
General Mills	\$250,000,000	117 new jobs	\$2.9 million in tax incentives
Nissan	\$160,000,000	1,000 new jobs	\$35 million grant
Kruger	\$316,000,000	100 new jobs	15-year payment-in-lieu-of-taxes abatements saving \$45.4 million in county and city taxes
Mitsubishi Electric Corporation	\$200,000,000	275 new jobs	\$11 million state grant, \$1 million county grant, infrastructure work, proposed city and county property tax freeze of \$41 million over 15 years
MicroPort Orthopedics Inc.	\$100,000,000	171 new jobs	
Eastman Chemical Company	\$1,600,000,000	300 new jobs	\$30 million in economic incentives, \$15 million grant for construction of the new office building, \$5 million FastTrack Infrastructure Development grant, and \$10 million for training
Eastman Chemical Company	\$1,300,000,000	2,000 new and current jobs	\$100 million in tax credits over 10 years
Unilever	\$108,700,000	1,000 new jobs	\$8.6 million tax incentives over 10 years
Maplehurst Bakeries	\$102,800,000	147 new jobs	6-year abatement for real and personal property, \$2.1 million property-tax abatement on \$51.5 million and \$1.1 million personal-property abatement on \$34.7 million.
Under Armour Inc.	\$100,000,000	1,500 new jobs	\$6.75 million in state funds incentives

XI. Comparative Perspective on Force Strength

How does Tennessee compare with other states in terms of force strength and military-related contracts and grants? This chapter provides a brief assessment of how force strength is associated with federal monetary flow in the form of Department of Defense (DoD) contracts and Veterans Affairs (VA) contracts and grants. Before introducing the rankings, it is important to note we extracted data from several sources and years to construct the comparison tables.

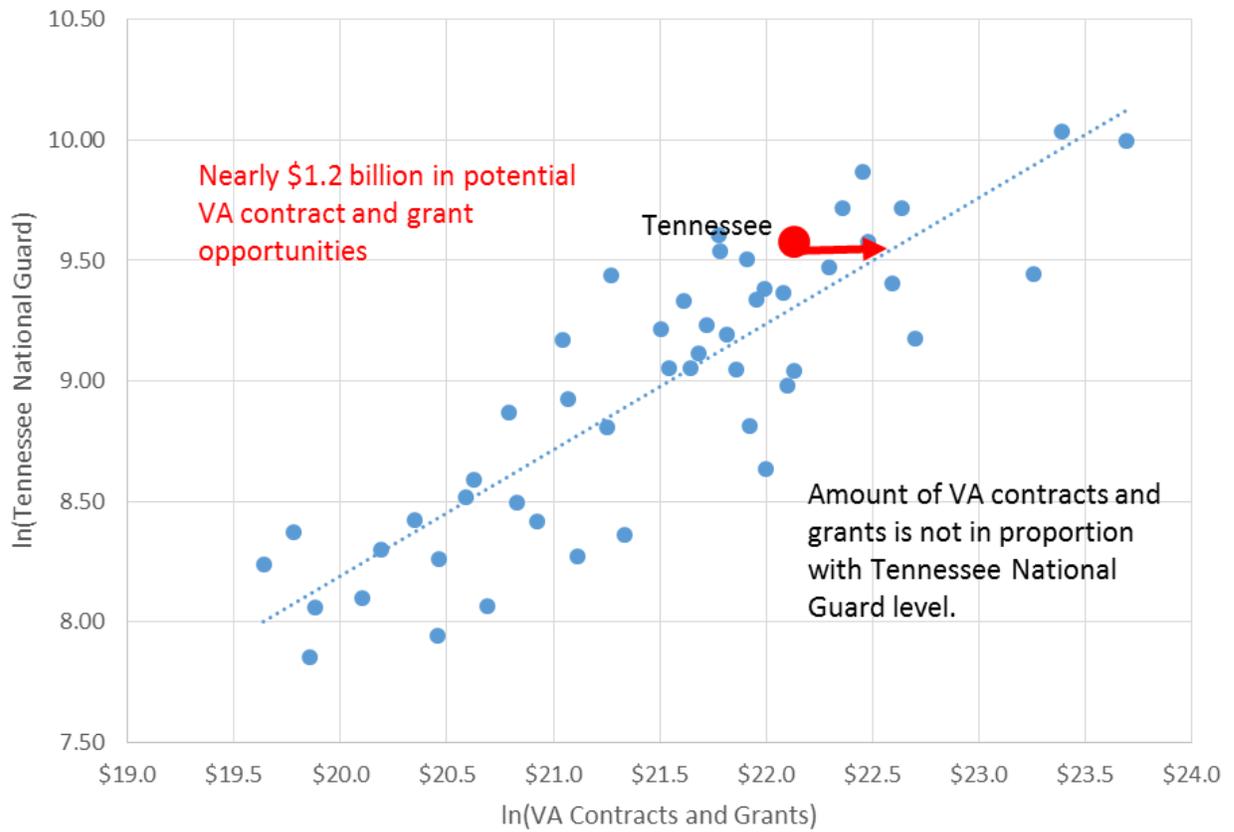
National Guard. Tennessee has the seventh-largest National Guard among 50 states, but it ranks 33rd in DoD contracts and 12th in VA contracts and grants.

Force Strength			Department of Defense			Veterans Affairs		
Rank	State	Strength	Rank	State	Total Awarded	Rank	State	Total Awarded
1	TEXAS	22557	1	CALIFORNIA	\$30,535,617,665	1	CALIFORNIA	\$19,440,611,742
2	CALIFORNIA	21525	2	VIRGINIA	\$29,520,613,328	2	TEXAS	\$14,362,773,677
3	PENNSYLVANIA	19272	3	TEXAS	\$29,399,861,916	3	FLORIDA	\$12,559,762,073
4	OHIO	16584	4	MARYLAND	\$12,729,173,790	4	VIRGINIA	\$7,220,225,887
5	NEW YORK	16503	5	CONNECTICUT	\$12,089,014,773	5	NEW YORK	\$6,760,122,653
6	INDIANA	14834	32	MAINE	\$1,401,585,031	11	WASHINGTON	\$4,093,946,862
7	TENNESSEE	14272	33	TENNESSEE	\$1,341,484,419	12	TENNESSEE	\$4,089,434,718
8	GEORGIA	14224	34	UTAH	\$1,294,973,254	13	ARIZONA	\$3,953,145,762
9	MINNESOTA	13717	35	IOWA	\$1,143,743,025	14	MICHIGAN	\$3,885,007,793
10	ALABAMA	13352	36	NEW HAMPSHIRE	\$1,123,131,145	15	COLORADO	\$3,578,951,654
11	ILLINOIS	12898	37	NEW MEXICO	\$1,079,401,831	16	MISSOURI	\$3,550,971,392
12	FLORIDA	12395	38	KANSAS	\$849,984,745	17	SOUTH CAROLINA	\$3,421,843,046
13	NORTH CAROLINA	12110	39	OREGON	\$768,818,570	18	MARYLAND	\$3,314,219,717

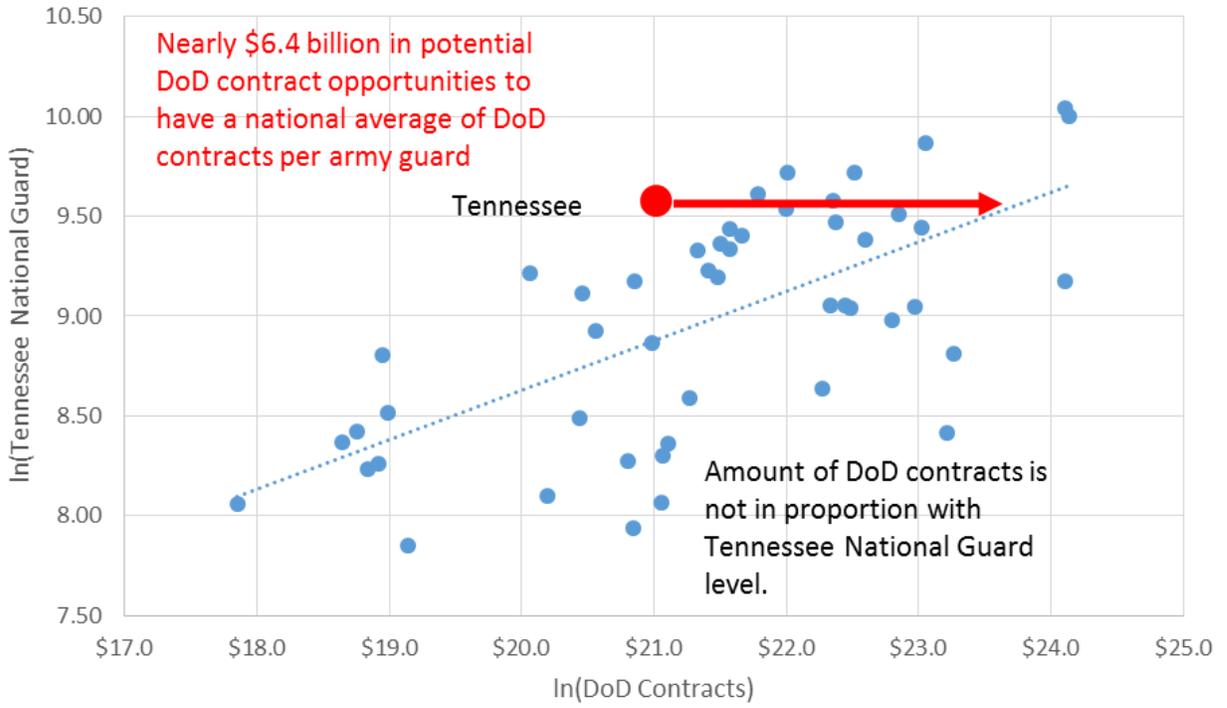
As the chart above demonstrates, based on National Guard figures, Tennessee is dramatically underserved in terms of VA contracts and grants and DoD contracts. As highlighted in the methodology section, *BERC does not imply that the size of the Tennessee National Guard is correlated with other military activities; however, it is apparent from the literature that these two components are interconnected.* Assuming there is a connection between National Guard and VA activities on one hand and National Guard and DoD contracts on the other, per National Guard member, Tennessee receives \$284,562 in VA contracts and grants, compared to \$364,460 for the United States, and \$93,347 in DoD contracts, versus \$532,872 for the nation. Assuming grants

