



ECONOMIC IMPACT ANALYSIS OF THE MILITARY IN ALABAMA

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Prepared For:



By:



Acknowledgements

This study represents a collaboration between the state of Alabama, the Alabama Military Stability Foundation, and its key military leaders throughout the state. Specifically, it is important to acknowledge the assistance of staff from the following organizations and individuals:

- Alabama Military Stability Foundation (MSF)
- Fort Rucker Army Base
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- Anniston Army Depot
- 187th Fighter Wing
- Birmingham Air National Guard
- Birmingham Army National Guard
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- Coast Guard Sector Mobile
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This analysis represents eight months of data collection and authentication work at the hands of various analysts and Alabama military installations as well as Thomas P. Miller & Associates (TPMA). Based on the data, there is confidence in the accuracy of the direct inputs and ultimate economic impact figures presented in this report. Any inadvertent errors and omissions observed in this analysis are solely the responsibility of TPMA.

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EXECUTIVE SUMMARY

Key Findings

Though 24th in the nation in terms of population, Alabama accounts for a disproportionate degree of the United States' defense activities. In FY16, Alabama ranked 13th in the United States for Department of Defense (DoD) contracts performed in-state; 12th in the number of national guard and reservists stationed in-state; and 12th in the number of civilian personnel. With all of this activity, the military was responsible for **\$21.0 billion in economic output** within the state in FY16. This represents **8.1% of Alabama's gross domestic product**.

The military impacts the state of Alabama through a multitude of funding streams. Sources of impact analyzed in this report include contracting of military installations and offices; grant awards issued by the DoD; spending of defense personnel (including active duty, National Guard members and reservists, and civilians); and transfer payments to retirees.

To put the military's impact on Alabama in perspective, other noteworthy industries in Alabama that individually contribute less to net economic activity include Commercial Banking; Light Truck and Utility Vehicle Manufacturing; and Electric Power Distribution. Furthermore, the **number of jobs created or supported by the military exceeds many of the state's single largest industries** including Elementary and Secondary Schools and Transportation Equipment Manufacturing.

As defense investment ripples throughout the state economy, many businesses and individuals receive increased income. For every \$100 invested by DoD, an additional \$79 of income is produced for other residents. In FY16, the military created or supported **210,564 jobs, generating \$13.0 billion in earnings for Alabama residents**. These activities do not just benefit citizens and private sector companies. Defense investments in Alabama also benefited the **federal government, which collected \$1.7 billion in taxes**, and Alabama's **state and local government entities, which collected \$991 million**.

Beyond these top-line highlights, additional insights are captured throughout this economic impact report. Following are some of the most significant details demonstrating the depth and breadth of the military's economic impact on Alabama.

- Based on data from various defense installations and the Defense Manpower Data Center (DMDC), the estimated number of military personnel living and working in Alabama in 2016 was **9,805 active duty; 17,756 National Guard members and reservists; and 33,068 civilians**. Additionally, 60,837 military retirees received pensions from DoD.¹

Statewide Economic Impact	
Total Economic Impact	\$21.0 Billion
Total Earnings	\$13.0 Billion
Total GDP	\$17.0 Billion
Percent of GDP	8.1%
Statewide Job Impact	
Total Job Impact	210,564
Active Duty Personnel	9,805
Civilians	33,068
Military Retirees	60,837
Statewide Fiscal Impact	
State & Local Taxes	\$991.0 Million
Federal Taxes	\$1.7 Billion

¹ To the extent possible, active duty, civilians, and retirees were classified according to place of residency, as place of residency is a better indication of where earnings are spent than place of employment.

- Outside of the federal government, industries that received the largest employment impact in FY16 included Scientific Research and Development Services (16,033 jobs); Retail- Food and Beverage Stores (7,499 jobs); and Real Estate (7,099 jobs).
- Contractors performing the largest-valued DoD contracts in FY16 included the Boeing Company (\$1.3 billion); Austal USA, LLC (\$860 million); Army Fleet Support, LLC (\$535 million); and Science Applications International Corporation (SAIC) (\$513 million).
- Defense-based economic impacts are broadly distributed across the state. However, the Huntsville and Fort Rucker Areas received the greatest proportional impacts. In the **Huntsville Area, 18.6% of net economic activity** (or GDP) is attributable to defense spending, and in the **Fort Rucker Area, the proportion is 11.8%**. In terms of individual counties, Madison and Dale receive the greatest shares of economic activity from defense spending, at 28.8% and 18.1%, respectively.
- The FY16 total economic output impact for each of the state’s seven regions are as follows:
 - Huntsville Area (Region 1): **\$11,869 million**
 - Fort Rucker Area (Region 6): **\$1,936 million**
 - Mobile Area (Region 7): **\$1,815 million**
 - Montgomery Area (Region 5): **\$1,315 million**
 - Birmingham Area (Region 4): **\$640 million**
 - Anniston Area (Region 2): **\$437 million**
 - Tuscaloosa Area (Region 3): **\$174 million**
- The FY16 total economic output impact for each of the state’s ten most defense-impacted counties are as follows:

Madison: \$10,566 million	Calhoun: \$273 million
Mobile: \$1,673 million	Tuscaloosa: \$148 million
Dale: \$1,136 million	Limestone: \$95 million
Montgomery: \$1,042 million	Talladega: \$62 million
Jefferson: \$446 million	Houston: \$54 million

Study Methods

The purpose of this study was to assess the economic impact of all military activity within the state of Alabama. Data were compiled on military spending, SBIR awards, military-related grants, personnel counts, retiree counts, and economic spending patterns to create inputs for final economic impact models. Once all counts of military activity were catalogued, economic impacts were calculated using IMPLAN — a national leader in economic modeling software. More details on study methods can be found in Appendix A.

1. ALABAMA MILITARY OVERVIEW

Introduction

Impacts of military activity ripple throughout the state of Alabama, from its military installations to its businesses and universities. These impacts revolve — first and foremost — around the state’s military bases. For example, the defense activity at Redstone Arsenal is the nucleus for a significant business and research cluster in the Huntsville Area. In addition, Alabama boasts National Guard bases in Birmingham; the Anniston Army Depot in Bynum; and aviation training facilities at Maxwell-Gunter AFB, Fort Rucker, and the Coast Guard Aviation Training Center in Mobile. In the past decade, the state has benefited from Base Realignment and Closure (BRAC) decisions bringing increased jobs to the Redstone Arsenal and Fort Benning, Georgia areas but the prospect of future realignment decisions mean that Alabama must be prepared for an uncertain future.

In addition to the military installations located throughout the state, Alabama is home to firms like Boeing, Austal USA, and SAIC. These firms, and many others, receive a variety of defense contracts, particularly in Research and Development, Engineering Services, and Ship Building. Overall, contractors performed an average of \$8.6 billion in defense contracts annually between FY13 and FY16.

Finally, the military delivers an impact in the paychecks it provides to active duty, civilians, reservists and National Guard members, and retirees. Recipients and their families significantly benefit their local economies by spending this income for local goods and services.²

Looking forward, the outlook for the military in Alabama is strong, but defense installations and industries always face the threat of impacts from BRAC. Alabama was a winner in the 2005 round of BRAC review, gaining the Army Materiel Command and jobs for the Missile Defense Agency at Redstone Arsenal, and gaining new residents in the Phenix City area to support the establishment of the Maneuver Center of Excellence at Fort Benning, Georgia. Though the current version of the Fiscal Year 2018 National Defense Authorization Act (NDAA) explicitly states that, “Nothing in this Act shall be construed to authorize an additional [BRAC] round,”³ the Department of Defense (DoD) published a report in October of 2017 which states that “The Department of Defense has 19 percent excess capacity using a FY 2012 force structure,” and concludes that, “Congress should authorize the Department to undertake a BRAC 2021 round.”⁴

² Related to this point, it is critical to note that military employees, civilians, and retirees are classified according to their place of residency, rather than their place of performance. The reason for this decision traces back to the purpose of this report. The primary concern of the AMSF is to quantify military economic impact. Methodologically speaking, the majority of a person’s paycheck is spent in and around their area of residence, rather than their area of employment.

³ 115th Congress. (2017). National Defense Authorization Act for Fiscal Year 2018. H.R. 2810. Sec. 2702. <https://www.congress.gov>

⁴ Department of Defense (2017). Infrastructure Capacity. October 2017. Page 2 and Page 4. Retrieved from FederalNewsRadio.com

The overview provided in this chapter highlights significant sources of impact either from DoD installations, DoD contractors, or supporting organizations. The statistics referenced in this Chapter have been fully quantified in the impact analysis that follows in Chapters 2 and 3. The metrics are simply called out here to present easily digestible highlights at the state level.

Military Institutions

The flagship of Alabama's defense economy is aerospace activity, centered on Redstone Arsenal in Huntsville. Redstone is the home of the U.S. Missile Defense Agency, the Missile & Space Intelligence Center, and the Army Space and Missile Defense Command. In addition to the space and missile defense activity that occurs at the base, the Huntsville area is home to the Marshall Space Flight Center, which provides research and development as well as construction facilities for NASA's space flight activities. These installations are the cornerstones of a broader aerospace economic cluster, including major contractors like Boeing and Lockheed Martin, and research and development activities through NASA, the University of Alabama at Huntsville, and Auburn University.⁵

Aviation training is another strength of the Alabama defense installations, which include the Army Aviation Center of Excellence at Fort Rucker, the Coast Guard Aviation Training Center in Mobile, and Air University at Maxwell-Gunter Air Force Base in Montgomery. These installations are supported by a variety of local contractors, including Airbus, Lockheed Martin, and Flight Safety, International.⁶

In addition to aviation training, several installations in the state specialize in military equipment repair or logistics. For example, Anniston Army Depot in Bynum provides repair, modifications, and upgrades to military vehicles. Anniston is also home to the Anniston Munitions Center and the Defense Logistics Agency, which store and ship defense material and equipment. As the home of the Army Materiel Command, Redstone Arsenal also hosts military logistics and materiel development activities. Two prominent contractors that work in this field include BAE Systems and General Dynamics.

Lastly, the defense institutions in Alabama support a wide variety of military and workforce training throughout the state. For example, Birmingham is home to Air National Guard and Army National Guard bases. In total, the state is home to eight Army National Guard units and five Air National Guard units. In addition to these units, Alabama has 27 Army Reserve facilities supporting 96 different units.⁷

⁵ Azok, D. (2017). Worldwide Demand Growing for Alabama-made Aerospace Products. <http://www.madeinalabama.com/2017/06/alabama-made-aerospace-products/>

⁶ Mann Jackson, N., Armstrong, J., Stakelum, L, & Leytham, T. (2015). Alabama's Defense Clusters. <http://www.businessalabama.com/Business-Alabama/May-2015/Alabamas-Defense-Clusters/>

⁷ U.S. Army Reserve (2017). FY2018 By the Number\$. Retrieved from <http://www.usar.army.mil/Featured/Ambassador-Program/Find-an-Ambassador/Alabama/>

Contracts

From Fiscal Year 2013 through Fiscal Year 2016, a total of \$33.9 billion in DoD contracts were performed within the state of Alabama. This represents 164,591 different contracts awarded to approximately 5,000 different firms. Over the four-year period, annual contract totals rose from \$7.9 billion in FY13 to \$8.8 billion in FY16. The top industries for which contracts were performed are shown in Table 1. Prominent industry activities include research and development, ship building, and engineering.

Table 1: Top 5 Industries for Contract Dollars Performed in Alabama, FY13-FY16⁸

NAICS Code	Industry Description	FY13-FY16 Total (\$ Billion)
541712	Research and Development in the Physical, Engineering, and Life Sciences	\$8.64
541711	Research and Development in Biotechnology	\$3.80
336611	Ship Building and Repairing	\$3.45
541330	Engineering Services	\$2.67
488190	Other Support Activities for Air Transportation	\$2.02

Among the roughly 5,000 firms receiving defense-related contracts during this period, approximately 750 received more than \$1 million in total contracts. The top 5 recipients of contracts are shown in Table 2. They are led by Boeing, Austal USA, and SAIC.

Table 2: Top 5 Organizations Performing Defense Contracts in Alabama, FY13-FY16⁹

Company	FY13-FY16 Total (\$ Billion)
Boeing Company	\$4.12
Austal USA, LLC	\$3.27
SAIC	\$2.33
Army Fleet Support LLC	\$2.01
Redstone Defense Systems	\$1.35

Understanding which divisions within DoD are awarding contracts is helpful, as it can indicate the ultimate customer to whom DoD contractors and subcontractors are providing products and services. Analyzing these contracting offices can indicate other areas of need that are being met by companies from outside of the state. Of all contracts performed within the state between FY13 and FY16, Redstone Arsenal awarded the most contracts, with \$14.0 billion total. This was followed by the Missile Defense Agency and Naval Sea Systems — as shown in Table 3. In total, 544 different offices awarded contracts that were performed in Alabama during this four-year period.

⁸ USAspending.gov (2017). DoD Prime Contracts Performed in Alabama.

⁹ USAspending.gov (2017). DoD Prime Contracts Performed in Alabama.

Table 3: Top 5 Contracting Offices Awarding Contracts Performed in Alabama, FY13-FY16¹⁰

Office	FY13-FY16 Total (in billions)
Redstone Arsenal	\$14.00
Missile Defense Agency, Huntsville	\$6.96
Naval Sea Systems, Washington Navy Yard (DC)	\$3.09
Air Force Materiel Command: Offutt AFB (NE)	\$1.18
Fort Rucker	\$0.76

The U.S. Army Aviation and Missile Research, Development, and Engineering Center (AMRDEC) is an R&D facility located at Redstone Arsenal. In addition to the employment and military research that it provides, the facility is a major source of contracts for research firms in the Huntsville area. Between FY13 and FY16, it provided a total of \$1.5 billion in contracts, and \$944 million of this total was in Research and Development industries.¹¹ Major recipients of these contracts included Torch Technologies Inc. (\$456 million), SAIC (\$356 million), and Intuitive Research and Technology Corporation (\$166 million).

Grants

Alabama also receives significant grant funding for activities performed within the state. Over the four fiscal year study period, \$255.6 million worth of grants were performed in Alabama, an average of \$63.9 million each year. Top recipients of these grants were the Alabama Military Department, which administers National Guard programs around the state; the University of Alabama at Birmingham (UAB), which performed a variety of research—particularly in the medical field; and the McClellan Development Authority, which received a few large grants for environmental services. Each of the top five grant recipients, alongside their four-year totals, are shown in Table 4.

Table 4: Top 5 Grant Recipients in Alabama, FY13-FY16

Grant Recipient	FY13-FY16 Total (in millions)
Alabama Military Department	\$142.2
University of Alabama at Birmingham	\$34.1
The McClellan Development Authority	\$29.5
Alabama Dept of Environmental Management	\$9.6
Technology Management Training Group, Inc.	\$8.2

¹⁰ USAspending.gov (2017). DoD Prime Contracts Performed in Alabama.

¹¹ USAspending.gov (2017). Includes NAICS codes starting with 5417.

SBIR

The Small Business Innovation Research (SBIR) program is a federal initiative that incentivizes business to participate in research and development. It provides competitive awards to small businesses to encourage them to create technical innovations with the potential for commercialization. In Alabama, \$114.6 million worth of SBIR funds were awarded from FY13 through FY16. The top industry categories for SBIR awards in Alabama were Research and Development in the Physical, Engineering, and Life Sciences; Other General Government Support; and National Security. The top recipients of this funding were CFD Research Corporation (\$26.5 million), Torch Technologies, Inc. (\$8.8 million), and Radiance Technologies, Inc. (\$5.9 million).

Universities and Innovation

Several Alabama universities also support military training efforts, including UAB's BRAVE Initiative, Auburn's Warrior Research Center, and Samford's Nursing School, which is helping veterans prepare for careers in nursing through a Department of Health and Human Services grant.¹² These universities are also among the entities who receive DoD support for research activities. Between FY13 and FY16, 341 patents were awarded to inventors located within Alabama or assigned to organizations located within Alabama as a result of Department of Defense-funded research. Top recipients of these patents included the UAB Research Foundation (100 patents), Auburn University (73 patents), and CFD Research Corporation (31 patents). The top patent classifications for these entities were "preparations for medical, dental, or toilet purposes" and "chemical or physical processes, e.g. catalysis, colloid chemistry; their relevant apparatus."¹³

¹² Stripling, K. (2015). Samford Receives \$1 Million Grant to Prepare Veterans as Nurses. Samford University. <https://www.samford.edu/news/2015/07/Samford-Receives-1-Million-Grant-to-Prepare-Veterans-as-Nurses>

¹³ Data from PatentsView.org (2017). <http://www.patentsview.org/query/>

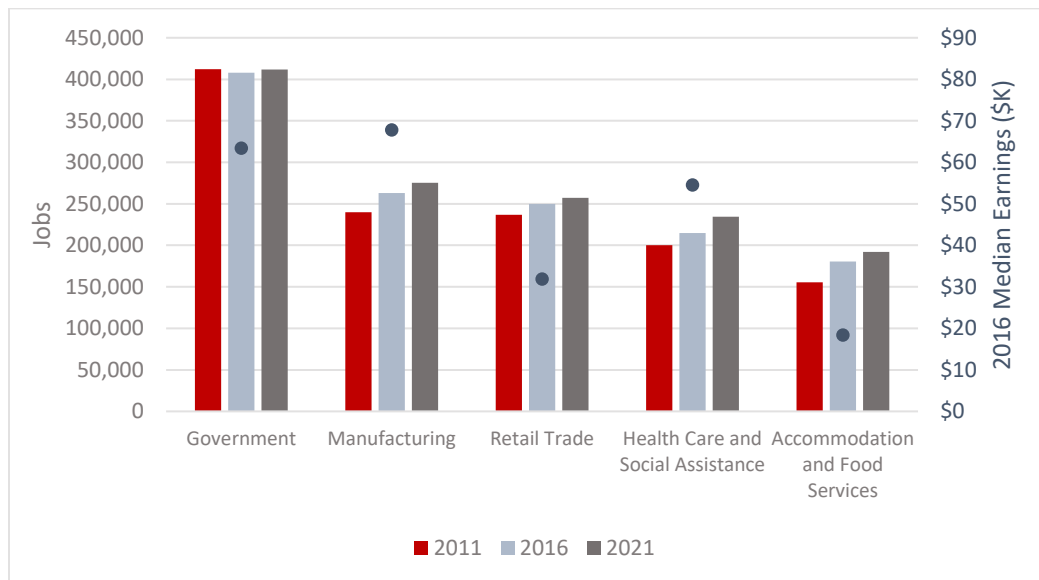
2. STATEWIDE DEFENSE IMPACT

State Overview

The state of Alabama hosts some of the United States' most notable military assets, including Fort Rucker in Dale County (Region 6); Maxwell-Gunter Air Force Base in Montgomery (Region 5); Redstone Arsenal in Huntsville (Region 1); and the Anniston Army Depot in Calhoun County (Region 2). One unique facet of Alabama's defense-based economy is its geographic distribution. Not only do each of the state's population centers feature a significant military presence, but many small towns and rural areas are home to a large concentration of personnel, retirees, and defense contractors.¹⁴

On the national landscape, in FY16, Alabama ranked 13th in terms of DoD contracts performed in the state. If examined on a per capita basis, the importance of the military on Alabama is even more apparent. According to the Office of Economic Adjustment, Alabama ranked 4th in the United States in FY15 for percentage of the state's GDP that is traceable to DoD funding.¹⁵

Figure 1: Alabama, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



Source: Emsi Employment, 2017.2

Alabama has grown in terms of both population and jobs in the past five years, though the state's 5% employment growth rate places it in the bottom quartile of all states in terms of job creation. The state's largest sectors include Government; Manufacturing; Retail Trade; Healthcare & Social Assistance; and Accommodation & Food Services. Within these industries, all sectors except for Government expanded over the past five years. Growth within Manufacturing and Health Care & Social Assistance are particularly notable, as each of these sectors offer median wages well above the state average (\$67,807 and \$54,506, respectively). Defense is integrally connected to all of the state's

¹⁴ Regionally specific effects are explored further in Chapter 3: Regional Defense Impact.

¹⁵ Office of Economic Adjustment, Defense Spending by State FY2015, <http://oea.gov/sites/default/files/files-508/States/Alabama.pdf>.

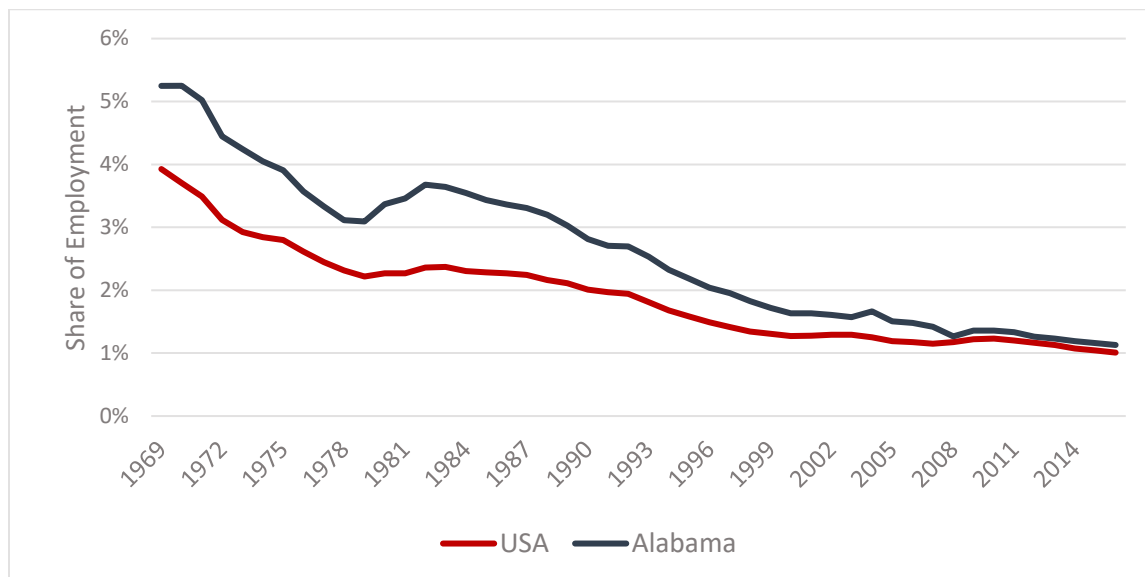
most significant sectors. Most obviously, employment in the Government sector includes military and civilian workers, and much of the state's Manufacturing activity is connected to defense contracts. Less obvious, but still strong, is the connection with the service economy. When personnel, contractors, and retirees spend their paychecks, industries such as Retail Trade; Health Care & Social Assistance; and Accommodation & Food Services are direct beneficiaries.

Concerning educational attainment, Alabama trails the majority of the nation in terms of the percentage of adult population with a degree. For instance, 15% of Alabama residents possess a bachelor's degree (3.6% below the national average), and 8% hold an associate's degree (0.3% below the national average). However, the defense-based economy hosts many of the state's most highly educated workers, including engineers, scientists, and computer programmers—evidenced by the higher-than-average educational attainment rates of the population in the Huntsville Area (Region 1).

Like most areas of the U.S., the number of military personnel in Alabama has decreased over the past forty years. Yet, due to the presence of the aforementioned installations, Alabama continues to exceed the U.S. in share of employment in non-civilian military positions. In 2016, 1.2% of Alabama's workforce were in non-civilian military roles, and at no point since 1969 has Alabama had a lower than average share of workers in military roles.

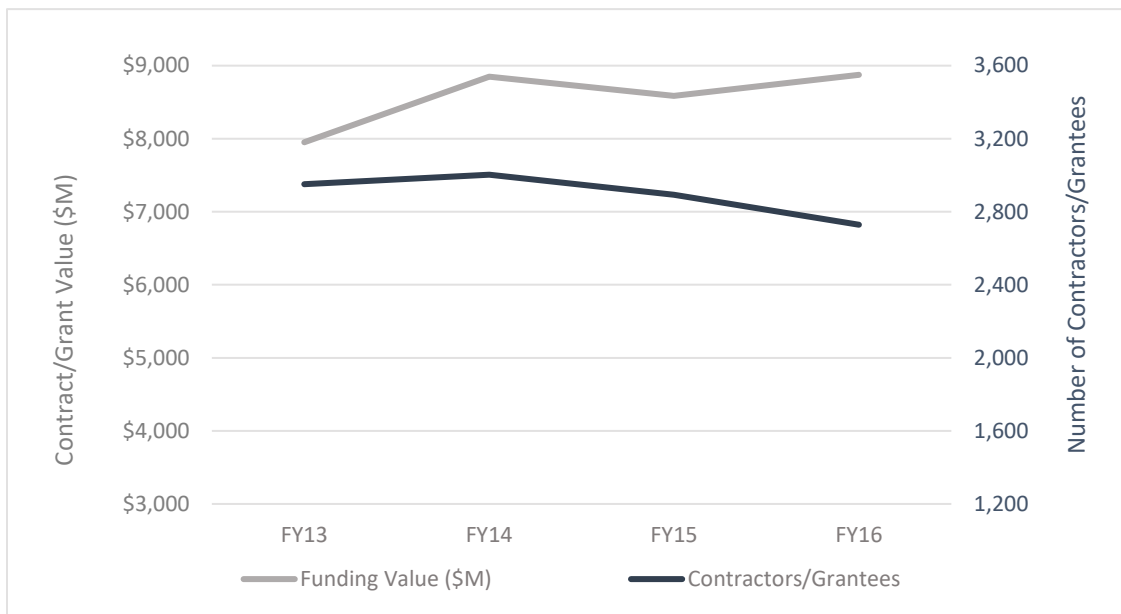
Despite the downturn in DoD spending over the past few fiscal years, the total value of DoD contracts performed in Alabama increased between FY13 and FY16, particularly due to accentuated jumps in FY14 and FY16. During the same period of time, the number of contractors/grantees decreased from over 2,900 in FY13 to around 2,700 in FY16.

Figure 2: Non-Civilian Military Employment Over Time, Alabama & Nation



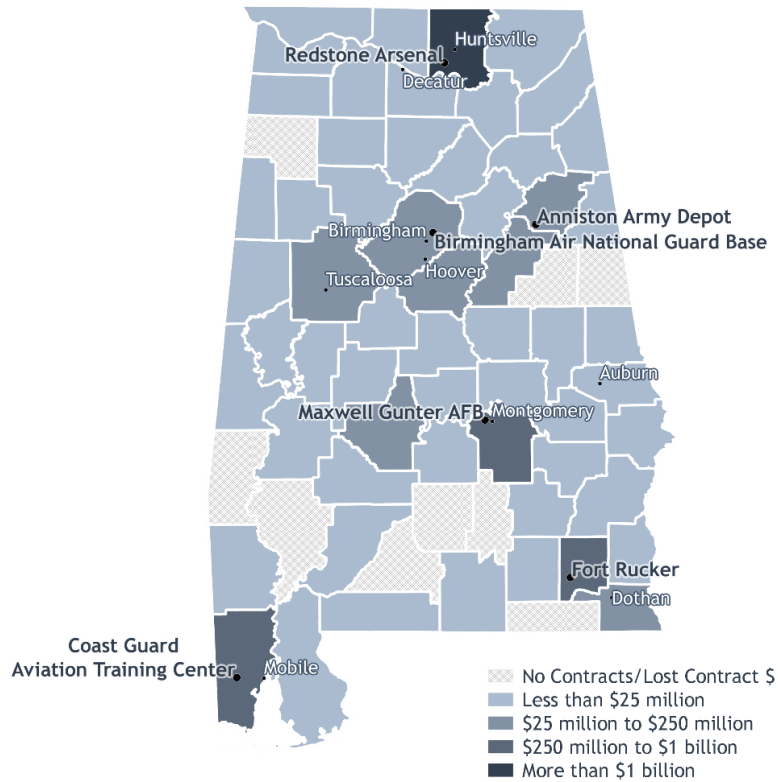
Source: Bureau of Economic Analysis (2016)

Figure 3: Alabama, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Figure 4: Alabama, Contract & Grant Funding by County FY16



Military Economic Impact

The military provided \$20.985 billion in economic impact to the state of Alabama in FY16, which accounted for 8.1% of all net economic activity. The military sustained 210,564 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending.

By comparison, noteworthy industries in Alabama that individually contribute less to net economic activity include

Commercial Banking; Light Truck and Utility Vehicle Manufacturing; and Electric Power Distribution. Furthermore, the number of jobs created or supported by the military exceeds many of the state's single largest industries in employment. For example, if the total number of jobs created or sustained by the military were an industry, that total would exceed employment within both Elementary and Secondary Schools and Transportation Equipment Manufacturing.

The military funding multiplier indicates that for every \$100 invested by DoD in Alabama, an additional \$79 of income is produced for others within the region. Among all categories of people on military and federal payroll, military retirees were the largest with 60,837.¹⁶

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 62.9% of direct impact. As indicated in Figure 4, the industries and businesses affected by DoD contracting are spread broadly across the state. In FY16, industries that benefited most from military investment include Federal Government (Military & Civilian); Scientific Research and Development Services; Retail- Food and Beverage Stores; and Real Estate. In particular, companies receiving the largest value of contracts include the Boeing Company; Austal USA, LLC; Army Fleet Support LLC; and SAIC. The list of industries and businesses affected is spread broadly across the state.

Table 6: State Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	210,564	139,894	32,998	37,673
Earnings (\$M)	\$12,951	\$10,004	\$1,504	\$1,443
Output (\$M)	\$20,985	\$11,699	\$4,439	\$4,847
Value Added (\$M)	\$17,000	\$11,906	\$2,398	\$2,696

Source: IMPLAN

Though military installations themselves are tax-exempt, many private sector contractors are taxed based on the revenue they produce. Likewise, any private businesses touched via indirect and

¹⁶ To the extent possible, active duty, civilians, and retirees were classified according to place of residency, as place of residency is a better indication of where earnings are spent than place of employment.

Table 5: Alabama, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$20,985
Impact on Jobs	210,564
Percent of Net Economic Activity	8.1%
Military Spending Per Resident	\$2.40
Military Funding Multiplier	1.79
Estimated Active Duty Personnel	9,805
Estimated Civilians	33,068
Estimated Military Retirees	60,837

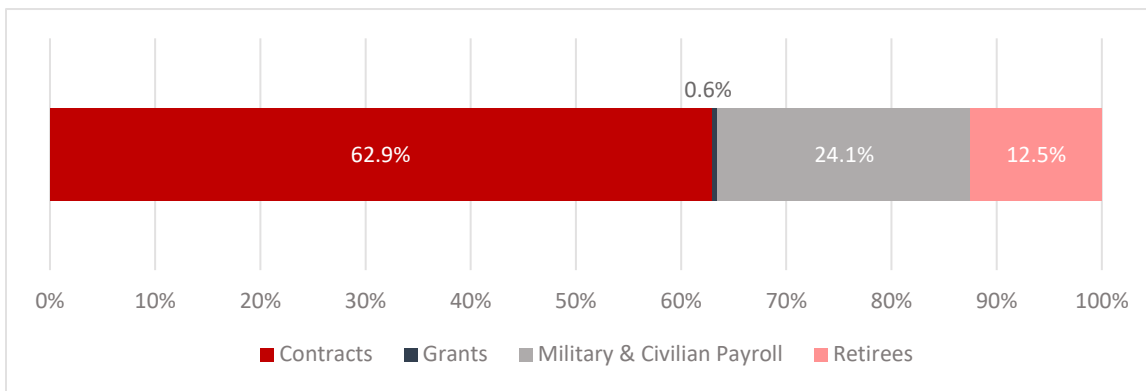
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

induced effects will also generate taxes. As shown in Table 6, taxes produced in Alabama in association with military spending equate to \$991 million for state and local governments and \$1.689 billion for the federal government, totaling \$2.680 billion generated for government agencies.

Table 7: Statewide Fiscal Impact Due to Defense Spending FY16

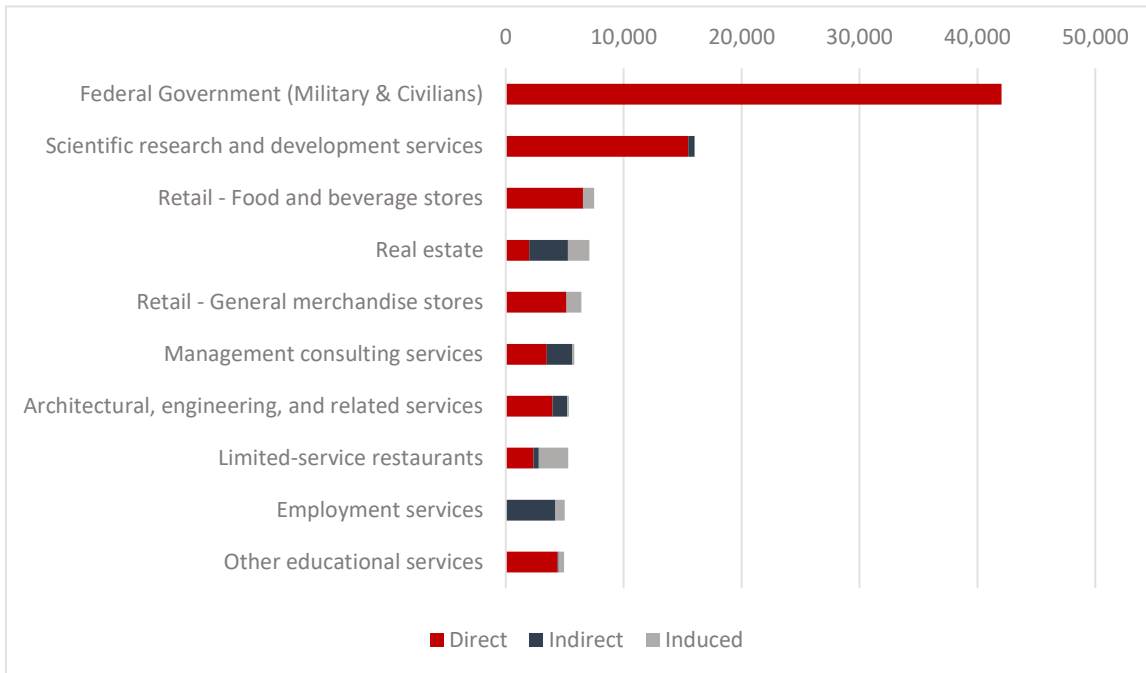
Tax Category	Fiscal Impact (\$M)
State & Local Taxes	\$991
Federal Taxes	\$1,689
Total Taxes	\$2,680

Figure 5: Alabama, Distribution of Direct Impacts FY16



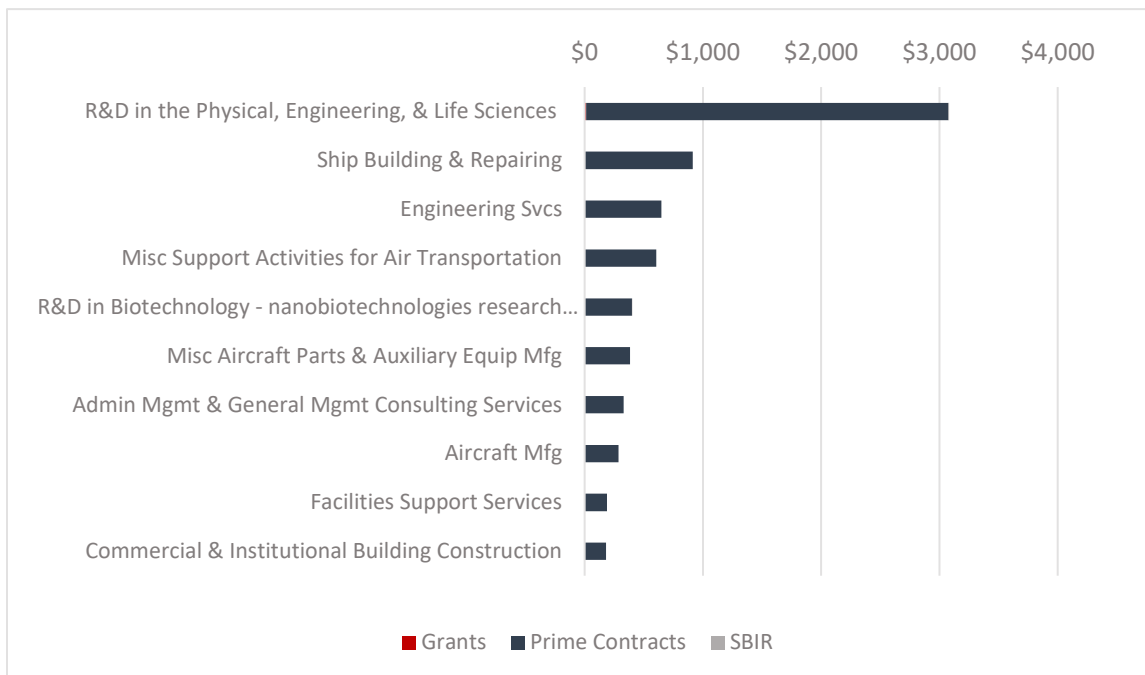
Source: IMPLAN

Figure 6: Alabama, Military Jobs Impact by Industry FY16



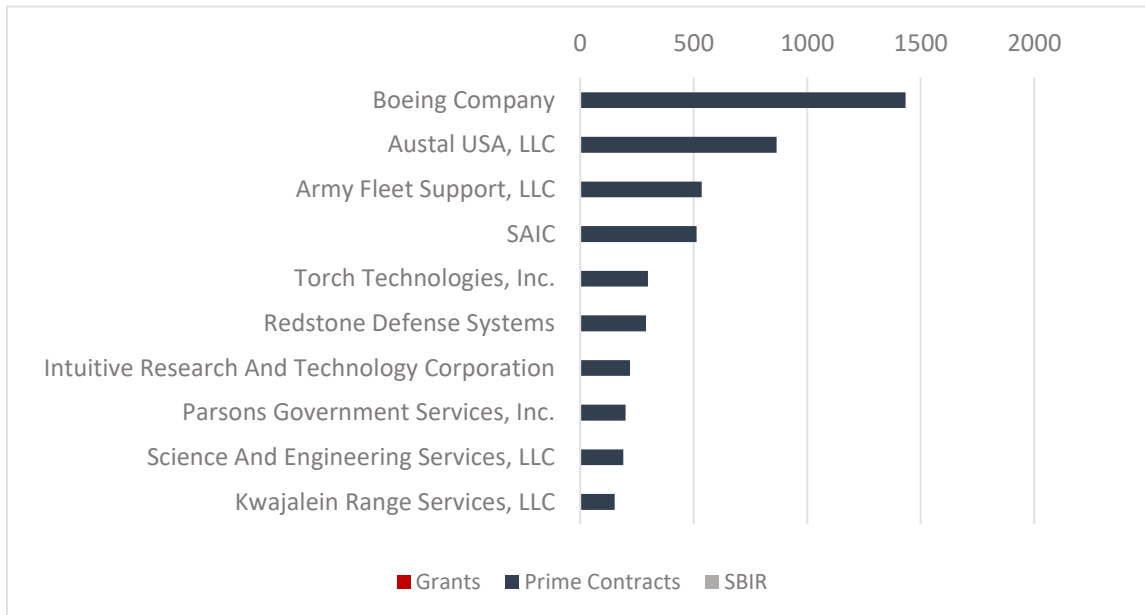
Source: IMPLAN

Figure 7: Alabama, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 8: Alabama DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

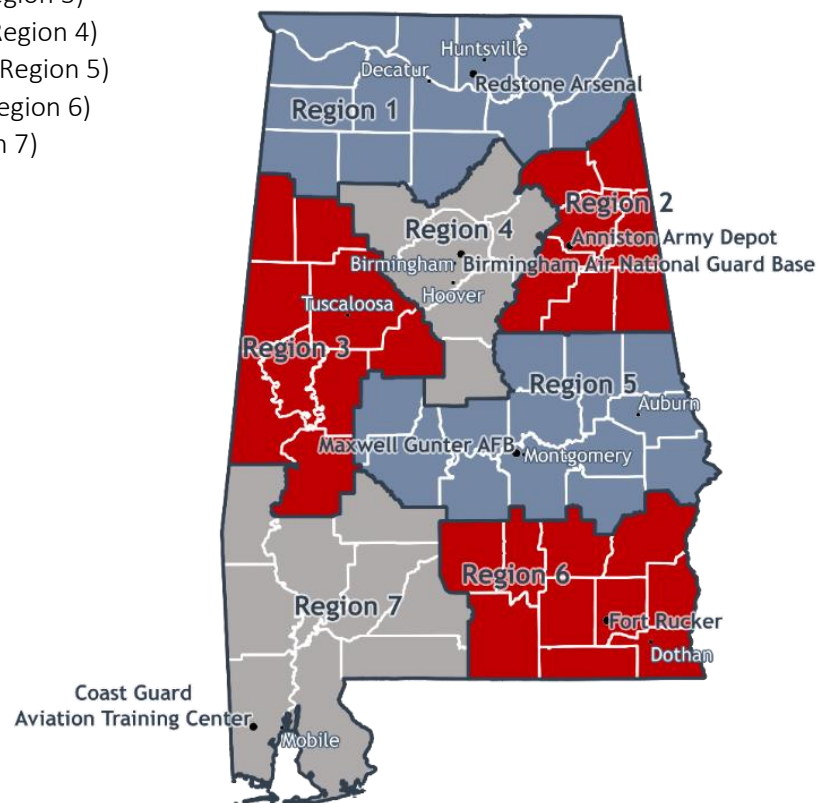
3. REGIONAL DEFENSE IMPACT

Determining the relevant regions of analysis is very important for an economic impact study. The regions selected must highlight the most significant areas both for the economy at large, and for the defense-specific economy. Furthermore, the science of economic impact analysis requires that regions of analysis approximate a somewhat cohesive economic unit within which businesses and individuals are likely to purchase goods and services most frequently.

After considering several options for regions of analysis, the consulting team determined to use the Regional Workforce Development Councils of Alabama.¹⁷ These regions are helpful in that state government agencies are already familiar with these regions and believe that they roughly approximate the economic boundaries within the state. Furthermore, these regions align well with the presence of military in Alabama. Six out of the seven regions have at least one substantial Army, Navy, Air Force, or Coast Guard base. The Regional Workforce Development Council monikers have been retained in this report, but for simplicity, the regions have also been titled as "areas" according to the most significant city or base in each area. The exact counties contained within each area are outlined in Appendix A:

- Huntsville Area (Region 1)
- Anniston Area (Region 2)
- Tuscaloosa Area (Region 3)
- Birmingham Area (Region 4)
- Montgomery Area (Region 5)
- Fort Rucker Area (Region 6)
- Mobile Area (Region 7)

Figure 9.1: Alabama Regions of Analysis, Including Military Bases



¹⁷ Details on state workforce regions can be found here: <http://www.madeinalabama.com/workforce-and-training/regional-workforce-councils/>.

In addition to the most significant economic areas, the most significant counties were analyzed throughout the state. The counties analyzed in the body of this report are those of significant size and/or defense-related assets. The counties analyzed in detail are as follows:

- Limestone County—Region 1
- Madison County—Region 1
- Calhoun County—Region 2
- Talladega County—Region 2
- Tuscaloosa County—Region 3
- Jefferson County—Region 4
- Montgomery County—Region 5
- Dale County—Region 6
- Houston County—Region 6
- Mobile County—Region 7

Huntsville Area (Region 1)

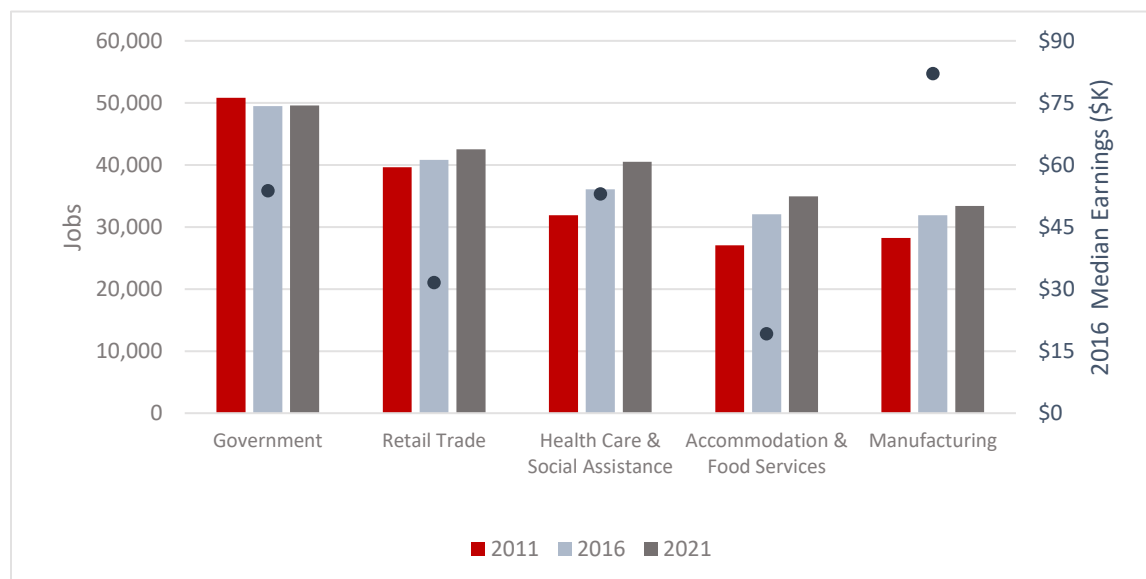
Regional Overview

The Huntsville Area is not only Alabama's most populous area,¹⁸ but it is the center of a substantial amount of its military activity. This area, which covers the northernmost part of the state, includes the cities of Huntsville, Decatur, Madison, Florence, and Athens. It also includes Redstone Arsenal, four Army Reserve facilities, and a variety of National Guard Unit and Battalion locations.¹⁹

Highlighted by organizations such as the NASA Marshall Space Flight Center, the U.S. Missile Defense Agency, and major contractors like Boeing and Lockheed Martin, this area has cemented itself as a national hotspot for the aerospace cluster.

Located just southwest of Huntsville, Redstone Arsenal is a nucleus for employment, research and development, and economic activity in the Huntsville Area. Redstone hosts the Missile Defense Agency, the Defense Intelligence Agency, the Army Materiel Command, the Army Space and Missile Defense Command, and several other Army, Air Force, and Navy institutions.

Figure 10: Huntsville Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. It has relatively strong Government and Manufacturing employment sectors, in terms of both total employment and average earnings per job. In addition to these strengths, the area has high educational attainment compared to the rest of Alabama, with more than 23% of its adult residents possessing at least a bachelor's degree. While the area is home to many different higher education universities, the University of Alabama at Huntsville is the most prominent in the defense sectors. Researchers at the

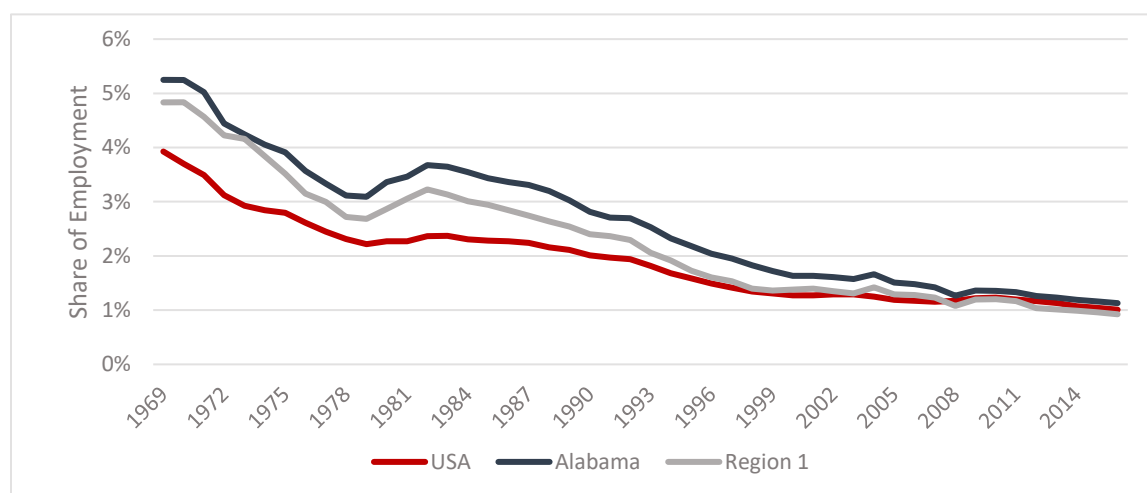
¹⁸ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

¹⁹ National Guard. (2017). Units/Battalions and Recruiting Offices Map: Alabama. Retrieved from <https://state.nationalguard.com/alabama>

university have been completing an analysis of the state’s defense contractors, and the university “regularly ranks among the Top 20 Universities in research funded by NASA and by the Department of Defense.”²⁰

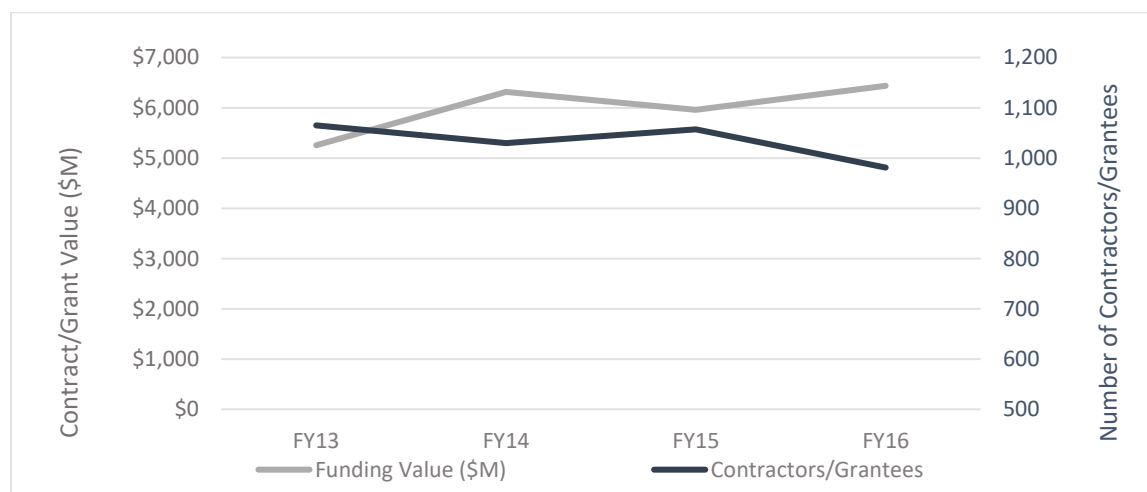
Like most areas of the U.S., the number of military personnel in the Huntsville Area has decreased over the past forty years. Despite this trend, the military impacts the area through the large concentration of civilians and contractors. The value of DoD contracts and grants performed in the Huntsville Area increased between FY13 and FY16. At the same time, the number of contractors/grantees decreased by 7.1% in FY16.

Figure 11: Non-Civilian Military Employment Over Time, Huntsville Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 12: Huntsville Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

²⁰ University of Alabama at Huntsville. (2017). Research. Retrieved from <https://www.uah.edu/research>

Military Economic Impact

The military provided \$11.869 billion in economic impact to the Huntsville Area in FY16, which accounted for 18.6% of all net economic activity within the area. The military sustained 105,199 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Huntsville Area, an additional \$60 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$476 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 16,780.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 72.2% of direct impact. In FY16, industries that benefited most from military investment include Federal Government; Scientific Research and Development Services; and Management Consulting Services. In particular, companies receiving the largest value of contracts include Boeing (with by far the most); SAIC; and Torch Technologies. Madison County led all counties in the area in terms of DoD contracts performed at over \$1 billion, yet in 11 of the remaining 12 counties in the area at least some degree of DoD contracts were performed.

