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Utah's Military and Defense Industry: An Economic Impact Study

Utah's defense industry made substantial contributions to the state's diverse economy in 2023, with total economic impacts estimated at 173,000 jobs and \$22.2 billion in GDP.

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Utah's Military and Defense Industry: An Economic Impact Study

Analysis in Brief

Utah's military and defense industry (defense industry) makes substantial contributions to the state's diverse economy, directly and indirectly supporting over 173,000 jobs and an estimated \$22.2 billion in GDP in Fiscal Year (FY) 2023. These considerable impacts stem from the following major defense components:

- Hill Air Force Base
- Dugway Proving Ground
- Tooele Army Depot
- Utah National Guard
- Reserves, recruiting, ROTC, and tuition
- Veterans
- Defense civilian retirees
- Contracts and grants

Key Findings

- **Employment** – In FY 2023, Utah's defense industry directly provided 49,540 military and civilian jobs, 2.0% of the state's employment.
- **Income** – Utah's federal defense workforce earned over \$3.5 billion in compensation in 2023, representing 2.5% of the statewide total. Federal defense jobs in Utah offered \$102,115 in average compensation, about one-third more than the \$77,801 average paid by all other jobs.
- **Contracts** – Of Utah's FY 2023 total of \$5.9 billion in defense contracts, \$5.2 billion (88%) went to 10 contractors, including Northrop Grumman with \$3.5 billion.
- **Jobs Impact** – The defense industry directly and indirectly supported 173,713 full- and part-time jobs, mostly related to Hill Air Force Base, federal support for Utah veterans, defense contracts and grants, and the Utah National Guard.
- **GDP Impact** – Utah's defense industry directly and indirectly contributed an estimated \$22.2 billion in gross domestic product (GDP), 7.8% of the statewide total for all industries.
- **Fiscal Impacts** – Defense-related activity in Utah generated net fiscal impacts of \$304.9 million for the state government, based on estimated revenues of \$715.2 million and expenditures of \$410.2 million.

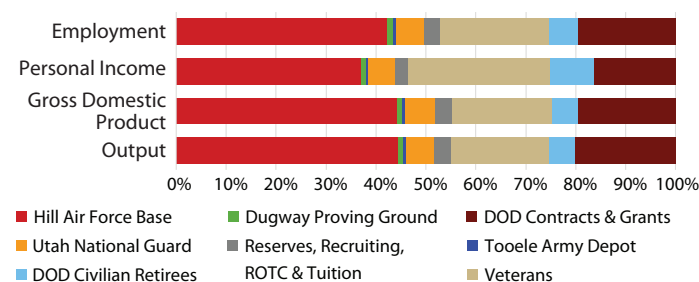
Defense Industry Economic Impact Summary, FY 2023

Employment (173,713 jobs)	7.2%
Personal Income (\$14.6 billion)	6.9%
Gross Domestic Product (\$22.2 billion)	7.8%
Output (\$39.5 billion)	7.8%

Percent of State Total

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

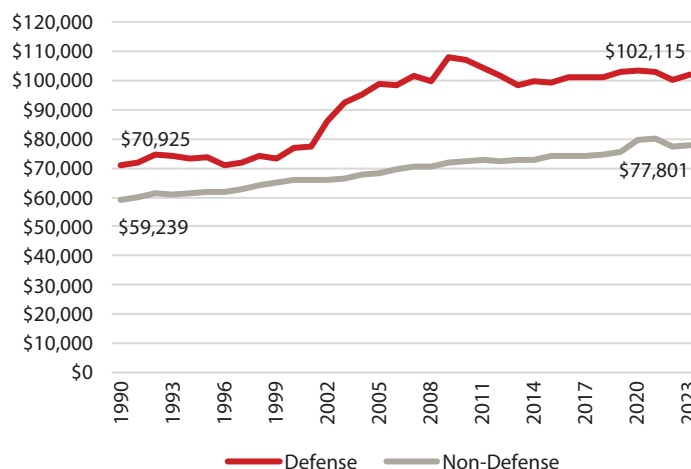
Share of Economic Impacts by Utah Defense Industry Component, FY 2023



Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Average Compensation of Federal Defense Jobs Versus Non-Defense Jobs in Utah, 1990–2023

(Constant 2023 Dollars)



Note: Compensation is for military personnel and civilian employees of the U.S. Department of Defense and U.S. Department of Veterans Affairs in Utah.

Source: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, and Moody's

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Section 1: Overview

Utah’s military and defense industry (defense industry) is an integral component of the state’s diverse economy. It brings in federal dollars that expand the state’s economy and invests in Utah’s highly paid, middle-class workforce. In recent years, changes in federal defense spending in Utah warrant updated research to measure the industry’s impact on Utah’s economy.

The Utah Defense Alliance and the Utah Department of Veterans and Military Affairs commissioned the Kem C. Gardner Policy Institute to assess the economic impacts of Utah’s defense industry. The Gardner Institute analyzed the impacts of current operations of Hill Air Force Base, Dugway Proving Ground, Tooele Army Depot, the Utah National Guard, military reserves, military recruiting, and Reserve Officers’ Training Corps (ROTC) programs. The Gardner Institute also examined pensions and services for veterans, pensions for U.S. Department of Defense (DOD) civilian retirees, and contracts and grants from DOD and the U.S. Department of Veterans Affairs (VA) performed in Utah. This report updates a similar 2021 report by the Gardner Institute.¹

During federal fiscal year (FY) 2023, the defense industry itself provided 49,450 jobs in Utah and \$8.9 billion of in-state nonpayroll spending (Tables 1.1 and 1.2). This activity does not include indirect and induced economic impacts. Most of the defense industry’s jobs and outlays were at Hill AFB (41.8% of employment and 34.9% of nonpayroll spending) and the Utah National Guard (16.9% of employment, 0.4% of nonpayroll spending), or from federal spending for Utah veterans (9.2% of

employment, 26.2% of nonpayroll spending) and for Utah recipients of DOD contracts and grants not also counted with any in-state installation (20.9% of employment, 30.1% of nonpayroll spending).

Economic Impacts

Utah’s defense industry directly and indirectly supported 173,713 jobs—roughly the size of the state’s construction industry—and \$22.2 billion in GDP during FY 2023 (Table 1.3). That year, economic impacts from federal defense spending amounted to 7.2% of Utah’s jobs, 6.9% of its personal income, and 7.8% of its GDP.

The defense industry includes Department of Defense (DOD) and Department of Veterans Affairs (VA) employment, military and federal civilian pensions, and contracts and grants. Economic impacts include direct economic activity, as well as indirect and induced jobs, personal income, GDP, and output (industry sales). For example, 173,713 in direct, indirect, and induced employment resulted from the direct economic activity of 49,540 defense jobs and sizable federal outlays for contracts, grants, and pensions in Utah. FY 2023 was selected as the principal year of study for these and other impacts because, at the time this research was undertaken, 2023 was the most recent common year for which reliable information was available from the disparate sources required for the analysis.

Figure 1.2 illustrates each component’s contribution to the defense industry’s economic impacts in terms of employment, personal income, GDP, and output. Hill AFB accounts for 38% to 45% of these economic impacts, followed by veterans at 20% to 29% and contracts and grants at 17% to 21%.

Table 1.1: Direct Employment for Utah Defense Industry Components, FY 2023

Component	Jobs ¹	Share
Hill Air Force Base	20,707	41.8%
Dugway Proving Ground	621	1.3%
Tooele Army Depot	476	1.0%
Utah National Guard	8,348	16.9%
Reserves, Recruiting, ROTC & Tuition ²	4,472	9.0%
Veterans ³	4,540	9.2%
DOD Retired Civilians	0	0.0%
DOD Contracts and Grants ⁴	10,376	20.9%
Total	49,540	100.0%

Notes:

1. Direct employment consists of 39,127 military and civilian jobs with the U.S. Department of Defense (DOD) and U.S. Department of Veterans Affairs (VA), as well as 10,413 direct private sector jobs estimated for DOD and VA contracts, grants, and tuition assistance.
2. To avoid double-counting, reserves and recruiting jobs in the table represent only additional economic activity not included under another defense component. Total employment for military reserves, recruiting, eight ROTC programs, and DOD tuition assistance was 6,076 jobs, 12.3% of the total including 3.3% overlapping.
3. Veteran employment includes direct employment from VA medical facilities and the regional benefits office, as well as estimated direct jobs from all VA contracts and grants in Utah.
4. The authors estimated direct employment based on nonpayroll spending for DOD contracts and grants not assigned to any Utah installation. These jobs do not overlap other defense components’ employment.

Source: Kem C. Gardner Policy Institute analysis of data from defense installations

Table 1.2: Direct Nonpayroll Spending for Utah Defense Industry Components, FY 2023

(Millions of Dollars)

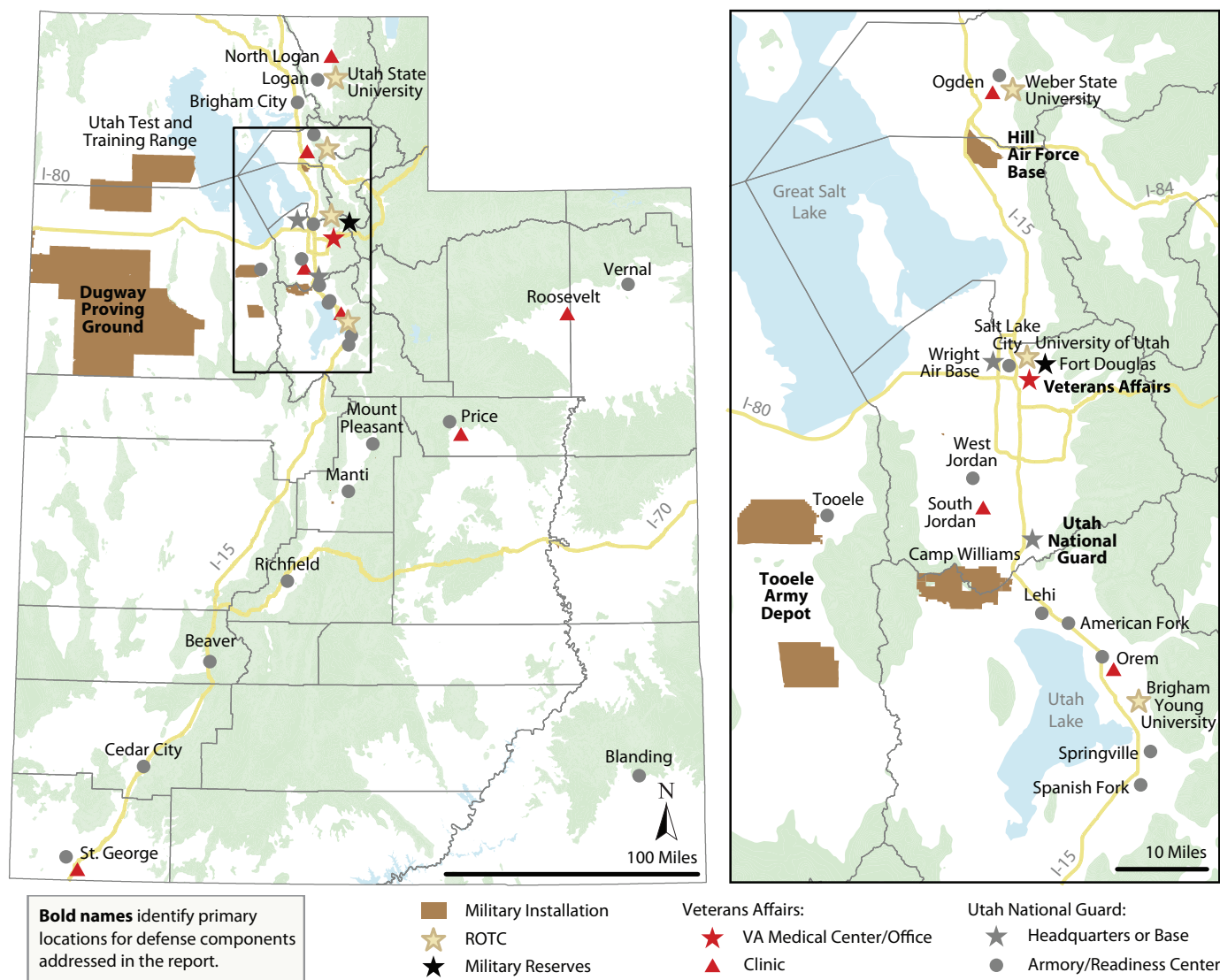
Component	Amount	Share
Hill Air Force Base	\$3,128.9	34.9%
Dugway Proving Ground	\$53.9	0.6%
Tooele Army Depot	\$12.0	0.1%
Utah National Guard	\$37.4	0.4%
Reserves, Recruiting, ROTC & Tuition ¹	\$7.3	0.1%
Veterans	\$2,347.6	26.2%
DOD Retired Civilians	\$682.1	7.6%
DOD Contracts and Grants ²	\$2,695.9	30.1%
Total	\$8,965.0	100.0%

Note:

1. Nonpayroll spending was not available for military reserves or recruiting. The only nonpayroll spending available for ROTC programs was financial assistance to students, missing ROTC operational expenses. DOD tuition assistance spending is complete.
2. These contracts and grants are not assigned to any Utah installation. This DOD spending does not overlap other defense components’ nonpayroll spending.

Source: Kem C. Gardner Policy Institute analysis of data from defense installations

Figure 1.1: Defense Components in Utah, 2023



Note: Enlarged inset map at the right shows Wasatch Front locations corresponding to the extent indicator frame in the statewide map at the left. Besides Army Reserve and Navy Reserve units at Fort Douglas, military reserve units are also at Hill Air Force Base and Camp Williams (Marine Corps).
Source: Utah Geospatial Resource Center

Fiscal Impacts

The \$39.5 billion in Utah industry output supported by the defense industry generated an estimated \$715.2 million in state income and sales tax revenue during 2023 (Table 1.4). This activity generated population impacts in Utah, including “economic migrants” from out of state who moved to Utah, spurring an estimated \$369.9 million in state government operational spending for public and higher education, roads, public safety, etc. and \$40.4 million in capital expenditures. Subtracting expenditures from revenue results in a net fiscal impact of \$304.9 million. Every component of Utah’s defense industry generated net positive state fiscal impacts in 2023. Federal spending on veterans accounted for 30.1% of the net state revenue generated by the defense industry in Utah, while Hill AFB generated 24.1% and DOD non-installation contracts and grants generated 22.4% of net revenue (Figure 1.3).

Federal Defense Employment

In 2023, military personnel and civilians with federal defense jobs made up about 1.9% of Utah’s total employment, down from 2.7% in 2010 and 5.5% in 1990 (Figure 1.4). In recent decades, the number of military personnel serving in Utah has been more stable than the number of civilian jobs with the DOD or VA. After falling from a high of more than 42,000 jobs in 1990, total federal defense employment in the state held fairly steady above 30,000 jobs from 2000 to 2023 (Figure 1.6). During those years, while defense employment increased by 14.6%, employment in the economy as a whole grew by 60.2%, resulting in defense’s shrinking share.

Table 1.3: Statewide Economic Impacts of Utah Defense Industry by Component, FY 2023

(Jobs; Millions of Dollars)

Total Economic Impact	Hill Air Force Base	Dugway Proving Ground	Tooele Army Depot	Utah National Guard	Reserves, Recruiting, ROTC & Tuition*	Veterans	DOD Civilian Retirees	DOD Contracts & Grants	Total
Employment	74,386	2,046	1,039	10,228	5,504	38,249	10,402	34,248	173,713
Personal Income	\$5,519.9	\$139.1	\$77.6	\$805.2	\$366.3	\$4,249.1	\$1,295.2	\$2,421.1	\$14,582.9
Gross Domestic Product	\$9,953.3	\$232.9	\$127.8	\$1,367.3	\$756.5	\$4,491.9	\$1,161.8	\$4,400.4	\$22,154.5
Output	\$17,843.2	\$395.4	\$216.4	\$2,314.9	\$1,289.1	\$7,860.7	\$2,062.7	\$8,128.3	\$39,509.8

*To avoid double-counting, reserves and recruiting amounts in the table represent only additional economic activity not included under another defense component. Total economic impacts for military reserves, recruiting, ROTC programs, and DOD tuition assistance were 8,531 jobs, \$583.0 million in personal income, \$1,203.2 million in GDP, and \$2,051.3 million in output. Note: Totals are 1.4% to 2.0% below the sums of the parts because of interactions among direct, indirect, and induced effects when all components are run together in the economic model. Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

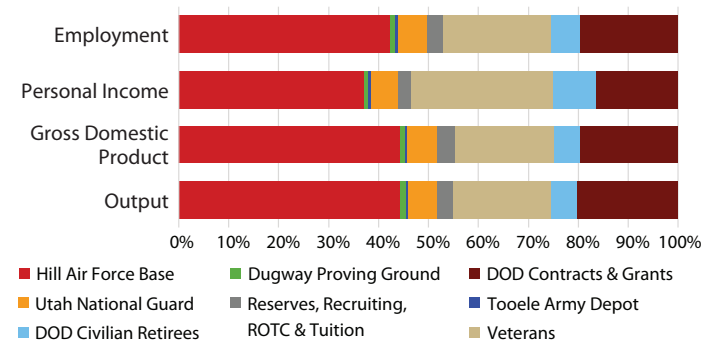
Table 1.4: State Fiscal Impacts of Utah's Defense Industry, FY 2023

(Millions of Dollars)

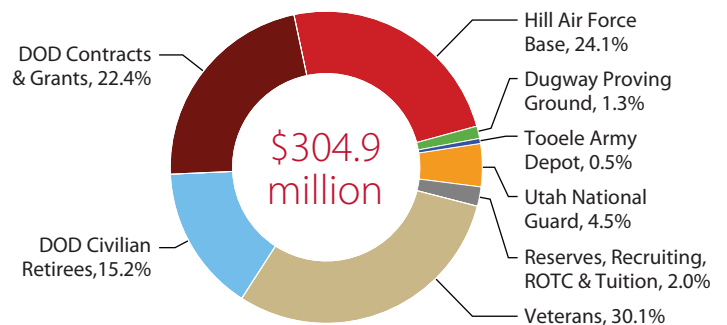
Impact	Hill Air Force Base	Dugway Proving Ground	Tooele Army Depot	Utah National Guard	Reserves, Recruiting, ROTC & Tuition*	Veterans	DOD Civilian Retirees	DOD Contracts & Grants	Total
Total State Tax Revenues	\$258.0	\$6.0	\$3.0	\$40.3	\$18.0	\$178.0	\$71.1	\$140.8	\$715.2
Total State Operating Expenditures	(\$166.4)	(\$1.9)	(\$1.3)	(\$24.0)	(\$10.7)	(\$77.8)	(\$22.4)	(\$65.5)	(\$369.9)
Total State Capital Expenditures	(\$18.2)	(\$0.2)	(\$0.1)	(\$2.6)	(\$1.2)	(\$8.5)	(\$2.4)	(\$7.1)	(\$40.4)
Net State Fiscal Impact	\$73.5	\$3.9	\$1.6	\$13.6	\$6.1	\$91.8	\$46.3	\$68.2	\$304.9

*To avoid double-counting, reserves and recruiting fiscal impacts reported here include only state revenue and expenses associated with economic activity not included at a Utah military installation. Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model and the Gardner Institute fiscal model

Figure 1.2: Share of Economic Impacts by Utah Defense Industry Component, FY 2023

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Figure 1.3: Share of State Net Revenue Impacts by Utah Defense Industry Component, 2023

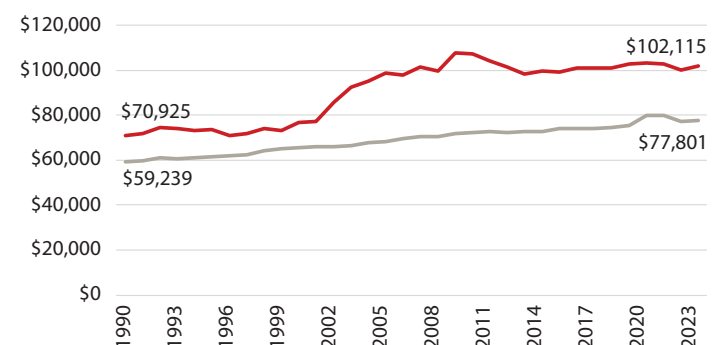
Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model and the Gardner Institute fiscal model

Figure 1.4: Defense Share of Total Employment in Utah, 1990–2023

Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Moody's

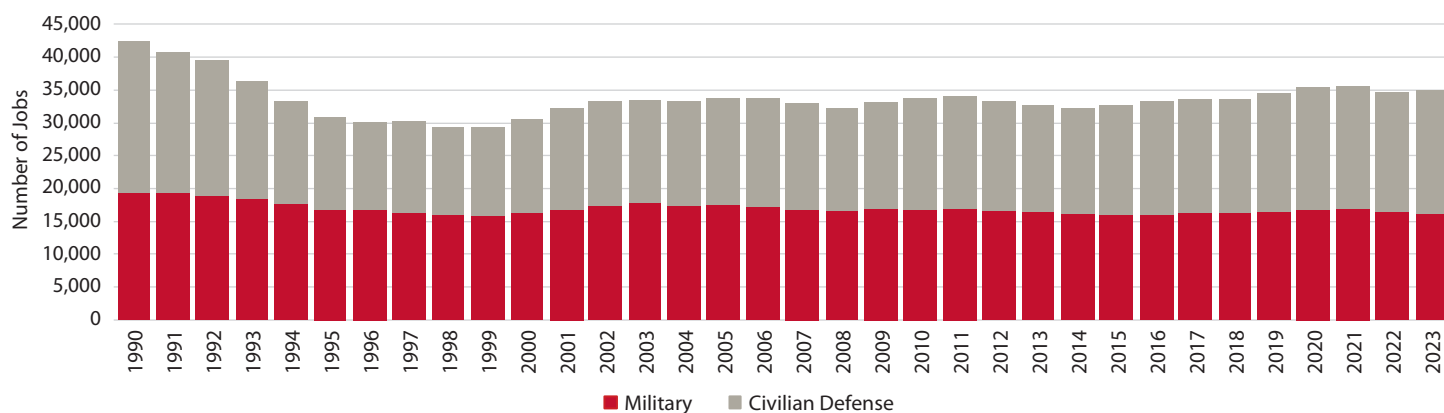
Figure 1.5: Average Compensation of Federal Defense Jobs Versus Non-Defense Jobs in Utah, 1990–2023

(Constant 2023 Dollars)



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Moody's

Figure 1.6: Military and Federal Civilian Defense Employment in Utah, 1990–2023



Note: Federal employment by calendar year in this chart (for example, 34,954 jobs in 2023) is lower than defense industry totals by fiscal year in this report, which also include private sector employment in the defense industry (49,540 jobs in FY 2023).

Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Moody's

Compensation per federal defense job in Utah has historically been considerably higher than Utah's average compensation rate, with the gap widening by over 50% in 2009 (Figure 1.5). Even with some tapering in recent years, federal defense jobs in Utah offered an average of \$102,115 in compensation, 40.7% more than the \$77,801 average paid at non-defense jobs in 2023.

Study Scope

Due to data limitations, this report does not capture a few significant defense components. First, employment and spending data are not available for the National Security Agency data center in Bluffdale, Utah.² Second, DOD health care spending is not available for 13,719 military retirees and dependents

in Utah enrolled in TRICARE health plans.³ For military personnel serving in FY 2023 and their dependents, the study does include TRICARE spending along with other employer benefits. Third, the report does not include certain retirement income received by a large portion of Utah's 18,858 retired DOD civilian employees who enrolled in the Federal Employees Retirement System. However, Section 8 addresses \$682.1 million in DOD pension payments to civilian retirees.⁴ Finally, minor omissions due to data limitations for particular defense components are addressed in their respective section of the report. In these ways, the study prudently understates the full economic impact of Utah's defense industry.

Terms Used in This Report

The **military and defense industry (defense industry)** includes the military's economic activity, federal government spending and services for veterans, and private-sector economic activity funded by government spending for the military and veterans, primarily defense contractors and grant recipients.

Military personnel include full-time active-duty personnel stationed in Utah as well as part-time members of the reserves and the Utah National Guard: airmen at Hill Air Force Base (Hill AFB), Army soldiers at Dugway Proving Ground, reservists at Hill AFB and Fort Douglas, traditional guardmembers and full-time personnel in Utah Air and Army National Guard units throughout the state, full-time recruiters for each military service, active-duty ROTC faculty, and all other officers and enlisted service personnel at major installations or smaller sites.

Civilian defense employees include U.S. Department of Defense (DOD) and Department of Veterans Affairs (VA) employees who are not military personnel.

Guardmembers in the National Guard fall into four general categories. Traditional guardmembers fulfill part-time military service in addition to civilian employment or other pursuits. They customarily report for duty a minimum of one weekend per month and 15 days per year. Active Guard and Reserve (AGR) guardmembers serve in an active duty-type status but remain assigned to the National Guard. Military Technician guardmembers are considered DOD Civilian employees whose employment is contingent on participation in the National Guard. During the work week, they wear a uniform in a technician (civilian) status and drill a minimum of one weekend a month and 15 days a year in a military status. DOD civilian employees also serve with guardmembers in the Utah National Guard.

Veterans are individuals who have served for any duration in the U.S. Armed Forces.

Military retirees are individuals who served in the U.S. Armed Forces for at least 20 years of active duty or gave equivalent service in reserve or National Guard units. Military personnel may receive early retirement for medical or other special circumstances.

Department of Defense civilian retirees are individuals who were employees in any DOD service branch. Many DOD civilian retirees are also veterans.

ROTC refers to the Reserve Officers' Training Corps. Utah college students can join ROTC units for the Army, Marine Corps, Navy, and Air Force. Cadets and midshipmen study and train to become commissioned officers upon graduation.

Economic contributions capture economic activity, its reach and magnitude, spurred by an industry's spending within the study region, regardless of the origin of funds.

Economic impacts are changes in the size and structure of a region's economy when goods and services are purchased within the region with out-of-region or "new" money. This includes money generated outside the region or can also result from "import substitution," where residents would have to import goods and services if an industry did not exist locally. This study estimates the economic impacts of Utah's military and defense industry to the state's economy.

Indirect impacts are the changes in employment, income, production, and other economic indicators within the region in industries that supply goods and services to the defense industry. For example, jobs at a Utah defense contractor providing engineering services to the military would be included in the indirect employment impacts.

Induced impacts are the increased economic activity within the region associated with household spending of the income earned from the business or industry under study and from supporting businesses. These arise, for example, when Hill Air Force Base personnel and Northrop Grumman employees spend their personal income to buy groceries in-state.

Nominal and real (inflation adjusted) values are presented in tables throughout the report when comparing the Fiscal Year (FY) 2023 data and results to the FY 2019 data and results from the previous study. For these comparisons, both nominal changes and real changes are calculated. To convert 2019 values to 2023 values, the Consumer Price Index (CPI) West B/C series from the U.S. Bureau of Labor Statistics is used. There is no CPI for just Utah, but the West series includes Utah, among 12 other states. The class B/C series represents urban areas with population sizes of 2.5 million people or less. The factor below converts 2019 data into 2023 dollars.

$$\text{Inflation Factor} = \frac{2023 \text{ Average CPI}}{2019 \text{ Average CPI}} = 1.2033$$

For example, DOD pension payments to civilian retirees totaled \$608.7 million in nominal terms (2019 dollars) for FY 2019. This number multiplied by the inflation factor results in \$732.4 million in real terms (2023 dollars). While the nominal change between FY 2019 DOD pension payments and FY 2023 DOD pension payments (\$682.1 million) is 12.1%, the real change (after adjusting FY 2019 data into 2023 dollars) is negative 6.9%.

Terms Used in This Report (*continued*)

Fiscal impacts are changes in state government revenues and expenditures resulting from the changes in economic activity. The estimated revenue impacts consist of individual and corporate income taxes and state sales and use taxes. Estimated expenditure impacts comprise state public education expenditures, higher education expenditures, and non-education expenditures.

Employment in this report is a measure of jobs, not workers, unless otherwise specified. Full- and part-time jobs are counted equally, and both wage and salary positions and the self-employed are included. Employment is reported by place of work rather than place of residence.

Compensation to military personnel and civilian employees is the sum of wage and salary disbursements and supplements to wages and salaries, including contributions for health insurance policies and retirement accounts. Employers report their compensation by service member or employee place of work. Compensation does not include income from self-employment, personal investments, or government transfers.

Personal income includes all income individuals receive from any source: wage and salary disbursements, supplements to wages and salaries, proprietors' income, rent, dividends, interest, and net transfer receipts. Personal income is reported by place of residence, whereas employment, GDP, and output are reported by place of work.

Gross Domestic Product (GDP) measures the "value added" to intermediate inputs of goods and services produced in a region by labor and capital, avoiding the double counting of intermediate sales. GDP is the sum of employee compensation, indirect business taxes, and gross operating surplus. GDP is a common measure of economic activity in a region and equals total output or sales less the value of intermediate inputs purchased to produce that output.

Output represents the gross value of all transactions in a region's economy, representing total industry sales and reflecting both final purchases and intermediate inputs, resulting in the double counting of some intermediate purchases.

North American Industry Classification System (NAICS) was developed by U.S., Canadian, and Mexican statistical agencies to categorize business establishments based on the types of goods and services they provide. Industry codes range from two digits at the highest level of aggregation (for example, NAICS 23 for construction) to six digits for the most detail (for example, NAICS 336412 for aircraft engine manufacturing). The defense industry encompasses activity in multiple NAICS industries, from construction and manufacturing to national security and professional, scientific and technical services.

Fiscal Year (FY) refers to the federal calendar starting October 1 of the previous year and ending September 30 of the year indicated.

Section 2: Hill Air Force Base

Hill Air Force Base (Hill AFB) is the premier military installation in Utah in terms of budget, staffing, land area, and technology. Since its establishment in 1940, Hill AFB has undertaken various missions, including training service members, supporting global military operations, and managing defense innovation and supply chains.⁵ The 75th Air Base Wing is Hill AFB's host unit. The base is home to the Air Force's first operational Wings for F-35A fighter aircraft. Hill AFB also manages F-16 aircraft and the LGM-35A Sentinel and LGM-30G Minuteman III intercontinental ballistic missile weapons systems.