and contracts follow force strength, there is a great opportunity for Tennessee to strategize and capture additional DoD contracts in the amount of nearly \$6.4 billion.

Tennessee National Guard vs. VA Contracts and Grants

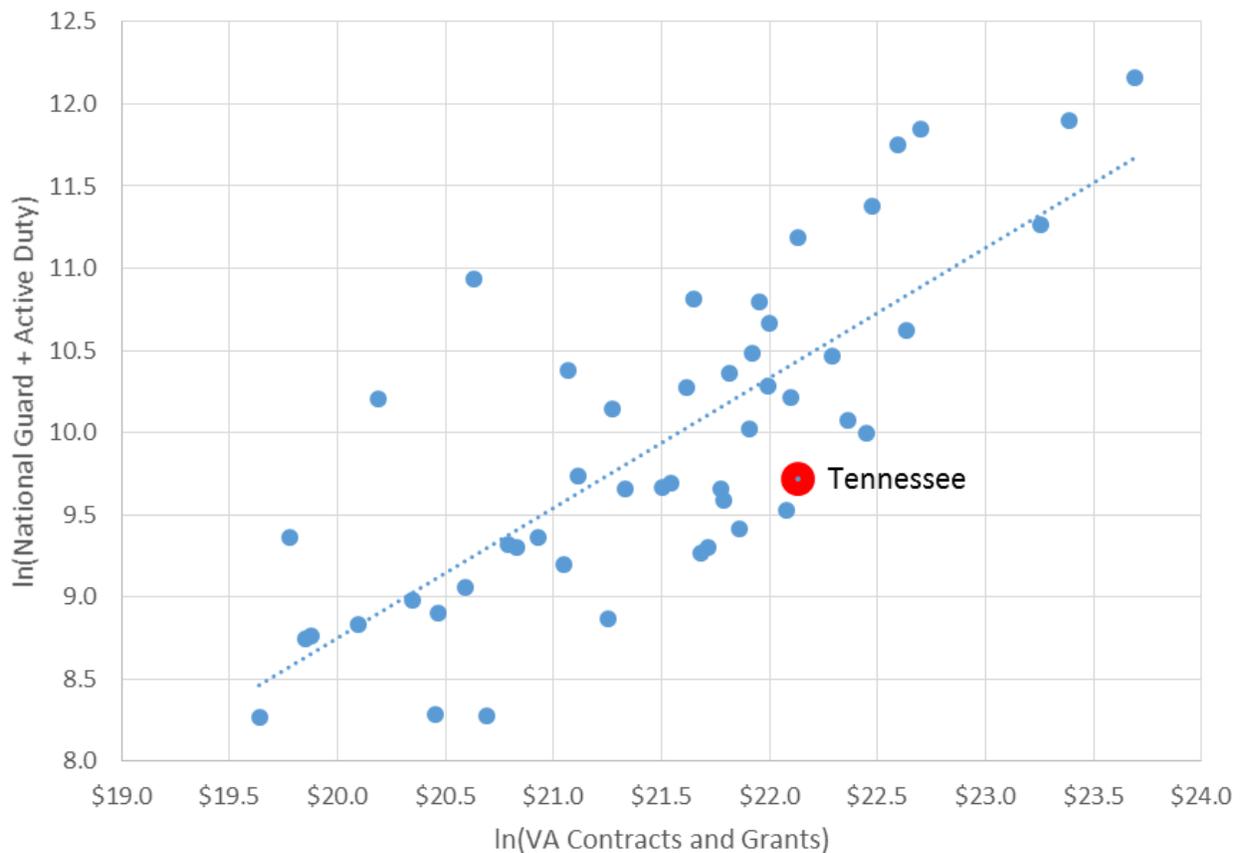


Tennessee National Guard vs. DoD Contracts

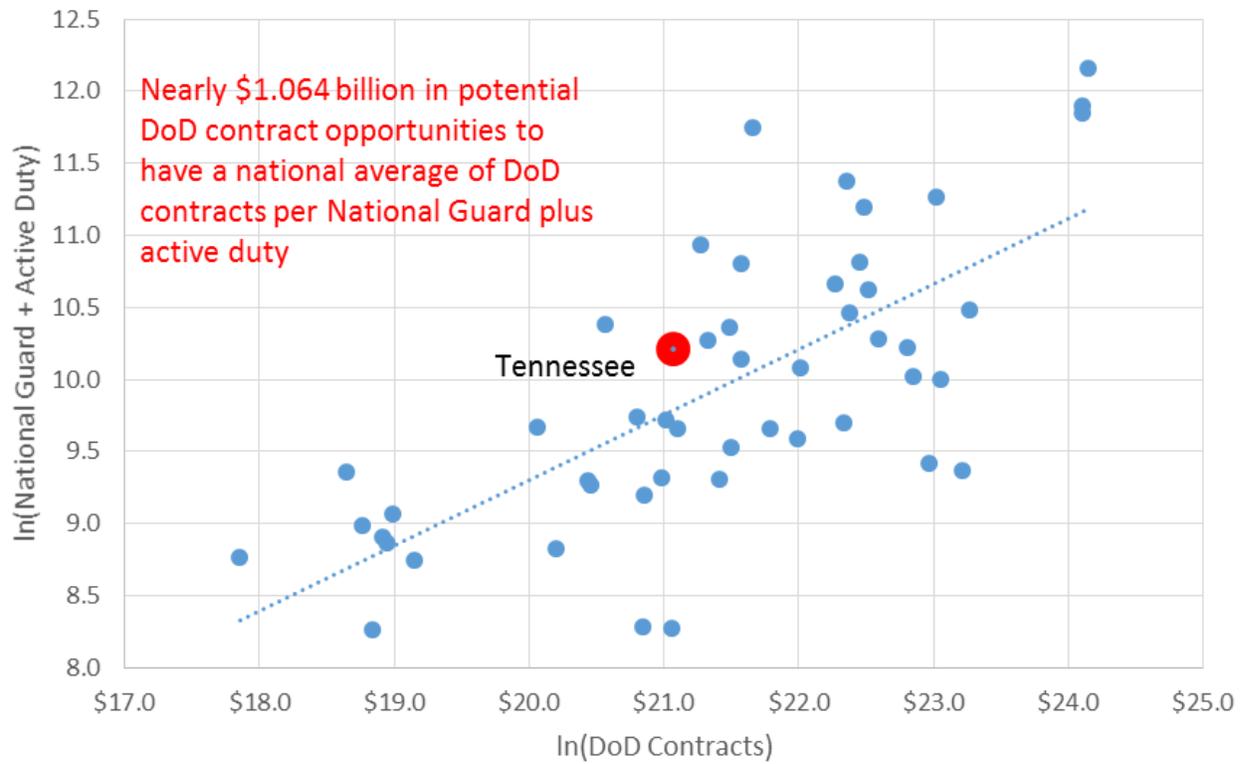


National Guard plus Active Duty. In this segment, we further expand the force strength category to include active duty forces. When we combine National Guard and active duty, Tennessee ranks 26th in force strength. Compared with its force strength in this category, Tennessee receives more VA contracts and grants than the national average. However, the same cannot be said about DoD grants: Tennessee received \$80,959 per National Guard plus active duty member in DoD contracts in 2015 versus the national average of \$145,171. If Tennessee had received DoD contracts at the national average in 2015, it would have received an additional \$1.064 billion in federal contracts.

