

A Bureau of Business Research Report From the University of Nebraska—Lincoln

The Economic Impact of Nebraska Military Assets

Prepared for the Nebraska Commission on Military and Veteran Affairs

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Executive Summary

This report was commissioned by the Nebraska Commission on Military and Veteran Affairs and conducted by the University of Nebraska-Lincoln Bureau of Business Research (BBR). The study is designed to provide detailed information about the current status of military assets located in Nebraska, including payroll and operations spending at the various facilities across the state. The report also examines Department of Defense retirement spending and Veterans Affairs spending that takes place in Nebraska. Taken together, these analyses provide awareness of the total impact that current military, Veterans Affairs, and Department of Defense retirement spending has on the Nebraska economy. Not surprisingly, the results of the analysis demonstrate that military and retirement spending has a considerable impact on the state economy.

Impact of Military Installations

- A total of 18,965 military, government civilian, and government contractor jobs directly support
 operations at Offutt AFB/U.S. Strategic Command, Nebraska National Guard/Air National Guard,
 and the various Reserve components in the state. An additional 7,403 jobs are created as a
 result of activity at bases and facilities, for a total of 26,368 jobs created in Nebraska.
- A total of \$1.55 billion in direct economic activity and \$1.07 billion in employee compensation takes place at the military installations located in the state. Activity at bases and facilities generates an additional \$1.01 billion in economic output and \$314.5 million in employee compensation across the state. This results in a total of \$2.55 billion in economic output, and \$1.38 billion in employee compensation for Nebraska workers.
- In sum, spending at military bases and installations accounts for \$2.55 billion in economic output, \$1.38 billion in employee compensation, and 26,368 jobs generated in Nebraska.

Impact of Department of Defense Retirement Spending

- A total of 13,746 Department of Defense retirees reside in Nebraska and receive retirement compensation or pensions totaling \$373.0 million in FY 2016.
- Retirement and pension spending by these retirees in Nebraska generates 2,783 new jobs in Nebraska (in addition to the 26,368 noted above), resulting in \$114.2 million in compensation to these employees.

Impact of U.S. Department of Veterans Affairs Spending

- The U.S. Department of Veterans Affairs (VA) spent a total of \$1.16 billion in Nebraska in Fiscal Year 2016, with the largest proportions of spending on Compensation and Pension and Medical Care. Nearly 48,000 unique patients were served by Veterans Affairs.
- When considering the multiplier impact of Veterans Affairs spending, estimates show that VA spending results in \$1.58 billion in economic output and the employment of 12,712 workers with a total salary of \$612.3 million.

Veterans and Department of Defense Retirees in Nebraska

In addition to estimating the economic impact of military spending in Nebraska, this report also considers the settlement and migration patterns of veterans and retirees leaving the service. In Nebraska, Air Force veterans and retirees appear to be settling in the state at rates higher than would be expected based on national averages. In fact, an additional 4,800 Air Force veterans and/or retirees live in the state, in comparison to what national averages would suggest. More broadly, estimates indicate that there are 15,067 additional veterans living in Nebraska because of Offutt Air Force Base, including about 13,000 veterans and spouses of working age (representing the potential supply of labor). These population impacts are noteworthy given the skill set which military retirees and other veterans bring to the state economy. An estimate of the economic impact of this population suggests that an additional 1,900 jobs are created in Nebraska, with an annual output impact of \$357 million.

Tax Incentives for Veterans and Department of Defense Retirees

Finally, the BBR was asked to develop a conceptual model to analyze the potential impacts of income tax incentives designed to attract military veterans and retirees to the state. The BBR reviewed the academic literature to identify the data sources and methodological approaches needed to develop such a model. The details of these approaches are included within the report. In addition to this conceptual model, the BBR considered several other related studies. Such potential studies include: 1) an analysis of variable tax rates for veterans along state borders; 2) an analysis of county-level migration flows across borders to estimate the effect of income tax incentives on migration in cases where a military installation is located near a state border; 3) an analysis of the ways in which a state military presence impacts property values in locales near a military installation; and 4) an analysis that would estimate the effects that a base closure or reduction in mission at a military base or VA facility might have upon the economy of the state.

1. Introduction

In addition to fulfilling critical missions across the globe and in the United States, the Armed Forces of the United States provides support to local economies throughout the country. Like other states, Nebraska benefits greatly from federal military spending that takes place within its borders. Such spending includes operations and operations support spending; salary paid to Active, Guard, and Reserve personnel; veteran compensation; and military retiree pension payments. Military spending is an integral part of the health of the economies in areas near or around military bases, as installations purchase goods and services from local vendors. The effects of military spending can be felt throughout Nebraska, as installations are located in every region of the state.

Recent reports have illustrated the importance of military spending upon local and state economies. The National Conference of State Legislators recently compiled a report demonstrating that defense spending contributes tens of billions of dollars to the economies of states with a large Department of Defense (DoD) presence, with military spending contributing substantial proportions of state Gross Domestic Product (GDP) in some cases.¹ Reports by entities such as the U.S. Department of Defense, Office of Economic Adjustment similarly demonstrate the considerable impacts that defense spending has at the state levels.²

States have also recognized the critical role that defense and veteran spending can play in contributing to economic development. This recognition is reflected through recent reports from states such as Arizona³, Arkansas⁴, Kentucky⁵ and South Carolina⁶, or individual metropolitan regions such as San Diego⁷, which estimate the economic impacts of the defense economy, and related spending on veterans and retired military personnel. States have also begun to create formal organizations through which they are able to develop more cohesive efforts toward maintaining and growing the military presence in the states, and through which they seek to attract veterans and retired military personnel to

¹ National Conference of State Legislatures. (2017). Military's Impact on State Economies. Available at: http://www.ncsl.org/research/military-and-veterans-affairs/military-s-impact-on-state-economies.aspx

² U.S. Department of Defense, Office of Economic Adjustment. (2015). Defense Spending by State Fiscal Year 2015. Available at: http://www.oea.gov/defense-spending-state-fiscal-year-2015

³ The Maguire Company. (2008). Economic Impact of Arizona's Principal Military Operations. Available at: https://dema.az.gov/sites/default/files/MAC 2008MaguireMilitaryEconImpactFullStudy.pdf

⁴ Arkansas Economic Development Commission. (2016). Arkansas Military Installations Impact Analysis. Available at: http://www.arkansasedc.com/sites/default/files/content/file-nodes/arkansas military installations impact analysis november 2016-4-26.pdf

⁵ The Kentucky Commission on Military Affairs. (2016). The Economic Importance of the Military in Kentucky. Available at: https://kcma.ky.gov/Documents/Final%20Report.pdf

⁶ South Carolina Military Base Taskforce. (2017). South Carolina Military Base Taskforce: Enhancing South Carolina's Military Value. Available at: https://test.scmilitarybases.com/wp-content/uploads/2017/07/MBTF-2017-Strategic-Plan-071717.pdf

⁷ San Diego Military Advisory Council and Fermanian Business & Economic Institute at Point Loma Nazarene University (2017). 9th Annual San Diego Military Impact Study 2017. Available at: https://www.sdmac.org/static/media/uploads/Impact%20Study%202017/17_sdmac_economicimpactstudy_booklet_fnl-webversion.pdf

reside in their states. These organizations take a variety of forms⁸, but the underlying purpose of each is to nurture the defense economy in their respective states.

2008 BRAC Task Force

In 2008, the Nebraska Legislature established the Base Realignment and Closure (BRAC) Task Force. The aim of the Task Force was to "undertake a comprehensive examination of Nebraska's military assets with the goal of identifying all means by which the state can benefit from future base realignment and closure decisions." The formation of the Task Force and its subsequent report was partly in response to five rounds of BRAC proceedings that had occurred in years prior to 2008 (1988, 1991, 1993, 1995, and 2005), and partly in anticipation of future BRAC rounds.

Progress on 2008 BRAC Task Force Recommendations.

To best position Nebraska in advance of future BRAC rounds, the 2008 Task Force provided a brief review of the economic impacts of military installations in the state and put forth eight recommendations to help prepare Nebraska for potential BRAC activities. The eight recommendations, as well as any subsequent progress on each recommendation, are presented below.

1. Recommend the state increase appropriation to ensure full commitment of federal dollars for infrastructure needs of National Guard bases.

While the National Guard is approximately 97% federally funded, the recommendation for the state to increase its appropriation to ensure full commitment of federal dollars for infrastructure need of the Nebraska National Guard is still valid.

As of the 2008 BRAC Task Force Report, Nebraska had not been fully utilizing funds available from the federal government. More specifically, the Task Force noted that the underappropriation of state funds in support of military operations in the state had resulted in an inability to obtain federal funds with strict matching requirements. Consequently, the state returned thousands of dollars to the DoD. Since the 2008 report, when federal funding for the Nebraska National Guard reached its peak (see Figure 1), the state has maintained consistent levels of funding for the Nebraska Department of the Military. State funding reached a peak of \$11.3 million in 2013, with a gradual tapering to near-previous levels in 2014-2016. The increases from 2012-2013 are likely due, in part, to the funding for the new Joint Headquarters Building at the National Guard Base in Lincoln.