Hill AFB is adjacent to Clearfield and Layton, just south of Ogden, and 30 miles north of Salt Lake City (Figure 2.1). Besides its 70,000-acre primary location on the border of Davis and Weber counties, Hill AFB utilizes the 2.3 million acres of airspace in the Utah Test and Training Range in Box Elder and Tooele counties.

In FY 2023, Hill AFB employed 4,853 active-duty military personnel, 1,067 Air Force reservists, and 14,787 federal civilian employees, totaling 9.5% of total employment in Davis County (Table 2.1).⁶ An additional 6,221 employees of government contractors in the private sector worked on base. Most of Hill AFB's military personnel live in Davis County (3,118), with many in neighboring Weber County (920) and Salt Lake County (210).

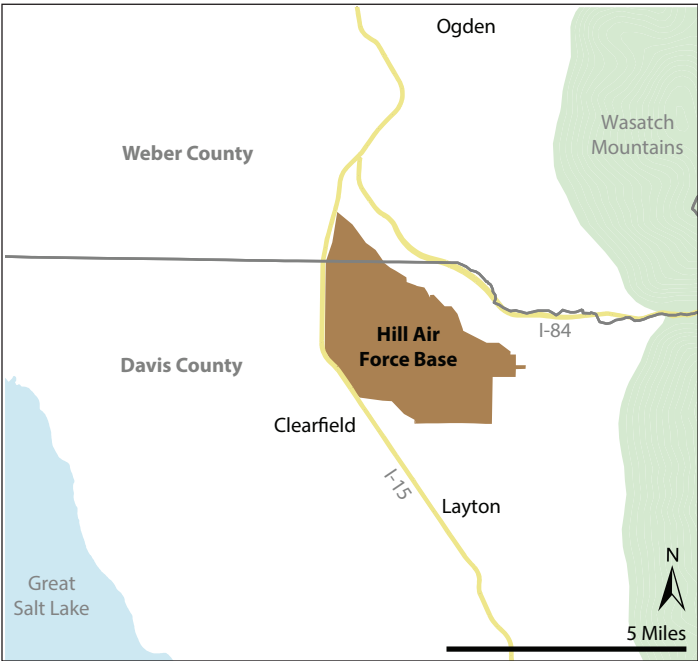
Table 2.1: Hill Air Force Base Military Personnel by County of Residence, FY 2023

County	Count	Share
Federal Civilian Employees:		
Subtotal	14,787	72.1%
Military Personnel:		
Davis	3,118	15.2%
Weber	920	4.5%
Salt Lake	210	1.0%
Utah	41	0.2%
Box Elder	30	0.1%
Tooele	17	0.1%
Cache	11	0.1%
Wasatch	4	0.0%
Other	3	0.0%
None given	1,367	6.7%
Subtotal	5,721	27.9%
Total	20,508	100.0%

Note: Residence information was not available for U.S. Department of Defense (DOD) civilian employees at Hill Air Force Base. Juab, Uintah, and Washington counties each had one military resident working at Hill AFB. The 1,367 military personnel for whom county residence was not specified either had a legal residence outside of Utah while they lived in the state to work at Hill AFB, or their location was not provided. The total headcount of 20,508 is slightly lower than the direct employment figure of 20,707 shown in Figure 2.3 because it counts only once the 199 reservists who also hold civilian jobs at Hill AFB.

Source: Kem C. Gardner Policy Institute analysis of data provided by Hill Air Force Base

Figure 2.1: Hill Air Force Base



Note: Hill Air Force Base also has access to the Utah Test and Training Range west of the Great Salt Lake (Figures 1.1 and 3.1).
Source: Utah Geospatial Resource Center

Table 2.2: Hill Air Force Base Employment and Spending in Utah, FY 2019 and FY 2023

(Jobs; Millions of Dollars)

Item	FY 2019	FY 2023	Difference	Change
Employment (Jobs)	19,832	20,508	676	3.4%
Wages				
Nominal (no inflation adjustment)	\$1,423.7	\$1,596.5	\$172.8	12.1%
Real (2023 Dollars)	\$1,713.1	\$1,596.5	-\$116.6	-6.8%
Nonpayroll spending				
Nominal (no inflation adjustment)	\$885.6	\$3,128.9	N/A	N/A
Real (2023 Dollars)	\$1,065.7	\$3,128.9	N/A	N/A

N/A = not applicable (due to data coverage differences, direct comparison is not meaningful)
Note: Employment is headcount (number of individuals), 199 of whom have full-time civilian and part-time reservist jobs at Hill AFB. Nonpayroll spending includes federal contracts, government purchase cards, travel spending by visitors, and education impact aid. Nominal values are in 2019 dollars for FY 2019 spending and in 2023 dollars for FY 2023 spending. Real values are adjusted for inflation to 2023 dollars for FY 2019 spending. With no inflation adjustment needed for FY 2023 spending, the nominal and real values are the same. Between FY 2019 and FY 2023, large missile defense contracts began to flow through Hill AFB, previously originating out of state. For FY 2019, nonpayroll spending also includes \$116.0 million in TRICARE payments for military personnel's health care by non-defense providers. Comparable information is not available for FY 2023. Without TRICARE spending in FY 2019, nonpayroll spending would be \$769.6 million (nominal) or \$926.1 million (real), and the percentage change from FY 2019 to FY 2023 would be 306.5% (nominal) and 237.9% (real). The change in defense contract management is the primary reason for the increase in nonpayroll spending.
Source: Kem C. Gardner Policy Institute analysis of data from Hill Air Force Base (employment, wages, and purchase card and travel spending), USASpending.gov (contract spending), and the U.S. Department of Education, Office of Elementary and Secondary Education (education impact aid)

Table 2.3: Hill Air Force Base Nonpayroll Spending in Utah by Industry, FY 2023

Sector	Amount
Agriculture	\$23,000
Construction	\$107,375,350
Manufacturing	\$2,430,944,426
Wholesale Trade	\$21,831,902
Retail Trade	\$30,203,129
Transportation	\$7,662,408
Information	\$5,705,891
Real Estate and Rental	\$661,277
Professional, Scientific and Technical Services	\$484,285,422
Admin, Support, and Waste Management	\$15,416,006
Educational Services	\$646,607
Health Care and Social Assistance	\$715,115
Arts, Entertainment, and Recreation	\$40,025
Accommodation and Food Services	\$11,675,241
Other Services	\$11,708,883
Total	\$3,128,894,683

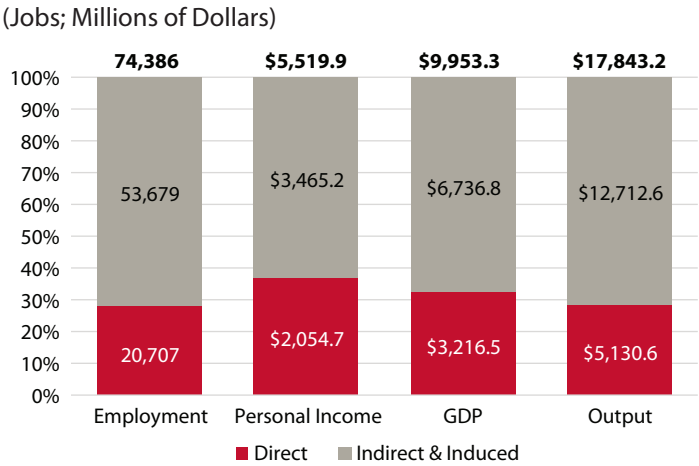
Note: Spending includes federal contracts, government purchase cards, travel spending by visitors, and education impact aid.
Source: Kem C. Gardner Policy Institute analysis of data from Hill Air Force Base (purchase card and travel spending), USASpending.gov (contract spending), and the U.S. Department of Education, Office of Elementary and Secondary Education (education impact aid)

Hill AFB employment grew from 19,832 individuals in FY 2019 to 20,508 individuals in FY 2023 (Table 2.2). Most of this increase came from the addition of 585 federal civilian employees. Hill AFB was the state’s sixth-largest employer in 2022.⁷

Federal civilian and military wages paid by Hill AFB totaled \$1.6 billion in FY 2023, 19.5% of all wages paid in Davis County (Table 2.2). The average wage of federal employees at Hill AFB was \$77,100, 36.4% above the county average of \$56,516 for employees in the private sector and certain government employees.⁸ Hill AFB wages rose from \$1.4 billion in FY 2019 to \$1.6 billion in FY 2023. However, with general price increases of 20.3%, inflation-adjusted wages decreased by \$0.1 billion, from \$1.7 billion to \$1.6 billion.

Hill AFB also had substantial nonpayroll spending in FY 2023. Its contract spending in Utah totaled \$3,072.8 million. In addition, an estimated \$46.9 million in government purchase card spending was in-state.⁹ Local DOD spending for K–12 education impact aid was \$0.7 million.¹⁰ Hill AFB visitors spent \$8.5 million for temporary duty assignments (TDY) at the base. While employer-paid benefits, such as TRICARE payments to health care providers outside the federal government, are not itemized in nonpayroll spending, the economic impacts for Hill AFB include estimates of all non-wage benefits for military personnel. Total in-state nonpayroll spending amounted to \$3,128.9 million (Table 2.3 and Figure 2.2). Hill AFB nonpayroll spending rose significantly from FY 2019 to FY 2023, primarily

Figure 2.3: Statewide Economic Impacts of Hill Air Force Base, FY 2023



Note: Direct employment and personal income include DOD civilian employees and military personnel. Contract civilians and private businesses on base are included in indirect and induced effects.
Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

because high-value ongoing Air Force contracts performed in Utah began to originate from Hill AFB instead of out-of-state contracting offices (Table 2.2). Of FY 2023 nonpayroll spending, 77.7% went to manufacturing companies, and 15.5% went to the professional, scientific, and technical services industry.

Hill AFB’s employment, payroll, and operational expenditures supported 74,386 full- and part-time jobs in Utah in FY 2023 and \$5.5 billion in personal income (Figure 2.3). This economic impact consisted of the 20,707 direct federal jobs and \$2.1 billion in personal income from the base itself, plus an estimated additional 53,679 indirect and induced jobs and almost \$3.5 billion in personal income.¹¹ Hill AFB’s operations also directly and indirectly generated almost \$10.0 billion in gross domestic product (GDP), 3.5% of the statewide total for all sectors, and \$17.8 billion in output.

Hill AFB’s economic impacts in FY 2023 exceeded 100 jobs in 10 counties (Table 9). While two-thirds to three-quarters of total impacts remained in Davis and Weber counties, surrounding counties also received significant boosts in employment, personal income, GDP, and output. An estimated 36,439 jobs held in Davis County were either performed at Hill AFB or indirectly supported by its spending and its employees’ spending. These jobs represented 16.8% of county employment and generated \$2.3 billion in personal income for county residents. Weber County had the second-largest impact, with 19,170 direct, indirect, and induced jobs due to Hill AFB. This employment brought \$1.4 billion in income into the county, 9.6% of all personal income there. In Salt Lake County, 11,490 jobs and \$1.0 billion in personal income came from Hill AFB’s total impacts, 1.1% and 1.2%, respectively, of countywide totals for all sectors.

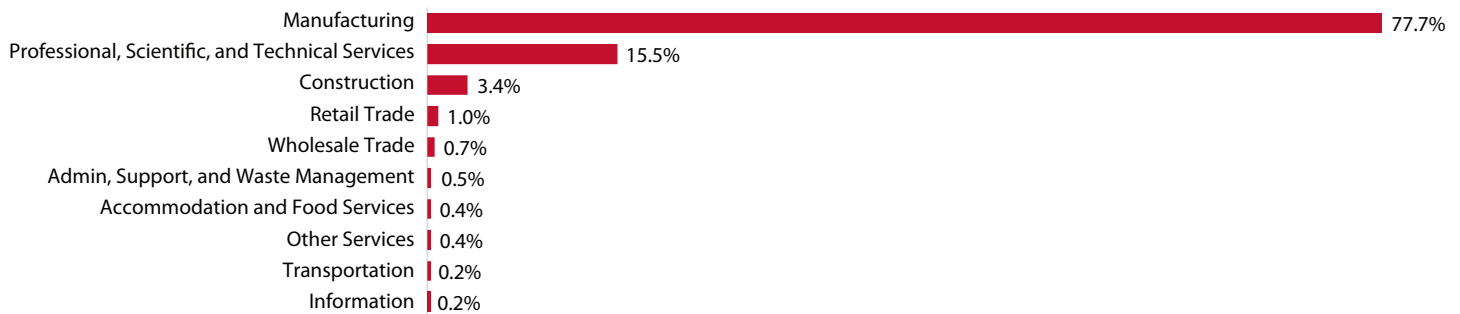
Table 2.4: Hill Air Force Base Economic Impacts by County, FY 2023

(Millions of Dollars; Percentage of Countywide Total for All Sectors)

County	Employment		Personal Income		Gross Domestic Product		Output	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Davis	36,439	16.8%	\$2,292.1	10.1%	\$4,851.2	20.5%	\$8,118.0	18.6%
Weber	19,170	11.9%	\$1,390.9	9.6%	\$2,709.7	15.4%	\$5,485.7	17.0%
Salt Lake	11,490	1.1%	\$1,029.7	1.2%	\$1,560.2	1.1%	\$2,768.1	1.1%
Utah	3,119	0.7%	\$313.0	0.8%	\$334.8	0.7%	\$579.6	0.7%
Cache	1,307	1.4%	\$99.6	1.4%	\$135.7	1.5%	\$241.0	1.4%
Box Elder	1,156	3.4%	\$148.3	5.0%	\$124.2	3.1%	\$237.5	2.9%
Summit	463	0.9%	\$67.0	0.6%	\$63.8	1.1%	\$107.9	1.1%
Morgan	340	5.4%	\$79.4	8.6%	\$34.6	6.3%	\$59.5	6.3%
Tooele	274	0.9%	\$44.2	1.1%	\$32.4	1.0%	\$60.4	1.0%
Wasatch	162	0.7%	\$26.9	0.8%	\$14.3	0.8%	\$24.8	0.8%
All Others	466	0.2%	\$28.6	0.1%	\$92.3	0.3%	\$160.7	0.2%
Total	74,386	3.1%	\$5,519.9	2.6%	\$9,953.3	3.5%	\$17,843.2	3.5%

Note: Economic impacts include direct, indirect, and induced effects. Counties not listed separately had fewer than 100 jobs from total employment impacts. Shares equal impacts divided by economic activity across all sectors within the county (or state, for the Total row). Totals for dollar amounts may not match exactly due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Figure 2.4: Hill Air Force Base Nonpayroll Spending in Utah by Industry, FY 2023

Note: Hill AFB's nonpayroll spending totaling \$3,128.9 million included amounts below 0.1% of the total in each of five sectors: educational services; health care and social assistance; real estate and rental services; arts, entertainment, and recreation; and agriculture (Table 2.3).

Source: Kem C. Gardner Policy Institute analysis of data from Hill Air Force Base (purchase card and travel spending), USASpending.gov (contract spending), and the U.S. Department of Education, Office of Elementary and Secondary Education (education impact aid)

Table 2.5: State Fiscal Impacts of Hill Air Force Base, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$145.6
Corporate Income Tax Revenues	\$21.3
State Sales Tax Revenues	\$91.2
Total State Tax Revenues	\$258.0
State Non-Education Expenditures	(\$90.5)
State Public Education Expenditures	(\$35.9)
State Higher Education Expenditures	(\$40.0)
Total State Operating Expenditures	(\$166.4)
State Capital Expenditures	(\$18.2)
Total State Expenditures	(\$184.6)
Net State Fiscal Impact	\$73.5

Note: Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

Hill AFB's activities also generate fiscal impacts for the state. These arise through the changes in income, output, and population that result from the economic activity of the base. In FY 2023, Hill AFB's activities directly and indirectly generated an estimated \$258.0 million in state tax revenues (Table 2.5). This was partially offset by the additional population supported by the base, which required an estimated \$166.4 million in state government operating expenditures and \$18.2 million in state government capital expenditures. The net fiscal impact was \$73.5 million in revenue.

Section 3: Dugway Proving Ground

Dugway Proving Ground (DPG) has a large and distinctive civilian workforce at Utah's largest U.S. Army installation. DPG is located in Tooele County's remote Skull Valley, 35 miles southwest of Tooele and 80 miles from Salt Lake City (Figure 3.1). The 800,000-acre installation offers vast desert and mountainous terrain with significant climate variation for military training and testing.¹² In DPG laboratories, scientists develop detection and defensive equipment for chemical and biological threats, handling both live agents and nontoxic simulants. Michael Army Airfield features an 11,000-foot runway utilized, for example, by soldiers operating unmanned aircraft at the Rapid Integration and Acceptance Center. For additional airspace, DPG has access to the Utah Test and Training Range, administered by Hill Air Force Base.

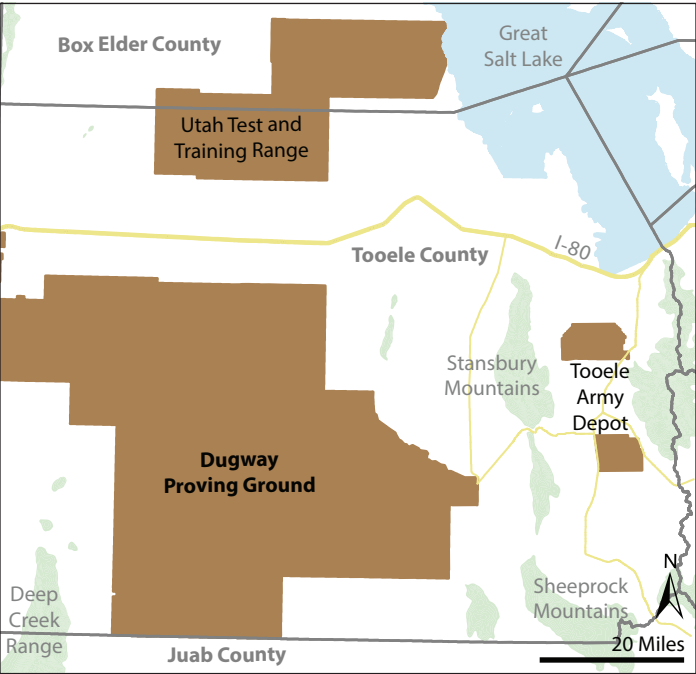
In FY 2023, employment at Dugway Proving Ground included 597 federal civilian jobs and 24 military personnel, together representing 2.1% of Tooele County employment. Soldiers and employees filling more than two-thirds of these positions at DPG lived locally, while the remainder commuted from 14 or more other counties (Table 3.1). DPG employment decreased from 657 jobs in FY 2019 to 621 jobs in FY 2023 (Table 3.2). In addition to its regular employment, DPG hosted an average of 2,214 transient military personnel and federal civilian employees per month in FY 2023 who worked at DPG for at least one day; monthly counts ranged from 533 to 4,816.

Table 3.1: Dugway Proving Ground Employment by County of Residence, FY 2023

County	Jobs	Share
Tooele	437	70.4%
Utah	68	11.0%
Salt Lake	58	9.3%
Weber	15	2.4%
Davis	9	1.4%
Juab	9	1.4%
Sanpete	4	0.6%
Sevier	3	0.5%
Iron	3	0.5%
Box Elder	2	0.3%
Washington	1	0.2%
Wasatch	1	0.2%
Summit	1	0.2%
Millard	1	0.2%
Cache	1	0.2%
None Given	8	1.3%
Total	621	100.0%

Source: Dugway Proving Ground

Figure 3.1: Dugway Proving Ground



Note: Located west of Tooele Army Depot, the U.S. Army's expansive Dugway Proving Ground also has access to the Utah Test and Training Range.
Source: Utah Geospatial Resource Center

Table 3.2: Dugway Proving Ground Employment and Spending in Utah, FY 2019 and FY 2023 (Jobs; Millions of Dollars)

Item	FY 2019	FY 2023	Difference	Change
Employment (Jobs)	657	621	-36	-5.5%
Wages				
Nominal (no inflation adjustment)	\$57.8	\$50.0	-\$7.9	-13.6%
Real (2023 Dollars)	\$69.6	\$50.0	-\$19.6	-28.2%
Nonpayroll spending				
Nominal (no inflation adjustment)	\$56.8	\$53.9	-\$2.9	-5.1%
Real (2023 Dollars)	\$68.3	\$53.9	-\$14.5	-21.2%

Note: Nonpayroll spending consists of contracts, government purchase card transactions, and spending by transient military personnel and visitors. Nominal values are in 2019 dollars for FY 2019 spending and in 2023 dollars for FY 2023 spending. Real values are adjusted for inflation to 2023 dollars for FY 2019 spending. With no inflation adjustment needed for FY 2023 spending, the nominal and real values are the same. Spending differences may not match exactly due to rounding.
Source: Kem C. Gardner Policy Institute analysis of data from Dugway Proving Ground and USAspending.gov

Total direct civilian and military wages from DPG amounted to \$50.0 million, 5.1% of all wages paid in Tooele County (Table 3.2).¹³ The average wage of employees at Dugway Proving Ground was \$80,449, 59.5% above the countywide average of \$50,425. An additional 575 military contractors and school, hotel, credit union, and other workers at the garrison did not

receive their pay directly from the Army. DPG’s FY 2023 wages decreased 28.2% from the \$69.6 million paid in FY 2019, adjusting for inflation, which was 20.3% over four years.

Dugway Proving Ground’s FY 2023 contract spending in Utah totaled \$49.9 million. In addition, DPG spent \$1.8 million in-state using government purchase cards and generated \$2.2 million in visitor spending.¹⁴ Total in-state nonpayroll spending amounted to \$53.9 million (Table 11).¹⁵ Of the total, 59.6% went to professional, scientific, and technical services; 22.6% to construction; 5.2% to administrative, support, and waste management services; and the remaining 12.5% to various sectors (Table 12 and Figure 9). FY 2023 spending was 21.2% lower than inflation-adjusted FY 2019 spending, in part due to variation in the in-state share of total purchases.

Dugway Proving Ground’s operations supported approximately 2,046 jobs in Utah in FY 2023 and \$139.1 million in personal income (Figure 3.3). These totals consist of 621 direct jobs at DPG itself, with \$64.5 million in personal income, plus an estimated 1,425 indirect and induced jobs, with \$74.6 million in personal income. In FY 2023, DPG also generated an estimated \$232.9 million in gross domestic product (GDP) statewide and \$395.4 million in output.

Dugway Proving Ground generated significant economic impacts in and beyond its home county. Most impacts were in Tooele County, where DPG directly or indirectly provided 1,350 jobs, \$71.6 million in personal income, and \$146.4 million in GDP in FY 2023 (Table 3.4). Over 1.8% of Tooele County’s personal income and nearly 4.5% of its GDP can be attributed to the installation. Salt Lake County experienced the next largest impacts, followed by Utah County. An additional six counties had at least five jobs supported by DPG.

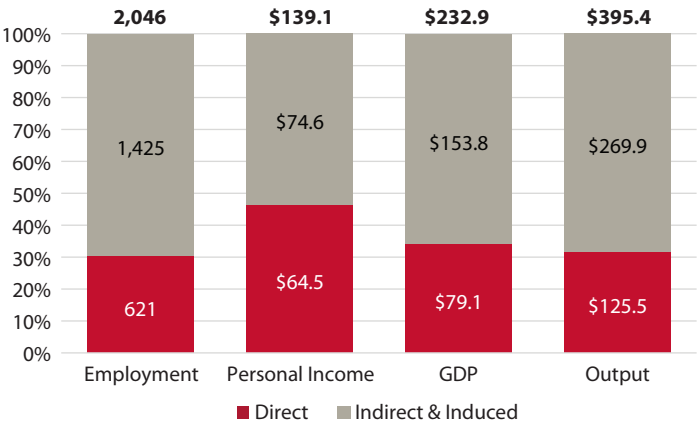
Dugway Proving Ground’s activities also generate fiscal impacts for the state. These arise through the changes in income, output, and population that result from the economic activity of the Proving Ground. In FY 2023, DPG’s activities directly and

Table 3.3: Dugway Proving Ground Nonpayroll Spending in Utah by Industry, FY 2023

Sector	Amount
Construction	\$12,184,172
Manufacturing	\$2,300,126
Wholesale Trade	\$438,961
Retail Trade	\$589,073
Transportation	\$453,943
Information	\$120,577
Real Estate and Rental	\$18,101
Professional, Scientific and Technical Services	\$32,118,646
Admin, Support, and Waste Management	\$2,819,540
Educational Services	\$1,444
Accommodation and Food Services	\$2,197,525
Other Services	\$613,985
Total	\$53,856,093

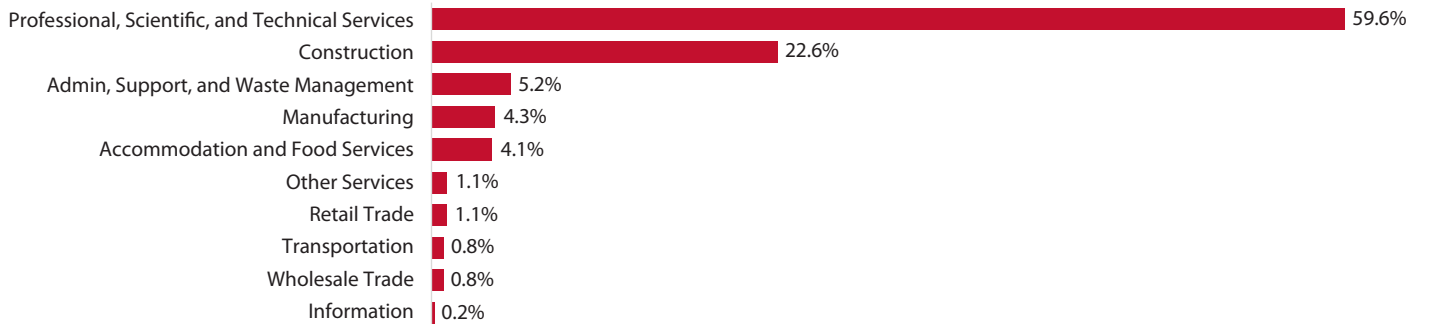
Note: Spending consists of contracts, government purchase card transactions, and spending by transient military personnel and visitors.
Source: Dugway Proving Ground and USAspending.gov

Figure 3.3: Statewide Economic Impacts of Dugway Proving Ground, FY 2023
(Jobs; Millions of Dollars)



Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Figure 3.2: Dugway Proving Ground Nonpayroll Spending in Utah by Industry, FY 2023



Note: DPG’s nonpayroll spending totaling \$53.1 million included small amounts in the real estate and rental sector and in educational services, each representing less than 0.1% of the total (see Table 3.3).
Source: Dugway Proving Ground and USAspending.gov

Table 3.4: Dugway Proving Ground Economic Impacts by County, FY 2023

(Millions of Dollars; Percentage of Countywide Total for All Sectors)

County	Employment		Personal Income		Gross Domestic Product		Output	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Tooele	1,350	4.66%	\$71.6	1.83%	\$146.4	4.49%	\$241.5	3.97%
Salt Lake	412	0.04%	\$37.5	0.05%	\$54.5	0.04%	\$96.5	0.04%
Utah	140	0.03%	\$14.5	0.04%	\$14.6	0.03%	\$25.5	0.03%
All Others	144	0.02%	\$15.5	0.02%	\$17.3	0.00%	\$32.0	0.02%
Total	2,046	0.08%	\$139.1	0.07%	\$232.9	0.08%	\$395.4	0.08%

Note: Economic impacts include direct, indirect, and induced effects. Counties not listed separately had fewer than 100 jobs from total employment impacts. Shares equal impacts divided by economic activity across all sectors in the county (or state, for the Total row). Totals for dollar amounts may not match exactly due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

indirectly generated an estimated \$6.0 million in state tax revenues, consisting of almost \$3.7 million in individual income taxes, \$335,700 in corporate income taxes, and almost \$2.0 million in state sales taxes (Table 3.5). The additional population supported by DPG's economic impact caused an estimated \$1.9 million in state government operating expenditures, comprising \$1.0 million in non-education expenditures, \$441,400 in public education expenditures, and \$412,900 in higher education expenditures. The additional population also generated \$203,100 in state government capital expenditures. The net fiscal impact was \$3.9 million in revenue.

Table 3.5: State Fiscal Impacts of Dugway Proving Ground, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$3.7
Corporate Income Tax Revenues	\$0.3
State Sales Tax Revenues	\$2.0
Total State Tax Revenues	\$6.0
State Non-Education Expenditures	(\$1.0)
State Public Education Expenditures	(\$0.4)
State Higher Education Expenditures	(\$0.4)
Total State Operating Expenditures	(\$1.9)
State Capital Expenditures	(\$0.2)
Total State Expenditures	(\$2.1)
Net State Fiscal Impact	\$3.9

Note: Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

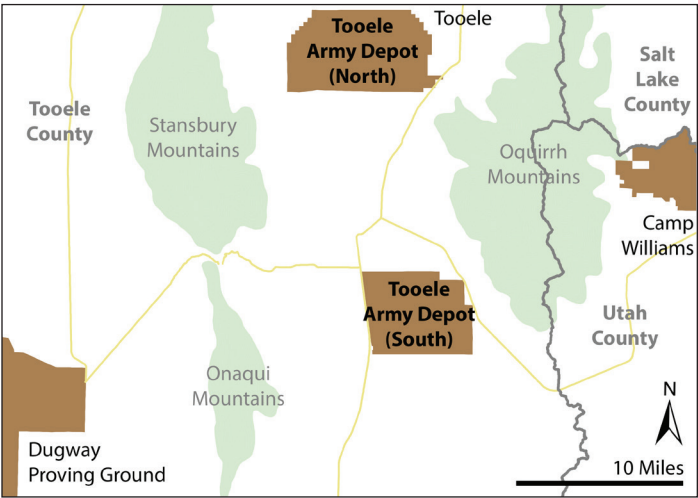
Section 4: Tooele Army Depot

The Tooele Army Depot (TEAD) is a large employer in Utah's 6th most populous county. Since 1942, TEAD has provided ammunition logistics, including production, testing, and demilitarization.¹⁶ Its skilled personnel transport and maintain weapons in hundreds of structures used for secure storage. The 44,000-acre military installation is located on two sites in Tooele County: one partly within the city of Tooele and another 16 miles southward (Figure 4.1). Both locations are just west of Salt Lake and Utah counties.

