



# Economic Impact of Defense Sector, New Mexico and Arizona, FY 2021

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# **Economic Impact of Defense Sector, New Mexico and Arizona, FY 2021**

April 2023

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# Executive Summary

The Center for Border Economic Development and Arrowhead Center at New Mexico State University have been contracted to prepare an economic impact analysis of the defense sector in New Mexico and Arizona, an analysis of a defense civilian training program that prepares college students for work in the civilian defense sector, and marketing materials to promote the Defense Civilian Training Corp program. The purpose of this report is to detail an estimate of the economic impact of the defense sector in New Mexico and Arizona in Fiscal Year 2021, and the lifetime earnings impact of a defense civilian training program that prepares college students for work in the civilian defense sector with experiential learning programs and security clearances.

Economic Impact Analysis seeks to measure the impact on the local economy from new economic activity associated with a new project, but can also be used to measure the impact or benefit of an existing industry or activity. The economic impacts of the Defense Industry were estimated using IMPLAN economic modeling software. The defense civilian training program analysis estimates the change in potential lifetime earnings as a result of this program and the security clearances earned by program participants.

We found security clearance positions pay on average \$38,000 per year more than the average of all occupations, for a lifetime net present value of \$437,323. There is significant variation in pay benefits by occupation. Still, all occupations but three benefited financially from the acquisition of a security clearance. Only business–legal, engineering–electric, and logistics are the three security clearance occupations that pay less than the private sector. Economic impacts were estimated for the defense sector in New Mexico and Arizona. The combined economic impact estimated for the defense sector in New Mexico and Arizona in Fiscal Year 2021 shows the following results:

- 174,944 direct jobs; 313,720 total jobs
- \$68.2 billion in economic output, \$47.0 billion in value-added production, and \$24.1 billion in labor income
- \$7.0 billion in taxes generated: \$5.3 billion in federal taxes, \$1.7 billion in taxes for state and local governments.

# Methodology

The purpose of this report is to detail an estimate of the economic impact of the defense sector in New Mexico and Arizona in Fiscal Year 2021, and the lifetime earnings impact of a defense civilian training program that prepares college students for work in the civilian defense sector with experiential learning programs and security clearances.

## Economic Impact Methodology

Economic impact analysis is comprised of three parts: direct effects, indirect effects, and induced effects. Direct effects are the initial change in economic activity associated with new spending, in this case, jobs created by the defense sector in New Mexico and Arizona, but could include any activities or events that result in a change in employment, labor income, or business revenues. As a result of the direct effects, additional spending occurs in other industries such as construction materials, and business services. The total of this secondary spending is categorized as the indirect effect. The economic activity from the direct and indirect effects supports employees who then spend their wages in the economy. This spending is referred to as the induced effects. Together, the direct, indirect, and induced effects comprise the total economic impact of the analysis. The main idea behind economic impact analysis is that a new dollar spent in a local area, results in more than one dollar in economic activity in the area.

The project's economic impacts were estimated using IMPLAN economic modeling software.<sup>1</sup> Economic impacts are measured in terms of changes in output, value-added production, labor income, employment, and tax revenue. Figure 1 shows the subcomponents of output and value added production, also referred to as the Leontief Production Function. Output is the total production value of an industry and can be thought of as total revenue for a particular industry or industries. Intermediate inputs are goods and services used in the production process and purchased from other industries. Value added production is the contribution from the economic activity to gross domestic product or output. Business profits are included under proprietor income and other property income.