Table 8: Huntsville Area, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$11,869
Impact on Jobs	105,199
Percent of Net Economic Activity	18.6%
Military Spending Per Resident	\$6.52
Military Funding Multiplier	\$1.60
State & Local Taxes (\$M)	\$476
Estimated Active Duty Personnel	1,033
Estimated Civilians	16,708
Estimated Military Retirees	7,980

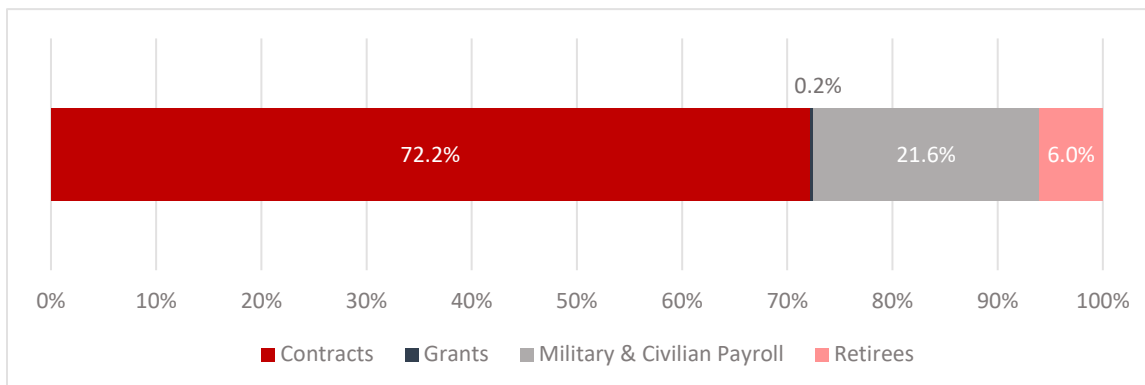
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 9: Huntsville Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	105,199	68,042	18,450	18,706
Earnings (\$M)	\$7,011	\$5,558	\$803	\$640
Output (\$M)	\$11,869	\$7,414	\$2,207	\$2,248
Value Added (\$M)	\$9,045	\$6,650	\$1,161	\$1,234

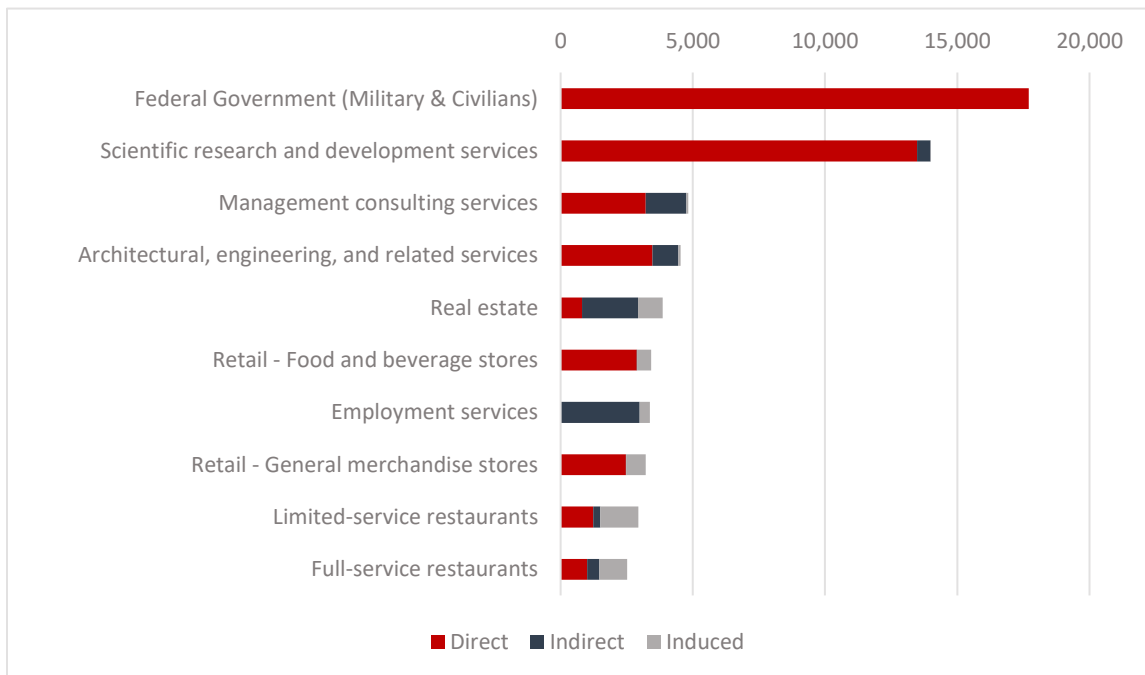
Source: IMPLAN

Figure 13: Huntsville Area, Distribution of Direct Impacts FY16



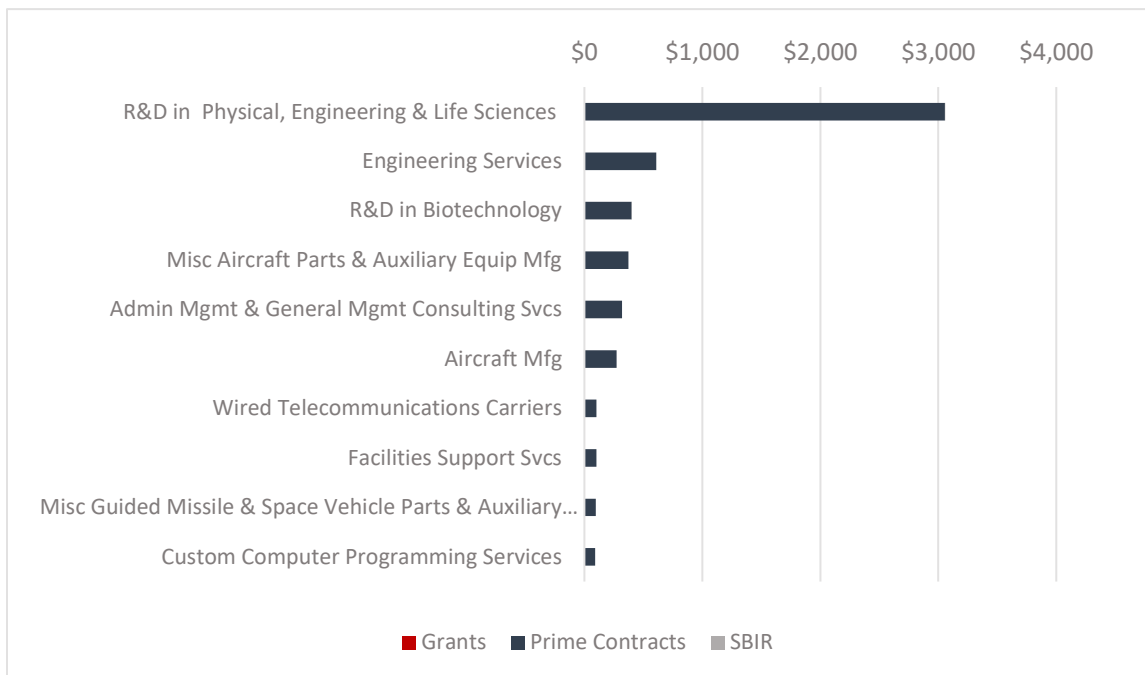
Source: IMPLAN

Figure 14: Huntsville Area, Military Jobs Impact by Industry FY16



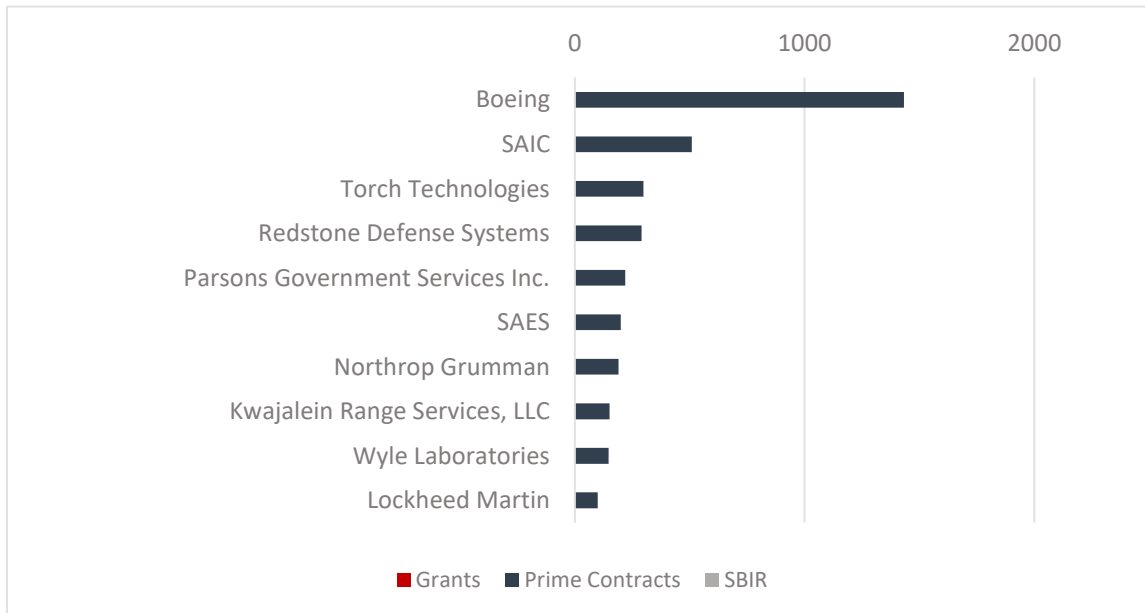
Source: IMPLAN

Figure 15: Huntsville Area, DoD Procurement by Industry FY16 (\$M)



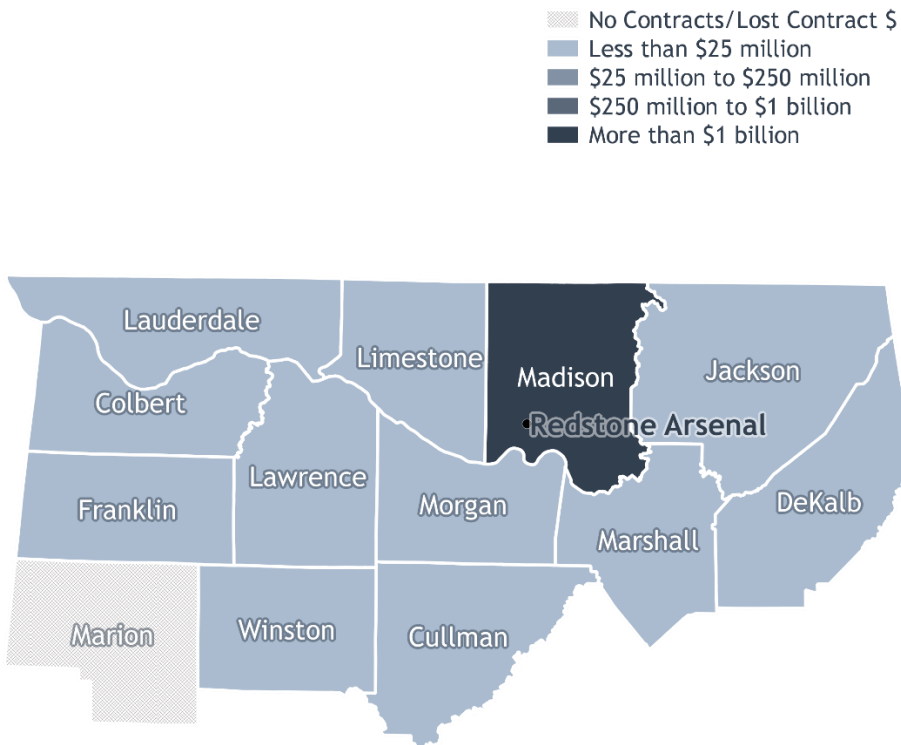
Source: USAspending.gov

Figure 16: Huntsville Area, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 17: Huntsville Area, County Location of Direct Procurement Impact

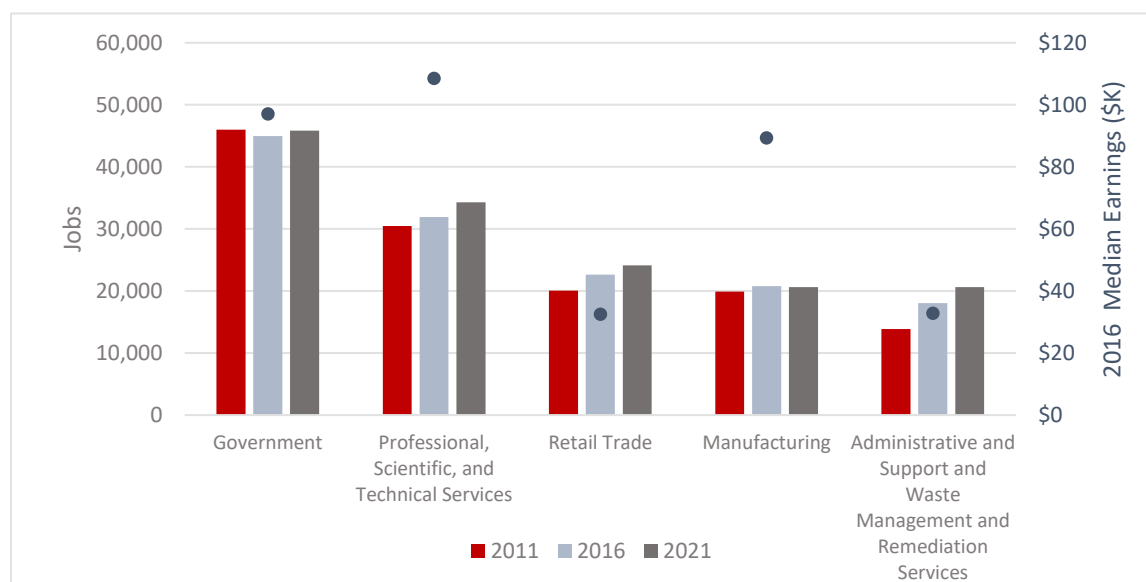


MADISON COUNTY

County Overview

Madison County is home to Redstone Arsenal, the premier US Army missile and space center, and the largest military base in the state in terms of active duty and civilian employment. Redstone Arsenal contains the headquarters for the United States Army Materiel Command, the Army Aviation and Missile Command, and the Missile Defense Agency of the Department of Defense, as well as tenant institutions including NASA's Marshall Space Flight Center. Appropriately, Madison County received the highest amount in military contracts of any county in the state between FY13 and FY16, totaling over \$31 billion.

Figure 18: Madison County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years

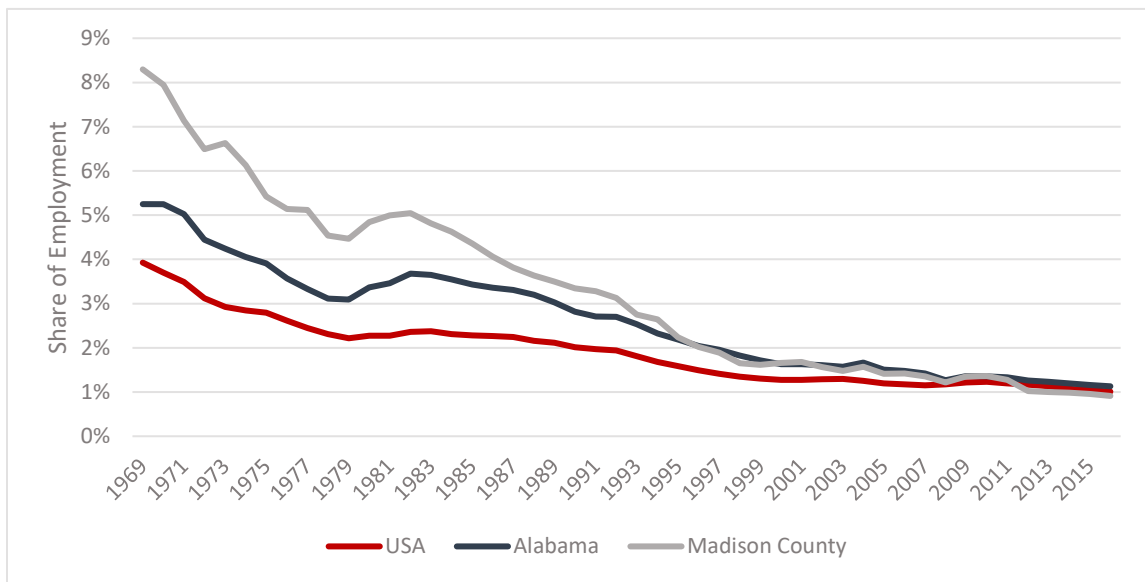


Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. In terms of employment, the county is strong in both the Government sector and the Professional, Scientific, and Technical Services sector. Additionally, Professional, Scientific, and Technical Services and Manufacturing offer above average earnings per job, (\$108,519 and \$89,269, respectively). Sectors projected to see job growth by 2021 include Professional, Scientific, and Technical Services; Retail Trade; and Administrative, Support, Waste Management, and Remediation Services.

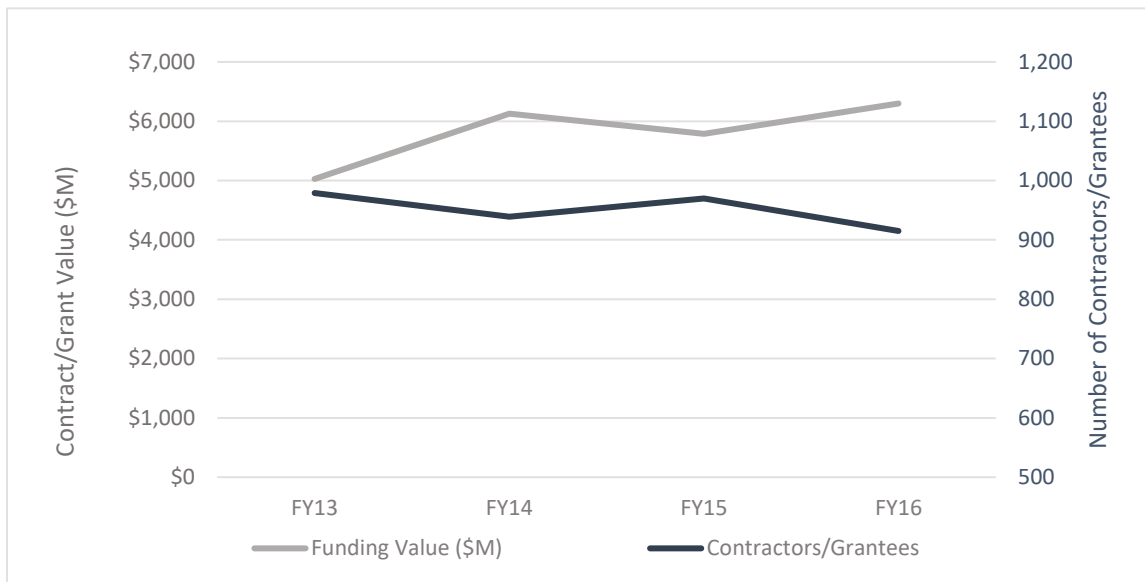
Like most areas of the U.S., the number of military personnel in Madison County has decreased over the past forty years. Despite this, the military continues to impact the area significantly through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in Madison County saw fluctuations between FY13 and FY16, with contract value increasing between FY13 and FY16. At the same time, the number of contractors/grantees decreased.

Figure 19: Non-Civilian Military Employment Over Time, Madison County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 20: Madison County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$10.566 billion in economic impact to Madison County in FY16, which accounted for 28.8% of all net economic activity within the area. The military sustained 80,038 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Madison County, an additional \$57 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$299 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 11,370.

Among DoD related sources of income in FY16, contracts to DoD prime contractors was the clear driver of economic impact within the area, accounting for 92.0% of direct impact. In FY16, industries that benefited most from military investment include Scientific Research & Development Services; Management Consulting Services; and Architectural, Engineering & Related Services. In particular, companies receiving the largest value of contracts include Boeing; SAIC; and Torch Technologies.

Table 10: Madison County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$10,566
Impact on Jobs	80,038
Percent of Net Economic Activity	28.8%
Military Spending Per Resident	\$18.86
Military Funding Multiplier	\$1.57
State & Local Taxes (\$M)	\$299
Estimated Active Duty Personnel	655
Estimated Civilians	11,370
Estimated Military Retirees	3,159

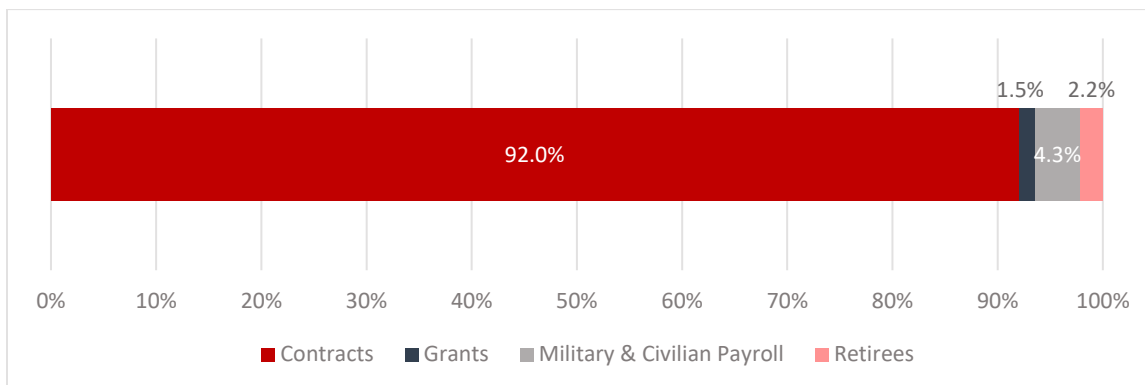
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 11: Madison County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	80,038	49,054	16,960	14,024
Earnings (\$M)	\$5,094	\$3,747	\$821	\$526
Output (\$M)	\$10,566	\$6,734	\$2,121	\$1,711
Value Added (\$M)	\$6,812	\$4,605	\$1,217	\$990

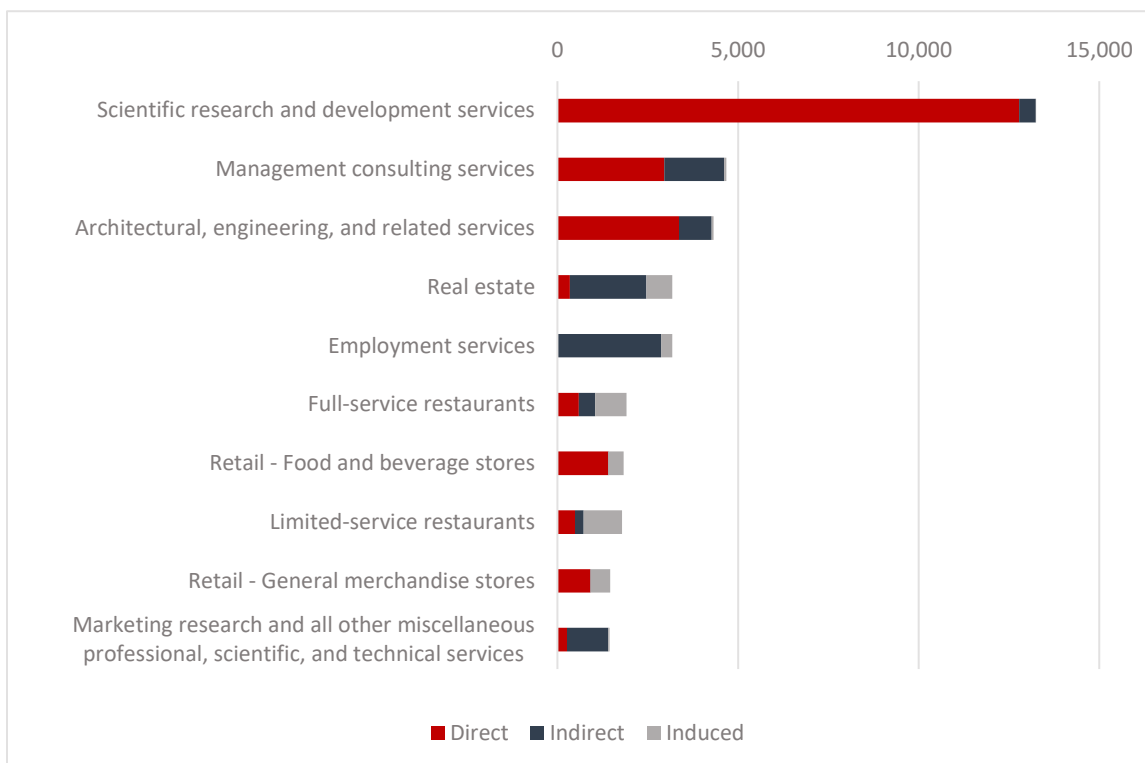
Source: IMPLAN

Figure 21: Madison County, Distribution of Direct Impacts FY16



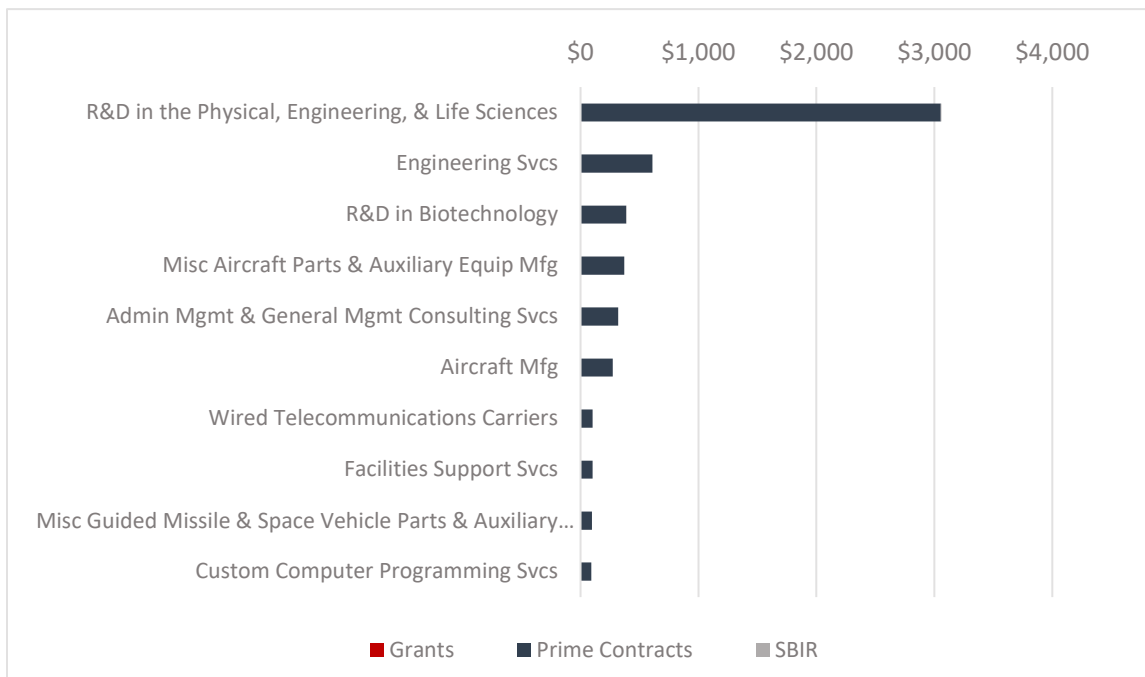
Source: IMPLAN

Figure 22: Madison County, Military Jobs Impact by Industry FY16



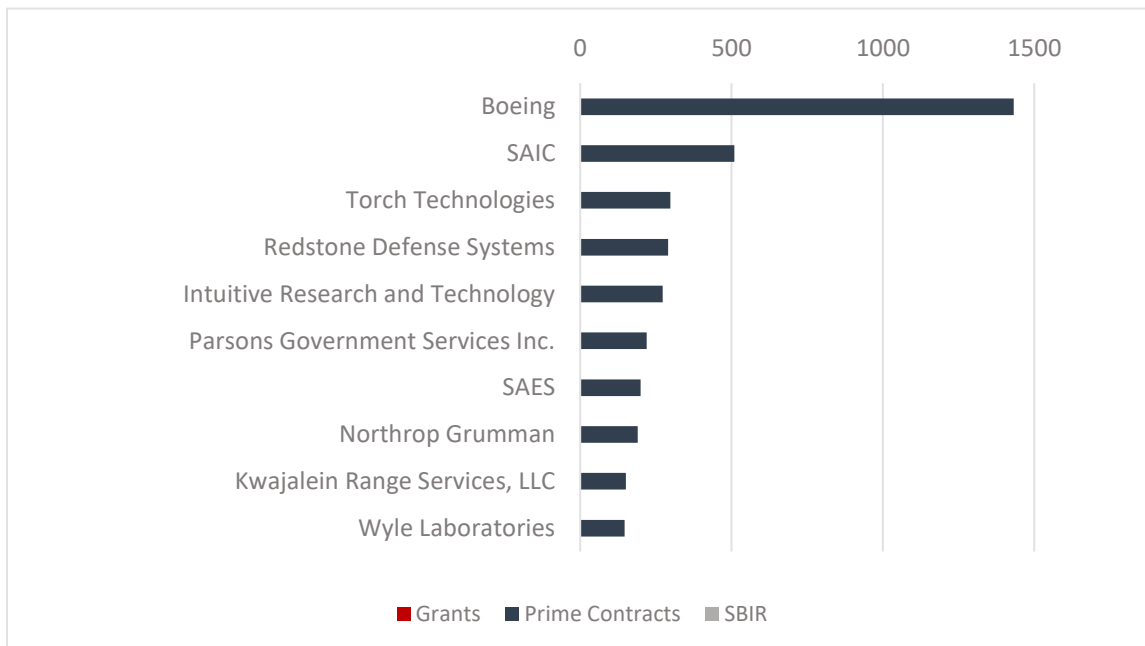
Source: IMPLAN

Figure 23: Madison County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 24: Madison County, DoD Procurement by Company FY16 (\$M)



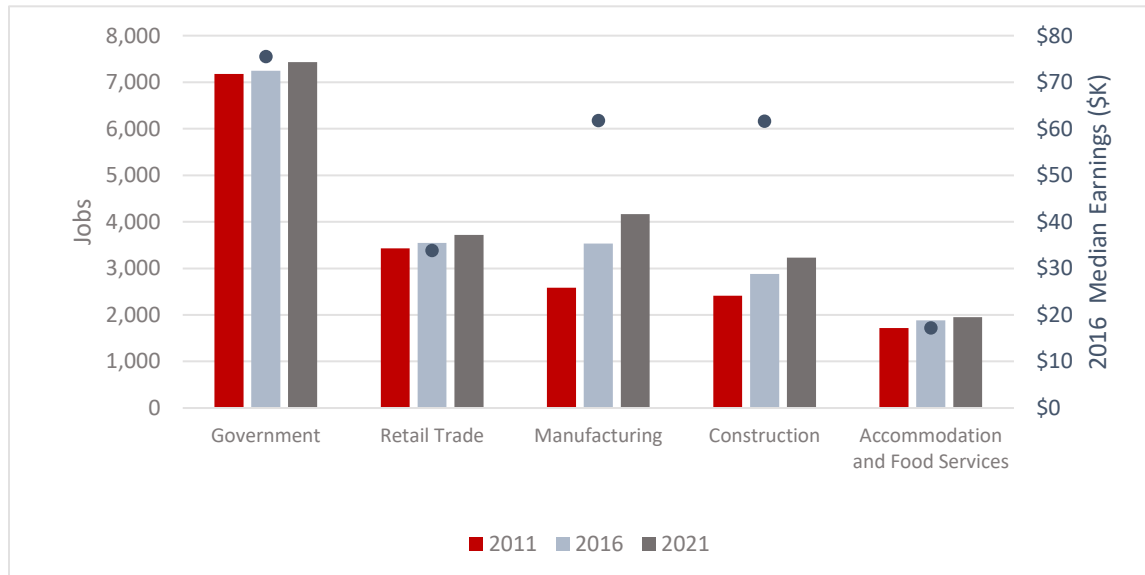
Source: USAspending.gov

LIMESTONE COUNTY

County Overview

Within 40 miles of Redstone Arsenal, Limestone County received over \$292 million in defense contracts from FY13 through FY16. The defense industry has become an integral part of Limestone County culture, demonstrated by a high number of resident veterans and the presence of military attractions such as the Alabama Veterans Museum and Archives.

Figure 25: Limestone County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years

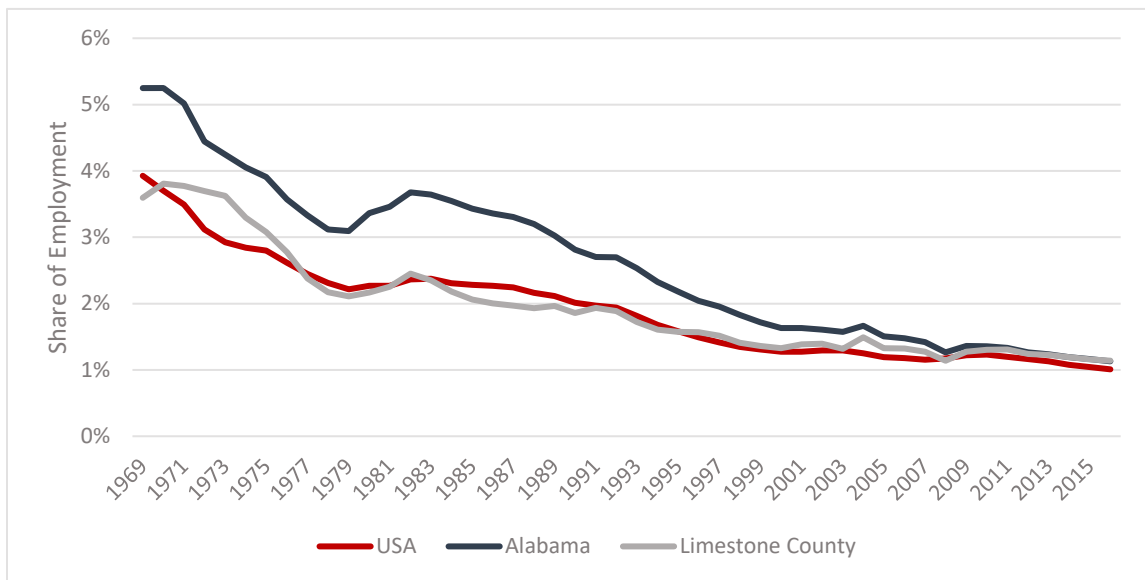


Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. It has a relatively strong Government sector. Government; Manufacturing; and Construction are all sizable sectors that offer above average wages. Additionally, among these strong paying sectors, Manufacturing and Construction sectors are projected to see increased job growth by 2021.

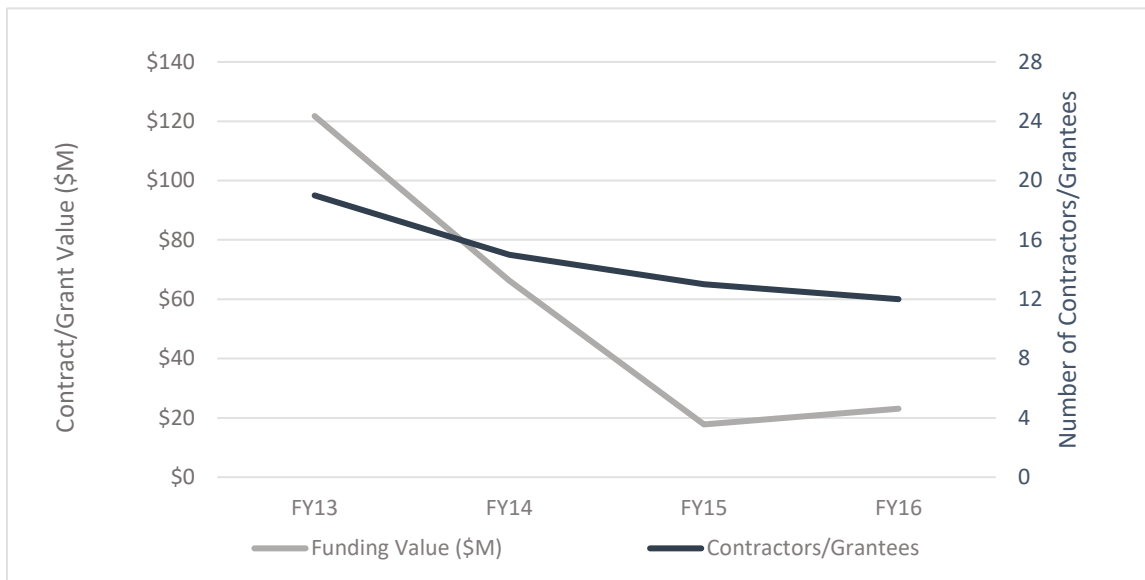
Like the U.S. as a whole, the number of military personnel in Limestone County has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. Concerningly, the value of DoD contracts and grants performed in Limestone County decreased by 81.1% between FY13 and FY16. Simultaneously, the number of contractors/grantees decreased as well, though not as significantly.

Figure 26: Non-Civilian Military Employment Over Time, Limestone County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 27: Limestone County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$95 million in economic impact to Limestone County in FY16, which accounted for 8.0% of all net economic activity within the area. The military sustained 3,157 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Limestone County, an additional \$43 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$11 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 1,698.

Among DoD related sources of income in FY16, military and civilian payroll is the clear driver of economic impact within the area, accounting for 72.0% of direct impact. In FY16, industries that benefited most from military investment include Federal Government; Retail – General Merchandise Stores; and Retail – Food and Beverage Stores. Lockheed Martin Corporation leads all companies in dollars of contracts received, followed by Lee Precision Machine Shop, Inc. and JIT Industries, Inc.

Table 12: Limestone County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$95
Impact on Jobs	3,157
Percent of Net Economic Activity	8.0%
Military Spending Per Resident	\$0.71
Military Funding Multiplier	\$1.43
State & Local Taxes (\$M)	\$11
Estimated Active Duty Personnel	115
Estimated Civilians	1,698
Estimated Military Retirees	892

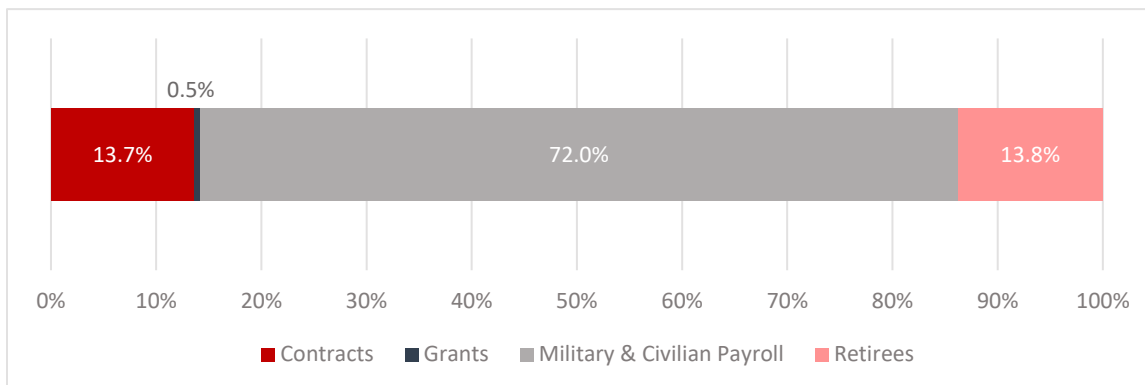
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 13: Limestone County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	3,157	2,919	119	119
Earnings (\$M)	\$188	\$181	\$4	\$4
Output (\$M)	\$95	\$66	\$13	\$15
Value Added (\$M)	\$216	\$202	\$6	\$8

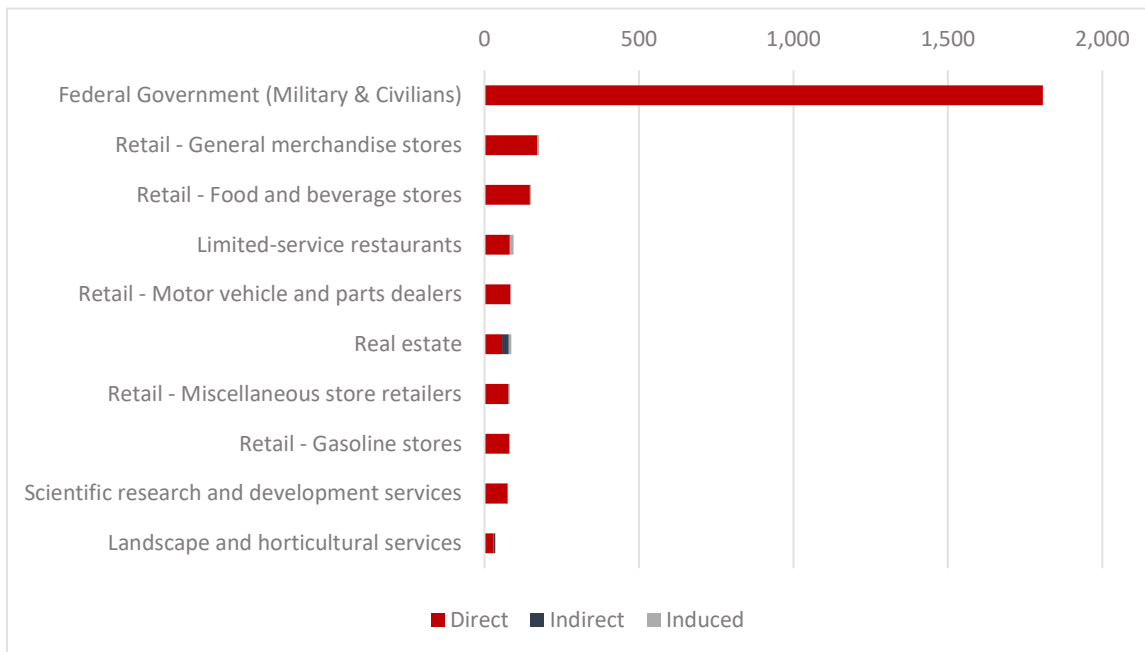
Source: IMPLAN

Figure 28: Limestone County, Distribution of Direct Impacts FY16



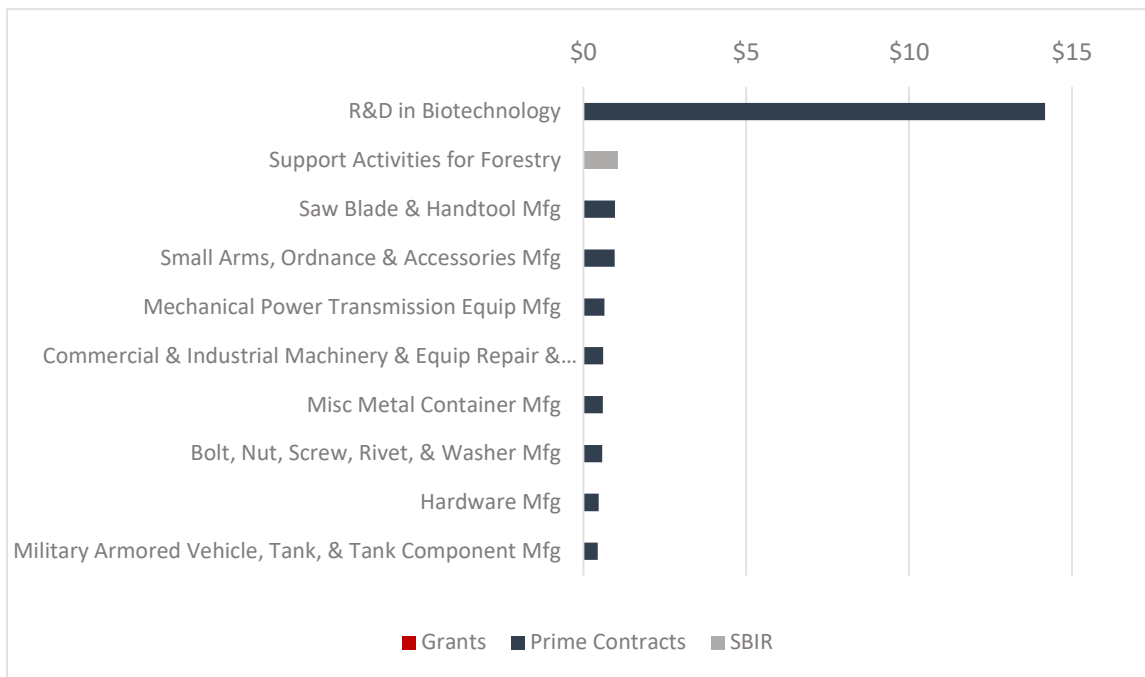
Source: IMPLAN

Figure 29: Limestone County, Military Jobs Impact by Industry FY16



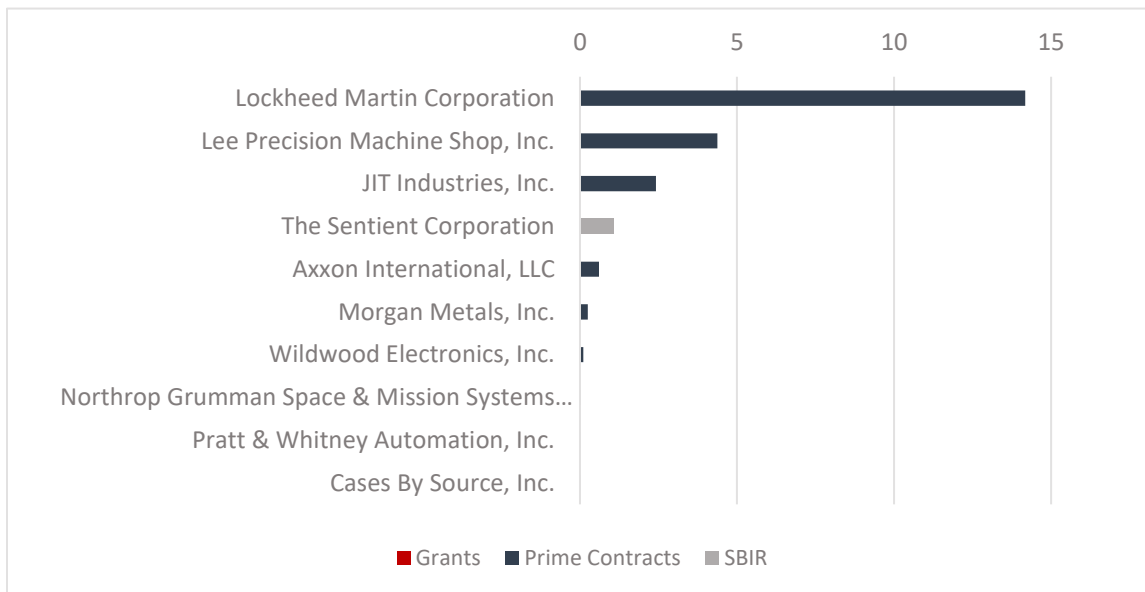
Source: IMPLAN

Figure 30: Limestone County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 31: Limestone County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Anniston Area (Region 2)

Regional Overview

The Anniston Area covers the northeast part of central Alabama and includes the cities of Gadsden, Anniston, Talladega, and Oxford. It is the home of Anniston Army Depot, located in Bynum, which serves as a U.S. Army maintenance center and munitions storage site. In addition to this installation, the Anniston Area also contains the 167th Theater Sustainment Command in the Army National Guard and four Army Reserve facilities. It is also among the least populated areas of the state,²¹ making the military's presence particularly important for maintaining employment stability.

The majority of defense activity in the area clusters around the Anniston Army Depot, which provides a wide variety of vehicle, weapon, and military items for the Armed Forces. There are approximately 6,491 people directly employed by military activity in the area, between depot, tenant, and contractor employees. Among the contractors supported by the base are General Dynamics, BAE Systems, and Honeywell.²² Four Army Reserve facilities are also located in the Anniston Area, and the 167th Theater Sustainment Command is headquartered at Fort McClellan, in the city of Anniston.

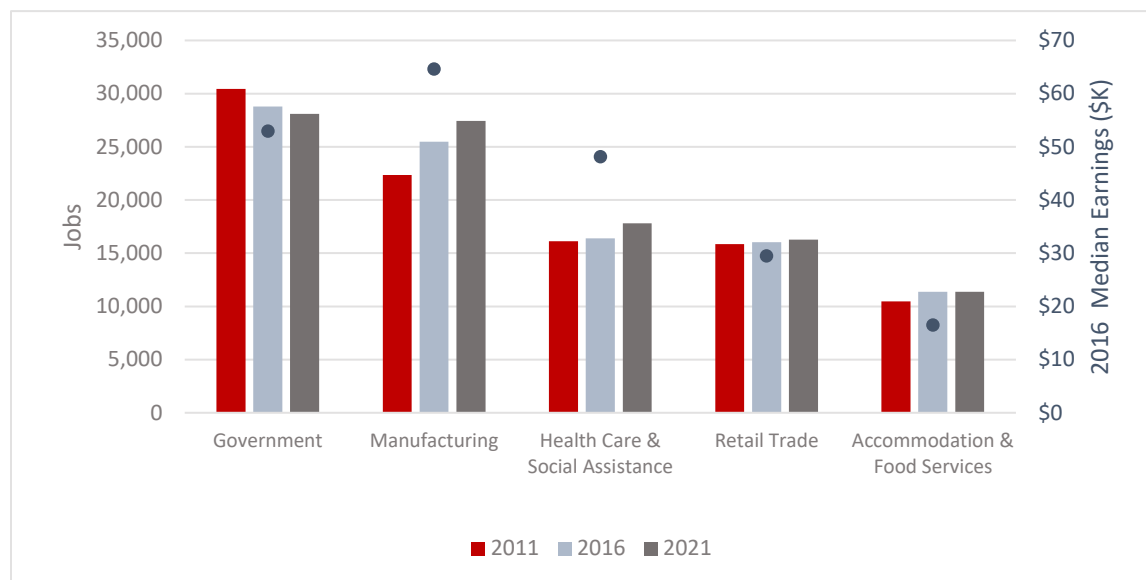
Though the population of the area has declined in recent years, its economy has experienced overall job growth and a decreasing unemployment rate since 2011. Its fastest growing industries include Motor Vehicle Manufacturing; Motor Vehicle Parts Manufacturing; and Plastic Product Manufacturing. Growth in these three industries has helped make Manufacturing the Anniston Area's fastest growing sector, and it is projected to surpass Government as the leading employment sector within six years. Since it is also the area's highest-paying sector, growth in the Manufacturing sector helps sustain regional earnings growth as well. The boost to earnings is needed because the Anniston Area currently lags other Alabama areas in average earnings per job and educational attainment. Related to that later point, just 15% of its population has a bachelor's degree.²³

²¹ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

²² Mann Jackson, N., Armstrong, J., Stakelum, L, & Leytham, T. (2015). Alabama's Defense Clusters. <http://www.businessalabama.com/Business-Alabama/May-2015/Alabamas-Defense-Clusters/>

²³ Emsi (2017.2). Regional Economy Overview.

Figure 32: Anniston Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



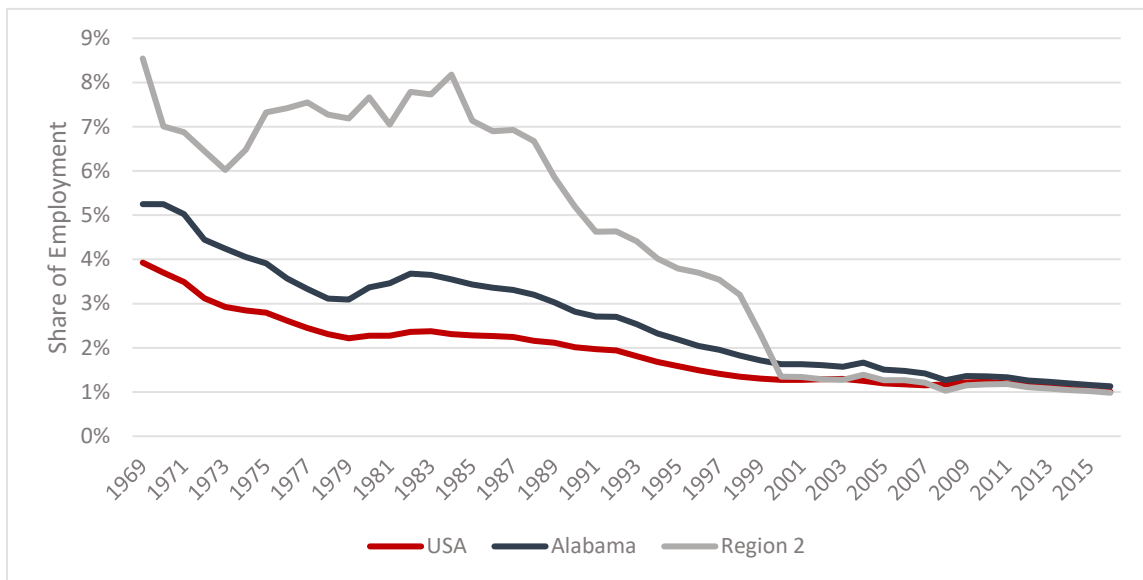
Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. The Government and Manufacturing sectors offer the largest shares of total employment. However, employment declined between 2011 and 2016 within Government, a trend that is forecasted to continue into 2021. Manufacturing and Healthcare & Social Assistance are the area's most impactful in terms of earnings, offering \$64,603 and \$48,127 in average earnings per job. Health Care & Social Assistance has also increased in jobs from 2011-2016 and is expecting to see more job growth by 2021.

Like most areas of the U.S., the number of military personnel in the Anniston Area has decreased over the past forty years. Non-civilian military employment has been very inconsistent in the area, however. The area saw drastic increases in military employment from the mid-1970s to the mid-1980s. Following that bump, military employment tapered off, falling below the average share of total employment for the state of Alabama by 2000. Despite these decreases, the military still impacts the area through a large concentration of civilians and contractors.

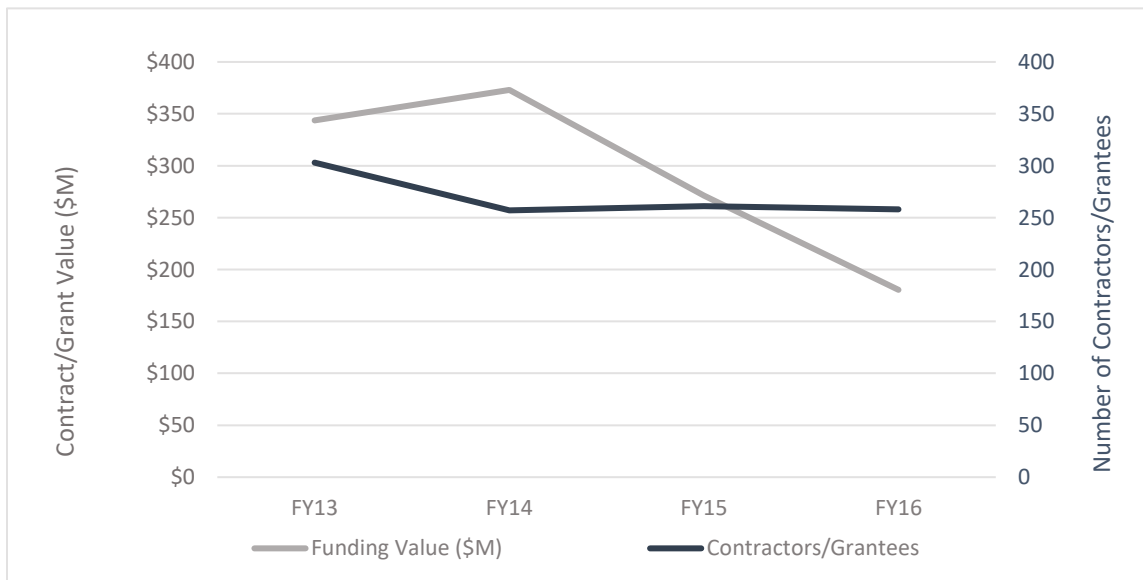
The value of DoD contracts and grants performed in the Anniston Area has fluctuated greatly, seeing a sharp decline from FY13 to FY14 and seeing a slight increase between FY14 and FY15. Since FY15, the number of contract and grant recipients has declined.