In FY 2023, Tooele Army Depot provided 476 jobs, accounting for 1.6% of the countywide total for all sectors. During the year, these jobs were filled by 550 unique civilian employees and one military officer.¹⁷ Most of them—468 individuals (84.9%)—lived in Tooele County. The remainder commuted from Salt Lake, Utah, Davis, and other counties (Table 4.1). TEAD's FY 2023 employment was up 3.7% from 459 jobs in FY 2019 (Table 18).

Total federal and civilian wages at Tooele Army Depot amounted to \$35.4 million in FY 2023, representing 3.6% of all wages paid in

Figure 4.1: Tooele Army Depot



Source: Utah Geospatial Resource Center

the county (Table 4.2).¹⁸ The average wage of TEAD employees was \$74,459, which was 47.7% above the countywide average of \$50,425. While FY 2023 TEAD wages were \$3.6 million higher, in nominal terms, than in FY 2019, after adjusting for inflation (20.3% over four years), real wages were \$2.9 million lower.

Tooele Army Depot's nonpayroll expenditures in Utah totaled \$12.0 million, consisting of \$9.4 million in contracts and \$2.6 million in government purchase card spending (Table 4.3 and Figure 4.2). Of the total, 25.0% was for construction; 17.5% for other services, including repair and maintenance; and 15.7% for manufacturing. Since FY 2019, Tooele Army Depot's nonpayroll spending has decreased by \$11.5 million, adjusted for inflation, primarily due to a change in contract award amounts (Table 4.2).

Table 4.1: Tooele Army Depot Employment by County of Residence, FY 2023

County	Employees	Share
Tooele	468	84.9%
Salt Lake	44	8.0%
Utah	19	3.4%
Davis	11	2.0%
Weber	5	0.9%
Sanpete	2	0.4%
Cache	1	0.2%
Juab	1	0.2%
Total	551	100.0%

Source: Tooele Army Depot

Table 4.2: Tooele Army Depot Employment and Spending in Utah, FY 2019 and FY 2023 (Jobs; Millions of Dollars)

Item	FY 2019	FY 2023	Difference	Change
Employment (Jobs)	459	476	17	3.7%
Wages				
Nominal (no inflation adjustment)	\$31.9	\$35.4	\$3.6	11.2%
Real (2023 Dollars)	\$38.3	\$35.4	-\$2.9	-7.6%
Nonpayroll spending				
Nominal (no inflation adjustment)	\$19.5	\$12.0	-\$7.6	-38.7%
Real (2023 Dollars)	\$23.5	\$12.0	-\$11.5	-49.0%

Note: The FY 2019 headcount of 531 employees was adjusted to an average employment level based on the FY 2023 jobs-to-population ratio of 0.864. Nonpayroll spending includes contracts and government purchase card transactions. Nominal values are in 2019 dollars for FY 2019 spending and in 2023 dollars for FY 2023 spending. Real values are adjusted for inflation to 2023 dollars for FY 2019 spending. With no inflation adjustment needed for FY 2023 spending, the nominal and real values are the same.

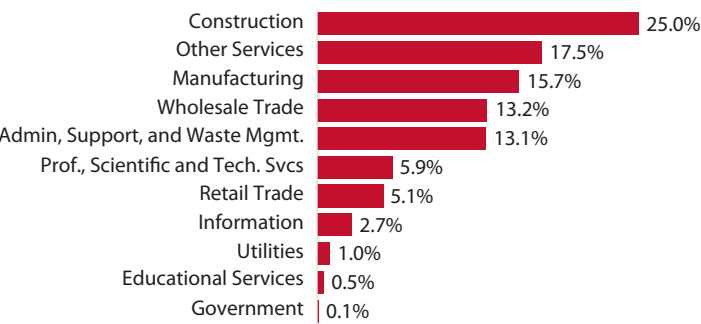
Source: Kem C. Gardner Policy Institute analysis of data from Tooele Army Depot and USAspending.gov

Table 4.3: Tooele Army Depot Nonpayroll Spending in Utah by Industry, FY 2023

Sector	Amount
Utilities	\$117,129
Construction	\$2,999,049
Manufacturing	\$1,884,767
Wholesale Trade	\$1,587,146
Retail Trade	\$615,377
Transportation	\$3,627
Information	\$320,357
Real Estate and Rental	\$888
Professional, Scientific and Technical Services	\$704,721
Admin, Support, and Waste Management	\$1,572,151
Educational Services	\$58,613
Health Care and Social Assistance	\$2,658
Arts, Entertainment, and Recreation	\$3,180
Accommodation and Food Services	\$4,640
Other Services	\$2,096,416
Government	\$7,878
Total	\$11,978,598

Note: Spending includes contracts and government purchase card transactions. Source: Tooele Army Depot and USAspending.gov

Figure 4.2: Tooele Army Depot Nonpayroll Spending in Utah by Industry, FY 2023



Note: TEAD’s \$12.0 million in total nonpayroll spending included amounts below 0.1% of the total in each of the following sectors: government; accommodation and food service; transportation; arts, entertainment, and recreation; health care and social assistance; and real estate and rental services (Table 4.3).
Source: Tooele Army Depot and USAspending.gov

In FY 2023, Tooele Army Depot’s employment, payroll, and other expenditures supported 1,039 jobs in Utah and \$77.6 million in personal income (Figure 4.3). This consisted of 476 jobs and \$45.7 million in personal income at the installation itself, plus an estimated additional 563 indirect and induced jobs and \$31.9 million in personal income. TEAD’s operations also contributed an estimated \$127.8 million to gross domestic product (GDP) statewide and \$216.4 million in output.

Tooele Army Depot’s economic impacts reach the local community and beyond. Based on employment, personal income, GDP, and output, 35% to 47% of TEAD’s economic impacts are outside its home county (Table 4.4). Tooele County received the largest economic benefits from the Army Depot: 672 jobs, \$41.0 million in personal income, \$82.2 million in GDP, and \$134.9 million in output. These impacts accounted for 2.3% of jobs in Tooele County and 2.5% of the value added (GDP) created at workplaces there in FY 2023. In Salt Lake County, an estimated 215 jobs and \$20.4 million in personal income came directly or indirectly from TEAD. Its economic impacts in five other counties included at least five local jobs.

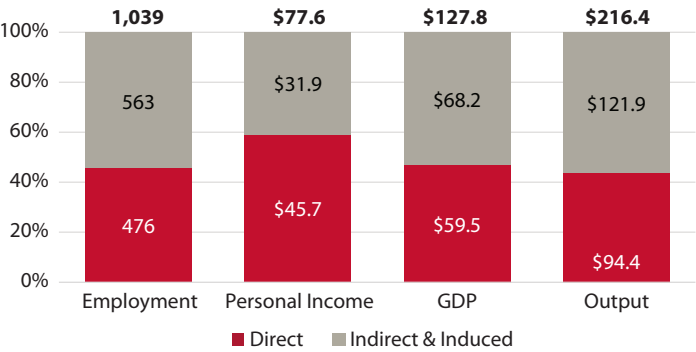
In addition to the economic impacts just noted, Tooele Army Depot has fiscal impacts on the state’s finances. These arise through the changes in income, output, and population that result from the economic activity of the Depot. In FY 2023, TEAD’s activities directly and indirectly generated an estimated

Table 4.5: State Fiscal Impacts of Tooele Army Depot, FY 2023 (Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$2.0
Corporate Income Tax Revenues	\$0.2
State Sales Tax Revenues	\$0.8
Total State Tax Revenues	\$3.0
State Non-Education Expenditures	(\$0.7)
State Public Education Expenditures	(\$0.3)
State Higher Education Expenditures	(\$0.3)
Total State Operating Expenditures	(\$1.3)
State Capital Expenditures	(\$0.1)
Total State Expenditures	(\$1.5)
Net State Fiscal Impact	\$1.6

Note: Individual impacts may not sum to totals due to rounding.
Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

Figure 4.3: Statewide Economic Impacts of Tooele Army Depot, FY 2023 (Jobs; Millions of Dollars)



Note: Totals may not match exactly due to rounding.
Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

\$3.0 million in state tax revenues, consisting of \$2.047 million in personal income taxes, \$0.160 million in corporate income taxes, and \$0.839 million in state sales taxes (Table 4.5). The additional population supported by TEAD’s economic impact caused an estimated \$1.3 million in state expenditures, comprising \$710,800 in non-education expenditures, \$331,000 of public education expenditures, and \$280,800 of higher education expenditures. The additional population also generated \$143,800 in state government capital expenditures. The estimated net fiscal impact is \$1.6 million in revenue.

Table 4.4: Tooele Army Depot Economic Impacts by County, FY 2023 (Millions of Dollars; Percentage of Countywide Total for All Sectors)

County	Employment		Personal Income		Gross Domestic Product		Output	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Tooele	672	2.32%	\$41.0	1.05%	\$82.2	2.52%	\$134.9	2.22%
Salt Lake	215	0.02%	\$20.4	0.02%	\$28.4	0.02%	\$50.3	0.02%
All Others	152	0.01%	\$16.3	0.01%	\$17.2	0.01%	\$31.1	0.01%
Total	1,039	0.04%	\$77.6	0.04%	\$127.8	0.04%	\$216.4	0.04%

Note: Economic impacts include direct, indirect, and induced effects. Counties not listed separately had fewer than 100 jobs from total employment impacts. Shares equal impacts divided by economic activity across all sectors in the county (or state, for the Total row). Totals for dollar amounts may not match exactly due to rounding.
Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Section 5: Utah National Guard

The Utah National Guard (UTNG) is a significant employer in Utah. UTNG maintains a part-time military force held in reserve for the U.S. Army and Air Force. National Guard members commonly pursue careers as civilians and take leave when activated for full-time service. The Governor can activate guardmembers for in-state emergencies, and the Army and Air Force can activate guardmembers for active-duty service abroad.¹⁹ UTNG has nearly three part-time guardmembers for every full-time guardmember.

The National Guard has an armory or readiness center in 14 of Utah's 29 counties (Figure 5.1). With 5,813 jobs in Salt Lake County, most UTNG employment is at or near the Draper headquarters or Roland R. Wright Air National Guard Base (Table 23). Utah County also has a particularly strong National Guard presence with Camp Williams and several armories.

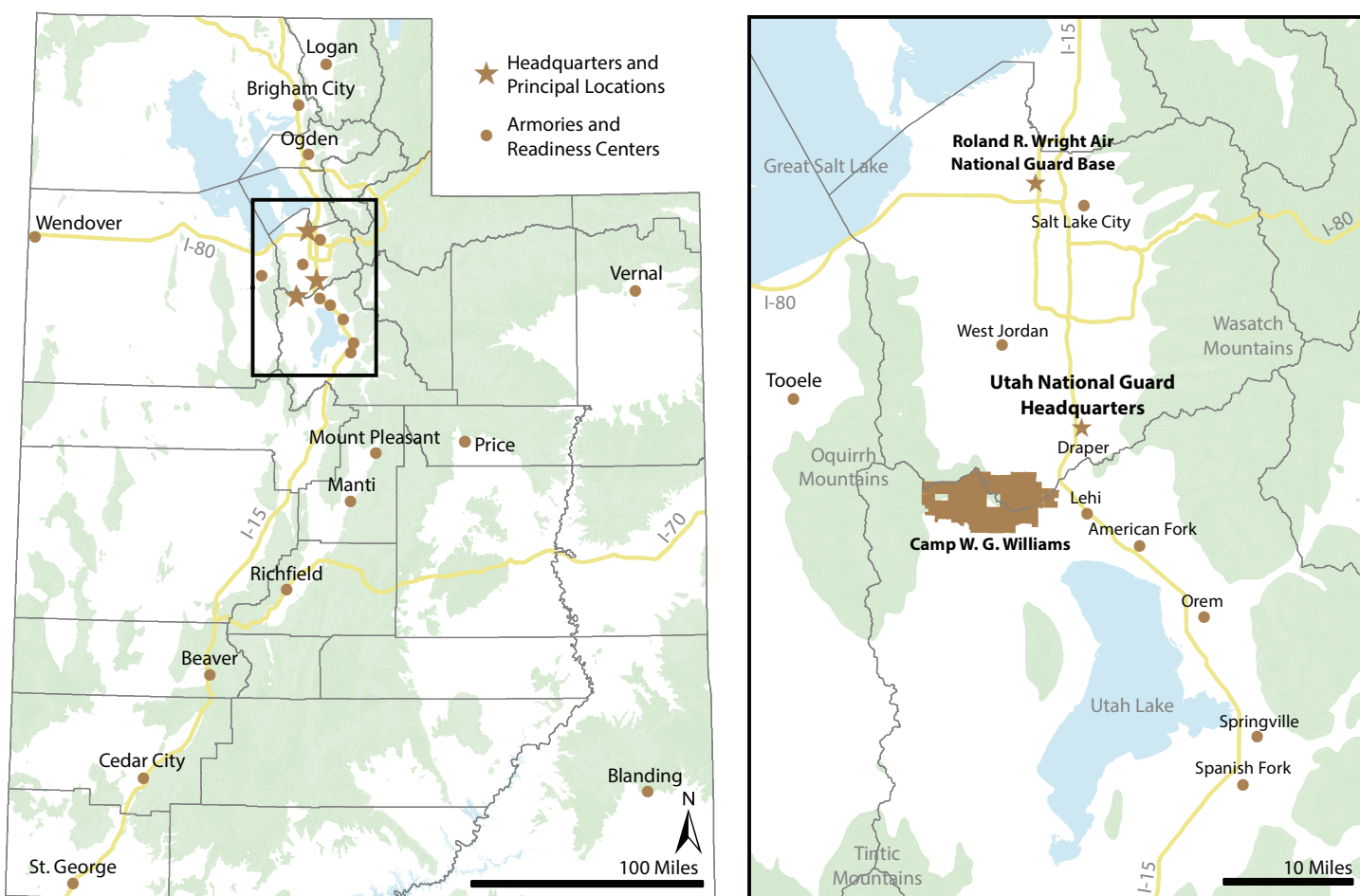
Utah National Guard employment in FY 2023 totaled 8,348 full- and part-time jobs, paying \$325.1 million in wages and salaries. The Army National Guard provided approximately 80%

of total UTNG employment, and the Air National Guard provided the remaining 20%.²⁰ Together, the two UTNG service branches employed 6,086 part-time traditional guardmembers (72.9% of total employment) and 1,140 active-duty military personnel (13.7%). UTNG also provided 1,122 civilian jobs (13.4%).

Compared with FY 2019, federally funded Utah National Guard employment was 517 jobs higher in FY 2023 (Table 5.2). This increase was primarily from part-time traditional guardmembers. Wages for federally funded positions at UTNG rose from \$309.1 million in FY 2019 to \$325.1 million in FY 2023. However, with general price increases of 20.3%, inflation-adjusted wages decreased by \$46.8 million.

As for FY 2023 nonpayroll spending, the Utah National Guard spent \$37.4 million of federal funds in-state (Table 5.3). This amount consists of \$30.0 million in contracts,²¹ an estimated \$3.5 million in government purchase card transactions,²² and an estimated \$3.8 million in visitor spending.²³ Combining the three expenditure streams, construction spending was \$17.7

Figure 5.1: Utah National Guard



Note: The enlarged inset map on the right shows locations for Salt Lake and Utah counties, which correspond to the extent indicator frame on the statewide map to the left. Markers represent one or more facilities assigned to National Guard units. Cities and towns without a Guard facility are not shown.

Source: Utah National Guard and Utah Geospatial Resource Center

Table 5.1: Utah National Guard Employment by County, FY 2023

(Number of Jobs by Place of Work)

County	Civilian		Military		Total
	DOD Employees	Federally Reimbursed State Employees	Active Duty Personnel	Traditional Guardmembers	
Beaver	3	0	5	83	91
Box Elder	0	0	3	92	95
Cache	5	0	8	72	85
Carbon	0	1	2	77	80
Iron	1	1	13	85	100
Salt Lake	788	219	957	3,849	5,813
San Juan	0	1	2	16	19
Sanpete	6	0	6	117	129
Sevier	7	1	4	81	93
Tooele	8	4	3	134	149
Uintah	6	0	3	25	34
Utah	24	18	79	900	1,021
Washington	13	4	15	272	304
Weber	11	1	40	283	335
Total	872	250	1,140	6,086	8,348
Share	10.4%	3.0%	13.7%	72.9%	100.0%

DOD = U.S. Department of Defense
Source: Utah National Guard, 2023 Annual Report

million, accounting for 47.3% of the nonpayroll total (Figure 5.2). Six other sectors also received more than \$1.0 million from UTNG. UTNG’s FY 2019 inflation-adjusted spending was \$66.9 million, higher than in FY 2023 (Table 5.2).

The Utah National Guard had significant economic impacts across the state. The following analysis considers military personnel, federal civilian employees, federally reimbursed state employees, and federally funded spending. It does not include state-funded spending or employment (45 jobs) related to UTNG. The National Guard’s federal employment, payroll, and in-state spending generated 10,228 jobs and \$805.2 million in personal income in Utah in FY 2023 (Figure 5.3). UTNG also directly or indirectly supported \$1.4 billion in gross domestic product (GDP) in the state and \$2.3 billion in output.

The Utah National Guard supports urban and rural economies in every county. Economic impacts concentrated around the Air and Army National Guard headquarters in Salt Lake County, with its 6,912 jobs and \$492.7 million in personal income (Table 5.4). The 6,912 full- and part-time jobs represented 0.7% of total employment in Salt Lake County. Meanwhile, 29% to 39% of statewide UTNG economic impacts were in Utah, Davis, Weber, Washington, Tooele, Cache, and other counties. Including the counties named above, the Utah National Guard generated at least 30 jobs and \$2.0 million in personal income in each of 16 counties.

Table 5.2: Utah National Guard Employment and Spending in Utah, FY 2019 and FY 2023

(Jobs; Millions of Dollars)

Item	FY 2019	FY 2023	Difference	Change
Employment (Jobs)	7,831	8,348	517	6.6%
Wages				
Nominal (no inflation adjustment)	\$309.1	\$325.1	\$16.0	5.2%
Real (2023 Dollars)	\$371.9	\$325.1	-\$46.8	-12.6%
Nonpayroll spending				
Nominal (no inflation adjustment)	\$55.6	\$37.4	-\$18.2	-32.7%
Real (2023 Dollars)	\$66.9	\$37.4	-\$29.5	-44.1%

Note: Employment and wages represent the workforce funded by the federal government, either directly or via reimbursement to the state. This table does not include state employees at UTNG whose pay is not federally reimbursed, 44 jobs in FY 2019 and 45 jobs in FY 2023. Nonpayroll spending consists of contracts and government purchase card transactions for both years. The FY 2023 amount also added visitor spending. Nominal values are in 2019 dollars for FY 2019 spending and in 2023 dollars for FY 2023 spending. Real values are adjusted for inflation to 2023 dollars for FY 2019 spending. With no inflation adjustment needed for FY 2023 spending, the nominal and real values are the same. Source: Kem C. Gardner Policy Institute analysis of data from Utah National Guard, annual reports and personal communication, as well as USAspending.gov

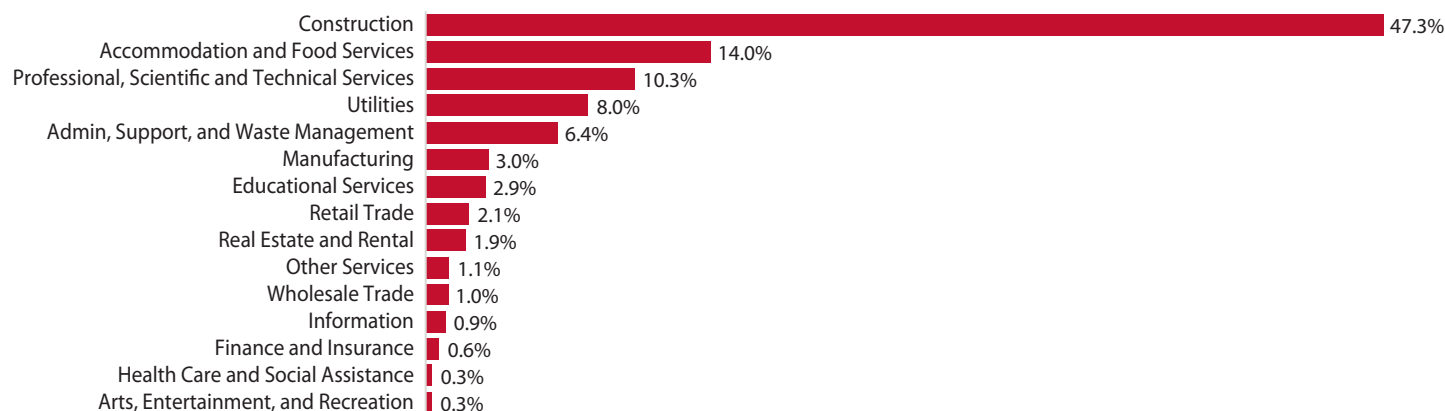
Table 5.3: Utah National Guard Nonpayroll Spending in Utah by Industry, FY 2023

Sector	Total
Mining	\$1,037
Utilities	\$2,985,313
Construction	\$17,692,625
Manufacturing	\$1,118,763
Wholesale Trade	\$374,560
Retail Trade	\$779,148
Transportation	\$12,568
Information	\$344,703
Finance and Insurance	\$231,007
Real Estate and Rental	\$708,486
Professional, Scientific and Technical Services	\$3,836,511
Management of Companies and Enterprises	\$1,894
Admin, Support, and Waste Management	\$2,402,136
Educational Services	\$1,070,945
Health Care and Social Assistance	\$102,318
Arts, Entertainment, and Recreation	\$98,454
Accommodation and Food Services	\$5,222,427
Other Services	\$412,269
Total	\$37,395,164

Note: Spending consists of contracts, government purchase card transactions, and travel spending by visitors.
Source: Utah National Guard and USAspending.gov

National Guard activities also generate fiscal impacts for the state. These arise through the changes in income, output, and population that result from the economic activity of the National Guard. Fiscal impacts amounted to \$40.3 million in income and sales tax revenues, \$24.0 million in education and noneducation operating expenditures, and \$2.6 million in state capital expenditures in FY 2023 (Table 5.5). The net fiscal impact was \$13.6 million in revenue.

Figure 5.2: Utah National Guard Nonpayroll Spending in Utah by Industry, FY 2023

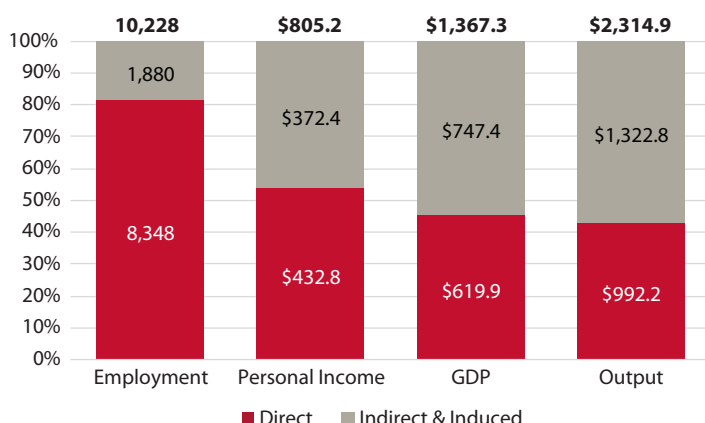


Note: UTNG's \$37.4 million in total nonpayroll spending included amounts below 0.1% of the total in each of three industries: transportation, management of companies and enterprises; and mining (Table 5.3).

Source: Utah National Guard and USAspending.gov

Figure 5.3: Statewide Economic Impacts of the Utah National Guard, FY 2023

(Jobs; Millions of Dollars)



Note: Direct employment comprises active-duty Guard personnel, traditional guardmembers, federal civilian technicians, and federally funded state employees. Totals may not match exactly due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 5.5: State Fiscal Impacts of the Utah National Guard, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$24.8
Corporate Income Tax Revenues	\$2.2
State Sales Tax Revenues	\$13.3
Total State Tax Revenues	\$40.3
State Non-Education Expenditures	(\$13.2)
State Public Education Expenditures	(\$4.7)
State Higher Education Expenditures	(\$6.2)
Total State Operating Expenditures	(\$24.0)
State Capital Expenditures	(\$2.6)
Total State Expenditures	(\$26.7)
Net State Fiscal Impact	\$13.6

Note: Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

Table 5.4: Utah National Guard Economic Impacts by County, FY 2023

(Millions of Dollars; Percentage of Countywide Total for All Sectors)

County	Employment		Personal Income		Gross Domestic Product		Output	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Salt Lake	6,912	0.7%	\$492.7	0.6%	\$972.0	0.7%	\$1,635.0	0.7%
Utah	1,327	0.3%	\$117.7	0.3%	\$149.9	0.3%	\$254.1	0.3%
Davis	536	0.2%	\$60.2	0.3%	\$58.3	0.2%	\$108.2	0.2%
Weber	418	0.3%	\$36.4	0.3%	\$55.0	0.3%	\$94.9	0.3%
Washington	224	0.2%	\$14.7	0.1%	\$26.6	0.2%	\$43.9	0.2%
Tooele	126	0.4%	\$16.1	0.4%	\$17.7	0.5%	\$30.1	0.5%
Cache	121	0.1%	\$8.5	0.1%	\$13.9	0.2%	\$24.0	0.1%
All Others	564	0.2%	\$58.8	0.2%	\$73.9	0.2%	\$124.7	0.2%
Total	10,228	0.4%	\$805.2	0.4%	\$1,367.3	0.5%	\$2,314.9	0.5%

Note: Economic impacts include direct, indirect, and induced effects. Counties not listed separately had fewer than 100 jobs from total employment impacts. Shares equal impacts divided by economic activity in all sectors in the county (or state for the "Total" row).

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Section 6: Military Reserves, Recruiting, and Higher Education

Along with Air Force and Army installations in Utah, additional defense components support military personnel readiness in the state. In FY 2023, military reserves, recruiting, ROTC programs, and tuition assistance provided 6,049 jobs and \$7.4 million in spending in Utah (Table 6.1). The reserves include traditional reservists with part-time responsibilities unless they are mobilized for active-duty service for national defense. At recruiting stations and offices, active-duty personnel and civilian staff provide information and services to the public. Reserve Officers' Training Corps (ROTC) programs at several universities in Utah serve students who receive instruction and financial support while preparing for military service after graduation. U.S. Department of Defense support for higher education also includes tuition assistance for military personnel attending Utah colleges and universities.

Table 6.1: Employment and Spending for Military Reserves, Recruiting, ROTC, and Tuition Assistance in Utah, FY 2019 and FY 2023
(Jobs; Millions of Dollars)

Component	FY 2019	FY 2023	Change ¹
Employment			
Reservists	4,821	4,779	-0.9%
Reserves - Active Duty and Civilian	605	723	19.5%
Recruiting - Active Duty and Civilian	421	472	12.1%
ROTC Professors and Staff ²	82	75	-8.5%
Total	5,929	6,049	2.0%
Funding for College Students³			
ROTC Scholarships ⁴			
Nominal (no inflation adjustment)	\$3,501,466	\$3,036,366	N/A
Real (2023 Dollars)	\$4,213,315	\$3,036,366	N/A
ROTC Stipends ⁴			
Nominal (no inflation adjustment)	\$1,252,113	\$1,065,973	N/A
Real (2023 Dollars)	\$1,506,668	\$1,065,973	N/A
DOD Tuition Assistance	N/A	\$3,279,789	N/A
Total⁵	N/A	\$7,382,129	N/A

N/A = not available (due to data coverage differences, a simple percentage change is not meaningful)

Notes:

1. ROTC spending comparisons are not available due to differences between years in data coverage for ROTC financial assistance to students and since DOD Tuition Assistance for current service members is available for FY 2023 but not FY 2019.
2. All ROTC values are for the academic years 2019–20 and 2023–24.
3. Nominal values are in 2019 dollars for FY 2019 spending and in 2023 dollars for FY 2023 spending. Real values are adjusted for inflation to 2023 dollars for FY 2019 spending. With no inflation adjustment needed for FY 2023 spending, the nominal and real values are the same.
4. Due to data limitations, ROTC scholarship and stipend amounts include Utah State University's Air Force ROTC program for the 2019–20 academic year (and not for 2023–24) and Weber State University's Army ROTC program for 2023–24 (but not for 2019–20); ROTC employment data is complete for both academic years.
5. Due to rounding, spending totals may not match exactly.

Source: Military reserves, recruiting, and ROTC units, personal communication; U.S. Department of Defense, Tuition Assistance DECIDE tool

Military Reserves

Four reserve branches of the U.S. Armed Forces provided 5,502 jobs in Utah in FY 2023. They included 4,779 reservists, 303 active-duty military personnel, and 420 federal civilians (Table 6.2). This substantial employment is somewhat larger than the reserves' 5,426 jobs in FY 2019. Most military personnel were reservists who drill on weekends and two weeks a year to prepare for active-duty deployments. Active-duty personnel and civilian employees generally work full-time to train and support reservists.