⁸ Association of Defense Communities. (2016). State of Support 2016: Highlights of State Support for Defense Installations. Available at: http://www.ct.gov/oma/lib/oma/state of support 2016.pdf

⁹ Nebraska Base Realignment and Closure (BRAC) Task Force. (2008). Report of the Nebraska Base Realignment and Closure (BRAC) Task Force. Available at: http://govdocs.nebraska.gov/epubs/L3745/B036-2008.pdf

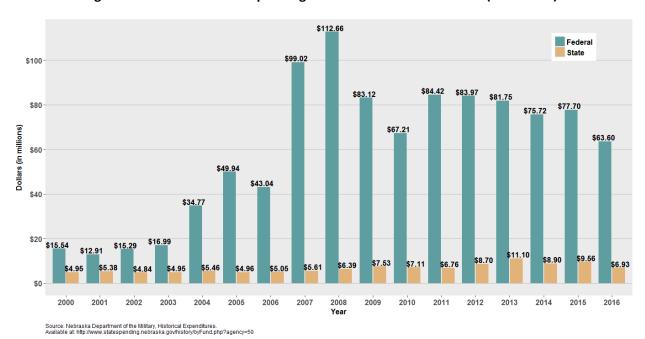


Figure 1. State and Federal Spending on Nebraska National Guard (in millions)

The Department of Defense provides the Nebraska Army National Guard (NEARNG) federal funds to support operations, maintenance/sustainment, and modernization of facilities. These funds are matched up to 50% with State funds based upon the type and use of the facility. From fiscal year 2008 to 2017, federal funds have increased \$4,292,573 (48%) while State funds have increased \$298,700 (22%). Throughout the last 10 years, the highest percent the State has matched to the federal funds is 19.8%. While the NEARNG has some flexibility with the utilization of the allocated federal funds, the facilities, mainly Readiness Centers (Armories) that require a higher percent of State funding, are not able to be sustained or modernized to an appropriate level. Federal funds not utilized on state/federal split facilities can be executed at facilities that are entirely federally funded, thereby retaining federal funds in the state.

Table 1. Total State Funding to Nebraska Army National Guard in Relation to Federal Funding										
		Fiscal Year								
Fund	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
544-007	\$227,557	\$266,367	\$432,100	\$1,226,247	\$1,429,823	\$1,793,454	\$2,011,100	\$1,684,521	\$1,625,476	\$1,500,943
544-081	\$283,450	\$227,765	\$472,074	\$131,400	\$159,250	\$186,165	\$227,179	\$493,447	\$125,275	\$142,182
544-008	\$833,418	\$840,006	\$339,384	\$321,964						
Total	\$1,344,425	\$1,334,138	\$1,243,558	\$1,679,611	\$1,589,073	\$1,979,619	\$2,238,279	\$2,177,968	\$1,750,751	\$1,643,125
Federal Fu	nds Available to	Match – MCA	 Appendix 1 Fac	ilities Program	(FP)					
	\$8,851,527	\$6,733,586	\$6,799,114	\$10,494,991	\$10,314,206	\$12,176,694	\$14,730,895	\$13,022,825	\$13,121,704	\$13,144,100
Percent M	atch of State to	 Federal Funds								
	15.2%	19.8%	18.3%	16.0%	15.4%	16.3%	15.2%	16.7%	13.3%	12.5%

Facility modernization and new facility construction for the NEARNG is challenging due to the lack of State matching funds. Over the last 10 years, the State has provided funding (\$3.8 million) for the construction of the Joint Force Headquarters and Nebraska

Emergency Management with approximately 40% of those proceeds coming from the sale of the NEARNG Military Road property. The NEARNG has received initial federal approval for fiscal year 2018 design with construction of two new facilities in 2020. The Bellevue/Offutt Readiness Center is currently programmed for \$143,000 State and \$2,383,740 federal design funds. The programmed North Platte Readiness Center (\$12 million) requires a 25% State match share, but was postponed due to State budget issues. The NEARNG was able to secure authorization for design and construction of an equipment Facility Maintenance Shop (FMS—which requires no state match) in North Platte, programed at \$9.3 million, in-lieu of the Readiness Center.

					Fisca	l Year				
Fund	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
State of NE**	\$	\$	\$	\$	\$3,812,099	\$	\$	\$	\$	\$
Federal MILCON		\$9,133,688	\$9,392,000	\$14,091,632	\$32,911,963	\$9,678,257	\$31,064,000			
**\$1,503,500 Prod	eeds from sale	of Military Ro	ad Facility							
Total State Constr	uction Funds fo	r NE Army Nat	ional Guard FY	'08 through FY1	17: \$3,812,099	(NEARNG JFF	IQ with NEMA)			
Total Federal MILO	ON Funds for N	IE Army Natio	nal Guard FY08	through FY17:	\$106,271,540)				
Projected Readine	ss Center at Bel	levue (Offutt /	AFB)		Project Mai	ntenance Sho	p in North Platt	е		
	FY18 Design	FY20 Constru	ıction		FY18 Design	FY20 Constru	ıction			
State of NE	\$143,000	\$			\$	\$				
	\$2,383,740	_			\$825,000	\$9,300,000				

The Department of Defense provides the Nebraska Air National Guard (NEANG) federal funds to support maintenance and sustainment of facilities and infrastructure. These funds are matched up to 25% with State funds for the sole purpose of salaries and benefits of state employees, utility payments, and day-to-day preventative maintenance. Fiscal year 2008 to 2017, federal funds have increased significantly while State funds have plateaued. Throughout the last 10 years, the State match on average to the federal funds is 20%. The NEANG does not have the ability to use federal funds for which there are not state matching funds for other programs as Appendix 21 of the Master Cooperative Agreement restricts the use of federal resources to the agreement solely.

	Table 3. Total State and Federal Funding to Nebraska Army National Guard to Support Maintenance and Sustainment of Facilities and Infrastructure									
and 3d	Fiscal Year									
State Fund	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
544-02	\$315,000	\$320,000	\$395,565	\$358,433	\$424,772	\$323,870	\$320,565	\$352,738	\$320,565	\$305,000
544-03	\$	\$	\$	\$	\$	\$	\$	\$	\$	
544-05	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$15,367
Total	\$315,000	\$320,000	\$395,565	\$358,433	\$424,772	\$323,870	\$320,565	\$352,738	\$320,565	\$320,367
Federal Fun	ds									
	\$945,000	\$960,000	\$1,171,381	\$1,152,926	\$1,028,000	\$1,067,300	\$1,148,200	\$1,183,800	\$1,120,200	\$1,245,900
Amount of F	ederal Dollar	s Returned								
	\$	\$	\$	\$77,626	\$	\$95,689	\$186,505	\$125,589	\$158,505	\$284,799
Percent Mat	tch to Federal	Funds								
	25%	25%	25%	18%	25%	16%	17%	16%	11%	23%

In addition, the federal government provides 100% funding for repair and modernization of facilities and infrastructure. The repair and modernization federal funding levels provided to the NEANG have increased sharply from \$1,065,873 between 2006-2010, to \$30 million between 2011-2016, and over \$24 million in 2017 alone.

2. Provide support to local subdivisions in their efforts to improve military installations.

The recommendation to provide support to local subdivisions in their efforts to improve military installations is still valid.

In 2008, the BRAC Task Force recommended that the state assist the City of Lincoln, the Lower Platte South Natural Resource District and the Lincoln Airport Authority in their efforts to meet new levee standards established by the Federal Emergency Management Authority after Hurricane Katrina.

The BRAC Task Force also encouraged the state to support all efforts to maintain the length of runway 18/36 to accommodate fully loaded aircraft at the Lincoln Airport. Such aircraft include fully loaded KC-135 air refueling aircraft and other military aircraft from Offutt AFB and surrounding bases.

The BRAC Task Force also encouraged the state to appropriate funds to improve the Capehart Road interchange to Offutt AFB and road and bridge access to the Omaha Development Foundation (formally the Frank Platt property) along with an appropriation to improve access from Galvin Road in Bellevue to Offutt AFB. There have been considerable improvements made to the Kennedy Expressway corridor over the past several years, with new interchanges built that can handle heavy traffic loads near Offutt AFB, as well as the widening of the U.S. 75 to the south toward Plattsmouth.

In March 2016, the Critical Infrastructure Facilities Cash Fund was established by Legislative Bill (LB) 957 Section 25, to be used by the Nebraska Department of Natural Resources to provide a grant to a Natural Resource District (NRD) to offset costs related to soil and water improvements intended to protect critical infrastructure facilities within the NRD which includes military installations, transportation routes, and wastewater treatment facilities.¹⁰ The Critical Infrastructure Facilities Cash Fund is intended to help fund efforts to protect and enhance critical infrastructure facilities within an NRD's boundary including military installations, transportation routes, and wastewater treatment facilities.

A total of \$13.7 million was transferred from the General Fund into the Critical Infrastructure Facilities Fund in FY15-16, and a \$13.7 million cash fund appropriation was approved for FY15-16. Unused appropriations were carried forward into FY16-17. The Nebraska Department of Natural Resources accepted an application from the Papio-

¹⁰ Legislative Bill 956. March 30, 2016. Section 25. Available at: http://www.nebraskalegislature.gov/FloorDocs/104/PDF/Slip/LB956.pdf

Missouri Natural Resources District for a grant to help fund a project to extend and upgrade levies near the Offutt Air Force Base in early 2016-2017.¹¹

3. Explore the feasibility of creating a permanent state-wide commission/office to address long-term issues of military installations and missions.

Given the creation of Nebraska's Commission on Military and Veteran Affairs in 2016, the recommendation to explore the feasibility of creating a permanent state-wide commission to address long-term issues of military installations and missions is no longer valid.

The creation of the Commission on Military and Veterans Affairs was realized in 2016 through LB 754, introduced by Senator Sue Crawford. As noted in the introduction of the bill, the Commission was formed "to help the State of Nebraska preserve and protect military installations across the state, attract new missions to the state's military installations, and serve Nebraska's military and veteran families." As noted earlier in the report, the creation of the Commission is consistent with actions taken by other states, which have created military affairs organizations that have taken a variety of forms (such as a board, council, task force, or commission). As noted by the Association of Defense Communities, such commissions are commonly formed by and funded through state government, though a few are funded through local governments or via nongovernmental economic development entities. It appears that the creation of Nebraska's Commission on Military and Veterans Affairs is, therefore, consistent with the organization and funding structure for such entities in other states.

4. Recommend land use planning legislation to ensure governmental entities and developers coordinate when building near military bases, including a requirement that local subdivisions conduct a feasibility study to address encroachment issues.

Given the approval of LB 279 in February 2010, the recommendation for land use planning legislation to ensure governmental entities and developers coordinate when building near military bases, including a requirement that local subdivisions conduct a feasibility study to address encroachment issues, has been partially realized.