National Guard plus Active Duty vs.
VA Contracts and Grants



National Guard plus Active Duty vs. DoD Contracts



COMPARATIVE PERSPECTIVE ON FORCE STRENGTH, DoD CONTRACTS, AND VA CONTRACTS AND GRANTS					
State	Department of Defense Contracts	Veterans Affairs Contracts and Grants	National Guard	Total Ready Reserve	Ready Reserve & Active Duty
Alabama	\$8,407,951,006	\$3,275,927,804	13,456	25,777	34,797
Alaska	\$1,414,483,352	\$586,360,535	4,020	5,876	28,805
Arizona	\$7,986,597,420	\$3,953,145,762	7,963	18,690	38,089
Arkansas	\$516,448,667	\$2,186,235,984	10,035	14,680	20,410
California	\$30,535,617,665	\$19,440,611,742	21,974	80,519	249,339
Colorado	\$4,715,831,157	\$3,578,951,654	5,628	17,630	54,915
Connecticut	\$12,089,014,773	\$1,224,666,338	4,524	8,078	15,218
Delaware	\$206,522,701	\$419,291,364	2,566	5,540	9,253
Florida	\$9,966,961,072	\$12,559,762,073	12,597	47,049	112,204
Georgia	\$5,096,441,412	\$5,781,091,766	14,481	36,868	109,485
Hawaii	\$1,725,431,241	\$910,043,847	5,373	10,711	61,289
Idaho	\$177,020,778	\$876,338,325	4,991	7,168	10,798
Illinois	\$5,235,474,188	\$4,805,922,534	12,963	31,838	53,870
Indiana	\$2,887,393,479	\$2,868,579,942	14,887	24,219	25,044
Iowa	\$1,143,743,025	\$1,380,050,188	9,626	14,533	14,801
Kansas	\$849,984,745	\$1,413,652,083	7,526	13,705	38,374
Kentucky	\$5,611,258,808	\$2,519,643,202	8,543	15,608	56,830
Louisiana	\$1,831,517,267	\$2,438,778,555	11,298	20,838	38,442
Maine	\$1,401,585,031	\$967,093,045	3,186	4,951	5,691
Maryland	\$12,729,173,790	\$3,314,219,717	6,733	20,717	49,656
Massachusetts	\$9,452,328,440	\$3,119,077,641	8,499	18,867	22,651
Michigan	\$2,177,128,797	\$3,885,007,793	11,660	21,917	23,980
Minnesota	\$3,569,982,888	\$2,895,344,940	13,882	23,373	24,123
Mississippi	\$2,335,250,188	\$1,732,312,054	12,568	19,505	32,316
Missouri	\$6,506,170,258	\$3,550,971,392	11,889	28,122	45,385
Montana	\$163,737,918	\$772,638,695	3,877	5,915	9,389
Nebraska	\$749,152,637	\$1,112,843,028	4,876	8,894	14,948
Nevada	\$1,463,057,516	\$1,841,452,682	4,273	8,625	20,008
New Hampshire	\$1,123,131,145	\$764,111,178	2,807	5,317	6,463
New Jersey	\$5,008,372,143	\$2,267,852,000	8,537	21,720	29,417
New Mexico	\$1,079,401,831	\$1,476,032,047	3,914	6,991	20,003
New York	\$6,005,140,518	\$6,760,122,653	16,598	37,859	62,165
North Carolina	\$2,556,462,850	\$6,492,395,698	12,159	29,817	144,471
North Dakota	\$125,627,722	\$389,655,528	4,312	5,520	12,837
Ohio	\$3,615,686,281	\$5,140,219,361	16,622	35,306	42,524
Oklahoma	\$2,141,061,053	\$2,975,189,541	9,819	18,275	40,188
Oregon	\$768,818,570	\$2,616,855,741	9,086	13,190	14,652
Pennsylvania	\$10,260,092,736	\$5,625,106,297	19,327	38,662	41,284
Rhode Island	\$590,638,546	\$535,698,134	3,291	4,995	8,535
South Carolina	\$2,338,901,634	\$3,421,843,046	11,356	23,037	60,684
South Dakota	\$140,508,727	\$686,242,231	4,556	5,748	9,165
Tennessee	\$1,341,484,419 [33]	\$4,089,434,718 [12]	14,371 [7]	24,510 [14]	26,709 [26]
Texas	\$29,399,861,916	\$14,362,773,677	22,888	75,131	199,927
Utah	\$1,294,973,254	\$1,072,672,664	7,106	13,972	18,029
Vermont	\$152,162,431	\$338,307,934	3,778	4,415	4,525
Virginia	\$29,520,613,328	\$7,220,225,887	9,640	35,595	165,294
Washington	\$5,848,332,402	\$4,093,946,862	8,444	24,957	89,029
West Virginia	\$168,933,661	\$1,699,051,854	6,667	10,159	10,588
Wisconsin	\$1,987,308,121	\$2,705,483,344	10,192	19,585	20,391
Wyoming	\$56,708,253	\$430,528,265	3,166	3,988	7,231

Source: USAspending.gov, data.gov, governing.com, DoD Manpower Data Center

Note: Numbers in brackets show state rankings for each category.

XII. Other Impacts of Tennessee National Guard

Emergency Management. Domestically, the Tennessee National Guard has participated in natural disasters ranging from middle Tennessee floods to east Tennessee wildfires. Outside Tennessee, they also helped during the Mississippi River flooding and Hurricane Irene. Recent examples include more than 1,200 personnel responding in the early days to Hurricane Katrina (2005), over 2,200 personnel serving during 2006–08 Operation JumpStart to secure the U.S. Southwest border, and more than 1,100 mobilizing during the May 2010 flooding response.

Safety and Security. In past years, TNG has provided safety and security details at presidential and gubernatorial inaugurations as well as on the southwest national border.

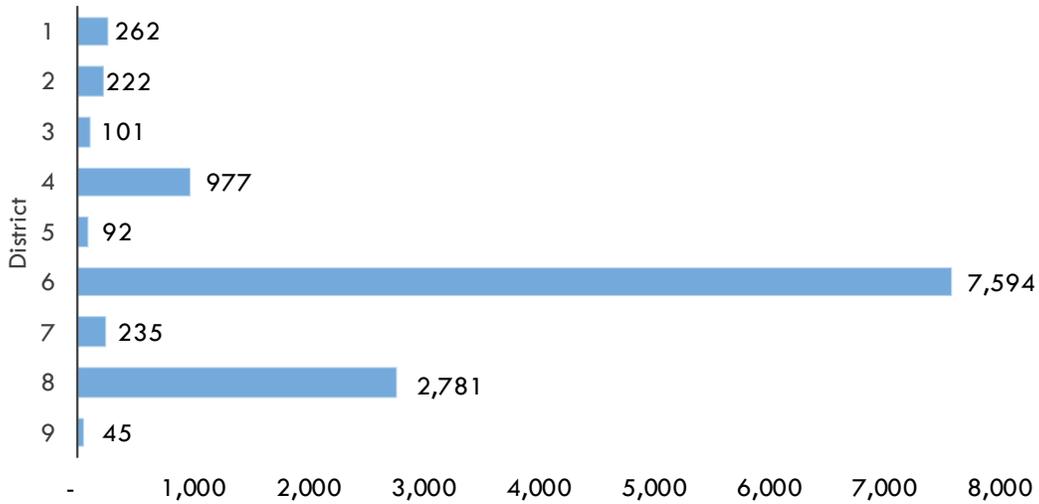
Youth Programs. The Child and Youth Program (CYM), designed for school-age dependents of National Guard Soldiers and Airmen, is meant to foster positive youth development through the four delivery areas of (1) Art, Recreation, and Leisure; (2) Sports, Fitness, and Health; (3) Life Skills, Citizenship, Character Development, and Leadership; and (4) Academic Support, Career Development, Mentoring, and Intervention. For the past 20 years, TNG has been offering a youth summer camp that helps to connect military children going through similar situations and offers them an outlet for growing as individuals.

Counterdrug Program. For a number of years, TNG has been involved in the Governor’s Task Force on Marijuana Eradication. During 185 missions conducted in 2012, there were over 500,000 drug seizures, more than 1,800 meth labs found or destroyed, and nearly 1,800 arrests made. The guardsmen in the Counterdrug Program also conduct drug-awareness programs at schools. Overall, the program is another way the National Guard works to make Tennessee a better, safer state.