At Hill Air Force Base, the 419th Fighter Wing employed 1,067 traditional reservists, 96 dual reservists/civilian employees, 81 Active Guard Reserve personnel, and an additional 142 civilians in FY 2023. Meanwhile, the Army Reserve had 3,580 personnel based in Utah, reporting to the 76th Operational Response Command at Fort Douglas.²⁴ These included 3,210 reservists, 190 active-duty military personnel, and 180 civilian employees. As for the Navy Reserve, 346 reservists, 19 active-duty military personnel, and one civilian employee worked at the Navy Reserve Center at Fort Douglas. Finally, Utah is home to soldiers in two Marine Corps Reserve units in the 23rd Marine Regiment. Company F of the 2nd Battalion consisted of 82 reservists and 13 active-duty personnel operating out of Fort Douglas, while Company C of the 4th Battalion included 74 reservists in Utah, with active-duty personnel and civilian employees at the company's command in Boise, Idaho.²⁵

The statewide economic impact of military reserves employment included 6,700 Utah jobs and \$456.9 million in personal income (Figure 6.1). These consisted of 5,502 direct jobs with \$139.3 million in personal income and 1,198 indirect and induced jobs with \$317.6 million in personal income in FY 2023. The presence of military reserve operations also contributed an estimated \$954.2 million to the state's gross domestic product

Table 6.2: Reserves Employment in Utah, FY 2023

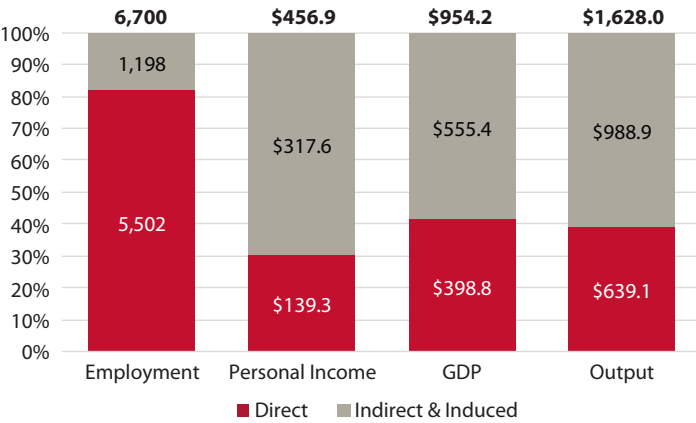
Service	Military		Civilian Employee	Total
	Reservist	Active Duty		
Air Force	1,067	81	238	1,386
Army	3,210	190	180	3,580
Navy	346	19	1	366
Marine Corps	156	13	1	170
Total	4,779	303	420	5,502

Note: Air Force Reserve civilians include 96 dual civilian/military personnel, Air Reserve Technicians, who are counted in both columns. For the Army Reserve, the 76th Operational Response Command estimated active duty and reservist portions of the total number of military personnel (3,400).

Source: Kem C. Gardner Policy Institute personal communication with the 419th Fighter Wing (U.S. Air Force), 76th Operational Response Command (U.S. Army), Navy Reserve Center Salt Lake City, and 23rd Marine Regiment, 2nd Battalion, Company F (which also provided data for Company C in the 4th Battalion)

Figure 6.1: Statewide Economic Impacts of Military Reserves, FY 2023

(Jobs; Millions of Dollars)



Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 6.3: State Fiscal Impacts of Military Reserves, FY 2023
(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$12.0
Corporate Income Tax Revenues	\$1.4
State Sales Tax Revenues	\$8.4
Total State Tax Revenues	\$21.8
State Non-Education Expenditures	(\$6.5)
State Public Education Expenditures	(\$2.6)
State Higher Education Expenditures	(\$2.9)
Total State Operating Expenditures	(\$11.9)
State Capital Expenditures	(\$1.3)
Total State Expenditures	(\$13.2)
Net State Fiscal Impact	\$8.6

Note: Individual impacts may not sum to totals due to rounding.
Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

(GDP) and \$1,628.0 million in output. The associated fiscal impacts of the military reserves included \$21.8 million in state tax revenues, \$11.9 million in state operating expenditures, and \$1.3 million in state capital expenditures (Table 6.3). The net fiscal impact on the state was \$8.6 million in revenues in FY 2023.

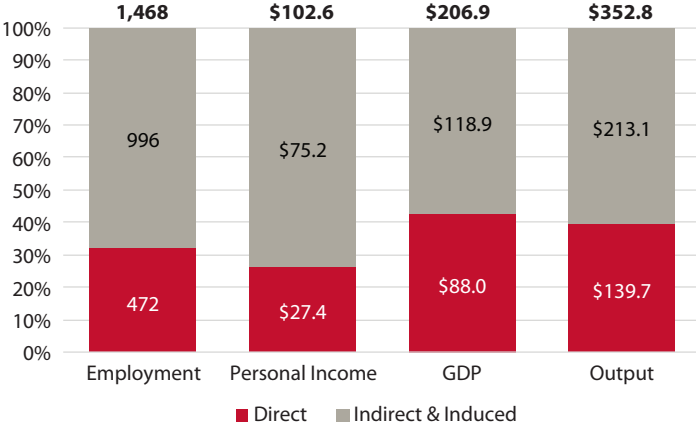
Military Recruiting

Active-duty recruiters and defense civilians in Utah provide information and services for residents who may enter military service. Recruiting storefronts and offices operate in many communities, with outreach in every county. Total recruiting employment, estimated at 472 jobs—87% filled by military personnel—represents a potential increase from the 421 military recruiting jobs the state had in FY 2019 (Table 6.4).

Military recruiting in Utah occurs through four service branches and two additional components funded by the U.S.

Figure 6.2: Statewide Economic Impacts of Military Recruiting, FY 2023

(Jobs; Millions of Dollars)



Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 6.4: Military Recruiting Employment in Utah, FY 2023

Component	Military	Civilian	Total
Army	105	20	125
Navy	40	2	42
Air Force	78	10	88
Marine Corps	52	2	54
Utah National Guard	126	4	130
Military Entrance Processing Squadron	11	22	33
Total	412	60	472

Note: Air Force and Guard recruiting employment are also included in employee counts for Hill Air Force Base and the Utah National Guard, respectively. The Army and Navy reported Utah employment for FY 2019, included above in the absence of FY 2023 updates.
Source: Personal communication with U.S. Army 6J Recruiting Battalion, Salt Lake City; U.S. Air Force 372nd Recruiting Group; Utah Air National Guard and Utah Army National Guard; 8th Marine Corps District, Recruiting Station Salt Lake City; Navy Talent Acquisition Group Rocky Mountain; and Military Entrance Processing Squadron.

Department of Defense (DOD). The Utah National Guard provided the most recruiting employment in FY 2023, totaling 130 jobs, with 120 in the Army National Guard and 10 in the Air National Guard. Air Force employment in the 372nd Recruiting Group at Hill Air Force Base (AFB), totaling 88 Utah jobs, reflected two squadrons’ in-state operations and group leadership for several out-of-state squadrons. The 348th Squadron for health professions also operates from Hill AFB, and the 368th Recruiting Squadron has offices in several counties in Utah. Due to the absence of FY 2023 updates on Army and Navy employment, FY 2019 data were the most recent available.²⁶

The direct statewide 412 military and 60 federal civilian recruiting jobs in FY 2023 generated 1,468 total Utah jobs and \$102.6 million in personal income (Figure 6.2). In addition to the 472 DOD jobs with \$27.4 million in direct personal income, total economic impacts included 996 indirect and induced jobs and \$75.2 million of personal income. Recruiting activities also contributed \$206.9 million to state GDP and \$352.8 million in

Table 6.5: State Fiscal Impacts of Military Recruiting, FY 2023
(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$2.7
Corporate Income Tax Revenues	\$0.3
State Sales Tax Revenues	\$2.0
Total State Tax Revenues	\$5.0
State Non-Education Expenditures	(\$2.5)
State Public Education Expenditures	(\$0.6)
State Higher Education Expenditures	(\$1.4)
Total State Operating Expenditures	(\$4.5)
State Capital Expenditures	(\$0.5)
Total State Expenditures	(\$5.0)
Net State Fiscal Impact	\$0.0

Note: Individual impacts may not sum to totals due to rounding.
Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

output. This activity also generated fiscal impacts of \$5.0 million in state income and sales tax revenues, \$4.5 million in education and non-education operating expenditures, and \$496,000 in state capital expenditures (Table 6.5). The net impact was \$18,100 in revenue.

Higher Education

The U.S. Department of Defense develops military talent in partnership with institutions of higher learning. The Army, Navy, and Air Force operate Reserve Officers’ Training Corps (ROTC) programs at four host universities in Utah (Figure 6.3). In addition, 10 in-state colleges and universities received DOD tuition assistance payments for enrolled officers and enlisted personnel already in the service.

During the 2023–24 academic year, ROTC programs at Utah’s universities employed 51 military personnel, 14 federal civilians, and 10 state employees (Table 6.6).²⁷ These programs were part of three service branches: the U.S. Air Force, Army, and Navy.

Air Force ROTC detachments educate student cadets at Utah State University, the University of Utah, and Brigham Young University. During the 2023–24 academic year, their cadres included 23 federally funded military personnel and civilian employees, as well as three state-funded civilian employees. The three universities participate in cross-town arrangements with Salt Lake Community College, Utah Valley University, Weber State University, Westminster University, and Ensign College.

Army ROTC battalions operate at Utah State University, the University of Utah, Weber State University, and Brigham Young University. Together, their 2023–24 employment included 38 federally funded jobs and 6 state-funded jobs. Institutions with cross-town arrangements include Salt Lake Community College, Southern Utah University, Utah Valley University, Weber State University, Westminster University, and Ensign College.

Figure 6.3: Reserve Officers’ Training Corps (ROTC) Programs in Utah by Military Service Branch, 2023–24 Academic Year



Note: The University of Utah’s Naval ROTC Program prepares cadets for Navy and Marine Corps officer commissions. Not shown on the map are affiliate institutions with no ROTC courses on their own campuses but crosstown agreements for particular service branches at universities illustrated on the map: Westminster University (Army, Navy, and Air Force); Salt Lake Community College (Army and Navy); Weber State University (Navy and Air Force); and Ensign College, Southern Utah University, Utah Tech University, and Utah Valley University (Army).
Source: Reserve Officers’ Training Corps programs, personal communication; Utah Geospatial Resource Center

Table 6.6: ROTC Employment in Utah, 2023–24 Academic Year

Institution	Military Personnel	Federal Civilian	State Civilian	Total
Utah State University	9	1	2	12
University of Utah	16	5	3	24
Brigham Young University	22	5	4	31
Weber State University	4	3	1	8
Total	51	14	10	75

Note: Civilian job counts are separated by funding source. ROTC employment is by place of work.
Source: Reserve Officers’ Training Corps (ROTC) programs, personal communication

Only the University of Utah hosts a Naval ROTC battalion, which also serves the Marine Corps. Five military personnel and three civilian employees train cadets enrolled there or at Westminster University.

During the 2023–24 academic year, at least 681 ROTC cadets attended Utah colleges and universities (Table 6.7). Many cadets received financial assistance from ROTC programs, collectively at least \$4.2 million in scholarships and stipends. With two out of three Air Force ROTC programs reporting, 262 college students participated in these programs, which provided \$0.7 million in student scholarships and \$0.3 million in

Table 6.7: Selected ROTC Program Enrollment, Scholarships, and Stipends Paid in Utah, 2023–24 Academic Year

Service and Institution	Enrollment	Financial Assistance for Students		
	Cadets ¹	Scholarships	Stipends	Total
Air Force²				
Brigham Young University ³	184	\$250,694	\$237,500	\$488,194
Utah State University	N/A	N/A	N/A	N/A
University of Utah ⁴	78	\$410,743	\$68,098	\$478,842
Army⁵				
Brigham Young University ⁶	187	\$831,600	\$461,160	\$1,292,760
Utah State University	43	\$180,329	\$97,440	\$277,769
University of Utah ⁷	109	\$656,000	\$170,100	\$826,100
Weber State University	38	\$102,000	\$85,800	\$187,800
Navy/Marine Corps				
University of Utah ⁸	42	\$605,000	\$80,000	\$685,000
Total	681	\$3,036,366	\$1,200,098	\$4,236,465

N/A = Not Available

Note: 1. Student enrollment measured with cadet counts from early Fall 2023. Not every cadet received a scholarship and stipend.

2. The table does not include all Air Force ROTC cadets and scholarships as Utah State University data were not available.

3. BYU AFROTC values also include cadets attending Utah Valley University.

4. U of U AFROTC values may include cadets attending Salt Lake Community College, Weber State University, and Westminster University.

5. Utah Tech University began an Army ROTC program in Fall 2024, after the 2023–24 academic year ended.

6. BYU Army ROTC values may include cadets attending Utah Valley University and Southern Utah University.

7. U of U Army ROTC values may include cadets attending Salt Lake Community College and Westminster University.

8. U of U Naval ROTC values may include cadets attending Weber State University and Westminster University.

Source: Reserve Officers' Training Corps programs, personal communication

stipends. These amounts are for the University of Utah and Brigham Young University. Current Utah State University enrollment and financial assistance data were not available.²⁸ Army ROTC programs served 377 cadets at four universities and paid \$1.8 million in scholarships and \$0.8 million in stipends during the school year. The state's only Naval ROTC battalion involved 42 cadets and provided \$0.7 million in financial assistance to students in the program.

The U.S. Department of Defense (DOD) Tuition Assistance program supports the continuing education of currently serving military personnel.²⁹ In FY 2023, 4,638 participants attended colleges and universities in Utah. DOD payments of \$4.3 million went to public (22.8%) and private (77.2%) colleges and universities (Table 6.8).

The economic impacts of ROTC programs and military tuition assistance in Utah included 363 jobs and \$23.5 million in personal income in 2023 (Figure 6.4). Impacts included direct employment of 65 federal military and civilian jobs at participating ROTC units and an estimated 53 jobs in higher education from \$4.3 million in tuition assistance payments.³⁰ Together, these 118 jobs provided annual personal incomes estimated at \$5.6 million. Consumer and higher education spending from this personal income and \$4.1 million in scholarships and student stipends generated an additional 245 indirect and induced jobs and \$18.0 million in personal

Table 6.8: U.S. Department of Defense Tuition Assistance, FY 2023

Institution	Payment	Share
Western Governors University	\$3,254,539	76.6%
Utah Valley University	\$287,873	6.8%
Weber State University	\$208,250	4.9%
Utah State University	\$167,796	3.9%
University of Utah	\$146,034	3.4%
Southern Utah University	\$66,816	1.6%
Salt Lake Community College	\$63,793	1.5%
Other Institutions	\$55,108	1.3%
Total	\$4,250,209	100.0%

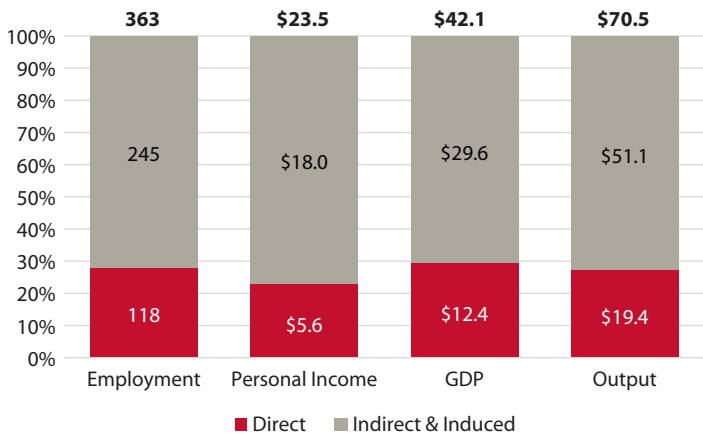
Note: Three institutions received less than \$50,000 each: Utah Tech University, Nightingale College, and Eagle Gate College. DOD payments to Western Governors University (WGU) totaled \$14,128,254 million, adjusted to \$3,254,539 million to address in-state economic activity based on Utah's 23.1% share of WGU's nationwide employment. Totals may not match exactly due to rounding.

Source: U.S. Department of Defense Tuition Assistance DECIDE tool and personal communication with Western Governors University

income.³¹ Overall, ROTC programs and military tuition assistance also contributed \$42.1 million to GDP in Utah and \$70.5 million in output. The fiscal impacts associated with these economic impacts included \$1.2 million in state income and sales tax revenues, \$927,200 in education and non-education expenditures, and \$102,100 in capital expenditures (Table 6.9). This produced a positive net revenue impact of \$174,100.

Figure 6.4: Statewide Economic Impacts of ROTC Programs and Military Tuition Assistance, 2023

(Jobs; Millions of Dollars)



Note: Economic impacts are based on federally funded ROTC employment, scholarships, and cadet stipends, as well as DOD Tuition Assistance payments adjusted for recipient colleges and universities' in-state employment. Direct ROTC activity is for the 2023–24 academic year, and tuition assistance is reported by federal fiscal year, FY 2023. Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model and student and young adult spending profiles from the U.S. Department of Education, Integrated Postsecondary Education Data System, and the U.S. Bureau of Labor Statistics, Consumer Expenditure Survey

Table 6.9: State Fiscal Impacts of ROTC Programs and Military Tuition Assistance, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$0.6
Corporate Income Tax Revenues	\$0.1
State Sales Tax Revenues	\$0.5
Total State Tax Revenues	\$1.2
State Non-Education Expenditures	(\$0.5)
State Public Education Expenditures	(\$0.2)
State Higher Education Expenditures	(\$0.3)
Total State Operating Expenditures	(\$0.9)
State Capital Expenditures	(\$0.1)
Total State Expenditures	(\$1.0)
Net State Fiscal Impact	\$0.2

Note: Individual impacts may not sum to totals due to rounding. Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

Section 7: Veterans

Federal support for veterans in Utah impacts state and local economies in several ways. The U.S. Department of Veterans Affairs (VA) operates a medical center and regional benefits office in Salt Lake City, as well as clinics and Vet Centers around the state (Figure 7.1). The VA and U.S. Department of Defense (DOD) each send Utah veterans hundreds of millions of dollars per year in transfer payments and military pensions. Additionally, VA grants help fund social services through veterans' homes, local government, and nonprofit organizations.

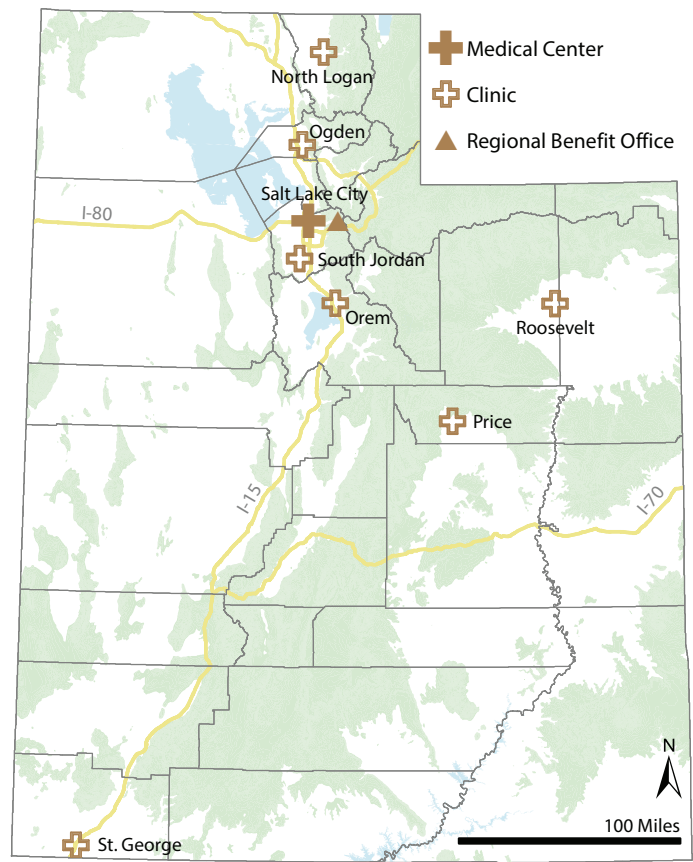
In FY 2023, the VA provided 3,750 jobs in Utah (Table 7.1). VA employment came primarily from its Salt Lake City Healthcare System, with \$407.5 million in employee compensation (Table 7.2). The VA's Salt Lake City Regional Office paid \$119.4 million in compensation. Nonpayroll spending included \$183.4 million in VA contracts and grants and \$1,637.2 million in VA and DOD benefit

Table 7.1: Department of Veterans Affairs Employment in Utah, FY 2019 and FY 2023
(Jobs)

Component	FY 2019	FY 2023	Change
SLC Healthcare System	3,174	2,862	-9.8%
SLC Regional Benefit Office	798	888	11.3%
Total Jobs	3,972	3,750	-5.6%

Note: The VA Salt Lake City Healthcare System and Regional Benefit Office substituted FY 2020 employment for FY 2019.
Source: U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics and personal communication with the Salt Lake City Healthcare System and Regional Benefits Office; U.S. Department of Defense, Office of the Actuary, personal communication; and USAspending.gov

Figure 7.1: VA Facilities for Utah Veterans



Note: The VA also operates Vet Centers for counseling and related services in Murray, Orem, South Ogden, and St. George.
Source: U.S. Department of Veterans Affairs and Utah Geospatial Resource Center

Table 7.2: Federal Spending for Veterans in Utah, FY 2019 and FY 2023

Component	FY 2019 (2019 dollars)	FY 2019 (2023 dollars)	FY 2023 (2023 dollars)	Change (nominal)	Change (real)
VA Employee Compensation					
SLC Healthcare System	\$349,799,241	\$420,913,510	\$407,525,587	16.5%	-3.2%
SLC Regional Benefit Office	\$73,300,000	\$88,201,907	\$119,413,852	62.9%	35.4%
Subtotal	\$423,099,241	\$509,115,417	\$526,939,439	24.5%	3.5%
VA Nonpayroll Spending					
Contracts	\$58,690,268	\$70,622,013	\$129,599,189	120.8%	83.5%
Grants	\$34,774,395	\$41,844,038	\$53,815,939	54.8%	28.6%
Subtotal	\$93,464,663	\$112,466,051	\$183,415,128	96.2%	63.1%
Federal Transfer Payments					
VA Benefits for Veterans and Survivors	\$710,340,884	\$854,753,354	\$1,045,522,334	47.2%	22.3%
DOD Military Retiree Pensions	\$475,643,602	\$572,342,059	\$591,723,578	24.4%	3.4%
Subtotal	\$1,185,984,486	\$1,427,095,413	\$1,637,245,912	38.0%	14.7%
Total Spending for Veterans	\$1,702,548,389	\$2,048,676,881	\$2,347,600,480	37.9%	14.3%

Note: The VA Salt Lake City Healthcare System and Regional Benefit Office substituted FY 2020 compensation for FY 2019. Contract and grant spending includes all prime and subawards from the VA with Utah as the place of performance. DOD pension payments to military retirees are September 2019 and 2023 monthly outlays annualized. Nominal values are in 2019 dollars for FY 2019 spending and in 2023 dollars for FY 2023 spending. Real values are adjusted for inflation to 2023 dollars for FY 2019 spending. With no inflation adjustment needed for FY 2023 spending, the nominal and real values are the same.
Source: U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics and personal communication with the Salt Lake City Healthcare System and Regional Benefits Office; U.S. Department of Defense, Office of the Actuary, personal communication; and USAspending.gov

Table 7.3: Veterans by County in Utah as of September 30, 2023

County	Population		Share of Adult Population	
	Military Retirees	All Veterans	Military Retirees	All Veterans
Beaver	33	313	0.6%	6.0%
Box Elder	370	2,296	0.8%	5.3%
Cache	505	3,661	0.5%	3.5%
Carbon	77	1,188	0.5%	7.6%
Daggett	9	60	1.1%	7.5%
Davis	4,532	18,755	1.7%	6.9%
Duchesne	61	730	0.4%	5.2%
Emery	30	475	0.4%	6.4%
Garfield	23	291	0.6%	7.2%
Grand	35	531	0.4%	6.8%
Iron	376	2,722	0.8%	5.5%
Juab	56	381	0.6%	4.4%
Kane	56	505	0.9%	7.7%
Millard	59	631	0.6%	6.5%
Morgan	170	531	1.9%	5.8%
Piute	10	104	0.8%	8.3%
Rich	10	124	0.5%	6.2%
Salt Lake	3,937	41,634	0.4%	4.5%
San Juan	36	524	0.3%	4.7%
Sanpete	183	1,228	0.8%	5.3%
Sevier	119	1,103	0.7%	6.7%
Summit	227	1,518	0.7%	4.4%
Tooele	502	3,785	0.9%	6.7%
Uintah	109	1,404	0.4%	5.4%
Utah	2,150	16,684	0.4%	3.3%
Wasatch	166	982	0.6%	3.5%
Washington	1,317	11,071	0.9%	7.2%
Wayne	17	133	0.9%	6.8%
Weber	3,238	13,994	1.6%	6.9%
Total	18,413	127,358	0.7%	5.0%

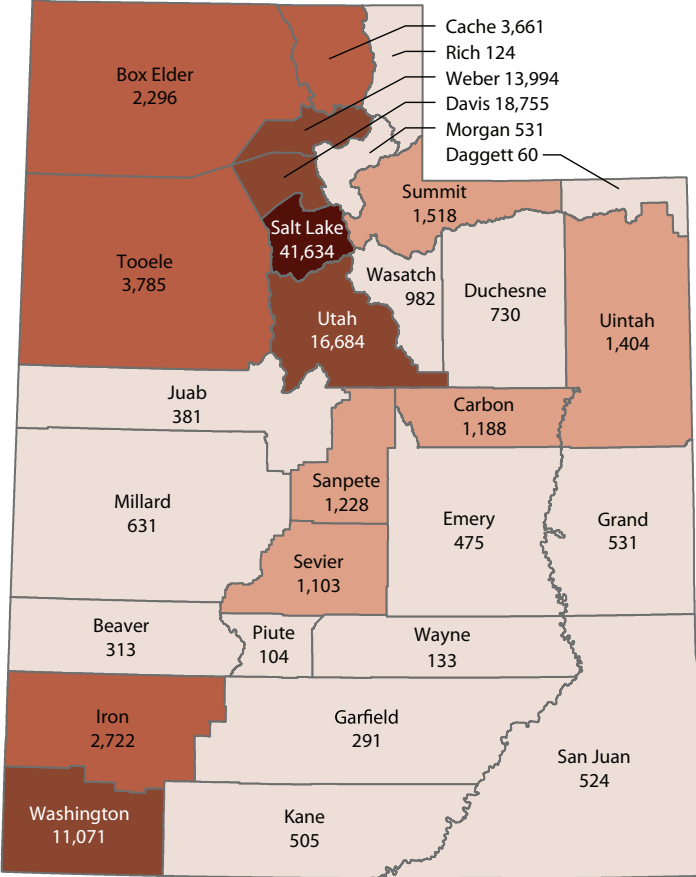
Source: U.S. Department of Defense, Office of the Actuary, personal communication (military retiree counts); U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics (veteran population estimates); and Kem C. Gardner Policy Institute population estimates and projections (adult population)

payments to veterans and survivors. From FY 2019 to FY 2023, total in-state federal spending on behalf of veterans rose from just over \$2.0 billion inflation-adjusted dollars to nearly \$2.3 billion.³²

Populations

In 2023, Utah was home to 127,358 veterans, representing 5.0% of the adult population (Table 7.3 and Figure 7.2). With 18,413 military retirees in Utah, more than one in seven veterans is a military retiree (14.5%). The largest populations were in Salt Lake, Davis, Utah, Weber, and Washington counties, each with at least 10,000 veterans and 1,000 military retirees. Salt Lake County had the most veterans at 41,634, and Davis County had the most military retirees at 4,532. Since 2019, Utah’s military retiree population increased by 3.7% from 17,762 individuals, and its total veteran population decreased by 2.6% from 130,817 individuals.

Figure 7.2: Veteran Population by County in Utah, 2023 (Number of Veterans)



Note: VA population estimates are as of September 30, 2023.
Source: U.S. Department of Veterans Affairs (VA), National Center for Veterans Analysis and Statistics

Health Care

The VA provides extensive funding for Utah veterans’ health care. In FY 2023, VA medical facilities in Utah provided 2,862 jobs paying \$407.5 million in employee compensation, a decrease from 3,174 jobs and \$420.9 million in compensation during FY 2019, adjusted for inflation (Table 7.1). Largely to support health care, the VA awarded contractors \$129.6 million in FY 2023 for their in-state work.³³ Employee compensation and contracts were the primary components of the VA’s \$696.7 million in medical care expenditures on behalf of 37,450 unique patients statewide (Table 7.4). Nearly one-half of VA medical care expenditures were for patients living in Salt Lake County. In addition, the VA funded \$53.8 million in grants to state, local, and nonprofit organizations in Utah, primarily for health care and social services.

Table 7.4: VA Medical Care Expenditures in Utah by County of Patient Residence, FY 2023

County	Medical Care Expenditures		Unique Patients	
	Dollars	Share	Count	Share
Beaver	\$1,373,353	0.2%	77	0.3%
Box Elder	\$10,556,288	1.5%	693	1.9%
Cache	\$13,862,556	2.0%	889	2.7%
Carbon	\$6,049,325	0.9%	403	1.0%
Daggett	\$401,229	0.1%	34	0.1%
Davis	\$70,091,597	10.1%	4,619	12.9%
Duchesne	\$5,765,054	0.8%	363	0.9%
Emery	\$2,236,789	0.3%	161	0.4%
Garfield	\$1,389,542	0.2%	97	0.3%
Grand	\$3,676,071	0.5%	271	0.6%
Iron	\$13,418,329	1.9%	848	2.7%
Juab	\$2,175,875	0.3%	165	0.4%
Kane	\$2,709,887	0.4%	171	0.5%
Millard	\$1,974,573	0.3%	138	0.4%
Morgan	\$2,004,003	0.3%	142	0.4%

County	Medical Care Expenditures		Unique Patients	
	Dollars	Share	Count	Share
Piute	\$414,560	0.1%	31	0.1%
Rich	\$612,345	0.1%	31	0.1%
Salt Lake	\$327,929,403	47.1%	13,750	33.1%
San Juan	\$2,743,340	0.4%	207	0.5%
Sanpete	\$5,220,961	0.7%	402	1.0%
Sevier	\$4,100,307	0.6%	327	0.8%
Summit	\$5,163,187	0.7%	342	0.9%
Tooele	\$24,339,085	3.5%	1,160	3.4%
Uintah	\$9,577,610	1.4%	530	1.5%
Utah	\$63,510,164	9.1%	3,749	11.0%
Wasatch	\$4,752,269	0.7%	284	0.7%
Washington	\$44,930,394	6.4%	3,364	9.6%
Wayne	\$438,947	0.1%	35	0.1%
Weber	\$65,280,307	9.4%	4,167	11.8%
Total	\$696,697,350	100.0%	37,450	100.0%

Note: Patients served and medical expenditures are attributed to the county where patients live, not the location where they received care. A patient counted in this table may have a single office visit, undergo surgery with testing and follow-up, or receive daily care in a veterans' home. Medical care expenditures are included in VA Healthcare System employee compensation and VA contract spending (Table 7.1). Due to rounding, percentages may not add up to exactly 100%.