In February 2010, Governor Heinemann approved LB 279, an act relating to land-use planning. The act requires notification of military installations regarding development of real property.¹³ Senator Bill Avery introduced LB 279 to require municipalities and counties to provide notification to a military installation "which is located within its jurisdiction

¹¹ A Legislator's Guide to Nebraska State Agencies. Nebraska Legislative Fiscal Office. December 2016. Available at: http://www.nebraskalegislature.gov/pdf/reports/fiscal/2016legguide.pdf

¹² Senator Sue Crawford, Introducers Statement of Intent. Available at: http://nebraskalegislature.gov/FloorDocs/104/PDF/SI/LB754.pdf

¹³ Nebraska Unicameral 101st Session, Legislative Bill 279. Available at: http://nebraskalegislature.gov/FloorDocs/101/PDF/Slip/LB279.pdf

regarding any development of property which may affect the military installation."¹⁴ To this end, the recommendation to ensure coordination between government entities and developers has been realized.

Regarding the specific 2008 recommendation to levy a requirement that local subdivisions conduct a feasibility study to address encroachment issues, LB 279 did not modify state statute 15-1103 which notes "the planning director shall be responsible for preparing the comprehensive plan and amendments and extensions thereto and for submitting such plans and modifications to the city planning commission for its consideration and action." Arguably, a comprehensive plan would address encroachment issues.

The Department of the Air Force requires Accident Potential Zones, Noise Pollution Land Use Zones, and general zoning encroachment to an installation. In 2017, the Nebraska Air National Guard (NEANG) acquired an additional 16 acres of land to the lease with the Lincoln Airport Authority (LAA). This land addition provided a buffer on the north end of the installation while providing for future expansion of the NEANG. All adjacent property surrounding the NEANG installation is owned by the LAA and zoned for aviation use. Encroachment issues to the installation are mitigated by natural and manmade barriers in addition to current land use zoning.

5. Recommend colleges and universities offer courses that support military missions.

The recommendation that colleges and universities should offer courses that support military missions is still valid.

The 2008 BRAC Task Force found it is "important that Universities, colleges, and community colleges in Nebraska build strong working relationships with the local military installations by adapting their curricula to where feasible the needs and interests of the installations." In Nebraska, the U.S. Strategic Command (USSTRATCOM) has a long history of cooperating with individual academic institutions on an informal basis to educate their faculty and students on deterrence concepts and issues. In October 2014, USSTRATCOM initiated a formal Deterrence and Assurance Academic Alliance to improve collaborative research efforts, encourage new thinking on deterrence and assurance, and to develop future strategic leaders and practitioners. Alliance members promote, develop, and conduct research on deterrence and assurance. Initiatives within the alliance include creating venues for academic communication and collaboration in the form of a website, an annual workshop, speaking engagements, a deterrence focused journal, and an electronic database of past, current and future research. Member recruitment has focused on military and

¹⁴ Senator Bill Avery, Introducers Statement of Intent. Available at: http://nebraskalegislature.gov/FloorDocs/101/PDF/SI/LB279.pdf

¹⁵ Nebraska Revised Statute 15-1103. Available at: http://nebraskalegislature.gov/laws/statutes.php?statute=15-1103

¹⁶ Douglas Vance, USSTRATCOM J55 Academic Alliance Coordinator, Info Paper, 13 September 2017 and information available at: http://www.stratcom.mil/Academic-Alliance/

civilian academic institutions with reputable undergraduate and graduate programs in Political Science, International Relations, and Security Studies. Generally speaking, they may be grouped into these categories:

- Midwest Universities
- Professional Military Education Institutions and Service Academies
- National Universities
- Partners: U.S. and International government organizations

There are 39 confirmed member universities and Partners: Air University, Baltic Defence College, Bellevue University, Colorado State University, Columbia University, Creighton University, DTRA Nuclear Weapons School, Georgia Tech/Sam Nunn School of International Affairs, Georgetown University, Harvard University, Iowa State University, Johns Hopkins University/APL, Kansas State University, Louisiana Tech University/LTRI, Missouri State University, National Defense University, Nebraska Wesleyan, U.S. Air Force Academy, U.S. Military Academy, U.S. Naval Academy, U.S. Naval Postgraduate School, U.S. Naval War College, University of Arizona, University of California San Diego, University of Denver, University of Kansas, University of Nebraska at Kearney, University of Nebraska at Lincoln, University of Nebraska at Omaha, University of New Mexico, University of Northern Iowa, University of Tennessee, School of Advance Nuclear Deterrence Studies, Stanford University, Yale University, USNORTHCOM, United Kingdom Ministry of Defence, Defence Forces Canada, and NATO.

6. Recommend the state appropriate funds to acquire the East Campus Armory to lessen the facility deficit experienced by the Nebraska Army National Guard.

Given that the Nebraska Army National Guard (NEARNG) was able to acquire and renovate the East Campus Armory using federal funds in 2012, the recommendation that the state appropriate funds for this effort is no longer valid. The 100% federally funded renovation of \$3.6 million created a modern, functional facility. The current NEARNG total facility deficit is 299,413 square feet. Please refer to recommendation #1 regarding military construction details.

7. Review and recommend legislation to support military personnel and families including employment and educational opportunities.

The recommendation to review and recommend legislation to support military personnel and families including employment and educational opportunities is still valid. In 2004, the Department of Defense established a State Liaison Office to "educate state policymakers on

unintended barriers created by their policies and other issues important to the well-being of service members and their families."¹⁷

In 2009, the Higher Education Opportunity Act established "in-state tuition rates for members of the armed forces on active duty, spouses, and dependent children." ¹⁸

In May 2011, Nebraska passed legislation, LB 575, enacting the Interstate Compact on Educational Opportunity for Military Children which took effect on July 1st, 2012. The Compact provides for the uniform treatment of military children transferring between school districts and states. The purpose of the Compact is to remove barriers to educational success imposed on children of military families due to frequent moves and deployment of their parents. The Compact also established the State Council on Educational Opportunity for Military Children which meets annually. The State Council advises the Nebraska Department of Education with regard to the state's participation and compliance with the Compact. Of note, the 2008 the BRAC Task Force specifically encouraged the state to "explore the idea of joining the Compact" which is now in its fifth year of existence in Nebraska. As of January 2015, all 50 states and the District of Columbia have adopted the Compact. To date, the State Council has been an effective tool to support military personnel and families serving in Nebraska.

The 2008 BRAC Task Force also "explored other ways to assist military families, including simplifying the certification process for a teacher who moves to Nebraska because a military spouse is transferred or extending benefits to active duty military dependents regarding college tuition." Regarding simplifying the certification process for a teacher who moves to Nebraska because a spouse is transferred, the Nebraska Department of Education (NDE) believes the flexibility of current statutes provides ample legal authority to the State Board without further action by the Legislature. In January 2017, LB 109 which would "amend section 79-813 in order to provide for a process that issues temporary certificates or permits to military spouses if those spouses meet comparable and equivalent requirements to teach in Nebraska" was heard in the Education Committee. In 2017, the NDE staff have continued working with Senator Sue Crawford and a constituent, who is a military spouse,

http://www.usa4militaryfamilies.dod.mil/MOS/f?p=USA4:CONTENT:0::::COHE:296013

¹⁷ Department of Defense State Liaison Office. Available at:

¹⁸ U.S. Code, Title 20, Chapter 28, Subchapter 1, Part C, Section 1015d. Available at:

 $[\]underline{http://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title20-section1015d\&num=0\&edition=prelim-title20-$

¹⁹ Nebraska Department of Education, State Council on Educational Opportunity for Military Children. Available at: https://www.education.ne.gov/COMMISH/Military Children Compact.html

²⁰ Nebraska Base Realignment and Closure (BRAC) Task Force. (2008). Report of the Nebraska Base Realignment and Closure (BRAC) Task Force. Available at: http://govdocs.nebraska.gov/epubs/L3745/B036-2008.pdf

²¹ Nebraska Base Realignment and Closure (BRAC) Task Force. (2008). Report of the Nebraska Base Realignment and Closure (BRAC) Task Force. Available at: http://govdocs.nebraska.gov/epubs/L3745/B036-2008.pdf

²² Nebraska Department of Education, October 2, 2017.

²³ Senator Carol Blood, Introducer's Statement of Intent. Available at: http://www.nebraskalegislature.gov/FloorDocs/105/PDF/SI/LB109.pdf

regarding certificates or permits to be teachers in Nebraska for military spouses to see if regulations could be amended to address this topic.