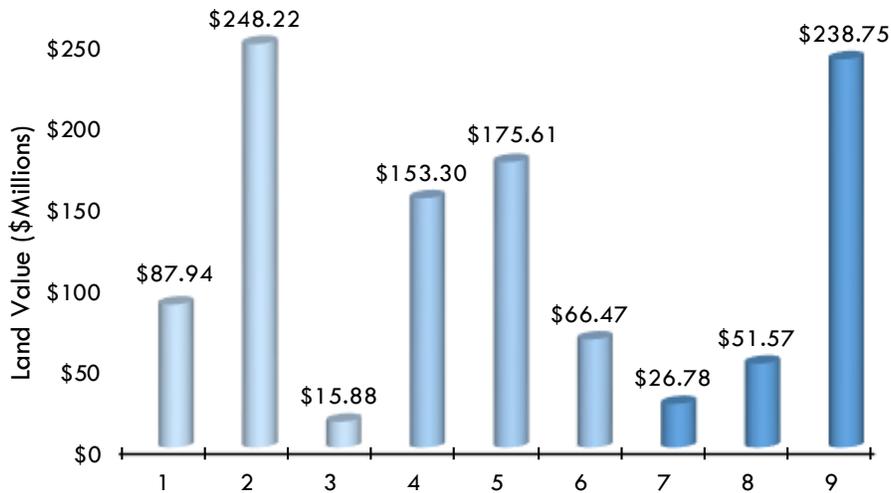
Education. Many soldiers and veterans take advantage of educational benefits. In FY 2015, 786 people utilized this benefit from the Army National Guard alone.

Land Ownership. Across Tennessee, the National Guard owns more than 12,000 acres of land, valued at a total of \$1.1 billion. Maintained by the National Guard, this land is protected and kept in its natural state.

National Guard Acreage by District



National Guard Land Value by District (\$Millions)



XIII. Conclusion

This study aims to show the Tennessee National Guard not only protects freedom and offers help in times of need but also is a major economic driver for the state. TNG has a significant impact in the areas of employment, business revenue, personal income, and state and local taxes. At the district level, the National Guard also plays an important role in local economic dynamics. In one district alone, TNG is directly responsible for almost 4,000 jobs.

Overall cuts in the Tennessee National Guard may affect some districts drastically. Some districts covered by this study have high unemployment rates. Without TNG, those rates would rise even more. We argue TNG's presence stimulates business dynamics through contracts and employee spending. Even a small cut in military spending could amount to a loss equivalent to some of the major investments the state strives to attract.

Tennessee has a great opportunity to increase its share of DVA assistance and contracts along with DoD grants and contracts per guardsman in proportion to the national average. In fact, Tennessee is at least \$1.064 billion behind the national average in terms of DoD contracts.

XIV. References

- Arik, Murat. (2015). *Economic Impact or Contribution*. London, England: Lexington Books.
- Ashby, A. (2011, February 14). "Mitsubishi Seeks \$34 Million in Tax Breaks." *Memphis Business Journal*. Retrieved from <http://www.bizjournals.com/memphis/news/2011/02/14/mitsubishi-seeks-34-million-in-tax.html>.
- Brown, Daniel T., and Edward C. Ratledge. (2011). "Economic Impact on Delaware's Economy: The Delaware National Guard." Center for Applied Demography and Survey Research, University of Delaware.
- Camp Shelby Joint Land Use Study, Center for Community and Economic Development and The University of Southern Mississippi. (2007). "Economic Impact of Camp Shelby."
- Chattanooga.com. (2005). "Maryville Firm to Add 500 Jobs in \$185 Million Expansion." Retrieved from <http://www.chattanooga.com/2005/12/5/76862/Maryville-Firm-To-Add-500-Jobs-In-185.aspx>.
- Colorado Department of Military and Veterans Affairs. (2015, April). *Report on the Comprehensive Military Value and Economic Impact of Department of Defense Activities in Colorado*. Denver, Colorado: Colorado Department of Military and Veteran Affairs.
- East Tennessee Military Affairs Council (ETMAC). (2014, April). *Military Economic Impact Analysis for East Tennessee*. Knoxville, TN: East Tennessee Military Affairs Council.
- Georgia Department of Defense, State of Georgia. (2014). *2014 Annual Report*. Marietta, GA: Public Affairs Office.
- Haston, Terry M., and George Holland. (2013). *Tennessee Military Department: Volunteer Traditions, Modern Missions: 2012-2013 Biennial Report*. Nashville: Tennessee National Guard J-5 and Joint Public Affairs Office.
- HeraldCourier.com. (2013, May 29). "Eastman Chemical Co. to Add 300 Jobs, Invest \$1.6 Billion." Retrieved from http://www.heraldcourier.com/news/local/eastman-chemical-co-to-add-jobs-invest-billion/article_23460c52-c8b8-11e2-80a8-0019bb30f31a.html
- KNS. (2013, May 2). "Alcoa Expansion Targets Auto Market, Adds 200 Jobs." Retrieved from <http://www.knoxnews.com/business/alcoa-expansion-targets-auto-market-adds-200-jobs-ep-358353184-355892241.html>.
- Nagl, John, and Travis Sharp. (2010). *An Indispensable Force: Investing in America's National Guard and Reserves*. Center for a New American Security.

Nevada Office of the Military. (2014). *National Guard of Nevada: Biennial Report 2013–2014*. Carson City, NV: Nevada National Guard Public Affairs Office.

Newsroom and Media Center. (2008, December 15). “Bredesen, Kisber Announce Hemlock Semiconductor Coming to Clarksville.” Retrieved from <http://www.tn.gov/news/24893>.

Newsroom and Media Center. (2009, February 26). “Bredesen, Kisber Announce New Investment in Renewable Energy Sector, Creating 500 New Jobs.” Retrieved from <http://www.tn.gov/news/25145>.

Newsroom and Media Center. (2010, July 21). “Governor Bredesen, Commissioner Kisber Announce Location of \$200 Million Solar Manufacturing Facility.” Retrieved from <http://www.tn.gov/news/28347>.

Newsroom and Media Center. (2011, February 22). “Governor Haslam, Commissioner Hagerty Announce New Investment in Greene County, TN.” Retrieved from <http://www.tn.gov/news/30433>.

Newsroom and Media Center. (2011, July 22). “Olin Chlor Alkali Products Break Ground on \$160 Million Manufacturing Facilities in Charleston, Tenn.” Retrieved from <https://www.tn.gov/news/31179>.

Newsroom and Media Center. (2011, August 19). “Governor Haslam, Commissioner Hagerty, Shelby County Officials Announce Expansion of Kruger.” Retrieved from <http://www.tn.gov/news/31305>.

Newsroom and Media Center. (2012, February 22). “Governor Haslam, Commissioner Hagerty, Mayor Dean Announce Expansion of HCA’s IT Operations.” Retrieved from <http://www.tn.gov/news/32081>.

Newsroom and Media Center. (2013, August 22). “Governor Haslam, Commissioner Hagerty Announce the Jack Daniel Distillery to Expand Lynchburg Operations.” Retrieved from <http://www.tn.gov/news/34700>.

Newsroom and Media Center. (2013, September 19). “Governor Haslam, Commissioner Hagerty Announce Unilever to Expand Covington Ice Cream Facility.” Retrieved from <https://www.tn.gov/news/34850>.

Newsroom and Media Center. (2013, October 14). “Governor Haslam, Commissioner Hagerty Announce Hankook Tire Co. Ltd. to Locate First U.S. Manufacturing Facility in Montgomery County.” Retrieved from <http://www.tn.gov/news/34979>.

Newsroom and Media Center. (2013, October 15). "Governor Haslam, Commissioner Hagerty Announce Great Lakes Cheese to Build First Southeast Manufacturing Facility in Middle Tennessee." Retrieved from <http://tn.gov/news/34983>.

Newsroom and Media Center. (2014, June 10). "Governor Haslam, Commissioner Hagerty Announce MicroPort Orthopedics Inc. to Expand Current Headquarter Operations in Shelby County." Retrieved from <http://www.tn.gov/news/35988>.

Newsroom and Media Center. (2014, March 6). "Governor Haslam, Commissioner Hagerty Announce Mohawk Industries to Open New Ceramic Tile Production and Distribution Facility in Dickson." Retrieved from <https://www.tn.gov/news/35542>.

Newsroom and Media Center. (2014, March 11). "Governor Haslam, Commissioner Hagerty Announce Fresenius Medical Care to Locate New Manufacturing Operations in Knox County." Retrieved from <https://www.tn.gov/news/35556>.

Newsroom and Media Center. (2014, August 8). "Governor Haslam, Commissioner Hagerty Announce Academy Sports Outdoors to Create 700 New Jobs in Cookeville." Retrieved September 22, 2015.

Newsroom and Media Center. (2014, August 27). "Governor Haslam, Commissioner Hagerty Announce General Motors to Invest \$185 Million in Engine Plant, Build New Cadillac SRX in Spring Hill." Retrieved September 22, 2015.