Source: U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics

Table 7.5: VA and DOD Spending for Utah Veterans, FY 2023

County	VA Compensation and Pensions ¹	DOD Pensions for Military Retirees ²	VA Education and Employment ³	VA Insurance and Indemnities ⁴	Total
Beaver	\$2,330,666	\$809,173	\$206,190	\$503	\$3,346,532
Box Elder	\$18,754,541	\$9,205,767	\$1,365,341	\$71,435	\$29,397,084
Cache	\$26,842,857	\$17,066,683	\$6,216,261	\$182,367	\$50,308,168
Carbon	\$7,782,727	\$1,832,947	\$205,454	\$10,420	\$9,831,548
Daggett	\$723,719	\$249,616	\$4,848	\$0	\$978,183
Davis	\$157,383,391	\$146,718,870	\$16,002,007	\$523,411	\$320,627,679
Duchesne	\$6,177,294	\$1,394,555	\$204,773	\$915	\$7,777,537
Emery	\$2,345,514	\$860,922	\$150,981	\$0	\$3,357,417
Garfield	\$1,853,517	\$723,242	\$54,853	\$2,213	\$2,633,825
Grand	\$3,037,312	\$1,248,861	\$101,901	\$13,603	\$4,401,677
Iron	\$28,125,169	\$11,401,786	\$14,154,323	\$71,952	\$53,753,230
Juab	\$3,509,632	\$1,157,874	\$261,174	\$5,318	\$4,933,998
Kane	\$4,192,062	\$1,736,671	\$75,288	\$8,441	\$6,012,462
Millard	\$3,464,717	\$1,623,588	\$169,693	\$86	\$5,258,084
Morgan	\$5,519,088	\$7,493,152	\$500,748	\$45,505	\$13,558,493
Piute	\$643,949	\$306,806	\$13,603	\$0	\$964,358
Rich	\$761,679	\$274,994	\$62,767	\$0	\$1,099,440
Salt Lake	\$255,568,457	\$120,598,645	\$26,694,119	\$1,217,971	\$404,079,192
San Juan	\$3,042,439	\$1,240,926	\$70,941	\$0	\$4,354,306
Sanpete	\$8,451,276	\$4,462,456	\$288,075	\$24,349	\$13,226,156
Sevier	\$7,563,559	\$2,793,673	\$357,212	\$41,116	\$10,755,560
Summit	\$8,473,652	\$12,017,868	\$1,217,172	\$107,080	\$21,815,772
Tooele	\$33,440,080	\$12,379,807	\$2,292,311	\$71,531	\$48,183,729
Uintah	\$9,430,984	\$2,715,115	\$502,452	\$14,069	\$12,662,620
Utah	\$110,958,076	\$75,893,522	\$17,755,305	\$500,703	\$205,107,606
Wasatch	\$6,686,515	\$7,882,808	\$457,125	\$58,262	\$15,084,710
Washington	\$82,196,403	\$48,043,907	\$5,820,270	\$386,621	\$136,447,201
Wayne	\$757,178	\$463,914	\$3,680	\$0	\$1,224,772
Weber	\$135,099,425	\$99,125,430	\$11,473,035	\$366,683	\$246,064,573
Total	\$935,115,878	\$591,723,578	\$106,681,902	\$3,724,554	\$1,637,245,912

Note: 1. Compensation and pension expenditures include payments from the VA to veterans and their survivors related to disabilities and deaths, as well as burial and other benefits.

2. Military retiree pensions include \$551.8 million in payments from the DOD to veterans who retired from the armed forces, usually after at least 20 years of service, as well as \$39.9 million in DOD pensions for survivors of military retirees.

3. Education and employment expenditures support VA programs for education and vocational rehabilitation and employment.

4. Insurance and indemnity expenditures include a variety of VA obligations to veterans not included elsewhere.

Source: U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics; U.S. Department of Defense, Office of the Actuary

Benefits

Federal spending for veterans in Utah, primarily transfer payments, totaled \$1.6 billion in FY 2023. Federal spending consisted of compensation and pension payments, insurance and indemnity payments, and education and employment benefits, all from the U.S. Department of Veterans Affairs (VA), as well as military retiree pension payments from the U.S. Department of Defense (DOD) (Table 7.5). VA compensation (e.g., for service-connected disabilities) and pensions totaled \$935.1 million, and DOD pension payments to military retirees and their survivors totaled \$591.7 million. The VA spent \$106.7 million for education, vocational rehabilitation, and employment programs, and \$3.7 million for insurance and indemnity payments. Roughly proportional to their veteran populations, the largest spending amounts went to five counties: Salt Lake (\$404.1 million), Davis (\$320.6 million), Weber (\$246.1 million), Utah (\$205.1 million), and Washington (\$136.4 million).

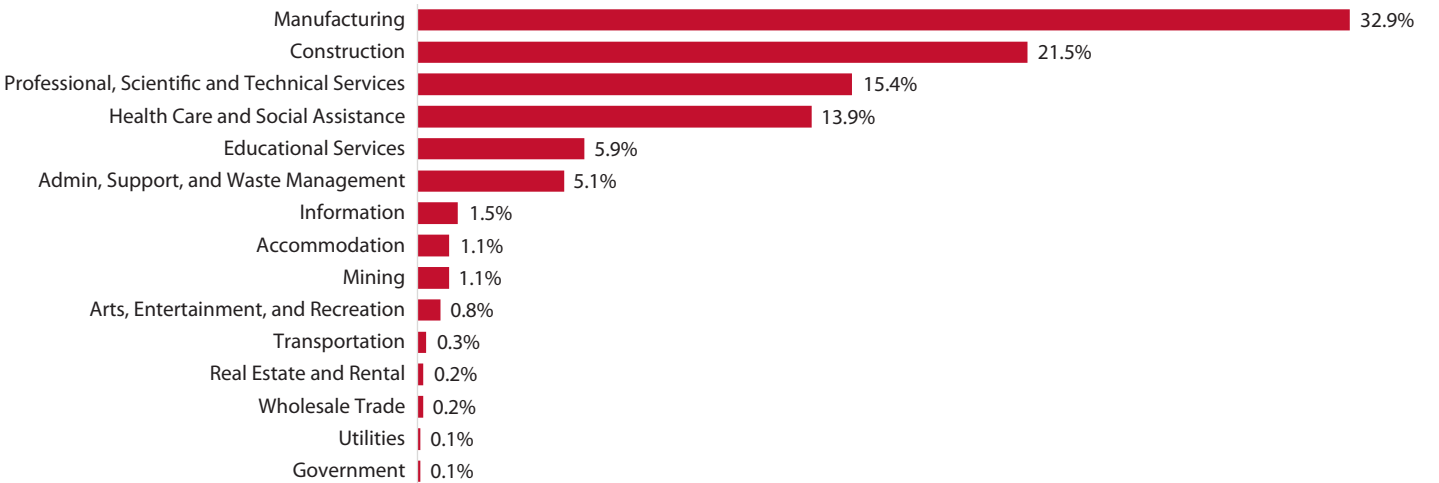
In addition to the VA and DOD spending in Table 7.5, the VA's Salt Lake City Regional Office, which manages veterans' benefits and programs, provided 888 jobs with \$119.4 million in employee compensation (Table 7.1). Regional office employment and pay increased from 798 jobs and \$88.2 million in compensation during FY 2019, adjusted for inflation.

Table 7.6: VA Contract Spending in Utah by Industry, FY 2023

Industry	Contracts	Grants	Total
Mining	\$1,400,000	\$0	\$1,400,000
Utilities	\$121,050	\$0	\$121,050
Construction	\$27,886,394	\$0	\$27,886,394
Manufacturing	\$42,608,221	\$0	\$42,608,221
Wholesale Trade	\$219,662	\$0	\$219,662
Transportation	\$413,754	\$0	\$413,754
Information	\$1,883,414	\$0	\$1,883,414
Finance and Insurance	\$0	\$295,695	\$295,695
Real Estate and Rental	\$287,720	\$0	\$287,720
Professional, Scientific, and Technical Services	\$19,902,607	\$3,224,684	\$23,127,290
Admin, Support, and Waste Management	\$6,659,839	\$0	\$6,659,839
Educational Services	\$7,612,105	-\$22,332	\$7,589,773
Health Care and Social Assistance	\$17,978,545	\$2,199,999	\$20,178,545
Arts, Entertainment, and Recreation	\$1,034,259	\$0	\$1,034,259
Accommodation and Food Services	\$1,472,729	\$2,116,643	\$3,589,372
Government	\$118,890	\$46,001,250	\$46,120,140
Total	\$129,599,189	\$53,815,939	\$183,415,128

Note: Amounts are dollars obligated by the VA for prime and subawards performed in Utah.
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.com

Figure 7.3: VA Contract Spending in Utah by Industry, FY 2023



Note: Percentages are for \$129.6 million obligated for prime and subawards from the VA to contractors for work performed in Utah. Due to rounding, percentages may not add up to exactly 100%.
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.com

Figure 7.4: VA Grant Spending in Utah by Industry, FY 2023



Note: Percentages are for \$53.6 million in grants from the VA for work performed in Utah. Due to rounding, percentages may not add up to exactly 100%.
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.com

Table 7.7: VA Grants to Utah Recipients, FY 2023

Recipient	Amount
Utah Department of Veterans and Military Affairs	\$46,001,250
The Road Home	\$3,224,684
First Step House	\$2,199,999
Homeless Veterans Fellowship	\$2,095,487
National Ability Center	\$295,695
Continue Mission	\$21,156
University of Utah	-\$22,332
Total	\$53,815,939

Note: As a repeat grant recipient, the University of Utah had a negative adjustment in FY 2023. Its VA award in FY 2019, for example, was \$250,000.
Source: Kem C. Gardner Policy Institute analysis of Department of Veterans Affairs data from USAspending.gov

Contracts and Grants

VA contract spending in Utah totaled \$129.6 million in FY 2023 (Table 7.5). Three sectors accounted for 69.8% of the total: \$42.6 million to manufacturing, \$27.9 million to construction, and \$19.9 million to professional, scientific, and technical services (Figure 7.3). Meanwhile, VA grant spending in Utah totaled \$53.8 million, with \$46.0 million (85.5%) going to state and local government (Figure 7.4). From FY 2019 to FY 2023, inflation-adjusted VA spending in Utah increased by 83.5% for contracts and 28.6% for grants (Table 7.1). In FY 2019, contract awards were \$70.6 million, and grants were \$41.8 million.

The Department of Veterans Affairs funded \$53.8 million in grants to Utah recipients in FY 2023. These funds went to the State of Utah for veterans’ homes across the state and to other organizations providing social services to veterans, such as the Road Home and First Step House (Table 7.7).

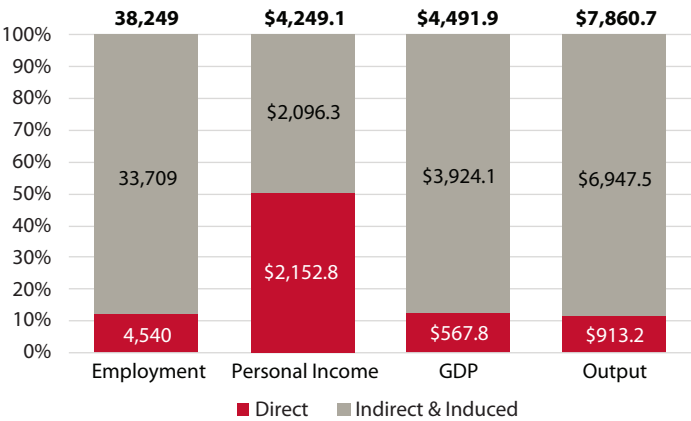
Economic Impacts

Utah’s economy received positive impacts from VA health care system and benefit office operations, as well as VA payments to veterans for pensions and other benefits. In FY 2023, impacts from federal spending for Utah veterans included 38,249 jobs (direct plus indirect and induced), \$4.2 billion in personal income, \$4.5 billion in gross domestic product (GDP), and \$7.9 billion in output (Figure 7.5). Direct employment totaled 4,540 jobs, including 3,750 at the VA and an estimated 790 provided by recipients of VA contracts and grants.³⁴ Direct personal income totaled \$2.2 billion. However, most economic impacts came from the indirect and induced effects of spending by veterans and the recipients of federal contracts and grants. The total economic impacts of federal spending for veterans were 2.0% of all personal income and 1.6% of GDP from all sectors in Utah.

Utah’s veteran population and supporting organizations provided far-reaching benefits to counties throughout Utah. Table 7.8 shows combined direct, indirect, and induced impacts

Figure 7.5: Statewide Economic Impacts of Federal Spending for Veterans, FY 2023

(Jobs; Millions of Dollars)



Note: Impacts are based on compensation and pension payments, education and vocational rehabilitation expenditures, insurance and indemnities expenditures, construction expenditures, regional office and health care system employment, VA contracts and grants to in-state entities, and DOD pensions for military retirees and their survivors.
Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

with emphasis on 15 counties, each of which derived at least 100 jobs and \$15.0 million in personal income from federal spending for veterans in FY 2023.

Salt Lake County could attribute between 1.7% and 1.9% of its FY 2023 economic activity to veteran pensions, VA health care, and other federal spending for veterans (Table 7.8). Because of this spending, Salt Lake County had 18,250 jobs, over \$1.5 billion in personal income, and over \$2.4 billion in GDP. Seven other counties received more than \$100.0 million in personal income due to veterans: Utah, Davis, Weber, Washington, Cache, Summit, and Tooele counties. Meanwhile, at least 2.0% of employment, personal income, or GDP in Davis, Weber, Washington, Iron, Tooele, Box Elder, and Morgan counties was tied to federal spending for veterans.

Veteran spending also impacted the state’s finances. The combined effects of transfer payments, VA regional office and health care system employment and operations, and VA grants to Utah recipients produced an estimated \$178.0 million in state income and sales taxes, \$77.8 million in state education and noneducation spending, and \$8.5 million in state capital expenditures (Table 7.9). Federal funding for veterans’ education may somewhat offset the \$16.4 million estimate for higher education expenditures. However, less than 10% of Utah veterans were of college age in FY 2023, so most of the higher education spending is likely for economic migrants and dependents of veterans who may not attract VA funding. Subtracting expenditures from revenues, the net state fiscal impact was \$91.8 million in revenue.

Table 7.8: County Economic Impacts of Federal Spending for Veterans, FY 2023

(Millions of Dollars; Percentage of Countywide Total for All Sectors)

County	Employment		Personal Income		Gross Domestic Product		Output	
	Number	Share	Number	Share	Number	Share	Number	Share
Salt Lake	18,250	1.7%	\$1,553.8	1.9%	\$2,404.0	1.7%	\$4,163.5	1.7%
Utah	5,402	1.2%	\$638.1	1.6%	\$554.0	1.2%	\$964.5	1.2%
Davis	4,796	2.2%	\$688.3	3.0%	\$478.1	2.0%	\$870.5	2.0%
Weber	3,901	2.4%	\$480.2	3.3%	\$418.0	2.4%	\$744.7	2.3%
Washington	1,743	1.4%	\$215.8	2.0%	\$170.6	1.5%	\$291.9	1.5%
Cache	932	1.0%	\$104.0	1.5%	\$93.9	1.0%	\$167.3	1.0%
Iron	598	1.7%	\$79.0	3.0%	\$60.7	1.7%	\$107.0	1.6%
Summit	509	1.0%	\$107.5	1.0%	\$71.0	1.2%	\$120.1	1.2%
Tooele	472	1.6%	\$107.0	2.7%	\$52.8	1.6%	\$95.3	1.6%
Box Elder	420	1.2%	\$63.6	2.1%	\$44.4	1.1%	\$84.9	1.0%
Wasatch	239	1.0%	\$46.6	1.4%	\$21.6	1.2%	\$37.6	1.2%
Morgan	134	2.1%	\$30.6	3.3%	\$13.0	2.4%	\$22.4	2.4%
Uintah	123	0.6%	\$18.0	1.3%	\$15.6	0.5%	\$26.6	0.5%
Sanpete	122	0.8%	\$19.9	1.5%	\$10.9	0.7%	\$19.3	0.6%
Sevier	108	0.8%	\$15.1	1.5%	\$13.9	0.5%	\$25.5	0.5%
All Others	499	0.6%	\$81.7	1.3%	\$69.4	0.5%	\$119.6	0.5%
Total	38,249	1.6%	\$4,249.1	2.0%	\$4,491.9	1.6%	\$7,860.7	1.5%

Note: Economic impacts include direct, indirect, and induced effects. Counties not listed separately had fewer than 100 jobs from total employment impacts. Shares equal impacts divided by economic activity in all sectors in the county (or state for the "Total" row).

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 7.9: State Fiscal Impacts of Federal Spending for Veterans, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$68.9
Corporate Income Tax Revenues	\$9.6
State Sales Tax Revenues	\$99.5
Total State Tax Revenues	\$178.0
State Non-Education Expenditures	(\$41.8)
State Public Education Expenditures	(\$19.5)
State Higher Education Expenditures	(\$16.4)
Total State Operating Expenditures	(\$77.8)
State Capital Expenditures	(\$8.5)
Total State Expenditures	(\$86.2)
Net State Fiscal Impact	\$91.8

Note: Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

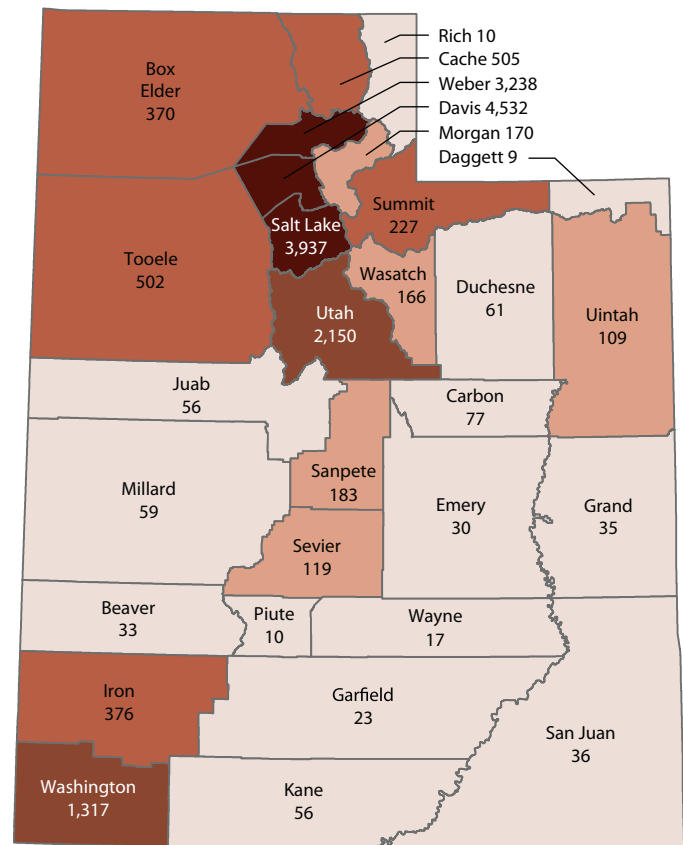
Section 8: Department of Defense Retired Civilians

Many retirees who live in Utah once held civilian jobs with the U.S. Department of Defense (DOD). The Office of Personnel Management (OPM), which manages pensions for the federal civilian workforce, sends hundreds of millions of dollars annually in pension payments to Utah DOD retirees. As retiree pension money comes from outside of Utah, these dollars have an economic impact that grows the state's economy.

In FY 2023, Utah was home to 18,858 retired DOD civilians. The majority of these retirees lived near a military installation, such as Hill Air Force Base, Dugway Proving Ground, Tooele Army Depot, and Utah National Guard Headquarters. Counties with the most retirees were Weber (5,668), Davis (5,155), Salt Lake (2,810), and Tooele (1,513) (Table 8.1 and Figure 8.1). While over 80% of all retirees resided within these four counties, at least five retirees resided within each of the 25 other counties in Utah.

Total pension payments to retirees in Utah were \$682.1 million in FY 2023, averaging \$36,172 per retiree (Table 8.1). Roughly consistent with their retiree populations, 80.8% of the payments went to four counties: Weber (\$215.6 million), Davis (\$194.1 million), Salt Lake (\$89.4 million), and Tooele (\$52.1 million).

Figure 8.1: Retired DOD Civilian Employee Population by County, December 2023
(Number of Retirees)



Source: Kem C. Gardner Policy Institute analysis of data response to its information request to the U.S. Department of Defense, Office of the Actuary

Table 8.1: DOD Retired Civilian Employees and Their Annual Pension Payments by County in Utah, FY 2023

County	Retirees		Pensions	
	Count	Share	Payments	Share
Beaver	20	0.1%	\$586,116	0.1%
Box Elder	593	3.1%	\$20,252,028	3.0%
Cache	318	1.7%	\$10,085,988	1.5%
Carbon	28	0.1%	\$795,780	0.1%
Daggett	11	0.1%	\$259,284	0.0%
Davis	5,155	27.3%	\$194,090,880	28.5%
Duchesne	36	0.2%	\$1,065,888	0.2%
Emery	22	0.1%	\$670,104	0.1%
Garfield	10	0.1%	\$403,536	0.1%
Grand	17	0.1%	\$583,932	0.1%
Iron	117	0.6%	\$4,429,020	0.6%
Juab	54	0.3%	\$1,527,612	0.2%
Kane	29	0.2%	\$915,156	0.1%
Millard	31	0.2%	\$853,632	0.1%
Morgan	241	1.3%	\$9,710,820	1.4%
Piute	8	0.0%	\$280,692	0.0%
Rich	5	0.0%	\$163,392	0.0%
Salt Lake	2,810	14.9%	\$89,432,088	13.1%
San Juan	6	0.0%	\$168,564	0.0%
Sanpete	78	0.4%	\$2,356,548	0.3%
Sevier	51	0.3%	\$1,248,804	0.2%
Summit	98	0.5%	\$3,737,652	0.5%
Tooele	1,513	8.0%	\$52,084,020	7.6%
Uintah	36	0.2%	\$972,972	0.1%
Utah	896	4.8%	\$30,670,200	4.5%
Wasatch	63	0.3%	\$2,534,160	0.4%
Washington	930	4.9%	\$36,202,368	5.3%
Wayne	14	0.1%	\$483,396	0.1%
Weber	5,668	30.1%	\$215,571,972	31.6%
Total	18,858	100.0%	\$682,136,604	100.0%

Note: Retiree counts and payment amounts are from December 2023. Counts include DOD civilian retirees, whether or not they received a pension payment that month. Monthly dollar amounts are annualized for FY 2023 by multiplying by 12. Due to rounding, percentages may not add up to exactly 100%. Source: Kem C. Gardner Policy Institute analysis of data from the United States Office of Personnel Management

The impacts on Utah's economy of FY 2023 federal pension spending by retired civilians included 10,402 jobs, \$1.3 billion in personal income, \$1.2 billion in the state's gross domestic product (GDP), and \$2.1 billion in output (Table 8.2). Salt Lake County had the largest share of employment, GDP, and output impacts from DOD civilian pensions: 2,812 jobs, \$373.8 million in GDP, and \$661.1 million in output (Table 8.3). Weber and Davis counties had the most personal income impacts at \$350.0 million and \$326.9 million, respectively. Weber, Davis, and Tooele counties could attribute between 1.0% and 2.4% of their jobs, personal income, and GDP to DOD civilian retirees' pension income. Economic impacts included at least one job in every county.

Table 8.2: Statewide Economic Impacts of DOD Retired Civilians Pension Payments, FY 2023

(Jobs; Millions of Dollars)

Impact	Amount
Employment	10,402
Personal Income	\$1,295.2
Gross Domestic Product	\$1,161.8
Output	\$2,062.7

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

While the in-state impacts of retired civilians were sizable in FY 2023, these figures did not capture all retirement income Utah retirees earned as DOD civilian employees. Prior to the late 1980s, DOD civilian retirees received only a pension and did not pay into or collect from Social Security.³⁵ Beginning in 1987, the previous arrangement was replaced with the Federal Employees Retirement System (FERS). In addition to a Basic Benefits plan (i.e., pension), FERS includes Social Security and a Thrift Savings Plan, similar to a 401(k). Incorporating retiree Social Security and 401(k) benefits spent in Utah would paint a more accurate picture of the true value of retirement benefits for all DOD civilian retirees. However, these data are not publicly available and would be difficult to estimate.

DOD civilian retiree spending also impacted the state's finances. The combined effects of Individual income taxes, corporate income taxes, and state sales taxes produced an estimated \$71.1 million in state revenue in FY 2023. Personal

income and sales taxes were the primary sources, each generating around \$34.0 million in state revenue. The population supported directly and indirectly by civilian pension payments generated an estimated \$22.4 million in state education and non-education operating spending and \$2.4 million in state capital expenditures (Table 8.4). The largest piece was \$12.0 million in non-education operating expenses. Netting out expenditures from revenues, the net fiscal impact was \$46.3 million in state revenue.

Table 8.4: State Fiscal Impacts of DOD Retired Civilians Pension Payments, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$34.2
Corporate Income Tax Revenues	\$2.8
State Sales Tax Revenues	\$34.1
Total State Tax Revenues	\$71.1
State Non-Education Expenditures	(\$12.0)
State Public Education Expenditures	(\$5.6)
State Higher Education Expenditures	(\$4.7)
Total State Operating Expenditures	(\$22.4)
State Capital Expenditures	(\$2.4)
Total State Expenditures	(\$24.8)
Net State Fiscal Impact	\$46.3

Note: Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

Table 8.3: County Economic Impacts of DOD Civilian Retiree Pension Payments, FY 2023

(Millions of Dollars; Percentage of Countywide Total for All Sectors)

County	Employment		Personal Income		Gross Domestic Product		Output	
	Number	Share	Number	Share	Number	Share	Number	Share
Salt Lake	2,812	0.3%	\$250.4	0.3%	\$373.8	0.3%	\$661.1	0.3%
Weber	2,598	1.6%	\$350.0	2.4%	\$275.0	1.6%	\$488.3	1.5%
Davis	2,321	1.1%	\$326.9	1.4%	\$228.5	1.0%	\$414.3	0.9%
Utah	927	0.2%	\$100.3	0.2%	\$96.6	0.2%	\$167.9	0.2%
Washington	453	0.4%	\$56.5	0.5%	\$44.3	0.4%	\$75.8	0.4%
Tooele	311	1.1%	\$73.1	1.9%	\$34.3	1.1%	\$61.2	1.0%
Cache	297	0.3%	\$28.1	0.4%	\$30.0	0.3%	\$53.4	0.3%
Box Elder	240	0.7%	\$38.6	1.3%	\$24.5	0.6%	\$46.2	0.6%
Summit	112	0.2%	\$17.2	0.2%	\$15.2	0.3%	\$25.6	0.3%
All Others	331	0.2%	\$53.9	0.3%	\$39.6	0.1%	\$68.8	0.1%
Total	10,402	0.4%	\$1,295.2	0.6%	\$1,161.8	0.4%	\$2,062.7	0.4%

Note: Economic impacts include direct, indirect, and induced effects of pension income for former DOD civilian employees. Counties not listed separately had fewer than 100 jobs from total employment impacts. Shares equal impacts divided by economic activity in all sectors in the county (or state for the Total row). Due to rounding, totals for dollar amounts may not match exactly.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Section 9. Defense Contracts and Grants

Utah companies, military installations, and other institutions were awarded \$6.1 billion in federal defense contracts and grants during FY 2023. These awards, issued by U.S. Department of Defense (DOD) and U.S. Department of Veteran’s Affairs (VA), include prime awards and subawards. The value of prime awards performed in the state has increased each year since 2019, reaching in 2023 its highest level since 2000, if not of all time. On the downside, the value of these in-state prime awards allocated to subawards performed out-of-state increased compared with 2019, while the value of subawards performed in Utah stemming from prime awards performed in other states decreased. The net value of awards performed in Utah (\$6.1 billion) represents an inflation-adjusted 15% increase compared with 2019. Because these are external funds that would not otherwise have flowed into the state’s economy, they generate economic impact to the state—economic activity beyond what would have occurred anyway.

This section begins with an overview of all contracts and grants awarded through DOD or VA. The section ends with a presentation of the economic impacts of a subset of these awards: DOD contracts not issued through a military installation in the state; the economic impacts of all other awards are covered in previous sections of this report.