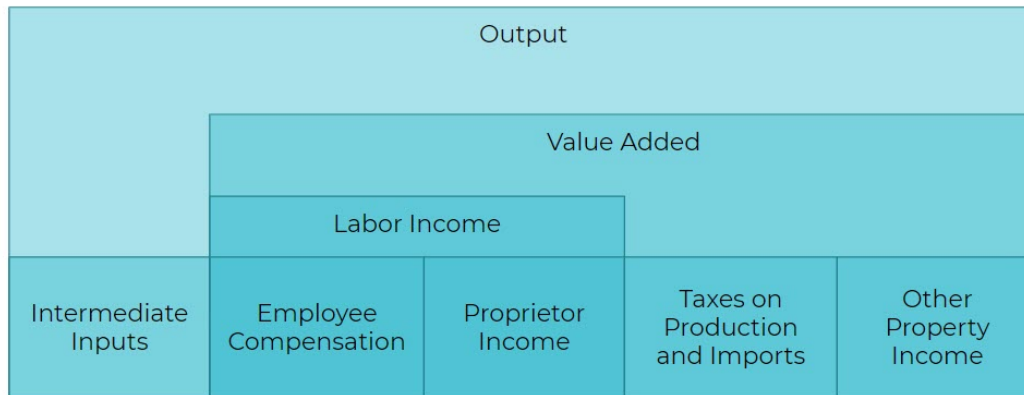
The economic impacts presented in this analysis include the direct, indirect, and induced impacts. All terms are defined in the Glossary at the end of this document. The impacts are based on defense sector activity in New Mexico and Arizona. Economic impact estimates are calculated using the IMPLAN Multi-Regional Input-Output (MRIO) at the

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<sup>1</sup> (IMPLAN, 2023)

county level for New Mexico and Arizona. Spillover effects to the rest of New Mexico and Arizona are estimated using Multi-Regional Input-Output (MRIO) analysis. Impact figures are presented for New Mexico and Arizona individually.

**Figure 1: Leontief Production Function<sup>2</sup>**



Economic impacts were estimated for employment associated with the defense sector in New Mexico and Arizona. Employment refers to full and part-time jobs. Dollar impacts are presented in 2023 dollars. Components may not sum to totals due to rounding.

Table 1 shows the values used to estimate the economic impact of the defense sector in New Mexico. Table 2 shows the values used to estimate the economic impact of the defense sector in Arizona. Expenditure and employment data were gathered from the Department of Defense (DOD) Defense Spending by State - Fiscal Year 2021 report and the Department of Energy (DOE) FY 2023 Budget Justification which includes actual spending for Fiscal Year 2021.<sup>3</sup> DOD data were available at a state level with county level information for major defense contractors, and military and civilian employment. DOE data provide state-level spending.

**Table 1: IMPLAN Inputs for Defense Sector, New Mexico, FY 2021**

Activity	Region	IMPLAN Code	IMPLAN Description	Expenditures or Jobs
DOE	New Mexico	464	Scientific research and development services	\$8,325,151,000
DOD Contractors	Bernalillo	56	Construction of other new nonresidential structures	\$35,500,000
DOD Contractors	Bernalillo	464	Scientific research and development services	\$177,100,000

<sup>2</sup> (Lucas, 2019)

<sup>3</sup> (Department of Defense, 2022) (Department of Energy, 2022)



DOD Contractors	Curry	464	Scientific research and development services	\$34,800,000
DOD Contractors	Doña Ana	473	Business support services	\$69,400,000
DOD Contractors	McKinley	377	Surgical appliance and supplies manufacturing	\$126,000,000
DOD Contractors	New Mexico	473	Business support services	\$1,085,600,000
DOD Contractors	Otero	464	Scientific research and development services	\$105,700,000
DOD Contractors	Otero	473	Business support services	\$121,000,000
DOD Contractors	Torrance	473	Business support services	\$44,900,000
DOD Military	Bernalillo	545	Employment of federal govt, military	5,448
DOD Military	Curry	545	Employment of federal govt, military	4,831
DOD Military	Otero	545	Employment of federal govt, military	4,290
DOD Military	Doña Ana	545	Employment of federal govt, military	958
DOD Military	Santa Fe	545	Employment of federal govt, military	769
DOD Military	Sandoval	545	Employment of federal govt, military	663
DOD Military	Chaves	545	Employment of federal govt, military	171
DOD Military	Valencia	545	Employment of federal govt, military	174
DOD Military	San Juan	545	Employment of federal govt, military	104
DOD Military	Rio Arriba	545	Employment of federal govt, military	56
DOD Military	New Mexico	545	Employment of federal govt, military	286
DOD Civilian	Bernalillo	546	Employment of federal govt, non-military	3,306
DOD Civilian	Curry	546	Employment of federal govt, non-military	511
DOD Civilian	Otero	546	Employment of federal govt, non-military	957
DOD Civilian	Doña Ana	546	Employment of federal govt, non-military	1,732
DOD Civilian	Santa Fe	546	Employment of federal govt, non-military	235
DOD Civilian	Sandoval	546	Employment of federal govt, non-military	37
DOD Civilian	Chaves	546	Employment of federal govt, non-military	13
DOD Civilian	Rio Arriba	546	Employment of federal govt, non-military	12