Newsroom and Media Center. (2014, October 2). "Governor Haslam, Commissioner Hagerty Announce Under Armour Inc. to Create 1,500 New Jobs in Mount Juliet." Retrieved from <https://www.tn.gov/news/36475>.

Newsroom and Media Center. (2014, November 11). "Governor Haslam, Commissioner Hagerty, Mayor Dean Announce Bridgestone Americas Headquarters to Relocate in Downtown Nashville." Retrieved from <https://www.tn.gov/news/36640>.

Newsroom and Media Center. (2015, March 13). "Governor Haslam, Commissioner Boyd Announce CVMR to Establish Global Headquarters in Oak Ridge." Retrieved from <http://www.tn.gov/news/7335>.

Newsroom and Media Center. (2015, March 17). "Governor Haslam, Commissioner Boyd Announce Nissan to Undergo Major Expansion at Smyrna Facility." Retrieved from <https://www.tn.gov/governor/news/14654>.

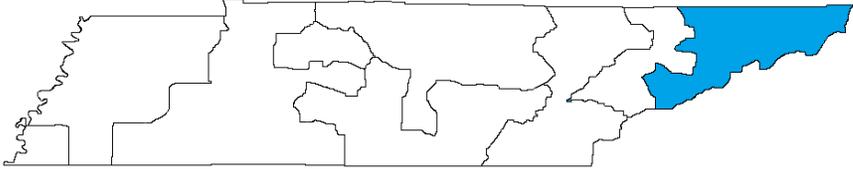
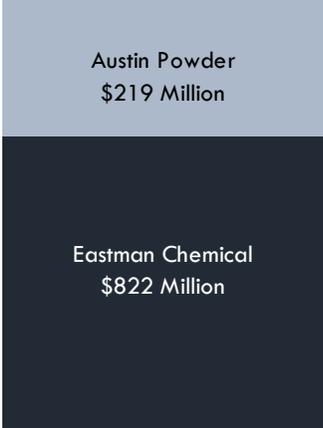
Newsroom and Media Center. (2015, April 18). "Governor Haslam, Commissioner Boyd Announce General Mills to Expand Current Operations in Rutherford County." Retrieved from <https://www.tn.gov/governor/news/13874>.

- Newsroom and Media Center. (2015, June 3). "Governor Haslam, Commissioner Boyd Announce Maplehurst Bakeries to Open New Manufacturing Facility in Wilson County." Retrieved from <https://www.tn.gov/ecd/news/15167>.
- New York State Military and Naval Affairs. (2015, February 10). New York National Guard Economic Impact 2014 [PowerPoint Slides]. Retrieved from https://dmna.ny.gov/NYNG_Economic_Impact.pdf.
- Oliver, Z., J. Levy, and J. DeBellis. (2013). *The Economic Impact of the Military on North Carolina*. Raleigh, NC: Labor and Economic Analysis Division, North Carolina Department of Commerce.
- Phang, Fui Ting. Center for Economic and Business Development, Southwestern Oklahoma State University. (2014). *Economic Impact of Oklahoma National Guard*. Weatherford, OK: Oklahoma National Guard.
- Regional Analysis Unit, Minnesota Department of Employment and Economic Development (DEED). (2003). *Economic Impact: Minnesota Air National Guard*.
- Rhode Island National Guard, Office of the Adjutant General, State of Rhode Island. (2014). *Annual Report 2014: Rhode Island National Guard*. Rhode Island.
- Reisinger, Brian. (2011, October 20). "Haslam Seals Amazon Tax Deal in Tennessee, Touts New Jobs." *Nashville Business Journal*. Retrieved from <http://www.bizjournals.com/nashville/news/2011/10/06/haslam-seals-amazon-deal-in-tennessee.html>.
- Rogersville Review*. (2007, July 19). "Eastman Pledges \$1.3 Billion Investment." Retrieved September 22, 2015.
- Technical Report, Center for Economic Development. (1992). "Economic Base Analysis Economic Impact of the Third Brigade Massachusetts Army National Guard." Amherst, MA: University of Massachusetts.
- Tri-County Economic Development Corporation. (2008). *New Kentucky Army National Guard Facility: Economic Impact Analysis—Boone County, Northern Kentucky*. Covington, KY: Tri-County Economic Development Corporation.
- Wang, Lu, Paul Carlsen, and David Clayton. (2012). *The Economic Impact of the Military Community in South Carolina*. Columbia, SC: Research Division, South Carolina Department of Commerce.

WBIR. (2015, June 1). "Paper Company to Spend \$270M in McMinn, Start Tissue Products Line."
Retrieved from <http://legacy.wbir.com/story/money/2015/06/01/paper-company-to-spend-270m-in-mcminn-start-tissue-produces-line/28324177/>.

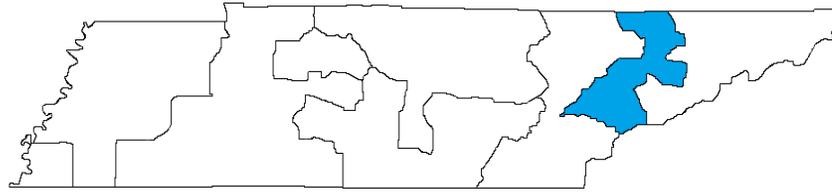
Wormuth, Christine E., Michele A. Flournoy, Patrick T. Henry, and Clark A. Murdock. (2006).
The Future of the National Guard and Reserves: The Beyond Goldwater-Nicholas Phase III Report. Washington, DC: Center for Strategic and International Studies.

XV. Appendix: Templates

District 1																																																																																																																																															
<p>Geographic Location</p>  <p>Counties: Carter, Cocke, Greene, Hamblen, Hancock, Hawkins, Johnson, Sevier, Sullivan, Unicoi, Washington</p>					<p>District Economic Profile</p> <p>Total Nonfarm Employment: 347,481</p> <p>Total Unemployed: 22,318</p> <p>Total Labor Force: 309,267</p> <p>Total Personal Income: \$10,527,042,629</p>			<p>What happens to the region if there is a 10% cut in the TN Military Department?</p> <p>Current Unemployment Rate: 7.22%</p> <p>Projected Unemployment Rate: 7.43%</p>																																																																																																																																							
<p>Economic Impact of the Tennessee Military Department</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="4">Current Economic Impact (\$Millions)</th> <th colspan="4">Future Scenarios if 10% Cut (\$Millions)</th> </tr> <tr> <th>Core Impact</th> <th>Extended Impact</th> <th>Broader Impact</th> <th>Cumulative Impact</th> <th>Core Impact</th> <th>Extended Impact</th> <th>Broader Impact</th> <th>Cumulative Loss</th> </tr> </thead> <tbody> <tr> <td>Employment</td> <td>956</td> <td>996</td> <td>4,497</td> <td>6,449</td> <td>-96</td> <td>-100</td> <td>-450</td> <td>-645</td> </tr> <tr> <td> Direct</td> <td>874</td> <td>422</td> <td></td> <td>1,296</td> <td>-87</td> <td>-42</td> <td></td> <td>-130</td> </tr> <tr> <td> Indirect and Induced</td> <td>82</td> <td>574</td> <td></td> <td>656</td> <td>-8</td> <td>-57</td> <td></td> <td>-66</td> </tr> <tr> <td>Personal Income</td> <td>\$13.44</td> <td>\$37.64</td> <td>\$167.06</td> <td>\$218.14</td> <td>-\$1.34</td> <td>-\$3.76</td> <td>-\$16.71</td> <td>-\$21.81</td> </tr> <tr> <td> Direct</td> <td>\$10.41</td> <td>\$15.24</td> <td></td> <td>\$25.65</td> <td>-\$1.04</td> <td>-\$1.52</td> <td></td> <td>-\$2.57</td> </tr> <tr> <td> Indirect and Induced</td> <td>\$3.03</td> <td>\$22.39</td> <td></td> <td>\$25.42</td> <td>-\$0.30</td> <td>-\$2.24</td> <td></td> <td>-\$2.54</td> </tr> <tr> <td>Business Revenue</td> <td>\$20.90</td> <td>\$281.39</td> <td>\$532.00</td> <td>\$834.29</td> <td>-\$2.09</td> <td>-\$28.14</td> <td>-\$53.20</td> <td>-\$83.43</td> </tr> <tr> <td> Direct</td> <td>\$11.49</td> <td>\$204.17</td> <td></td> <td>\$215.66</td> <td>-\$1.15</td> <td>-\$20.42</td> <td></td> <td>-\$21.57</td> </tr> <tr> <td> Indirect and Induced</td> <td>\$9.41</td> <td>\$77.23</td> <td></td> <td>\$86.64</td> <td>-\$0.94</td> <td>-\$7.72</td> <td></td> <td>-\$8.66</td> </tr> <tr> <td>Fiscal Impact</td> <td>\$0.57</td> <td>\$9.01</td> <td>\$31.87</td> <td>\$41.45</td> <td>-\$0.06</td> <td>-\$0.90</td> <td>-\$3.19</td> <td>-\$4.15</td> </tr> <tr> <td> Sales Tax</td> <td>\$0.34</td> <td>\$5.40</td> <td>\$19.05</td> <td>\$24.79</td> <td>-\$0.03</td> <td>-\$0.54</td> <td>-\$1.91</td> <td>-\$2.48</td> </tr> <tr> <td> Property Tax</td> <td>\$0.14</td> <td>\$2.26</td> <td>\$7.99</td> <td>\$10.39</td> <td>-\$0.01</td> <td>-\$0.23</td> <td>-\$0.80</td> <td>-\$1.04</td> </tr> <tr> <td> Other Taxes and Fees</td> <td>\$0.09</td> <td>\$1.35</td> <td>\$4.83</td> <td>\$6.27</td> <td>-\$0.01</td> <td>-\$0.14</td> <td>-\$0.48</td> <td>-\$0.63</td> </tr> </tbody> </table>										Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)				Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact	Extended Impact	Broader Impact	Cumulative Loss	Employment	956	996	4,497	6,449	-96	-100	-450	-645	Direct	874	422		1,296	-87	-42		-130	Indirect and Induced	82	574		656	-8	-57		-66	Personal Income	\$13.44	\$37.64	\$167.06	\$218.14	-\$1.34	-\$3.76	-\$16.71	-\$21.81	Direct	\$10.41	\$15.24		\$25.65	-\$1.04	-\$1.52		-\$2.57	Indirect and Induced	\$3.03	\$22.39		\$25.42	-\$0.30	-\$2.24		-\$2.54	Business Revenue	\$20.90	\$281.39	\$532.00	\$834.29	-\$2.09	-\$28.14	-\$53.20	-\$83.43	Direct	\$11.49	\$204.17		\$215.66	-\$1.15	-\$20.42		-\$21.57	Indirect and Induced	\$9.41	\$77.23		\$86.64	-\$0.94	-\$7.72		-\$8.66	Fiscal Impact	\$0.57	\$9.01	\$31.87	\$41.45	-\$0.06	-\$0.90	-\$3.19	-\$4.15	Sales Tax	\$0.34	\$5.40	\$19.05	\$24.79	-\$0.03	-\$0.54	-\$1.91	-\$2.48	Property Tax	\$0.14	\$2.26	\$7.99	\$10.39	-\$0.01	-\$0.23	-\$0.80	-\$1.04	Other Taxes and Fees	\$0.09	\$1.35	\$4.83	\$6.27	-\$0.01	-\$0.14	-\$0.48	-\$0.63	<p>Investments Business Revenue Impact as a Reference</p> 
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<p>*Core impact is the impact of the Tennessee Army and Air National Guard, Joint Force Headquarters, and TEMA.</p> <p>**Extended Impact is the impact of DoD contracts. This excludes grants.</p> <p>***Broader Impact is the impact of DVA contracts and other assistance.</p>																																																																																																																																															