DOD and VA Prime Contracts and Grants in Utah, FY 2000–FY 2023

The value of DOD and VA prime contracts and grants in Utah reached a multi-decade high of \$5.7 billion in 2023, increasing 136%, or \$3.3 billion in inflation-adjusted dollars, since 2019 (Figure 9.1 and Table 9.1). In fact, the value of prime awards

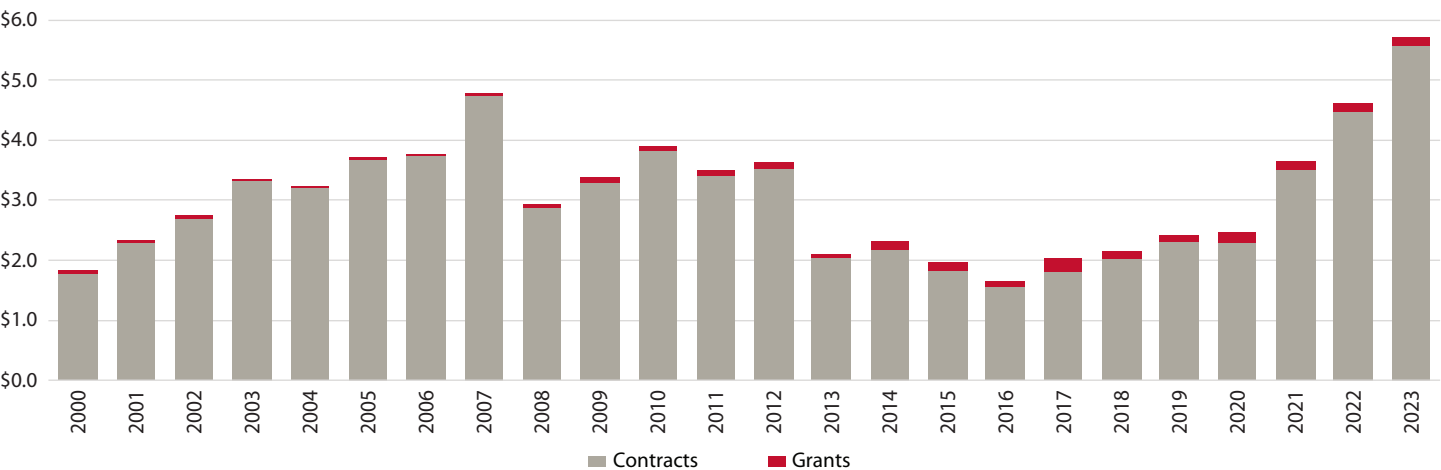
performed in the state has increased every year since 2016. DOD contracting consistently makes up a majority share of total contract and grant prime awards, ranging from 84% to 97% depending on the year. Total grant awards typically are between 1% and 11% of total awards. VA contracts make up the difference. In FY 2023, DOD contracts and grants accounted for 96% of total Utah awards; the remaining 4% came from the VA.

Contracts and Grants in FY 2023

Utah recipients of substantial defense contracts and grants operate in many counties and industries. This subsection provides additional information on \$6.1 billion in “net” prime awards and subawards for FY 2023, with limited comparisons to prior years. The authors adjusted DOD and VA contract and grant amounts to reflect net awards in-state, rather than gross awards. These adjustments verify award recipients’ presence in Utah and account for contracts where prime award and subaward recipients are in different states.³⁶

Net awards may be higher or lower than the unadjusted prime awards shown in Table 9.1, depending on the magnitude of subawards performed in- versus out-of-state. The first row in Table 9.2 shows award amounts before any adjustment. Prime awards “performed” in the state, by companies with or without a Utah presence, totaled \$5.7 billion in FY 2023. This amount becomes \$5.4 billion after removing awards to companies without a business presence in the state. Adding \$1.5 billion in subawards performed in Utah issuing from prime awards performed in other states, and subtracting \$834.3 million in subawards performed in other states issuing from prime awards performed in Utah, results in the net award amount of

Figure 9.1: Defense Contracts and Grants in Utah, Prime Awards, FY 2000–FY 2023
(Billions of Constant 2023 Dollars)



Note: Includes awards performed in Utah from the Department of Defense and Department of Veterans Affairs
Source: USAspending.gov

Table 9.1: Defense Contracts and Grants in Utah, Prime Awards, FY 2000–FY 2023

(Millions of Constant 2023 Dollars)

Fiscal Year	Contracts			Grants			Contracts and Grants		
	DoD	VA	Total	DoD	VA	Total	DoD	VA	Total
2000	\$1,762	\$21	\$1,784	\$49	\$2	\$52	\$1,812	\$24	\$1,836
2001	\$2,231	\$48	\$2,279	\$49	\$3	\$51	\$2,280	\$50	\$2,330
2002	\$2,637	\$60	\$2,697	\$57	\$3	\$60	\$2,694	\$63	\$2,757
2003	\$3,245	\$71	\$3,316	\$35	\$3	\$37	\$3,280	\$74	\$3,354
2004	\$3,153	\$52	\$3,205	\$41	\$3	\$44	\$3,195	\$55	\$3,249
2005	\$3,568	\$98	\$3,667	\$46	\$3	\$49	\$3,615	\$101	\$3,716
2006	\$3,661	\$80	\$3,740	\$33	\$3	\$36	\$3,694	\$82	\$3,776
2007	\$4,663	\$80	\$4,743	\$42	\$0	\$42	\$4,705	\$80	\$4,785
2008	\$2,789	\$84	\$2,873	\$63	\$0	\$63	\$2,851	\$84	\$2,936
2009	\$3,162	\$132	\$3,293	\$90	\$0	\$90	\$3,252	\$132	\$3,384
2010	\$3,673	\$153	\$3,827	\$63	\$19	\$83	\$3,737	\$173	\$3,909
2011	\$3,255	\$142	\$3,397	\$86	\$14	\$99	\$3,341	\$156	\$3,497
2012	\$3,409	\$124	\$3,533	\$67	\$33	\$100	\$3,475	\$157	\$3,633
2013	\$1,936	\$113	\$2,049	\$58	\$2	\$60	\$1,994	\$115	\$2,109
2014	\$2,061	\$119	\$2,180	\$118	\$25	\$142	\$2,179	\$144	\$2,322
2015	\$1,720	\$110	\$1,830	\$103	\$35	\$138	\$1,822	\$145	\$1,968
2016	\$1,434	\$129	\$1,563	\$89	\$2	\$91	\$1,522	\$132	\$1,654
2017	\$1,724	\$81	\$1,804	\$197	\$36	\$233	\$1,921	\$117	\$2,037
2018	\$1,951	\$81	\$2,032	\$89	\$32	\$122	\$2,041	\$113	\$2,154
2019	\$2,230	\$81	\$2,311	\$72	\$42	\$114	\$2,302	\$122	\$2,424
2020	\$2,161	\$134	\$2,295	\$124	\$53	\$177	\$2,285	\$187	\$2,472
2021	\$3,408	\$108	\$3,515	\$79	\$54	\$133	\$3,486	\$162	\$3,648
2022	\$4,318	\$159	\$4,477	\$85	\$48	\$134	\$4,403	\$207	\$4,611
2023	\$5,416	\$152	\$5,568	\$91	\$54	\$144	\$5,507	\$206	\$5,713

Note: These inflation-adjusted amounts include dollars obligated each federal fiscal year for prime awards for contracts and grants funded by the DOD and VA for which Utah was given as the primary place of performance.

Source: USAspending.gov (contracts and grants) and the U.S. Bureau of Labor Statistics (CPI)

\$6.1 billion. Table 9.2 shows a similar breakdown of adjustments for each agency and type of award. Unfortunately, the analysis involved in computing the net amounts is too intensive to calculate for a full time series of years as in Table 9.1.

From FY 2019 to FY 2023, total in-state contract and grant awards increased in value by 15%, from \$5.3 billion inflation-adjusted dollars to \$6.1 billion (Table 9.3). When viewing adjusted prime contracts and grants, Utah brought in \$5.4 billion in FY 2023, an increase of about 138% compared with the \$2.3 billion in FY 2019. The strong gain in prime awards was offset by a large decline in net subawards, from \$3.0 billion inflation-adjusted dollars in 2019 (that's \$3.2 billion minus \$212.9 million) to \$670.3 million dollars in 2023 (\$1.5 billion minus \$834.3 million).

Figure 9.2 shows unadjusted net subawards since 2013. After strong gains between 2016 and 2021, net subawards fell sharply (-79%) in 2022 before rising modestly (12%) in 2023. In 2020 and 2021, Northrop Grumman and its subsidiaries received large subawards for prime contracts issued by the Department of the Navy. The subaward amounts shown in Table 9.3 are somewhat lower than those in Figure 9.2; that is because the

amounts in Table 9.3 reflect the removal of awards to companies without a Utah presence.

Figure 9.3 displays the \$6.1 billion in total net contracts and grants broken out by service. The Air Force contributed more than half of this total (\$3.8 billion, or 62.4%), followed by the Navy (\$913.8 million, or 15.0%), the Army (\$711.2 million, or 11.7%), and “other defense” (\$663.8 million, or 10.9%). In FY 2019 the Air Force contributed only about one-quarter of the net total, while the Navy accounted for nearly half of the net total.

The \$6.1 billion dollars of net defense awards in Utah in FY 2023 was spread across 16 of the state's 29 counties. As in past years, a large share of awards by value were performed in Davis, Salt Lake, and Weber counties. Weber accounted for 42.1% of net awards (\$2.6 billion), followed by Salt Lake at 29.6 (\$1.8 billion), and Davis with 17.8% (\$1.1 billion). Table 9.4 shows the amounts (dollars obligated) and shares for these and the remaining 13 counties; Figure 9.4 provides similar information as a map (showing counties with at least 1% of total awards), emphasizing the concentration of awards along Utah's Wasatch Front.

Table 9.2: Value of Defense Contracts and Grants Performed in Utah, FY 2023
(Millions of Dollars)

Type of Contract or Grant	Contracts			Grants			Contracts & Grants		
	DOD	VA	Total	DOD	VA	Total	DOD	VA	Total
Utah Prime Awards (Unadjusted) ¹	\$5,416.3	\$152.2	\$5,568.5	\$90.5	\$53.8	\$144.3	\$5,506.8	\$206.0	\$5,712.8
Utah Prime Awards (Adjusted) ²	\$5,148.5	\$125.3	\$5,273.9	\$90.5	\$53.8	\$144.3	\$5,239.0	\$179.2	\$5,418.2
Add: Utah Subawards for Non-Utah Primes ³	\$1,482.1	\$4.3	\$1,486.3	\$18.3	\$0.0	\$18.3	\$1,500.3	\$4.3	\$1,504.6
Subtract: Out-of-State Subawards for Utah Primes ⁴	\$834.3	\$0.0	\$834.3	\$0.0	\$0.0	\$0.0	\$834.3	\$0.0	\$834.3
Total Awards (Net)	\$5,796.3	\$129.6	\$5,925.9	\$108.8	\$53.8	\$162.6	\$5,905.0	\$183.4	\$6,088.5

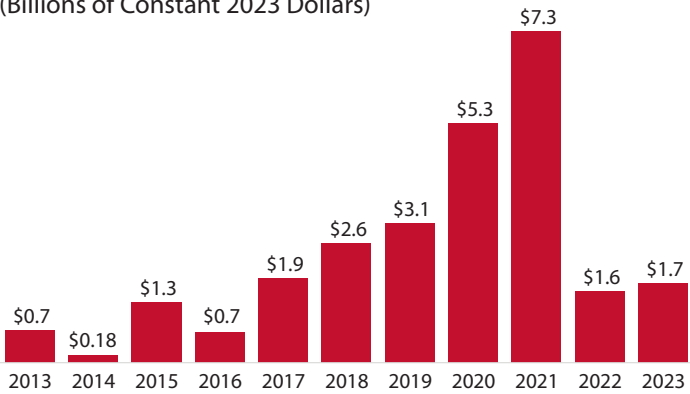
Notes: 1. Unadjusted prime awards include awards performed in Utah by companies with or without an established business presence in the state.
2. Adjusted amounts exclude contracts and grants to companies without a Utah presence, since most of the associated economic activity likely did not accrue to Utah.
3. Subcontracts and subgrants performed in Utah for prime awards from outside the state are added to adjusted Utah prime awards.
4. Subawards performed outside of Utah under Utah prime awards are subtracted, since that portion of economic activity funded by the prime award accrues to states besides Utah.
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.gov

Table 9.3: Utah Defense Contracts and Grants Comparison, FY 2019 and FY 2023
(Millions of Dollars)

Type of Contract or Grant	FY 2019 (2019 dollars) ⁶	FY 2019 (2023 dollars)	FY 2023 (2023 dollars)	Change (nominal) ⁷	Change (real) ⁷
Utah prime awards (unadjusted) ¹	\$2,017.5	\$2,427.7	\$5,712.8	183.2%	135.3%
Utah prime awards (adjusted) ²	\$1,892.1	\$2,276.8	\$5,418.2	186.4%	138.0%
Add: Utah subawards for non-Utah primes ³	\$2,685.4	\$3,231.3	\$1,504.6	-44.0%	-53.4%
Subtract: Out-of-state subawards for Utah primes ⁴	\$176.9	\$212.9	\$834.3	371.5%	291.9%
Total Awards (Net) ⁵	\$4,400.6	\$5,295.3	\$6,088.5	38.4%	15.0%

Notes:
1. Unadjusted prime awards include awards performed in Utah by companies with or without an established business presence in the state.
2. Adjusted amounts exclude contracts and grants to companies without a Utah presence, since most of the associated economic activity likely did not accrue to Utah.
3. Subcontracts and subgrants performed in Utah for prime awards from outside the state are added to adjusted Utah prime awards.
4. Subawards performed outside of Utah under Utah prime awards are subtracted, since that portion of economic activity funded by the prime award accrues to states besides Utah.
5. Total awards (net) may not match due to rounding.
6. FY 2019 unadjusted amounts pulled from USAspending.gov in 2024 have changed slightly compared to the Gardner Institute's 2021 report. Figure 9.1 and Table 9.1 use the most current data from USAspending.gov, while this table uses FY 2019 data directly from the previous (2021) defense study for comparison's sake.
7. Nominal percent changes compare FY 2019 amounts in 2019 dollars to FY 2023 amounts in 2023 dollars with no inflation adjustment. Real percent changes compare FY 2019 amounts in inflation-adjusted 2023 dollars to FY 2023 amounts, still in 2023 dollars.
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.gov

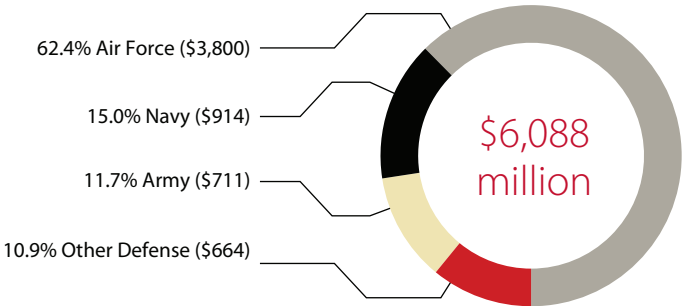
Figure 9.2: Utah Defense Subcontracts, FY 2013–FY 2023
(Billions of Constant 2023 Dollars)



Note: Amounts are for DOD and VA subcontracts performed in Utah, whether the associated prime award was from an in-state or out-of-state company.
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.gov

DOD and VA awards by industry show that just two sectors—manufacturing and professional, scientific and technical services—accounted for 83.5% of all FY 2023 defense contracts and grants in Utah. The manufacturing sector received 62.3% (\$3.8 billion) of awards; professional, scientific and technical services (approximately the “tech” sector) received 21.2% of

Figure 9.3: Total DOD and VA Contracts and Grants by Service, FY 2023



Note: The “Other Defense” category includes contracts and grants from the Department of Veterans Affairs, Defense Logistics Agency, Defense Contract Management Agency, Missile Defense Agency, Defense Health Agency, Defense Advanced Research Projects Agency, U.S. Special Operations Command, and 12 other offices within the DOD.
Note: These amounts are “net” (see notes to Table 9.2)
Source: Kem C. Gardner Policy Institute analysis of data from USAspending.gov

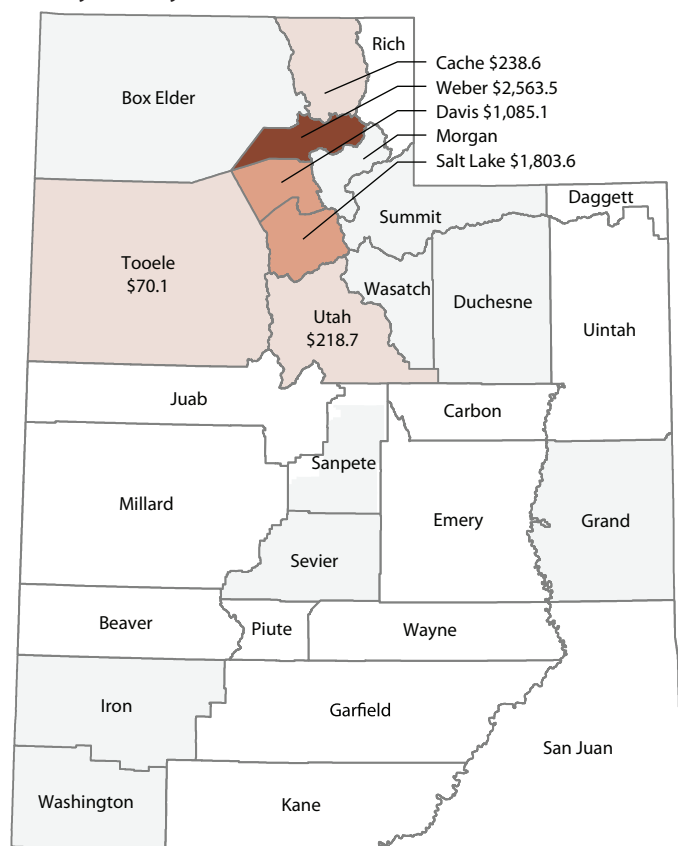
awards (\$1.3 billion). The next largest sector was construction, with 7.9% (\$482.1 million). All other sectors’ shares were less than 3% each. Table 9.5 and Figure 9.5 provide the details.
Of the \$5.9 billion in defense contracts awarded to Utah, \$5.2 billion (88.1%) went to the top 10 contractors. (Table 9.6). The largest by far was Northrop Grumman, winning \$3.5 billion in

Table 9.4: Total DOD and VA Contract and Grant Dollars Obligated in Utah by County, FY 2023

County	Amount	Share
Weber	\$2,563,542,987	42.1%
Salt Lake	\$1,803,634,883	29.6%
Davis	\$1,085,053,355	17.8%
Cache	\$238,579,968	3.9%
Utah	\$218,742,231	3.6%
Tooele	\$70,063,838	1.2%
Box Elder	\$57,047,913	0.9%
Washington	\$16,303,030	0.3%
Iron	\$12,089,693	0.2%
Summit	\$11,325,441	0.2%
Duchesne	\$4,287,706	0.1%
Sanpete	\$3,424,765	0.1%
Grand	\$3,002,311	0.0%
Morgan	\$923,790	0.0%
Wasatch	\$324,072	0.0%
Sevier	\$117,504	0.0%
Total	\$6,088,463,488	100.0%

Note: These amounts follow the “net amount” definition from Table 9.2 and Table 9.3: prime contracts performed by companies with a presence in Utah, plus subcontracts performed in Utah where the prime contract place of performance is not Utah, minus subcontracts to out-of-state companies from in-state prime contracts, plus grants to Utah recipients.
Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Figure 9.4: Total DOD and VA Contract and Grant Dollars in Utah by County, FY 2023



Note: Amounts are omitted for counties contributing less than 1% of total net award value; see Table 9.4 for county details.
Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Table 9.5: DOD and VA Contracts and Grants in Utah by Industry, FY 2023

Sector	Amount
Manufacturing	\$3,792,532,074
Professional, Scientific and Technical Services	\$1,293,124,720
Construction	\$482,081,314
Information	\$170,753,499
Other Services	\$127,357,797
Admin, Support, and Waste Management	\$46,127,018
Public Administration	\$44,829,091
Transportation	\$37,992,634
Educational Services	\$27,176,988
Health Care and Social Assistance	\$22,753,692
Finance and Insurance	\$15,690,432
Utilities	\$7,842,848
Retail Trade	\$7,712,952
Wholesale Trade	\$4,932,409
Accommodation and Food Services	\$4,584,830
Real Estate and Rental	\$1,490,187
Mining	\$1,418,865
Arts, Entertainment, and Recreation	\$39,270
Agriculture, Forestry, Fishing and Hunting	\$22,869
Total	\$6,088,463,488

Note: These amounts follow the “net amount” definition from Table 9.2 and Table 9.3: prime contracts performed by companies with a presence in Utah, plus subcontracts performed in Utah where the prime contract place of performance is not Utah, minus subcontracts to out-of-state companies from in-state prime contracts, plus grants to Utah recipients.
Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

contracts, 59.2% of the total. L3Harris Technologies received \$611.4 million (10.3% of the total). Utah State University came in third, with \$192.3 million (3.2%).

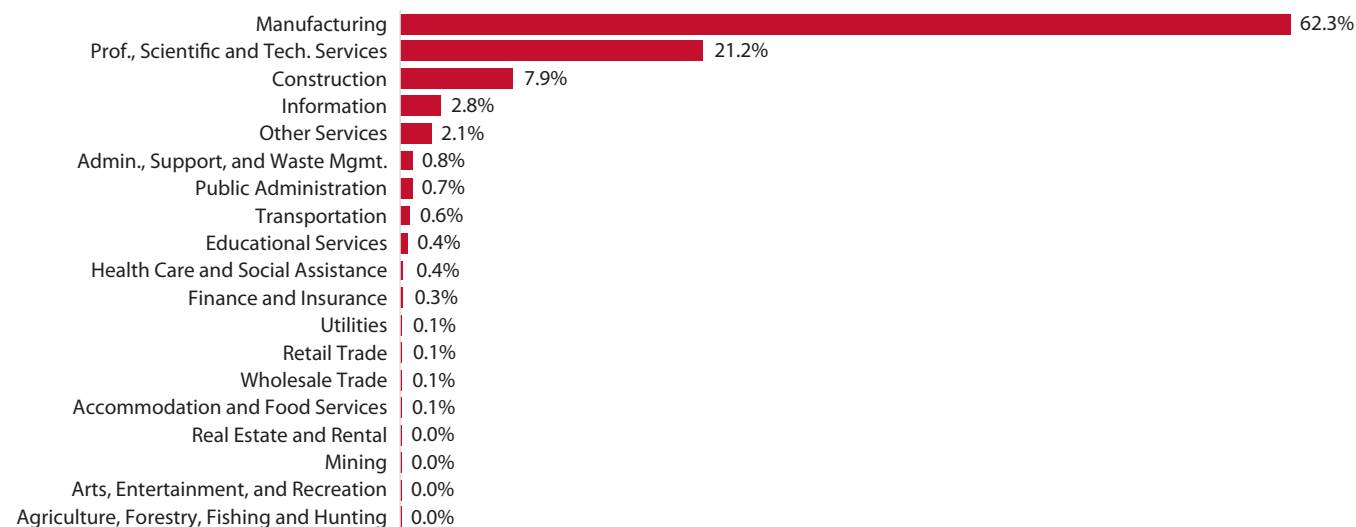
Almost 1,200 companies performed DOD or VA contracts in Utah during FY 2023 (Table 9.7). These companies and other organizations performed over 9,000 DOD contracts and nearly 660 VA contracts, for a total of 9,925 defense contracts in FY 2023. Details for federal grants are discussed in “Impacts of Defense Grants” below.

Impacts of Non-Installation DOD Contracts

This section focuses on the economic impacts of DOD contracts and grants that are not associated with Utah’s military installations; VA contracts and grants, as well as DOD contracts and grants associated with military installations, are covered in previous sections of this report. The distinction between installation and non-installation awards is based on whether the award was issued through either the awarding or funding office of a military installation located in the state; non-installation awards are simply awards not issued through an office associated with a Utah military installation. Such awards would include, for example, contracts issued to Utah companies from Nevada’s Nellis Air Force Base but exclude awards to Utah companies from Utah’s Hill Air Force Base.

Figure 9.5: DOD and VA Contracts and Grants in Utah by Industry, FY 2023

(Share of Total)



Note: See Table 9.5 for the amounts corresponding to these rounded percentages. Since all industries received funding, industries showing 0.0% have actual values less than 0.5% but greater than zero.

Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Table 9.6: Top 10 Defense Contractors in Utah, FY 2023

Company	Amount	Share
Northrop Grumman	\$3,508,287,592	59.2%
L3Harris Technologies	\$611,427,149	10.3%
Utah State University	\$192,329,483	3.2%
Advantaged Solutions	\$153,664,892	2.6%
Barres Systems Engineering	\$150,329,441	2.5%
Albany Aerostructures Composites	\$143,472,911	2.4%
M.A. Mortenson Company	\$136,913,312	2.3%
Klune Industries	\$119,932,575	2.0%
Rockwell Collins	\$108,873,050	1.8%
Boeing	\$97,218,791	1.6%
Total	\$5,222,449,195	88.1%

Note: These amounts follow the “net amount” definition from Table 9.2 and Table 9.3: prime contracts performed by companies with a presence in Utah, plus subcontracts performed in Utah where the prime contract place of performance is not Utah, minus subcontracts to out-of-state companies from in-state prime contracts.

Note: Includes subsidiaries and joint ventures. Shares are of total FY 2023 DOD and VA contracts of \$5.9 billion.

Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Table 9.7: Number of Utah Contracts and Contractors from DOD and VA, FY 2023

Type of Contract	DOD	VA	Total
Prime Contracts	8,754	656	9,410
Subcontracts	512	3	515
Total Number of Contracts	9,266	659	9,925
Contractors Receiving Prime Awards	728	193	892
Contractors Receiving Subawards	378	3	381
Total Number of Contractors	1,029	196	1,195

Note: Contractor totals do not necessarily equal the sums of the parts because they are counts of unique companies. Some companies receive multiple contracts.

Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Economic and fiscal impacts reported below are not directly comparable with impacts of non-installation defense awards in a 2021 report by the Kem C. Gardner Policy Institute.³⁷ The previous study reported the impacts of FY 2019 non-installation VA contracts and grants in its Defense Contracts and Grants section, in addition to non-installation DOD contracts and grants. Only the latter are part of this section’s FY 2023 impacts. Another noteworthy difference with the previous study is that large DOD contracts awarded to Northrop Grumman and performed at the Roy Innovation Center are associated with Hill Air Force Base for FY 2023, rather than counted as non-installation contracts as they were for FY 2019. All Hill AFB contracts are included in the economic and fiscal impacts in Section 2 of this report.

Non-installation DOD contract awards totaled \$2.7 billion in FY 2023, nearly half of the \$5.8 billion in total DOD contract awards (see Table 9.2 for total awards). Table 9.8 and Figure 9.6 show the dollar value and shares of non-installation DOD contract awards by industry. As with overall awards, the largest shares of non-installation DOD contracts were awarded to companies engaged in manufacturing (\$1.3 billion, or 50.0%) or professional, scientific and technical services (\$746.4 million, or 28.0%).

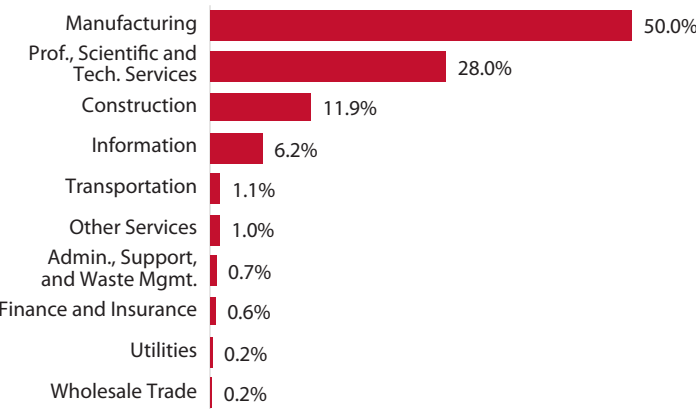
Contractors with the largest shares of DOD non-installation awards in FY 2023 include L3Harris Technologies (\$611.4 million, or 22.7%), Northrop Grumman (\$494.7 million, or 18.3%), and Utah State University, through their Space Dynamics Laboratory (\$172.1 million, or 6.4%). Note that the non-installation amount reported above for Northrop Grumman does not include awards associated with the Sentinel project; those awards, performed by Northrop Grumman at the Roy Innovation Center, are associated with Hill Air Force Base and covered in a previous section.

Table 9.8: Top 10 Industries Performing Non-Installation DOD Contracts in Utah, FY 2023

Sector	Amount
Manufacturing	\$1,335,676,090
Professional, Scientific and Technical Services	\$746,369,471
Construction	\$317,816,555
Information	\$164,381,506
Transportation	\$30,186,485
Other Services	\$27,913,831
Admin, Support, and Waste Management	\$17,747,586
Finance and Insurance	\$15,265,523
Utilities	\$4,813,833
Wholesale Trade	\$4,093,239
Total	\$2,669,129,573

Note: Total refers to the sum of contracts across all industries, not just the top 10.
Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Figure 9.6: Top 10 Industries Performing Non-Installation DOD Contracts in Utah, FY 2023
(Share of Total)

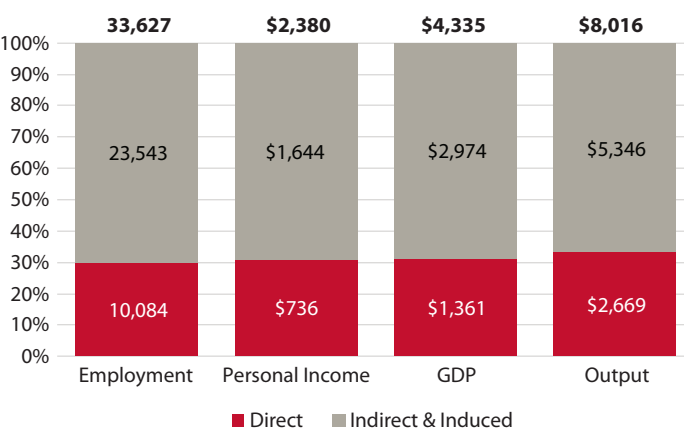


Source: Kem C. Gardner Policy Institute analysis of data from USASpending.gov

Non-installation DOD contracts supported over 33,627 jobs in Utah in FY 2023 and about \$2.4 billion in personal income (Figure 9.7). This includes over 10,000 direct jobs (jobs at the contractors themselves), paying \$736.3 million in personal income. Non-installation contracts contributed \$4.3 billion to state GDP and \$8.0 billion in gross output (sales). The associated fiscal impacts included \$138.3 million in state income and sales tax revenues, \$64.4 million in state operating expenditures, and \$7.0 million in state capital expenditures, for net revenues of \$67.0 million (Table 9.9).