Figure 33: Non-Civilian Military Employment Over Time, Anniston Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 34: Anniston Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$437 million in economic impact to the Anniston Area in FY16, which accounted for 4.5% of all net economic activity within the area. The military sustained 7,583 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Anniston Area an additional \$44 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$34 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 2,984.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 40.5% of direct impact. In FY16, industries that benefited most from military investment include Federal Government; Retail – General Merchandise Stores; and Retail – Food and Beverage Stores. In particular, companies receiving the largest value of contracts include BAE Systems Land and Armaments LP; ATAP, Inc.; and International Enterprises, Inc.

Table 14: Anniston Area, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$437
Impact on Jobs	7,583
Percent of Net Economic Activity	4.5%
Military Spending Per Resident	\$0.81
Military Funding Multiplier	\$1.44
State & Local Taxes (\$M)	\$34
Estimated Active Duty Personnel	48
Estimated Civilians	2,984
Estimated Military Retirees	2,606

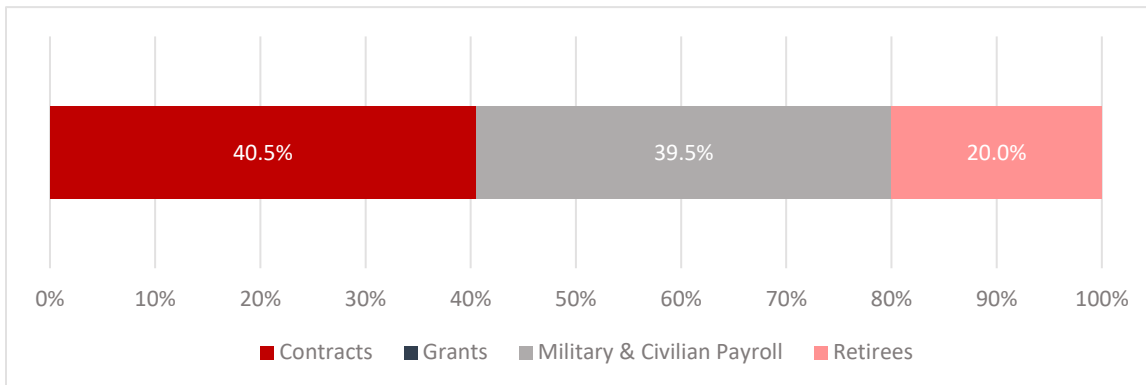
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 15: Anniston Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	7,583	6,491	460	632
Earnings (\$M)	\$462	\$424	\$17	\$21
Output (\$M)	\$437	\$303	\$59	\$76
Value Added (\$M)	\$551	\$483	\$27	\$41

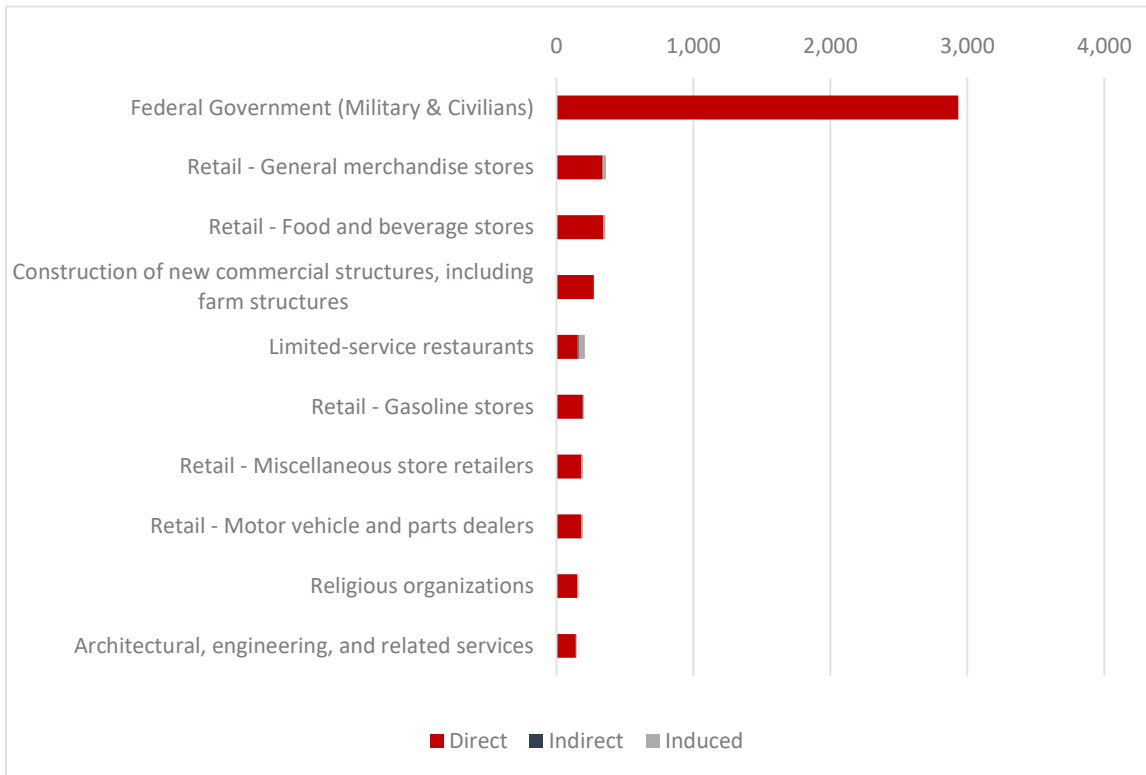
Source: IMPLAN

Figure 35: Anniston Area, Distribution of Direct Impacts FY16



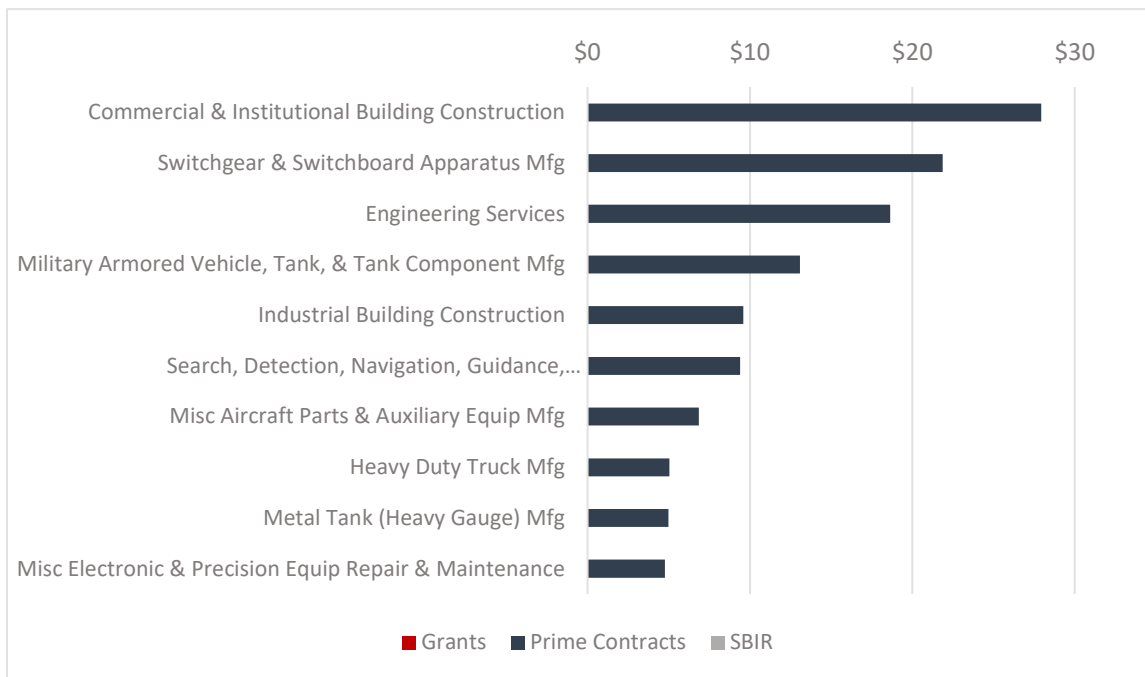
Source: IMPLAN

Figure 36: Anniston Area, Military Jobs Impact by Industry FY16



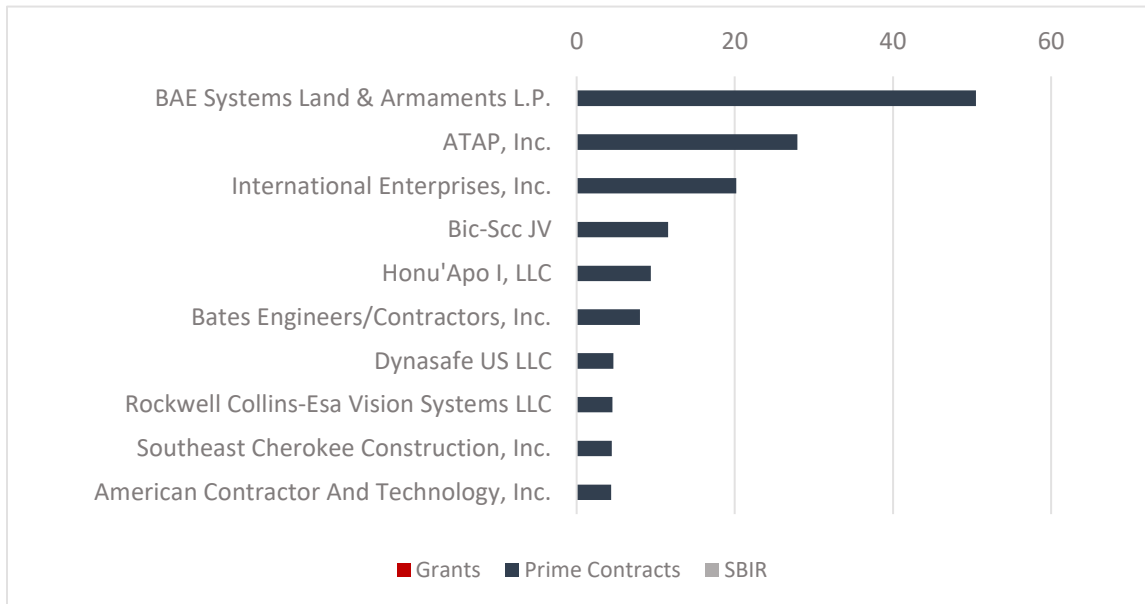
Source: IMPLAN

Figure 37: Anniston Area, DoD Procurement by Industry FY16 (\$M)



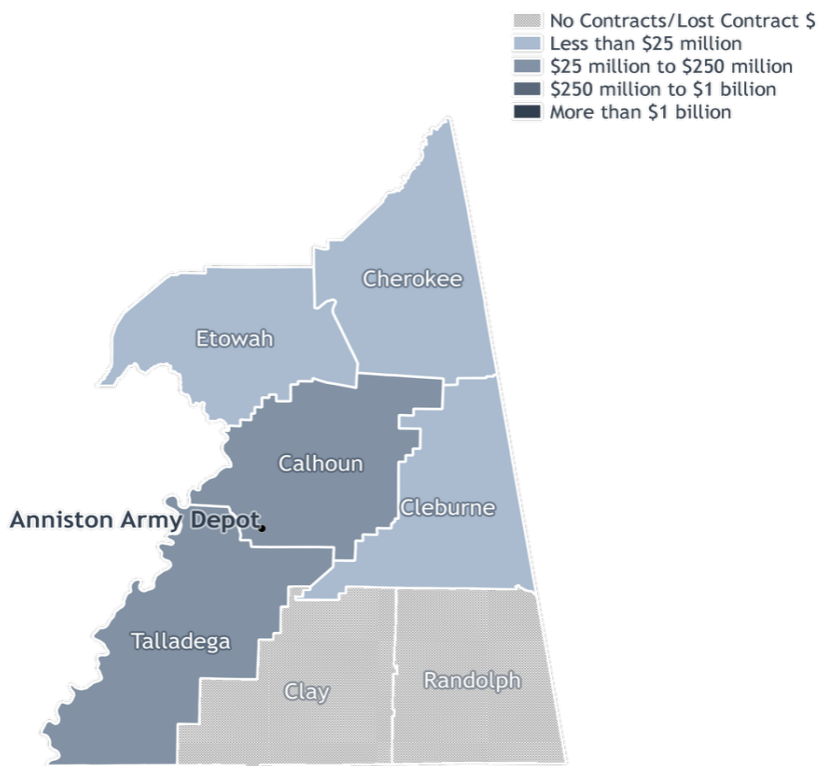
Source: USAspending.gov

Figure 38: Anniston Area, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 39: Anniston Area, County Location of Direct Procurement Impact



CALHOUN COUNTY

County Overview

Calhoun County hosts the Anniston Army Depot as well as the now-closed Army Post Fort McClellan, which continues to be used by the Alabama National Guard and other federal protection agencies. With a population of 114,611 in 2016, Calhoun County received an average of \$292 million in defense contracts per year from FY 2013 through 2016.²⁴

Figure 40: Calhoun County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



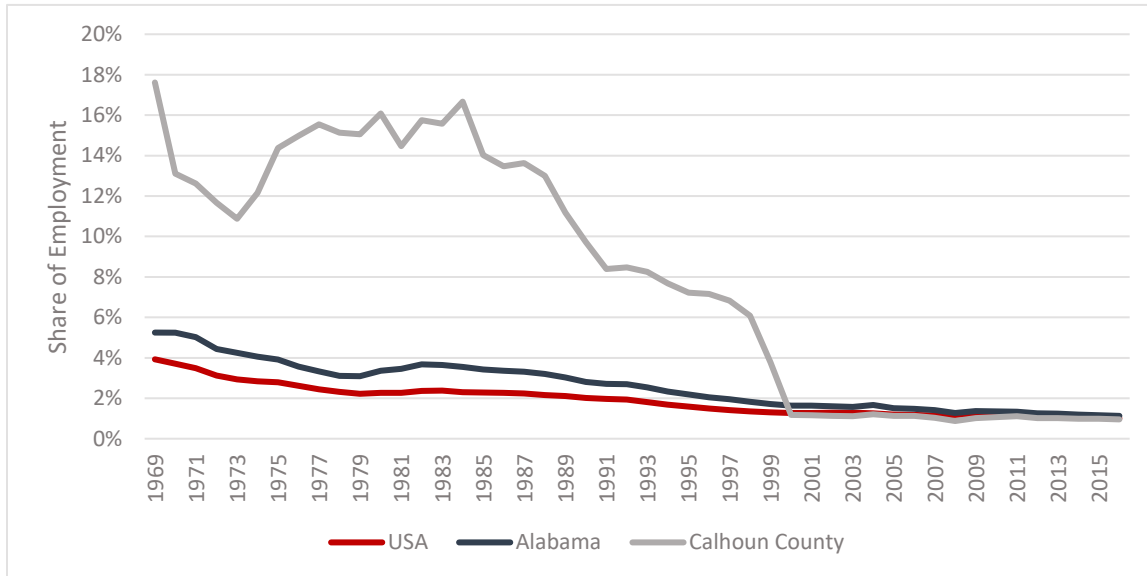
Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. The Government sector is by far the county's strongest in terms of total employment. Four sectors, Government; Retail Trade; Manufacturing; and Health Care & Social Assistance stick out as offering above average earnings within the county. Of these strong paying sectors, Manufacturing is expected to see the greatest job growth by 2021. Conversely, the Government sector is expected to see a decline in jobs by 2021.

Though military employment has decreased as a share of total employment across the country over the past forty years, Calhoun County has experienced even more drastic decreases. Since the closure of Fort McClellan in 1999, Calhoun has remained below the state average for military share of employment. Between FY13 and FY16, total funding value (contracts, grants, and SBIR) decreased significantly, while the number of recipients of this funding in Calhoun County somewhat decreased as well.

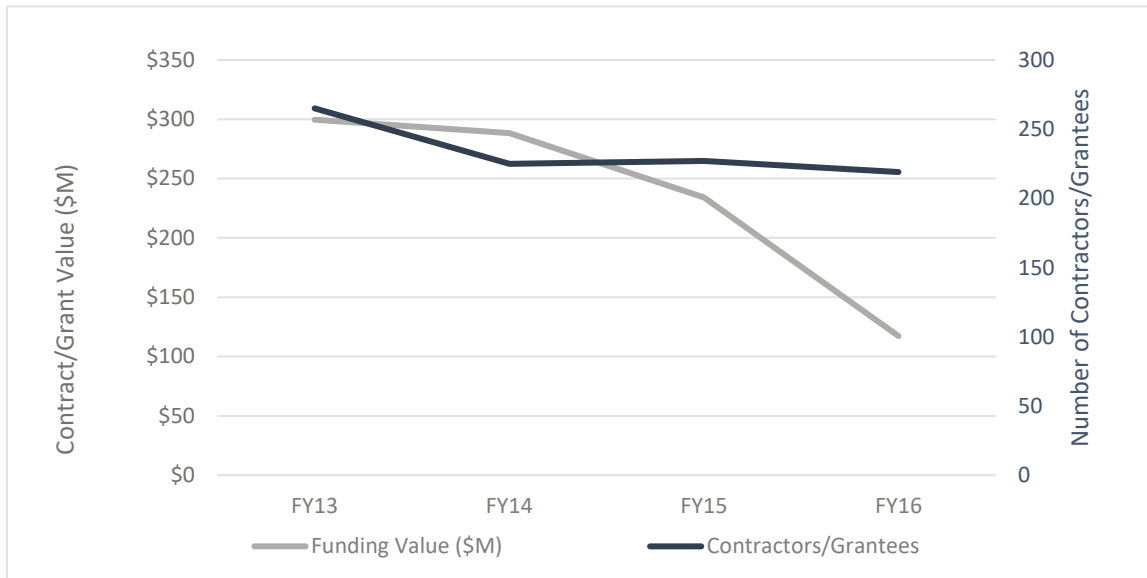
²⁴ U.S. Census Bureau (2016). Population Estimates, Calhoun County, AL July 1, 2016. Retrieved from www.Census.gov/quickfacts.

Figure 41: Non-Civilian Military Employment Over Time, Calhoun County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 42: Calhoun County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$273 million in economic impact to Calhoun County in FY16, which accounted for 8.5% of all net economic activity within the area. The military sustained 4,865 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Calhoun County, an additional \$42 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$22 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 1,941.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 47.9% of direct impact. In FY16, industries that benefited most from military investment include Construction of New Commercial Structures, Including Farm Structures; Retail – Food and Beverage Stores; and Retail – General Merchandise Stores. BAE Systems Land and Armaments, LP has by far the most value in contracts performed within the county.

Table 16: Calhoun County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$273
Impact on Jobs	4,865
Percent of Net Economic Activity	8.5%
Military Spending Per Resident	\$1.67
Military Funding Multiplier	\$1.42
State & Local Taxes (\$M)	\$22
Estimated Active Duty Personnel	29
Estimated Civilians	1,941
Estimated Military Retirees	1,167

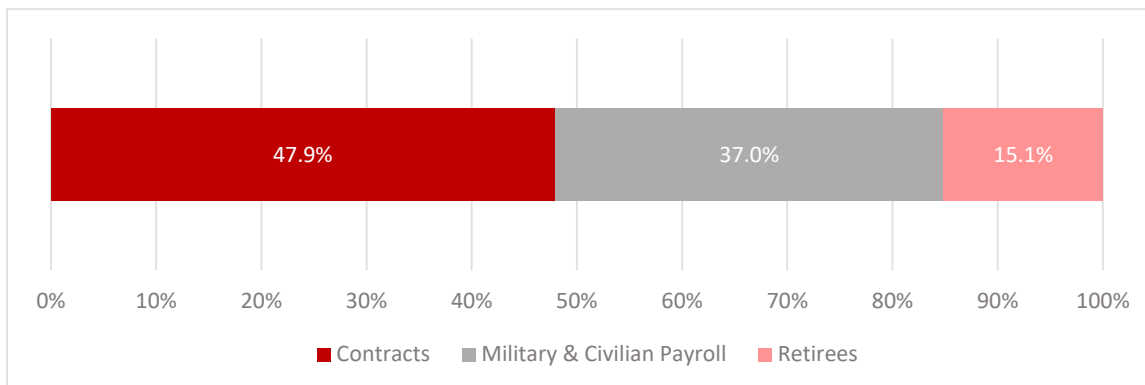
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 17: Calhoun County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	4,865	4,207	265	393
Earnings (\$M)	\$275	\$252	\$9	\$13
Output (\$M)	\$273	\$191	\$34	\$47
Value Added (\$M)	\$337	\$296	\$16	\$26

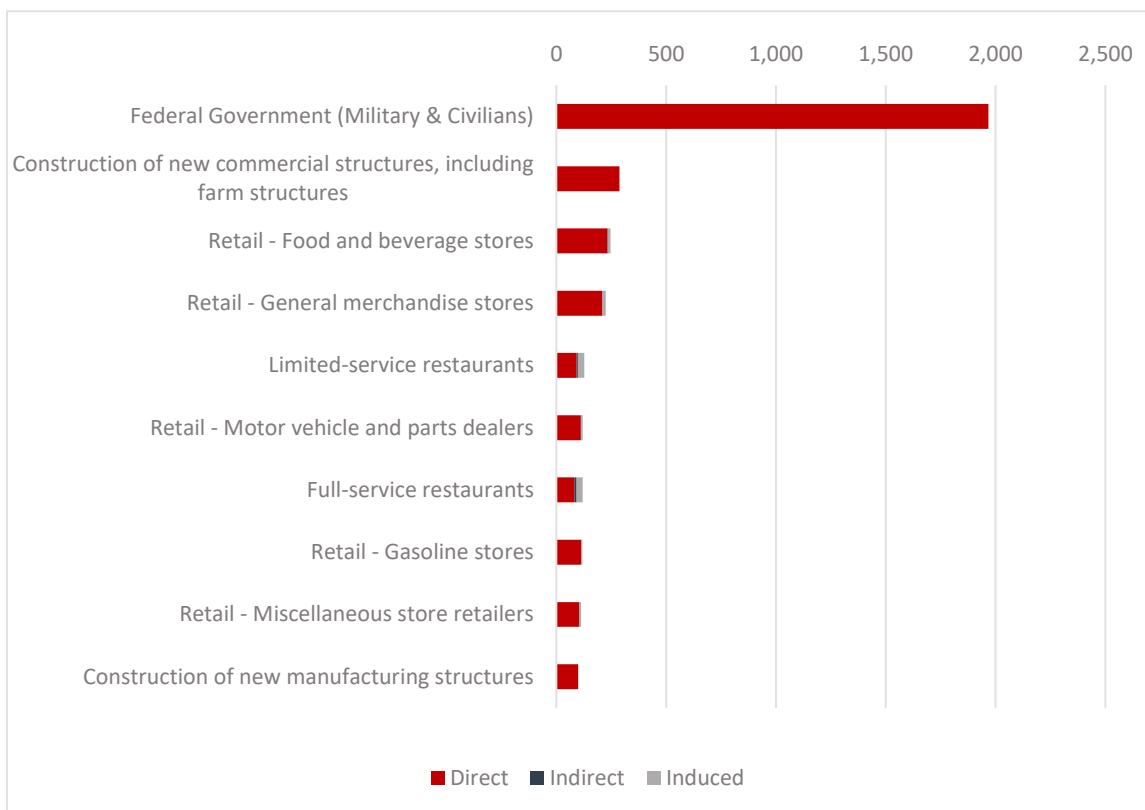
Source: IMPLAN

Figure 43: Calhoun County, Distribution of Direct Impacts FY16



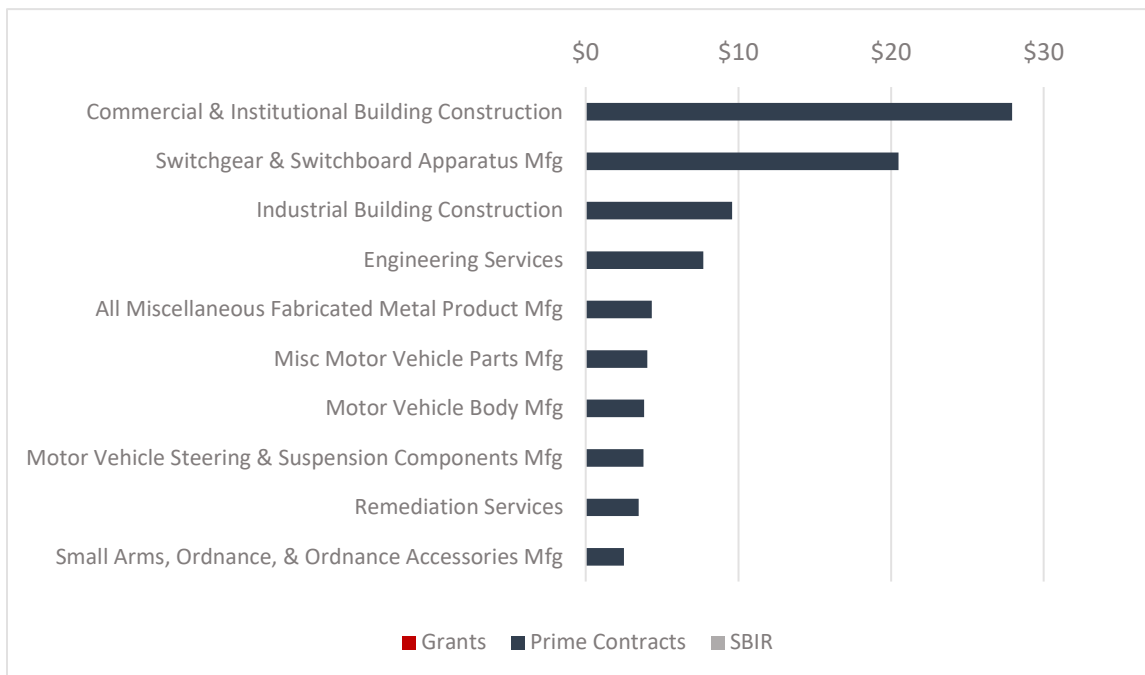
Source: IMPLAN

Figure 44: Calhoun County, Military Jobs Impact by Industry FY16



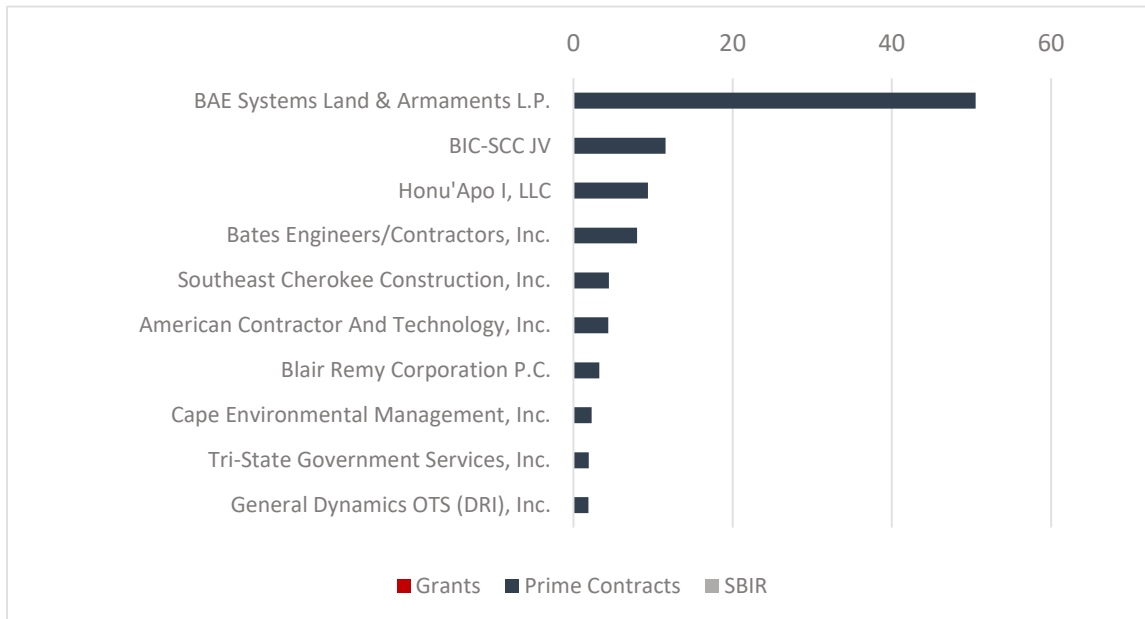
Source: IMPLAN

Figure 45: Calhoun County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 46: Calhoun County, DoD Procurement by Company FY16 (\$M)



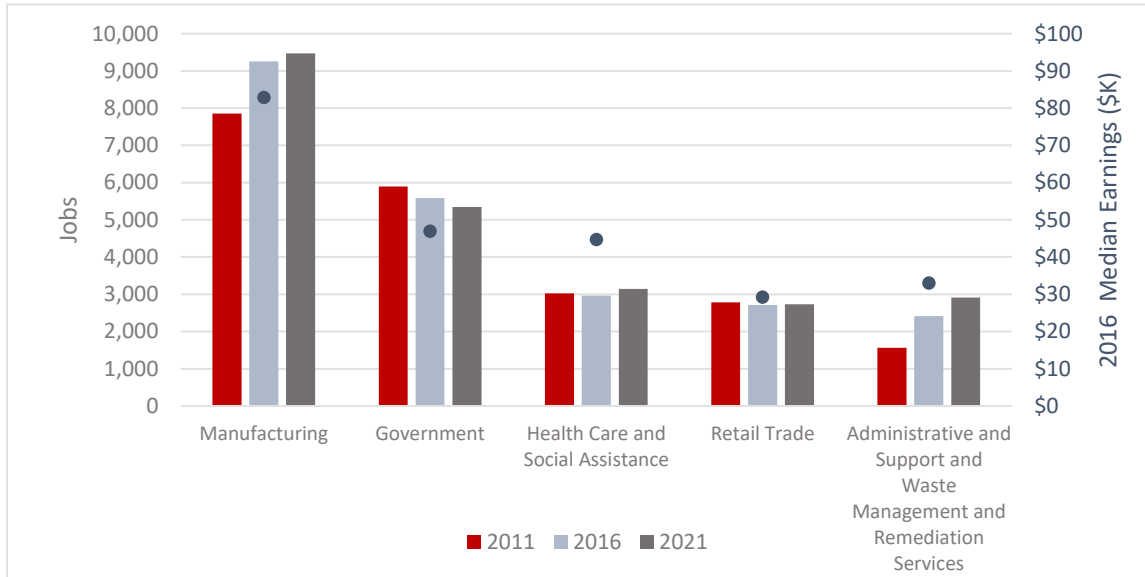
Source: USAspending.gov

TALLADEGA COUNTY

County Overview

Talladega County neighbors Anniston Army Depot and the now-closed Army Post Fort McClellan. These institutions provide a significant amount of employment and economic activity for Talladega County’s 80,103 residents.²⁵ Talladega County received an average of \$54.4 million in defense funding per year from FY13 through FY16.

Figure 47: Talladega County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



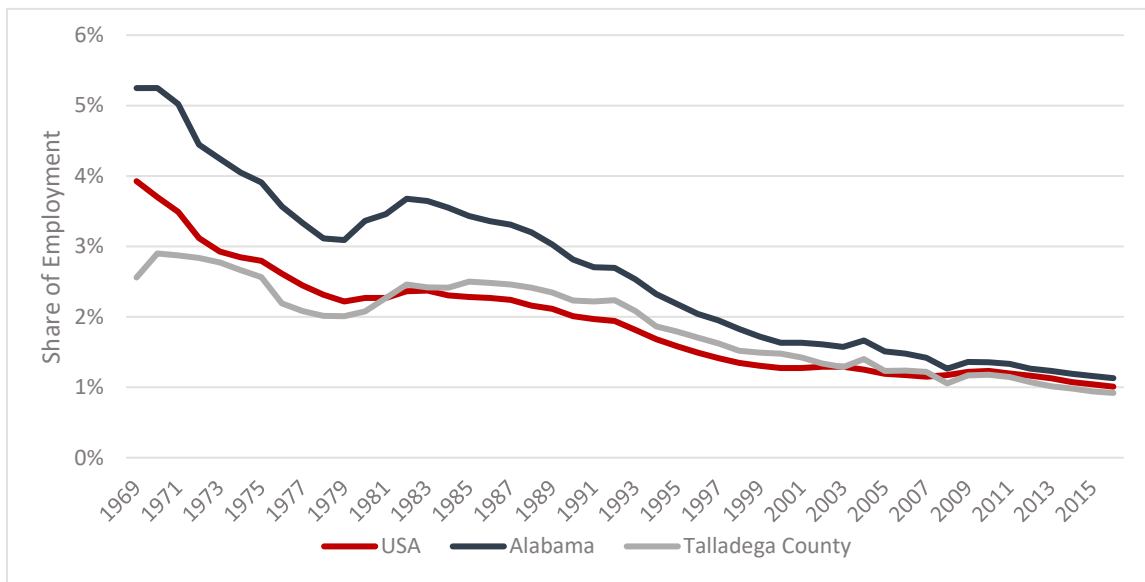
Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. It has relatively strong Manufacturing and Government sectors in terms of total employment. In terms of average earnings per job, Health Care & Social Assistance; Retail Trade; and Administrative, Support, Waste Management, and Remediation Services are strong sectors. Regarding these strong paying sectors, the Administrative, Support, Waste Management, and Remediation Services sector expects to see an increase in job growth by 2021.

Like most areas of the U.S., the number of military personnel in Talladega County has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in Talladega County has increased, albeit inconsistently, since FY13. Conversely, the number of contractors/grantees performing work has decreased marginally since FY13.

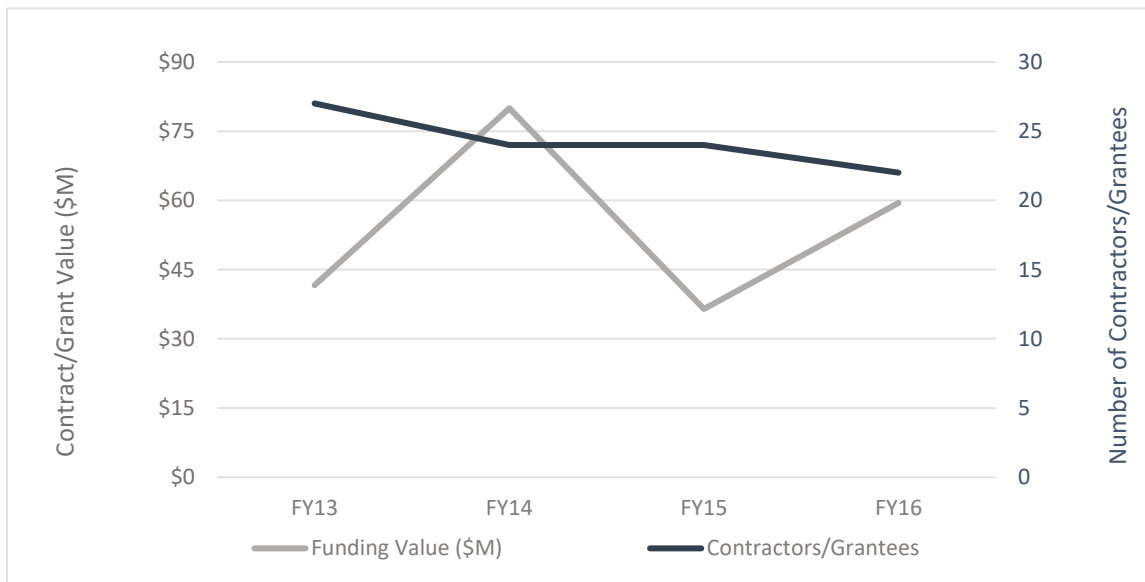
²⁵ U.S. Census Bureau (2016). Population Estimates, Talladega County, AL July 1, 2016. Retrieved from www.Census.gov/quickfacts.

Figure 48: Non-Civilian Military Employment Over Time, Talladega County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 49: Talladega County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$62 million in economic impact to Talladega County in FY16, which accounted for 2.4% of all net economic activity within the area. The military sustained 1,232 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Talladega County, an additional \$37 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$5 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 503.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 70.0% of direct impact. In FY16, industries that benefited most from military investment include Federal Government (Military and Civilians); Architectural, Engineering & Related Services; and Retail – General Merchandise Stores. In particular, companies receiving the largest value of contracts include ATAP, Inc and International Enterprises, Inc.

Table 18: Talladega County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$62
Impact on Jobs	1,232
Percent of Net Economic Activity	2.4%
Military Spending Per Resident	\$0.56
Military Funding Multiplier	\$1.37
State & Local Taxes (\$M)	\$5
Estimated Active Duty Personnel	2
Estimated Civilians	503
Estimated Military Retirees	29

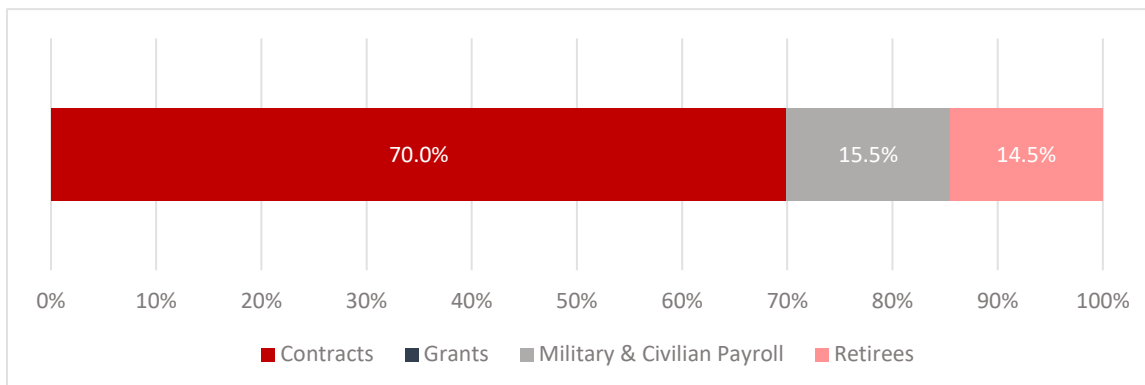
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 19: Talladega County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	1,232	1,087	64	81
Earnings (\$M)	\$62	\$57	\$2	\$3
Output (\$M)	\$62	\$45	\$7	\$10
Value Added (\$M)	\$86	\$78	\$3	\$5

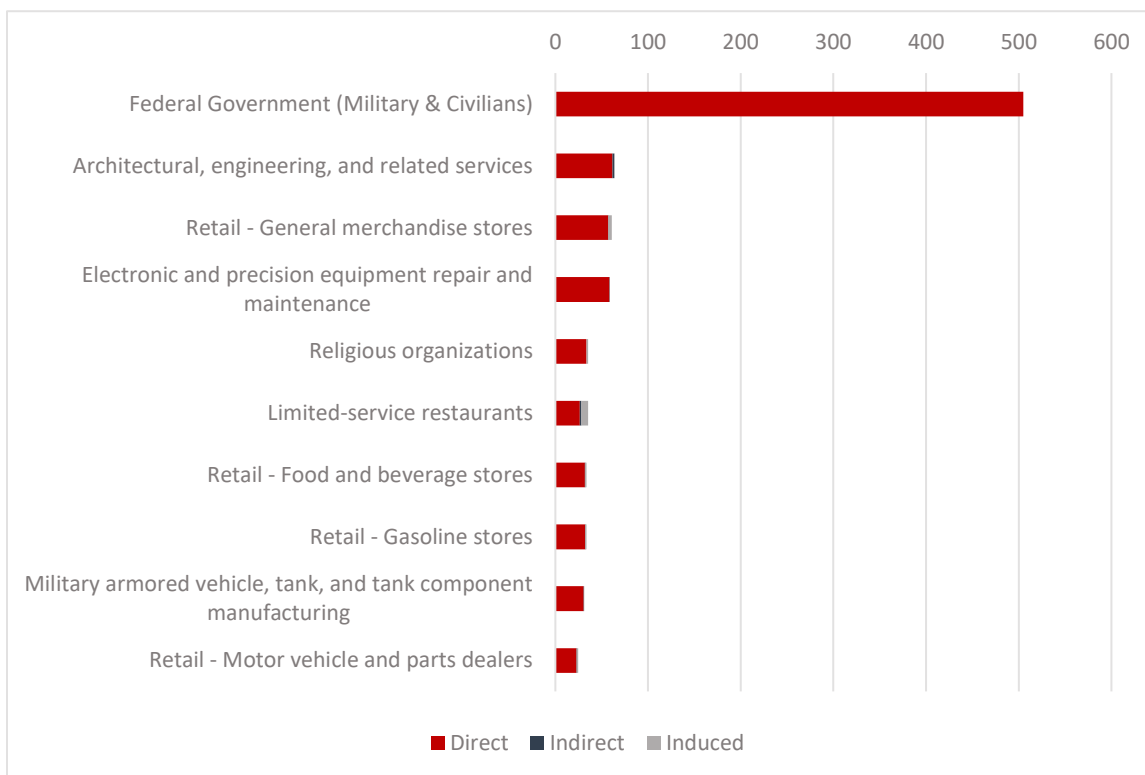
Source: IMPLAN

Figure 50: Talladega County, Distribution of Direct Impacts FY16



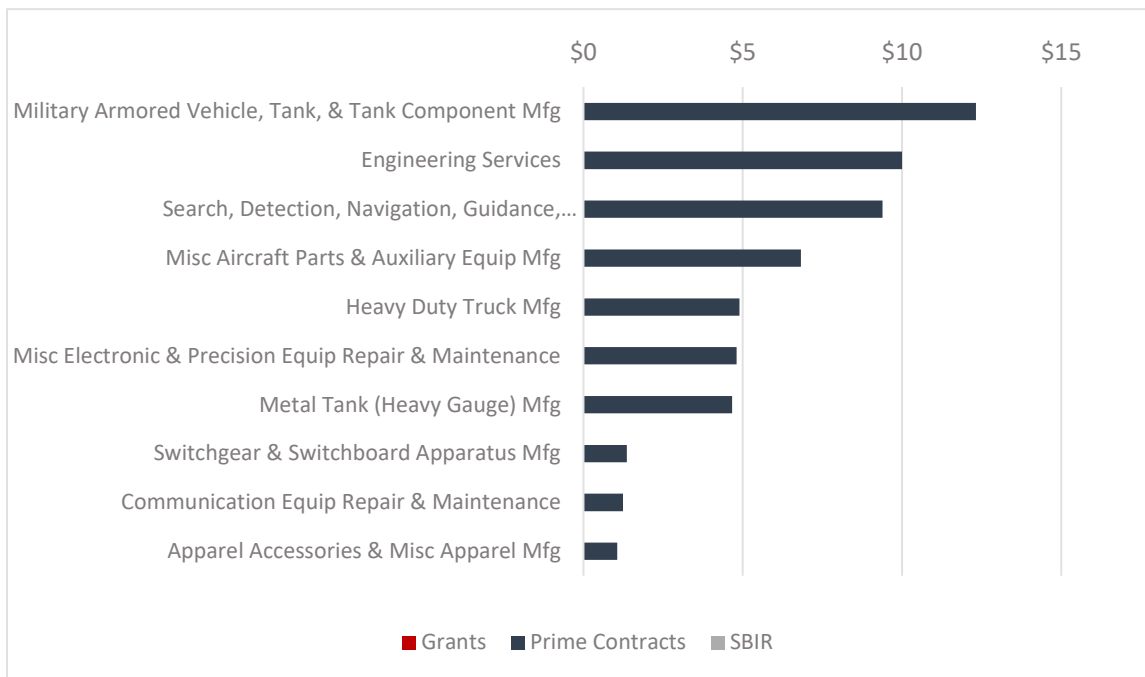
Source: IMPLAN

Figure 51: Talladega County, Military Jobs Impact by Industry FY16



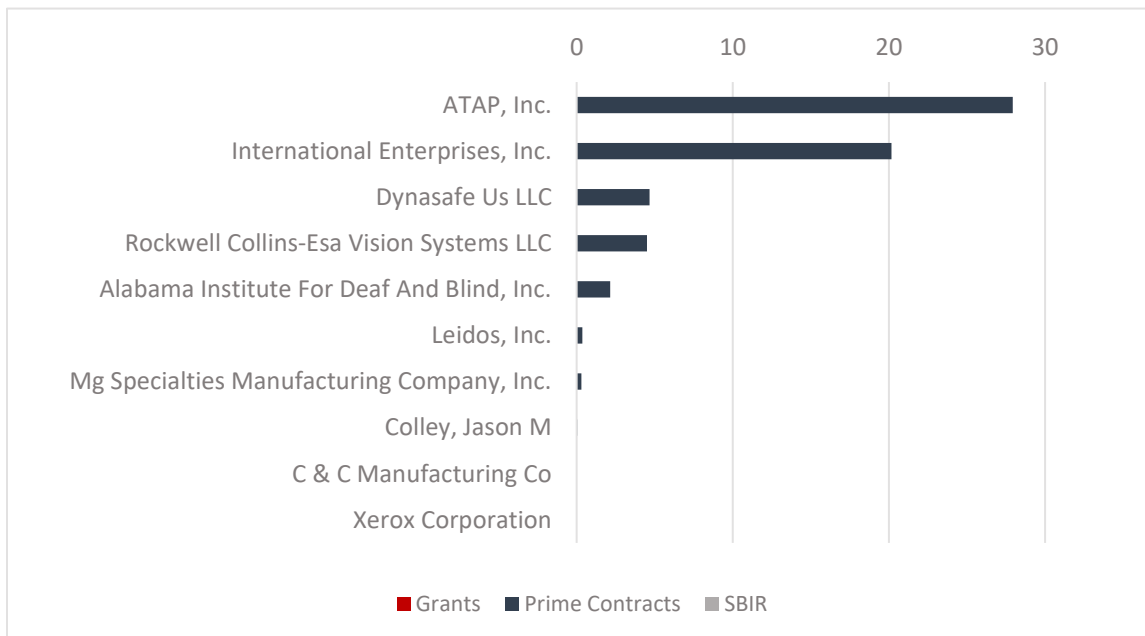
Source: IMPLAN

Figure 52: Talladega County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 53: Talladega County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

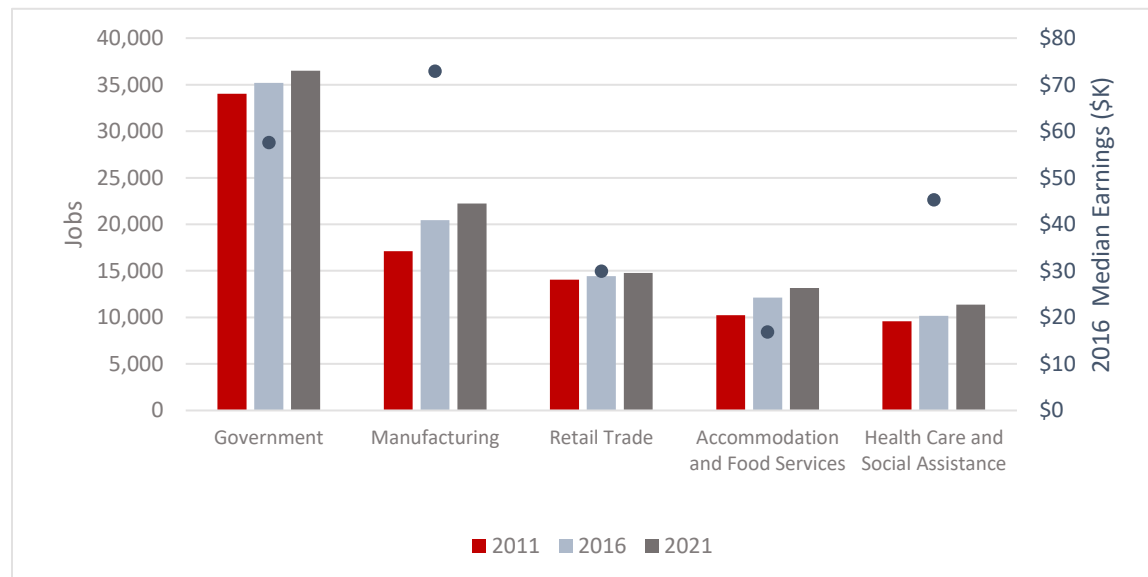
Tuscaloosa Area (Region 3)

Regional Overview

The Tuscaloosa Area covers the western portion of central Alabama, and includes the cities of Tuscaloosa, Northport, and Demopolis. It is the least populated area of the state, with just around 335,000 people in 2016.²⁶ This area does not include any major military installations but does hold two Army Reserve facilities as well as the headquarters of the 31st Chemical, Biological, Radiological, and Nuclear Brigade from the Army National Guard. The area also hosts significant DoD contractors, including Hunt Refining Company (with an average of \$41 million in annual contracts) and Fran/San Meats, L.L.C. (with an average of \$4 million in annual contracts).

Economically, this area has experienced 7.1% job growth over the past five years and has a strong manufacturing base. Its highest paying jobs are in the Manufacturing sector, at nearly \$73,000 in average earnings per job, while other prominent sectors, like Retail Trade, Health Care & Social Assistance, and Accommodation & Food Services pay below the national average. In addition, while the Tuscaloosa Area is home to the University of Alabama, its educational attainment still lags behind the national average, with 21.6% of the population having a bachelor's degree or above.

Figure 54: Tuscaloosa Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



Source: Emsi Employment, 2017.2

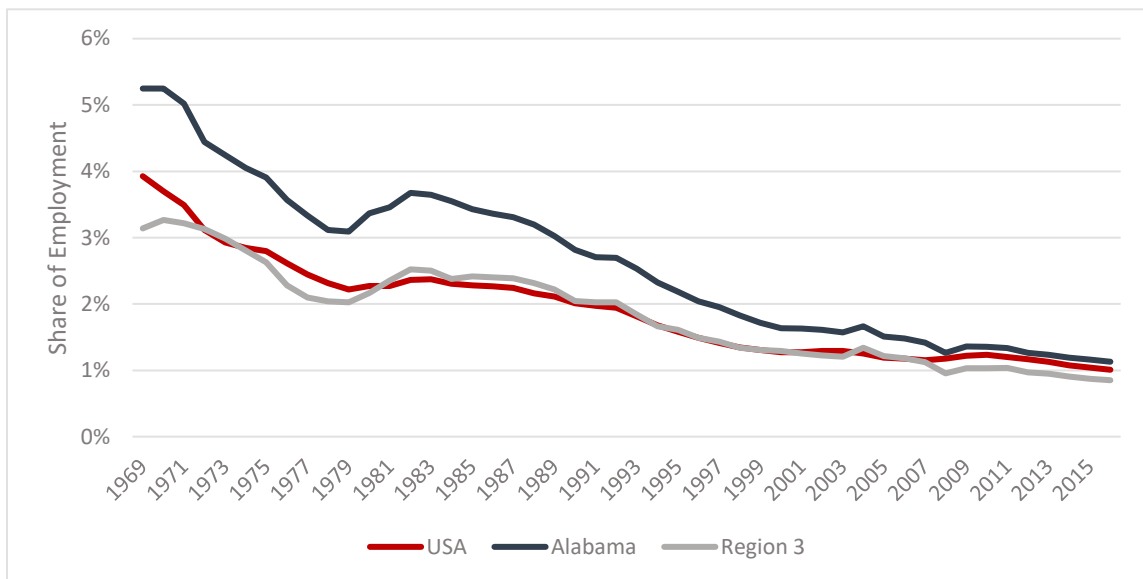
The area has grown in terms of both population and jobs in the past five years. The Government and Manufacturing sectors are the county's strongest sources of employment. In terms of average earnings per job, Manufacturing is the county's strongest, followed by Retail Trade; and Health Care & Social Assistance. All five of the largest sectors are expected to see job growth by 2021.

Like many areas of the U.S., the number of military personnel in the Tuscaloosa Area has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in the Tuscaloosa Area

²⁶ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

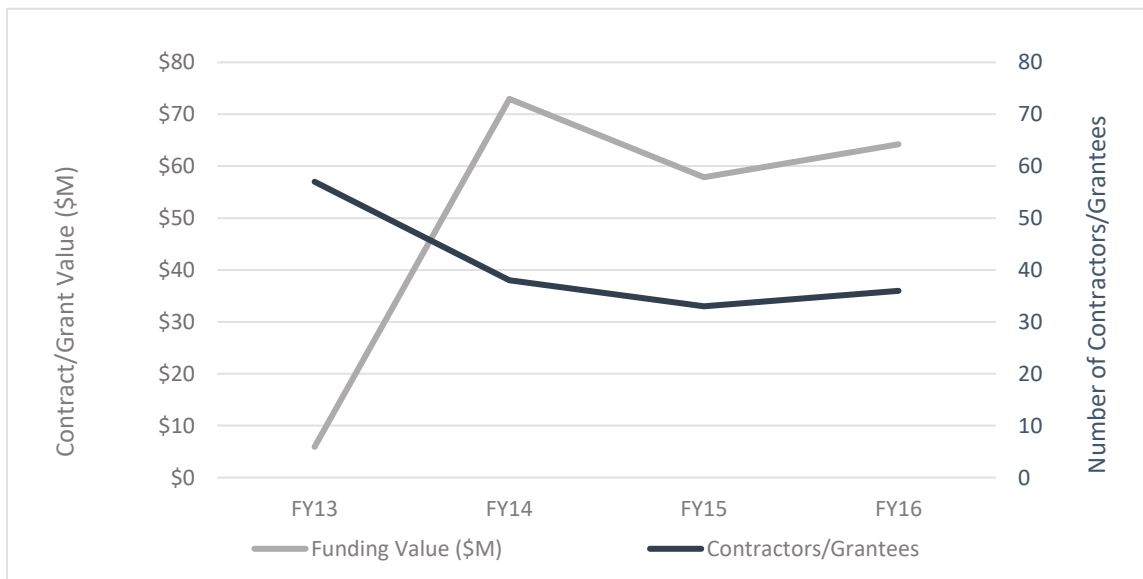
increased between FY13 and FY16, particularly due to a sizeable increase in contract value in FY14. Meanwhile, the number of contractors/grantees decreased over this period, indicating that a smaller number of firms received larger contracts.