District 2

Geographic Location



Counties: Blount, Claiborne, Grainger, Jefferson, Knox, Loudon

District Economic Profile
 Total Nonfarm Employment: 420,122
 Total Unemployed: 20,771
 Total Labor Force: 348,298
 Total Personal Income: \$13,921,891,325

What happens to the region if there is a 10% cut in the TN Military Department?
 Current Unemployment Rate: 5.96%
 Projected Unemployment Rate: 6.18%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact Loss	Extended Impact Loss	Broader Impact Loss	Cumulative Impact Loss
Employment	3,886	656	2,970	7,512	-389	-66	-297	-751
Direct	2,611	351		2,962	-261	-35		-296
Indirect and Induced	1,275	305		1,580	-128	-31		-158
Personal Income	\$131.79	\$35.62	\$136.44	\$303.85	-\$13.18	-\$3.56	-\$13.64	-\$30.39
Direct	\$89.42	\$20.65		\$110.07	-\$8.94	-\$2.07		-\$11.01
Indirect and Induced	\$42.36	\$14.97		\$57.33	-\$4.24	-\$1.50		-\$5.73
Business Revenue	\$219.03	\$117.37	\$379.09	\$715.49	-\$21.90	-\$11.74	-\$37.91	-\$71.55
Direct	\$107.33	\$75.25		\$182.58	-\$10.73	-\$7.53		-\$18.26
Indirect and Induced	\$111.71	\$42.12		\$153.83	-\$11.17	-\$4.21		-\$15.38
Fiscal Impact	\$6.31	\$3.34	\$20.26	\$29.91	-\$0.63	-\$0.33	-\$2.03	-\$2.99
Sales Tax	\$3.72	\$1.94	\$11.90	\$17.56	-\$0.37	-\$0.19	-\$1.19	-\$1.76
Property Tax	\$1.60	\$0.82	\$5.00	\$7.42	-\$0.16	-\$0.08	-\$0.50	-\$0.74
Other Taxes and Fees	\$1.04	\$0.58	\$3.36	\$4.98	-\$0.10	-\$0.06	-\$0.34	-\$0.50

Investments Business Revenue Impact as a Reference

CVMR	\$144 Million
Confluence Solar	\$58 Million
3M	\$73 Million
Resolute Forest Assessments	\$77 Million
Amazon	\$550 Million

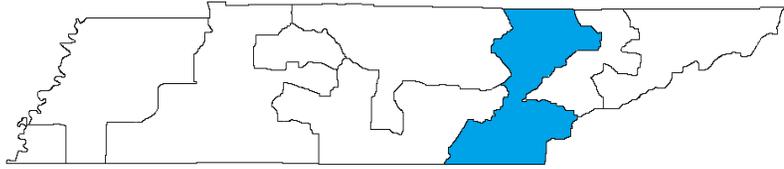
*Core impact is the impact of the Tennessee Army and Air National Guard, Joint Force Headquarters, and TEMA.

**Extended Impact is the impact of DoD contracts. This excludes grants.

***Broader Impact is the impact of DVA contracts and other assistance.

District 3

Geographic Location



Counties: Anderson, Bradley, Campbell, Hamilton, McMinn, Meigs, Monroe, Polk, Roane, Scott, Union

District Economic Profile

Total Nonfarm Employment: 451,787
 Total Unemployed: 24,985
 Total Labor Force: 358,484
 Total Personal Income: \$14,312,745,983

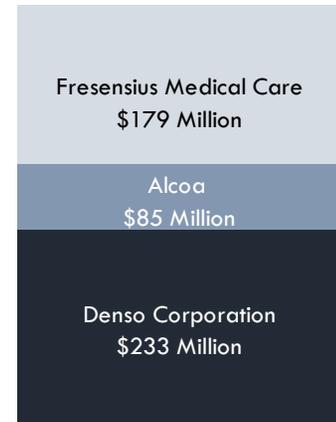
What happens to the region if there is a 10% cut in the TN Military Department?

Current Unemployment Rate: 6.97%
 Projected Unemployment Rate: 7.08%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact Loss	Extended Impact Loss	Broader Impact	Cumulative Loss
Employment	1,014	709	2,127	3,850	-101	-71	-213	-385
Direct	907	496		1,403	-91	-50		-140
Indirect and Induced	107	212		319	-11	-21		-32
Personal Income	\$19.26	\$29.25	\$92.91	\$141.42	-\$1.93	-\$2.93	-\$9.29	-\$14.14
Direct	\$14.61	\$19.39		\$34.00	-\$1.46	-\$1.94		-\$3.40
Indirect and Induced	\$4.65	\$9.86		\$14.51	-\$0.47	-\$0.99		-\$1.45
Business Revenue	\$28.99	\$85.45	\$275.13	\$389.57	-\$2.90	-\$8.55	-\$27.51	-\$38.96
Direct	\$15.29	\$56.76		\$72.05	-\$1.53	-\$5.68		-\$7.21
Indirect and Induced	\$13.70	\$28.69		\$42.39	-\$1.37	-\$2.87		-\$4.24
Fiscal Impact	\$0.77	\$2.88	\$15.39	\$19.04	-\$0.08	-\$0.29	-\$1.54	-\$1.90
Sales Tax	\$0.45	\$1.73	\$9.11	\$11.28	-\$0.05	-\$0.17	-\$0.91	-\$1.13
Property Tax	\$0.19	\$0.73	\$3.82	\$4.74	-\$0.02	-\$0.07	-\$0.38	-\$0.47
Other Taxes and Fees	\$0.13	\$0.43	\$2.47	\$3.03	-\$0.01	-\$0.04	-\$0.25	-\$0.30

Investments Business Revenue Impact as a Reference



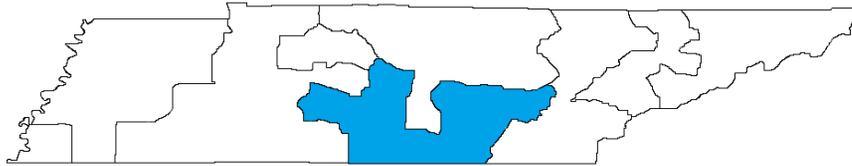
*Core impact is the impact of the Tennessee Army and Air National Guard, Joint Force Headquarters, and TEMA.