**Table 2: IMPLAN Inputs for Defense Sector, Arizona, FY 2021**

<b>Activity</b>	<b>Region</b>	<b>IMPLAN Code</b>	<b>IMPLAN Description</b>	<b>Expenditures or Jobs</b>
DOE	Arizona	464	Scientific research and development services	\$5,246,000
DOD Contractors	Arizona	464	Scientific research and development services	\$1,772,000,000
DOD Contractors	Cochise	464	Scientific research and development services	\$1,300,000,000
DOD Contractors	Maricopa	464	Scientific research and development services	\$59,900,000
DOD Contractors	Maricopa	464	Scientific research and development services	\$2,658,900,000
DOD Contractors	Maricopa	473	Business support services	\$200,400,000
DOD Contractors	Pima	464	Scientific research and development services	\$6,308,800,000
DOD Military	Arizona	545	Employment of federal govt, military	977
DOD Military	Cochise	545	Employment of federal govt, military	4,382
DOD Military	Graham	545	Employment of federal govt, military	39
DOD Military	Maricopa	545	Employment of federal govt, military	14,225
DOD Military	Navajo	545	Employment of federal govt, military	33
DOD Military	Pima	545	Employment of federal govt, military	10,434
DOD Military	Pinal	545	Employment of federal govt, military	1,182
DOD Military	Yuma	545	Employment of federal govt, military	3,331
DOD Civilian	Cochise	546	Employment of federal govt, non-military	2,664
DOD Civilian	Coconino	546	Employment of federal govt, non-military	50
DOD Civilian	Maricopa	546	Employment of federal govt, non-military	2,554
DOD Civilian	Pima	546	Employment of federal govt, non-military	2,932
DOD Civilian	Pinal	546	Employment of federal govt, non-military	152
DOD Civilian	Yuma	546	Employment of federal govt, non-military	1,278

## **Lifetime Value of a Security Clearance Methodology**

To calculate the lifetime value of a security clearance, we compared the average compensation for a position where the worker has a security clearance to the average compensation for a position in the same occupation where the worker does not have a security clearance. The compensation that could have been earned in the same occupation without a security position represents the opportunity cost of accepting a job with a security clearance. The difference between the salary with a security clearance and

the salary of the alternative employment represents the economic profit. We then calculate the net present value of this economic profit assuming a 30-year career.

We used two sources for our study. For all positions, regardless of security clearance, we used May 2021 National Occupational Employment and Wage Estimates produced by the Bureau of Labor Statistics.<sup>4</sup> For data on positions requiring security clearances, we used the *2022 Security Clearance Compensation Report*.<sup>5</sup> Both documents include data for 2021.

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<sup>4</sup> (Bureau of Labor Statistics, 2022)

<sup>5</sup> (ClearanceJobs, 2023)

# Analysis of Impacts

Economic impacts were estimated for employment associated with the defense sector in New Mexico and Arizona. Impacts were estimated based on DOD and DOE data.

## New Mexico

New Mexico Defense Sector impacts comprise DOE spending, DOD contractor expenditures, and military and civilian DOD employment.

### DOE Impacts

The economic impact of DOE in New Mexico comprises state expenditures, primarily at the national laboratories. The economic impact of these expenditures is shown in Table 3. The economic impact figures are based on fiscal year 2021 DOE expenditures of \$8,325,151,000 in New Mexico.

**Table 3: Economic Impact, DOE, New Mexico, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	38,469	\$3,640,486,345	\$4,091,647,750	\$8,325,151,000
Indirect	18,567	\$1,195,695,890	\$1,766,596,920	\$3,487,795,343
Induced	18,969	\$912,119,125	\$1,776,794,253	\$3,152,583,539
Total	76,005	\$5,748,301,360	\$7,635,038,923	\$14,965,529,882

## DOD Contractor Impacts

The economic impact of DOD Contractors in New Mexico consists of contracts with companies located in the state, primarily for research and development services and military base support. The economic impact of these contracts is shown in Table 4. The economic impact figures are based on fiscal year 2021 DOD contractor expenditures of \$1,800,000,000.