Figure 55: Non-Civilian Military Employment Over Time, Tuscaloosa Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 56: Tuscaloosa Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$174 million in economic impact to the Tuscaloosa Area in FY16, which accounted for 1.7% of all net economic activity within the area. The military sustained 1,703 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Tuscaloosa Area an additional \$40 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$13 million in state and local tax receipts. Among all categories of people on the military payroll, military retirees were the largest at 2,636.

Table 20: Tuscaloosa Area, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$174
Impact on Jobs	1,703
Percent of Net Economic Activity	1.7%
Military Spending Per Resident	\$0.37
Military Funding Multiplier	\$1.40
State & Local Taxes (\$M)	\$13
Estimated Active Duty Personnel	22
Estimated Civilians	98
Estimated Military Retirees	2,636

Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

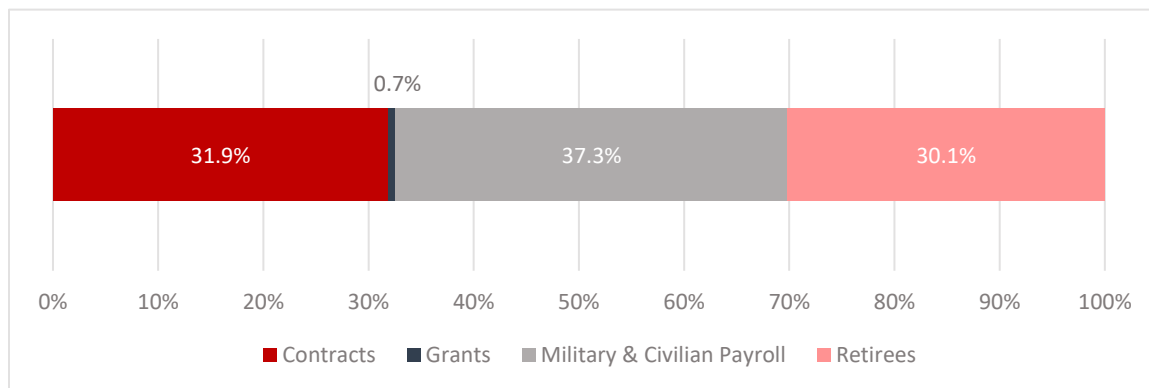
Among DoD related sources of income in FY16, military and civilian payroll is the single largest driver of economic impact within the area, accounting for 37.3% of direct impact. In FY16, industries that benefited most from military investment include Retail – Food and Beverage Stores; Retail – General Merchandise Stores; and Federal Government. Hunt Refining Company leads all entities in contract value received, followed by R&D Maintenance Services, Inc and the University of Alabama.

Table 21: Tuscaloosa Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	1,703	1,319	186	198
Earnings (\$M)	\$184	\$169	\$8	\$6
Output (\$M)	\$174	\$124	\$27	\$23
Value Added (\$M)	\$237	\$210	\$14	\$13

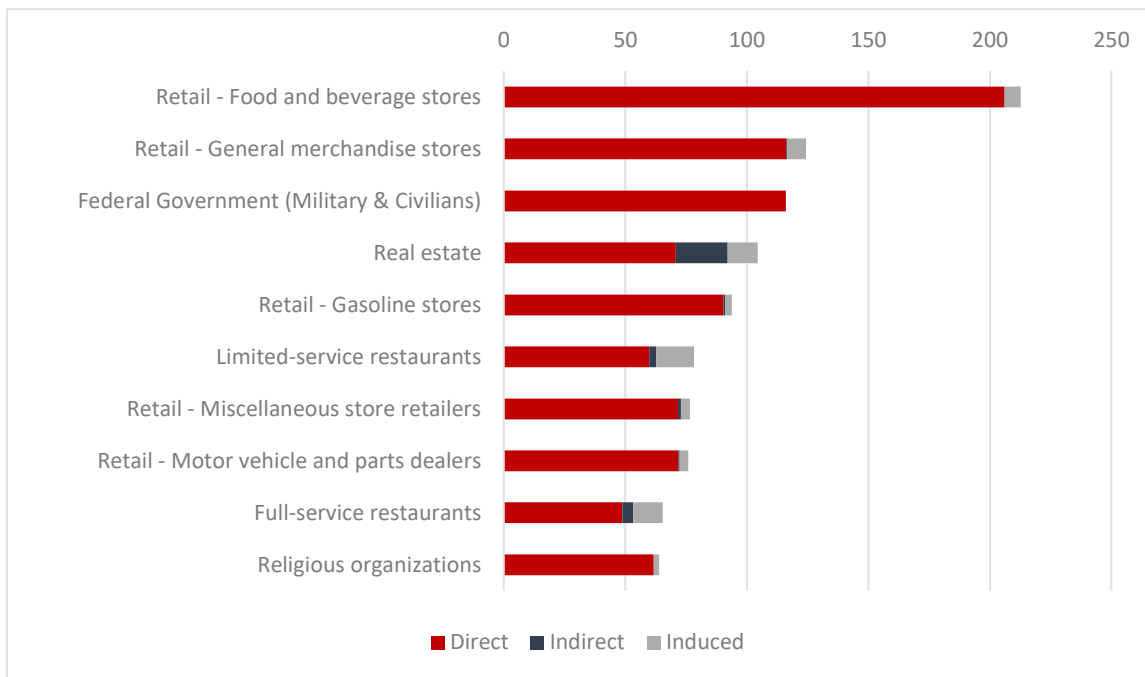
Source: IMPLAN

Figure 57: Tuscaloosa Area, Distribution of Direct Impacts FY16



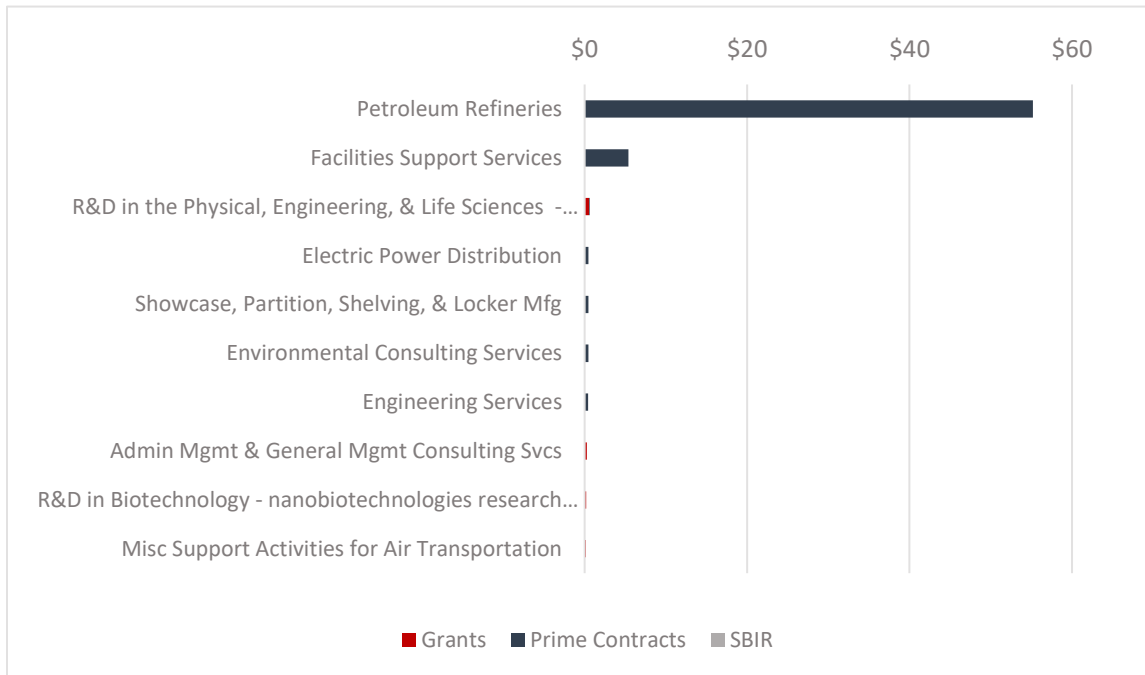
Source: IMPLAN

Figure 58: Tuscaloosa Area, Military Jobs Impact by Industry FY16



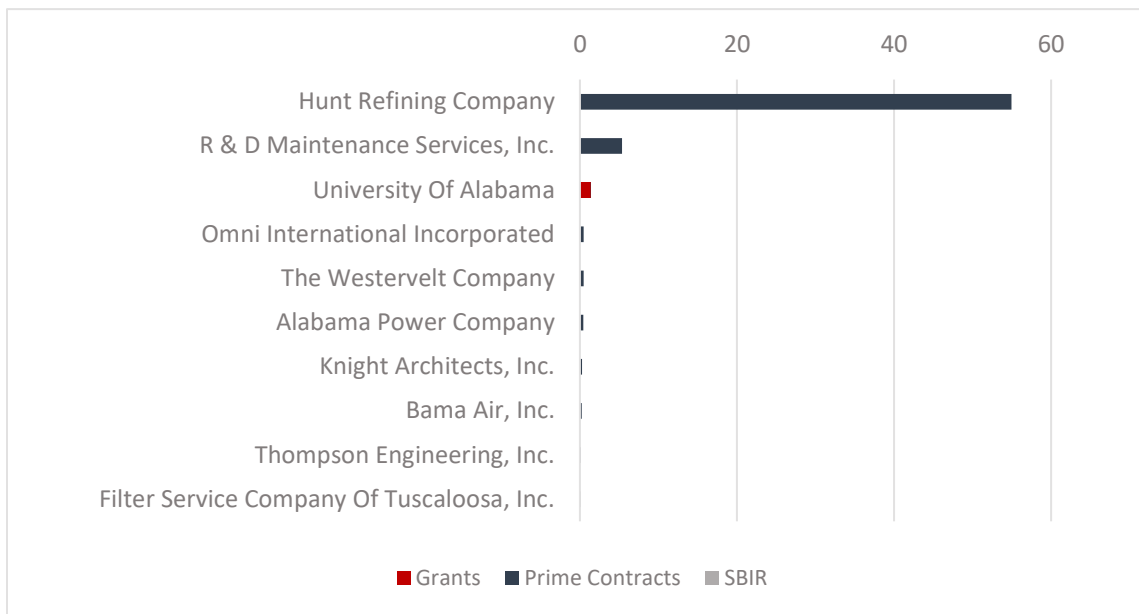
Source: IMPLAN

Figure 59: Tuscaloosa Area, DoD Procurement by Industry FY16 (\$M)



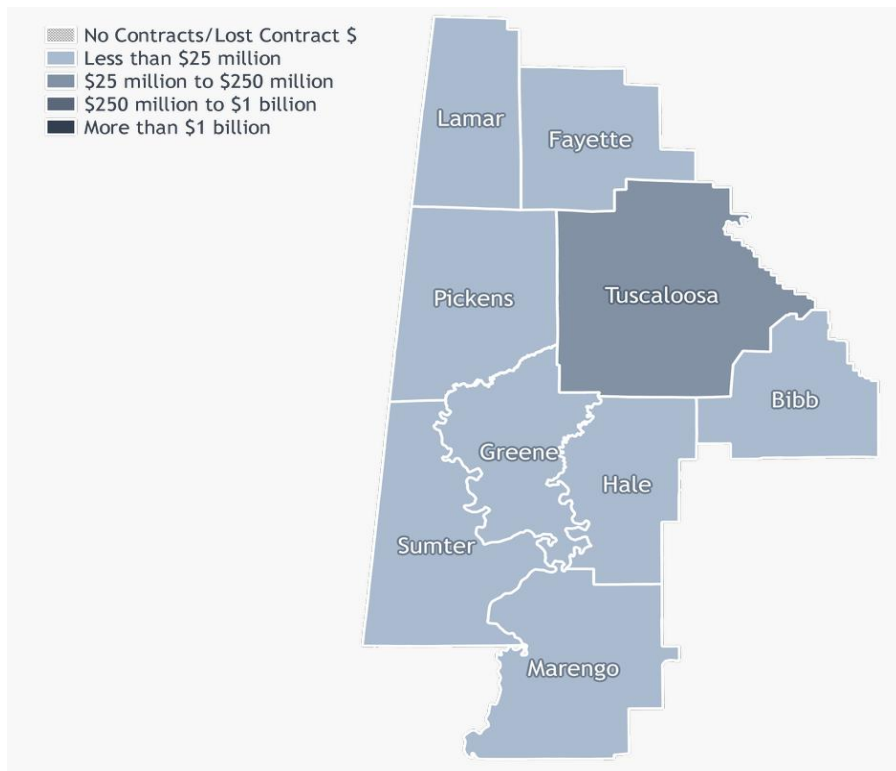
Source: USAspending.gov

Figure 60: Tuscaloosa Region, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 61: Tuscaloosa Area, County Location of Direct Procurement Impact

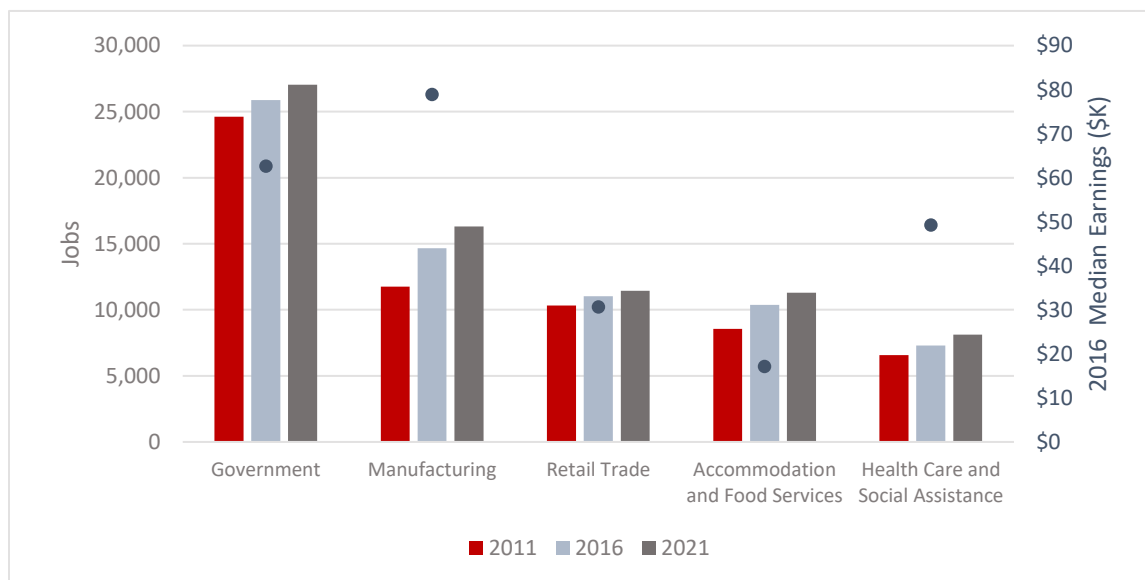


TUSCALOOSA COUNTY

County Overview

With a population of 206,102 in 2016, Tuscaloosa County is home to the National Guard 31st Chemical, Biological, Radiological, and Nuclear Brigade and a U.S. Army ROTC base at the University of Alabama.²⁷ Earning an average of \$46.4 million per year in military contracts from FY13 through FY16, Tuscaloosa County is an active and vital participant in the military economy. Contracting activity in the county has been primarily driven by purchases from Petroleum Refineries, namely Hunt Refining Company.

Figure 62: Tuscaloosa County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



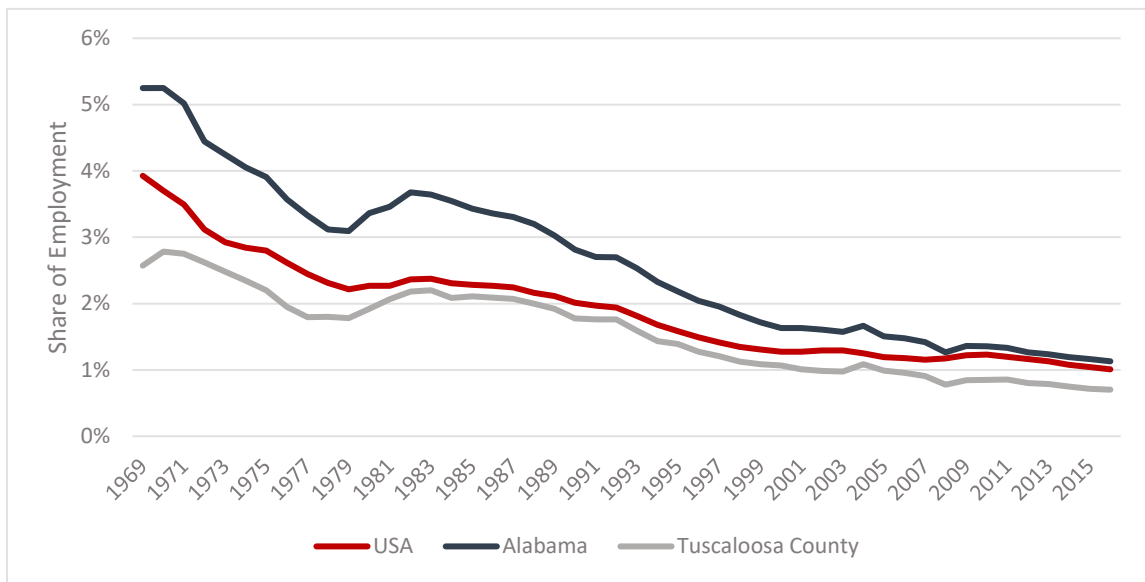
Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. Government and Manufacturing are the county's largest employing sectors. In terms of average earnings per job, Manufacturing and Health Care & Social Assistance are the strongest contributors. Additionally, all five of the county's largest industries are expected to experience increased job growth by 2021.

Like many areas of the U.S., the number of military personnel in Tuscaloosa County has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in Tuscaloosa County increased between FY13 and FY16, particularly due to a sizeable increase in contract value in FY14. Meanwhile, the number of contractors/grantees decreased over this period, indicating that a smaller number of firms received larger contracts.

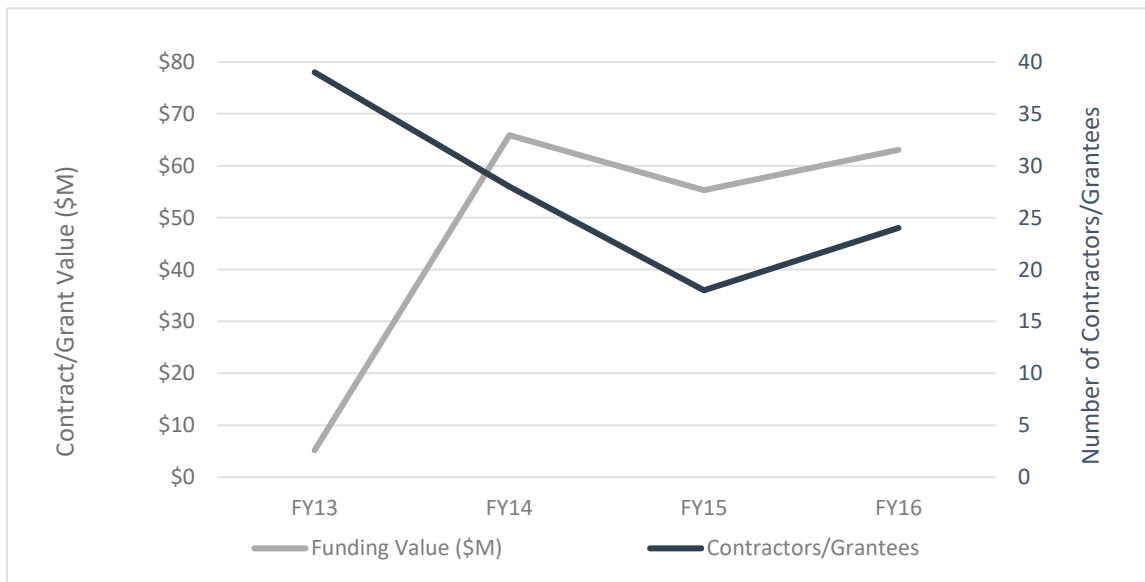
²⁷ U.S. Census Bureau (2016). Population Estimates, Tuscaloosa County, AL July 1, 2016. Retrieved from www.Census.gov/quickfacts.

Figure 63: Non-Civilian Military Employment Over Time, Tuscaloosa County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 64: Tuscaloosa County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$148 million in economic impact to Tuscaloosa County in FY16, which accounted for 1.6% of all net economic activity within the area. The military sustained 1,255 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Tuscaloosa County, an additional \$37 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$10.0 million in state and local tax receipts. Among all categories of people on the military payroll, military retirees were the largest at 1,516.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the single largest driver of economic impact within the area, accounting for 40.7% of direct impact. In FY16, industries that benefited most from military investment include Retail – Food and Beverage Stores; Retail – General Merchandise Stores; and Real Estate. Hunt Refining Company leads all entities in contract value received, followed by R&D Maintenance Services, Inc and the University of Alabama.

Table 22: Tuscaloosa County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$148
Impact on Jobs	1,255
Percent of Net Economic Activity	1.6%
Military Spending Per Resident	\$0.52
Military Funding Multiplier	\$1.37
State & Local Taxes (\$M)	\$10
Estimated Active Duty Personnel	5
Estimated Civilians	48
Estimated Military Retirees	1,516

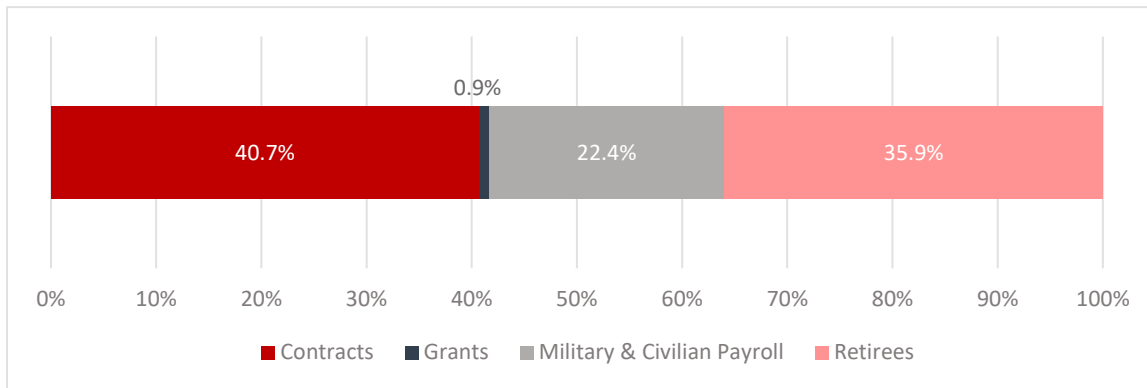
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 23: Tuscaloosa County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	1,255	945	148	162
Earnings (\$M)	\$130	\$117	\$7	\$5
Output (\$M)	\$148	\$108	\$21	\$19
Value Added (\$M)	\$175	\$152	\$12	\$11

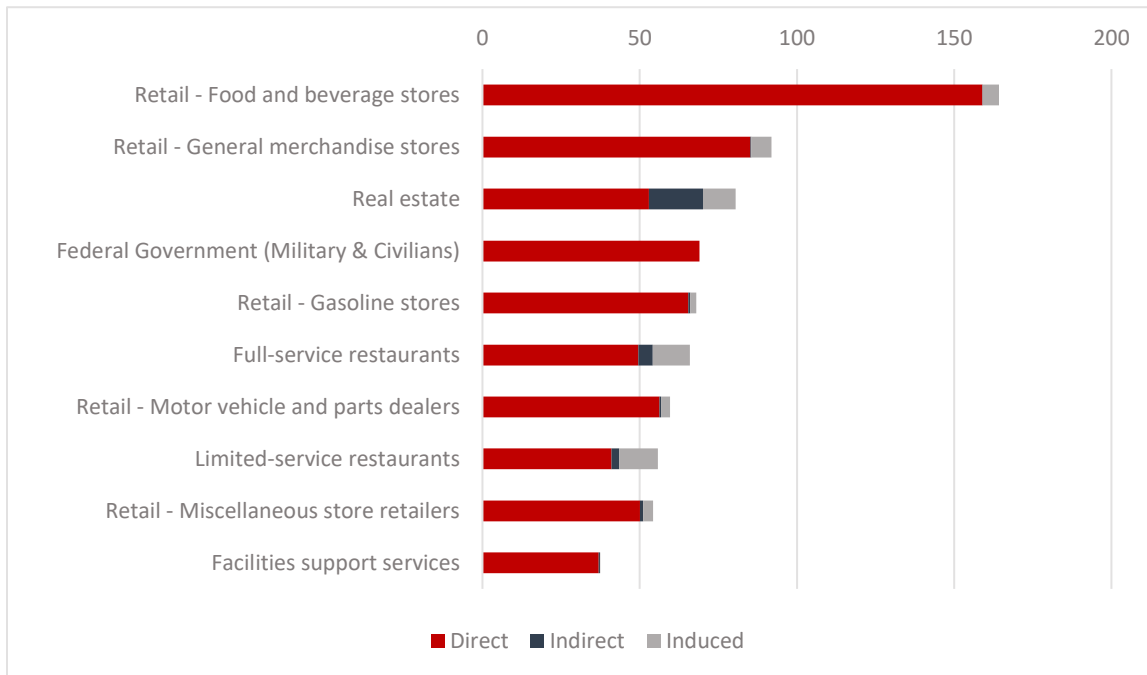
Source: IMPLAN

Figure 65: Tuscaloosa County, Distribution of Direct Impacts FY16



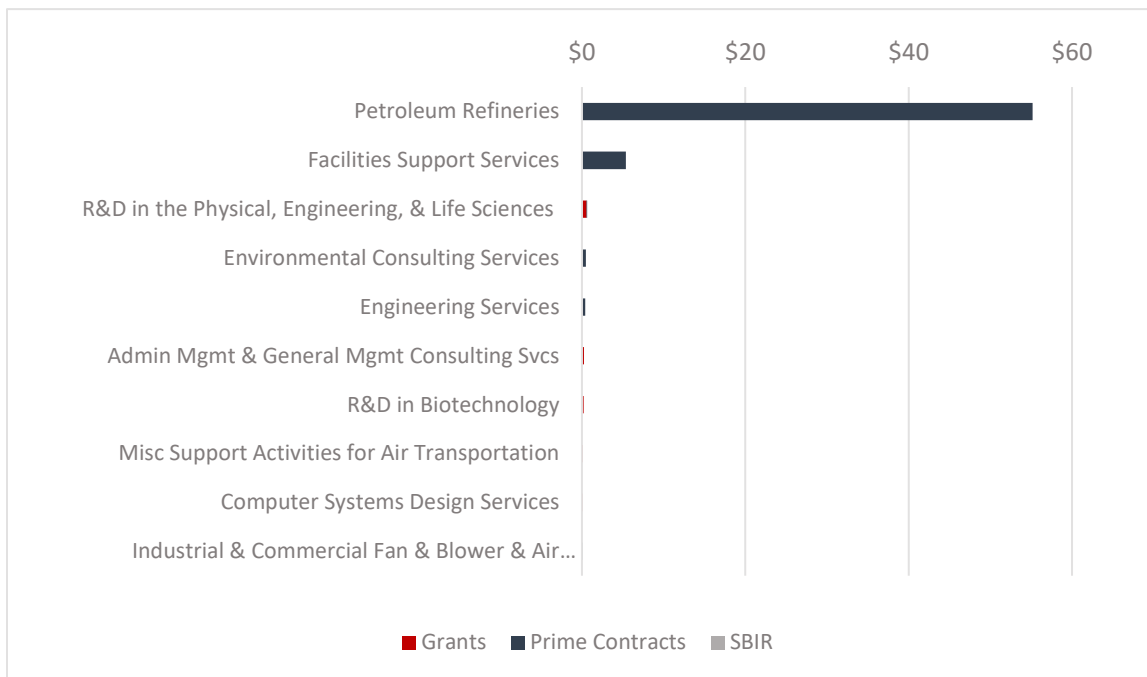
Source: IMPLAN

Figure 66: Tuscaloosa County, Military Jobs Impact by Industry FY16



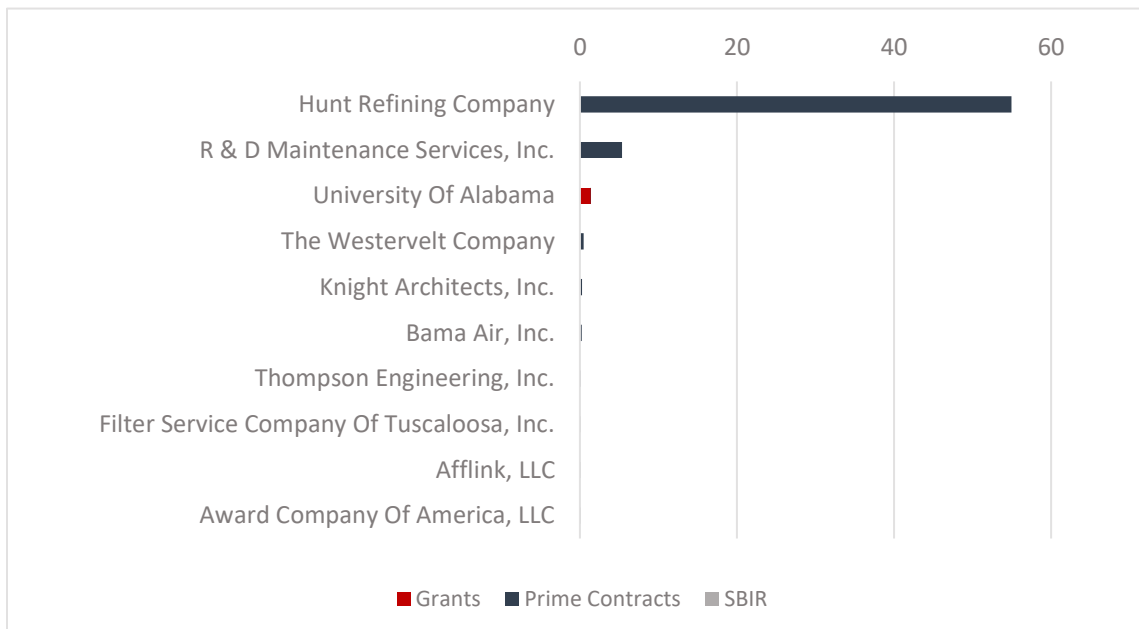
Source: IMPLAN

Figure 67: Tuscaloosa County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 68: Tuscaloosa County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Birmingham Area (Region 4)

Regional Overview

The Birmingham Area covers six counties in north-central Alabama. It is the second most populous area in the state,²⁸ and includes the cities of Birmingham, Hoover, Trussville, and Alabaster. This area's military activities are anchored by Air National Guard and Army National Guard bases in Birmingham, as well as five Army Reserve institutions in Birmingham and defense-supportive research at two universities: University of Alabama at Birmingham (UAB) and Samford University.

The Reserve and National Guard units in the Birmingham Area provide crucial support services to the U.S. military. In Birmingham, these units include the Air National Guard 117th Air Refueling Wing; the U.S. Army Reserve Deployment Support Command the Gulf Training Division; 75th Training Command; the Army Reserve Sustainment Command;²⁹ the Army National Guard 20th Special Forces Group (Airborne); and the Army Reserve 135th Sustainment Command. Over the past several years, many Birmingham-based companies have received contracts from these and other Alabama military bases, including Cahaba Government Benefit Administrators, LLC; NaphCare, Inc.; and Southern Research Institute. In addition, two local universities are supported by federal contracts to help veterans. UAB's DoD-supported BRAVE Initiative helps veterans and civilians who have sustained a traumatic brain injury, while Samford's Health and Human Services-supported nursing school is helping veterans prepare for careers in nursing.³⁰

Economically, the Birmingham Area has a large number of relatively well-paying jobs, particularly among the Government, Health Care & Social Assistance, and Manufacturing industry sectors. However, the average earnings per job in the area are still \$5k below the national average, at \$57.5k, and job growth has trailed the national average in recent years.³¹ Still, three of the area's five fastest-growing industries have average earnings per worker higher than the national average, including Education and Hospitals; Depository Credit Intermediation; and Motor Vehicle Parts Manufacturing.

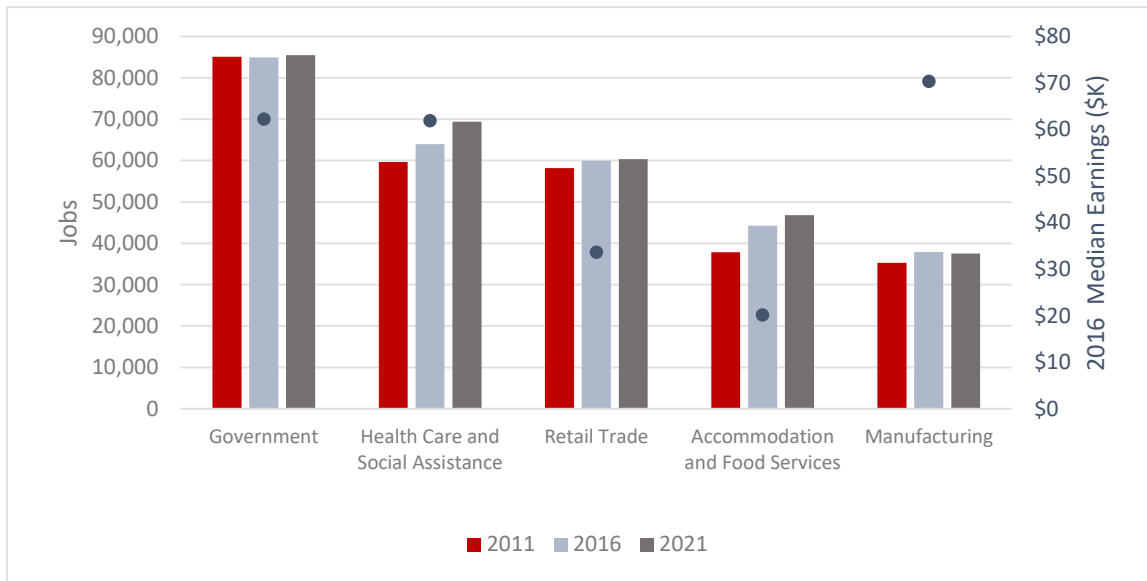
²⁸ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

²⁹ U.S. Army Reserve (2017). State of Alabama and the United States Army Reserve. <http://www.usar.army.mil/Featured/Ambassador-Program/Find-an-Ambassador/Alabama/>

³⁰ Stripling, K. (2015). Samford Receives \$1 Million Grant to Prepare Veterans as Nurses. Samford University. <https://www.samford.edu/news/2015/07/Samford-Receives-1-Million-Grant-to-Prepare-Veterans-as-Nurses>

³¹ Emsi. (2017.2). Regional Economy Overview.

Figure 69: Birmingham Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years

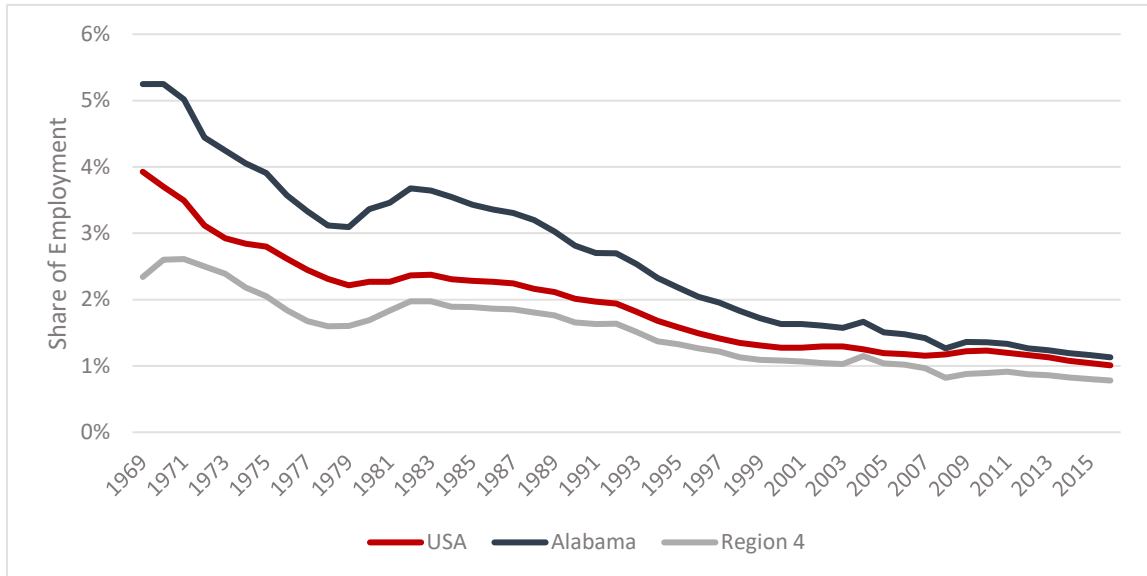


Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. It has relatively strong Government; Health Care & Social Assistance; and Retail Trade sectors regarding total employment. Regarding average earnings per job, Health Care & Social Assistance and Manufacturing are strong sectors. Among its highest paying sectors, Health Care & Social Assistance is expected to see job growth by 2021.

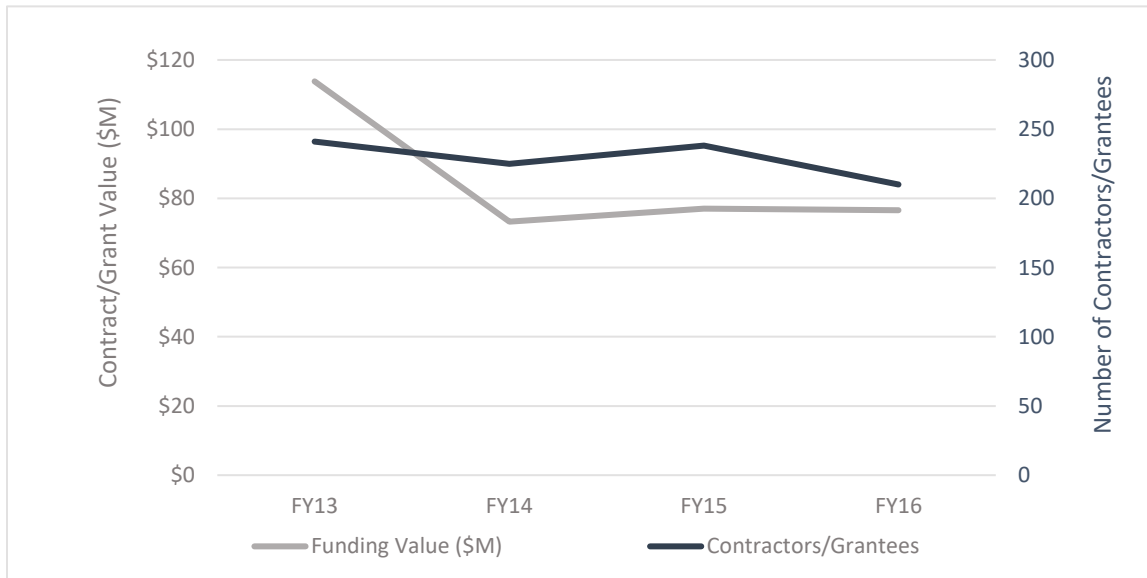
Like most areas of the U.S., the number of military personnel in the Birmingham Area has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in the Birmingham Area has decreased considerably since FY13, declining particularly sharply in FY14. The number of contractors/grantees has also fluctuated over the four-year period analyzed, but ultimately was lower in FY16 than in FY13.

Figure 70: Non-Civilian Military Employment Over Time, Birmingham Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 71: Birmingham Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$640 million in economic impact to the Birmingham Area in FY16, which accounted for 1.4% of all net economic activity within the area. The military sustained 8,138 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Birmingham Area an additional \$90 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$54 million in state and local tax receipts. Among all categories of people on the military payroll, military retirees were the largest at 27,179.

Table 24: Birmingham Region, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$640
Impact on Jobs	8,138
Percent of Net Economic Activity	1.4%
Military Spending Per Resident	\$0.30
Military Funding Multiplier	\$1.90
State & Local Taxes	\$54
Estimated Active Duty Personnel	378
Estimated Civilians	1,679
Estimated Military Retirees	27,179

Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

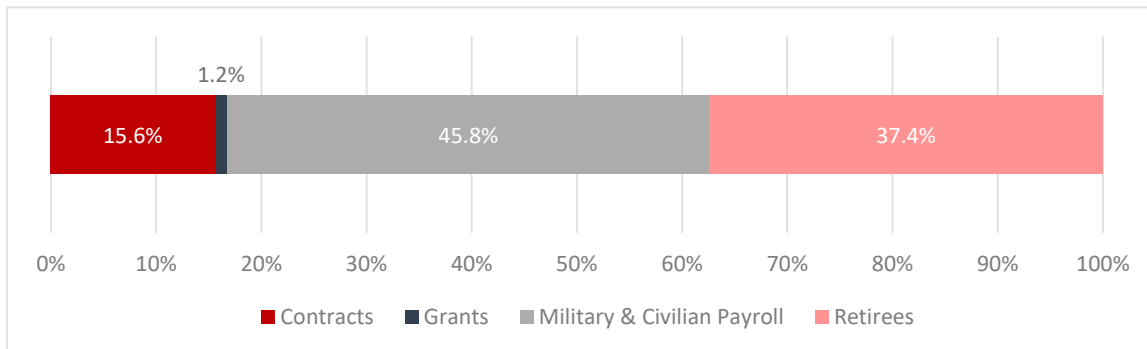
Among DoD related sources of income in FY16, military and civilian payroll is the clear driver of economic impact within the area, accounting for 45.8% of direct impact. In FY16, industries that benefited most from military investment include Federal Government; Retail – Food and Beverage Stores; and Retail – General Merchandise Stores. In particular, companies receiving the largest value of contracts include Sysco Central Alabama, Inc.; Forestwood Farm, Inc.; and Southern Research Institute.

Table 25: Birmingham Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	8,138	6,136	809	1,193
Earnings (\$M)	\$659	\$561	\$45	\$54
Output (\$M)	\$640	\$336	\$136	\$167
Value Added (\$M)	\$846	\$671	\$76	\$99

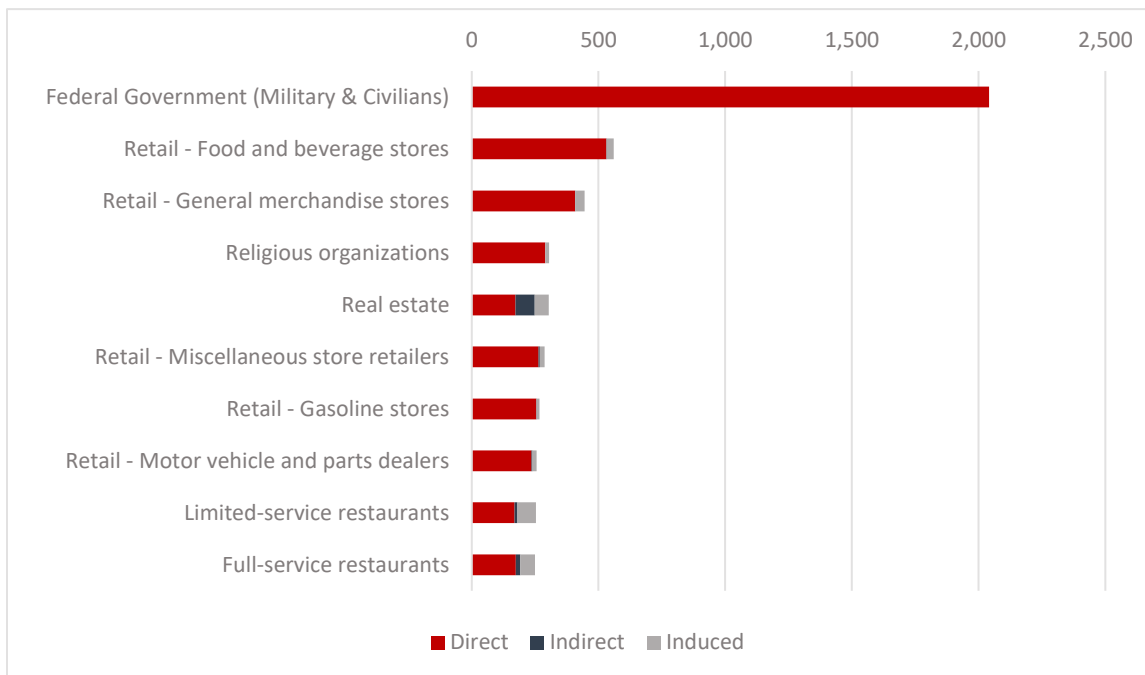
Source: IMPLAN

Figure 72: Birmingham Area, Distribution of Direct Impacts FY16



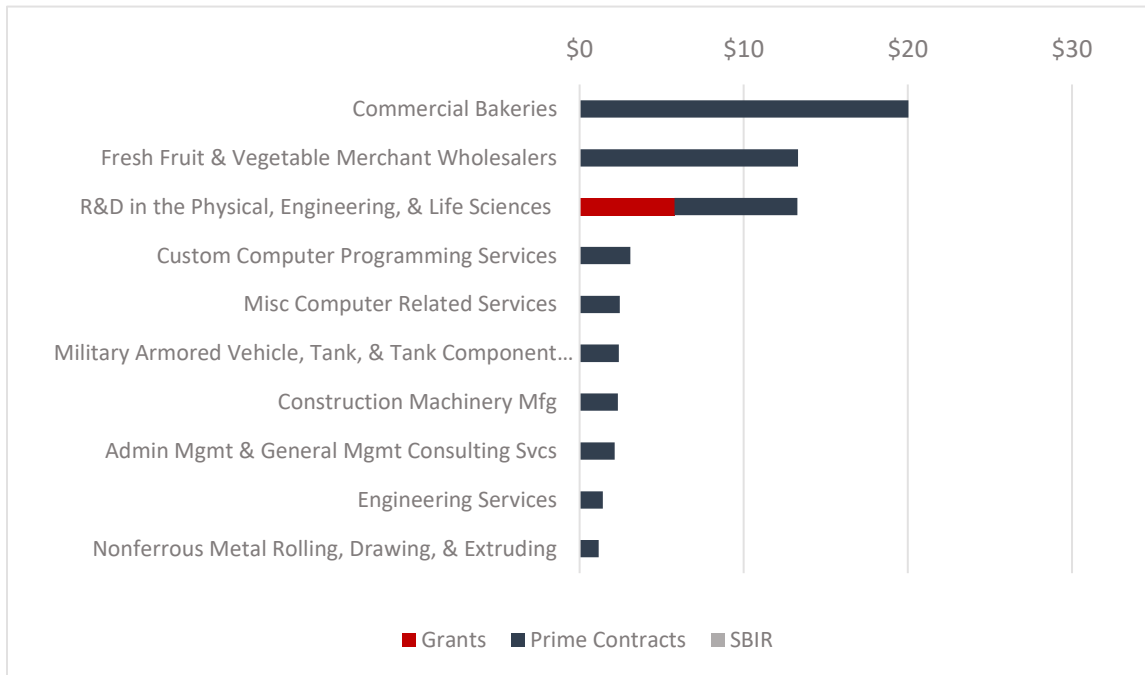
Source: IMPLAN

Figure 73: Birmingham Area, Military Jobs Impact by Industry FY16



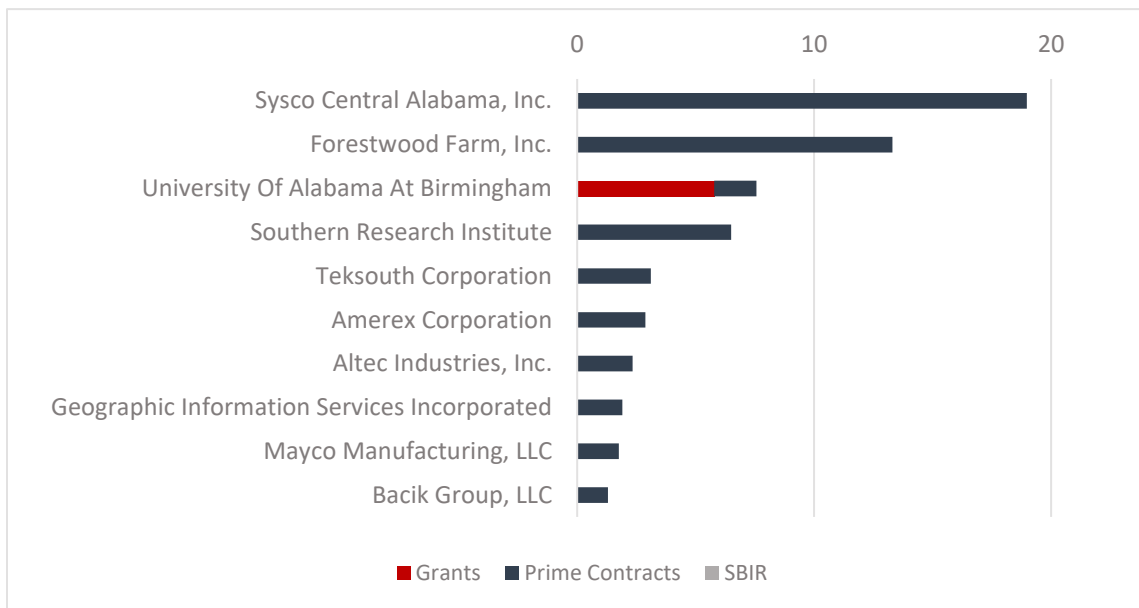
Source: IMPLAN

Figure 74: Birmingham Region, DoD Procurement by Industry FY16 (\$M)



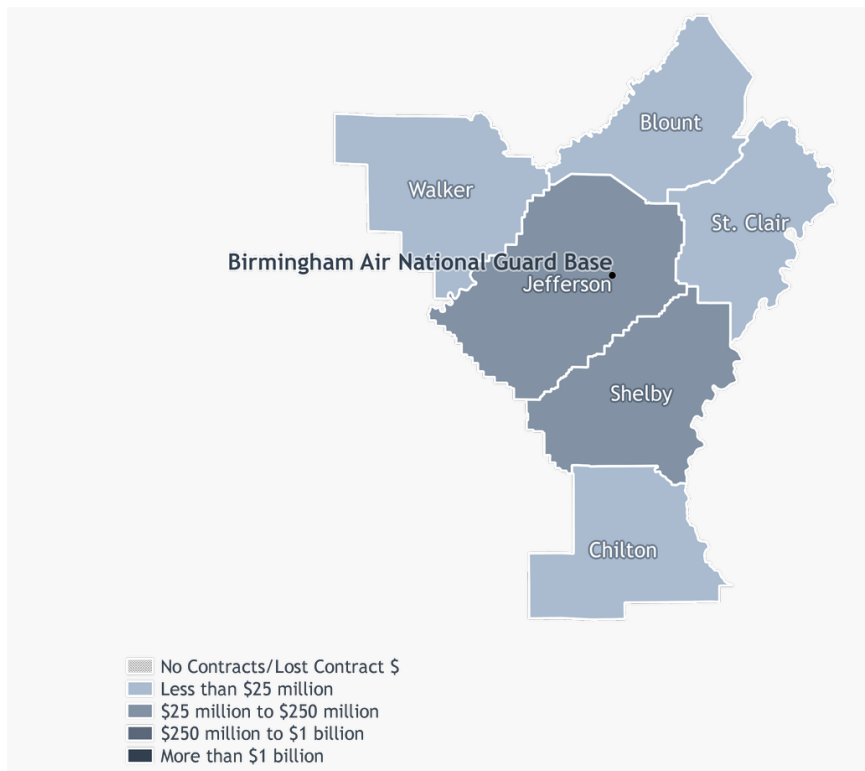
Source: USAspending.gov

Figure 75: Birmingham Area, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 76: Birmingham Area, County Location of Direct Procurement Impact

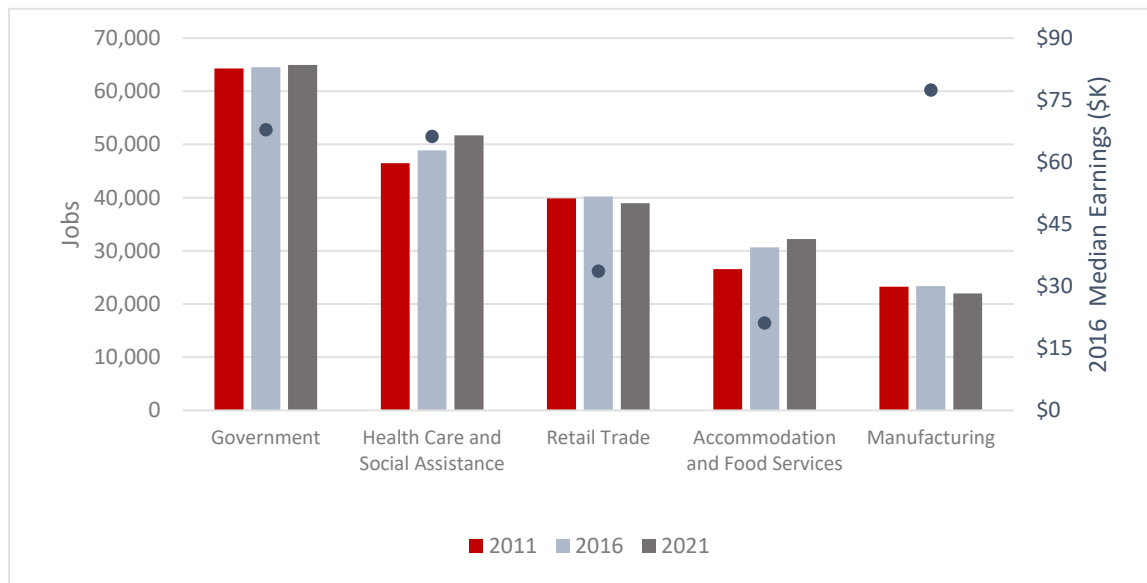


JEFFERSON COUNTY

County Overview

With a population of 659,521 in 2016,³² Jefferson County was the recipient of \$97 million in military contracts per year, on average, between FY13 and FY16. Over that period of time, top contracting industries included Direct Health and Medical Insurance Carriers; General Medical and Surgical Hospitals; and Commercial and Institutional Building Construction. Home of the City of Birmingham, Jefferson County has significant military presence, including Air National Guard and Army National Guard bases, several reserve institutions, and two universities actively involved in both defense research and veteran support.