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***Broader Impact is the impact of DVA contracts and other assistance.

District 4

Geographic Location



Counties: Bedford, Bledsoe, Franklin, Grundy, Lincoln, Marion, Marshall, Maury, Rhea, Rutherford, Sequatchie, Van Buren, Warren

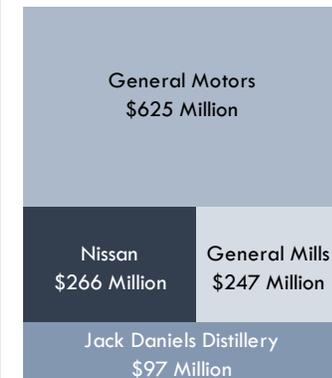
District Economic Profile
 Total Nonfarm Employment: 319,458
 Total Unemployed: 19,473
 Total Labor Force: 316,344
 Total Personal Income: \$11,842,491,886

What happens to the region if there is a 10% cut in the TN Military Department?
 Current Unemployment Rate: 6.16%
 Projected Unemployment Rate: 6.34%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact Loss	Extended Impact Loss	Broader Impact	Cumulative Loss
Employment	2,115	1,508	2,213	5,836	-212	-151	-221	-584
Direct	1,893	719		2,612	-189	-72		-261
Indirect and Induced	222	789		1,011	-22	-79		-101
Personal Income	\$42.61	\$55.58	\$86.41	\$184.60	-\$4.26	-\$5.56	-\$8.64	-\$18.46
Direct	\$33.90	\$27.98		\$61.88	-\$3.39	-\$2.80		-\$6.19
Indirect and Induced	\$8.71	\$27.59		\$36.30	-\$0.87	-\$2.76		-\$3.63
Business Revenue	\$62.84	404.91	\$278.19	\$745.94	-\$6.28	-\$40.49	-\$27.82	-\$74.59
Direct	\$37.01	321.08		\$358.09	-\$3.70	-\$32.11		-\$35.81
Indirect and Induced	\$25.82	83.83		\$109.65	-\$2.58	-\$8.38		-\$10.97
Fiscal Impact	\$1.66	\$12.61	\$17.13	\$31.40	-\$0.17	-\$1.26	-\$1.71	-\$3.14
Sales Tax	\$0.99	\$7.66	\$10.21	\$18.85	-\$0.10	-\$0.77	-\$1.02	-\$1.89
Property Tax	\$0.42	\$3.21	\$4.28	\$7.91	-\$0.04	-\$0.32	-\$0.43	-\$0.79
Other Taxes and Fees	\$0.25	\$1.75	\$2.65	\$4.64	-\$0.03	-\$0.17	-\$0.26	-\$0.46

Investments Business Revenue Impact as a Reference



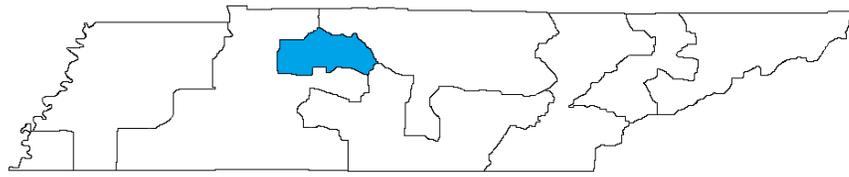
*Core impact is the impact of the Tennessee Army and Air National Guard, Joint Force Headquarters, and TEMA.

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***Broader Impact is the impact of DVA contracts and other assistance.

District 5

Geographic Location



Counties: Cheatham, Davidson, Dickson

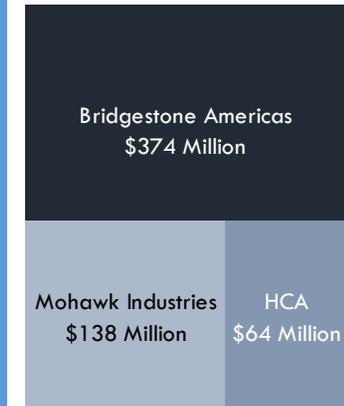
District Economic Profile
 Total Nonfarm Employment: 63,2248
 Total Unemployed: 20,445
 Total Labor Force: 397,192
 Total Personal Income: \$19,165,241,931

What happens to the region if there is a 10% cut in the TN Military Department?
 Current Unemployment Rate: 5.15%
 Projected Unemployment Rate: 5.33%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Loss	Extended Loss	Broader Loss	Cumulative Loss
Employment	3,633	241	3,175	7,049	-363	-24	-318	-705
Direct	2,565	131		2,696	-257	-13		-270
Indirect and Induced	1,068	110		1,178	-107	-11		-118
Personal Income	\$181.73	\$17.98	\$194.99	\$394.70	-\$18.17	-\$1.80	-\$19.50	-\$39.47
Direct	\$117.49	\$11.29		\$128.78	-\$11.75	-\$1.13		-\$12.88
Indirect and Induced	\$64.24	\$6.69		\$70.93	-\$6.42	-\$0.67		-\$7.09
Business Revenue	\$292.30	\$49.57	\$473.25	\$815.12	-\$29.23	-\$4.96	-\$47.33	-\$81.51
Direct	\$139.35	\$32.37		\$171.72	-\$13.94	-\$3.24		-\$17.17
Indirect and Induced	\$152.94	\$17.20		\$170.14	-\$15.29	-\$1.72		-\$17.01
Fiscal Impact	\$7.60	\$1.31	\$21.94	\$30.85	-\$0.76	-\$0.13	-\$2.19	-\$3.09
Sales Tax	\$4.40	\$0.72	\$12.66	\$17.79	-\$0.44	-\$0.07	-\$1.27	-\$1.78
Property Tax	\$1.85	\$0.31	\$5.32	\$7.48	-\$0.19	-\$0.03	-\$0.53	-\$0.75
Other Taxes and Fees	\$1.35	\$0.28	\$3.95	\$5.58	-\$0.14	-\$0.03	-\$0.40	-\$0.56

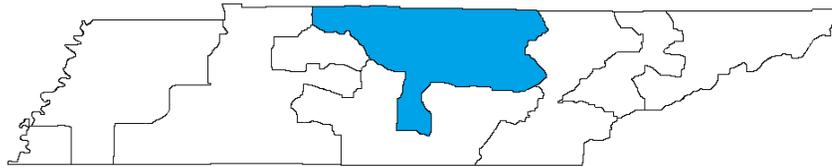
Investments Business Revenue Impact as a Reference



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District 6

Geographic Location



Counties: Cannon, Clay, Coffee, Crockett, Cumberland, Dekalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Robertson, Smith, Sumner, Trousdale, White, Wilson

District Economic Profile
 Total Nonfarm Employment: 328,335
 Total Unemployed: 21,146
 Total Labor Force: 338,189
 Total Personal Income: \$11,712,251,599

What happens to the region if there is a 10% cut in the TN Military Department?
 Current Unemployment Rate: 6.25%
 Projected Unemployment Rate: 6.41%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact Loss	Extended Impact	Broader Impact	Cumulative Loss
Employment	1,378	820	3,112	5,310	-138	-82	-311	-531
Direct	1,242	573		1,815	-124	-57		-182
Indirect and Induced	136	248		384	-14	-25		-38
Personal Income	\$25.09	\$35.80	\$116.57	\$177.46	-\$2.51	-\$3.58	-\$11.66	-\$17.75
Direct	\$20.00	\$25.96		\$45.96	-\$2.00	-\$2.60		-\$4.60
Indirect and Induced	\$5.10	\$9.85		\$14.95	-\$0.51	-\$0.99		-\$1.50
Business Revenue	\$36.82	\$88.85	\$357.05	\$482.72	-\$3.68	-\$8.89	-\$35.71	-\$48.27
Direct	\$21.44	\$58.73		\$80.17	-\$2.14	-\$5.87		-\$8.02
Indirect and Induced	\$15.38	\$30.13		\$45.51	-\$1.54	-\$3.01		-\$4.55
Fiscal Impact	\$1.02	\$2.85	\$21.01	\$24.88	-\$0.10	-\$0.29	-\$2.10	-\$2.49
Sales Tax	\$0.61	\$1.78	\$12.55	\$14.93	-\$0.06	-\$0.18	-\$1.25	-\$1.49
Property Tax	\$0.26	\$0.75	\$5.26	\$6.28	-\$0.03	-\$0.08	-\$0.53	-\$0.63
Other Taxes and Fees	\$0.15	\$0.32	\$3.20	\$3.67	-\$0.02	-\$0.03	-\$0.32	-\$0.37