Recipients of the \$2.7 billion in DOD non-installation contracts produced employment, personal income and GDP impacts in every county in Utah during 2023. Between 45% (personal income) and 59% (gross output/sales) of impacts went to Salt Lake County, where these additional defense contracts provided

Figure 9.7: Statewide Economic Impacts of Non-Installation DOD Contracts, FY 2023
(Jobs; Millions of Dollars)



Note: Direct employment and personal income were estimated by the REMI PI+ model and were not obtained directly from the contract recipients.
Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 9.9: State Fiscal Impacts of DOD Non-Installation Contracts with Utah Companies, FY 2023
(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$62.8
Corporate Income Tax Revenues	\$12.9
State Sales Tax Revenues	\$62.6
Total State Tax Revenues	\$138.3
State Non-Education Expenditures	(\$34.6)
State Public Education Expenditures	(\$16.2)
State Higher Education Expenditures	(\$13.6)
Total State Operating Expenditures	(\$64.4)
State Capital Expenditures	(\$7.0)
Total State Expenditures	(\$71.4)
Net State Fiscal Impact	\$67.0

Note: Individual impacts may not sum to totals due to rounding.
Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

17,193 jobs, \$1.1 billion in personal income, \$2.5 billion in GDP, and \$4.7 billion in gross output/sales (Table 9.10). Davis County had the second-largest impacts, with 6,449 jobs, \$408.7 million in personal income, \$707.8 million in GDP, and \$1.3 billion in gross output/sales. These figures represent between 1.3% and 1.9% of Salt Lake County jobs, personal income, GDP, and output. For Davis County, the impacts range between 1.8% and 3.0% of their countywide counterparts.

Utah, Cache, and Weber counties show impacts that are smaller in magnitude—though in some cases comparable in share—to Salt Lake and Davis.

Table 9.10: Economic Impacts of Non-Installation DOD and VA Contracts with Utah Companies by County, FY 2023

(Shares of County Totals, Millions of Dollars)

County	Employment		Personal income		Gross Domestic Product		Output	
	Number	Share	Amount	Share	Amount	Share	Amount	Share
Salt Lake County	17,193	1.6%	\$1,078.7	1.3%	\$2,511.4	1.8%	\$4,690.8	1.9%
Davis County	6,449	3.0%	\$408.7	1.8%	\$707.8	3.0%	\$1,318.5	3.0%
Utah County	3,354	0.7%	\$327.0	0.8%	\$386.4	0.8%	\$720.0	0.9%
Cache County	3,023	3.2%	\$164.8	2.3%	\$304.3	3.3%	\$517.7	3.0%
Weber County	1,888	1.2%	\$176.0	1.2%	\$207.9	1.2%	\$374.2	1.2%
All Others	1,720	0.4%	\$224.7	0.5%	\$216.7	0.4%	\$394.3	0.4%
Total	33,627	1.4%	\$2,379.9	1.1%	\$4,334.6	1.5%	\$8,015.6	1.6%

Note: Employment, GDP, and output are by place of work. Personal income is by place of residence. Shares equal employment, personal income, GDP, and output impacts divided by total employment, personal income, GDP, and output in the county (or state for the "Total" row), respectively.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 9.11: Top 10 Recipients of DOD Grants and Cooperative Agreements in Utah, FY 2023

(Millions of Dollars)

Recipient	Amount
University of Utah	\$11.7
Technology Holding (LLC)	\$10.3
Brigham Young University	\$2.2
Utah State University	\$1.2
Utah Stem Foundation	\$0.7
Blackrock Microsystems	\$0.5
Governor's Office of Economic Opportunity	\$0.5
Applied Biosensors	\$0.5
Intermountain Health Care	\$0.4
Herriman City	\$0.1
Total	\$27.9

Note: Total refers to the sum of grants across all recipients, not just the top 10.

Source: Kem C. Gardner Policy Institute analysis of data from USAspending.gov

Impacts of DOD Grants

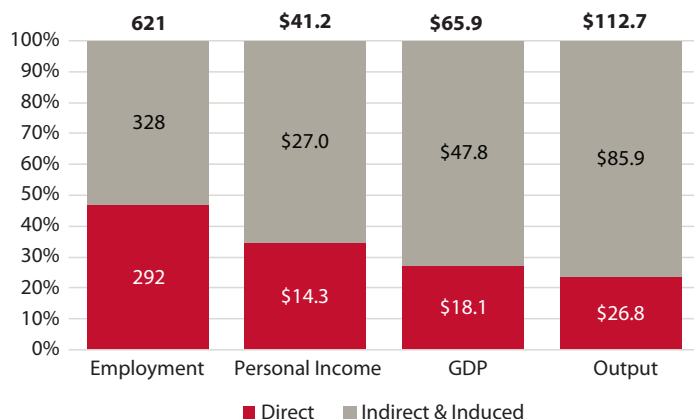
DOD grants to non-installation Utah recipients totaled \$27.9 million in FY 2023. The University of Utah was the largest recipient, with \$11.7 million, followed by Technology Holding at \$10.3 million. Other university recipients include Brigham Young University (\$2.2 million) and Utah State University (\$1.2 million). State and local government recipients include the Governor's Office of Economic Development (\$0.5 million) and Herriman City (\$0.1 million). Note that the figures reported here do not include grants to the Utah National Guard (\$82 million), which is considered an "installation" recipient and so covered in a previous section.

The economic impacts of these grants consisted of 621 jobs and over \$41.2 million in personal income in 2023. This includes an estimated 292 direct jobs created by grant recipients with \$14.3 million in personal income. The grants contributed an estimated \$65.9 million to the state's GDP and \$112.7 million in output (Figure 9.8). These impacts led to \$2.5 million in state tax revenues, \$1.1 million in operating expenditures, and \$120,000 in capital expenditures, for a net state fiscal impact of \$1.3 million in revenue (Table 9.12).

As with DOD contracts, the economic impact of DOD grants was concentrated along the Wasatch Front. Between 55% (personal income) and 72% (GDP and output/sales) of total economic impact accrued to Salt Lake County, with 402 jobs, \$22.8 million in personal income, \$47.6 million in GDP, and \$80.9 million in gross output/sales (Table 9.13). Although in almost all cases the impacts were very small relative to the size of the county (often rounding to 0.0%), relative impacts were largest for San Juan County, with impacts ranging from 0.1% (personal income, GDP, gross output/sales) to 0.7% (employment) of the corresponding countywide total.

Figure 9.8: Statewide Economic Impacts of DOD Grants to Utah Recipients, FY 2023

(Jobs; Millions of Dollars)



Note: Direct employment and personal income were estimated by the REMI PI+ model and were not obtained directly from the contract recipients.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Table 9.12: State Fiscal Impacts of DOD Grants to Utah Recipients, FY 2023

(Millions of Dollars)

Impact	Amount
Individual Income Tax Revenues	\$1.1
Corporate Income Tax Revenues	\$0.3
State Sales Tax Revenues	\$1.1
Total State Tax Revenues	\$2.5
State Non-Education Expenditures	(\$0.6)
State Public Education Expenditures	(\$0.3)
State Higher Education Expenditures	(\$0.2)
Total State Operating Expenditures	(\$1.1)
State Capital Expenditures	(\$0.1)
Total State Expenditures	(\$1.2)
Net State Fiscal Impact	\$1.3

Note: Individual impacts may not sum to totals due to rounding.

Source: Kem C. Gardner Policy Institute analysis using the Gardner Institute fiscal model

Table 9.13: Economic Impacts of DOD Grants to Utah Recipients by County, FY 2023

(Shares of County Totals, Millions of Dollars)

County	Employment		Personal income		Gross Domestic Product		Output	
	Number	Share	Amount	Share	Amount	Share	Amount	Share
Salt Lake County	402	0.0%	\$22.8	0.0%	\$47.6	0.0%	\$80.9	0.0%
Utah County	81	0.0%	\$7.3	0.0%	\$7.9	0.0%	\$13.6	0.0%
San Juan County	46	0.7%	\$0.5	0.1%	\$1.0	0.1%	\$1.5	0.1%
Davis County	27	0.0%	\$4.2	0.0%	\$2.9	0.0%	\$5.3	0.0%
Cache County	22	0.0%	\$1.2	0.0%	\$2.0	0.0%	\$3.4	0.0%
All Others	43	0.0%	\$5.3	0.0%	\$4.5	0.0%	\$7.9	0.0%
Total	621	0.0%	\$41.2	0.0%	\$65.9	0.0%	\$112.7	0.0%

Note: Employment, GDP and output are by place of work. Personal income is by place of residence. Shares equal employment, personal income, GDP and output impacts divided by total employment, personal income, GDP, and output in the county (or state for the "Total" row), respectively.

Source: Kem C. Gardner Policy Institute analysis using the REMI PI+ model

Section 10. Trends in Defense Employment and Compensation

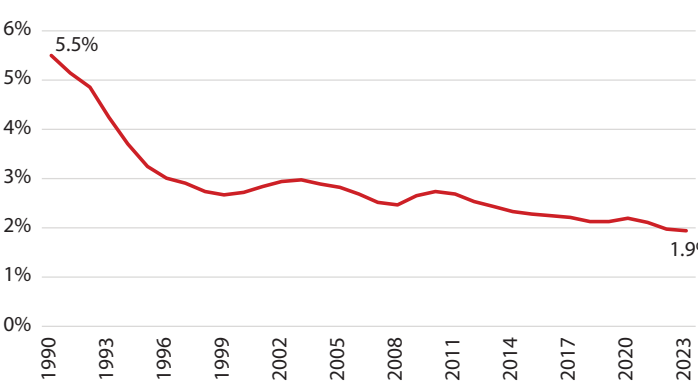
The analysis of defense employment and personal income in Utah in previous sections has relied largely on detailed information reported directly from defense organizations for FY 2023. Similar extensive data collection for previous years was not feasible. In this section, we show 34-year trends in defense employment and compensation in Utah based primarily on data from the Bureau of Economic Analysis (BEA) and the Bureau of Labor Statistics (BLS).

BEA and BLS data address federal government employment without identifying which private sector jobs are also part of the defense industry. The 49,540 defense industry jobs reported in the Analysis in Brief and Section 1 Overview includes private sector employment at companies with defense contracts that do not pass through a Utah installation. The defense industry total also includes jobs at universities that are supported with defense grants or tuition assistance. Considering only federal jobs for military personnel and defense civilians, the difference in 2023 job totals from the two is 6.5%, 35,987 jobs according to BEA and BLS versus 38,337 jobs reported by Utah defense organizations for this study. One source of the difference in totals is the difference in the reporting period: Utah defense organizations report totals for the federal fiscal year 2023, while BEA and BLS report totals for the calendar year 2023. Figure 32, below, suggests this difference in reporting period accounts for only a small part of the difference in totals, however. The remainder is likely due to different definitions and methods of enumeration between the sources. Note that all figures in the remainder of this section refer to calendar years, not federal fiscal years.

Defense Employment in Utah, 1990–2023

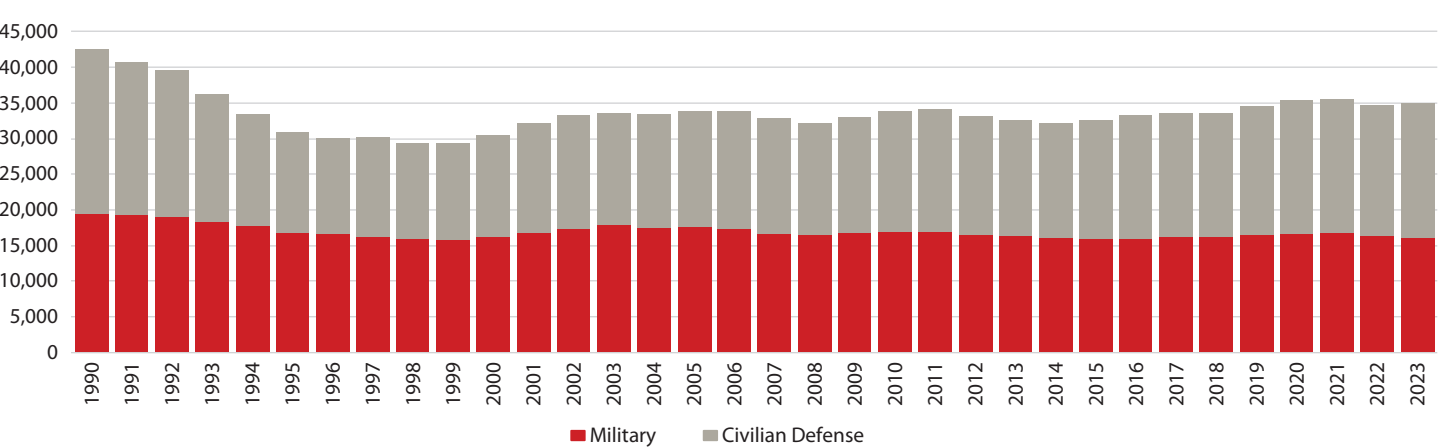
Since 1990, when Utah’s federal defense employment exceeded 42,000 jobs, defense efforts have required an increasingly smaller share of the state’s growing labor force (Figure 10.1 and Figure 10.2). In 2023, military personnel and civilians with federal defense jobs made up about 1.9% of Utah’s employment total, down from 2.3% in 2015, 2.8% in 2005, and 5.5% in 1990. In recent decades, the number of military personnel serving in Utah has been more stable than the number of federal civilian jobs with the DOD or VA. Considering all federal defense employment in the state, employment held fairly steady above 30,000 jobs from 2000 to 2023. For the same period, while defense employment increased 15%, employment in the economy as a whole grew by 60%, resulting in defense’s shrinking share.

Figure 10.2: Defense Share of Total Employment in Utah, 1990–2023



Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Moody’s

Figure 10.1: Military and Federal Civilian Defense Employment in Utah, 1990–2023



Source: Bureau of Economic Analysis, Bureau of Labor Statistics

Table 10.1: Defense Employment in Utah, Selected Years 1990–2023

Category	1990	1995	2000	2005	2010	2015	2020	2023
Military	19,399	16,695	16,222	17,608	16,886	15,962	16,949	16,112
Federal Civilian	23,075	14,134	14,291	16,232	16,881	16,603	18,671	18,842
Total Defense	42,474	30,829	30,513	33,840	33,767	32,565	35,620	34,954
Share of All Utah Jobs	5.5%	3.2%	2.7%	2.8%	2.7%	2.3%	2.2%	1.9%

Note: Military employment for 2023 is an estimate.

Source: Bureau of Economic Analysis; Bureau of Labor Statistics, Quarterly Census of Employment and Wages

Between 1990 and 2023, the total number of defense jobs statewide decreased by 18%. The decline occurred mainly in the early 1990s due to nationwide military downsizing (Table 10.1). Utah’s economy has become increasingly diversified with robust non-defense employment growth of 133% for the same period. In more recent years, particularly since 2019, defense employment has grown at about the same rate as overall employment in the state, so that the defense share of overall employment has stabilized.

Federal defense employment includes the military, whether active-duty employment or part-time employment in reserve or National Guard units. It also includes federal civilian employment for national security and medical care provided by the VA and DOD. Defense-related private sector employment that relies on federal funding, such as jobs at defense contractors, is not available for this time series, but we have included such defense-related economic activity for 2023 in other sections of this report.

At 19,399 jobs in 1990, military employment in Utah was the highest it had been in the previous 20 years. Since then, the number of military jobs has declined, reaching a low of 15,926 in 2015 before slightly increasing to 16,112 in 2023. Military employment includes full-time active-duty personnel as well as larger numbers of part-time soldiers in the National Guard and armed forces reserves. Military employment does not include civilians employed by the DOD.

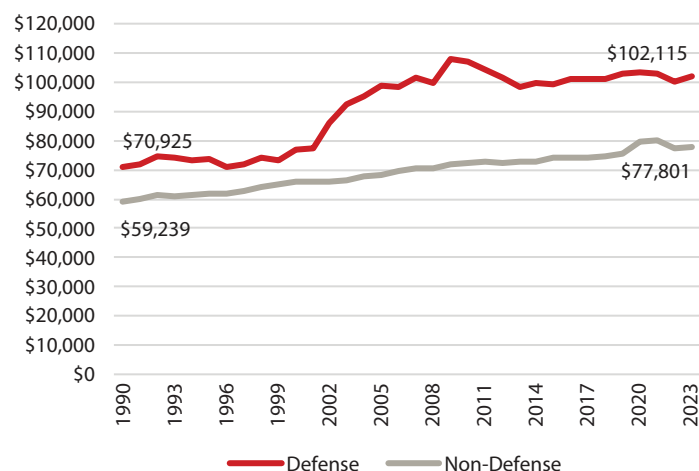
Federal civilian employment in Utah related to defense is predominantly in the national security sector, NAICS 92811 for civilians employed by the armed forces, including the National Guard. A smaller medical component includes civilians employed by DOD or VA at federal medical facilities, such as the VA Medical Center in Salt Lake City, the 74th Medical Group at Hill Air Force Base, and the U.S. Army Medical Command in Tooele. These jobs related to military health care are categorized as NAICS 622 for hospitals or NAICS 6211 for federal physicians’ offices. In 2023, 82% of federal civilian defense employment was in the national security sector, with 15,505 jobs in 14 counties in Utah.

Statewide, the number of federal civilian defense jobs declined by 18% from 1990 to 2023, while the total number of civilian jobs more than doubled. Federal civilian defense employment in Utah fell 43% from over 23,000 in 1990 to a 25-year low below 13,300 in 1998. That change was driven by reduced civilian employment in the national security sector following the Cold War and Gulf War, and the base realignment and closure rounds in the early 1990s. However, Utah has benefitted from a substantial increase in federal civilian defense jobs since 2000, with employment rising 32% to 18,842 jobs in 2023. About 42% of that growth came from federal civilian employment in hospitals. Over this period the number of national security jobs in Utah increased by 21%, while medical jobs for federal civilians grew by 131%.

Compensation from Defense Employment, 1990–2023

From 1990 to 2023, compensation per federal defense job in Utah remained considerably higher than Utah’s average compensation rate, with the gap widening over the period (Figure 10.3). Compensation per federal defense job, including military and civilian employment, grew by 44% in inflation-adjusted dollars over 33 years. In contrast, steady growth in non-defense compensation resulted in a 31% gain from 1990 to 2023.

Figure 10.3: Average Compensation of Federal Defense Jobs Versus Non-Defense Jobs in Utah, 1990–2023
(Constant 2023 Dollars)

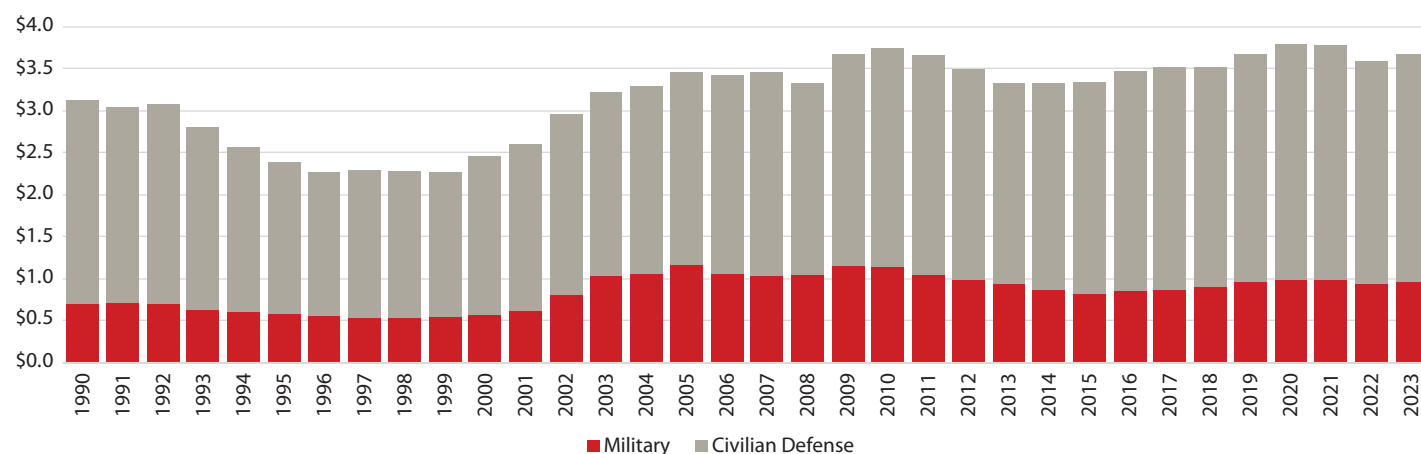


Note: Compensation is for military personnel and civilian employees of the U.S. Department of Defense and U.S. Department of Veterans Affairs in Utah.

Source: U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, and Moody's

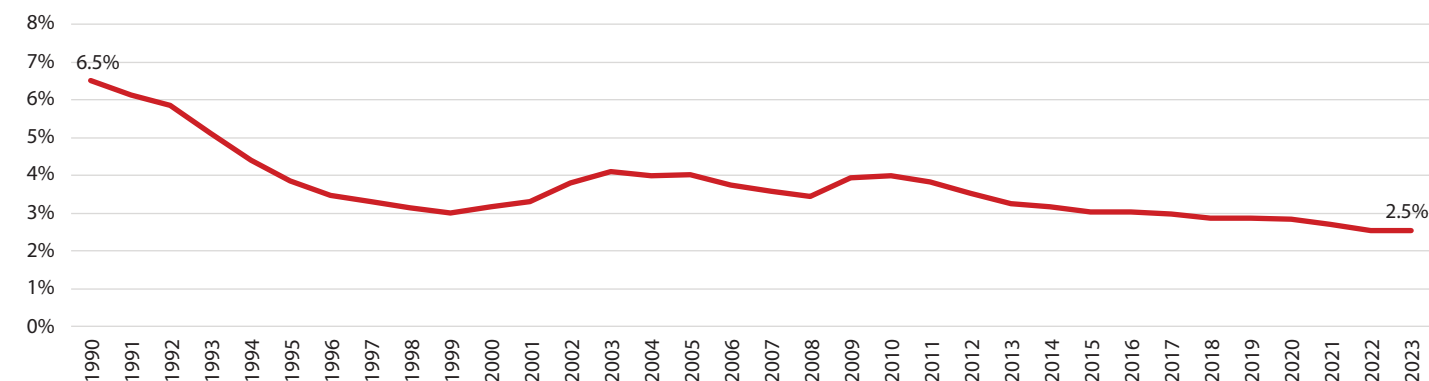
Figure 10.4: Military and Federal Civilian Defense Estimated Total Compensation in Utah, 1990–2023

(Billions of Constant 2023 Dollars)



Source: Bureau of Economic Analysis, Bureau of Labor Statistics

Figure 10.5: Defense Share of Total Compensation in Utah, 1990–2023



Source: Bureau of Economic Analysis, REMI PI+

In 1990, federal defense jobs in Utah offered an average of \$70,925 in compensation, 25% more than the \$59,239 at non-defense jobs (both in constant 2023 dollars). By 2023, the federal defense advantage had grown to 41%, with federal defense jobs offering an average of \$102,115 in compensation versus \$77,801 for all other Utah jobs.

Average compensation per military job in Utah was \$66,766 in 2023, lower than average compensation per civilian job. However, over two-thirds of the military personnel in Utah are reserve or Guard members with part-time military obligations that allow them to pursue other full-time employment. Active-duty military personnel, on the other hand, earn considerably more than the average civilian employee in Utah.

Over 30 years, aggregate federal defense compensation for military and civilian employees in Utah rose 14% in inflation-adjusted dollars, from \$3.0 billion in 1990 to \$3.6 billion in 2023 (Figure 10.4). This growth occurred despite the number of federal defense jobs in the state falling 18% during the same period (Table 10.1). Total defense compensation has increased by about \$144 million (in inflation-adjusted dollars) since 2019.

Civilians accounted for more than two-thirds (70%) of the 2023 compensation total. From 2000 to 2023, military compensation and federal civilian defense compensation grew at comparable rates, 57% and 50%, respectively.

From 1990 to 2023, the share of total Utah compensation earned by defense employees fell from 6.5% to 2.5% (Figure 10.5). During each year from 1990 to 2023, federal defense activity in Utah accounted for a larger share of the state's employee compensation than of its jobs (compare Figure 10.2, above, and Figure 10.5), reflecting the higher average compensation for defense jobs (Figure 10.3). For example, 1.9% of Utah employment in 2023 came from federal defense jobs, while these jobs paid 2.5% of total compensation in the state.

While Utah's aggregate defense compensation fell from 1990 to 1999, totals have grown slowly since the late 2000s, reaching \$3.6 billion in 2023, about the same as in 2010 (in inflation-adjusted dollars) (Table 10.2). This reflects a decline (-4.8%) in inflation-adjusted defense compensation per job since 2010, of comparable magnitude to the growth (3.5%) in defense employment.

Table 10.2: Estimated Defense Compensation in Utah, Selected Years 1990–2023

(Millions of Constant 2023 Dollars)

Category	1990	1995	2000	2005	2010	2015	2020	2023
Military	\$816.5	\$699.1	\$683.0	\$1,267.7	\$1,260.3	\$943.0	\$1,106.1	\$1,075.7
Federal Civilian	\$2,195.9	\$1,569.8	\$1,663.5	\$2,077.5	\$2,359.0	\$2,285.8	\$2,564.5	\$2,493.6
Total Defense	\$3,012.5	\$2,269.0	\$2,346.5	\$3,345.2	\$3,619.2	\$3,228.8	\$3,670.6	\$3,569.3
Share of Utah Compensation	6.5%	3.9%	3.2%	4.0%	4.0%	3.0%	2.8%	2.5%

Source: Bureau of Economic Analysis, Bureau of Labor Statistics, REMI PI+

From 1990 to 2000, military compensation in Utah fell from \$816.5 million to \$683.0 million in inflation-adjusted 2023 dollars. Wars in Afghanistan and Iraq in a post-9/11 environment brought increased pay, with compensation fluctuating between \$1.1 and \$1.3 billion from 2003 to 2010. Since then, military compensation to Utahns has declined somewhat to \$1.1 billion in 2023—the same amount, adjusted for inflation, as in 2019—after rising steadily in the later 2010s.

Compensation received by federal civilian employees in defense jobs in Utah amounted to \$2.5 billion in 2023. That represents a 14% increase since 1990 and a 68% increase since the 20-year low in 1999, based on inflation-adjusted dollars.

From 2019 to 2023, federal civilian compensation increased less than 1% (in constant 2023 dollars), owing to the small decline in inflation-adjusted defense-job compensation since 2019.

In 2023, 80% of federal civilian defense compensation came from national security jobs, down from 94% in 1990. Civilian compensation from federal medical centers for veterans and service members in Utah, primarily in Salt Lake and Davis counties, increased by 247%, from \$141.5 million in 1990 to \$490.8 million in 2023. In recent history, federal civilian medical compensation has outperformed national security, increasing by 11.4% compared with negative 1.4% since 2019.

Section 11. Methodology

This section addresses how the authors at the Kem C. Gardner Policy Institute collected data and prepared the economic and fiscal impact analysis for components of Utah's military and defense industry (defense industry) in FY 2023.

Data Preparation

Much of the data used in this study were obtained directly from defense organizations in Utah. The Gardner Institute requested information on their employment, payroll, and nonpayroll in-state spending. The authors' goal was to find reliable data on all economic activity related to defense in the state. Defense organizations provided totals and, in most cases, industry, county, and other detail. The authors relied on numbers and explanations provided by helpful individuals from various parts of these organizations (see Acknowledgments).

In some instances, organizations were not able to respond fully to Gardner Institute requests. Published data, previous Gardner Institute defense studies, and economic models were used to make conservative estimates to fill these gaps. For adjustments particular to one defense component, explanations are found in that section's text, table notes, or endnotes. Regarding principal published data sources, the U.S. Department of the Treasury provides detailed records covering contract and grant expenditures at [USAspending.gov](https://www.usaspending.gov), and the U.S. Department of Veterans Affairs (VA) releases county-level expenditure data. Public data and analysis were also used to verify and supplement complete responses.

Most data inputs for this study were for federal fiscal year (FY) 2023 ending September 30, 2023. Exceptions are noted throughout the report. FY 2023 data were the most recent available at the time the authors undertook the data collection process.

For this study, Gardner Institute authors met with leadership from Hill Air Force Base, Dugway Proving Ground, Tooele Army Depot, and the Utah National Guard. Onsite and virtual meetings included discussions of operations at each defense organization and data needed for the study. A series of follow-up conversations by email, phone, and video call aided the authors in receiving and interpreting responses. This study did not require on-site meetings for VA installations or the many reserves, recruiting, and ROTC units in Utah.

Employment and payroll data were provided by contacts at the three military installations (Hill AFB, Dugway Proving Ground, and Tooele Army Depot), the Utah National Guard, and the VA Salt Lake City Healthcare System and Regional Office. For the other defense organizations with employees in Utah—military reserve, recruiting, and ROTC units—employment information was obtained directly, and payroll amounts were

based on average pay for federal civilians and military personnel in Utah. Notes about data limitations, estimates, and omissions for these organizations are in Section 6.

The three military installations and the Utah National Guard provided nonpayroll spending amounts for FY 2023 in response to Gardner Institute information requests. Where necessary, these data were supplemented with publicly available federal spending data from [USAspending.gov](https://www.usaspending.gov). [USAspending.gov](https://www.usaspending.gov) was the principal source for DOD and VA contracts and grants, including those not directly tied to a Utah defense component. The VA's National Center for Veterans Analysis and Statistics provided data on retirement pensions and benefits paid to Utah veterans. The DOD's Office of the Actuary provided data on military retiree counts and pension payments. The United States Office of Personnel Management provided retired DOD civilian counts and pension payments. The DOD Tuition Assistance website provided tuition amounts paid to higher education institutions in Utah. Finally, the U.S. Department of Education, Office of Elementary and Secondary Education, provided education impact aid amounts for Davis County.