Figure 77: Jefferson County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



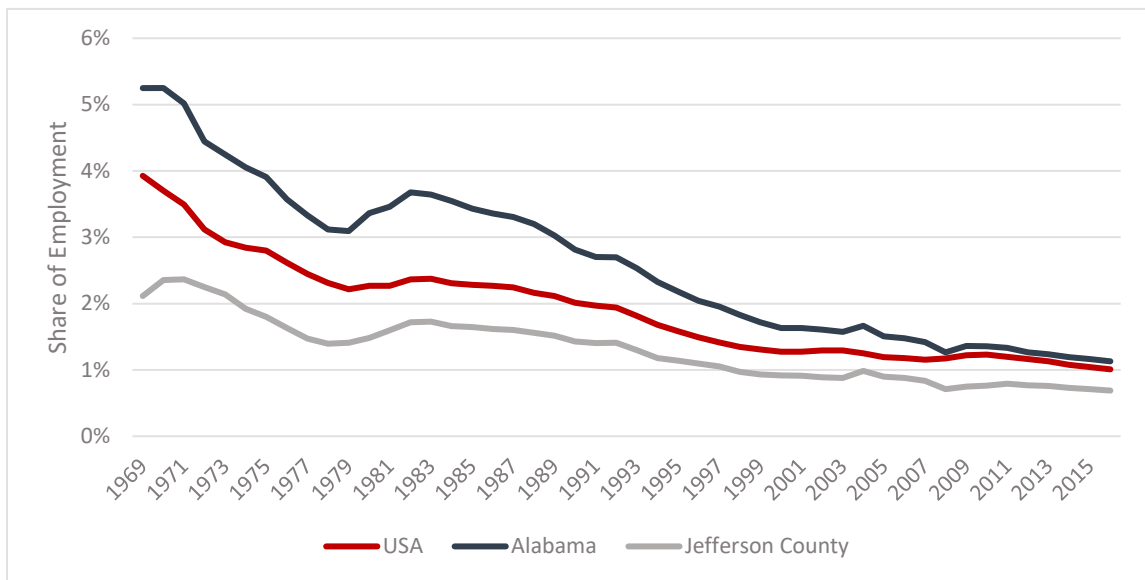
Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. The Government and Health Care & Social Assistance sectors both employ a large number of people. In terms of earnings, Health Care & Social Assistance is again a notable contributor, along with Manufacturing. Of the sectors with above average earnings per job, the Health Care & Social Assistance sector expects to see an increase in job growth by 2021.

Like most areas of the U.S., the number of military personnel in Jefferson County has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in Jefferson County decreased between FY13 and FY16. Likewise, the number of contractors/grantees decreased over these four fiscal years, despite an increase in FY15.

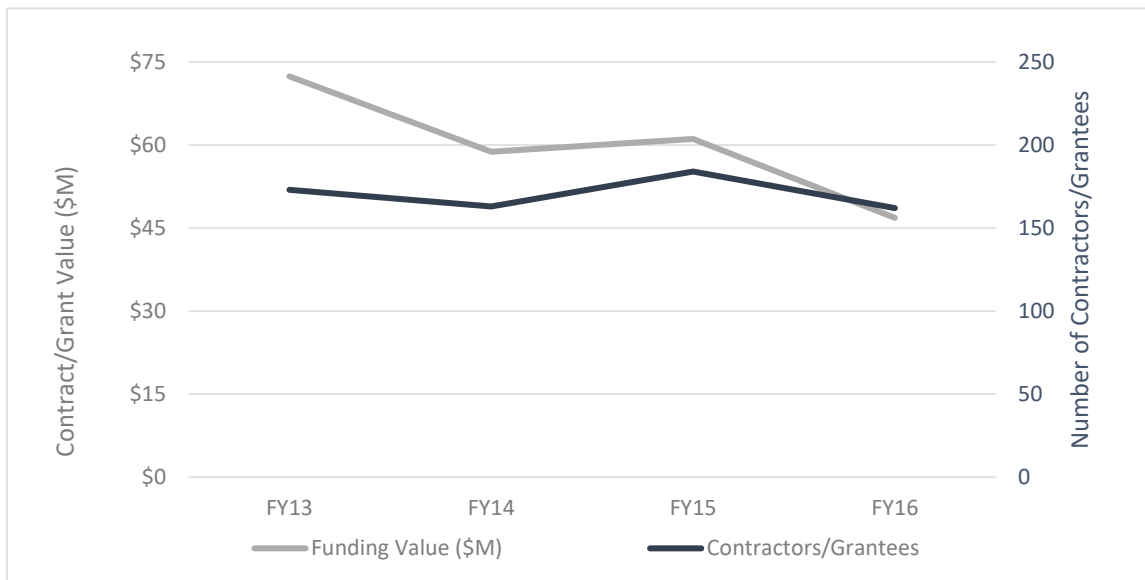
³² U.S. Census Bureau (2016). Population Estimates, Jefferson County, AL July 1, 2016. Retrieved from www.Census.gov/quickfacts.

Figure 78: Non-Civilian Military Employment Over Time, Jefferson County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 79: Jefferson County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$446 million in economic impact to Jefferson County in FY16, which accounted for 1.4% of all net economic activity within the area. The military sustained 5,793 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Jefferson County, an additional \$80 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$39 million in state and local tax receipts. Among all categories of people on the military payroll, military retirees were the largest at 24,057.

Among DoD related sources of income in FY16, retirees are the clear driver of economic impact within the area, accounting for 49.0% of direct impact. In FY16, industries that benefited most from military investment include Federal Government; Retail – Food and Beverage Stores; and Retail – General Merchandise Stores. In particular, entities receiving the largest value of contracts and grants include Forestwood Farm, Inc.; University of Alabama at Birmingham; and Southern Research Institute.

Table 26: Jefferson County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$446
Impact on Jobs	5,793
Percent of Net Economic Activity	1.4%
Military Spending Per Resident	\$0.38
Military Funding Multiplier	\$1.80
State & Local Taxes (\$M)	\$39
Estimated Active Duty Personnel	259
Estimated Civilians	971
Estimated Military Retirees	24,057

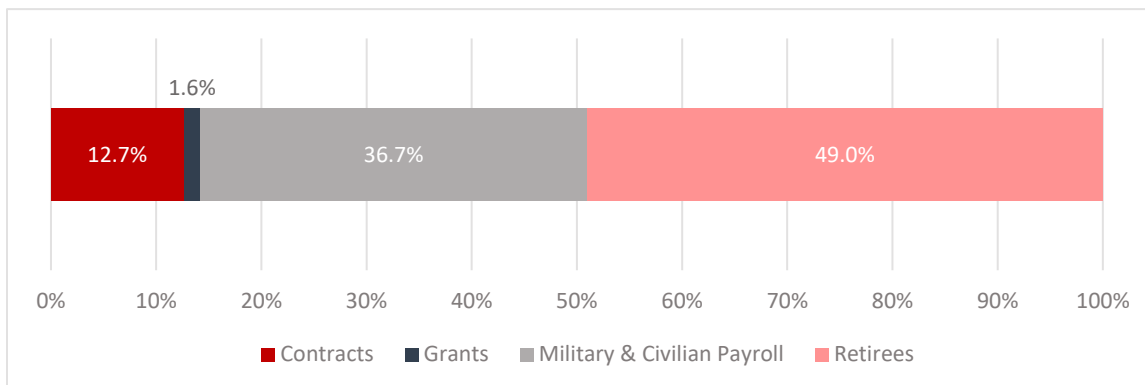
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 27: Jefferson County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	5,793	4,476	588	729
Earnings (\$M)	\$498	\$432	\$33	\$33
Output (\$M)	\$446	\$248	\$97	\$101
Value Added (\$M)	\$637	\$520	\$57	\$60

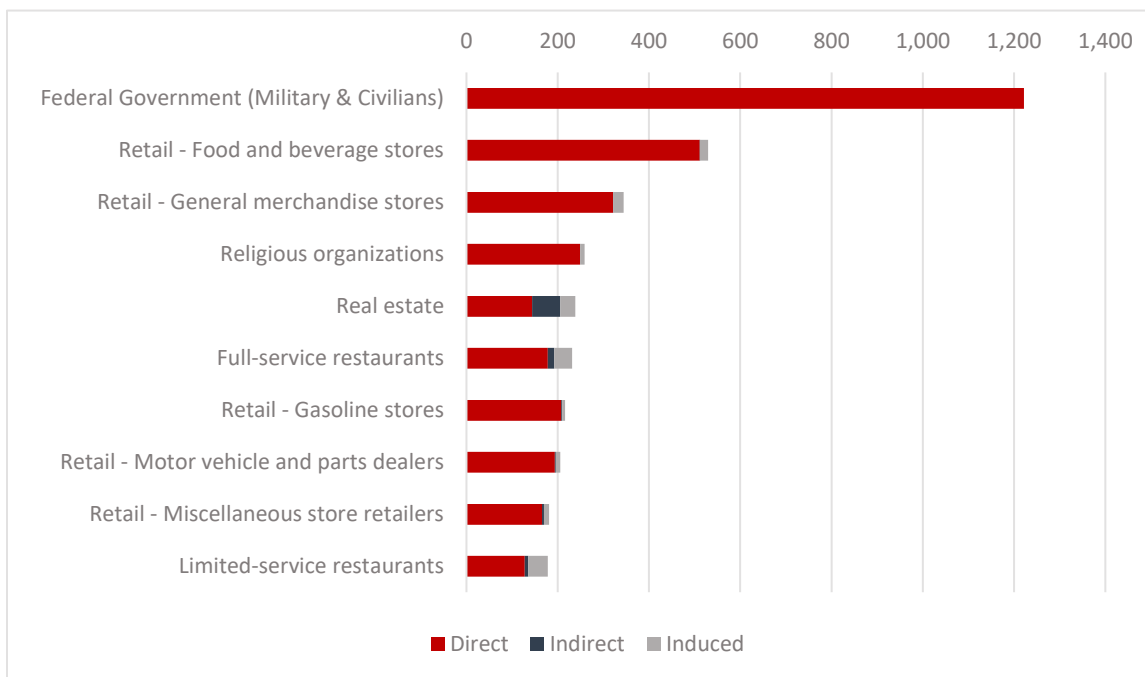
Source: IMPLAN

Figure 80: Jefferson County, Distribution of Direct Impacts FY16



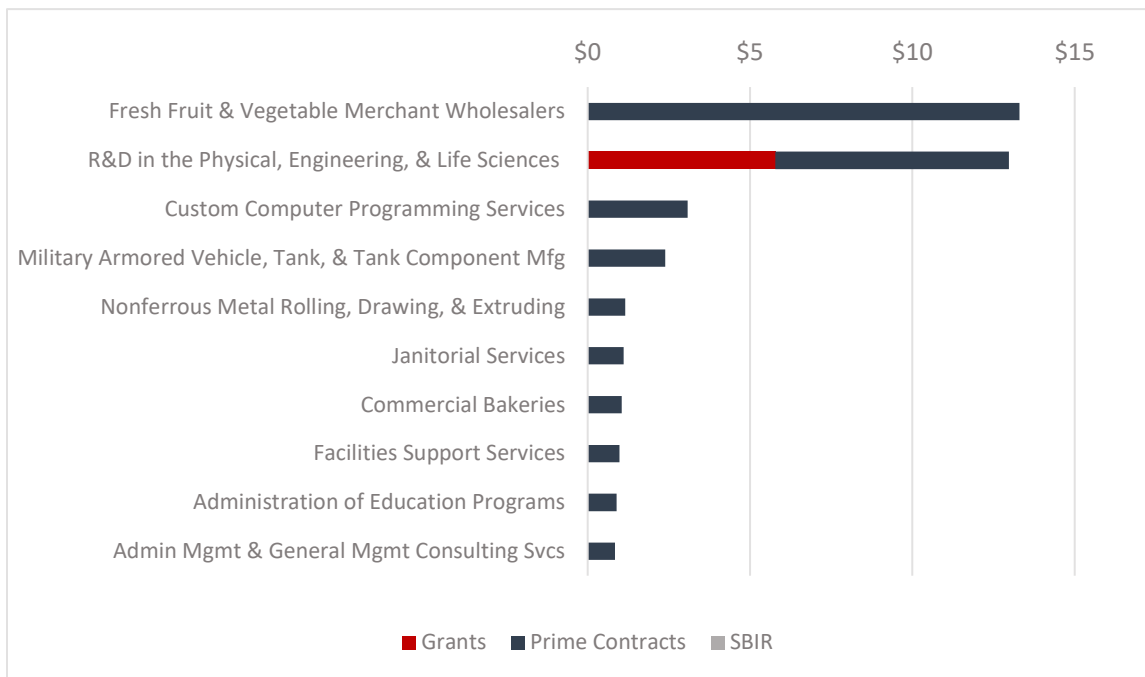
Source: IMPLAN

Figure 81: Jefferson County, Military Jobs Impact by Industry FY16



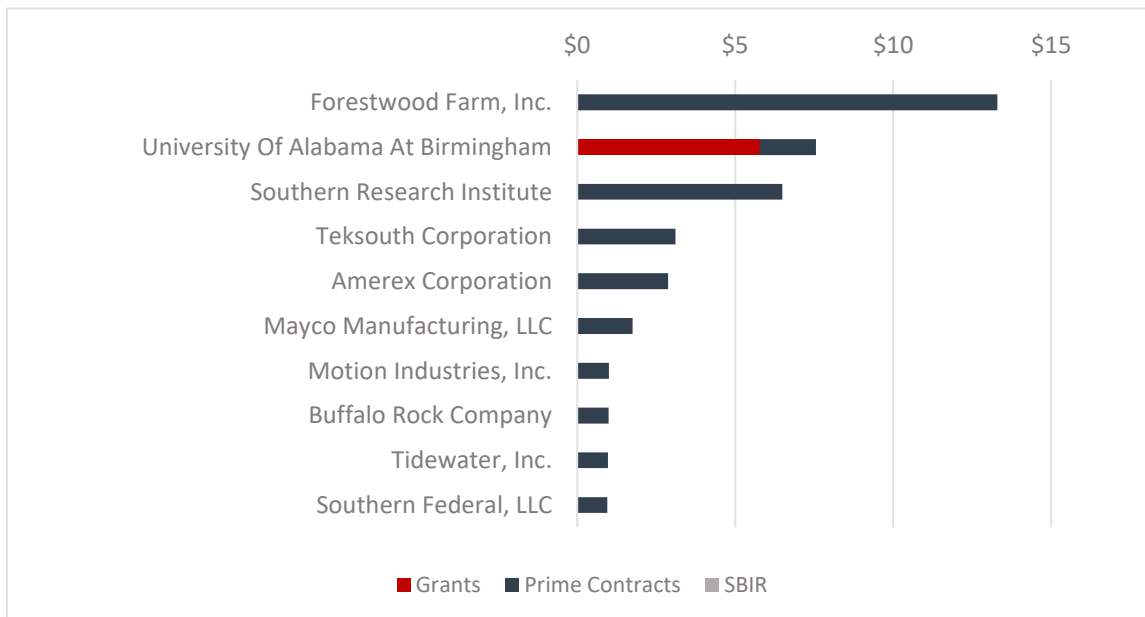
Source: IMPLAN

Figure 82: Jefferson County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 83: Jefferson County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Montgomery Area (Region 5)

Regional Overview

Home of the state capitol, the Montgomery Area covers a large section of central and eastern Alabama. In addition to Montgomery, it includes the cities of Prattville, Auburn, Selma, and Phenix City. It has a total population of approximately 760,000, which makes it the fourth most populous in the state.³³ The area is home to Maxwell-Gunter Air Force Base and Air University, as well as a small portion of Georgia's Ft. Benning, more than a dozen National Guard Units, and Army Reserve facilities in Montgomery and Opelika.

Among all of the defense assets in the Montgomery Area, Maxwell-Gunter Air Force Base dominates as the largest defense contributor to the local economy. As the headquarters of Air University, the base plays a prominent role in global Air Force education. The largest employer in Montgomery County,³⁴ it hosts units of the Air Force Reserve Command and supports contracting activity throughout the Montgomery Area. Several National Guard units are located in the Montgomery Area as well. In the Air National Guard, the 187th Fighter Wing and the 226th Combat Communications Group are in Montgomery, while the Army National Guard has the 62nd Troop Command in Montgomery, the 122nd Troop Command in Selma, and the 111th Ordnance Group in Opelika. Lastly, over 11,000 acres of Fort Benning are located in Alabama, and many of its personnel live in Lee and Russell counties within the area.³⁵

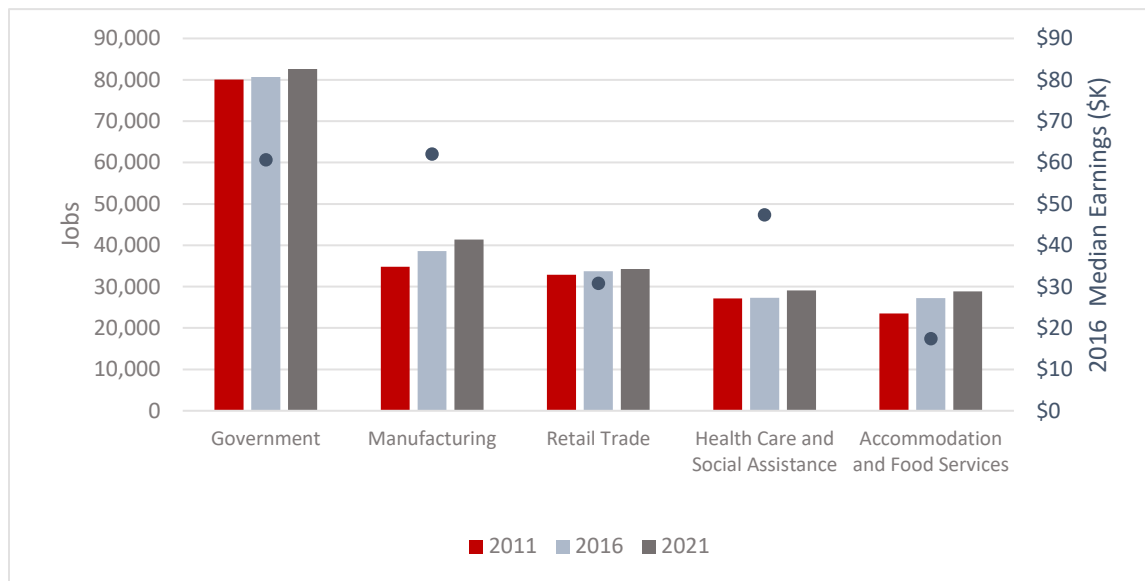
In addition to these military institutions, the Montgomery Area is strengthened by its educational and economic resources. Auburn University provides military support through the Warrior Research Center and helps account for the area's 24% of adult residents with a bachelor's degree or above. In addition, state government jobs make Government the area's largest employing sector, and one of its highest-paying.

³³ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

³⁴ Mann Jackson, N., Armstrong, J., Stakelum, L., & Leytham, T. (2015). Alabama's Defense Clusters. <http://www.businessalabama.com/Business-Alabama/May-2015/Alabamas-Defense-Clusters/>

³⁵ U.S. Army Maneuver Center of Excellence. (n.d.) Maneuver Center of Excellence: Command Overview. Retrieved from: <http://www.benning.army.mil/>

Figure 84: Montgomery Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years

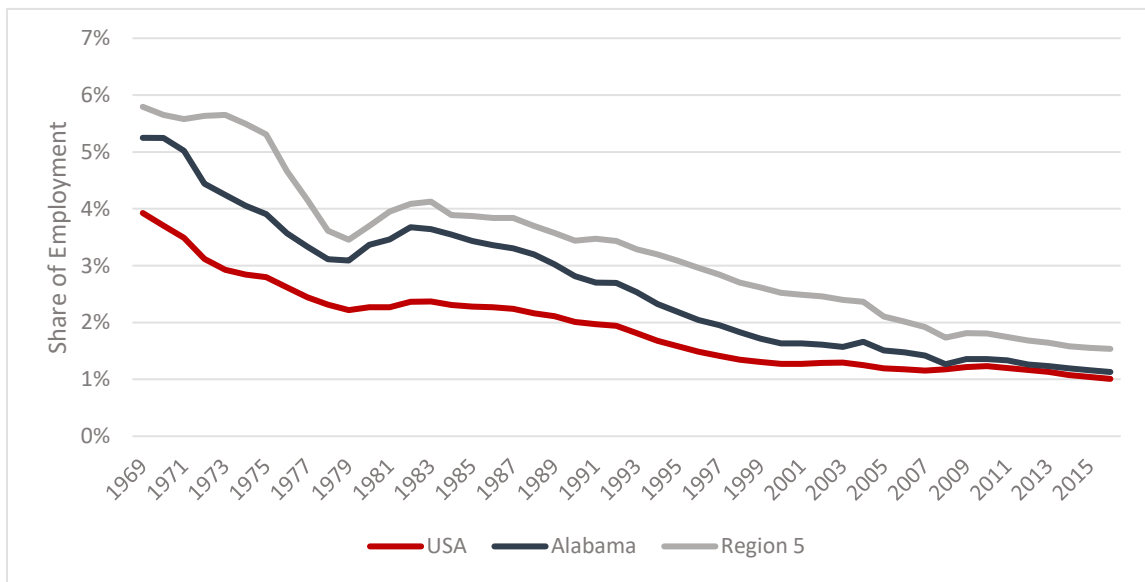


Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. Government, including both Military and State Government, is the area's largest employing sector. Regarding average earnings per job, Government, Manufacturing; and Health Care & Social Assistance are strong contributors. Of sectors that offer workers above average earnings per job, Manufacturing, Government and Health Care & Social Assistance are expected to see an increase in employment by 2021.

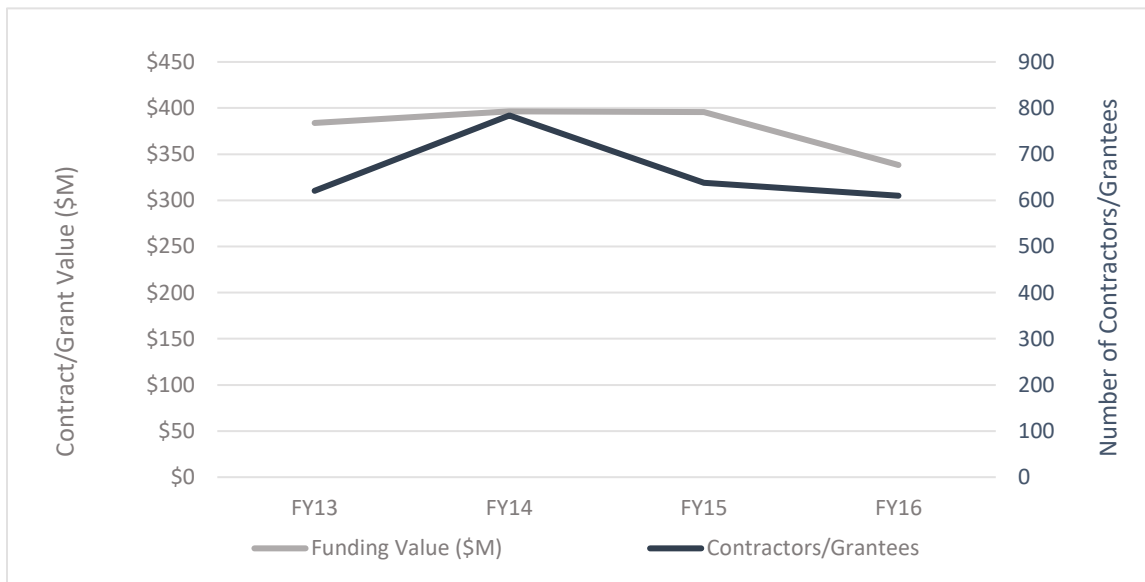
Like most areas of the U.S., the number of military personnel in the Montgomery Area has decreased over the past forty years. Nevertheless, the area exceeds both the state of Alabama and the nation in terms of non-civilian military share of total employment. The value of DoD contracts and grants performed in the Montgomery area decreased between FY13 and FY16, primarily due to a notable drop-off in FY16. Similarly, the number of contractors/grantees decreased, though this number peaked in FY14.

Figure 85: Non-Civilian Military Employment Over Time, Montgomery Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 86: Montgomery Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$1.315 billion in economic impact to the Montgomery Area in FY16, which accounted for 6.5% of all net economic activity within the area. The military sustained 28,174 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Montgomery Area an additional \$83 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$106 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 9,128.

Table 28: Montgomery Area, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$1,315
Impact on Jobs	28,174
Percent of Net Economic Activity	6.5%
Military Spending Per Resident	\$0.95
Military Funding Multiplier	\$1.83
State & Local Taxes (\$M)	\$106
Estimated Active Duty Personnel	1,953
Estimated Civilians	9,128
Estimated Military Retirees	4,959

Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

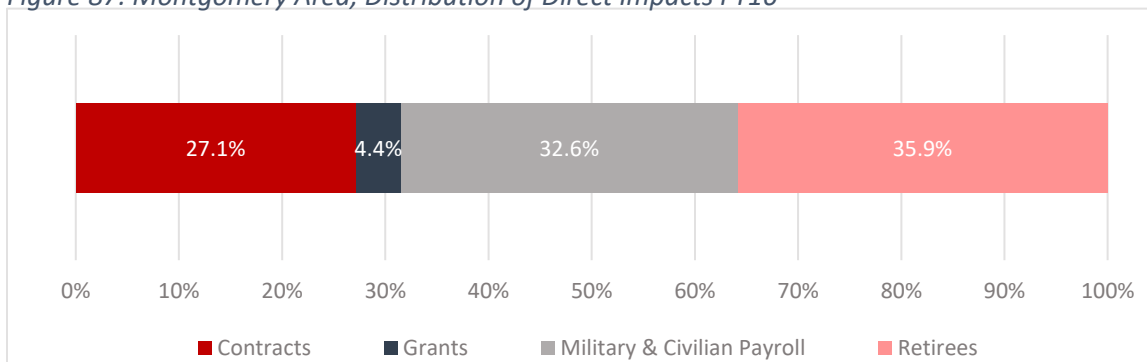
Among DoD related sources of income in FY16, retirees are the single largest driver of economic impact within the area, accounting for 35.9% of direct impact. In FY16, industries that benefited most from military investment include Federal Government; Employment and Payroll of Federal Government – Non-Military; and Retail – Food and Beverage Stores. In particular, companies receiving the largest value of contracts include American Apparel, Inc.; Vectrus Systems Corporation; and Miltope Corporation.

Table 29: Montgomery Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	28,174	23,126	1,828	3,219
Earnings (\$M)	\$1,462	\$1,292	\$64	\$107
Output (\$M)	\$1,315	\$719	\$217	\$380
Value Added (\$M)	\$1,856	\$1,540	\$107	\$207

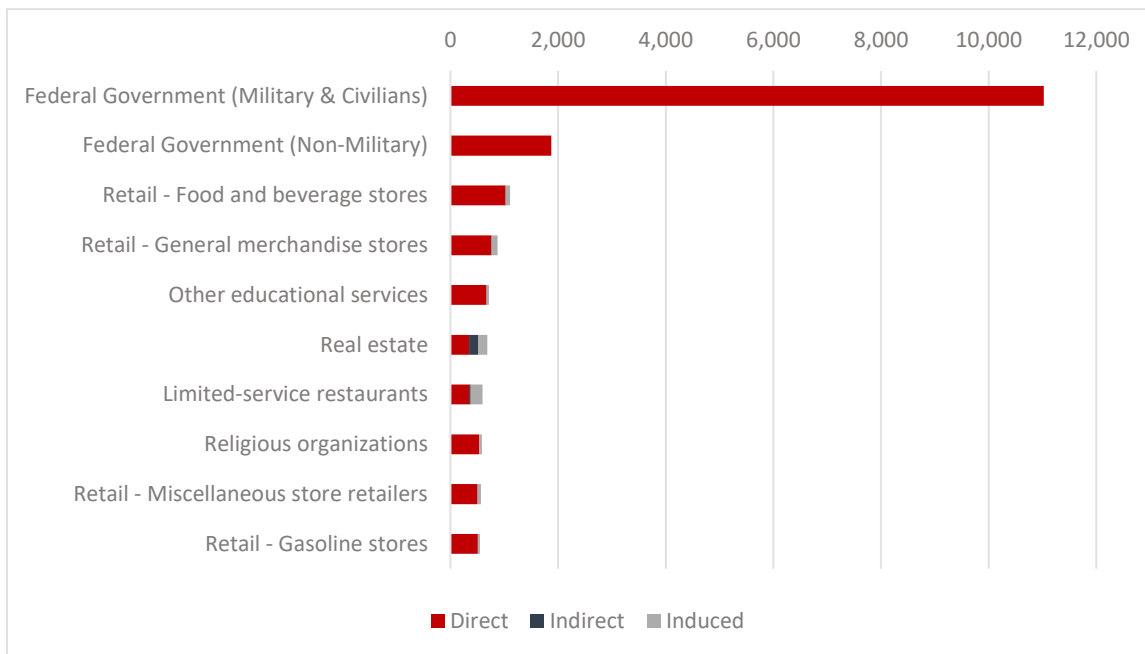
Source: IMPLAN

Figure 87: Montgomery Area, Distribution of Direct Impacts FY16



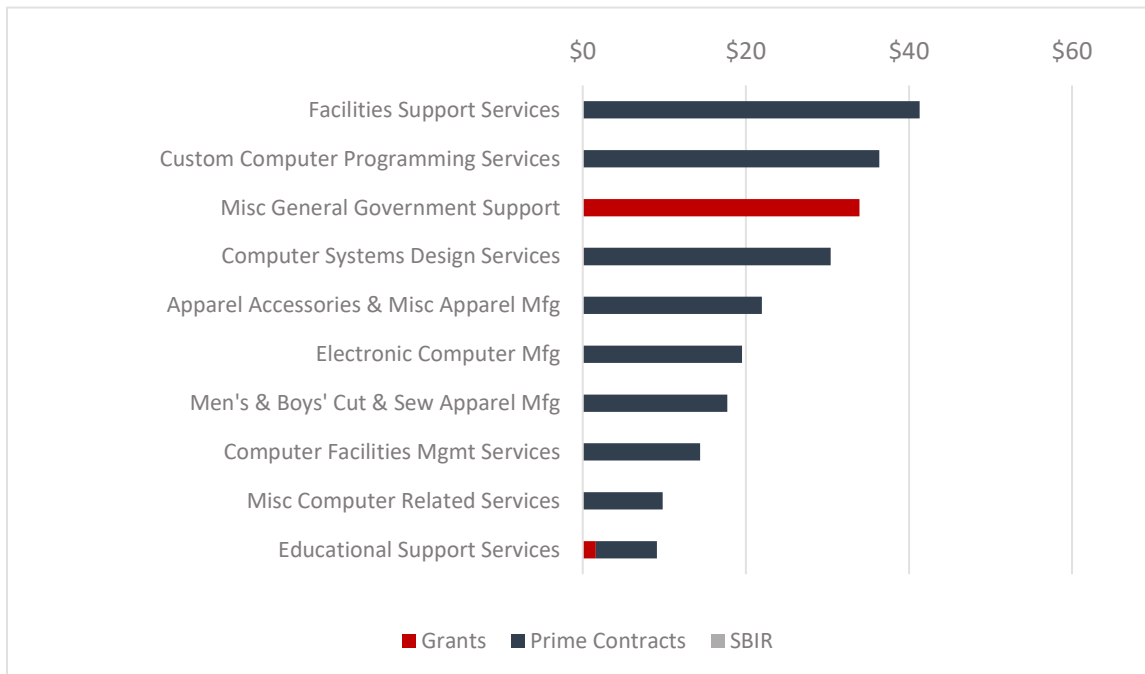
Source: IMPLAN

Figure 88: Montgomery Area, Military Jobs Impact by Industry FY16



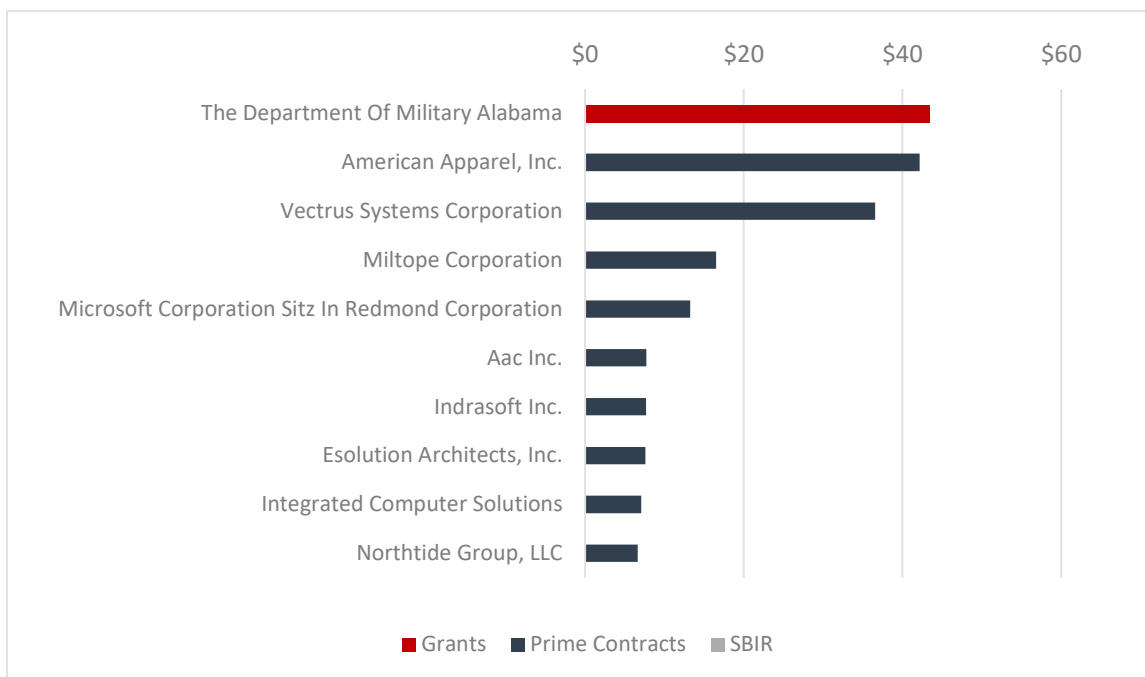
Source: IMPLAN

Figure 89: Montgomery Area, DoD Procurement by Industry FY16 (\$M)



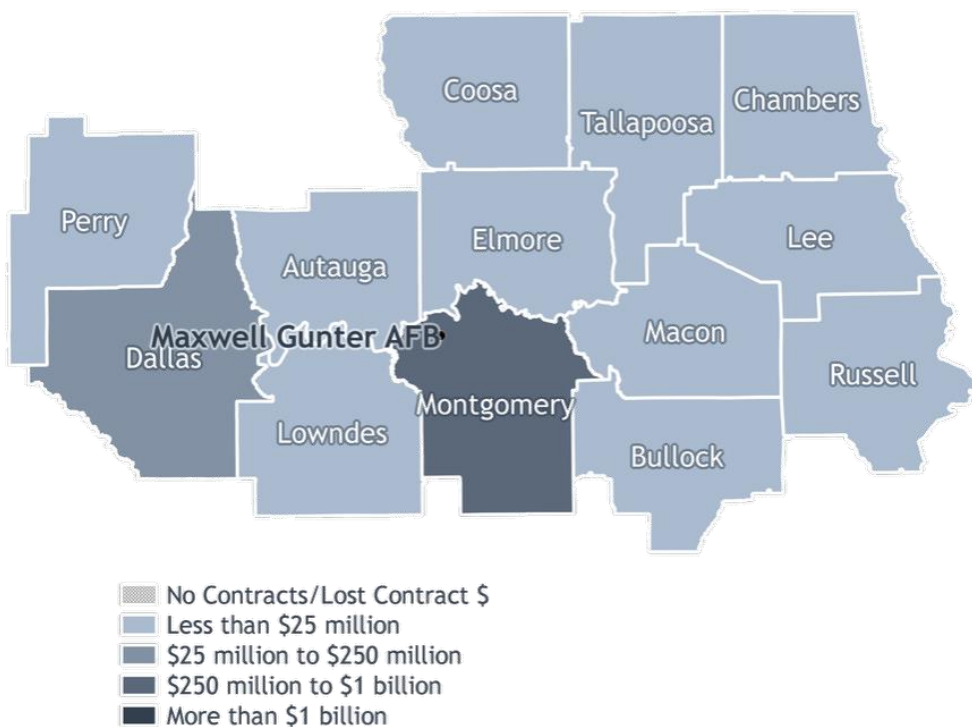
Source: USAspending.gov

Figure 90: Montgomery Area, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 91: Montgomery Area, County Location of Direct Procurement Impact

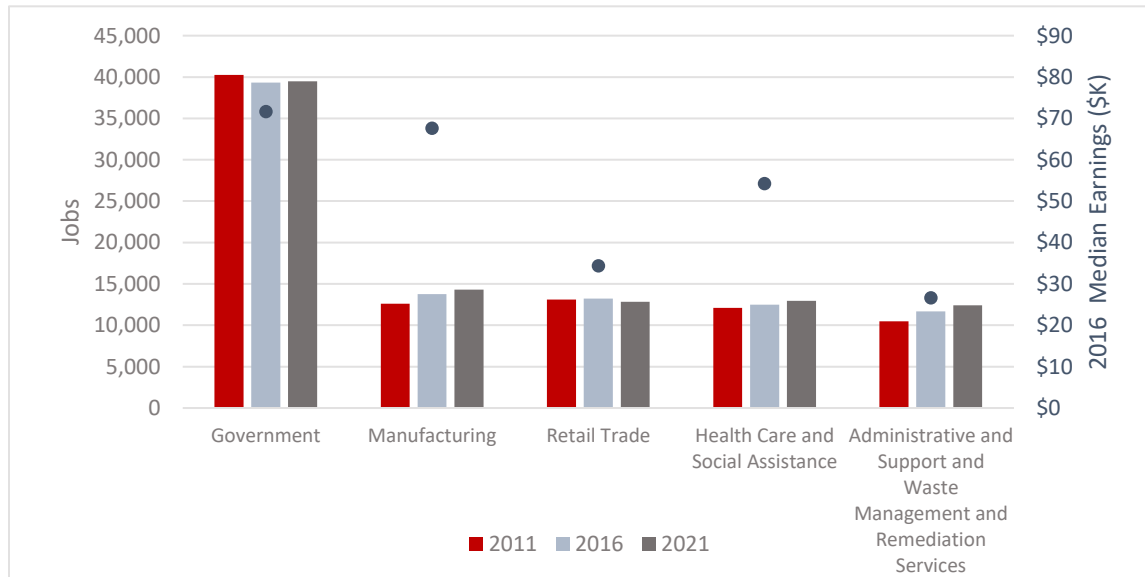


MONTGOMERY COUNTY

County Overview

Montgomery County has a population of 226,349³⁶ and is home to the state capitol, Maxwell-Gunter Air Force Base and Air University, and multiple National Guard and Army Reserve institutions. Montgomery County was the recipient of an average of \$519 million per year in military contracts between FY13 and FY16 – the 4th highest recipient among Alabama’s seven areas.

Figure 92: Montgomery County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



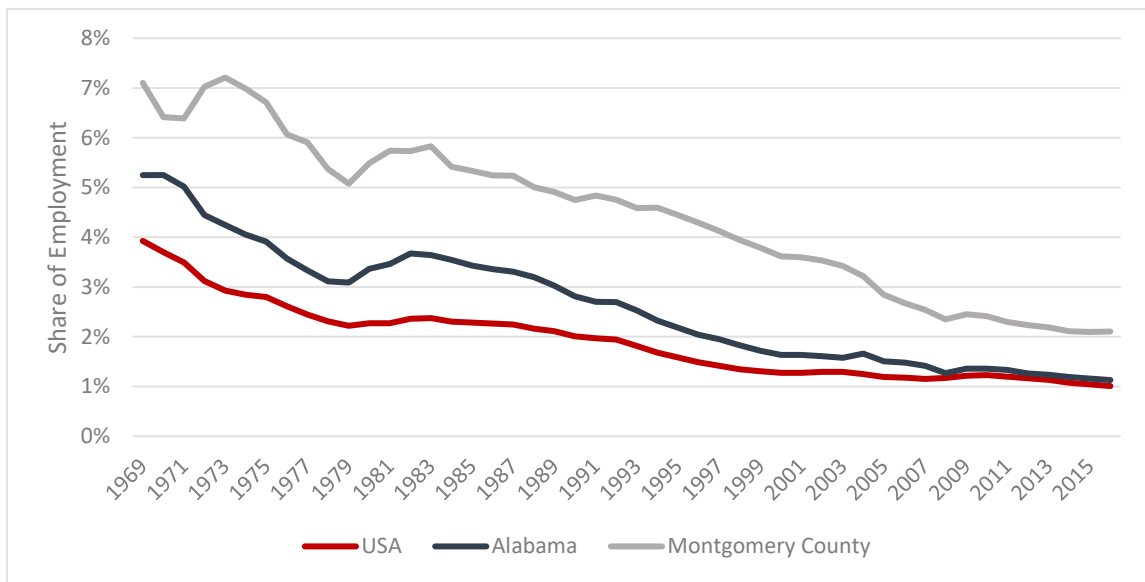
Source: Emsi Employment, 2017.2

The area has experienced marginal job growth over the past five years. Government is by far the area’s largest employer. Regarding average earnings per job, Government, Manufacturing and Health Care & Social Assistance are most notable. Of these strong paying sectors, Manufacturing; Health Care & Social Assistance; and Administrative, Support, Waste Management, and Remediation Services are expected to see an increase in jobs by 2021.

Like most areas of the U.S., the number of military personnel in Montgomery County has decreased over the past forty years. However, the 2.1% of regional jobs within non-civilian military positions was greater than double the national average in 2016. The value of DoD contracts and grants performed in Montgomery County decreased slightly between FY13 and FY16. Over the same period, the number of contractors/grantees spiked in FY14 before returning to FY13 levels in FY16.

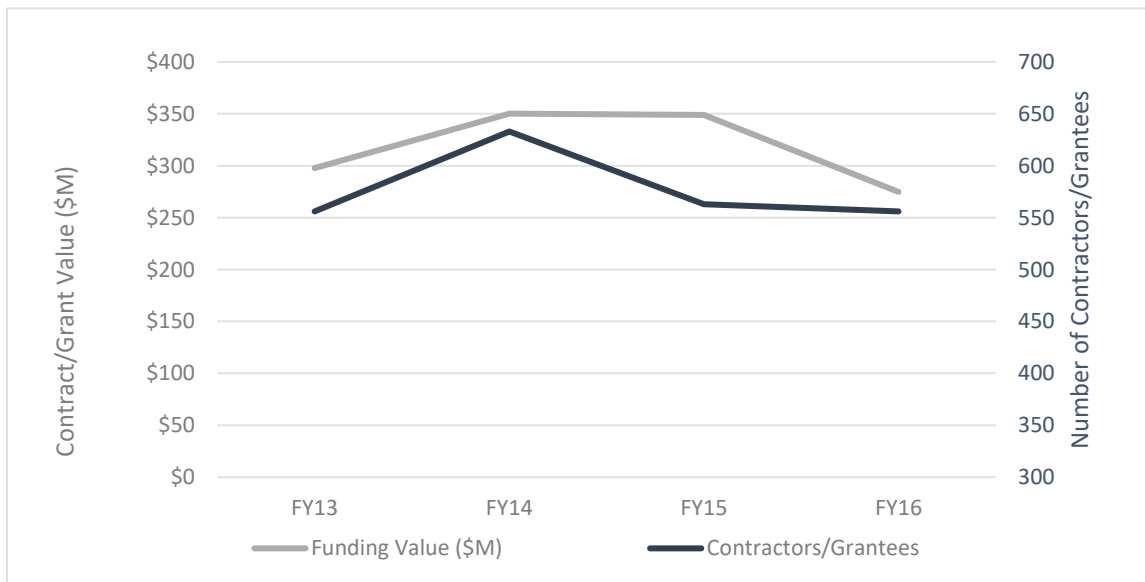
³⁶ U.S. Census Bureau (2016). Population Estimates, Montgomery County, AL July 1, 2016. Retrieved from www.Census.gov/quickfacts.

Figure 93: Non-Civilian Military Employment Over Time, Montgomery County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 94: Montgomery County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$1.042 billion in economic impact to Montgomery County in FY16, which accounted for 9.9% of all net economic activity within the area. The military sustained 20,036 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Montgomery County, an additional \$85 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$75 million in state and local tax receipts. Among all categories of people on the military payroll, civilians had the largest employment at 5,365.

Among DoD related sources of income in FY16, military and civilian payroll is the clear driver of economic impact within the area, accounting for 47.5% of direct impact. In FY16, industries that benefited most from military investment include Federal Government (Military & Civilians); Federal Government– Non-Military; and Other Educational Services. In particular, companies receiving the largest value of contracts include Vectrus Systems Corporation; Miltope Corporation; and Microsoft Corporation Sitz in Redmond Corporation.

Table 30: Montgomery County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$1,042
Impact on Jobs	20,036
Percent of Net Economic Activity	9.9%
Military Spending Per Resident	\$2.49
Military Funding Multiplier	\$1.85
State & Local Taxes	\$75
Estimated Active Duty Personnel	1,133
Estimated Civilians	5,365
Estimated Military Retirees	2,125

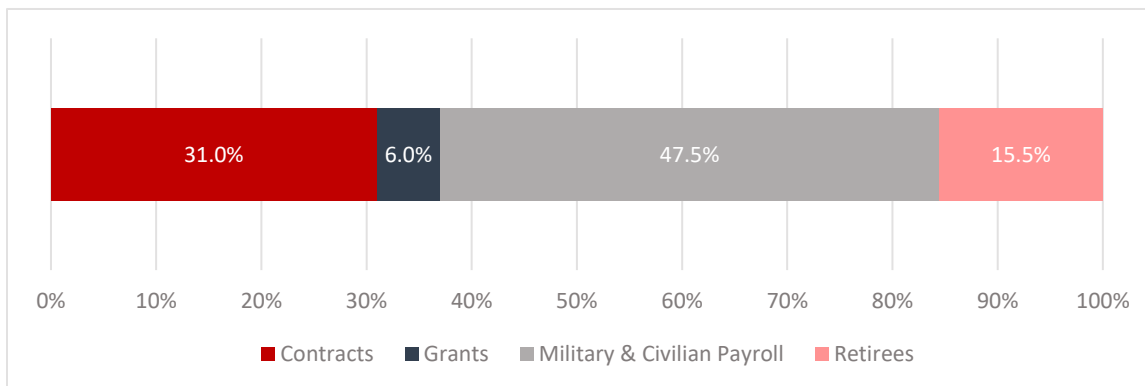
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 31: Montgomery County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	20,036	16,225	1,465	2,346
Earnings (\$M)	\$1,126	\$979	\$56	\$91
Output (\$M)	\$1,042	\$564	\$181	\$297
Value Added (\$M)	\$1,450	\$1,185	\$96	\$168

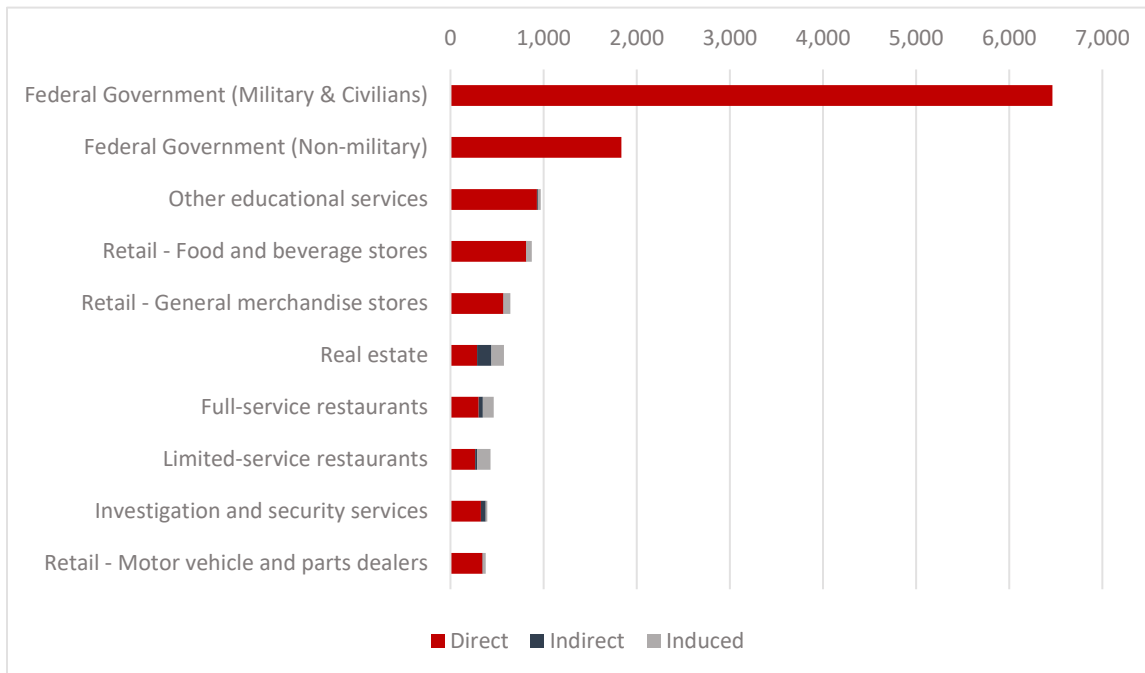
Source: IMPLAN

Figure 95: Montgomery County, Distribution of Direct Impacts FY16



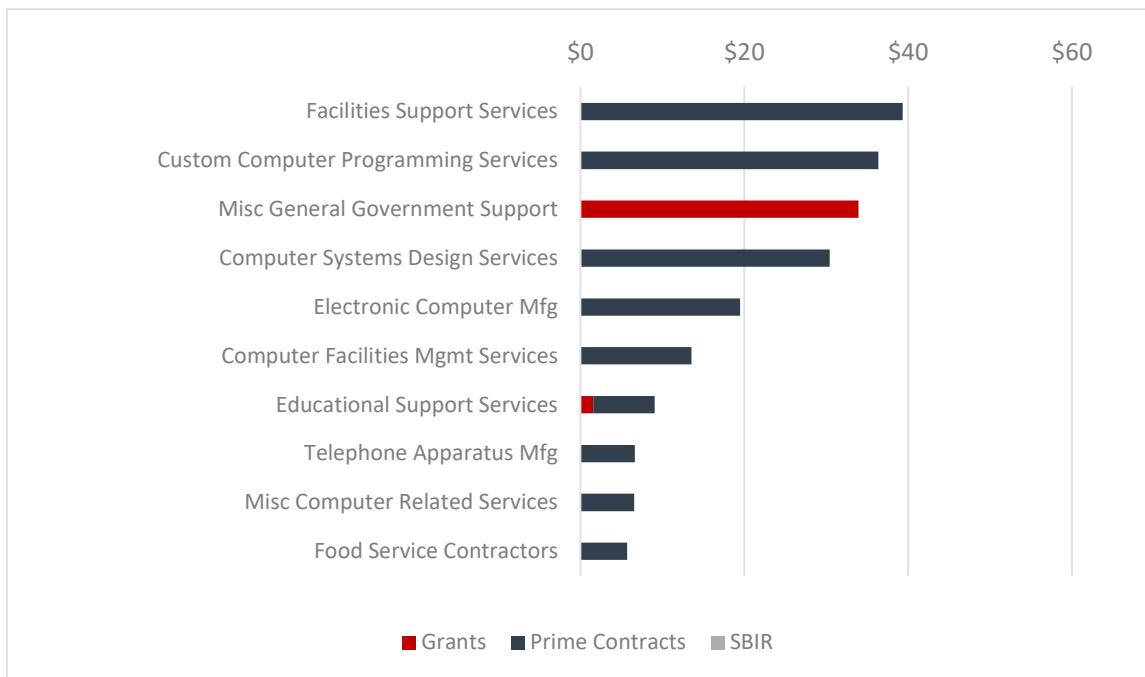
Source: IMPLAN

Figure 96: Montgomery County, Military Jobs Impact by Industry FY16



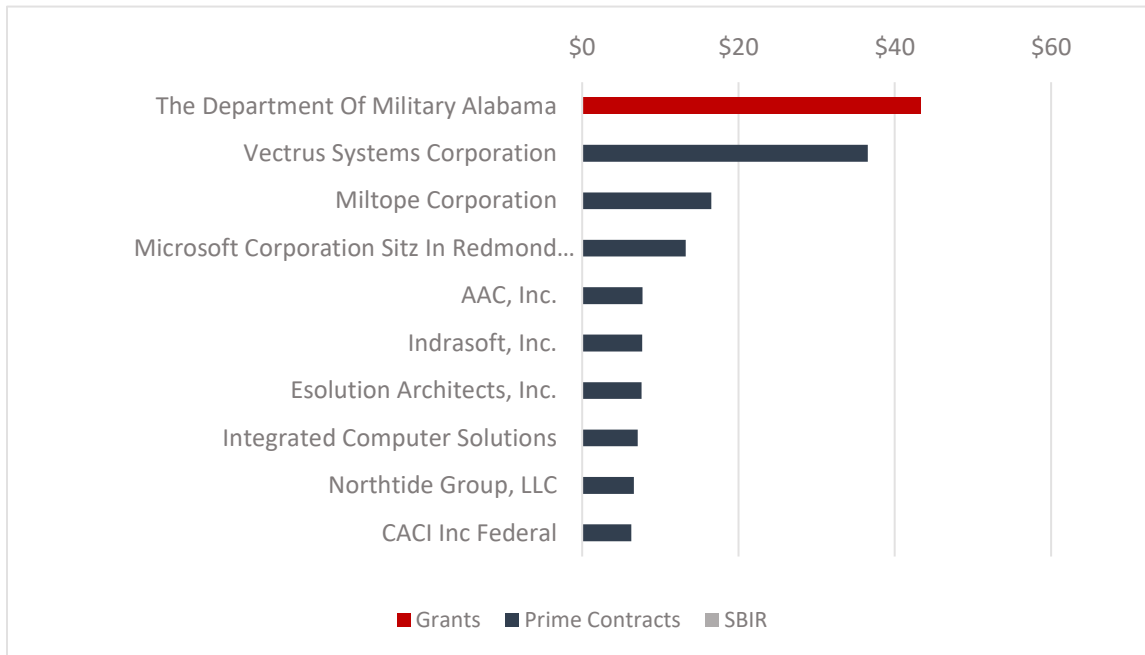
Source: IMPLAN

Figure 97: Montgomery County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 98: Montgomery County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Fort Rucker Area (Region 6)

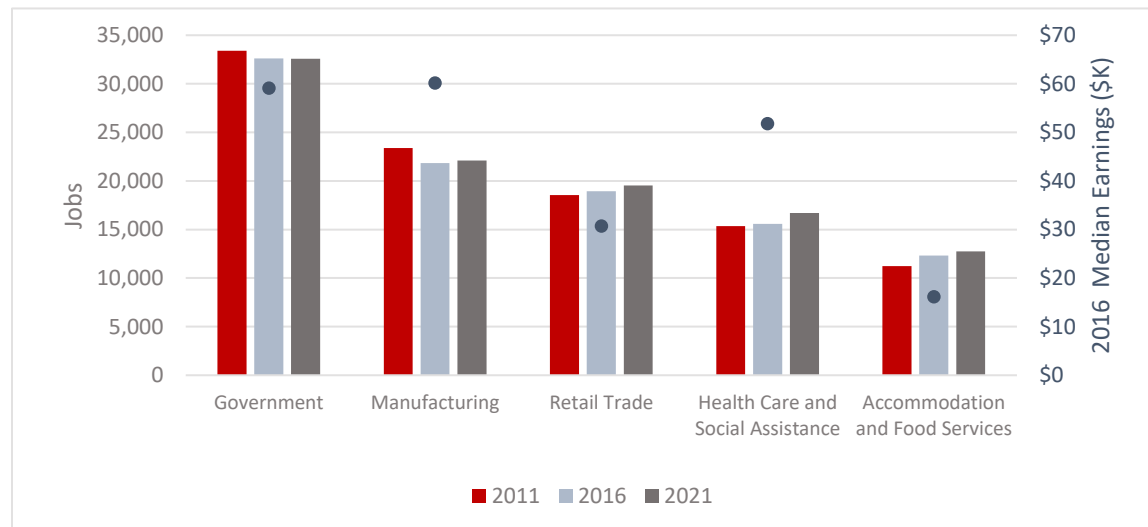
Regional Overview

The Fort Rucker Area covers the southeast portion of the state, and includes the cities of Dothan, Enterprise, and Troy. The area has a total population of 381,000, which places it fifth among all Alabama areas.³⁷ It is home to one major military installation: Fort Rucker, which is located in Dale and Coffee counties. Fort Rucker is home to the Army Aviation Center of Excellence, which provides flight training and military education to over 20,000 Army Soldiers each year. Within the area, there are also approximately 20 Army National Guard Armories and three Army Reserve facilities; these are particularly clustered around Fort Rucker and the city of Dothan.