Investments Business Revenue Impact as a Reference

Great Lakes Cheese	\$276 Million
Under Armour Inc.	\$221 Million
Academy Sports + Outdoors	\$104 Million
Maplehurst Bakeries	\$26 Million

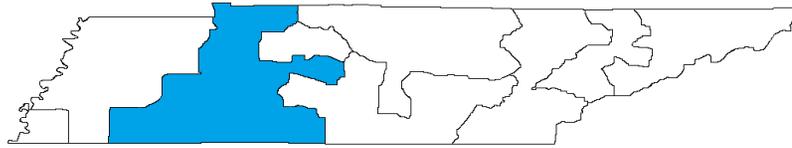
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District 7

Geographic Location



Counties: Benton, Chester, Decatur, Giles, Hardeman, Hardin, Henderson, Hickman, Houston, Humphreys, Lawrence, Lewis, McNairy, Montgomery, Perry, Stewart, Wayne, Williamson

District Economic Profile

Total Nonfarm Employment: 338,390
 Total Unemployed: 27,857
 Total Labor Force: 310,751
 Total Personal Income: \$25,934,956,730

What happens to the region if there is a 10% cut in the TN Military Department?

Current Unemployment Rate: 8.96%
 Projected Unemployment Rate: 9.14%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact	Extended Impact Loss	Broader Impact Loss	Cumulative Loss
Employment	1,430	261	3,852	5,543	-143	-26	-385	-554
Direct	1,321	97		1,418	-132	-10		-142
Indirect and Induced	109	164		273	-11	-16		-27
Personal Income	\$23.09	\$17.15	\$189.80	\$230.04	-\$2.31	-\$1.72	-\$18.98	-\$23.00
Direct	\$17.71	\$7.77		\$25.48	-\$1.77	-\$0.78		-\$2.55
Indirect and Induced	\$5.38	\$9.38		\$14.76	-\$0.54	-\$0.94		-\$1.48
Business Revenue	\$33.19	\$125.70	\$533.21	\$692.10	-\$3.32	-\$12.57	-\$53.32	-\$69.21
Direct	\$18.17	\$97.92		\$116.09	-\$1.82	-\$9.79		-\$11.61
Indirect and Induced	\$15.02	\$27.79		\$42.81	-\$1.50	-\$2.78		-\$4.28
Fiscal Impact	\$0.89	\$2.91	\$31.57	\$35.37	-\$0.09	-\$0.29	-\$3.16	-\$3.54
Sales Tax	\$0.52	\$1.60	\$18.52	\$20.64	-\$0.05	-\$0.16	-\$1.85	-\$2.06
Property Tax	\$0.22	\$0.67	\$7.78	\$8.67	-\$0.02	-\$0.07	-\$0.78	-\$0.87
Other Taxes and Fees	\$0.15	\$0.64	\$5.28	\$6.07	-\$0.02	-\$0.06	-\$0.53	-\$0.61

Investments Business Revenue Impact as a Reference

Hankook Tire Company
 \$603 Million

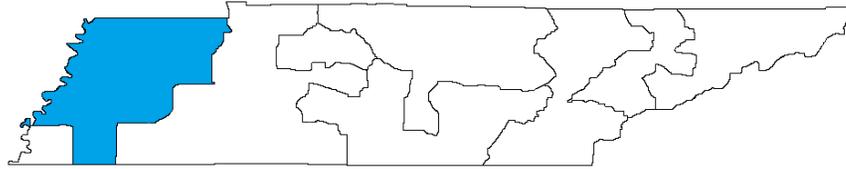
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District 8

Geographic Location



Counties: Carroll, Dyer, Fayette, Gibson, Haywood, Henry, Lake, Lauderdale, Madison, Obion, Tipton, Weakley

District Economic Profile

Total Nonfarm Employment: 226,356
 Total Unemployed: 16,978
 Total Labor Force: 203,311
 Total Personal Income: \$6,673,752,784

What happens to the region if there is a 10% cut in the TN Military Department?

Current Unemployment Rate: 8.35%
 Projected Unemployment Rate: 8.52%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact Loss	Extended Impact	Broader Impact	Cumulative Loss
Employment	1,556	196	1,730	3,482	-156	-20	-173	-348
Direct	1,380	118		1,498	-138	-12		-150
Indirect and Induced	176	78		254	-18	-8		-25
Personal Income	\$31.19	\$12.86	\$61.36	\$105.41	-\$3.12	-\$1.29	-\$6.14	-\$10.54
Direct	\$25.02	\$10.02		\$35.04	-\$2.50	-\$1.00		-\$3.50
Indirect and Induced	\$6.16	\$2.84		\$9.00	-\$0.62	-\$0.28		-\$0.90
Business Revenue	\$46.41	\$23.14	\$197.20	\$266.75	-\$4.64	-\$2.31	-\$19.72	-\$26.68
Direct	\$27.15	\$13.77		\$40.92	-\$2.72	-\$1.38		-\$4.09
Indirect and Induced	\$19.25	\$9.37		\$28.62	-\$1.93	-\$0.94		-\$2.86
Fiscal Impact	\$1.28	\$0.90	\$12.66	\$14.84	-\$0.13	-\$0.09	-\$1.27	-\$1.48
Sales Tax	\$0.77	\$0.51	\$7.59	\$8.88	-\$0.08	-\$0.05	-\$0.76	-\$0.89
Property Tax	\$0.32	\$0.22	\$3.18	\$3.72	-\$0.03	-\$0.02	-\$0.32	-\$0.37
Other Taxes and Fees	\$0.19	\$0.17	\$1.88	\$2.24	-\$0.02	-\$0.02	-\$0.19	-\$0.22

Investments Business Revenue Impact as a Reference



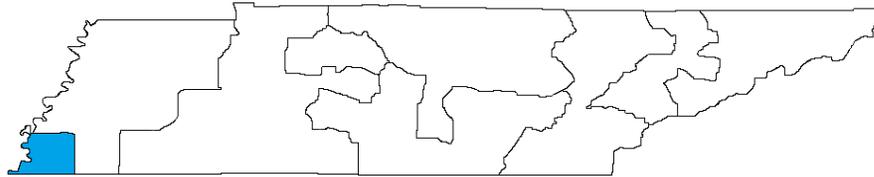
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***Broader Impact is the impact of DVA contracts and other assistance.

District 9

Geographic Location



Counties: Shelby

District Economic Profile
 Total Nonfarm Employment:
 637,808
 Total Unemployed:
 33,582
 Total Labor Force:
 427,588
 Total Personal Income:
 \$20,193,201,506

What happens to the region if there is a 10% cut in the TN Military Department?
 Current Unemployment Rate
 7.85%
 Projected Unemployment Rate:
 8.08%

Economic Impact of the Tennessee Military Department

	Current Economic Impact (\$Millions)				Future Scenarios if 10% Cut (\$Millions)			
	Core Impact	Extended Impact	Broader Impact	Cumulative Impact	Core Impact	Extended Impact	Broader Impact	Cumulative Loss
Employment	2,431	1,039	6,306	9,776	-243	-104	-631	-978
Direct	1844	565		2,409	-184	-57		-241
Indirect and Induced	587	474		1,061	-59	-47		-106
Personal Income	\$88.88	\$70.85	\$311.0	471	-\$8.89	-\$7.09	-\$31.10	-\$47.08
Direct	\$59.34	\$44.69		104	-\$5.93	-\$4.47		-\$10.40
Indirect and Induced	\$29.54	\$26.16		56	-\$2.95	-\$2.62		-\$5.57
Business Revenue	\$148.10	\$186.78	\$868.3	1,203	-\$14.81	-\$18.68	-\$86.83	-\$120.32
Direct	\$70.83	\$112.95		184	-\$7.08	-\$11.30		-\$18.38
Indirect and Induced	\$77.27	\$73.83		151	-\$7.73	-\$7.38		-\$15.11
Fiscal Impact	\$3.87	\$5.23	\$42.33	51	-\$0.39	-\$0.52	-\$4.23	-\$5.14
Sales Tax	\$2.24	\$2.80	\$24.55	30	-\$0.22	-\$0.28	-\$2.45	-\$2.96
Property Tax	\$0.94	\$1.19	\$10.31	12	-\$0.09	-\$0.12	-\$1.03	-\$1.24
Other Taxes and Fee	\$0.69	\$1.25	\$7.476	9	-\$0.07	-\$0.12	-\$0.75	-\$0.94

Investments Business Revenue Impact as a Reference



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