Economic Impact Analysis

Economic impacts in this report represent the portion of Utah's economy that depends on federal spending for defense. Economic impacts and the associated fiscal impacts contemplate the hypothetical absence of the defense industry in Utah's public and private sectors. If DOD and VA employment and spending in the state had been zero in FY 2023, how would economic activity in Utah have changed? The authors assume that federal taxes paid by Utahns would have continued without defense-related federal spending in the state.

REMI PI+, developed by Regional Economic Models, Inc., is a dynamic, multiregional simulation model that forecasts economic, population, and labor market impacts for many years into the future. REMI provides year-by-year estimates of the regional effects of specific economic or policy changes. The model incorporates input-output relationships, general equilibrium effects, econometric relationships, and economic geography effects.

Although REMI has many interrelated submodels and features, the essential logic of the model derives from its cohort component, economic base, and input-output submodels. The REMI model connects these submodels through labor, capital, financial, and product markets. It simulates the size and composition of the population and economy over time. If there is an increase in the production of an export base industry in a region, the region's employment and income increase as well. REMI produces estimates of these increases over multiple years.

REMI PI+ version 3.2.0 aided in the analysis of the economic impacts of defense activity in the state. The authors entered county-level inputs for employment, payroll, and nonpayroll spending.

The authors entered direct defense employment in REMI as military or federal civilian jobs. For most jobs, the authors specified pay reported by employers and made adjustments to capture benefits that were part of compensation. To fill gaps where precise pay information was lacking, the authors turned to 2023 Utah averages for each sector. Personal income from veteran and military pensions was entered as transfers to veterans. The authors inputted nonpayroll defense spending in Utah for each of 23 NAICS sectors to capture unique industry characteristics, including, for example, variation in supply chains and employee pay. In most cases, the authors were able to specify the county in Utah where nonpayroll spending occurred.

The Gardner Institute exercised caution not to overstate economic impacts. The study design avoided double-counting civilian jobs supported by federal outlays for contracts and grants. To that end, the authors removed REMI's government spending estimates when actual expenditure data were available and added as model inputs. This "nullification" adjustment removed the economic model's default indirect effects across defense component supply chains. The authors' nullification calculations involved input-output relationships by industry in the U.S. economy (shares of value added) and average productivity for military personnel and civilian employees in Utah counties (dollar amounts).

The Gardner Institute also took care to delineate in-state activity and the source of funding. After verifying the locations of companies named in expenditure data for contracts and government purchase card transactions, the authors excluded Utah defense spending going to out-of-state companies. In addition, the authors modeled economic impacts only for defense employment and spending funded by sources originating outside Utah—essentially the federal government—since economic activity supported by dollars recirculating within the state does not generate a similar economic impact.

Finally, the Gardner Institute took into account the high prevalence of part-time military employment in military reserve and National Guard units. The employment inputs for the economic model were reduced to 30.1% for 4,779 reservists and 6,086 traditional guardmembers. The two groups had similar work commitments for training one weekend per month plus two weeks per year. The percentage adjustment was based on an average over the year of 5.8 hours per week divided by the 19.4-hour average for all military personnel in Utah, which includes a mix of part- and full-time service members.³⁸ The authors entered actual wages for traditional guardmembers in FY 2023. Without pay information for reservists, the authors applied average Utah active-duty pay for reservists, also adjusted to 30.1%.

For REMI output, standard measures were selected to capture the direct, indirect, and induced effects of defense operations and spending: total full- and part-time jobs, personal income, gross domestic product (GDP), and output.

Fiscal Impact Analysis

Individual income and sales tax estimates derived from the personal income impacts calculated by the REMI PI+ model. Corporate income tax estimates depended on the output (sales) impacts by industry calculated by REMI. The authors multiplied REMI calculations by multiyear average ratios of tax revenues to personal income or output. Estimates accounted for sales tax and individual income tax exemptions, where applicable.

The Gardner Institute calculated government expenditures on a per-capita basis using the annual population impacts. Non-education expenditures were based on the total population impacts and include all state budget operating expenditures except those for higher education and public education. Higher education expenditures depended on the college-age population impacts, and public education expenditures relied on the school-age population impacts. The authors calculated capital expenditures using a similar per-capita basis methodology. All expenditure estimates were based on multiyear averages of per capita actual expenditure amounts.

Table 11.1: Summary of Data and Methodology Changes Between Studies, by Component

Component	FY 2019	FY 2023
Hill Air Force Base	Portion of employee benefits modeled explicitly	All employee benefits modeled implicitly (consistent with other components)
Dugway Proving Ground	No data or methodology change	
Tooele Army Depot	No data or methodology change	
Utah National Guard	Nonpayroll spending excludes visitor spending	Nonpayroll spending includes visitor spending
Reserves, Recruiting, ROTC & Tuition	Nonpayroll spending excludes DOD tuition assistance amounts	Nonpayroll spending includes DOD tuition assistance amounts
Veterans	Nonpayroll spending includes VA contracts issued by a Utah VA site (contracts from out-of-state VA sites and all VA grants excluded)	Nonpayroll spending includes all VA contracts and grants
DOD Retired Civilians	No data or methodology change	
Contracts and Grants	Includes DOD and VA contracts and grants not included with other defense components	Includes only DOD contracts and grants not included with other defense components

The fiscal impact estimates generated in this report should be viewed as broad measures. This methodology relies on historical data and assumes a linear relationship between taxes paid and personal income and industry output, and between operating and capital expenditures and population.

Scope

Table 11.1 highlights differences in definitions between defense components in FY 2019 and FY 2023. Only data and results for components without data or methodology changes lend themselves to comparisons.

Comparison: FY 2019 and FY 2023

Comparisons with prior Gardner Institute research reveal changes in Utah's defense industry and significant data and methods differences with the current study. Tables 11.2 and 11.3 compare FY 2019 and FY 2023 employment and nonpayroll spending for defense components. Data and methods differences limit comparability between the two years for five of the eight components and the totals.

The primary comparability limitation arises from the way defense contracts and grants are counted in FY 2019 and FY 2023. By FY 2023, Hill Air Force Base (Hill AFB) had begun to administer large DOD contracts awarded to Northrop Grumman Corporation. In FY 2019, a larger share of DOD contracts performed in Utah came under out-of-state entities and were analyzed with other defense contracts and grants not included with a particular defense component. Which Air Force installation manages particular Utah contracts does not affect economic activity for a given amount of DOD funding to Utah contractors. However, the shift to Hill AFB significantly reduced our estimate of total direct employment in Utah's defense industry in FY 2023. Direct employment does not include suppliers to in-state military installations, but indirect effects capture these suppliers' in-state employment and spending. In contrast, direct employment does include jobs at in-state suppliers to out-of-state military installations.

Another change in counting defense contracts and grants shifted employment and nonpayroll spending from the contracts and grants section to the veterans section, without reducing defense industry totals. The authors chose to cover all FY 2023 contracts and grants from the VA in the veterans section. In contrast, for FY 2019, Utah's VA contracts from outside the state and all VA grants were covered with DOD contracts and grants from other states performed in Utah. This choice shifted nonpayroll spending and related direct employment to the veterans section.

Besides changes with Hill AFB and VA contracts and grants, this study adds two components in FY 2023 that were not addressed in FY 2019: Utah National Guard visitor spending and

DOD tuition assistance. Also, TRICARE payments to health care providers for military personnel were added to nonpayroll spending for FY 2019 for Hill AFB (and no other DOD or VA employer). In FY 2023, these amounts were only included in estimates of employer-paid benefits for FY 2023, treating Hill AFB the same as other components of Utah's defense industry. Finally, nonpayroll spending for the ROTC is missing a different university ROTC program each year due to non-response.

The current study's fiscal impact methodology accounts more carefully than the previous study for federal government sales tax exemptions in the defense industry. Additionally, this analysis excludes military retiree pensions and VA benefits from the calculation of individual income tax receipts since these payments are exempt from state income tax liability.

Table 11.2: Direct Employment for Utah Defense Industry Components, FY 2019 and FY 2023 (Jobs)¹

Component	FY 2019	FY 2023	Change
Hill Air Force Base	19,832	20,707	4.4%
Dugway Proving Ground	657	621	-5.5%
Tooele Army Depot	531	476	-10.4%
Utah National Guard	7,831	8,348	6.6%
Reserves, Recruiting, ROTC & Tuition ²	4,323	4,472	N/A
Veterans ³	4,530	4,540	N/A
DOD Retired Civilians	0	0	0.0%
Contracts and Grants ⁴	27,413	10,376	N/A
Total	65,117	49,540	N/A

N/A = not available (due to data coverage differences, a simple percentage change is not meaningful; see notes below for these defense components)

Notes:

1. Direct employment consists of military and civilian jobs with the U.S. Department of Defense (DOD) and U.S. Department of Veterans Affairs (VA)—36,875 in FY 2019 and 39,127 in FY 2023—as well as estimated direct private sector jobs associated with DOD and VA contracts, grants, and tuition assistance—28,242 in FY 2019 and 10,413 in FY 2023.
2. To avoid double-counting, reserves and recruiting jobs in the table represent only additional economic activity not included under another defense component. Total employment for military reserves, recruiting, eight ROTC programs, and DOD tuition assistance was 6,076 jobs. DOD tuition assistance, with 37 jobs, was added only for FY 2023. Without tuition assistance, FY 2023 employment for reserves, recruiting, and ROTC programs would be 4,435 jobs, a 2.6% increase since FY 2019.
3. The veterans row includes direct employment from VA medical facilities and the regional benefits office, as well as estimated direct jobs from VA contracts and grants. In FY 2023, direct employment includes all VA contracts and grants; however, in FY 2019, nonpayroll spending includes only VA contracts issued by a Utah VA site, with FY 2019 contracts from out-of-state VA sites and all VA grants addressed under contracts and grants. Without the \$85.9 million in VA contracts from other states or \$53.8 million in VA grants, FY 2023 direct employment for federal spending in Utah for veterans was 3,750 jobs, a 17.2% decrease.
4. The authors estimated direct employment based on the value of contracts and grants not assigned to any installation (see Table 11.2). By FY 2023, Hill AFB had begun to administer large contracts previously included with FY 2019 non-installation contracts. Also, for FY 2019, the contracts and grants row includes DOD and VA contracts and grants not included with other defense components. For FY 2023, contracts and grants include only DOD contracts and grants not included with other defense components. Adding \$85.9 million in VA contracts and \$53.8 million in VA grants included in the veterans row for FY 2023, total direct employment from DOD and VA contracts and grants for the year would be 11,166 jobs, a 59.3% decrease. This employment adjustment does not account for contracts Hill AFB assumed.

Source: Kem C. Gardner Policy Institute analysis of data from defense installations

Table 11.3: Direct Nonpayroll Spending for Utah Defense Industry Components, FY 2019 and FY 2023

(Millions of 2023 Dollars)

Component	FY 2019 (2019 dollars)	FY 2019 (2023 dollars)	FY 2023 (2023 dollars)	Change (nominal)	Change (real)
Hill Air Force Base ¹	\$885.6	\$1,065.7	\$3,128.9	N/A	N/A
Dugway Proving Ground	\$56.8	\$68.3	\$53.9	-5.1%	-21.2%
Tooele Army Depot	\$19.5	\$23.5	\$12.0	-38.7%	-49.0%
Utah National Guard ²	\$55.6	\$66.9	\$37.4	N/A	N/A
Reserves, Recruiting, ROTC & Tuition ³	\$4.8	\$5.7	\$7.3	N/A	N/A
Veterans ⁴	\$1,772.8	\$2,133.3	\$2,347.6	N/A	N/A
DOD Retired Civilians	\$608.7	\$732.4	\$682.1	12.1%	-6.9%
Contracts and Grants ⁵	\$3,543.9	\$4,264.3	\$2,695.9	N/A	N/A
Total	\$6,947.6	\$8,360.1	\$8,965.0	N/A	N/A

N/A = not available (due to data coverage differences, a simple percentage change is not meaningful; see notes below for these defense components)

Notes:

1. For FY 2019, Hill AFB nonpayroll spending includes \$116.0 million in TRICARE payments for military personnel's health care to providers outside of DOD and VA. Comparable information is not available for FY 2023. Without TRICARE spending in FY 2019, nonpayroll spending at Hill AFB would be \$769.6 million in 2019 dollars and \$926.1 million in 2023 dollars; the percentage change from FY 2019 to FY 2023 would be 306.5% (nominal) and 237.9% (real). A change in the management of defense contracts is the primary reason for the increase in nonpayroll spending (see table note 5).
2. Nonpayroll spending for FY 2019 does not include visitor spending for the Utah National Guard. This visitor spending was \$3.8 million in FY 2023, and without it, nonpayroll spending would be \$33.6 million, a 49.8% decline since FY 2019.
3. Nonpayroll spending was not available for military reserves or recruiting. The only nonpayroll spending available for ROTC programs was financial assistance to students, missing ROTC operational expenses. DOD tuition assistance spending was available only for FY 2023: \$4.3 million. Without tuition assistance, FY 2023 nonpayroll spending for reserves, recruiting, ROTC programs, and tuition assistance would be \$3.0 million, a 46.9% decrease. ROTC nonpayroll spending was not available for Weber State University's Army ROTC program in FY 2019 (\$0.2 million in FY 2023) or for Utah State University's Air Force ROTC program in FY 2023 (in FY 2019, \$0.8 million in inflation-adjusted 2023 dollars).
4. In FY 2023, nonpayroll spending includes all VA contracts and grants; however, in FY 2019, nonpayroll spending includes only VA contracts issued by a Utah VA site, with FY 2019 contracts from out-of-state VA sites and all VA grants addressed under contracts and grants. Without the \$85.9 million in VA contracts from other states or \$53.8 million in VA grants, FY 2023 nonpayroll spending for veterans in Utah was \$2,207.9 million, a 3.5% increase. Information on government purchase card spending by VA installations was not available for either year.
5. By FY 2023, Hill AFB had begun to administer large contracts previously included with FY 2019 non-installation contracts. Also, for FY 2019, the contracts and grants row includes DOD and VA contracts and grants not included with other defense components. For FY 2023, contracts and grants include only DOD contracts and grants not included with other defense components. Adding \$85.9 million in VA contracts and \$53.8 million in VA grants included in the veterans row for FY 2023, total DOD and VA contracts and grants for the year would be \$2,835.6 million in nonpayroll spending, a 33.5% decrease.

Source: Kem C. Gardner Policy Institute analysis of data from defense installations

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Alan Cook, Cost Chief, Cost and Economics Division
Lesha Steed, Lead Operations Research Analyst,
Cost and Economics Division
Daniel Brinkerhoff, Operations Research Analyst,
Cost and Economics Division

Dugway Proving Ground, U.S. Army:

COL James P. Harwell, Commander
Diane Kuderik, Budget Officer, West Desert Test Center
Kimberly Kloser, Program Management Analyst (HR),
West Desert Test Center

Tooele Army Depot:

COL Eric B. Dennis, Commander, Tooele Army Depot, U.S. Army
Ryan Welch, Chief of Staff, Tooele Army Depot, U.S. Army

Utah National Guard:

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COL Robert Taylor, Director, J1/Human Resources
Office, Utah National Guard
COL Michael Kjar, Commander, Regional Training Institute,
Utah National Guard
MAJ Michael Ditto, Executive Officer, Utah Training
Center, Camp Williams
Dan Schoenfeld, Deputy Director for State Operations,
Utah National Guard
Loraine Robison, Deputy U.S. Property and Fiscal
Officer (USPFO), Utah National Guard

Military Reserves:

MAJ Gen Ernest Litynski, Commanding General,
76th Operational Response Command, U.S. Army
LTC Ashley Pflug, Secretary of the General Staff,
76th Operational Response Command, U.S. Army
Michael Giersch, Command Executive Officer,
76th Operational Response Command, U.S. Army
Melody Chase, Comptroller, 419th Fighter Wing,
Hill Air Force Base, U.S. Air Force
CDR Chris Kucala, Commanding Officer,
Navy Reserve Center Salt Lake City, U.S. Navy
MAJ Seth Davies, Inspector and Instructor, Company F,
2nd Battalion, 23rd Marine Regiment, U.S. Marine Corps

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Cost and Economics Division, Hill Air Force Base
MAJ Kyle King, Commanding Officer, Recruiting
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Sgt Jasmine Jones, Executive Assistant, Salt Lake City Military
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Endnotes

1. Spolsdoff, J. (August 2021). Utah's Defense Economy: Economic Impacts and Industry Trends. University of Utah, Kem C. Gardner Policy Institute. <https://gardner.utah.edu/wp-content/uploads/Utah-Defense-Economy-August2021.pdf>
2. NSA/CSS Locations. (Accessed November 2024). National Security Agency. <https://www.nsa.gov/about/locations/>
3. In addition to military retirees and dependents, TRICARE enrollment in Utah included 17,009 active duty personnel and dependents and 9,464 reservists, traditional guardmembers, and dependents. See Defense Health Agency. (September 2024). Evaluation of the TRICARE Program: Fiscal Year 2024 Report. U.S. Department of Defense. <https://www.health.mil/Reference-Center/Reports/2024/09/23/Annual-Evaluation-of-the-TRICARE-Program-FY24>
4. In FY 2022, the nationwide average for monthly annuities in the Federal Employees Retirement System (FERS) was \$2,126 per retiree, including many retired DOD civilian employees hired after 1986 and retired workers from other federal agencies hired after 1983. This average does not include Social Security or Thrift Savings Plan income related to prior DOD employment. See Isaacs, K.P. (December 2023). Federal Employees' Retirement System: Summary of Recent Trends. Congressional Research Service. <https://crsreports.congress.gov/product/pdf/RL/98-972>
5. Hill Air Force Base. Fact Sheets. <https://www.hill.af.mil/About-Us/Fact-Sheets/>
6. With Hill Air Force Base spanning two counties, the Gardner Institute estimated employment and wages in Davis and Weber counties based on FY 2023 employment and payroll totals reported by Hill AFB as well as 2023 county shares for civilian employment in national security and international affairs from the Utah Department of Workforce Services and 2022 county shares for military employment from the U.S. Bureau of Economic Analysis. While these county-level estimates informed the economic and fiscal impact analysis, the report also compares Hill AFB employment and wages to countywide totals in Davis County, the location for an estimated 98.9% of Hill AFB's civilian employment and 85.3% of its military employment.
7. Utah Department of Workforce Services. (October 2023). Largest Employers by County. <https://jobs.utah.gov/wi/data/library/firm/majoremployers.html>
8. Utah Department of Workforce Services. (September 2024). Utah Economic Data Viewer. <https://jobs.utah.gov/jsp/utalmis/#/industry/list>
9. Hill AFB reported \$93.2 million in total FY 2023 government purchase card spending. Industry and county detail were not available, unlike our Hill AFB contract data. The Gardner Institute used Hill AFB's FY 2014 purchase card amounts for 28 categories to spread the FY 2023 total to industries. Where in-state purchases were likely but the share unknown, the Gardner Institute followed a 50% assumption adopted for its analysis of Hill AFB's FY 2019 purchase card spending. The result was an estimated \$46.9 million of in-state FY 2023 purchase card spending allocated to industries. The authors entered these amounts as in-state industry sales in the REMI PI+ economic model, which allocated industry amounts to counties based on historical averages for defense activity in Utah.
10. The U.S. Department of Education, Office of Elementary and Secondary Education, reports education impact aid for local schools attended by the children of active duty military personnel and other federal employees as well as children who live on American Indian lands or federal property. In FY 2023, Davis County School District received \$693,758 in education impact aid, which the Gardner Institute attributes to Hill AFB. This amount is significantly less than the \$2.9 million Hill AFB reported in FY 2019 education impact aid, perhaps related more to data issues than spending changes.
11. Hill AFB's direct employment of 20,707 federal jobs includes 13 jobs within the 368th Recruiting Squadron working in Salt Lake, Utah, and Washington counties.
12. U.S. Army. (February 2022). Dugway Proving Ground: Empowering the Nation's Defenders. <https://www.army.mil/dugwaygarrison>
13. Dugway Proving Ground's \$50.0 million in total FY 2023 wages includes almost \$0.9 million in payments to military personnel, a Gardner Institute estimate based on rank and unit information for 24 military personnel from DPG and pay averages across years of service from the U.S. Army pay scale for that year. DPG reported actual wages paid to its civilian employees. For total countywide wages used to calculate DPG's 5.1% share, see Utah Department of Workforce Services. (September 2024). Utah Economic Data Viewer. <https://jobs.utah.gov/jsp/utalmis/#/industry/list>
14. Dugway Proving Ground reported \$4.5 million in total FY 2023 government purchase card spending. Industry and county detail were not available, unlike our DPG contract data. However, DPG provided vendor names and amounts for \$1.1 million in purchase card transactions. The Gardner Institute looked up these vendors in the Firm Find database published biennially by the Utah Department of Workforce Services and found that 40% of the \$1.1 million went to vendors with a job site in Utah. Applying this percentage to the \$4.5 million total, the authors estimated that \$1.8 million of purchase card spending was in-state. Furthermore, based on vendors' industry and county location from Firm Find, the authors allocated the \$1.8 million to counties and industries.
15. In FY 2023, DPG visitors brought an estimated \$2.2 million in federal and out-of-state dollars into Utah's economy, primarily for lodging and meals (amount included in Tables 11 and 12 and Figure 9). This estimate includes actual expenditures for temporary duty (TDY) travel and an estimate of other visitor spending based on 30,750 visitor-days and per diem rates for Tooele County, assuming half of visitors stay at Dugway Proving Ground and half stay elsewhere in the county. FY 2023 per diem rates for military personnel are from the U.S. Department of Defense, Defense Management Travel Office.
16. U.S. Army. Tooele Army Depot: Fact Sheet. https://www.tooele.army.mil/Docs/PublicAffairs/Tooele_Army_Depot_Fact_Sheet.pdf
17. While TEAD employed 551 individuals during FY 2023, turnover and seasonal changes resulted in an average employment level of 476 jobs. Some civilian employees filled a job for part of the year.
18. Tooele Army Depot's \$35.4 million in total FY 2023 wage payments included nearly \$0.2 million in military wages that the Gardner Institute estimated based on the rank of TEAD's military personnel and average pay across years of service from the corresponding U.S. Army pay scale. TEAD reported actual wages paid to its civilian employees. For total countywide wages used to calculate TEAD's 3.6% share, see Utah Department of Workforce Services. (September 2024). Utah Economic Data Viewer. <https://jobs.utah.gov/jsp/utalmis/#/industry/list>
19. U.S. National Guard. (2024). Utah National Guard. <https://nationalguard.com/utah>
20. UTNG employment shares of 79.5% Army (6,087 jobs) and 20.5% Air (1,572 jobs) represent a total of 7,659 jobs. The service branch for the remaining 689 jobs was not readily available, bringing the total to 8,348 jobs in FY 2023.
21. Data from the Utah National Guard and USAspending.gov provided actual contract expenditures by industry and county for approximately \$2.1 million in contract spending to registered Utah merchants directly from the U.S. Department of Defense. The Utah National Guard also provided data by industry for approximately \$27.9 million in in-state contract spending through the state agreement between Utah and DOD. Since county detail was not available for the \$27.9 million, the Gardner Institute turned to detailed USAspending.gov for all other DOD contracts performed in Utah in FY 2023 for shares to spread UTNG contract spending through the state agreement across industries and counties. Adding in the \$2.1 million in direct DOD outlays, the authors had industry and county estimates for all \$30.0 million in in-state UTNG contract spending. To avoid double-counting, the analysis did not add \$82.0 million in DOD grants to Utah recipients (primarily the state of Utah) via the Utah National Guard, since spending from this funding source (DOD grants) was incorporated in comprehensive UTNG data on employee pay, contract spending, and purchase card expenditures.
22. The Utah National Guard reported \$3.5 million in FY 2023 government purchase card spending going to registered Utah merchants. Since industry and county detail were not available, the Gardner Institute used detailed UTNG data for nearly \$0.5 million in FY 2019 purchase card expenditures to spread the FY 2023 total to industries. The authors entered the \$3.5 million as in-state industry sales in the REMI PI+ economic model, which allocated industry amounts to counties based on historical averages for defense activity in Utah.

23. In FY 2023, UTNG visitors brought an estimated \$3.8 million in additional federal and out-of-state dollars into Utah's economy (amount included in Tables 5.2 and 5.4 and Figure 5.2). This total is an estimate of visitor spending based on 98,396 visitor-days and per diem rates for meals in Salt Lake and Utah counties, assuming visitors stay at Camp Williams and have some meals on-site. The Gardner Institute did not add in the value of on-site meals and lodging since Camp Williams operations were already represented in UTNG's FY 2023 employment, payroll, contracts, and government purchase card transactions. The visitor spending calculation is simply 98,396 times \$39 for off-site meals. FY 2023 per diem rates for military personnel were from the U.S. Department of Defense, Defense Management Travel Office.
24. In August 2024, construction began on facilities for the Army Reserve to move from Fort Douglas to Camp Williams. See University of Utah. (2024, August). Neighbors to Partners: Fort Douglas and the U. <https://attheu.utah.edu/facultystaff/for-more-than-a-century-the-us-growth-has-depended-on-ft-douglas/>
25. Camp Williams is the former home of Company C, 4th Light Armored Reconnaissance Battalion, Marine Corps Reserve, and many Company C reservists continue to live and train in Utah.
26. The authors requested employment information from each military recruiting unit in Utah and received responses with FY 2023 employment data from the Air Force, Marine Corps, Utah National Guard, and Military Entrance Processing Squadron. The most recent Army and Navy responses were for FY 2019, which may not accurately reflect their FY 2023 employment. However, prior-year responses are an available approximation of FY 2023 employment for Army and Navy recruiting. Recruiting units that responded both years had an average 16.7% decrease in employment, suggesting that prior-year Army and Navy employment might overestimate somewhat their current recruiting workforce. However, with employment percentage changes from FY 2019 to FY 2023 ranging from a 39.8% decrease to a 48.5% increase among recruiting units, the authors did not venture to impose the 16.7% average.
27. The 2023–24 academic year began on July 1, 2023, during the last quarter of federal fiscal year (FY) 2023, which is the primary data year in this report.
28. The most recent data available for Utah State University's Air Force ROTC program is from the 2019–20 academic year: 142 cadets, \$426,355 in scholarships, and \$250,223 in stipends, unadjusted for inflation. For the five ROTC programs in Utah with complete responses for 2023–24 and 2019–20, this study's authors noted wide variation in enrollment and average financial assistance per cadet. For this reason, the authors did not venture to estimate Utah State University values or incorporate prior-year numbers from its Air Force ROTC program.
29. MilitaryOneSource. Military Tuition Assistance Program. <https://www.militaryonesource.mil/benefits/military-tuition-assistance-program/>
30. ROTC program economic impacts do not include the 10 civilian jobs that were funded by the state government. Unlike federal military and civilian employment, state-funded jobs are supported by money from within Utah, not outside dollars coming into the state.
31. Methods for estimating student expenditure categories for ROTC stipend amounts follow a 2019 report by the Gardner Institute, supplemented by Consumer Expenditure Survey estimates for adults under age 25 in the West. Oh, A., Benway, D.J., & Spolsdoff, J. (July 2019). Utah System of Higher Education: State Aid Project. Kem C. Gardner Policy Institute, University of Utah. https://ushe.edu/wp-content/uploads/pdf/reports/gardner-policy/USHE_Comprehensive_Tuition-Aid_Report.pdf
32. Utah spending by the U.S. Department of Veterans Affairs (VA) also included government purchase card transactions for which data are not readily available. Based on data for other defense installations in Utah, compensation and contract spending represent the vast majority of operating expenditures. Due to missing purchase card data, this report understates federal spending for veterans by a small percentage of the total.
33. Over \$43.7 million in contract spending originated from U.S. Department of Veterans Affairs (VA) health care facilities or the regional benefits office. In addition, the VA awarded almost \$85.9 million in contracts from its out-of-state units related to health care and other VA priorities. All \$129.6 million was for work performed by contractors in Utah.
34. The Gardner Institute estimated 790 direct jobs in FY 2023 from the activities of VA contractors and grant recipients in Utah. The total included 396 jobs from \$85.9 million in federal contracts awarded by VA offices outside Utah and 394 jobs from \$53.8 million in VA grants. While contractors receiving the remaining \$43.6 million in VA awards also provided employment in Utah, their activity is counted as part of the indirect impacts from in-state nonpayroll spending by the VA Healthcare System and Regional Office. These two units did not directly award in-state grants in FY 2023.
35. United States Office of Personnel Management. Retirement Services: FERS Information. <https://www.opm.gov/retirement-services/fers-information/>
36. Gardner Institute adjustments to FY 2019 and FY 2023 contract and grant amounts are based on data from USAspending.gov and the Utah Department of Workforce Services. We do not consider any award a "Utah award" unless the company performing the award has a business presence in the state, even if the work is performed in the state. This is to avoid counting funds as entering the state's economy which are more likely largely or completely bypassing the state. Also, we include the value of subawards performed in Utah even if they stem from prime awards performed out-of-state; symmetrically, we exclude the value of subawards performed in other states if they stem from prime awards performed in Utah. Table 9.2 details these adjustments by agency and award type.
37. Spolsdoff, J. (August 2021). Utah's Defense Economy: Economic Impacts and Industry Trends. University of Utah, Kem C. Gardner Policy Institute. <https://gardner.utah.edu/wp-content/uploads/Utah-Defense-Economy-August2021.pdf>
38. The average of 5.8 hours per week is from the Utah National Guard (personal communication). The average of 19.4 hours is based on 6,499 full-time active-duty jobs (40 hours per week assumed) and 10,865 part-time jobs (5.8 hours) that the authors tabulated based on their data collection from defense units in Utah. The authors took the weighted average of weekly hours and adjusted it (by +0.8 hours) to align the Gardner Institute's total employment with the U.S. Bureau of Economic Analysis military job count for Utah, which is used in the REMI economic model. The result was a 19.4-hour average for all full- and part-time military jobs in Utah, and 5.8 hours divided by 19.4 hours equals 30.1%, an estimate of the economic activity supported by one traditional guardmember or reservist compared with the average of all service members in Utah, including active-duty personnel.

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