**Table 4: Economic Impact, DOD Contractors, New Mexico, FY 2021**

Impact	Employment	Labor Income	Value Added	Output
Direct	19,643	\$898,880,004	\$878,197,520	\$1,800,000,000
Indirect	3,451	\$179,637,671	\$275,187,357	\$551,834,189
Induced	3,978	\$189,283,528	\$371,484,201	\$655,236,460
Total	27,072	\$1,267,801,203	\$1,524,869,078	\$3,007,070,649

## DOD Military Impact

DOD military employment in New Mexico consists of military employees based in New Mexico. The economic impact of this employment is shown in Table 5. The economic impact figures are based on fiscal year 2021 DOD military employment of 17,750 in New Mexico.

**Table 5: Economic Impact, DOD Military, New Mexico, FY 2021**

Impact	Employment	Labor Income	Value Added	Output
Direct	17,750	\$1,753,811,282	\$10,752,639,092	\$10,752,639,092
Indirect <sup>6</sup>	0	\$0	\$0	\$0
Induced	5,443	\$250,779,005	\$504,389,574	\$873,061,329
Total	23,193	\$2,004,590,287	\$11,257,028,666	\$11,625,700,422

<sup>6</sup> For government employment categories, there is no associated industry spending pattern which means no indirect impacts are calculated for jobs and expenditures in these government categories. The best proxy for indirect impacts in these categories is contractor spending, which accounts for purchases of goods and services outside of a governmental organization.

## DOD Civilian Impact

DOD civilian employment in New Mexico consists of civilian employees based in New Mexico. The economic impact of this employment is shown in Table 6. The economic impact figures are based on fiscal year 2021 DOD civilian employment of 6,803 in New Mexico.

**Table 6: Economic Impact, DOD Civilian, New Mexico, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	6,803	\$860,207,020	\$2,088,371,937	\$2,088,371,937
Indirect	0	\$0	\$0	\$0
Induced	2,966	\$142,357,491	\$276,861,451	\$478,334,903
Total	9,769	\$1,002,564,511	\$2,365,233,388	\$2,566,706,840

## Total New Mexico Impact

The total impact of the defense industry in New Mexico is shown in Table 7. This is the total impact of DOE spending, DOD contractor expenditures, and military and civilian DOD employment in New Mexico in fiscal year 2021.

**Table 7: Economic Impact, Defense Industry, New Mexico, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	82,665	\$7,153,384,651	\$17,810,856,300	\$22,966,162,030
Indirect	22,018	\$1,375,333,561	\$2,041,784,276	\$4,039,629,532
Induced	31,356	\$1,494,539,148	\$2,929,529,479	\$5,159,216,231
Total	136,039	\$10,023,257,361	\$22,782,170,056	\$32,165,007,792

## Arizona

Arizona Defense Sector impacts comprise DOE spending, DOD contractor expenditures, and military and civilian DOD employment.

### DOE Impacts

The economic impact of DOE in Arizona comprises state expenditures, primarily for research and development activities. The economic impact of these expenditures are shown in Table 8. The economic impact figures are based on fiscal year 2021 DOE expenditures of \$5,246,000 in Arizona.

**Table 8: Economic Impact, DOE, Arizona, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	20	\$2,062,714	\$3,033,215	\$5,246,000
Indirect	14	\$979,111	\$1,458,601	\$2,722,326
Induced	17	\$985,827	\$1,750,849	\$3,029,005
Total	51	\$4,027,652	\$6,242,665	\$10,997,331

### DOD Contractor Impacts

The economic impact of DOD Contractors in Arizona consists of contracts with companies located in the state, primarily for research and development services. The economic impact of these contracts are shown in Table 9. The economic impact figures are based on fiscal year 2021 DOD contractor expenditures of \$12,300,000,000.