In April 2017, Nebraska approved LB 88 which amends state statutes "in order to allow military spouses to obtain a temporary license in a variety of professions if those spouses meet the comparable and equivalent requirements."²⁴ A temporary credential to a military spouse "shall be valid until the application for the regular credential is approved or rejected, not to exceed one year."²⁵

As of October 2017, the Defense-State Liaison Office continues to advocate for 10 key issues. The State of Nebraska "has made movement towards achieving desired outcomes" on 2 of these 10 key issues. ²⁶

8. Provide tax relief to retired military personnel to encourage military retirees to live and work in Nebraska.

Nebraska provided tax relief to retired military personnel to encourage military retirees to live and work in Nebraska through the passage of LB 987 in 2014. A Nebraskan can elect to exclude military retirement benefits from Nebraska taxable income through two options. Option 1 provides exemptions for 40% of military retirement benefit income for seven consecutive years beginning with the year in which the election is made. Option 2 provides exemptions for 15% of military retirement benefit income for all taxable years beginning with the year in which the retiree turns 67 years of age.²⁷

Additional legislation has been proposed to provide tax relief to retired military personnel. LB 121 amends the Nebraska Revenue Act of 1967, Section 77-2716, regarding modifications and exclusions to federal adjusted gross income (AGI) for Nebraska state income tax purposes. Military retirement benefits are defined as periodic payments attributable to service in the uniformed services of the U.S. for personal services performed by the individual prior to their retirement date. The bill provides that beginning taxable year January 1, 2018, AGI shall exclude a portion of income received as military retirement benefits for each individual included in the tax return who receives such benefits to the extent it is included in federal AGI, as follows: For tax year 2018, income to be excluded shall not exceed \$10,000; For tax year 2020, income to be excluded shall not exceed \$20,000; For tax year 2020, income to be excluded shall not exceed \$30,000; For tax year 2021, income to be excluded shall not exceed \$40,000; For tax year 2022 and thereafter, income to be excluded shall not exceed \$50,000. LB 121 also changes the current language

²⁴ Senator Carol Blood, Introducer's Statement of Intent. Available at: http://www.nebraskalegislature.gov/FloorDocs/105/PDF/SI/LB109.pdf

²⁵ Interstate Medical Licensure Compact, Legislative Bill 88, April 25th, 2017. Available at: http://www.nebraskalegislature.gov/FloorDocs/105/PDF/Slip/LB88.pdf

²⁶ Department of Defense State Liaison Office, State Status: Nebraska. Available at: http://www.usa4militaryfamilies.dod.mil/MOS/f?p=USA4:HOME:0::::P1_STATE:NE

²⁷ Nebraska Department of Revenue. http://www.revenue.nebraska.gov/tax/current/fill-in/f 1040n mil.pdf

regarding the one-time election a taxpayer may make regarding the exclusion of military retirement income by an individual to say that they may choose such exclusion on or before December 31, 2017 or within two calendar years from the date of their retirement from the military, whichever comes first. LB 121 also adds language to this section to allow an individual who has previously made such an election to revoke that election by notifying the Department of Revenue before December 31, 2018.²⁸ Of note, the average value of a retired military pension in Nebraska is \$27,131 while the national average is \$26,724.

Recent Congressional Actions Related to BRAC

As of September 2017, the "prospects that Congress would authorize a new BRAC round in the upcoming National Defense Authorization Act (NDAA) for Fiscal Year 2018" were fading.²⁹ Historically, the prospect of a BRAC round has been controversial. In general, career civil servants within the DoD favor BRAC, as it would allow the DoD to unload excess facilities and inventory,³⁰ and ultimately upgrade the effectiveness of the military. A 2016 letter from the former Deputy Secretary of Defense Robert Hale to Representative Mac Thornberry, Chairman of the House Committee on Armed Services, estimated that the DoD has 22% overall excess infrastructure capacity, with 33% excess capacity in the Army, 7% capacity in the Navy, 32% capacity in the Air Force, and 12% capacity in the Defense Logistics Agency.³¹³² For Nebraska, the excess capacity in the Air Force is most applicable given the presence of Offutt AFB and Nebraska Air National Guard within the state.

An amendment developed by Senators John McCain of Arizona and Jack Reed of Rhode Island in August, 2017 would have required a BRAC round as part of the 2018 NDAA. While the amendment will not be included in the 2018 NDAA, the proposal modified procedures for considering base closings and realignments of missions.³³ The proposed legislation would have directly involved Congress in any decisions related to BRAC, unlike previous processes that relied upon an independent BRAC commission to identify bases for closure. Of note, the Department of Defense updated its Infrastructure Capacity Report in October 2017.³⁴

Congressional members will continue to view potential base closures as a potential loss for their home districts, with detrimental impacts for local and state economies. Both anecdotal evidence and existing research has shown that base closures may pose a threat to those cities, states, and regions that are at

²⁸ Nebraska Legislature. http://nebraskalegislature.gov/FloorDocs/Current/PDF/FN/LB121 20170209-113602.pdf

²⁹ Mark Cancian and Raymond Dubois, Center for Strategic & International Studies, Base Realignment and Closure Roundtable. Available at: https://www.csis.org/analysis/base-realignment-and-closure-brac-roundtable

³⁰ Federal News Radio. (2017). DoD Pegs Excess Base Capacity at 22 Percent. Available at: https://federalnewsradio.com/defense/2016/04/dod-pegs-excess-base-capacity-22-percent/

³¹ Letter from Deputy Secretary of Defense Robert Work to Congress.

³² Department of Defense Infrastructure Capacity Report, March 2016. Available at: https://defensecommunities.org/wp-content/uploads/2015/01/2016-4-Interim-Capacity-Report-for-Printing.pdf

³³ Frederico Bartels. (2017). Guidelines for a Better-and Necessary-Round of BRAC. Available at: http://www.heritage.org/defense/report/guidelines-better-and-necessary-round-brac

³⁴ Department of Defense. (2017). Infrastructure Capacity Report. Available at: https://democrats-armedservices.house.gov/_cache/files/d/a/da59cb94-76f7-466b-b03b-717ab49fece6/92C3CB18EA9CF53C0D25FFE91C09C3F0.infrastructure-capacity-report-october-2017.pdf

risk of a base closure. However, the evidence in the research literature appears to be somewhat mixed. A RAND Corporation study examined three communities in California in which base closures took place during the 1990s. The research showed that real estate vacancy rates and unemployment increased slightly in two of the communities, and one community experienced a slight drop in population, school enrollment, and a minor increase in unemployment.³⁵ The authors concluded that base closures in the three communities were not as dire as predicted, at least in the short-term. A working paper from the National Bureau of Economic Research (NBER) found that base closures across the nation led to job loss in those industries more closely associated with military service, but with little impact upon per-capita income.³⁶ A Congressional Research Service (CRS) report found that base closures did not have the extreme local consequences that many feared. Though, the report noted that rural areas may experience more severe results, with economic recovery taking longer.³⁷ This finding has implications for Nebraska where many National Guard and Reserve facilities are located in rural areas of the state.

In Nebraska, policy makers and stakeholders must keep abreast of potential policy changes related to BRAC, as base closures have the potential to result in a variety of adverse economic outcomes. Related, it will likely be beneficial to monitor the movement by Veterans Affairs Secretary David Shulkin to close 1,100 VA facilities throughout the nation.³⁸ At the same time, Nebraska leaders must recognize that any BRAC proceeding will also lead to opportunities for installations that are in position to take on additional missions.

The Current Report

There are multiple purposes of the present report. First, this report will serve to update the economic impact data presented in the 2008 BRAC Task Force Report, thereby providing a current snapshot of the economic impacts of military and veteran spending in the state. This information will yield a comprehensive understanding of the magnitude of military and veteran spending in Nebraska. Data for these analyses have been derived from a wide range of sources including federal statistics from the Department of Defense, the Census Bureau, and the Department of Veterans Affairs; statistics from reports produced by Offutt Air Force Base and the Nebraska National Guard; and from correspondence with Army, Navy, Air Force, and Marine Corps Reserves. Analysts utilize industry-standard approaches (i.e., IMPLAN, IMpact analysis for PLANning³⁹) to derive estimates of the direct, indirect, and induced effects of defense and military retiree spending in the state.

³⁵ Michael Dardia, Kevin F. McCarthy, Jesse D. Malkin, & Georges Vernez. (1996). The Effects of Military Base Closures on Local Communities: A Short-Term Perspective. Available at: https://www.rand.org/pubs/monograph_reports/MR667.html

³⁶ Mark A. Hooker & Michael M. Knetter. (1999). Measuring the Economic Effects of Military Base Closures. Available at: http://www.nber.org/papers/w6941

³⁷ Tadlock Cowan. (2012). Military Base Closures: Socioeconomic Impacts. Available at: https://fas.org/sgp/crs/natsec/RS22147.pdf

³⁸ Hope Yen. (2017). Shulkin Says He's Considering Closing 1,110 Veterans Affairs Facilities. Available at: http://www.pbs.org/newshour/rundown/shulkin-says-hes-considering-closing-1100-veterans-affairs-facilities/
³⁹ IMPLAN, Impact Analysis for Planning. Available at: http://implan.com/

Second, this report will consider the occupational benefits of military service. That is, researchers will examine the potential benefits that military service can have upon the career prospects and occupational performance of veterans. It is likely that military service will enhance the career trajectories of many individuals who move from the military service into the private sector. Assuming positive effects of military service upon the earnings and performance of veterans in the private sector, and considering the migration and settlement patterns of retirees and veterans, researchers consider the aggregate benefits of military service upon the state economy. Data for this analysis is drawn from many of the same sources as described in the previous paragraph, and is informed by research that has been conducted in the academic and applied research literature.

In sum, the current report will provide stakeholders with the situational awareness of current levels of spending on military installations and spending on veterans and military retirees, as well as the indirect effects of such spending. This report will also yield key insights into the various costs and benefits of proposed strategies to attract and retain veterans and retired DoD personnel into the state. Ultimately, the information can be used to further prepare the State of Nebraska for potential BRAC proceedings by identifying the strengths on which Nebraska might capitalize, as well as the potential weaknesses and areas of growth for the economy in this particular domain.

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2. Military Assets and Spending

This chapter outlines the major military installations throughout the state, as well as provides detailed information on the employment, salary, and operating costs associated with each installation. The chapter covers active duty bases, National Guard bases and locations, and facilities where Reserves are located. Information on additional DoD assets is also included. Data were obtained from a wide range of sources including publicly available federal and state data sources, installation reports, personal communications with staff, and personal communications with legislative and governmental affairs staff.

Offutt Air Force Base

Offutt Air Force Base has a long and storied history in Nebraska. Perhaps the state's most visible installation, Offutt's origins began with construction of Ft. Crook in the 1890's. The fort initially served as the home of U.S. Army Infantry units, and continued to serve this purpose through the early 1900's. In 1921, an airfield was built to facilitate takeoffs, landings, and refueling of military and government aircraft. Through the 1940's, Offutt Field served as the location of a new bomber plant that produced notable aircraft used during World War II. In 1948 the entire installation was transferred to the Department of the Air Force and was renamed Offutt Air Force Base. In this same year, Strategic Air Command (SAC) was established on base. Throughout the 1960's, 1970's and 1980's Offutt continued to grow and adapt to shifting threats around the globe. In 1992, SAC was disestablished and in its place, the United States Strategic Command (USSTRATCOM) was established. In the early 2000's, USSTRATCOM experienced organizational changes which resulted in its current organizational structure and role.