As one of the largest employers in Alabama, Fort Rucker and its U.S. Army Aviation Center of Excellence (USAACE) support more than 5,600 civilian and military personnel. Its aviation infrastructure stretches over more than 29,000 square miles and includes 5 airfields, 14 stagefields, and 67 remote training sites.³⁸ The installation is the training site of all Army Flight Surgeons and Flight Medics, and supports over 130,000 retirees, veterans, and Gray-Area Reservists. The base also supports contractors such as L-3 Army Fleet Support; Flight Safety, International; and CSCT.

The Fort Rucker Area has declined in jobs over the past five years and lags well behind the national average in earnings per job, but has experienced significant growth in several industries over the past five years. These industries include Motor Vehicle Parts Manufacturing; Restaurants and Other Eating Places; and Support Activities for Air Transportation. Its largest industry sectors are Government, Manufacturing, and Retail Trade. Among these sectors, Manufacturing is by far the highest paying, offering average earnings per job of \$82,128. Approximately 26% of people in the Fort Rucker Area have an associate's degree or above, a figure that benefits from the presence of Troy University.

Figure 99: Fort Rucker Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



Source: Emsi Employment, 2017.2

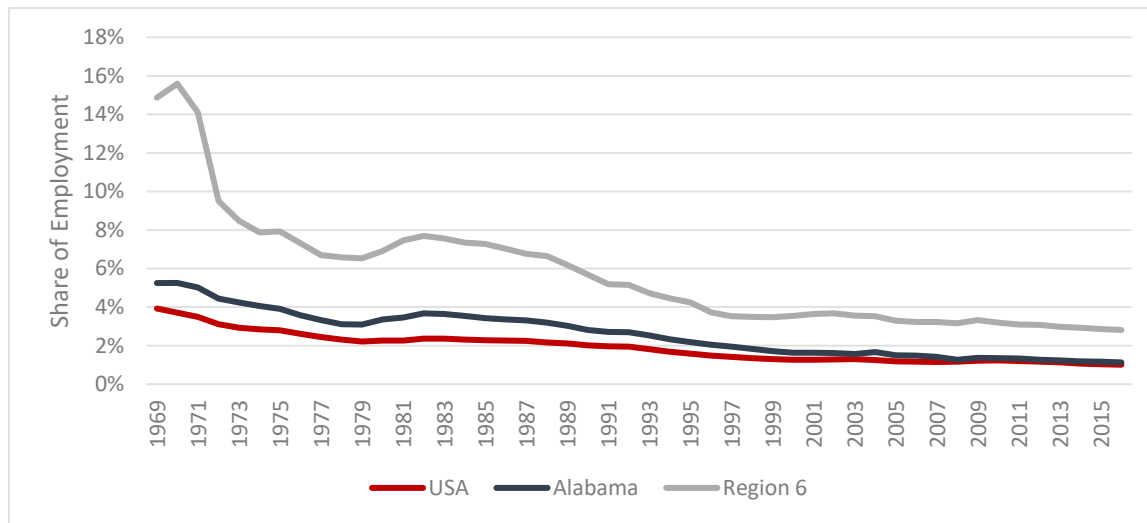
³⁷ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

³⁸ U.S. Army. (2017). Fort Rucker, Alabama Info Sheet. Received via email correspondence.

The area has grown in terms of both population and jobs in the past five years. It has relatively strong Government and Manufacturing employment sectors, in terms of both total employment and average earnings per job. The Health Care & Social Assistance sector is also strong in terms of average earnings per job and is expecting an increase in job growth by 2021.

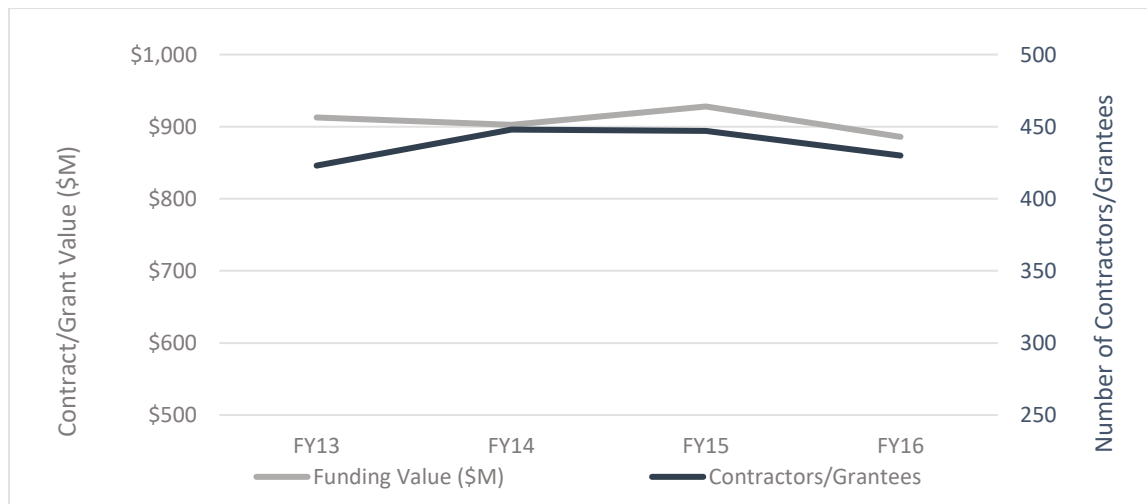
Like most areas of the U.S., the number of military personnel in the Fort Rucker Area has decreased over the past forty years. Despite this, the military presence in the area remains solid, with 2.8% of all jobs in non-civilian military positions in 2016. The value of DoD contracts and grants performed in the Fort Rucker Area remained relatively stable between FY13 and FY16, ultimately ending FY16 at slightly lower than FY13 levels. The number of contractors/grantees also remained relatively stable from FY13 through FY16.

Figure 100: Non-Civilian Military Employment Over Time, Fort Rucker Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 101: Fort Rucker Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$1.936 billion in economic impact to the Fort Rucker Area in FY16, which accounted for 11.8% of all net economic activity within the area. The military sustained 26,761 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Fort Rucker Area an additional \$61 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$109 million in state and local tax receipts. Among all categories of people on the military payroll, active duty personnel had the largest employment at 5,797.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 75.9% of direct impact. In FY16, industries that benefited most from military investment include Federal Government (Military & Civilians); Scenic and Sightseeing Transportation and Support Activities for Transportation; and Other Educational Services. Of all funding recipients performing work in the Fort Rucker area, Army Fleet Support, LLC received by far the most funding, with \$535 million in FY16.

Table 32: Fort Rucker Area, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$1,936
Impact on Jobs	26,761
Percent of Net Economic Activity	11.8%
Military Spending Per Resident	\$3.15
Military Funding Multiplier	\$1.61
State & Local Taxes (\$M)	\$109
Estimated Active Duty Personnel	5,797
Estimated Civilians	2,041
Estimated Military Retirees	2,072

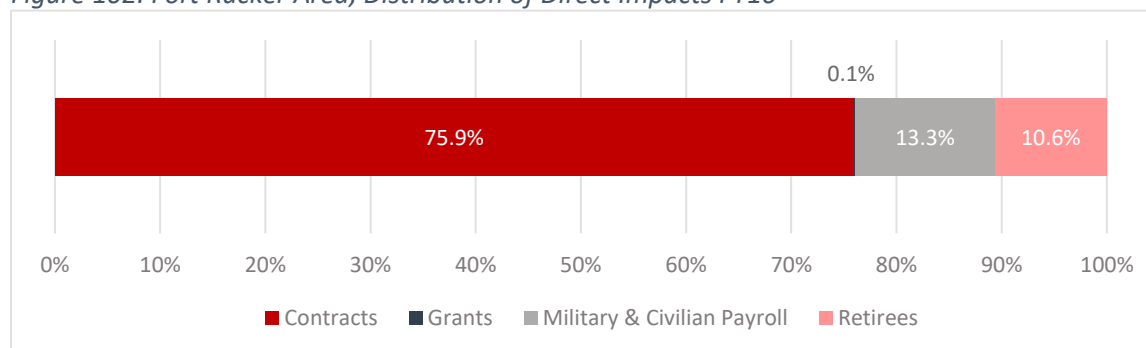
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 33: Fort Rucker Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	26,761	20,758	2,701	3,302
Earnings (\$M)	\$1,494	\$1,269	\$112	\$113
Output (\$M)	\$1,936	\$1,201	\$335	\$400
Value Added (\$M)	\$1,833	\$1,454	\$164	\$216

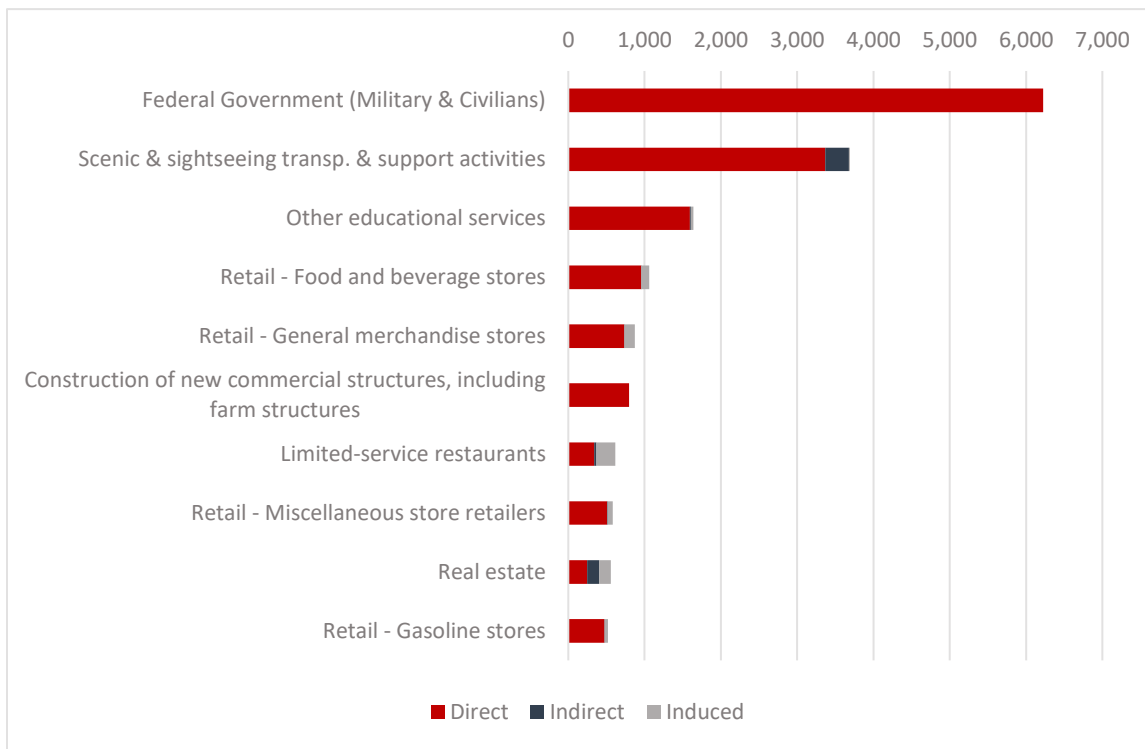
Source: IMPLAN

Figure 102: Fort Rucker Area, Distribution of Direct Impacts FY16



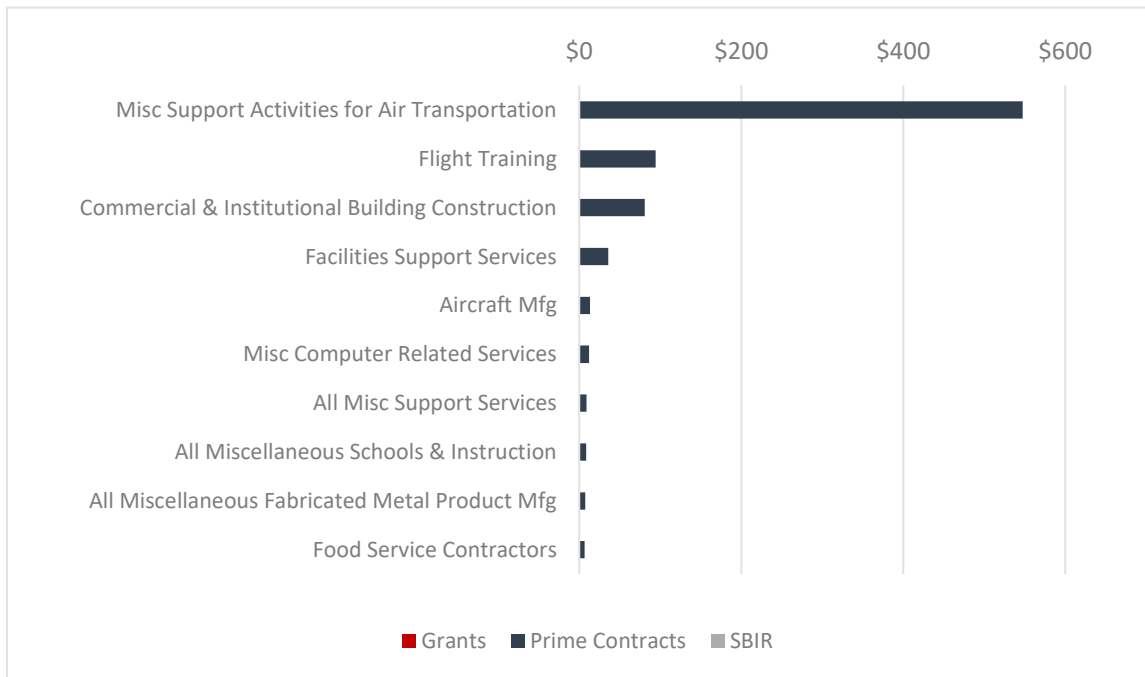
Source: IMPLAN

Figure 103: Fort Rucker Area, Military Jobs Impact by Industry FY16



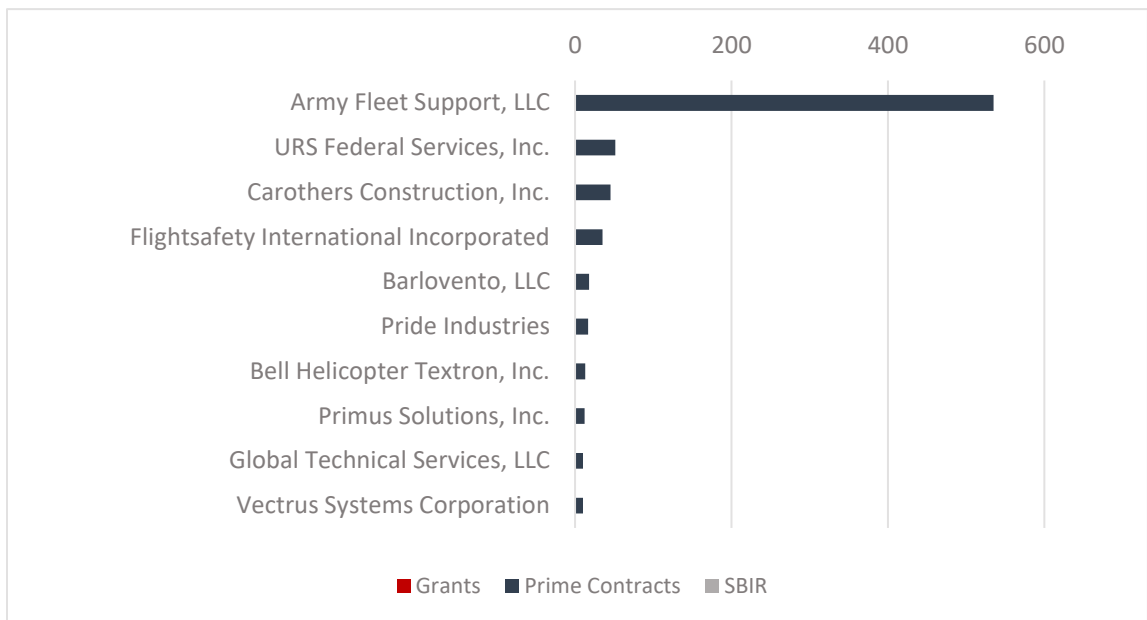
Source: IMPLAN

Figure 104: Fort Rucker Area, DoD Procurement by Industry FY16 (\$M)



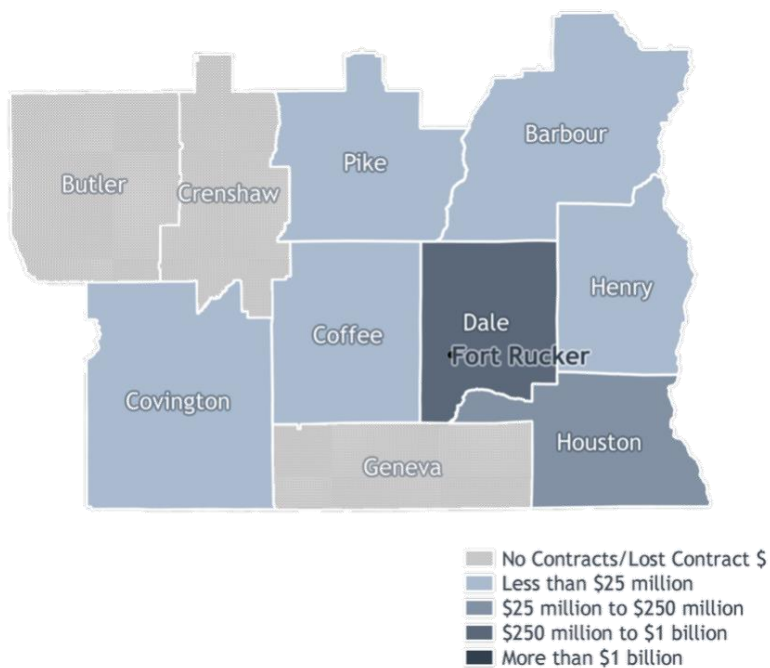
Source: USAspending.gov

Figure 105: Fort Rucker Area, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 106: Fort Rucker Area, County Location of Direct Procurement Impact

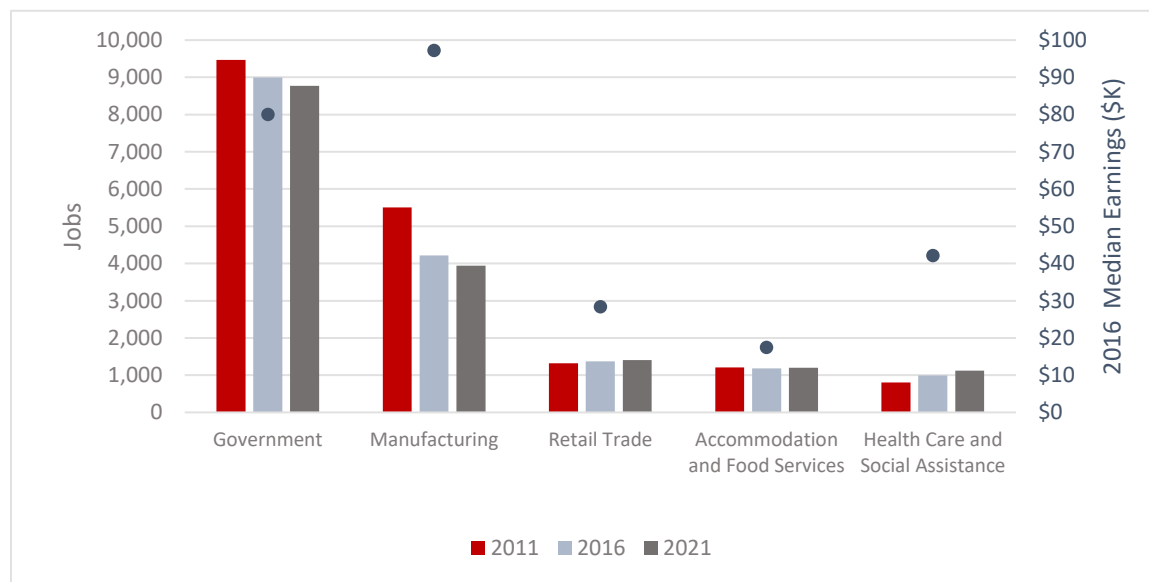


DALE COUNTY

County Overview

As the home of Fort Rucker, Dale County benefits substantially from both active duty residents and contractors. The county was the recipient of more than \$811 million in military contracts, on average, for each of the last four fiscal years. In FY16, Army Fleet Support LLC performed more than \$500 million in contracts in Dale County alone. The majority of this work is in the air transportation support and flight training fields. In addition, Fort Rucker has significant impacts on the population of Dale County; many Fort Rucker-related active duty, civilian, retiree, and contractor employees live within the county.

Figure 107: Dale County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



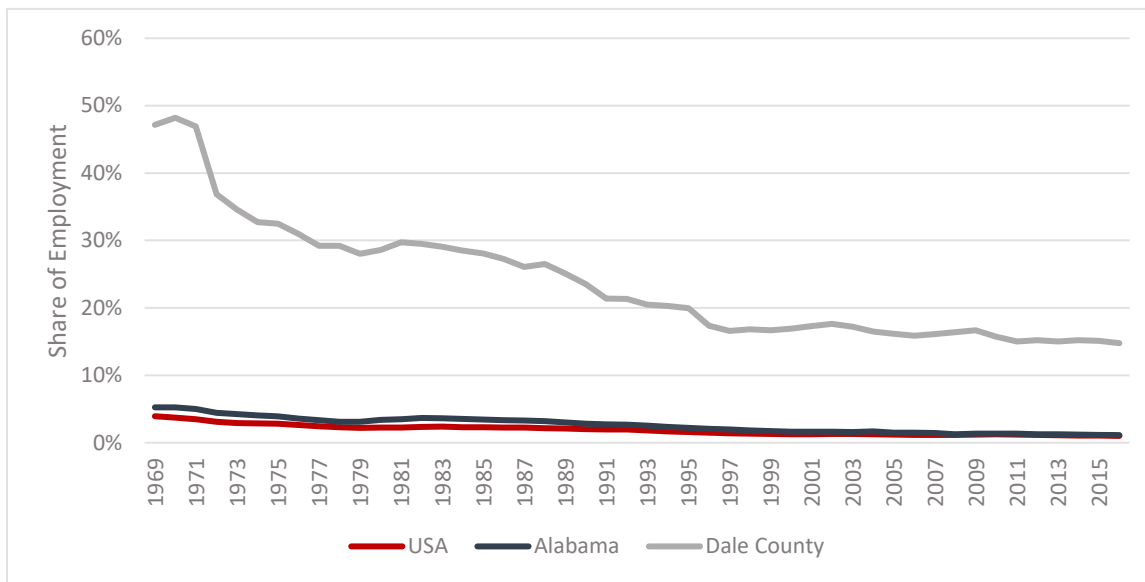
Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. It has relatively strong Government and Manufacturing sectors, but both industries are forecasted to decline between 2016 and 2021. Regarding average earnings per job, Manufacturing; Retail Trade; Accommodation & Food Services; and Health Care & Social Assistance exceed national averages for those industries. Of these sectors that have strong earnings per job, Retail Trade; Accommodation & Food Services; and Health Care & Social Assistance are expecting an increase in job growth by 2021.

Like many areas of the U.S., the number of military personnel in Dale County has decreased over the past forty years. However, with greater than 14% of all employment committed to non-civilian military positions, it remains one of the highest concentrated areas for military jobs in the country.³⁹ The value of DoD contracts and grants performed in Dale County increased between FY13 and FY14 but has steadily declined since. Meanwhile, the number of contractors/grantees is 7% higher than in FY13, indicating that a larger number of firms are splitting a smaller sum of contract obligations.

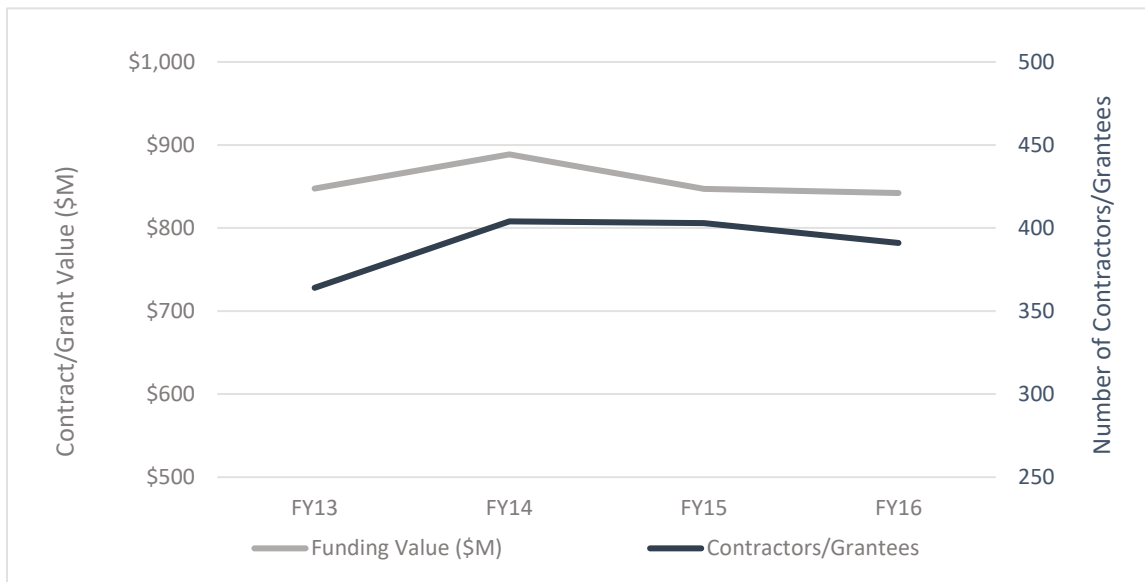
³⁹ Note: The reason for the difference between metrics in Figure 107 and Table 34 is measurement of employment by place of residency, which is done in Table 34 but not Figure 107.

Figure 108: Non-Civilian Military Employment Over Time, Dale County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 109: Dale County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$1.136 billion in economic impact to Dale County in FY16, which accounted for 18.1% of all net economic activity within the area. The military sustained 9,448 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Dale County, an additional \$29 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$26 million in state and local tax receipts. Among all categories of people on the military payroll, active duty personnel had the largest employment at 832.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 90.8% of direct impact. In FY16, industries that benefited most from military investment include Scenic and Sightseeing Transportation and Support Activities for Transportation; Other Educational Services; and Federal Government (Military & Civilians). In particular, companies receiving the largest value of contracts include Army Fleet Support, LLC; URS Federal Services; and Carothers Construction, LLC, with Army Fleet Support leading the way by far.

Table 34: Dale County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$1,136
Impact on Jobs	9,448
Percent of Net Economic Activity	18.1%
Military Spending Per Resident	\$17.91
Military Funding Multiplier	\$1.29
State & Local Taxes (\$M)	\$26
Estimated Active Duty Personnel	832
Estimated Civilians	315
Estimated Military Retirees	246

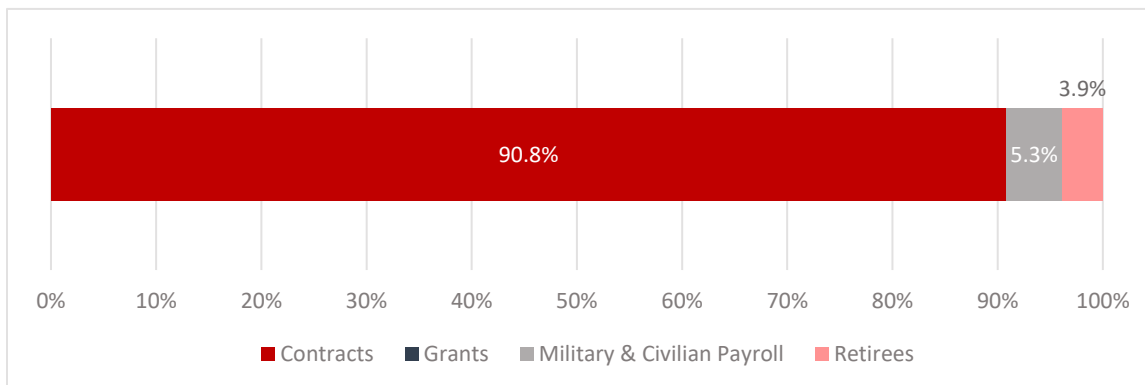
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 35: Dale County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	9,448	7,479	1,179	790
Earnings (\$M)	\$600	\$513	\$61	\$26
Output (\$M)	\$1,136	\$882	\$147	\$108
Value Added (\$M)	\$744	\$601	\$82	\$61

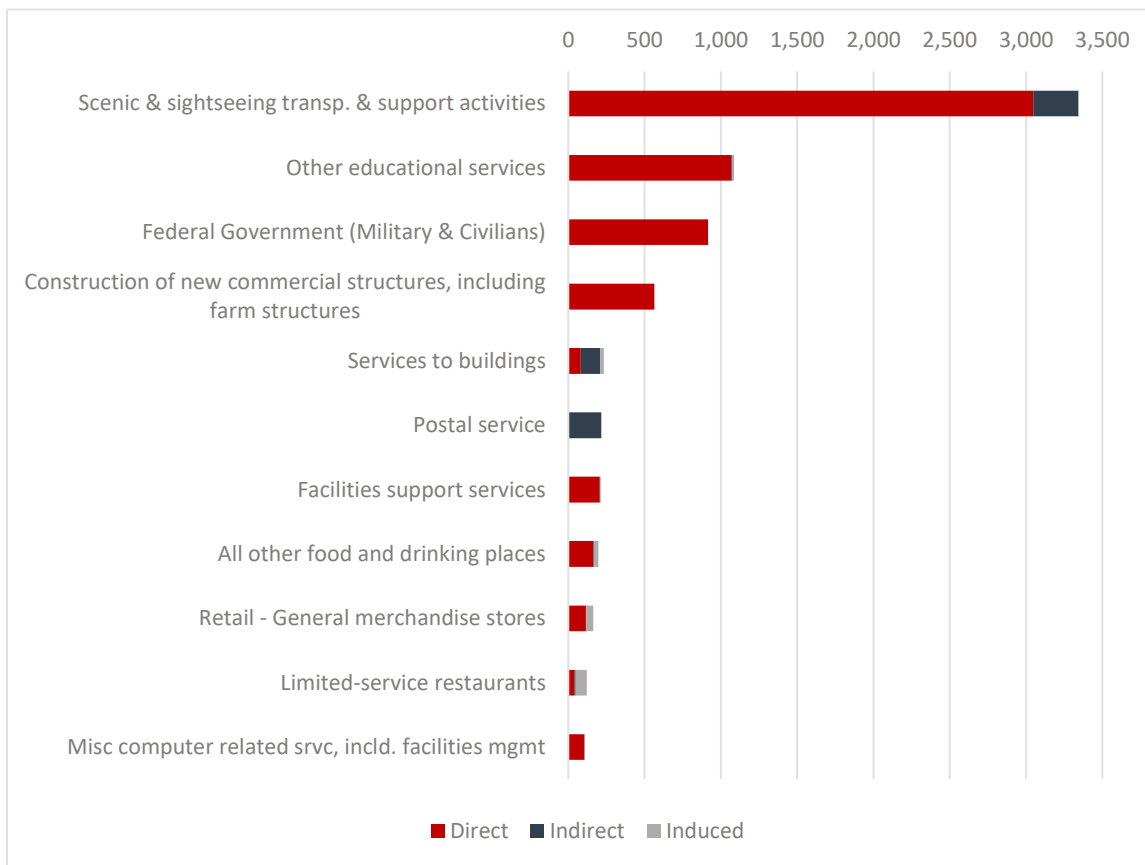
Source: IMPLAN

Figure 110: Dale County, Distribution of Direct Impacts FY16



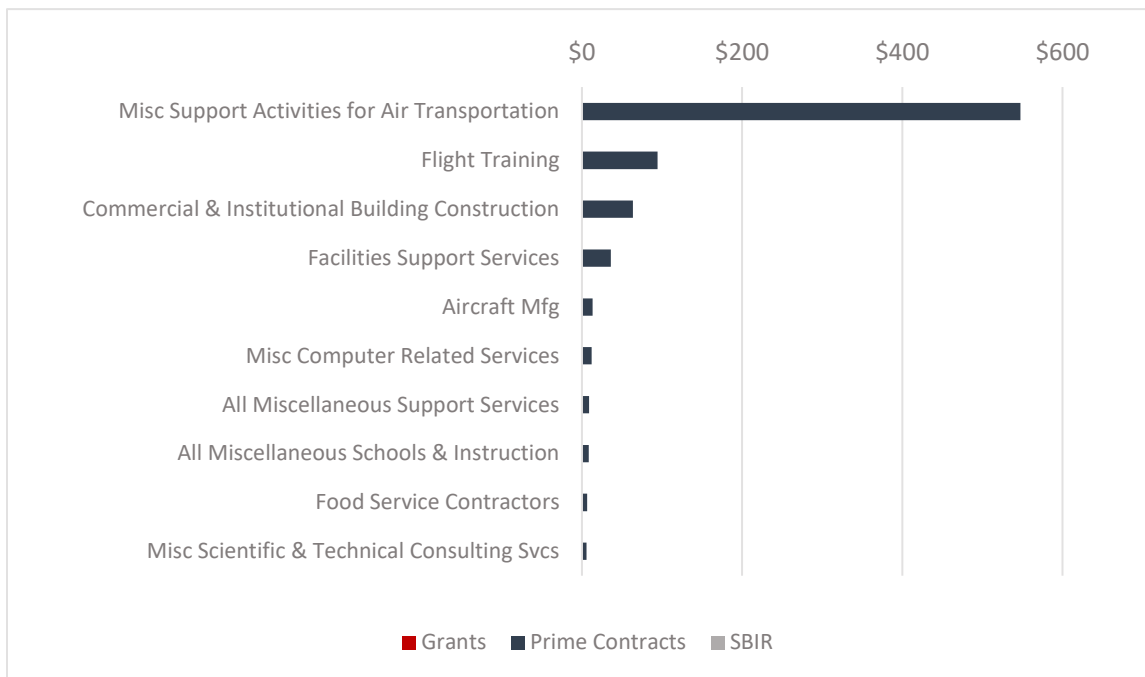
Source: IMPLAN

Figure 111: Dale County, Military Jobs Impact by Industry FY16



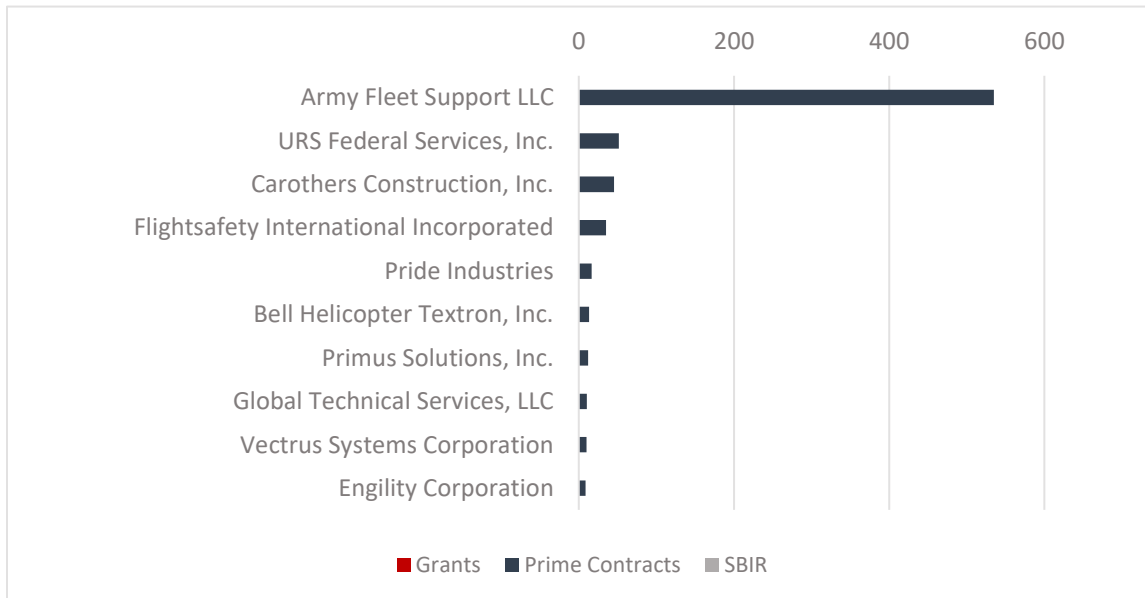
Source: IMPLAN

Figure 112: Dale County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 113: Dale County, DoD Procurement by Company FY16 (\$M)



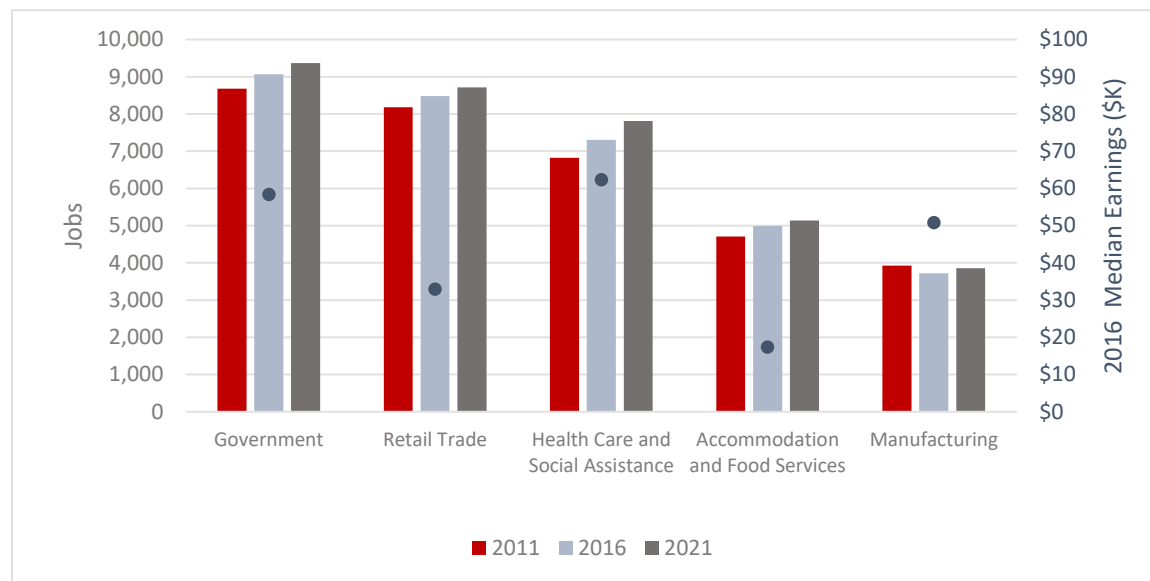
Source: USAspending.gov

HOUSTON COUNTY

County Overview

Houston County is home to the city of Dothan and 104,056 residents.⁴⁰ The county's military economy is significantly impacted by nearby Fort Rucker. In addition, it is home to an Army Reserve Training Center⁴¹ and a subordinate unit of the National Guard's 226th Maneuver Enhancement Brigade.⁴² Houston County received an average of \$39.4 million in defense funding per year from FY13 through FY16.

Figure 114: Houston County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years



Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. It has relatively strong Government; Retail Trade; and Health Care & Social Assistance sectors in terms of total employment. Regarding average earnings per job, Health Care & Social Assistance and Manufacturing are the county's strongest contributors. Of these two, only Health Care & Social Assistance sector is expected to see an increase in job growth between 2011 and 2021.

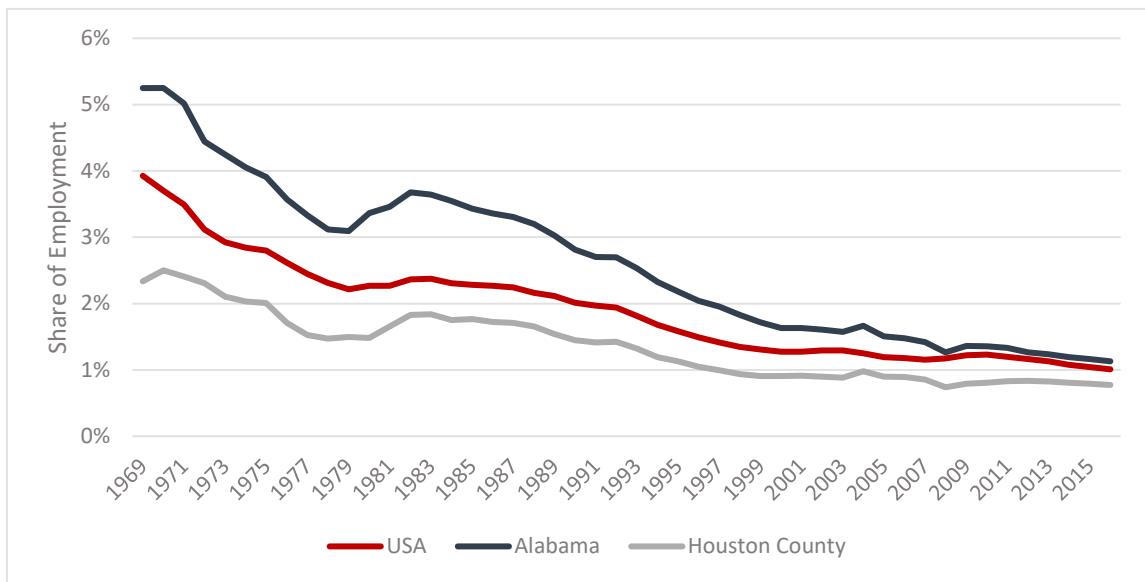
Like many areas of the U.S., the number of military personnel in Houston County has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. The value of DoD contracts and grants performed in Houston County decreased between FY13 and FY16, but recovered slightly after a steep drop-off in FY14. The number of recipients has also decreased during this time, though more steadily than contract obligations.

⁴⁰ U.S. Census Bureau (2016). Population Estimates, Houston County, AL July 1, 2016. Retrieved from www.Census.gov/quickfacts.

⁴¹ U.S. Army Reserve. (2018). State of Alabama and the United States Army Reserve. Retrieved from <http://www.usar.army.mil/Featured/Ambassador-Program/Find-an-Ambassador/Alabama/>

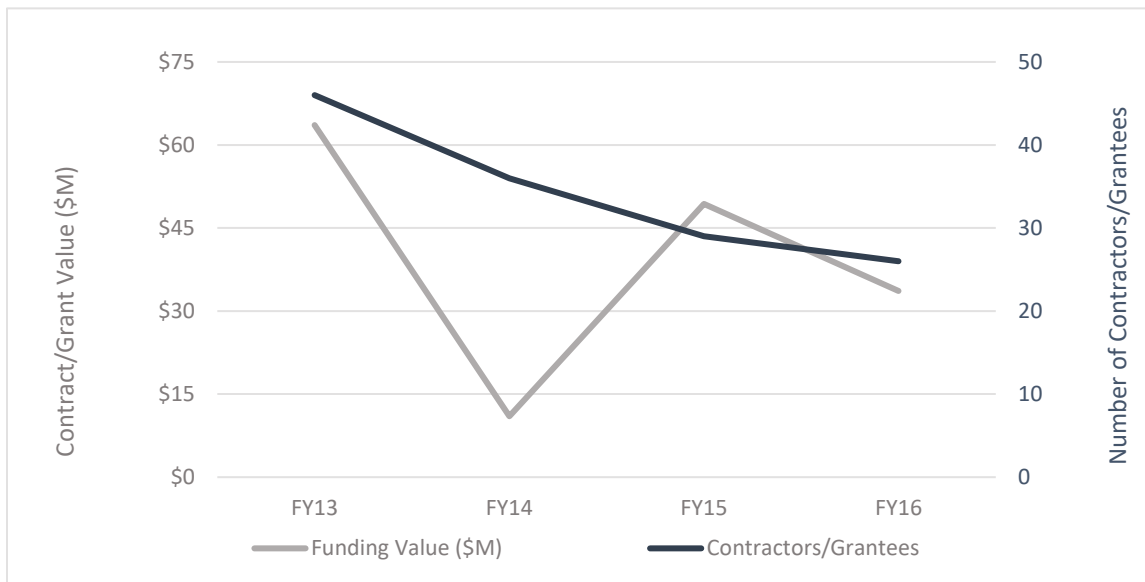
⁴² Alabama National Guard. (2009). Army National Guard Units. Retrieved from <http://al.ng.mil/ALABAMA/Units/Pages/ArmyNG.aspx>

Figure 115: Non-Civilian Military Employment Over Time, Houston County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 116: Houston County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$54 million in economic impact to Houston County in FY16, which accounted for 0.9% of all net economic activity within the area. The military sustained 635 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Houston County, an additional \$40 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$2 million in state and local tax receipts. Among all categories of people on the military payroll, active duty personnel had the largest employment at 89.

Among DoD related sources of income in FY16, contracts to DoD prime contractors is the single largest driver of economic impact within the area, accounting for 46.0% of direct impact. In FY16, industries that benefited most from military investment include Construction of New Commercial Structures – Including New Farm Structures; Federal Government (Military & Civilians); and Retail – Food and Beverage Stores. In particular, companies receiving the largest value of contracts include Barlovento, LLC and Alfab, Inc.