**Table 9: Economic Impact, DOD Contractors, Arizona, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	48,026	\$4,918,759,505	\$7,184,720,049	\$12,300,000,000
Indirect	32,876	\$2,153,331,356	\$3,214,811,964	\$6,153,078,585
Induced	34,375	\$1,881,840,578	\$3,362,240,100	\$5,823,050,077
Total	115,277	\$8,953,931,439	\$13,761,772,113	\$24,276,128,661

## DOD Military Impact

DOD military employment in Arizona consists of military employees based in Arizona. The economic impact of this employment is shown in Table 10. The economic impact figures are based on fiscal year 2021 DOD military employment of 34,603 in Arizona.

**Table 10: Economic Impact, DOD Military, Arizona, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	34,603	\$2,856,594,741	\$6,944,083,674	\$6,944,083,674
Indirect	0	\$0	\$0	\$0
Induced	12,700	\$687,422,823	\$1,235,237,874	\$2,137,952,716
Total	47,303	\$3,544,017,564	\$8,179,321,547	\$9,082,036,390

## DOD Civilian Impact

DOD civilian employment in Arizona consists of civilian employees based in Arizona. The economic impact of this employment is shown in Table 11. The economic impact figures are based on fiscal year 2021 DOD civilian employment of 9,630 in Arizona.

**Table 11: Economic Impact, DOD Civilian, Arizona, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	9,630	\$1,303,605,871	\$1,723,966,521	\$1,723,966,521
Indirect	0	\$0	\$0	\$0
Induced	5,419	\$285,576,006	\$517,440,518	\$898,765,832
Total	15,049	\$1,589,181,877	\$2,241,407,040	\$2,622,732,353



## Total Arizona Impact

The total impact of the defense industry in Arizona is shown in Table 12. This is the total impact of DOE spending, DOD contractor expenditures, and military and civilian DOD employment in Arizona in fiscal year 2021.

**Table 12: Economic Impact, Defense Industry, Arizona, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	92,280	\$9,081,022,832	\$15,855,803,459	\$20,973,296,195
Indirect	32,890	\$2,154,310,467	\$3,216,270,565	\$6,155,800,911
Induced	52,511	\$2,855,825,234	\$5,116,669,341	\$8,862,797,630
Total	177,681	\$14,091,158,532	\$24,188,743,365	\$35,991,894,736

## Total Economic Impact: New Mexico and Arizona

The total impact of the defense sector in New Mexico and Arizona is shown in Table 13. This is the total impact of DOE spending, DOD contractor expenditures, and military and civilian DOD employment in New Mexico and Arizona in fiscal year 2021.

**Table 13: Economic Impact, Defense Sector, New Mexico and Arizona, FY 2021**

<b>Impact</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Value Added</b>	<b>Output</b>
Direct	174,944	\$16,234,407,483	\$33,666,659,759	\$43,939,458,225
Indirect	54,908	\$3,529,644,028	\$5,258,054,842	\$10,195,430,443
Induced	83,868	\$4,350,364,382	\$8,046,198,821	\$14,022,013,861
Total	313,720	\$24,114,415,893	\$46,970,913,421	\$68,156,902,529

## Tax Revenue Impact

Table 14 shows the estimated tax revenue impacts of the defense sector in New Mexico at the local, state, and federal levels.

**Table 14: Tax Impact, New Mexico, FY 2021**

Impact	Local	State	Federal	Total
Direct	\$73,171,794	\$247,402,533	\$1,690,710,659	\$2,011,284,986
Indirect	\$38,011,352	\$86,840,760	\$262,520,242	\$387,372,355
Induced	\$122,088,863	\$245,407,744	\$247,482,348	\$614,978,956
Total	\$233,272,009	\$579,651,038	\$2,200,713,248	\$3,013,636,296

Table 15 shows the estimated tax revenue impacts of the defense sector in Arizona at the local, state, and federal levels.

**Table 15: Tax Impact, Arizona, FY 2021**

Impact	Local	State	Federal	Total
Direct	\$63,781,278	\$232,121,672	\$2,086,857,887	\$2,382,760,838
Indirect	\$44,770,703	\$81,796,168	\$446,430,203	\$572,997,074
Induced	\$244,296,857	\$286,830,378	\$534,417,018	\$1,065,544,253
Total	\$352,848,838	\$600,748,219	\$3,067,705,108	\$4,021,302,165

Table 16 shows the estimated tax revenue impacts of the defense sector in New Mexico and Arizona at the local, state, and federal levels.