Currently, Offutt AFB has 33 aircraft assigned. The base consists of 3,633 acres of land, 2.97 million square yards of paved surface, and 4.60 million square feet of building space. The base employs nearly 10,000 military, civilian and contractor staff, with a total payroll of over \$700 million and an additional \$677 million in expenditures on construction, service contract, and other federal expenditures. According to the 2016 Offutt Economic Impact report, Offutt AFB awarded \$59 million in contracts to small businesses located in Nebraska, and an additional \$83.9 million in contracts to large businesses located in the state. In sum, the report estimated that Offutt AFB and USSTRATCOM have over a \$1.3 billion direct economic impact on the state.

55th Wing. Offutt AFB is the primary home of the 55th Wing. The 55th Wing is the largest wing in Air Combat Command and the second largest in the Air Force. The Wing provides global reconnaissance, real-time intelligence gathering, command and control, information warfare, electronic attack, treaty verification and combat support to national leaders and agencies as well as Air Force and joint warfighters. The wing's support functions include: base mobility; manpower; logistics; aircraft and vehicle maintenance; civil engineering; contracting; personnel administration and education; law enforcement; resource security; morale, welfare and recreation; medical and dental care; and local as well as global command, control, and communication capabilities. The wing performs staff requirements to include: administration; legal services; comptroller; public affairs; history; inspection; plans and programs; ground and flight safety; protocol; inspector general; chaplain services; sexual assault prevention and response; and equal opportunity functions for both military and civilian members.

USSTRATCOM. Offutt is also home to the U.S. Strategic Command (USSTRATCOM). USSTRATCOM is responsible for detecting, deterring, and preventing strategic attacks against the U.S. and its partners. The command coordinates with other combatant commands and governmental agencies that provide national security. According to the Command Snap Shot, USSTRATCOM employs tailored nuclear, cyber, space, global strike, joint electronic warfare, missile defense, and intelligence capabilities to deter aggression, decisively respond if deterrence fails, assure allies, shape adversary behavior, defeat terror, and define the force of the future. The priorities of USSTRATCOM are Strategic Deterrence, Decisive Response, and A Combat-Ready Force.⁴⁰

Additional Units on Offutt AFB. In addition to the 55th Wing and USSTRATCOM, several other critical organizations are also located at Offutt AFB:

The *557*th *Weather Wing* was formed when the Air Force Weather Agency was re-designated in March 2015. According to information provided on the 557th Wing Information webpage, the Wing maximizes America's military power through the exploitation of timely, accurate, and relevant weather information anytime and everywhere on the globe.⁴¹ The 557th is comprised of more than 1,450 personnel, 11 squadrons, five detachments, and five operating locations. At Offutt AFB, the Wing is headquartered in the Lt. Gen. Thomas S. Moorman building, which is the first facility in the Air Force to earn a Leadership in Energy and Environmental Design gold rating by the U.S. Green Building Council.⁴²

The *343*rd *Recruiting Squadron* is headquartered at Offutt AFB. The active duty squadron covers a 370,000 square-mile area that includes Iowa, Michigan, Minnesota, Nebraska, North Dakota, South Dakota, and Wisconsin. The 343rd RCS is tasked with recruiting highly talented and qualified personnel into the Air Force.

⁴⁰ U.S. Strategic Command. Command Snap Shot. Accessed August, 2017. Available at: http://www.stratcom.mil/About/Command-Snapshot/

⁴¹ 557th Weather Wing Fact Sheet. Accessed August, 2017. Available at: http://www.557weatherwing.af.mil/About-us/

⁴² 557th Weather Wing Headquarters Building. Accessed August, 2017. Available at: http://www.557weatherwing.af.mil/Fact-Sheets/Article/871835/557th-weather-wing-headquarters-building/

The 20th Intelligence Squadron (20 IS). According to the 2016 Offutt AFB Economic Impact report, the 20 IS provides geospatial and targeting intelligence to combatant commanders and war fighting forces. The squadron is assigned to Air Combat Command's Air Force 363d Intelligence, Surveillance, and Reconnaissance Wing, located at Langley AFB in Virginia.

The Strategic Communications Wing One Detachment (SCW-1) accomplishes USSTRATCOM's Airborne Command Post mission. According to the 2016 Offutt AFB Economic Impact report, sailors provide security, maintenance, administration, and logistic support for the Navy's E-6B "Mercury" aircraft.

Offutt AFB and USSTRATCOM Personnel and Spending. Offutt AFB is home to many of the critical organizations that ensure the nation's security. The vast majority of Offutt personnel live in Nebraska where they, in turn, spend their paychecks on goods and services. Units at Offutt purchase highly technical support and research and development services from local businesses as well as national companies with a presence in the state. Data from Offutt Air Force Base and USSTRATCOM were derived from the FY2016 Offutt Air Force Base Economic Impact Report. The data indicate that Offutt AFB and USSTRATCOM combine to employ 9,880 individuals. The majority of these employees (6,649) are military members, with an additional 2,857 civilian employees. As Table 1 indicates, 1,073 military members and 23 civilian members of the 55th Wing are stationed elsewhere, outside of Nebraska. This results in 8,784 total military and civilian personnel stationed in Nebraska. An additional 240 non-appropriated civilian employees not presented in Table 1 are also located at Offutt. In total, 9,024 military and civilian employees are stationed at Offutt AFB.

Table 4. Offutt AFB and USSTRATCOM Military and Civilian Spending						
	Military	Other	Civilian	Total		
	Members	Members	Employees	Assigned		
55th Wing	4,464	-	1,037	5,501		
55th Wing (ECG - Davis Monthan AFB, AZ)	865	-	15	880		
55th Wing Overseas (RAF Mildenhall, Kadena AB, NSA Souda Bay)	208	-	8	216		
United States Strategic Command*	487	374	1,163	2,024		
		3/4				
557 Weather Wing	195	-	91	286		
20th Intelligence Squadron	147	-	21	168		
Air Force Heartland Band of America	15	-	1	16		
Defense Intelligence Agency	-	-	178	178		
Other Associate Units/Programs	268	-	269	537		
Department of Defense Other	-	-	74	74		
Totals	6,649	374	2,857	9,880		
Total Nebraska-Located Personnel	5,576	374	2,834	8,784**		

^{*}Includes personnel from U.S. Air Force, U.S. Army, U.S. Marine Corps, and U.S. Navy stationed at USSTRATCOM.

^{**} An additional 240 non-appropriated civilian employees are also located at Offutt for a total of 9,024 military and civilian employees stationed at Offutt AFB.

Source: Offutt Air Force Base Economic Impact Analysis, 2016.

⁴³ Offutt Air Force Base Economic Impact Analysis, 2016. Available at: http://www.offutt.af.mil/Portals/97/2016%200AFB%20EIA.pdf?ver=2017-05-04-111903-373

Payroll figures from the FY2016 Offutt Economic Impact Study indicate over \$695 million in payroll to military and civilian members.⁴⁴ The majority of payroll and benefits was spent on military members (\$416.3 million), with pay and benefits to civilian personnel totaling \$274.7 million. In addition, over \$676.7 million in general operating expenditures were spent in FY 2016. These costs were devoted to construction, service contracts, and other federal expenditures. In sum, over \$1.3 billion in total expenditures was made in FY 2016.

	Dollars	Total
Payroll		
Military Members-All Services		\$416,248,014
Appropriated Fund Civilians		\$274,729,499
Other Civilian Employees		\$9,236,429
Total Payroll		\$700,213,942
Base Expenditures		
Construction		\$172,699,724
Service Contracts		\$366,575,995
Other Federal Expenditures		\$137,406,192
Total Base Expenditures		\$676,681,911
Total Payroll and Expenditures		\$1,376,895,853
Source: Offutt Air Force Base Economic Impact Analysis, 2016.	<u> </u>	I

Army National Guard and Air National Guard

The Army National Guard and the Air National Guard are two of the three components of the Nebraska Military Department. Under Title 32 of the U.S. Code, National Guard members are federally funded, yet are under state control. These units can be called under State Active Duty to help assist with emergencies and other scenarios in Nebraska, and can also be called into duty under various interstate compacts to provide assistance in other states.

The National Guard and the Air National Guard maintain a considerable presence in locations throughout the state. Collectively, the bases and installations in the state are referred to as "Fort Nebraska." Comprising Fort Nebraska are 25 Readiness Centers and one Air National Guard Base distributed across 23 communities. Larger installations include Camp Ashland in Ashland, the Lincoln Army Aviation Support Facility/Readiness Center in Lincoln, the Greenlief Training Site in Hastings, and the Mead Training Site. The Air National Guard maintains a large facility at the Lincoln Municipal

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⁴⁴ The 2016 Offutt AFB Economic Impact Analysis noted a total of \$700,213,942 in payroll to military and civilian personnel. Pay to civilian employees and SAC Federal Credit Union employees totaled \$4,584,849. Analysts did not include the salary for these personnel, as they were assumed to be in the multiplier in the economic impact assessment. This results in a total of \$695,629,093 in salary for military and civilian personnel at Offutt AFB.

Airport. The Army National Guard operates smaller facilities in Beatrice, Broken Bow, Chadron, Columbus, Grand Island, Kearney, Lincoln, McCook, Nebraska City, Norfolk, North Platte, Omaha (North Omaha Readiness Center and South Omaha Readiness Center), Offutt AFB, O'Neill, Scottsbluff, Sidney, Wahoo, Wayne, York, and Yutan. All told, the Nebraska National Guard maintains over 2.7 million square feet of facilities and manages 6,434 acres of land in Nebraska. Over 4,500 personnel are assigned to the facilities owned and managed by the Guard. Nebraska National Guard locations are presented on the map in Figure 1 below.