Table 36: Houston County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$54
Impact on Jobs	635
Percent of Net Economic Activity	0.9%
Military Spending Per Resident	\$0.37
Military Funding Multiplier	\$1.40
State & Local Taxes (\$M)	\$2
Estimated Active Duty Personnel	89
Estimated Civilians	81
Estimated Military Retirees	59

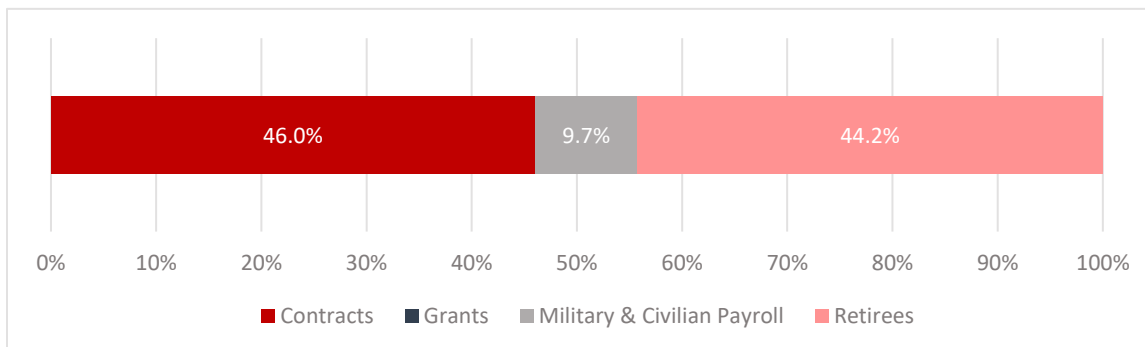
Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

Table 37: Houston County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	635	512	43	80
Earnings (\$M)	\$30	\$25	\$2	\$3
Output (\$M)	\$54	\$39	\$6	\$10
Value Added (\$M)	\$39	\$30	\$3	\$5

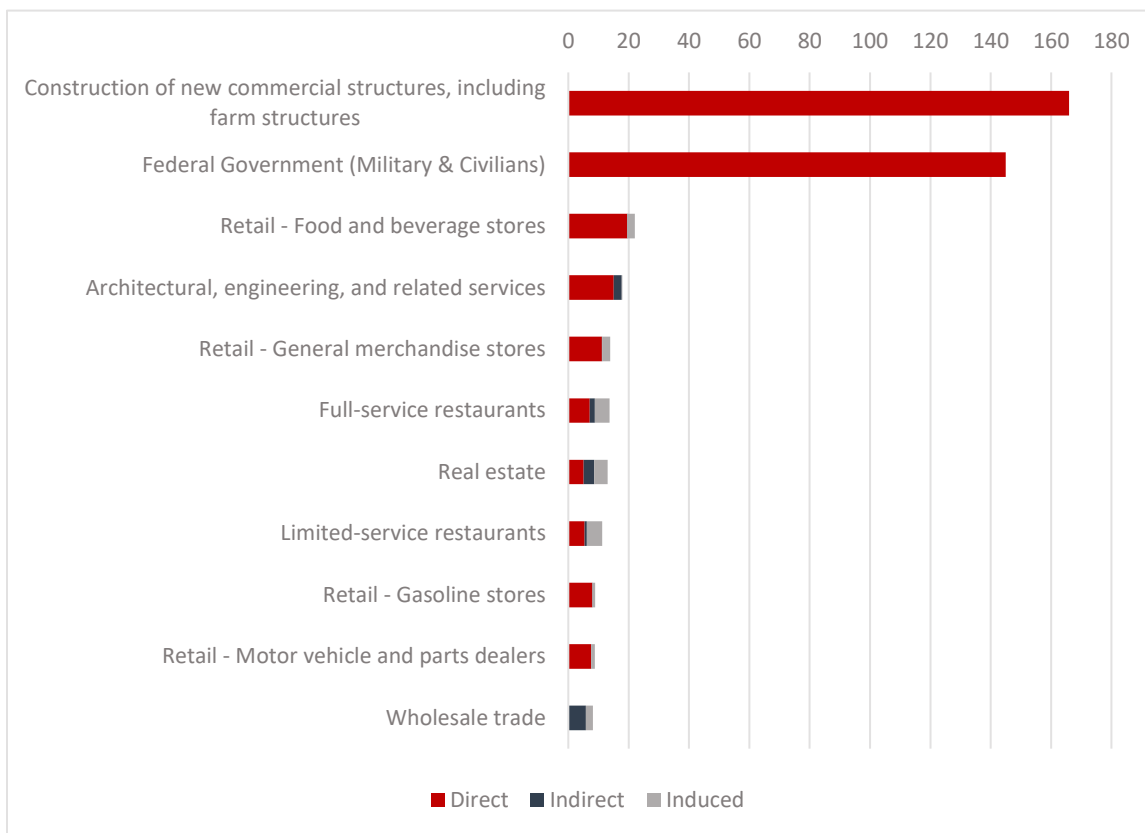
Source: IMPLAN

Figure 117: Houston County, Distribution of Direct Impacts FY16



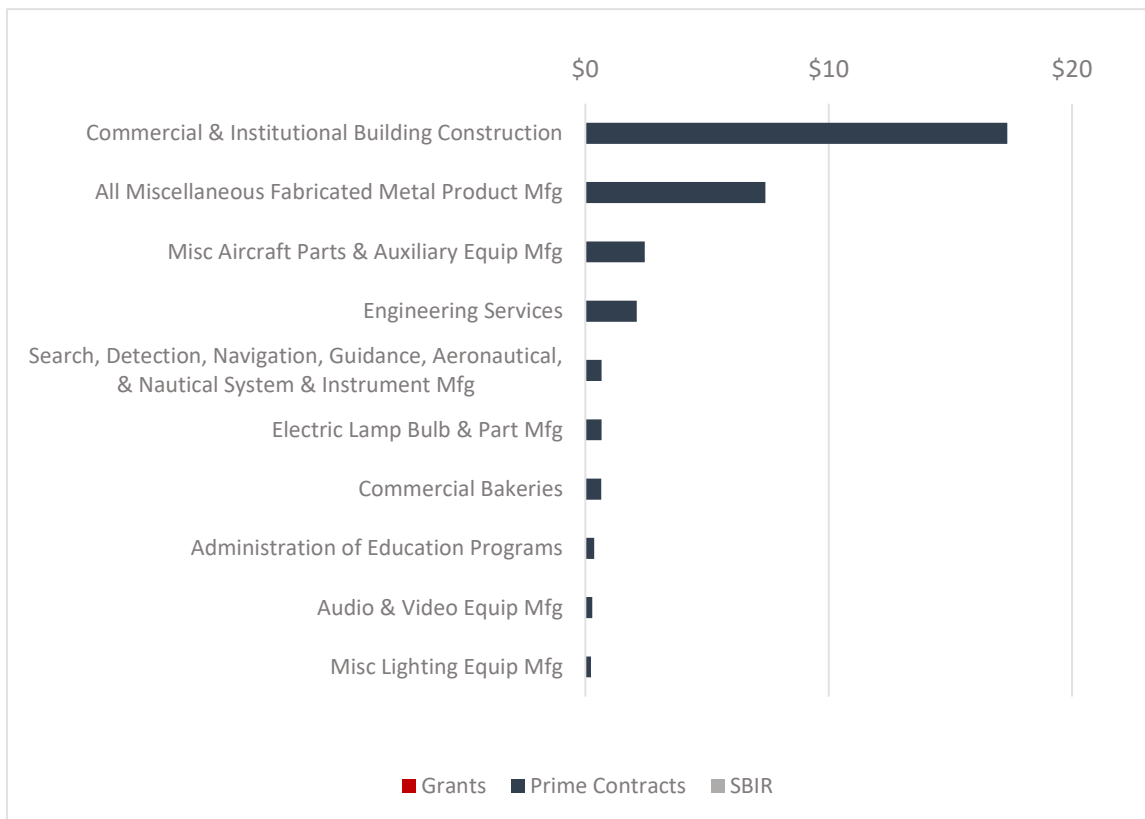
Source: IMPLAN

Figure 118: Houston County, Military Jobs Impact by Industry FY16



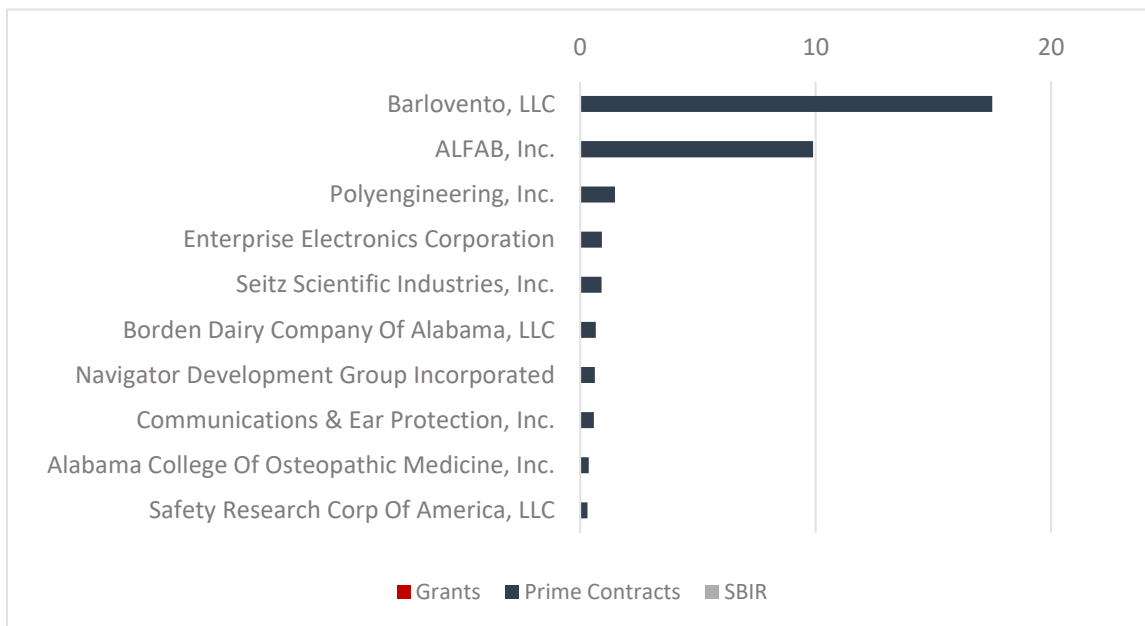
Source: IMPLAN

Figure 119: Houston County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 120: Houston County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Mobile Area (Region 7)

Regional Overview

The Mobile Area encompasses the southwest portion of the state and includes the cities of Mobile, Daphne, Atmore, and Jackson. It has a total population of around 750,000 people, which ranks third among Alabama's areas.⁴³ As Alabama's only connection to the Gulf of Mexico, the Mobile Area is a shipping outlet for the rest of the state. With its Gulf Coast location, the area is home to both the Coast Guard Aviation Training Center and Coast Guard Sector Mobile. These installations provide crucial aviation training, search and rescue services, and support the local economy by providing contracting opportunities. In addition to these facilities, the area is home to an Army Reserve base in Mobile as well as more than 15 different National Guard units in various locations.⁴⁴

The majority of defense operations in the Mobile Area are within Mobile County. The largest entity, the Coast Guard Aviation Training Center (ATC Mobile), shares an airfield with the Mobile Regional Airport. This facility provides both aviation development and training and serves as an operational air station for the Coast Guard. Local contractors such as Airbus Defense and Space and Lockheed Martin support the aircraft repair and development activities required of ATC Mobile. In addition, ATC Mobile partners with Coast Guard Sector Mobile to carry out search and rescue, maritime law enforcement, and other safety and security activities. In addition to these institutions, the 226th Maneuver Enhancement Brigade of the Army National Guard is headquartered in Mobile. The majority of this brigade's 1,600 soldiers are in the southwest portion of the state. It supports forces through maneuver operations and area security.⁴⁵

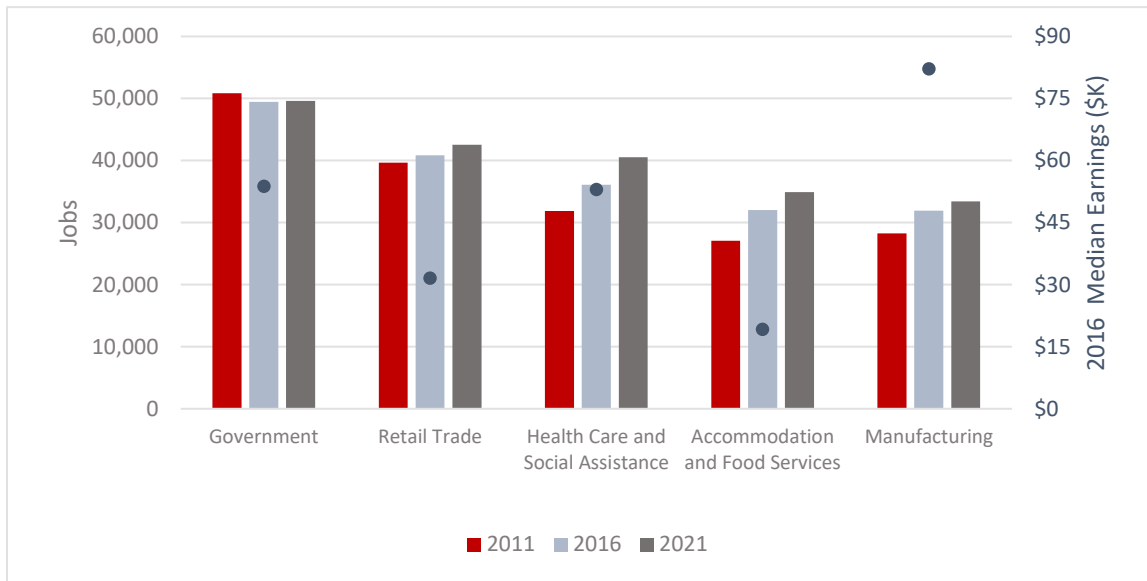
Overall, the area contains 315,000 jobs, and has experienced job growth of roughly 2.8% in the past five years. This growth rate lags behind the national average, but there are several industries in which the Mobile area is growing rapidly. At the industry sector level, Government provides the largest number of jobs, but Manufacturing is growing quickly and provides the highest wages. Fast-growing detailed industries include Restaurants and Other Eating Places; Ship and Boat Building; and Individual and Family Services. Though earnings per worker in the Ship and Boat Building industry are high (at over \$81,000), the area lags behind the national average at \$48,200 per job. The Mobile Area is also behind the national average in its percentage of residents who possess a bachelor's degree, at 21.7%. However, the area is home to higher education institutions such as Columbia Southern University and University of South Alabama.

⁴³ Emsi, 2017.2. Compiled from U.S. Census Bureau Statistics.

⁴⁴ National Guard (2017). Units/Battalions by State. Alabama. Retrieved from <https://state.nationalguard.com/alabama>

⁴⁵ Alabama National Guard (2016). Annual Report 2016. P. 28. Retrieved from: AL.NG.MIL

Figure 121: Mobile Area, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years

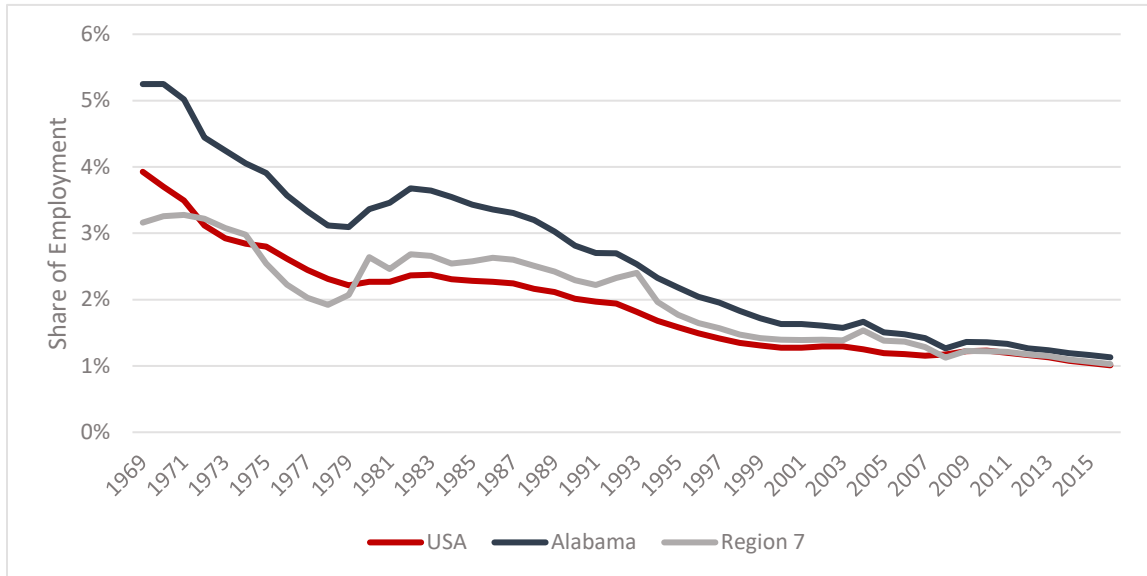


Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. While all sectors show strength in terms of total employment, Government and Retail Trade are the strongest when compared to the other sectors. Earnings in the Manufacturing sector are strong, relative to national averages. Additionally, all of the top five sectors are expecting an increase in job growth by 2021.

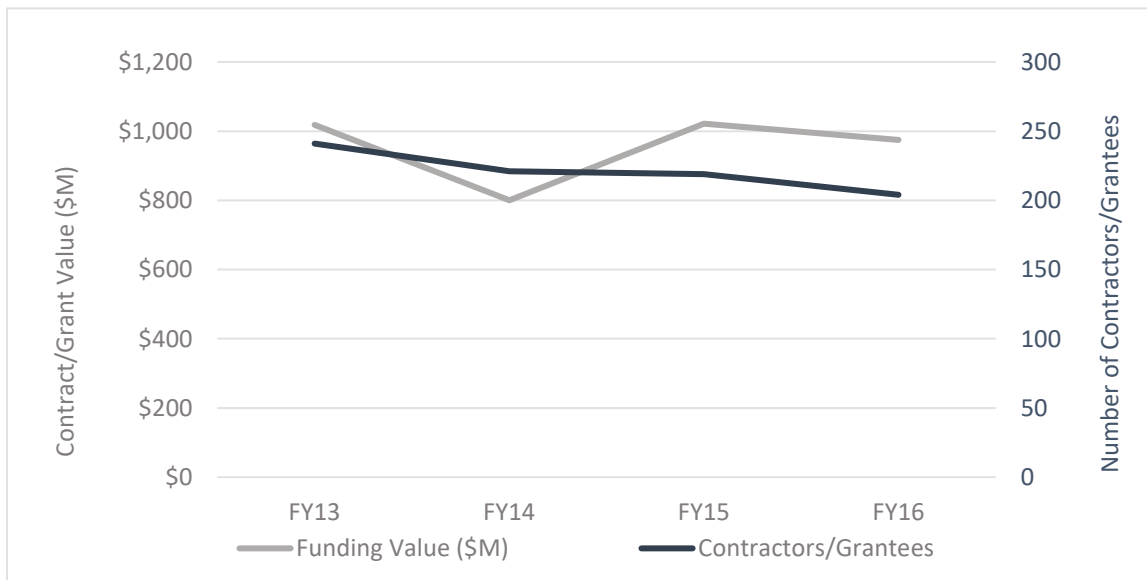
Like most areas of the U.S., the number of military personnel in the Mobile Area has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. Amid national cut-backs in defense spending, the value of DoD contracts and grants performed in the Mobile Area was only slightly less in FY16 than in FY13. However, a considerable decrease in the number of contractors/grantees during this time indicates that a smaller number of firms are performing relatively larger contracts.

Figure 122: Non-Civilian Military Employment Over Time, Mobile Area Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 123: Mobile Area, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$1.815 billion in economic impact to the Mobile Area in FY16, which accounted for 4.1% of all net economic activity within the area. The military sustained 13,849 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in the Mobile Area an additional \$57 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$79 million in state and local tax receipts. Among all categories of people on the military payroll, military retirees were the largest at 13,404.

Table 38: Mobile Area, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$1,815
Impact on Jobs	13,849
Percent of Net Economic Activity	4.1%
Military Spending Per Resident	\$1.52
Military Funding Multiplier	\$1.57
State & Local Taxes (\$M)	\$79
Estimated Active Duty Personnel	573
Estimated Civilians	430
Estimated Military Retirees	13,404

Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

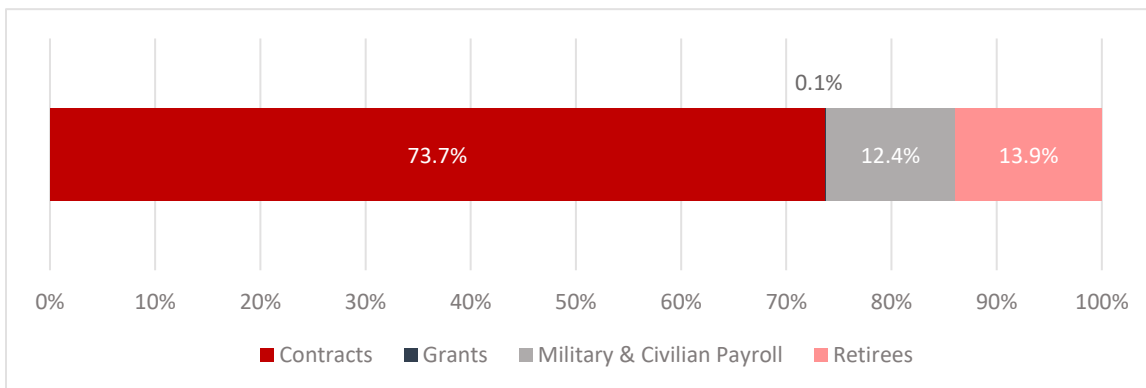
Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 73.7% of direct impact. In FY16, industries that benefited most from military investment include Ship Building and Repairing; Federal Government (Military & Civilians); and Retail – Food and Beverage Stores. In particular, Austal USA, LLC receives the majority of contract value within the Mobile Area.

Table 39: Mobile Area, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	13,849	8,357	2,366	3,126
Earnings (\$M)	\$976	\$769	\$99	\$109
Output (\$M)	\$1,815	\$1,153	\$297	\$365
Value Added (\$M)	\$1,225	\$872	\$150	\$204

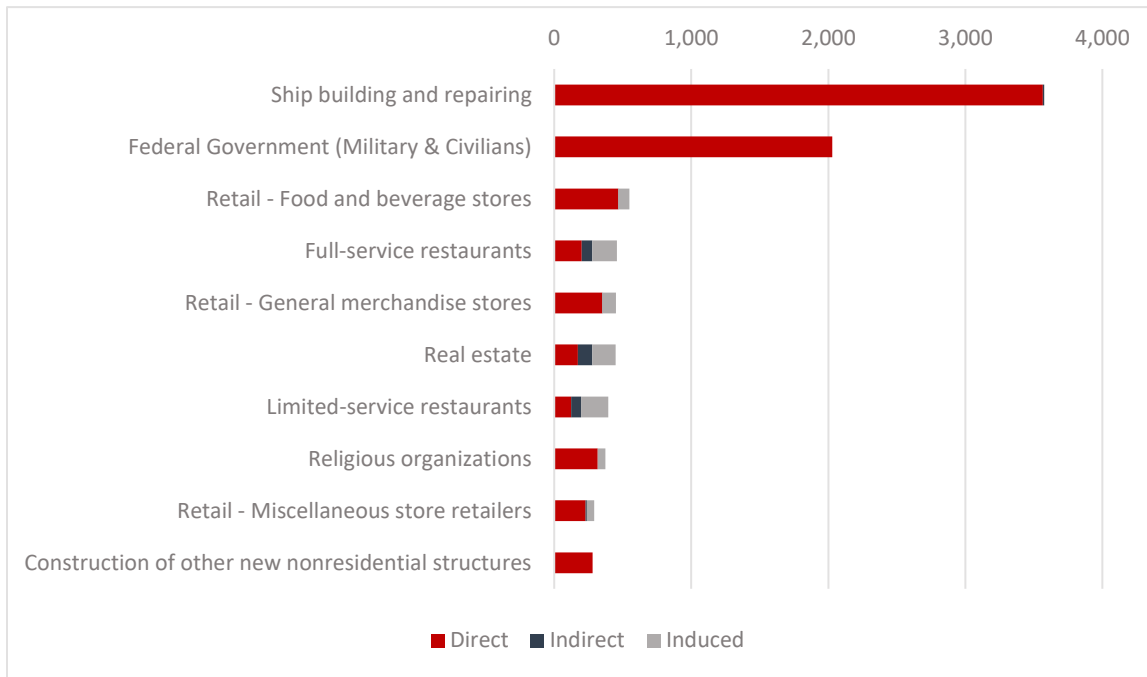
Source: IMPLAN

Figure 124: Mobile Area, Distribution of Direct Impacts FY16



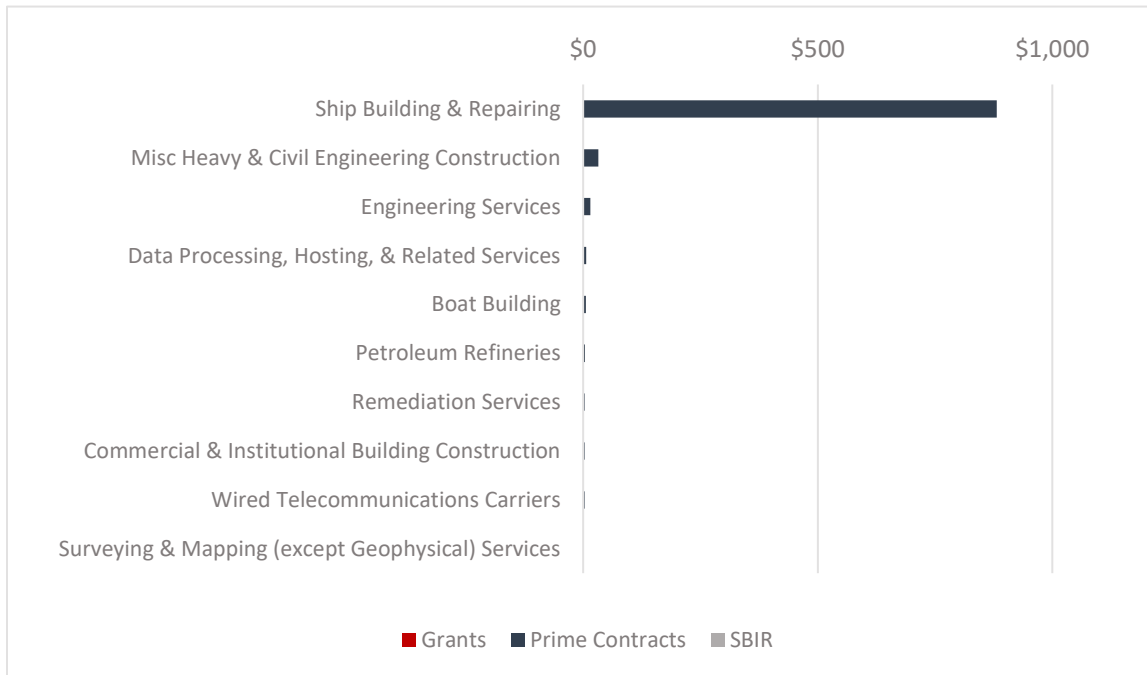
Source: IMPLAN

Figure 125: Mobile Area, Military Jobs Impact by Industry FY16



Source: IMPLAN

Figure 126: Mobile Area, DoD Procurement by Industry FY16 (\$M)



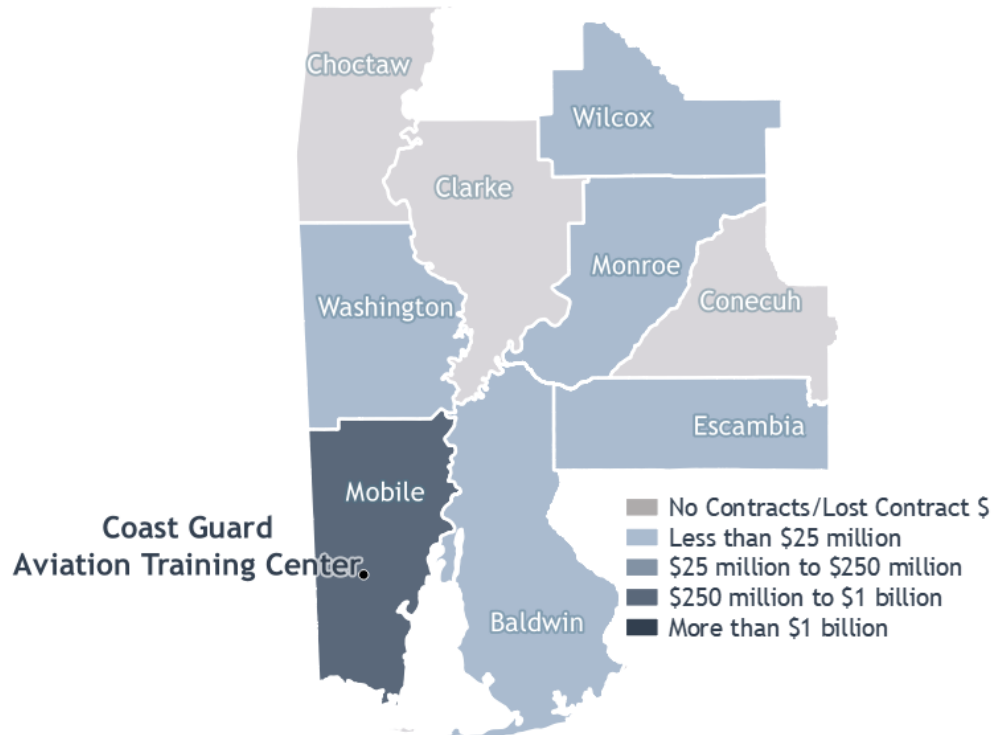
Source: USAspending.gov

Figure 127: Mobile Area, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

Figure 128: Mobile Area, County Location of Direct Procurement Impact

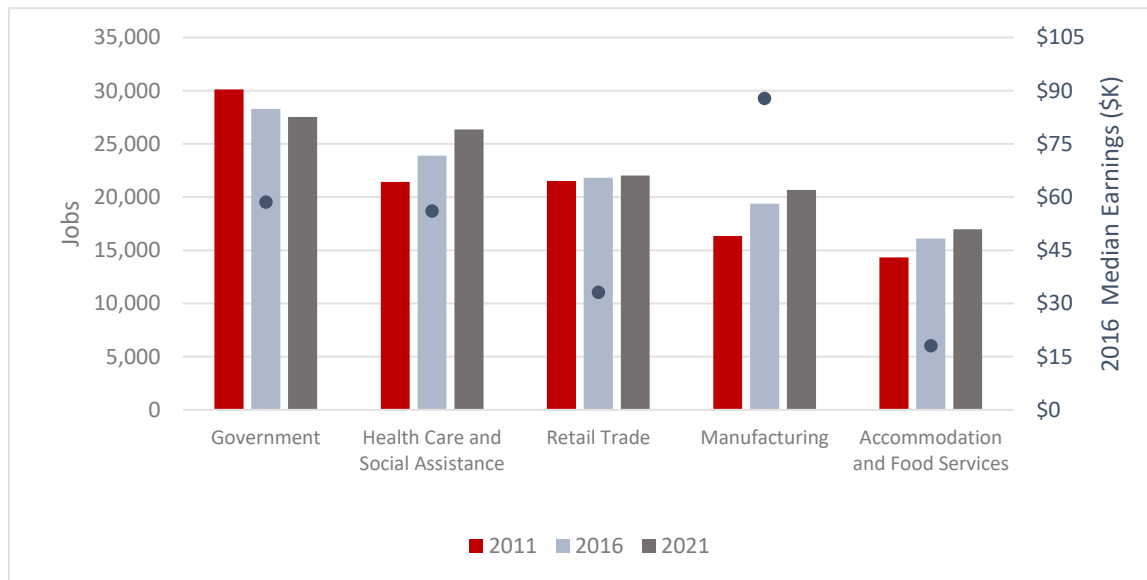


MOBILE COUNTY

County Overview

As the home of the majority of the area's military institutions, Mobile County paces the area in military contracting and military activity. From FY13 through FY16, Mobile County ranked second among all Alabama counties in DoD and Coast Guard contracts, with an average of \$953 million per year. Between FY13 and FY16, top contracting industries included Ship Building and Repairing; Other Heavy and Civil Engineering Construction; and Commercial and Institutional Building Construction. Top contracting companies performing work in Mobile County between FY13 and FY16 included Austal USA, LLC, W. G. Yates & Sons Construction Company, and BAE Systems Southeast Shipyards Alabama LLC. In addition, military institutions are significant employers in Mobile County, between Aviation Training Center Mobile, Coast Guard Sector Mobile, and the 226th Maneuver Enhancement Brigade.

Figure 129: Mobile County, Job Growth in Largest Industries, Past 5 Years and Projected 5 Years

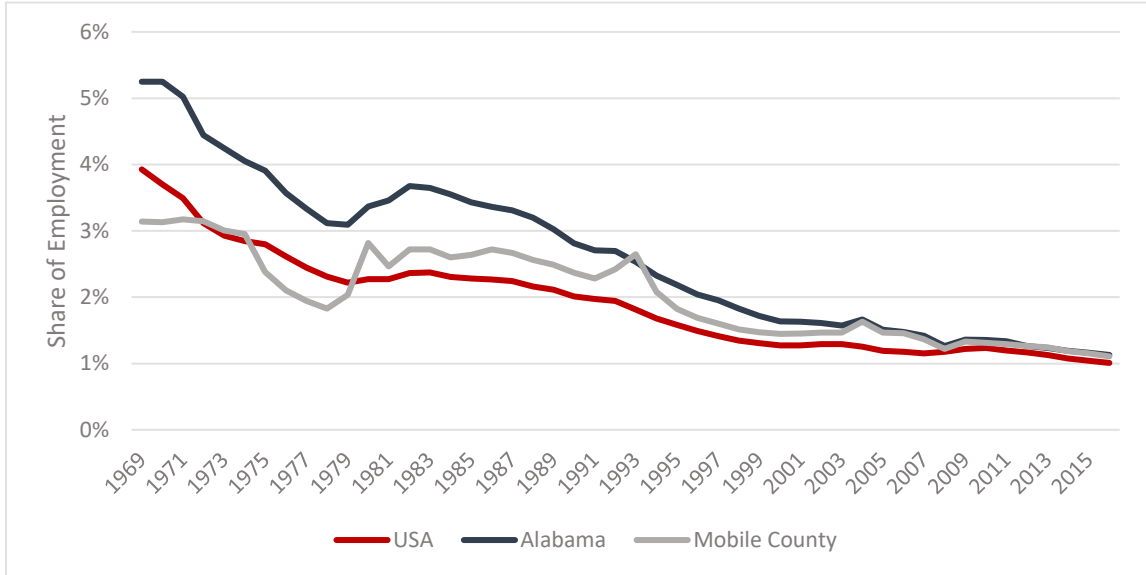


Source: Emsi Employment, 2017.2

The area has grown in terms of both population and jobs in the past five years. Government and Health Care & Social Assistance are the area’s highest-ranking sectors in employment. However, in terms of average earnings per job, Manufacturing is the county’s strongest sector. Additionally, all of the top five sectors are expecting an increase in job growth by 2021.

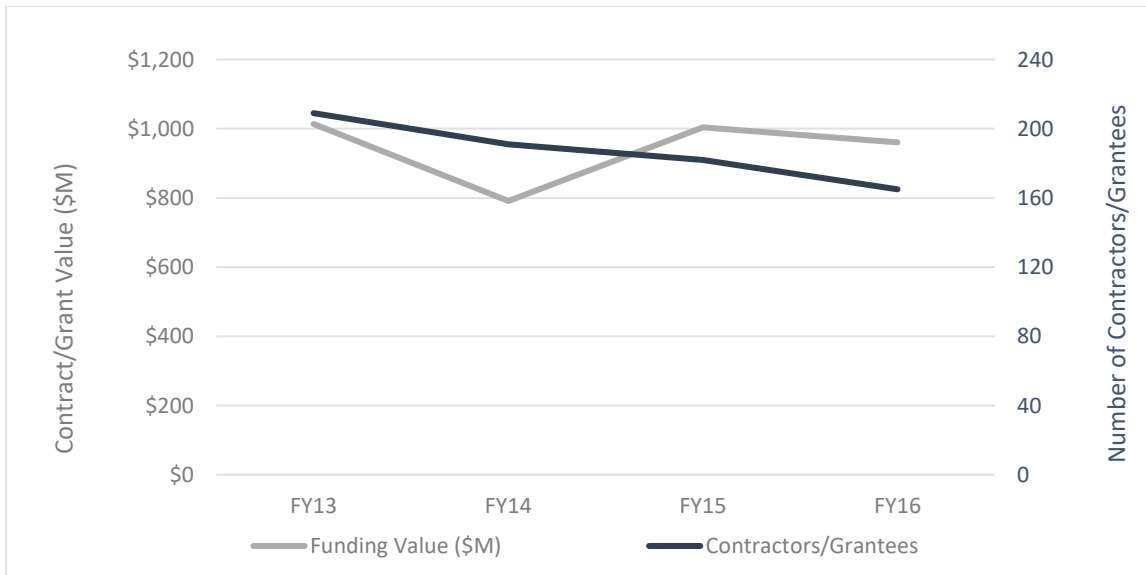
Like many areas of the U.S., the number of military personnel in Mobile County has decreased over the past forty years. Despite this, the military impacts the area through a large concentration of civilians and contractors. Amid national cut-backs in defense spending, the value of DoD contracts and grants performed in Mobile County only slightly decreased between FY13 and FY16. However, a more significant decrease in the number of contractors/grantees indicates that a smaller number of firms are performing relatively larger contracts.

Figure 130: Non-Civilian Military Employment Over Time, Mobile County Compared to Alabama & Nation



Source: Bureau of Economic Analysis (2016)

Figure 131: Mobile County, Funding & Number of Contractors/Grantees by Fiscal Year



Source: USAspending.gov, by place of performance

Military Economic Impact

The military provided \$1.673 billion in economic impact to Mobile County in FY16, which accounted for 5.3% of all net economic activity within the area. The military sustained 11,846 jobs in FY16 through payments to active duty, civilians, National Guard and Reserve members, contractors, and the subsequent ripple effects of that spending. The military funding multiplier indicates that for every \$100 invested by DoD in Mobile County, an additional \$56 of income is produced for others within the area. In addition to generating income for the private sector, military funding leads to \$62 million in state and local tax receipts. Among all categories of people on the military payroll, military retirees were the largest at 9,645.

Table 40: Mobile County, Economic Impact Metrics

Metric	Value
Impact on Economic Output (\$M)	\$1,673
Impact on Jobs	11,846
Percent of Net Economic Activity	5.3%
Military Spending Per Resident	\$2.59
Military Funding Multiplier	\$1.56
State & Local Taxes (\$M)	\$62
Estimated Active Duty Personnel	469
Estimated Civilians	232
Estimated Military Retirees	9,645

Source: IMPLAN, Military Installations, Defense Manpower Data Center, and DoD Office of the Actuary

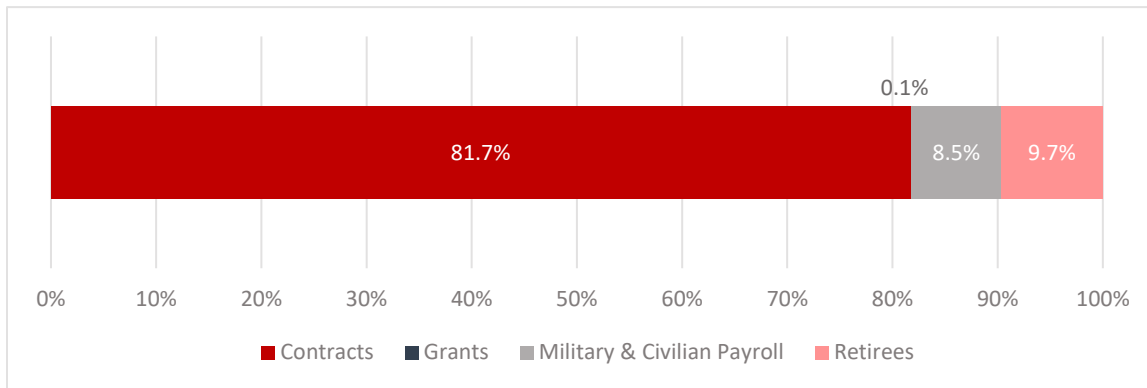
Among DoD related sources of income in FY16, contracts to DoD prime contractors is the clear driver of economic impact within the area, accounting for 81.7% of direct impact. In FY16, industries that benefited most from military investment include Ship Building and Repairing; Federal Government (Military & Civilian); and Retail – Food and Beverage Stores. In particular, Austal USA receives the majority of contract value in Mobile County.

Table 41: Mobile County, Economic Impact Dashboard

Category	Total	Direct	Indirect	Induced
Jobs	11,846	6,769	2,302	2,775
Earnings (\$M)	\$803	\$598	\$103	\$101
Output (\$M)	\$1,673	\$1,074	\$278	\$321
Value Added (\$M)	\$1,006	\$675	\$148	\$183

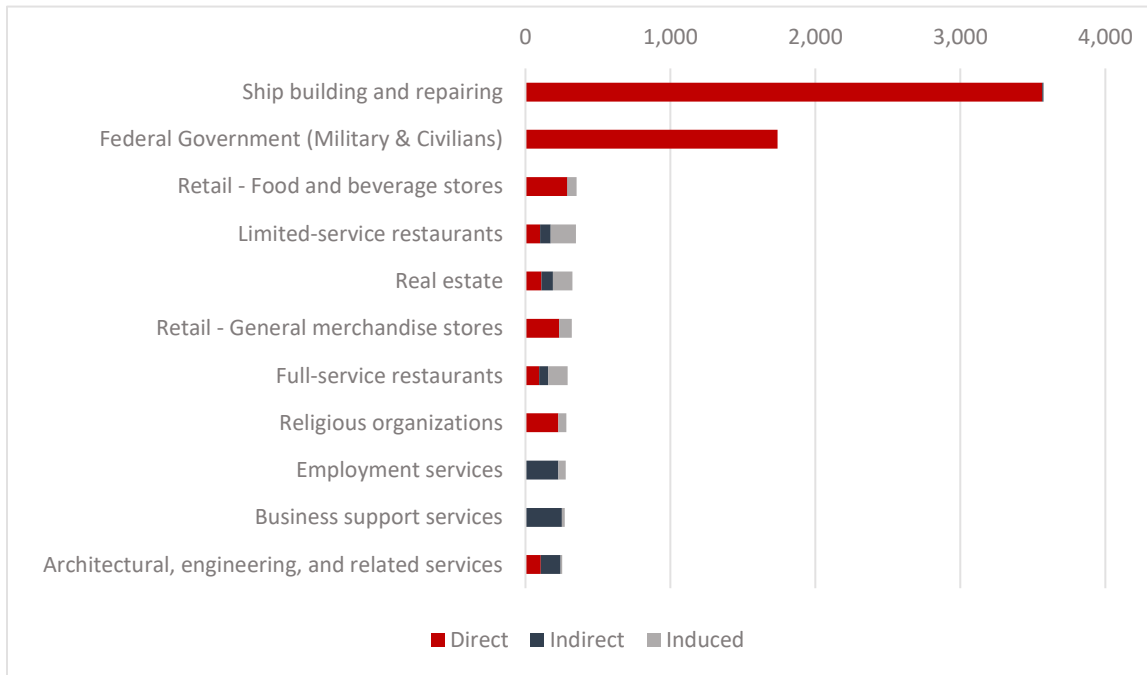
Source: IMPLAN

Figure 132: Mobile County, Distribution of Direct Impacts FY16



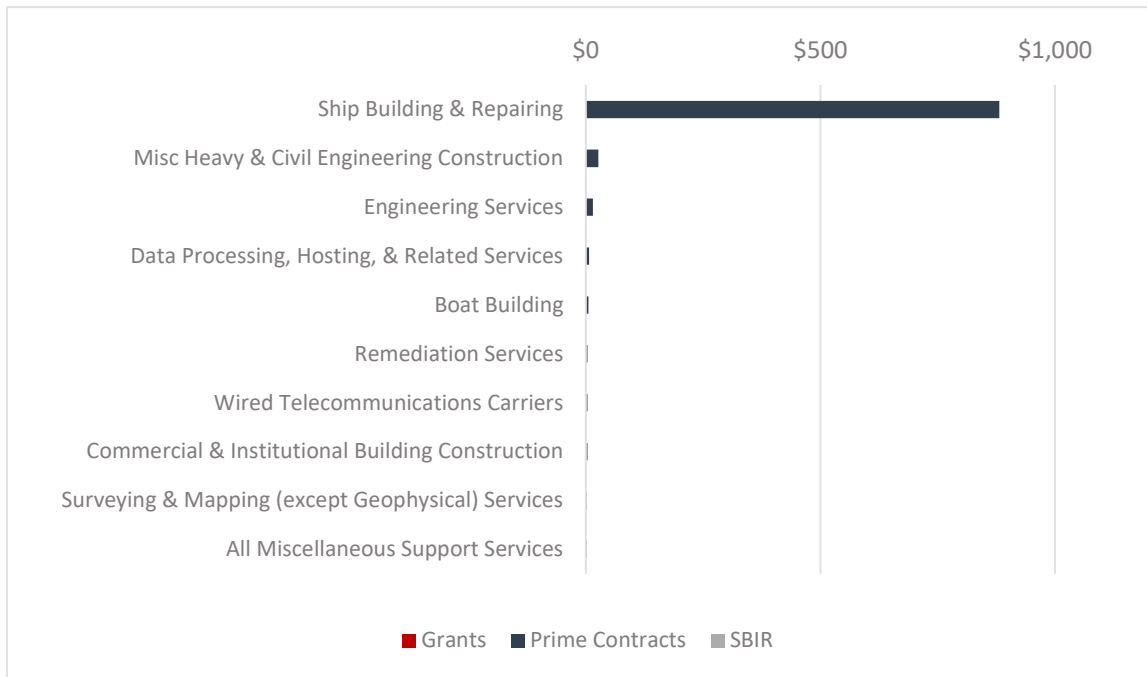
Source: IMPLAN

Figure 133: Mobile County, Military Jobs Impact by Industry FY16



Source: IMPLAN

Figure 134: Mobile County, DoD Procurement by Industry FY16 (\$M)



Source: USAspending.gov

Figure 135: Mobile County, DoD Procurement by Company FY16 (\$M)



Source: USAspending.gov

APPENDIX A: METHODOLOGY

Process

Prior to conducting this analysis, numerous defense economic impact studies conducted for states and localities across the United States were reviewed. A full bibliography of materials reviewed is included in Appendix B. The materials were analyzed to determine best practices, data sources, and common means for data collection.

To account for the economic impact of defense and a series of related activities in the state of Alabama, a multitude of sources were considered. More specifically, DoD grants and contracts; local spending by Active Duty, Civilians, Army and Air Force Reservists; and local spending by military retirees were accounted. An outline of the steps used to complete this analysis are outlined below.

Contracts

- Downloaded from USAspending.gov according to place of performance in Alabama
- Classified NAICS code converted to IMPLAN sector
- Place of performance County used to classify under appropriate regions of analysis

SBIR Awards

- Downloaded from SBIR.gov according to place of performance in Alabama
- NAICS code of the Vendors pulled from Hoovers and other online data sources
- Classified NAICS converted to IMPLAN sector
- Place of performance County used to classify under appropriate regions of analysis

Grants

- Downloaded from USAspending.gov according to place of performance in Alabama
- Utilized project description for NAICS classification
- Classified NAICS converted to IMPLAN sector
- Place of performance County used to classify under appropriate regions of analysis

Employee Consumption

- Collected data mainly from installations on active duty, army and air-force reservists, army and air national guards, civilian personnel and others (including students, trainees)
- Consumption pattern created using consumption expenditure data based on income for seven areas, 10 counties and state
- Out-of-area leakage adjustment done using Regional Purchase Coefficients from IMPLAN

Retiree Consumption

- Distribution by age and rank utilized from Office of Actuary Report to create income distribution by age and income
- Compensation data from VA Reports utilized to create distribution by age and income for all regions of analyses
- Out-of-area leakage adjustment done using Regional Purchase Coefficients from IMPLAN

Additional Details on Consumption Modeling

Data from the US Census Bureau's Consumer Expenditure Survey were used to create nine distinct income brackets, with unique marginal propensity to consume and commodity purchase trends. Marginal propensity to consume is an economic term which describes the degree of income a person uses for consumption rather than savings. It is significant to this analysis because it varies greatly based on a person's level of income. Retiree income was also run through this model, but the full

income of these individuals was reduced to a level that approximated their earnings exclusively from the Department of Defense. Once degree of consumption was determined for all aforementioned groups, one of 53 IMPLAN sectors was assigned to each category of spending. Lastly, these data were used as inputs in the input-output model. IMPLAN—a national leader in economic modeling—was utilized to complete the input-output model process.

Complete List of Data Sources

Bureau of Economic Analysis. (2016). Local Area Personal Income. <https://www.bea.gov/regional/>

Defense Manpower Data Center. (FY2016.) APF Civilians File. www.dmdc.osd.mil

Department of Defense Office of the Actuary. (2016.) Statistical Report on the Military Retirement System. <http://actuary.defense.gov>

Dun & Bradstreet Hoovers (2017). Avention Database. <http://www.hoovers.com/>

Economic Modeling Specialists, Inc, (2017.2.) Regional Reports, Industry Tables, and Occupation Tables.

SBIR.gov. (2017.) Alabama Data by Place of Grant Award. <https://www.sbir.gov/>

Bureau of Labor Statistics. (2016.) Consumer Expenditure Survey. <https://www.bls.gov/cex/>

USAspending.gov. (FY13-FY16.) Alabama Contracts and Grants by Place of Performance. <https://www.usaspending.gov>

In addition, data was received from the following participating military installations:

- 187th Fighter Wing;
- Anniston Army Depot;
- Aviation Training Center Coast Guard Base;
- Birmingham Air National Guard;
- Birmingham Army National Guard;
- Coast Guard Sector Mobile;
- Fort Rucker Army Base;
- Maxwell-Gunter Air Force Base; and
- Redstone Arsenal.

All other data sources utilized are cited in footnotes throughout the report.

Regions of Analysis

As explained in [Chapter 3: Regional Profiles](#), the state was divided into seven regions of analysis for the bulk of this report. The counties contained in each region are outlined below.

Table A.1: Counties by Region

Region Name	Counties
Huntsville Area (Region 1)	Colbert, Cullman, DeKalb, Franklin, Jackson, Lauderdale, Limestone, Lawrence, Madison, Marion, Marshall, Morgan, Winston
Anniston Area (Region 2)	Calhoun, Cherokee, Clay, Cleburne, Etowah, Randolph, Talladega, Bibb, Fayette, Greene, Hale, Pickens, Lamar
Tuscaloosa Area (Region 3)	Bibb, Fayette, Greene, Hale, Pickens, Lamar, Marengo, Sumter, Tuscaloosa
Birmingham Area (Region 4)	Blount, Chilton, Jefferson, Shelby, St. Clair, Walker
Montgomery Area (Region 5)	Autauga, Bullock, Chambers, Coosa, Dallas, Elmore, Lee, Lowndes, Macon, Montgomery, Perry, Russell, Tallapoosa
Dothan Area (Region 6)	Barbour, Butler, Coffee, Covington, Crenshaw, Dale, Geneva, Henry, Houston, Pike
Mobile Area (Region 7)	Baldwin, Choctaw, Clarke, Conecuh, Escambia, Mobile, Monroe, Washington, Wilcox

APPENDIX B: BIBLIOGRAPHY

Defense Impact Studies Referenced

- Brown, Daniel T. & Ratledge, Edward C., *Economic Impact on Delaware's Economy: The Delaware National Guard*. (August 19, 2011).
<http://udspace.udel.edu/bitstream/handle/19716/10981/NG%20report%20v2.pdf?sequence=1&isAllowed=y>.
- Coomes, Paul, et al. *The Economic Importance of the Military in Kentucky: 2016 Update*. (2016). The Kentucky Commission on Military Affairs, kcma.ky.gov/Documents/Final%20Report.pdf.
- The Economic Impact of Redstone Arsenal*. (2012). Huntsville Madison County Chamber, http://hsvchamber.org/images/CommunityData/economicreports/redstone_economic_impact_analysis_may.pdf.
- Irani, Daraius & Grimm, Jessica, *Maryland Military Installation Economic Impact Study*. (August 25, 2015). Maryland Department of Business and Economic Development, <http://commerce.maryland.gov/Documents/ResearchDocument/MarylandMilitaryInstallationEconomicImpactStudy2015.pdf>.
- Lahr, Michael L., *New Jersey's Military and Coast Guard Facilities: Economic Contribution to the State Economy*. (June 2013). New Jersey Council on Armed Forces and Veterans Affairs, http://recon.rutgers.edu/wp-content/uploads/2014/03/NJ_Military_Missions_Economic_Impact2013.06.271.pdf.
- Levy, Joshua & Nystrom, Scott, *The Economic Impact of the Military on North Carolina*. (2015). North Carolina Military Affairs Commission, <https://www.nccommerce.com/Portals/47/Publications/Industry%20Reports/2015-Economic-Impact-of-the-Military-on-North-Carolina.pdf>.
- Lewis, Rod, et. al, *Economic Impact of Defense Activities on the Florida Economy*. (September 2015). Enterprise Florida. <https://www.enterpriseflorida.com/wp-content/uploads/Florida-Defense-Industry-Economic-Impact-Analysis.pdf>.
- Marshall Space Flight Center: Economic Impact Report*. (2017). National Aeronautics and Space Administration, https://www.nasa.gov/sites/default/files/atoms/files/economic_impact_mobile_508_2017.pdf.
- National Economic Impacts from DoD License Agreements with US Industry 2000- 2011*. (2013). TechLink and University of Montana Bureau of Business and Economic Research, <https://www.nist.gov/sites/default/files/documents/2017/05/09/National-Economic-Impacts-from-DOD-License-Agreements-2013.pdf>.
- Protect and Grow: A Strategic Plan for Michigan's Defense and Homeland Security Economy*. (2016). The Michigan Defense Center, https://www.michigan.gov/documents/snyder/Michigan_Protect_and_Grow_Public_Report_2016_525922_7.pdf.

Report on the Comprehensive Military Value and Economic Impact of Department of Defense Activities in Colorado. (April, 2015). Colorado Department of Military and Veterans Affairs, <https://www.colorado.gov/pacific/sites/default/files/CO%20Mil%20Value%20Study%20Unabridged%20Report%20FINAL%202015.pdf>.

Swearingen, Will D. & Slaper Timothy F., *Economic Impacts of Technology Transfer: Two Case Studies from the U.S. Department of Defense.* (2012). *Les Nouvelles* (Journal of the Licensing Executives Society International), Vol. XLVII (2), pp. 163-173.

Statistical Report on the Military Retirement System, Fiscal Year 2016. (2017, July). DOD Office of Actuary. http://actuary.defense.gov/Portals/15/Documents/MRS_StatRpt_2016%20v4%20FINAL.pdf?ver=2017-07-31-104724-430

APPENDIX C: DETAILED ECONOMIC IMPACT TABLES

Economic impact models are generated first using output (or sales) data which are then translated into employment estimates using output to sales ratios specific to each industry. As a result, industry employment is often measured in fractions of full-time equivalents (FTE) job. For simplicity, employment numbers in the Tables below are displayed in terms of whole numbers, rather than fractional FTEs. However, as a result, the categories of economic impact in the following Tables may not equal the total listed in the final column.

All tables in this appendix are from IMPLAN.

Table C.1: Comparison of Impact by Region, Ranked by Highest Value-Added

Region	Jobs	Earnings (\$M)	Output (\$M)	Value-Added, or Net Output (\$M)
Huntsville Area (Region 1)	105,199	\$7,011	\$11,869	\$9,045
Montgomery Area (Region 5)	28,174	\$1,462	\$1,315	\$1,856
Fort Rucker Area (Region 6)	26,761	\$1,494	\$1,936	\$1,833
Mobile Area (Region 7)	13,849	\$976	\$1,815	\$1,225
Birmingham Area (Region 4)	8,138	\$659	\$640	\$846
Anniston Area (Region 2)	7,583	\$462	\$437	\$551
Tuscaloosa Area (Region 3)	1,703	\$184	\$174	\$237
State ⁴⁶	210,564	\$12,951	\$20,985	\$17,000

Table C.2: Comparison of Impact by County, Ranked by Highest Value-Added

Region	Jobs	Earnings (\$M)	Output (\$M)	Value-Added, or Net Output (\$M)
Madison	80,038	\$5,094	\$10,566	\$6,812
Montgomery	20,036	\$1,126	\$1,042	\$1,450
Mobile	11,846	\$803	\$1,673	\$1,006
Dale	9,448	\$600	\$1,136	\$744
Jefferson	5,793	\$498	\$446	\$637
Calhoun	4,865	\$275	\$273	\$337
Limestone	3,157	\$188	\$95	\$216
Tuscaloosa	1,255	\$130	\$148	\$175
Talladega	1,232	\$62	\$62	\$86
Houston	635	\$30	\$54	\$39
State	210,564	\$12,951	\$20,985	\$17,000

⁴⁶ Please note that the statewide impact exceeds the sum of each of the seven regions' impacts. This is due to the expanded supply chain available to businesses within a statewide model.