**Table 16: Tax Impact, New Mexico and Arizona, FY 2021**

Impact	Local	State	Federal	Total
Direct	\$136,953,072	\$479,524,206	\$3,777,568,546	\$4,394,045,823
Indirect	\$82,782,055	\$168,636,928	\$708,950,445	\$960,369,429
Induced	\$366,385,720	\$532,238,123	\$781,899,366	\$1,680,523,209
Total	\$586,120,847	\$1,180,399,257	\$5,268,418,357	\$7,034,938,461

# Lifetime Value of a Security Clearance

Table 17 gives our calculations for the value of a security clearance. Positions with security clearance pay on average \$38,000 per year more than the average of all occupations, for a lifetime net present value of \$437,323. When we look at specific occupations, business–legal, engineering–electric, and logistics are the only three security clearance occupations that pay less than the private sector. Positions in engineers–all disciplines requiring security clearance earn on average compensation that is \$7,055 higher, for a lifetime net present value of \$79,424.

**Table 17: Income Differential from a Security Clearance by Occupation**

Occupation	Average Compensation			Lifetime Value of the Compensation (30-Year Career) <sup>10</sup>
	All Positions <sup>7</sup>	Positions Requiring Security Clearance <sup>8</sup>	Difference <sup>9</sup>	
All - Occupations	\$61,900	\$100,746	\$38,846	\$437,323
Business - HR	\$71,210	\$86,177	\$14,967	\$168,495
Business - Legal	\$113,100	\$108,163	(\$4,937)	(\$55,580)
Business - Sales	\$71,110	\$119,221	\$73,141	\$541,623
Business - Support	\$66,870	\$74,383	\$7,513	\$84,580
Construction/Facilities	\$55,900	\$94,268	\$38,368	\$431,939
Emergency	\$53,420	\$93,218	\$39,798	\$448,037
Engineers - All Disciplines	\$107,170	\$114,225	\$7,055	\$79,424
Engineering - Civil	\$95,490	\$104,659	\$9,169	\$103,223
Engineering - Electrical	\$107,890	\$101,773	(\$6,117)	(\$68,864)
Engineering - Mechanical	\$97,000	\$102,627	\$5,627	\$63,348
Engineering - Systems	\$102,210	\$129,351	\$27,141	\$305,547
Finance	\$87,350	\$104,357	\$17,007	\$191,461
Healthcare and Science	\$80,730	\$94,075	\$13,345	\$150,235
IT - Database	\$102,440	\$108,162	\$5,722	\$64,417

<sup>7</sup> (Bureau of Labor Statistics, 2022)

<sup>8</sup> (ClearanceJobs, 2023)

<sup>9</sup> Authors' calculations

<sup>10</sup> Authors' calculations

IT - Data Science	\$108,660	\$119,759	\$11,099	\$124,950
IT - Hardware	\$99,620	\$103,395	\$3,775	\$42,498
IT - Security	\$113,270	\$114,018	\$748	\$8,421
IT - Software	\$120,990	\$129,756	\$8,766	\$98,686
IT - Support	\$60,550	\$79,989	\$19,439	\$218,840
IT - Tech Writing	\$81,470	\$96,633	\$15,163	\$170,702
IT - QA and Test	\$97,710	\$105,482	\$7,772	\$87,495
Linguist	\$82,990	\$93,505	\$10,515	\$118,376
Logistics	\$94,530	\$81,046	(\$13,484)	(\$151,800)
Management	\$123,370	\$123,773	\$403	\$4,537
Military/Law Enforcement	\$66,370	\$111,476	\$45,106	\$507,794
Security	\$35,830	\$82,318	\$46,488	\$523,352
Trainer/Instructor	\$69,490	\$94,141	\$24,651	\$277,516
Visual and Creative	\$66,100	\$90,405	\$24,305	\$273,620

Table 18 is similar in construction to the previous table providing a comparison of the value of a security clearance but by educational attainment. What is observed is that positions requiring security clearance when controlling for educational attainment consistently pay better than those not requiring a security clearance. The one exception is professional degrees. For compensation by educational attainment, regardless of security clearance, we use data from the Bureau of Labor Statistics.<sup>11</sup> For data on positions requiring security clearances, we again use the *2022 Security Clearance Compensation Report*.<sup>12</sup>