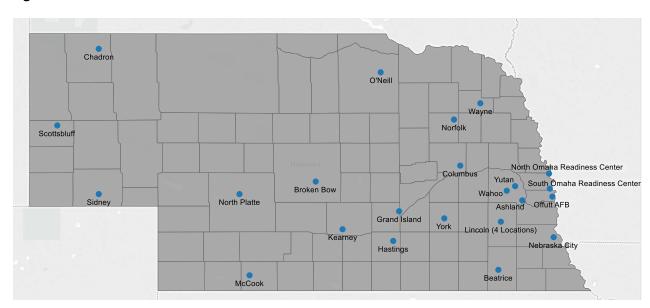


Figure 2. Nebraska National Guard and Air National Guard Locations

Source: Map produced by authors based on personal communications with Nebraska National Guard Governmental Affairs Office.

Key capabilities of the Nebraska Army National Guard and Air National Guard include air refueling, military police, engineering, chemical, cavalry, support/maintenance, rotary aviation and medical. In line with the Department of Defense's assessment of potential threats to U.S. national security interests, the Nebraska National Guard's mission is focused on the Russian sphere of influence, the growth of China, Iran's aggression, North Korea's belligerence, and the fight against terrorism in the Middle East. Accordingly, members of the Nebraska National Guard are currently mobilized to locations around the globe, with the greatest concentration of Nebraska National Guard members mobilized to countries in the U.S. Central Command (USCENTCOM) Area of Responsibility (AOR).

These facilities and locations provide employment and training opportunities for Nebraskans, and also provide support for Nebraska businesses which provide much of the contracted operational support at these facilities. Furthermore, National Guard members receive valuable vocational training during their time with the Guard. While difficult to quantify, this training has the potential to enhance the occupational skillsets of National Guard members, thereby increasing the earning potential of these individuals in their civilian careers.

Nebraska Emergency Management Agency

The Nebraska Emergency Management Agency (NEMA) is the third component of the Nebraska Military Department. Currently, the agency is located at the Joint Force Headquarters on the Nebraska National Guard base in Lincoln. According to the 2016 Nebraska National Guard Annual Report, there are 37 full-time positions dedicated to NEMA. The agency focuses on four primary phases of emergency management: preparedness, response, recovery, and mitigation. NEMA works with partners at the local and federal levels to prepare for man-made or natural disasters. Once a disaster occurs, NEMA has an established procedure through which localities can request state assistance in the wake of a disaster. If a local entity does request and receive state support following an emergency, yet the state resources through the Governor's Emergency Fund are insufficient for proper response, the state can in turn request support and assistance from the federal government.

National Guard and NEMA Spending. Data related to the personnel and organizational costs for the Nebraska National Guard were derived from the 2016 Nebraska National Guard Annual Report. ⁴⁵ The data from that report indicate there are 4,555 total military and state employees across the National Guard and Air National Guard. The total number of employees includes 37 employees from NEMA.

Table 6. Nebraska National Guard and Reserve Employment, Calendar Year 2016						
Traditional National Guard	3,850					
Active Guard Reserve Title 32	494					
Active Duty Title 10	22					
Total Military Personnel	4,366					
Federal Civil Service Technicians	22					
State Personnel Serving Army National Guard	54					
State Personnel Serving Air National Guard	60					
State Personnel Serving Both Army & Air National Guard	16					
State Personnel Serving NEMA	37*					
Military Department Total Personnel	4,555					
Source: Nebraska Military Department, Nebraska National Guard Annual Report						

Source: Nebraska Military Department, Nebraska National Guard Annual Report

*These 37 personnel are not included in the economic impact estimates for the Nebraska National Guard in Chapter 4 of this report.

As indicated in the National Guard 2016 Annual Report, the total Military Department Payroll is \$138.3 million in combined federal and state salary for the National Guard. There are \$48.4 million in benefits and incentives as well. Table 4 below presents these totals. Please note that these totals were derived directly from the National Guard 2016 Annual Report. In the execution of the economic impact analysis presented in Chapter4, analysts eliminated some categories of spending from the analysis. Therefore, the figures used in Chapter 4 may differ slightly from the figures presented here. More detail on what is included in the economic impact analysis is included in Chapter 4.

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⁴⁵ Nebraska Military Department, Nebraska National Guard Annual Report 2016. Available at: http://ne.ng.mil/Shared%20Documents/Annual-Report-2016.pdf

Table 7. Nebraska National Guard and Reserve Employment, Calendar Year 2016					
Payroll	\$138,254,852				
Benefits	\$48,350,121				
Operational Funds	\$37,948,970				
Total Payroll, Benefits and Operations \$213,973,360					
Source: Nebraska Military Department, Nebraska National Guard Annual Report 2016. Available at:					
http://ne.ng.mil/Shared%20Documents/Annual-Report-2016.pdf.					

Reserve Components

Army Reserve. The Army Reserve is the Army's Federal Reserve Force that provides depth and support to the Total Army. The Army Reserve provides access to trained and ready Soldiers, leaders, and cohesive units. ⁴⁶ The Nebraska Army Reserve maintains facilities and units throughout the state. Reservists serve in the following locations: Beatrice, Columbus, Elkhorn (Omaha), Fremont, Hastings, Kearney, Lincoln, McCook, Mead, Norfolk, North Platte, and Offutt AFB. These locations are presented on the map in Figure 3. In Nebraska, Army Reserve forces have medical, logistical, transportation, military police, engineering, and quartermaster capabilities. ⁴⁷

Norfolk

Fremont
Columbus

West Omaha/Elkhorn

Mead
Offutt AFB

McCook

Beatrice

Figure 3. Army Reserve Locations in State of Nebraska

 $Source: \ Map\ produced\ by\ authors\ based\ on\ information\ received\ from\ Office\ of\ the\ Chief,\ Army\ Reserve,\ Legislative\ Affairs.$

⁴⁶ U.S. Army Reserve, About Us. Available at: http://www.usar.army.mil/About-Us/

⁴⁷ U.S. Army Reserve, State of Nebraska and the United States Army Reserve. Available at: http://www.usar.army.mil/Featured/Ambassador-Program/Find-an-Ambassador/Nebraska/

As of July, 2017, there were 1,325 Army Reserve Personnel assigned throughout the state. Based on FY 2015 and FY 2014 figures, there were over \$23.3 million in payroll across military and civilian personnel.⁴⁸

Table 8. Army Reserve Personnel and Expenses					
	Number	Payroll			
Army Reserve Personnel and Active Guard Reserve	1,268	\$18,953,726			
Civilian Personnel	57	\$4,346,706			
Total	1,325	\$23,300,432			
Source: Office of the Chief, Army Reserve, Legislative Affairs					

Air Force Reserve. U.S. Air Force Reserves in Nebraska are primarily located on Offutt AFB. Offutt AFB is home to the 49th Intel Squadron (part of the 655th Intelligence, Surveillance, and Reconnaissance Group), the 960th Network Warfare Flight (part of the 960th Cyberspace Operations Group), HQ Support Air Force Elements (AFELM), the Readiness and Integration Organization Detachment, and the Central Recruiting Squadron Operation location. Across these organizations, 160 military and 11 civilian (171 total) employees are located at Offutt. A recent economic impact report conducted by the Air Force Reserve Command⁴⁹ indicated that salary for Reserves and Civilians is \$3.57 million, with an additional \$482,000 in construction, services, and travel. This results in a total of \$4.05 million in operations and maintenance for these units.

Data provided by the Reservist Readiness and Integration Organization at USSTRATCOM showed an additional 108 U.S. Air Force Reservists assigned to USSTRATCOM and stationed at Offutt AFB. ⁵⁰ No salary or operational spending information in support of these Reservists was available. However, analysts derived estimates of the per-Reservist spending based on information from the Air Force Reserve Command (\$23,684 per Reservist). Applying this estimate to the 108 Reservists assigned to USSTRATCOM, analysts estimate a total cost of \$2.56 million. These figures were summed with the Air Force Reservists personnel and spending totals from above. As shown in Table 6, this results in a total of 279 Air Force Reservists in Nebraska, with a total of \$6.61 million in spending in support of Reserve activities.

Table 9. Air Force Reserve Personnel and Expenses				
Number Payroll and Operations				
Air Force Reserve and Civilian Personnel 279 \$6.61 million				
Sources: Air Force Reserve Command; Reservist Readiness and Integration Organization.				

⁴⁸ Nebraska Army Reserve Economic Impact Data obtained via Office of the Chief, Army Reserve, Legislative Affairs.

⁴⁹ Air Force Reserve Command. (2017). Economic Impact Assessment (EIA): A Summary of the Economic Impact of AFRC in Nebraska in 2017. Obtained via personal communication.

⁵⁰ Information on Air Force Reserves serving at USSTRATCOM received from Reservist Readiness and Integration Organization, Detachment 3, Offutt AFB.

U.S. Marine Corps Reserve. Omaha is home to the Engineer Equipment Maintenance Company of the 4th Maintenance Battalion. Located near the Metro Community College campus in North Omaha, the U.S Marine Corps Reserve occupies 4.4 acres of land and maintains 42,226 square feet of facilities. Personnel include 12 active duty personnel, 4 active reserve personnel (three U.S. Marine Corps and one U.S. Navy), and 115 Reserve personnel, for a total of 131 personnel stationed at the location. Annual salary is \$2.36 million, and total annual operating costs are \$341,865.

Navy Reserve. The Navy Operational Support Center Omaha is located at Offutt Air Force Base where it occupies an 18,914 square foot facility on 2.14 acres of land. Personnel include 4 active duty personnel, 13 active reserve personnel, and 258 Reserve personnel, for a total of 275 personnel stationed at the location. The salary paid between October 1, 2016 and August 31, 2017 was \$2.23 million.