Table C.3: Top 50 Most Impacted Industries in Alabama

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	42,035	0	0	42,035
456	Scientific research and development services	15,464	559	12	16,035
400	Retail - Food and beverage stores	6,538	5	963	7,506
440	Real estate	1,991	3,265	1,843	7,099
405	Retail - General merchandise stores	5,121	30	1,266	6,417
454	Management consulting services	3,481	2,157	178	5,816
449	Architectural, engineering, and related services	3,957	1,250	146	5,354
502	Limited-service restaurants	2,332	478	2,476	5,286
464	Employment services	11	4,193	791	4,995
474	Other educational services	4,411	67	471	4,948
501	Full-service restaurants	2,241	751	1,941	4,933
414	Scenic and sightseeing transportation and support activities for transportation	3,915	508	102	4,525
513	Religious organizations	3,759	0	590	4,349
406	Retail - Miscellaneous store retailers	3,510	79	651	4,240
402	Retail - Gasoline stores	3,339	41	390	3,771
396	Retail - Motor vehicle and parts dealers	3,121	53	579	3,753
363	Ship building and repairing	3,719	7	0	3,726
468	Services to buildings	928	1,232	829	2,989
403	Retail - Clothing and clothing accessories stores	1,805	49	535	2,389
433	Monetary authorities and depository credit intermediation	872	731	681	2,283
504	Automotive repair and maintenance, except car washes	1,006	135	719	1,860
509	Personal care services	853	5	949	1,807
469	Landscape and horticultural services	829	535	416	1,780
395	Wholesale trade	147	751	881	1,779
467	Investigation and security services	745	703	230	1,678
447	Legal services	0	1,288	357	1,645
57	Construction of new commercial structures, including farm structures	1,635	0	0	1,635
475	Offices of physicians	322	0	1,291	1,614
535	* Employment and payroll of federal govt, non-military	1,605	0	0	1,605
460	Marketing research and all other miscellaneous professional, scientific, and technical services	309	1,193	80	1,581
438	Insurance agencies, brokerages, and related activities	0	1,137	414	1,551
503	All other food and drinking places	525	219	806	1,551
482	Hospitals	181	0	1,338	1,519
463	Facilities support services	1,208	124	22	1,355

508	Personal and household goods repair and maintenance	904	246	144	1,294
401	Retail - Health and personal care stores	784	57	449	1,290
359	Other aircraft parts and auxiliary equipment manufacturing	1,272	15	0	1,288
437	Insurance carriers	737	179	296	1,211
465	Business support services	23	882	189	1,094
399	Retail - Building material and garden equipment and supplies stores	554	55	479	1,088
63	Maintenance and repair construction of residential structures	771	56	227	1,054
453	Other computer related services, including facilities management	846	160	37	1,043
448	Accounting, tax preparation, bookkeeping, and payroll services	1	669	244	915
472	Elementary and secondary schools	565	0	264	829
62	Maintenance and repair construction of nonresidential structures	0	593	234	827
436	Other financial investment activities	0	324	437	761
483	Nursing and community care facilities	0	0	755	755
451	Custom computer programming services	742	9	1	752
415	Couriers and messengers	85	561	102	748
455	Environmental and other technical consulting services	429	279	37	745

Table C.4: Top 50 Most Impacted Industries in Region 1- Huntsville Area

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	17,703	0	0	17,703
456	Scientific research and development services	13,474	514	7	13,995
454	Management consulting services	3,215	1,540	71	4,827
449	Architectural, engineering, and related services	3,471	982	78	4,532
440	Real estate	807	2,126	923	3,855
400	Retail - Food and beverage stores	2,884	2	538	3,425
464	Employment services	0	2,984	395	3,378
405	Retail - General merchandise stores	2,469	14	733	3,215
502	Limited-service restaurants	1,229	273	1,439	2,942
501	Full-service restaurants	1,008	450	1,059	2,517
406	Retail - Miscellaneous store retailers	1,977	37	390	2,404
396	Retail - Motor vehicle and parts dealers	1,519	24	332	1,875
402	Retail - Gasoline stores	1,566	18	221	1,805
468	Services to buildings	621	623	448	1,691
359	Other aircraft parts and auxiliary equipment manufacturing	1,262	5	0	1,267
433	Monetary authorities and depository credit intermediation	438	413	343	1,193

460	Marketing research and all other miscellaneous professional, scientific, and technical services	288	867	32	1,188
403	Retail - Clothing and clothing accessories stores	811	20	284	1,115
469	Landscape and horticultural services	470	297	255	1,022
513	Religious organizations	831	0	164	994
475	Offices of physicians	186	0	745	931
504	Automotive repair and maintenance, except car washes	461	72	393	926
474	Other educational services	593	16	272	881
509	Personal care services	390	2	465	857
395	Wholesale trade	83	297	420	800
447	Legal services	0	657	125	781
467	Investigation and security services	434	215	70	719
465	Business support services	18	582	106	706
453	Other computer related services, including facilities management	523	157	26	705
463	Facilities support services	583	70	10	663
57	Construction of new commercial structures, including farm structures	646	0	0	646
401	Retail - Health and personal care stores	345	25	257	627
414	Scenic and sightseeing transportation and support activities for transportation	396	148	53	597
399	Retail - Building material and garden equipment and supplies stores	290	25	281	596
53	Construction of new manufacturing structures	593	0	0	593
455	Environmental and other technical consulting services	298	257	20	575
63	Maintenance and repair construction of residential structures	347	30	132	508
448	Accounting, tax preparation, bookkeeping, and payroll services	1	372	110	482
427	Wired telecommunications carriers	275	96	104	474
451	Custom computer programming services	461	7	1	468
38	Support activities for oil and gas operations	459	3	1	463
482	Hospitals	34	0	422	456
62	Maintenance and repair construction of nonresidential structures	0	313	128	441
483	Nursing and community care facilities	0	0	420	420
503	All other food and drinking places	36	94	286	416
508	Personal and household goods repair and maintenance	271	82	50	403
520	Other federal government enterprises	362	9	21	392
407	Retail - Nonstore retailers	28	11	353	392
357	Aircraft manufacturing	333	9	0	342

438	Insurance agencies, brokerages, and related activities	0	226	114	340
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Table C.5: Top 50 Most Impacted Industries in Madison County

Sector	Description	Direct	Indirect	Induced	Total
456	Scientific research and development services	12,782	458	5	13,245
454	Management consulting services	2,957	1,661	62	4,679
449	Architectural, engineering, and related services	3,370	896	55	4,321
440	Real estate	345	2,116	722	3,183
464	Employment services	0	2,873	305	3,178
501	Full-service restaurants	595	449	873	1,917
400	Retail - Food and beverage stores	1,404	2	425	1,830
502	Limited-service restaurants	483	243	1,060	1,786
405	Retail - General merchandise stores	912	9	536	1,457
460	Marketing research and all other miscellaneous professional, scientific, and technical services	263	1,148	33	1,443
468	Services to buildings	505	515	326	1,347
359	Other aircraft parts and auxiliary equipment manufacturing	1,260	5	0	1,266
536	Federal Government (Military & Civilians)	1,213	0	0	1,213
396	Retail - Motor vehicle and parts dealers	639	14	235	888
406	Retail - Miscellaneous store retailers	513	19	294	825
474	Other educational services	471	13	259	743
469	Landscape and horticultural services	296	232	177	706
447	Legal services	0	598	93	691
453	Other computer related services, including facilities management	512	155	21	689
433	Monetary authorities and depository credit intermediation	172	301	207	680
467	Investigation and security services	405	213	57	675
38	Support activities for oil and gas operations	669	1	0	670
414	Scenic and sightseeing transportation and support activities for transportation	413	193	54	660
402	Retail - Gasoline stores	521	7	121	649
57	Construction of new commercial structures, including farm structures	647	0	0	647
463	Facilities support services	565	69	8	642
455	Environmental and other technical consulting services	277	321	21	619
465	Business support services	17	525	76	618
475	Offices of physicians	90	0	520	609
53	Construction of new manufacturing structures	599	0	0	599
395	Wholesale trade	68	225	273	567
513	Religious organizations	407	0	138	545
509	Personal care services	176	1	319	497

403	Retail - Clothing and clothing accessories stores	221	12	247	480
504	Automotive repair and maintenance, except car washes	173	51	252	476
427	Wired telecommunications carriers	255	113	98	466
451	Custom computer programming services	440	6	0	447
520	Other federal government enterprises	362	17	39	417
503	All other food and drinking places	21	104	251	376
357	Aircraft manufacturing	330	8	0	339
401	Retail - Health and personal care stores	142	12	184	338
448	Accounting, tax preparation, bookkeeping, and payroll services	1	263	65	329
399	Retail - Building material and garden equipment and supplies stores	124	12	192	328
361	Propulsion units and parts for space vehicles and guided missiles manufacturing	315	7	0	322
415	Couriers and messengers	24	215	61	301
473	Junior colleges, colleges, universities, and professional schools	13	2	253	268
482	Hospitals	6	0	256	262
452	Computer systems design services	89	149	23	261
436	Other financial investment activities	0	107	153	260
62	Maintenance and repair construction of nonresidential structures	0	183	68	251

Table C.6: Top 50 Most Impacted Industries in Limestone County

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	1,807	0	0	1,807
405	Retail - General merchandise stores	170	0	6	177
400	Retail - Food and beverage stores	147	0	4	152
502	Limited-service restaurants	81	2	12	94
396	Retail - Motor vehicle and parts dealers	84	1	3	87
440	Real estate	57	21	8	87
406	Retail - Miscellaneous store retailers	77	1	3	82
402	Retail - Gasoline stores	79	1	2	82
456	Scientific research and development services	74	1	0	75
469	Landscape and horticultural services	29	5	3	36
19	Support activities for agriculture and forestry	35	0	0	35
501	Full-service restaurants	27	1	5	34
504	Automotive repair and maintenance, except car washes	24	1	3	28
509	Personal care services	24	0	4	28
63	Maintenance and repair construction of residential structures	24	1	1	26
468	Services to buildings	9	10	4	22
401	Retail - Health and personal care stores	19	1	2	22

433	Monetary authorities and depository credit intermediation	15	2	1	18
399	Retail - Building material and garden equipment and supplies stores	15	1	2	18
403	Retail - Clothing and clothing accessories stores	14	0	1	16
508	Personal and household goods repair and maintenance	14	0	0	15
51	Water, sewage and other systems	12	0	0	12
454	Management consulting services	0	11	1	11
496	Other amusement and recreation industries	9	0	1	10
464	Employment services	0	8	1	9
489	Commercial Sports Except Racing	5	2	1	8
472	Elementary and secondary schools	7	0	1	8
62	Maintenance and repair construction of nonresidential structures	0	7	1	8
475	Offices of physicians	5	0	3	7
507	Commercial and industrial machinery and equipment repair and maintenance	5	1	0	6
404	Retail - Sporting goods, hobby, musical instrument and book stores	4	0	1	6
395	Wholesale trade	0	2	3	5
407	Retail - Nonstore retailers	1	0	3	5
476	Offices of dentists	3	0	1	4
448	Accounting, tax preparation, bookkeeping, and payroll services	0	3	1	4
427	Wired telecommunications carriers	2	1	1	4
236	Handtool manufacturing	4	0	0	4
397	Retail - Furniture and home furnishings stores	2	0	1	4
447	Legal services	0	3	1	4
411	Truck transportation	0	2	2	4
477	Offices of other health practitioners	1	0	2	3
449	Architectural, engineering, and related services	0	3	0	3
503	All other food and drinking places	1	0	2	3
465	Business support services	0	2	1	3
512	Other personal services	0	0	2	2
434	Nondepository credit intermediation and related activities	0	1	1	2
457	Advertising, public relations, and related services	0	2	0	2
246	Metal barrels, drums and pails manufacturing	2	0	0	2
483	Nursing and community care facilities	0	0	2	2
249	Machine shops	2	0	0	2

Table C.7: Top 50 Most Impacted Industries in Region 2- Anniston Area

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	505	0	0	505
449	Architectural, engineering, and related services	62	2	0	64
405	Retail - General merchandise stores	57	0	4	61
506	Electronic and precision equipment repair and maintenance	58	0	0	59
513	Religious organizations	34	0	2	35
502	Limited-service restaurants	26	2	7	35
400	Retail - Food and beverage stores	32	0	2	34
402	Retail - Gasoline stores	32	0	1	34
366	Military armored vehicle, tank, and tank component manufacturing	31	0	0	31
396	Retail - Motor vehicle and parts dealers	23	0	1	24
440	Real estate	10	4	3	17
406	Retail - Miscellaneous store retailers	13	0	1	14
464	Employment services	0	12	1	13
504	Automotive repair and maintenance, except car washes	10	1	2	13
508	Personal and household goods repair and maintenance	11	1	0	12
501	Full-service restaurants	6	2	3	11
509	Personal care services	7	0	3	11
401	Retail - Health and personal care stores	7	0	1	9
433	Monetary authorities and depository credit intermediation	5	1	1	8
482	Hospitals	2	0	5	7
454	Management consulting services	0	6	1	7
469	Landscape and horticultural services	5	1	1	7
403	Retail - Clothing and clothing accessories stores	5	0	1	6
334	Switchgear and switchboard apparatus manufacturing	6	0	0	6
399	Retail - Building material and garden equipment and supplies stores	4	0	1	5
468	Services to buildings	0	3	1	4
475	Offices of physicians	1	0	3	4
496	Other amusement and recreation industries	3	0	1	4
51	Water, sewage and other systems	3	0	0	3
63	Maintenance and repair construction of residential structures	2	0	1	3
503	All other food and drinking places	1	0	2	3
416	Warehousing and storage	0	2	1	2
249	Machine shops	2	0	0	2
490	Racing and Track Operation	2	0	0	2

411	Truck transportation	0	1	1	2
473	Junior colleges, colleges, universities, and professional schools	0	0	2	2
62	Maintenance and repair construction of nonresidential structures	0	2	0	2
407	Retail - Nonstore retailers	0	0	1	2
483	Nursing and community care facilities	0	0	2	2
427	Wired telecommunications carriers	1	1	1	2
49	Electric power transmission and distribution	1	0	0	2
395	Wholesale trade	0	1	1	2
467	Investigation and security services	0	1	0	2
465	Business support services	0	1	0	2
470	Other support services	0	1	0	2
404	Retail - Sporting goods, hobby, musical instrument and book stores	1	0	0	2
511	Dry-cleaning and laundry services	0	1	0	2
415	Couriers and messengers	1	1	0	1
480	Home health care services	0	0	1	1
434	Nondepository credit intermediation and related activities	0	1	1	1

Table C.8: Top 50 Most Impacted Industries in Calhoun County

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	1,968	0	0	1,968
57	Construction of new commercial structures, including farm structures	287	0	0	287
400	Retail - Food and beverage stores	234	0	12	246
405	Retail - General merchandise stores	209	1	15	226
502	Limited-service restaurants	93	5	29	127
396	Retail - Motor vehicle and parts dealers	111	1	7	119
501	Full-service restaurants	83	10	27	119
402	Retail - Gasoline stores	113	1	4	118
406	Retail - Miscellaneous store retailers	104	2	7	113
53	Construction of new manufacturing structures	100	0	0	100
440	Real estate	53	17	14	84
403	Retail - Clothing and clothing accessories stores	67	1	6	74
503	All other food and drinking places	51	1	11	64
449	Architectural, engineering, and related services	54	6	1	61
468	Services to buildings	25	16	10	51
504	Automotive repair and maintenance, except car washes	37	2	9	48
464	Employment services	2	32	8	43
433	Monetary authorities and depository credit intermediation	27	6	7	40
472	Elementary and secondary schools	35	0	4	39

475	Offices of physicians	18	0	18	37
469	Landscape and horticultural services	29	4	3	36
395	Wholesale trade	4	21	12	36
509	Personal care services	25	0	10	35
401	Retail - Health and personal care stores	29	1	5	35
399	Retail - Building material and garden equipment and supplies stores	27	1	6	34
471	Waste management and remediation services	27	3	1	31
508	Personal and household goods repair and maintenance	27	3	1	31
58	Construction of other new nonresidential structures	23	0	0	23
63	Maintenance and repair construction of residential structures	16	0	2	18
443	General and consumer goods rental except video tapes and discs	15	1	1	17
492	Independent artists, writers, and performers	10	4	2	16
411	Truck transportation	0	9	4	14
463	Facilities support services	13	1	0	14
412	Transit and ground passenger transportation	12	1	1	14
496	Other amusement and recreation industries	11	0	2	13
51	Water, sewage and other systems	12	0	0	12
507	Commercial and industrial machinery and equipment repair and maintenance	8	4	1	12
476	Offices of dentists	6	0	6	12
434	Nondepository credit intermediation and related activities	4	3	3	10
474	Other educational services	5	1	4	10
404	Retail - Sporting goods, hobby, musical instrument and book stores	6	1	3	10
407	Retail - Nonstore retailers	2	1	7	10
427	Wired telecommunications carriers	5	2	2	9
454	Management consulting services	0	7	2	9
398	Retail - Electronics and appliance stores	6	1	2	9
62	Maintenance and repair construction of nonresidential structures	0	7	2	9
482	Hospitals	1	0	7	9
352	Motor vehicle steering, suspension component (except spring), and brake systems manufacturing	8	0	0	9
415	Couriers and messengers	4	3	1	8
356	Other motor vehicle parts manufacturing	8	0	0	8

Table C.9: Top 50 Most Impacted Industries in Talladega County

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	505	0	0	505
449	Architectural, engineering, and related services	62	2	0	64
405	Retail - General merchandise stores	57	0	4	61
506	Electronic and precision equipment repair and maintenance	58	0	0	59
513	Religious organizations	34	0	2	35
502	Limited-service restaurants	26	2	7	35
400	Retail - Food and beverage stores	32	0	2	34
402	Retail - Gasoline stores	32	0	1	34
366	Military armored vehicle, tank, and tank component manufacturing	31	0	0	31
396	Retail - Motor vehicle and parts dealers	23	0	1	24
440	Real estate	10	4	3	17
406	Retail - Miscellaneous store retailers	13	0	1	14
464	Employment services	0	12	1	13
504	Automotive repair and maintenance, except car washes	10	1	2	13
508	Personal and household goods repair and maintenance	11	1	0	12
501	Full-service restaurants	6	2	3	11
509	Personal care services	7	0	3	11
401	Retail - Health and personal care stores	7	0	1	9
433	Monetary authorities and depository credit intermediation	5	1	1	8
482	Hospitals	2	0	5	7
454	Management consulting services	0	6	1	7
469	Landscape and horticultural services	5	1	1	7
403	Retail - Clothing and clothing accessories stores	5	0	1	6
334	Switchgear and switchboard apparatus manufacturing	6	0	0	6
399	Retail - Building material and garden equipment and supplies stores	4	0	1	5
468	Services to buildings	0	3	1	4
475	Offices of physicians	1	0	3	4
496	Other amusement and recreation industries	3	0	1	4
51	Water, sewage and other systems	3	0	0	3
63	Maintenance and repair construction of residential structures	2	0	1	3
503	All other food and drinking places	1	0	2	3
416	Warehousing and storage	0	2	1	2
249	Machine shops	2	0	0	2
490	Racing and Track Operation	2	0	0	2

411	Truck transportation	0	1	1	2
473	Junior colleges, colleges, universities, and professional schools	0	0	2	2
62	Maintenance and repair construction of nonresidential structures	0	2	0	2
407	Retail - Nonstore retailers	0	0	1	2
483	Nursing and community care facilities	0	0	2	2
427	Wired telecommunications carriers	1	1	1	2
49	Electric power transmission and distribution	1	0	0	2
395	Wholesale trade	0	1	1	2
467	Investigation and security services	0	1	0	2
465	Business support services	0	1	0	2
470	Other support services	0	1	0	2
404	Retail - Sporting goods, hobby, musical instrument and book stores	1	0	0	2
511	Dry-cleaning and laundry services	0	1	0	2
415	Couriers and messengers	1	1	0	1
480	Home health care services	0	0	1	1
434	Nondepository credit intermediation and related activities	0	1	1	1

Table C.10: Top 50 Most Impacted Industries in Region 3- Tuscaloosa Area

Sector	Description	Direct	Indirect	Induced	Total
400	Retail - Food and beverage stores	206	0	7	213
405	Retail - General merchandise stores	116	0	8	124
536	Federal Government (Military & Civilians)	116	0	0	116
440	Real estate	71	21	12	104
402	Retail - Gasoline stores	90	1	3	94
502	Limited-service restaurants	60	3	16	78
406	Retail - Miscellaneous store retailers	72	1	4	77
396	Retail - Motor vehicle and parts dealers	72	1	3	76
501	Full-service restaurants	49	5	12	65
513	Religious organizations	62	0	2	64
403	Retail - Clothing and clothing accessories stores	39	1	3	42
463	Facilities support services	38	1	0	39
469	Landscape and horticultural services	21	5	2	28
504	Automotive repair and maintenance, except car washes	22	1	4	27
401	Retail - Health and personal care stores	22	1	3	26
464	Employment services	0	20	4	24
508	Personal and household goods repair and maintenance	20	3	1	24
454	Management consulting services	16	6	1	23
433	Monetary authorities and depository credit intermediation	14	4	4	21

472	Elementary and secondary schools	19	0	2	20
509	Personal care services	15	0	5	20
63	Maintenance and repair construction of residential structures	18	1	1	20
438	Insurance agencies, brokerages, and related activities	0	18	2	19
475	Offices of physicians	12	0	7	19
468	Services to buildings	6	9	3	18
456	Scientific research and development services	15	0	0	16
399	Retail - Building material and garden equipment and supplies stores	11	1	3	14
452	Computer systems design services	13	0	0	13
437	Insurance carriers	10	1	1	12
51	Water, sewage and other systems	12	0	0	12
503	All other food and drinking places	4	1	7	12
156	Petroleum refineries	10	0	0	10
62	Maintenance and repair construction of nonresidential structures	0	9	1	10
455	Environmental and other technical consulting services	9	1	0	10
20	Extraction of natural gas and crude petroleum	0	7	0	7
397	Retail - Furniture and home furnishings stores	5	0	1	7
412	Transit and ground passenger transportation	6	0	0	7
416	Warehousing and storage	0	5	1	7
449	Architectural, engineering, and related services	3	3	1	7
398	Retail - Electronics and appliance stores	5	1	1	7
411	Truck transportation	0	4	2	6
517	Private households	0	0	6	6
404	Retail - Sporting goods, hobby, musical instrument and book stores	3	1	2	6
448	Accounting, tax preparation, bookkeeping, and payroll services	0	4	1	5
436	Other financial investment activities	0	3	2	5
395	Wholesale trade	0	3	2	5
443	General and consumer goods rental except video tapes and discs	4	0	0	5
407	Retail - Nonstore retailers	1	0	3	5
483	Nursing and community care facilities	0	0	4	4
434	Nondepository credit intermediation and related activities	2	2	1	4

Table C.11: Top 50 Most Impacted Industries in Tuscaloosa County

Sector	Description	Direct	Indirect	Induced	Total
400	Retail - Food and beverage stores	159	0	5	164
405	Retail - General merchandise stores	85	0	6	92
440	Real estate	53	17	10	80
536	Federal Government (Military & Civilians)	69	0	0	69
402	Retail - Gasoline stores	65	1	2	68
501	Full-service restaurants	50	5	12	66
396	Retail - Motor vehicle and parts dealers	56	1	3	60
502	Limited-service restaurants	41	2	12	56
406	Retail - Miscellaneous store retailers	50	1	3	54
463	Facilities support services	37	0	0	37
403	Retail - Clothing and clothing accessories stores	25	1	3	29
513	Religious organizations	23	0	1	24
454	Management consulting services	15	5	1	22
504	Automotive repair and maintenance, except car washes	16	1	3	20
464	Employment services	0	17	3	20
401	Retail - Health and personal care stores	16	1	2	19
475	Offices of physicians	11	0	7	17
469	Landscape and horticultural services	11	4	2	17
508	Personal and household goods repair and maintenance	14	3	1	17
509	Personal care services	12	0	5	17
468	Services to buildings	5	8	3	16
456	Scientific research and development services	15	0	0	16
63	Maintenance and repair construction of residential structures	14	1	1	15
433	Monetary authorities and depository credit intermediation	10	3	3	15
452	Computer systems design services	13	0	0	13
399	Retail - Building material and garden equipment and supplies stores	10	1	2	13
438	Insurance agencies, brokerages, and related activities	0	11	2	13
503	All other food and drinking places	3	1	6	11
156	Petroleum refineries	10	0	0	10
472	Elementary and secondary schools	8	0	1	10
51	Water, sewage and other systems	9	0	0	9
437	Insurance carriers	6	1	1	8
455	Environmental and other technical consulting services	8	0	0	8
62	Maintenance and repair construction of nonresidential structures	0	7	1	8

398	Retail - Electronics and appliance stores	5	1	1	7
449	Architectural, engineering, and related services	2	3	1	6
20	Extraction of natural gas and crude petroleum	0	6	0	6
416	Warehousing and storage	0	4	1	5
496	Other amusement and recreation industries	4	0	1	5
397	Retail - Furniture and home furnishings stores	4	0	1	5
404	Retail - Sporting goods, hobby, musical instrument and book stores	3	0	2	5
517	Private households	0	0	5	5
492	Independent artists, writers, and performers	3	1	0	5
411	Truck transportation	0	3	1	4
448	Accounting, tax preparation, bookkeeping, and payroll services	0	3	1	4
412	Transit and ground passenger transportation	4	0	0	4
436	Other financial investment activities	0	2	2	4
395	Wholesale trade	0	2	1	4
476	Offices of dentists	2	0	2	3
483	Nursing and community care facilities	0	0	3	3

Table C.12: Top 50 Most Impacted Industries in Region 4- Birmingham Area

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	2,041	0	0	2,041
400	Retail - Food and beverage stores	532	0	28	560
405	Retail - General merchandise stores	407	1	37	446
513	Religious organizations	289	0	16	305
440	Real estate	173	75	56	304
406	Retail - Miscellaneous store retailers	263	5	19	287
402	Retail - Gasoline stores	254	2	11	267
396	Retail - Motor vehicle and parts dealers	236	3	17	256
502	Limited-service restaurants	169	12	73	253
501	Full-service restaurants	173	18	59	250
403	Retail - Clothing and clothing accessories stores	146	3	17	166
94	Bread and bakery product, except frozen, manufacturing	161	0	0	161
437	Insurance carriers	99	16	15	130
395	Wholesale trade	57	24	33	113
468	Services to buildings	49	33	23	105
433	Monetary authorities and depository credit intermediation	60	22	22	104
504	Automotive repair and maintenance, except car washes	78	5	21	104
438	Insurance agencies, brokerages, and related activities	0	88	13	101
456	Scientific research and development services	93	2	0	96

508	Personal and household goods repair and maintenance	82	6	5	92
509	Personal care services	61	0	30	91
464	Employment services	2	61	21	84
401	Retail - Health and personal care stores	65	3	13	81
469	Landscape and horticultural services	50	17	12	79
63	Maintenance and repair construction of residential structures	68	2	7	78
482	Hospitals	22	0	56	78
399	Retail - Building material and garden equipment and supplies stores	41	3	14	58
475	Offices of physicians	21	0	36	57
454	Management consulting services	18	23	8	49
503	All other food and drinking places	14	4	29	46
461	Management of companies and enterprises	0	31	9	40
436	Other financial investment activities	0	20	18	38
474	Other educational services	15	2	19	36
51	Water, sewage and other systems	34	0	1	35
62	Maintenance and repair construction of nonresidential structures	0	26	8	33
398	Retail - Electronics and appliance stores	25	3	5	32
412	Transit and ground passenger transportation	25	2	3	30
496	Other amusement and recreation industries	20	1	7	29
449	Architectural, engineering, and related services	9	15	5	28
448	Accounting, tax preparation, bookkeeping, and payroll services	0	19	9	28
472	Elementary and secondary schools	23	0	5	28
460	Marketing research and all other miscellaneous professional, scientific, and technical services	7	16	3	27
447	Legal services	0	15	11	26
404	Retail - Sporting goods, hobby, musical instrument and book stores	15	2	8	25
467	Investigation and security services	0	17	8	25
434	Nondepository credit intermediation and related activities	8	9	8	25
473	Junior colleges, colleges, universities, and professional schools	4	0	20	24
512	Other personal services	0	2	21	24
483	Nursing and community care facilities	0	0	23	23
397	Retail - Furniture and home furnishings stores	13	1	6	21

Table C.13: Top 50 Most Impacted Industries in Jefferson County

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	1,222	0	0	0
400	Retail - Food and beverage stores	511	0	18	530
405	Retail - General merchandise stores	321	1	22	344
513	Religious organizations	249	0	10	259
440	Real estate	144	62	33	239
501	Full-service restaurants	178	14	39	231
402	Retail - Gasoline stores	208	2	6	216
396	Retail - Motor vehicle and parts dealers	194	2	10	206
406	Retail - Miscellaneous store retailers	165	4	12	181
502	Limited-service restaurants	128	8	42	178
403	Retail - Clothing and clothing accessories stores	91	3	11	105
456	Scientific research and development services	91	2	0	93
508	Personal and household goods repair and maintenance	82	5	3	90
395	Wholesale trade	54	14	18	87
504	Automotive repair and maintenance, except car washes	67	4	13	84
468	Services to buildings	44	25	13	82
509	Personal care services	56	0	20	76
433	Monetary authorities and depository credit intermediation	46	15	13	74
464	Employment services	2	53	14	68
401	Retail - Health and personal care stores	57	3	8	67
63	Maintenance and repair construction of residential structures	56	2	4	61
438	Insurance agencies, brokerages, and related activities	0	52	9	61
437	Insurance carriers	44	9	8	61
469	Landscape and horticultural services	37	12	7	55
482	Hospitals	19	0	31	51
399	Retail - Building material and garden equipment and supplies stores	32	3	8	43
503	All other food and drinking places	17	3	21	42
475	Offices of physicians	16	0	20	36
51	Water, sewage and other systems	30	0	0	31
436	Other financial investment activities	0	18	13	30
474	Other educational services	14	2	13	30
398	Retail - Electronics and appliance stores	24	2	3	29
412	Transit and ground passenger transportation	24	1	2	28
454	Management consulting services	7	17	4	27
472	Elementary and secondary schools	24	0	3	27
461	Management of companies and enterprises	0	18	5	23

404	Retail - Sporting goods, hobby, musical instrument and book stores	16	2	5	22
62	Maintenance and repair construction of nonresidential structures	0	18	4	22
496	Other amusement and recreation industries	16	1	5	22
467	Investigation and security services	0	14	5	19
416	Warehousing and storage	0	15	4	19
473	Junior colleges, colleges, universities, and professional schools	5	0	14	19
397	Retail - Furniture and home furnishings stores	13	1	4	18
449	Architectural, engineering, and related services	3	12	3	18
448	Accounting, tax preparation, bookkeeping, and payroll services	0	13	5	17
451	Custom computer programming services	17	0	0	17
447	Legal services	0	10	6	17
512	Other personal services	0	2	14	16
415	Couriers and messengers	8	6	2	16
427	Wired telecommunications carriers	6	5	4	16

Table C.14: Top 50 Most Impacted Industries in Region 5- Montgomery Area

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	11,023	0	0	11,023
535	Federal Government (Non-Military)	1,877	0	0	1,877
400	Retail - Food and beverage stores	1,021	1	86	1,108
405	Retail - General merchandise stores	759	3	115	878
474	Other educational services	665	8	40	713
440	Real estate	347	167	170	684
502	Limited-service restaurants	346	30	219	595
513	Religious organizations	535	0	49	584
406	Retail - Miscellaneous store retailers	500	8	57	565
402	Retail - Gasoline stores	509	5	35	549
501	Full-service restaurants	299	48	164	511
396	Retail - Motor vehicle and parts dealers	443	5	51	498
467	Investigation and security services	347	52	22	421
464	Employment services	0	334	77	411
463	Facilities support services	309	7	2	317
452	Computer systems design services	281	16	5	303
468	Services to buildings	97	112	75	284
403	Retail - Clothing and clothing accessories stores	230	5	41	276
503	All other food and drinking places	187	11	78	276
451	Custom computer programming services	246	0	0	247
509	Personal care services	132	1	98	231
504	Automotive repair and maintenance, except car washes	153	11	66	231

508	Personal and household goods repair and maintenance	168	39	15	222
453	Other computer related services, including facilities management	192	9	3	203
469	Landscape and horticultural services	120	44	33	197
130	Apparel accessories and other apparel manufacturing	193	0	0	193
19	Support activities for agriculture and forestry	186	1	1	188
401	Retail - Health and personal care stores	130	6	40	177
438	Insurance agencies, brokerages, and related activities	0	135	34	169
433	Monetary authorities and depository credit intermediation	91	30	47	168
472	Elementary and secondary schools	117	0	37	154
475	Offices of physicians	48	0	100	148
127	Mens and boys cut and sew apparel manufacturing	129	0	0	129
399	Retail - Building material and garden equipment and supplies stores	81	6	42	129
437	Insurance carriers	93	13	21	127
63	Maintenance and repair construction of residential structures	107	4	15	126
454	Management consulting services	70	37	12	120
395	Wholesale trade	2	43	61	106
526	Other local government enterprises	61	12	29	103
482	Hospitals	20	0	77	97
473	Junior colleges, colleges, universities, and professional schools	45	1	47	93
496	Other amusement and recreation industries	62	4	23	89
477	Offices of other health practitioners	31	0	38	70
512	Other personal services	0	6	60	66
465	Business support services	2	43	20	65
483	Nursing and community care facilities	0	0	65	65
412	Transit and ground passenger transportation	53	3	6	62
398	Retail - Electronics and appliance stores	44	4	13	61
51	Water, sewage and other systems	60	0	1	61
416	Warehousing and storage	5	36	18	60

Table C.15: Top 50 Most Impacted Industries in Montgomery County

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	6,465	0	0	6,465
535	Federal Government (Non-military)	1,835	0	0	1,835
474	Other educational services	928	9	32	969
400	Retail - Food and beverage stores	811	0	60	872
405	Retail - General merchandise stores	568	3	74	645

440	Real estate	287	153	135	575
501	Full-service restaurants	303	43	118	464
502	Limited-service restaurants	264	24	142	430
467	Investigation and security services	328	49	19	396
396	Retail - Motor vehicle and parts dealers	345	4	32	380
402	Retail - Gasoline stores	331	3	18	353
464	Employment services	0	273	57	331
513	Religious organizations	302	0	27	329
463	Facilities support services	273	4	1	278
452	Computer systems design services	256	15	4	275
503	All other food and drinking places	190	11	63	265
406	Retail - Miscellaneous store retailers	203	7	34	244
451	Custom computer programming services	226	0	0	227
508	Personal and household goods repair and maintenance	144	39	12	195
468	Services to buildings	47	92	52	190
19	Support activities for agriculture and forestry	183	0	0	183
509	Personal care services	117	1	64	182
433	Monetary authorities and depository credit intermediation	107	31	41	179
403	Retail - Clothing and clothing accessories stores	129	5	35	169
504	Automotive repair and maintenance, except car washes	119	9	42	169
453	Other computer related services, including facilities management	143	9	2	155
472	Elementary and secondary schools	111	0	25	136
475	Offices of physicians	44	0	77	120
401	Retail - Health and personal care stores	84	5	24	113
63	Maintenance and repair construction of residential structures	90	4	11	105
454	Management consulting services	65	29	9	103
526	Other local government enterprises	57	10	21	88
469	Landscape and horticultural services	46	25	16	86
482	Hospitals	18	0	66	84
395	Wholesale trade	2	31	50	83
438	Insurance agencies, brokerages, and related activities	0	49	33	82
399	Retail - Building material and garden equipment and supplies stores	45	4	23	73
437	Insurance carriers	31	14	27	72
473	Junior colleges, colleges, universities, and professional schools	24	1	43	68
398	Retail - Electronics and appliance stores	45	3	8	57
477	Offices of other health practitioners	27	0	29	56

436	Other financial investment activities	0	23	31	54
517	Private households	0	0	53	53
496	Other amusement and recreation industries	35	3	13	51
448	Accounting, tax preparation, bookkeeping, and payroll services	0	34	16	50
465	Business support services	2	33	15	50
512	Other personal services	0	5	42	47
470	Other support services	23	16	6	44
407	Retail - Nonstore retailers	7	2	34	43
416	Warehousing and storage	5	25	13	43

Table C.16: Top 50 Most Impacted Industries in Region 6- Fort Rucker Area

Sector	Description	Direct	Indirect	Induced	Total
536	Federal Government (Military & Civilians)	6,225	0	0	6,225
414	Scenic & sightseeing transp. & support activities	3,366	314	11	3,690
474	Other educational services	1,593	14	35	1,642
400	Retail - Food and beverage stores	955	1	104	1,059
405	Retail - General merchandise stores	735	5	131	870
57	Construction of new commercial structures, including farm structures	796	0	0	796
502	Limited-service restaurants	340	27	251	618
406	Retail - Miscellaneous store retailers	507	11	65	582
440	Real estate	247	158	152	558
402	Retail - Gasoline stores	474	6	40	519
396	Retail - Motor vehicle and parts dealers	445	7	61	513
501	Full-service restaurants	261	37	169	467
468	Services to buildings	138	199	75	413
513	Religious organizations	353	0	40	393
403	Retail - Clothing and clothing accessories stores	217	6	46	269
503	All other food and drinking places	196	9	61	267
415	Couriers and messengers	8	240	7	255
469	Landscape and horticultural services	122	79	36	237
504	Automotive repair and maintenance, except car washes	147	11	75	234
518	Postal service	0	221	10	231
464	Employment services	7	176	48	231
463	Facilities support services	217	5	2	223
509	Personal care services	101	1	96	198
433	Monetary authorities and depository credit intermediation	98	39	59	196
508	Personal and household goods repair and maintenance	136	43	15	194
475	Offices of physicians	46	0	127	173
395	Wholesale trade	-2	79	89	166
401	Retail - Health and personal care stores	114	8	44	165

416	Warehousing and storage	0	138	16	154
482	Hospitals	19	0	130	149
470	Other support services	127	8	3	138
399	Retail - Building material and garden equipment and supplies stores	79	7	48	135
63	Maintenance and repair construction of residential structures	92	5	19	116
453	Other computer related services, including facilities management	112	3	1	116
411	Truck transportation	0	72	40	111
62	Maintenance and repair construction of nonresidential structures	0	92	17	109
472	Elementary and secondary schools	73	0	24	98
483	Nursing and community care facilities	0	0	92	92
455	Environmental and other technical consulting services	72	9	3	84
438	Insurance agencies, brokerages, and related activities	0	59	24	82
407	Retail - Nonstore retailers	11	4	67	81
412	Transit and ground passenger transportation	63	3	7	73
448	Accounting, tax preparation, bookkeeping, and payroll services	0	44	22	66
512	Other personal services	0	7	57	64
460	Marketing research and all other miscellaneous professional, scientific, and technical services	49	8	2	59
496	Other amusement and recreation industries	40	3	17	59
526	Other local government enterprises	0	31	28	59
454	Management consulting services	18	31	10	59
480	Home health care services	0	0	57	57
434	Nondepository credit intermediation and related activities	14	19	24	57

Table C.17: Top 50 Most Impacted Industries in Dale County

Sector	Description	Direct	Indirect	Induced	Total
414	Scenic & sightseeing transp. & support activities	3,047	297	3	3,346
474	Other educational services	1,070	6	10	1,086
536	Federal Government (Military & Civilians)	916	0	0	0
57	Construction of new commercial structures, including farm structures	565	0	0	565
468	Services to buildings	82	128	23	233
518	Postal service	0	215	3	218
463	Facilities support services	206	3	1	209
503	All other food and drinking places	162	5	29	197
405	Retail - General merchandise stores	115	2	46	163
502	Limited-service restaurants	39	8	73	121

453	Misc computer related srvcs, incld. facilities mgmt	104	3	0	107
469	Landscape and horticultural services	43	49	12	104
440	Real estate	24	42	32	98
455	Environmental and other technical consulting services	80	11	1	92
501	Full-service restaurants	42	9	41	92
402	Retail - Gasoline stores	75	2	15	92
406	Retail - Miscellaneous store retailers	62	3	20	85
460	Marketing research and all other miscellaneous professional, scientific, and technical services	71	3	0	75
396	Retail - Motor vehicle and parts dealers	47	2	18	67
415	Couriers and messengers	0	63	0	64
400	Retail - Food and beverage stores	46	0	17	62
62	Maintenance and repair construction of nonresidential structures	0	44	4	48
433	Monetary authorities and depository credit intermediation	12	13	19	44
454	Management consulting services	15	24	2	40
520	Other federal government enterprises	0	8	32	40
504	Automotive repair and maintenance, except car washes	15	3	21	39
483	Nursing and community care facilities	0	0	35	35
416	Warehousing and storage	0	30	1	31
509	Personal care services	9	0	23	31
452	Computer systems design services	30	1	0	31
471	Waste management and remediation services	16	14	1	31
461	Management of companies and enterprises	0	26	3	29
508	Personal and household goods repair and maintenance	10	16	3	29
401	Retail - Health and personal care stores	16	2	11	29
511	Dry-cleaning and laundry services	3	23	3	29
526	Other local government enterprises	0	15	14	28
412	Transit and ground passenger transportation	27	0	1	28
51	Water, sewage and other systems	27	1	1	28
63	Maintenance and repair construction of residential structures	17	1	6	24
403	Retail - Clothing and clothing accessories stores	13	1	9	22
411	Truck transportation	0	16	5	21
407	Retail - Nonstore retailers	1	1	18	20
399	Retail - Building material and garden equipment and supplies stores	7	1	11	19
512	Other personal services	0	3	15	17
480	Home health care services	0	0	17	17
476	Offices of dentists	4	0	12	17

357	Aircraft manufacturing	16	0	0	16
56	Construction of new highways and streets	16	0	0	16
477	Offices of other health practitioners	1	0	15	16
427	Wired telecommunications carriers	12	2	2	16

Table C.18: Top 50 Most Impacted Industries in Houston County

Sector	Description	Direct	Indirect	Induced	Total
57	Construction of new commercial structures, including farm structures	166	0	0	166
536	Federal Government (Military & Civilians)	145	0	0	0
400	Retail - Food and beverage stores	20	0	3	22
449	Architectural, engineering, and related services	15	3	0	18
405	Retail - General merchandise stores	11	0	3	14
501	Full-service restaurants	7	2	5	14
440	Real estate	5	3	4	13
502	Limited-service restaurants	5	1	5	11
402	Retail - Gasoline stores	8	0	1	9
396	Retail - Motor vehicle and parts dealers	8	0	1	9
395	Wholesale trade	0	6	2	8
532	* Employment and payroll of state govt, education	7	0	0	7
464	Employment services	0	5	2	6
406	Retail - Miscellaneous store retailers	5	0	1	6
94	Bread and bakery product, except frozen, manufacturing	5	0	0	6
509	Personal care services	2	0	2	5
433	Monetary authorities and depository credit intermediation	2	1	1	4
504	Automotive repair and maintenance, except car washes	2	0	1	4
468	Services to buildings	1	1	2	4
482	Hospitals	0	0	4	4
403	Retail - Clothing and clothing accessories stores	2	0	1	4
511	Dry-cleaning and laundry services	3	0	0	3
411	Truck transportation	0	2	1	3
475	Offices of physicians	1	0	2	3
401	Retail - Health and personal care stores	2	0	1	3
399	Retail - Building material and garden equipment and supplies stores	1	0	1	3
508	Personal and household goods repair and maintenance	2	0	0	3
63	Maintenance and repair construction of residential structures	2	0	0	2
469	Landscape and horticultural services	1	1	1	2
454	Management consulting services	1	0	0	2

472	Elementary and secondary schools	1	0	1	2
503	All other food and drinking places	0	0	1	2
407	Retail - Nonstore retailers	0	0	2	2
483	Nursing and community care facilities	0	0	2	2
412	Transit and ground passenger transportation	1	0	0	2
485	Individual and family services	0	0	2	2
512	Other personal services	0	0	1	2
448	Accounting, tax preparation, bookkeeping, and payroll services	0	1	1	1
467	Investigation and security services	0	1	1	1
447	Legal services	0	1	1	1
436	Other financial investment activities	0	0	1	1
477	Offices of other health practitioners	0	0	1	1
496	Other amusement and recreation industries	1	0	0	1
404	Retail - Sporting goods, hobby, musical instrument and book stores	0	0	1	1
480	Home health care services	0	0	1	1
398	Retail - Electronics and appliance stores	1	0	0	1
476	Offices of dentists	0	0	1	1
415	Couriers and messengers	0	1	0	1
434	Nondepository credit intermediation and related activities	0	0	1	1
451	Custom computer programming services	1	0	0	1

Table C.19: Top 50 Most Impacted Industries in Region 7- Mobile Area

Sector	Description	Direct	Indirect	Induced	Total
363	Ship building and repairing	3,566	9	0	3,575
536	Federal Government (Military & Civilians)	2,029	0	0	2,029
400	Retail - Food and beverage stores	468	0	81	549
501	Full-service restaurants	200	77	181	458
405	Retail - General merchandise stores	350	2	100	451
440	Real estate	172	107	169	447
502	Limited-service restaurants	125	72	198	394
513	Religious organizations	316	0	58	374
406	Retail - Miscellaneous store retailers	229	8	53	291
58	Construction of other new nonresidential structures	279	0	0	279
402	Retail - Gasoline stores	221	4	32	257
396	Retail - Motor vehicle and parts dealers	196	7	46	249
449	Architectural, engineering, and related services	112	113	11	235
464	Employment services	0	185	43	229
395	Wholesale trade	1	154	73	228
465	Business support services	0	196	17	213
403	Retail - Clothing and clothing accessories stores	140	6	52	198
468	Services to buildings	18	93	73	185

482	Hospitals	16	0	153	169
467	Investigation and security services	2	130	18	150
504	Automotive repair and maintenance, except car washes	67	12	58	137
460	Marketing research and all other miscellaneous professional, scientific, and technical services	8	119	9	136
509	Personal care services	52	0	78	131
475	Offices of physicians	19	0	108	127
433	Monetary authorities and depository credit intermediation	38	46	41	125
469	Landscape and horticultural services	40	38	35	114
401	Retail - Health and personal care stores	58	6	37	100
508	Personal and household goods repair and maintenance	73	13	13	99
503	All other food and drinking places	11	13	72	97
63	Maintenance and repair construction of residential structures	63	3	21	87
472	Elementary and secondary schools	52	0	28	80
411	Truck transportation	0	52	26	78
399	Retail - Building material and garden equipment and supplies stores	34	6	38	78
436	Other financial investment activities	0	32	40	73
448	Accounting, tax preparation, bookkeeping, and payroll services	0	54	18	71
470	Other support services	29	32	2	63
485	Individual and family services	0	0	62	62
483	Nursing and community care facilities	0	0	59	59
447	Legal services	0	29	30	59
62	Maintenance and repair construction of nonresidential structures	0	39	20	59
434	Nondepository credit intermediation and related activities	6	32	21	59
452	Computer systems design services	0	52	6	57
512	Other personal services	0	5	52	56
480	Home health care services	0	0	56	56
517	Private households	0	0	55	55
473	Junior colleges, colleges, universities, and professional schools	7	0	46	53
492	Independent artists, writers, and performers	13	26	13	52
477	Offices of other health practitioners	3	0	47	49
430	Data processing, hosting, and related services	30	14	1	45
496	Other amusement and recreation industries	20	6	19	45

Table C.20: Top 50 Most Impacted Industries in Mobile County

Sector	Description	Direct	Indirect	Induced	Total
363	Ship building and repairing	3,565	9	0	3,573
536	Federal Government (Military & Civilians)	1,740	0	0	
400	Retail - Food and beverage stores	289	0	64	353
502	Limited-service restaurants	102	71	175	347
440	Real estate	110	79	135	324
405	Retail - General merchandise stores	231	2	88	320
501	Full-service restaurants	94	63	133	290
513	Religious organizations	226	0	55	282
464	Employment services	0	227	50	278
465	Business support services	0	251	20	271
449	Architectural, engineering, and related services	106	137	11	254
58	Construction of other new nonresidential structures	223	0	0	223
395	Wholesale trade	1	151	64	217
482	Hospitals	13	0	174	188
402	Retail - Gasoline stores	147	3	27	177
396	Retail - Motor vehicle and parts dealers	129	6	39	173
467	Investigation and security services	1	145	17	163
406	Retail - Miscellaneous store retailers	110	6	44	161
468	Services to buildings	9	85	65	159
509	Personal care services	39	0	73	112
475	Offices of physicians	12	0	94	106
504	Automotive repair and maintenance, except car washes	45	11	51	106
460	Marketing research and all other miscellaneous professional, scientific, and technical services	7	86	6	98
403	Retail - Clothing and clothing accessories stores	53	4	37	94
503	All other food and drinking places	11	14	68	93
433	Monetary authorities and depository credit intermediation	23	36	31	90
469	Landscape and horticultural services	19	33	30	82
508	Personal and household goods repair and maintenance	49	12	12	73
401	Retail - Health and personal care stores	37	5	31	73
470	Other support services	29	38	3	70
452	Computer systems design services	0	63	6	69
472	Elementary and secondary schools	41	0	27	68
63	Maintenance and repair construction of residential structures	46	2	18	66
448	Accounting, tax preparation, bookkeeping, and payroll services	0	48	15	62
485	Individual and family services	0	0	60	60

399	Retail - Building material and garden equipment and supplies stores	22	4	32	59
411	Truck transportation	0	40	18	59
436	Other financial investment activities	0	24	34	58
447	Legal services	0	28	28	56
62	Maintenance and repair construction of nonresidential structures	0	36	19	55
517	Private households	0	0	54	54
480	Home health care services	0	0	54	54
512	Other personal services	0	5	49	54
483	Nursing and community care facilities	0	0	53	53
477	Offices of other health practitioners	2	0	47	50
434	Nondepository credit intermediation and related activities	2	29	18	48
430	Data processing, hosting, and related services	29	15	1	46
471	Waste management and remediation services	17	20	7	44
473	Junior colleges, colleges, universities, and professional schools	7	0	36	43
487	Child day care services	1	0	41	41

APPENDIX D: GLOSSARY OF ECONOMIC IMPACT TERMINOLOGY

Direct Effects — Direct effects are the result of dollars spent in the region and can include salaries, overhead, raw materials, intermediate inputs, and operating expenses. In this case, direct effects measure the dollar value of military investment in the region.

Earnings — Earnings are a common measure of economic impact, as they represent the amount of economic activity that benefits employees, either in terms of income or employee supporting investments. More specifically, earnings include wages and salary, all benefits (e.g., health, retirement), and payroll taxes (employee and employer contributions to social security, unemployment taxes, etc.).

Economic Output — Economic output is another common measure of economic impact. It measures the gross dollar value of sales and taxes that businesses and government agencies in the region collect. IMPLAN measures economic output based on producers' market value prices (as opposed to actual cost of production).

Federal Taxes — Federal tax receipts include combined revenue to the federal government that is ultimately attributable to the military. Though the military itself is tax-exempt, many of the private sector contractors and companies within the Defense supply chain do pay taxes. Federal tax receipts are calculated for the following categories: social insurance tax, excise taxes, custom duties, corporate profits taxes and personal federal income taxes.

Indirect Effects — Indirect effects occur when an industry generates additional business in its supply chain, leading to more sales (or economic output), earnings, and jobs. Business-to-business transactions are categorized as indirect effects and are generated as a ripple effect of the direct effect.

Induced Effects — Induced effects occur because of direct and indirect effects, where an increase in the personal consumption of employees generates additional economic activities in the region. The economic output revenue, earnings generated, and the jobs created due to the increase in personal consumption expenditure are categorized as induced effects.

Jobs — Jobs are another common measure of economic impact. When using the IMPLAN model, job equals the annual average of monthly jobs in that industry. Thus, 1 job lasting 12 months = 2 jobs lasting 6 months each. A job can be either full-time or part-time.

Military Funding Multiplier — The military funding multiplier divides the direct economic output impact of the military in the region by total economic output impact attributable to the military. In mathematical terms, the military funding multiplier = direct impact/ direct + indirect + induced impact. This measure can be interpreted as the degree of additional economic output generated after the initial military funding is received by individuals and companies. Using the example of the state level from this report, for every \$1 in military funding received in Alabama, an additional 79 cents of spending is generated within the state.

Military Spending per Resident — Military spending per resident is the amount of gross military-related spending occurring in the region divided by the region's total population. This serves as a

helpful measure of how much influence the military has over the lives of residents and is useful for comparison across different regions.

Multiplier Effects — Multiplier effects measure the response of the economy in a region of interest to a change in demand or production. Multipliers capture the impact of the direct effect and the impacts generated by successive rounds of re-spending of those initial dollars. The multiplier traces the flows of re-spending that ripple throughout the region until the re-spent dollars have completely leaked to other regions. The most commonly used multipliers in an Economic Impact Analysis include: economic output (sales within the region), earnings, and employment (number of jobs).

Percent of Net Economic Activity — Percent of net economic activity represents the portion of the net economic activity, in terms of all regional value added, that is attributable to the military. In short, this is degree to which the regional economy would shrink if the military had no presence or activity in the region.

Procurement — Procurement measures the dollar value of contracts and grants that are awarded by the Department of Defense for Fiscal Year 2016 where the company, university or organization's primary place of performance was Alabama.

SBIR — SBIR, or the Small Business Innovation Research program is a federal program that encourages research and development. In particular, it provides awards to small businesses whose research has the potential for commercialization. Only Department of Defense-funded SBIR awards provided to Alabama businesses are included in this economic impact study.

State and Local Taxes — State and local taxes receipts include combined revenue to state and local government entities that is ultimately attributable to the military. Though the military itself is tax-exempt, many of the private sector contractors and companies within the Defense supply chain do pay taxes. State and local tax receipts are calculated for the following sources: dividends; social security; sales; property; motor vehicle licenses; severance; corporate profits; personal income; property; and miscellaneous other sources.

Total Impact — The dollar value of economic output that is attributable to the military in the state of Alabama in FY16. This number sums the economic output for each stage of ripple effects, including the direct, indirect, and induced effects.

Value Added — Value added consists of compensation of employees; taxes on production and imports less subsidies; and gross operating surplus (or company profits). Value added is smaller in magnitude than economic output but a more accurate measure of local impact because it is not inflated by the cost of inputs purchased outside of the region. When value added is totaled across all industry sectors it is equivalent to gross regional product, which is similar to the gross domestic product reported by the federal government but at a smaller geographical scale. Hence, for this report, value added is a measure of the contribution to Gross Regional Product made by the military.