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<sup>11</sup> (Bureau of Labor Statistics, 2022)

<sup>12</sup> (ClearanceJobs, 2023)

**Table 18: Income Differential from a Security Clearance by Educational Attainment**

Educational Level	Average Compensation			Lifetime Value of the Compensation (30-Year Career) <sup>16</sup>
	All Positions <sup>13</sup>	Positions Requiring Security Clearance <sup>14</sup>	Difference <sup>15</sup>	
High school graduate (includes equivalency)	\$39,976	\$75,957	\$35,981	\$405,066
Some college, no degree	\$48,555	\$86,232	\$37,677	\$424,160
Associate's degree	\$51,161	\$89,123	\$37,962	\$427,368
Bachelor's degree	\$80,478	\$87,641	\$7,163	\$80,640
Bachelor's degree or more	\$91,892	\$102,335	\$10,443	\$117,565
Master's degree	\$98,268	\$121,962	\$23,694	\$266,742
Professional degree	\$151,348	\$132,519	(\$18,829)	(\$211,973)
Doctoral degree	\$141,178	\$142,641	\$1,463	\$16,470

<sup>13</sup> (Bureau of Labor Statistics, 2022)

<sup>14</sup> (ClearanceJobs, 2023)

<sup>15</sup> Authors' calculations

<sup>16</sup> Authors' calculations

# Conclusion

Economic impacts were estimated for the defense sector in New Mexico and Arizona in Fiscal Year 2021. Table 19 shows the combined economic impact estimated for the defense sector in New Mexico and Arizona in Fiscal Year 2021.

**Table 19: Estimated Economic Impacts, Defense Sector  
New Mexico and Arizona, FY 2021**

<b>Impact</b>	<b>New Mexico</b>	<b>Arizona</b>	<b>Total</b>
Direct Jobs	82,665	92,280	174,944
Total Jobs	136,039	177,681	313,720
Economic Output	\$32,165,007,792	\$35,991,894,736	\$68,156,902,529
Value-Added Production	\$22,782,170,056	\$24,188,743,365	\$46,970,913,421
Labor Income	\$10,023,257,361	\$14,091,158,532	\$24,114,415,893
Total Taxes:	\$3,013,636,296	\$4,021,302,165	\$7,034,938,461
Federal	\$2,200,713,248	\$3,067,705,108	\$5,268,418,357
New Mexico	\$812,923,048	\$953,597,056	\$1,766,520,104

We also found security clearance positions pay on average \$38,000 per year more than the average of all occupations, for a lifetime net present value of \$437,323. There is significant variation in pay benefits by occupation. Still, all occupations but three benefited financially from the acquisition of a security clearance. Only business–legal, engineering–electric, and logistics are the three security clearance occupations that pay less than the private sector.

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# Glossary

**Direct effects** are the immediate (or first-round) consequences of a change in economic activity or policy. For example, if a firm spends \$1 million on construction of a new building, the direct effect on output (sales) in the construction sector is \$1 million. If eight workers are employed on the construction of the building, then those eight workers are also a direct effect.

**Employment** refers to jobs. Jobs may be full- or part-time and a single worker may be employed at multiple jobs.

**Indirect effects** occur as industries purchase inputs from other industries. If a construction project requires steel beams, there will be indirect effects on iron mining and coke producing industries.

**Induced effects** result from households spending the wage and salary income received by those employed directly or indirectly on a new activity.

**Input-output model** refers to a type of economic model designed to capture relationships among industries and ultimate consumers.

**Intermediate spending** refers to the demand of industry for the goods and services produced by other industries that will be used in the production process.

**Labor income** consists of employee compensation (including benefits), supplements to wages and salaries (such as employer contributions to pension funds), and proprietor's income.

**Multi-Regional Input-Output (MRIO)** expands the region of study to include more than one region of study, allowing for spillover effects to be calculated between regions.

**Output** refers to gross industry sales or expenditures, depending on the consequences.

**Total effects** refer to the sum of direct, indirect, and induced effects.

**Value added** refers to the change in value of a good or service during each stage of production. Gross Domestic Product is a value-added concept.<sup>17</sup>

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<sup>17</sup> (NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts | U.S., 2021)