Other Department of Defense Assets in Nebraska

U.S. Army Corps of Engineers. The U.S. Army Corps of Engineers (USACE), Omaha District plays a significant role in Nebraska and throughout the Missouri River Basin. The Corps is one of the largest Federal employers in Omaha and the state, with 850 employees located at the headquarters in downtown Omaha. These employees help the Corps execute military construction, civil works, and environmental restoration projects in Nebraska and throughout the region. As indicated in a recent press release, the USACE Omaha Division currently has 850 employees, with a payroll of \$64.33 million (see Table 7).

Table 10. U.S. Army Corps of Engineers, Omaha District Headquarters Employees and Payroll					
Number Payroll					
Personnel	850	\$64,333,950			
Source: U.S. Army Corps of Engineers, Omaha District. (2017). Celebrating National Engineers Week, Omaha District					
Continues to Serve. Available at: http://www.nwo.usace.army.mil/Media/News-Releases/Article/1094964/celebrating-					
national-engineers-week-omaha-district-continues-to-serve/					

In addition to its operations in Omaha, the Corps plays a vital role throughout Nebraska maintaining waterways, earthen dams, reservoirs, and one hydroelectric facility. Table 8 presents the total operation and maintenance budget for civil works conducted by the Corps in Nebraska in FY 2016. As the table indicates, operation and maintenance costs for Gavins Point Dam were nearly \$10 million, with an additional \$3.74 million in costs to operate and maintain Harlan County Lake in south central Nebraska. All told, \$15.64 million in operation and maintenance costs were accrued during FY 2016. When combined with the payroll of personnel at USACE Omaha District Headquarters, there was \$79.97 million in spending by the USACE in Nebraska in FY 2016.

Table 11. U.S. Army Corp of Engineers Civil Works Spending in Nebraska, FY 2016					
Operation Maintenance Total C					
Gavins Point Dam, Lewis and Clark Lake	\$1,975,000	\$7,751,000	\$9,726,000		
Harlan County Lake	\$1,935,000	\$1,807,000	\$3,742,000		
Inspection of Completed Works	\$505,000	\$505,000			
Missouri River – Kenslers Bend, NE to Sioux City, IA	\$16,000	\$74,000	\$90,000		

			\$15,636,000
Salt Creeks and Tributaries	\$108,000	\$981,000	\$1,089,000
Papillion Creek	\$179,000	\$810,000	\$989,000

Source: Department of the Army Office, Assistant Secretary of the Army. (2015). Fiscal Year 2016: Civil Works Budget of the U.S. Army Corps of Engineers. Available at: http://cdm16021.contentdm.oclc.org/utils/getfile/collection/p16021coll6/id/901/filename/902.pdf

National Strategic Research Institute. The National Strategic Research Institute (NSRI) at the University of Nebraska was formed in 2012. The NSRI is one of 13 University Affiliated Research Centers (UARCs) in the U.S. The NSRI is engaged in a long-term, strategic partnership with its DoD sponsor, USSTRATCOM, to provide mission critical research and development capabilities for USSTRATCOM and other DoD components. Working with researchers from across the university system, the NSRI has five competencies related to combating weapons of mass destruction (CWMD): Nuclear Detection and Forensics; Detection of Chemical and Biological Weapons; Passive Defense Against Weapons of Mass Destruction; Consequence Management; and Space, Cyber and Telecommunications Law. To date, over 40 faculty and 60 students from across the University System have engaged with NSRI. In FY 2016, \$18.3 million in research funds were awarded to investigators throughout the University. Since NSRI was formed, over \$42 million in research funds have been distributed. The growth of NSRI and its relationships with researchers at the University have positioned NSRI to be a leader in the funding of leading research and development related to defense and CWMD in Nebraska.

Nebraska Association of Local Health Directors. The Nebraska Association of Local Health Directors (NALHD) is a non-governmental, 501c3 non-profit organization whose purpose is to improve the health of all Nebraskans—including veterans and their families—by amplifying the impact of local health departments (LHDs). NALHD leverages resources, works toward LHD excellence and accountability, facilitates peer learning, and builds collaborative systems. NALHD's 19 members serve 92 of the state's 93 counties.

Since 2014, NALHD's VetSET (Veterans Serve. Educate. Transition) program has prepared and supported LHDs' work with veterans and their families by building military cultural competence across sectors in Nebraska's rural communities. Through VetSET, NALHD has trained over 725 individuals in day-long No Wrong Door events, and hundreds more in shorter Military 101 trainings. Veterans and veteran families living in rural Nebraska communities often are invisible and disconnected from veteran-specific support systems that recognize and understand their experiences related to military service and its impact on their wellbeing. VetSET is building entire communities' capacity to identify and meet veterans' and families' needs without eligibility restrictions.

In addition to the stressors inherent in the danger and uncertainty of military service, rural Nebraska veterans often experience broken relationships, housing and financial uncertainty, and are at higher risk for several negative health outcomes—most alarmingly, suicide. In all these challenges, families are the front line, supporting veterans' wellbeing and recognizing and coping with crises when they arise.

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⁵¹ National Strategic Research Institute. (2016). 2016 Annual Report. Available at: https://nsri.nebraska.edu/media/nsri/documents/2016-annual-report.ashx

Veterans can thrive when their families and communities are better prepared to support them—preventing or mitigating the negative outcomes above. Veteran families often are invisible in their communities. Schools, community agencies, healthcare providers, and civic institutions—while committed to helping veterans—rarely have protocols for identifying these families and lack resources and training designed specifically for engaging and supporting them.

VetSET is building informed, local networks supported by organizational, local, and statewide policies that address the strengths and needs of service member and veteran families; helping them to thrive in rural communities that are aware of and working with veteran families to address their challenges. Those supported families will be better-prepared to help their veterans be well and stay connected to systems of support.

As part of its VetSET work, NALHD currently also leads the Nebraska Veteran and Family Task Force. NALHD and its member LHDs continue to provide training and educational resources (in person and web-based) across the state. VetSET, initially funded at by a 2-year VA Rural Veteran Coordinating Pilot grant is currently sustained with a much smaller Making Connections for Mental Health and Wellbeing grant from the Prevention Institute from Oakland CA and the Movember Foundation out of Australia.

3. Department of Defense Retirees and Veterans Affairs Spending

In addition to the personnel and operational costs associated with military installations, the military makes a significant impact on Nebraska's economy through its support of veterans and retired DoD personnel. This chapter presents the total amount of federal and state spending on DoD retirees, spending made through the U.S. Department of Veterans Affairs, and through the State of Nebraska Department of Veterans' Affairs. Data were obtained via publicly available federal and state sources.

DoD Retired Personnel

According to the Statistical Report on the Military Retirement System, FY 2016, there are currently 14,660 retired DoD personnel in Nebraska. Of these, 13,746 receive pension payments from the Federal Government. The total amount of monthly pension payments was \$31.08 million dollars in FY 2016. Extrapolating this number across an entire year, DoD retiree pension payments total \$372.95 million per fiscal year in the state. Table 9 below presents the total number of retirees and total amount of payments per DoD branch. The largest number of DoD retirees in the state are retired from the Air Force, not surprising given the large contingent of Air Force personnel at Offutt AFB.

Table 12. Nebraska DoD Retirees and Pension/Retirement Compensation, FY 2016				
	Retired Personnel Monthly Payments		Annual Payments	
	Receiving Compensation	(in millions)	(in millions)	
Army	3,171	\$5.61	\$67.33	
Navy	1,839	\$3.88	\$46.58	
Marines	338	\$0.76	\$9.13	
AF	8,398	\$20.83	\$249.90	
DOD Total	13,746	\$31.08	\$372.95	

Source: DoD Office of the Actuary, Statistical Report on the Military Retirement System, Fiscal Year 2016. Available at:

http://actuary.defense.gov/Portals/15/Documents/MRS StatRpt 2016%20v4%20FINAL.pdf?ver=2017-07-31-104724-430.

U.S. Department of Veterans Affairs

The U.S. Department of Veterans Affairs (VA), provides services in several locations throughout the state. Facilities include the Omaha VA Medical Center and the Grand Island VA Medical Center. VA Clinics exist in Bellevue, Gordon, Holdrege, Lincoln, Norfolk, North Platte, O'Neill, and Scottsbluff. Vet Centers exist in Omaha and Lincoln. Each of the aforementioned facilities are part of the VA Nebraska-Western Iowa HCS, and the Midwest Health Care Network. There is also a VA Outpatient Clinic in Sidney, which is part of the Rocky Mountain Network. Finally, the Veterans Benefits Administration Midwest District maintains five facilities: the Lincoln Regional Benefits Office, the Intake Site at Offutt

⁵² DoD Office of the Actuary, Statistical Report on the Military Retirement System, Fiscal Year 2015: http://actuary.defense.gov/Portals/15/Documents/MRS StatRpt 2015%20Final%20v2.pdf?ver=2016-07-26-162207-987

⁵³ U.S. Department of Veterans Affairs, VA Locations and Facilities in Nebraska: <a href="https://www.va.gov/Directory/guide/fac-list-by-state.cfm?State=NE&dnum=All-but state.cfm?State=NE&dnum=All-but state.cfm?State=NE&

AFB, the Forest Lawn Cemetery Soldiers' Lot, the Fort McPherson National Cemetery, and the Omaha National Cemetery.

orfolk VA Clinic Panhandle of Nebraska CBOC North Platte VA Clinic Fort McPherson National Co Grand Island VA Medical Ce Forest Lawn Cemetery Soldiers' Lot POTTAWATTAMIE Omaha VA Medical Center--VA Nebraska-Western Iowa HCS Omaha Vet Center Bellevue VA Clinic Omaha National Cemetery Intake Site At Offutt Air Force Base mus Lincoln Vet Center FREMONT FREMONT Lincoln Regional Benefit Office

Figure 4. VA Facilities and Locations in State of Nebraska

 $Source: \ Map\ produced\ by\ authors\ using\ data\ from:\ \underline{https://www.va.gov/Directory/guide/fac_list_by_state.cfm?State=NE\&dnum=All_l$

According to Governing Magazine⁵⁴ there were a total of 2,601 VA employees employed at locations throughout the state in 2016. Across these locations, the VA provides a wide variety of services to the

⁵⁴ Governing Magazine. (2017). Federal Employees by State. Available at: http://www.governing.com/gov-data/federal-employees-workforce-numbers-by-state.html

many veterans living in Nebraska. FY 2016 data from the VA⁵⁵ estimate that there are 133,003 veterans living in the State of Nebraska. Figure 4 below presents the number of veterans residing in each Nebraska county.

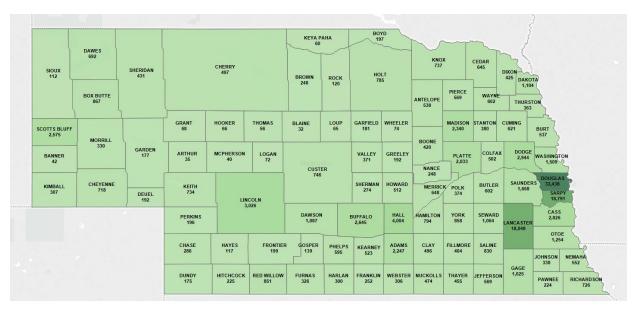


Figure 5. Veterans Residing in Nebraska Counties, FY 2016

Source: Map produced by authors using data from: National Center for Veterans Analysis and Statistics, FY 2016 Geographic Expenditures Table https://www.va.gov/vetdata/expenditures.asp All

The VA provides extensive benefits to the veterans living throughout Nebraska. The total amount of VA spending in Nebraska is nearly \$1.16 billion, with 47,842 unique patients served by the VA in FY 2016. The total amount of spending is spread across several broad categories: Compensation and Pension; Construction; Education and Vocational Rehabilitation/Employment; Loan Guaranties; General Operating Expenses; Insurance and Indemnities; and Medical Care. The largest proportion of spending was on compensation and pension (\$549.5 million), followed by medical care (\$433.5 million).

Table 13. Total VA Spending in Nebraska, FY 2016 (in millions)						
Compensation	Construction	Education &	General	Insurance &	Medical	Total
& Pension		Vocational	Operating	Indemnities	Care	
		Rehabilitation/	Expenses			
		Employment				
\$594.50	\$15.33	\$65.81	\$37.19	\$11.20	\$433.46	\$1,157.48
Source U.S. Department of Votorous Affairs, National Contex for Votorous Anglysis and Statistics, Congraphic Distribution of						

Source: U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics, Geographic Distribution of Expenditures, Fiscal Year 2016

The map below presents the total amount of VA spending per county that took place in Nebraska in FY 2016. It is likely that VA spending contributes to health care spending as veterans purchase health care

⁵⁵ U.S. Department of Veterans Affairs, National Center for Veterans Analysis and Statistics, Geographic Distribution of Expenditures, Fiscal Year 2016: https://www.va.gov/vetdata/expenditures.asp

and related services primarily in the county in which they live. However, it is also likely that a significant proportion of veterans in rural counties must travel to population centers to receive required health care. Once again, the largest spending totals are seen in the counties with the highest numbers of military veterans. Though, it is clear from the map that VA spending impacts every county in the state, contributing millions of dollars to the state and local economies.

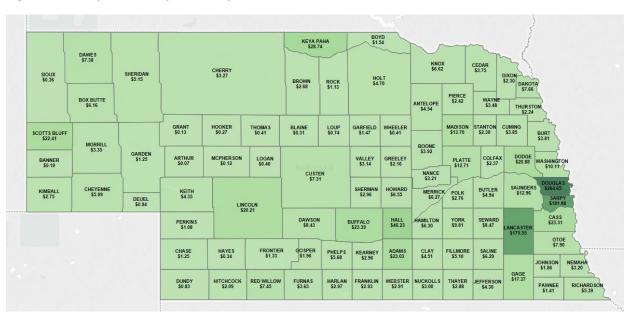


Figure 6. VA Expenditures per County in State of Nebraska FY 2016 (in millions)

Source: Map produced by authors using data from *National Center for Veterans Analysis and Statistics, FY 2016 Geographic Expenditures Table*: https://www.va.gov/vetdata/expenditures.asp All

State of Nebraska Veterans' Homes and Department of Veterans' Affairs

The State of Nebraska Department of Veterans' Affairs also provides health care-related services to veterans in the state. The Department of Veterans' Affairs operates four Veterans' Homes. The Homes are located in Bellevue, Grand Island, Norfolk, and Scottsbluff. The Homes provide a variety of medical, nursing, and rehabilitative services. The services range from assisted living care to skilled nursing care. The capacity at each Home is as follows: Grand Island Veterans' Home has 266 beds, the Norfolk Veterans' Home has 151 beds, the Eastern Nebraska Veterans' Home (Bellevue) has 117 beds, and the Western Nebraska Veterans' Home (Scottsbluff) has 103 beds. Admissions to the Homes are made on a case by case basis by the Veterans' Homes Board. Eligible patients include veterans who served on active duty, who were discharged or otherwise separated with a characterization of honorable, and who lived in Nebraska for at least two years in their lifetime. Veterans must be disabled due to service or age, are at least partially dependent on public support, or that require care that can only be provided in a public facility. Spouses, widows, and widowers of veterans are eligible, as are Gold Star mothers and fathers. Secure of Currently, there are 958 full-time equivalent positions available across the four Veterans' Homes in the state, with 652 of those positions filled as of August, 2017 (68% of positions filled). In

⁵⁶ Nebraska Department of Veterans' Affairs: http://dhhs.ne.gov/veterans/Pages/vets_index.aspx

addition, there are 266 temporary positions available across the Veterans Homes with 140 of those positions filled as of August, 2017 (52% of positions filled).

Prior to 2017, the Nebraska Department of Health and Human Services (DHHS) maintained control over Veterans' Homes. With the passage of LB 340, the Nebraska Legislature shifted responsibility of Nebraska Veterans' Homes to the Department of Veterans' Affairs. Thus, spending records for Veterans' Homes in FY 2016 and prior were contained within DHHS records (Agency 25, Program 519). In FY 2016-2017, records indicate that \$39.98 million in state dollars (General Fund and Cash Fund) were spent in support of Veterans Homes, with an additional \$21.79 million in federal dollars. In sum, over \$61.77 million were spent in FY 2016-2017. This total represents an increase over the \$55.45 million spent in FY 2016, \$53.45 million spent in FY 2015 and the \$52.60 million spent in FY 2014.

In State Fiscal Year 2016-2017, the Nebraska Department of Veterans' Affairs spent an additional \$1.47 million in support of its mission to support veterans in the state. The entire sum of Veterans Affairs spending consisted of state dollars, with no federal pass-through spending. As control of Veterans' Homes shifts from DHHS control to the control of Veterans' Affairs in 2017, the expenditures for Veterans' Affairs are sure to increase dramatically in coming years. A total of \$41.45 million in state dollars were spent in FY 2016 in support of Nebraska veterans.

Table 14. Nebraska State Spending on Nebraska Department of Health and Human Services (Agency 519, Veterans' Homes) and Department of Veterans' Affairs, 2016-2017					
	State Spending	Federal	Total Spending		
		Spending			
Department of Health and Human	\$39,978,784	\$21,793,768	\$61,772,552		
Services					
Department of Veterans' Affairs	\$1,473,871	\$0	\$1,473,871		

Source: Nebraska Legislative Fiscal Office (2016). A Legislator's Guide to Nebraska State Agencies: Prepared for the Members of the 105th Nebraska Legislature. Available at: http://nebraskalegislature.gov/pdf/reports/fiscal/2017legguide.pdf

4. Annual Economic Impact

The description of Nebraska military bases indicated tens of thousands of jobs and approximately one billion dollars in annual payroll along with hundreds of millions of dollars of operating expenses. This level of economic activity portends a substantial annual impact on the Nebraska economy. The primary purpose of this chapter is to estimate that annual economic impact from the state's military bases. The impact includes the direct employment and economic activity at the bases as well as the multiplier impact, the impact which occurs at other Nebraska businesses due to services purchased for military bases and as members of the military and civilians working at the bases spend their paychecks. The economic impact is estimated in terms of economic output (business sales), employee compensation (wages and benefits) and employment.

The chapter also estimates the impact on the Nebraska economy from pensions, health care services and other benefits received by Department of Defense (DoD) military retirees and other veterans. Impacts include direct employment at the U.S. Department of Veterans Affairs and other health care facilities in Nebraska and private businesses throughout the state as DoD military retirees and other veterans spend their paychecks.

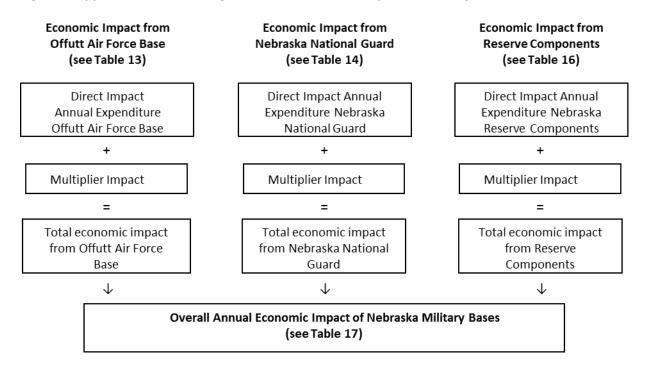
Economic Impact Methodology

Spending on military bases, military pension payments and U.S. Veterans Affairs spending in Nebraska generates an increase in economic activity in Nebraska. This is known as the direct economic impact. There is also a "multiplier" impact throughout the Nebraska economy. Focusing on the impact from military bases, the multiplier impact occurs as initial base spending circulates within the local economy. In particular, the multiplier impact occurs because military personnel spend their paychecks throughout the local economy on typical household expenditures such as food, health care, housing, insurance, apparel, and entertainment, or as veterans spend payments from the Veteran's Administration or military pensions. There also may be a multiplier impact as the military purchases of supplies to operate a base over the course of a year. The multiplier impact captures how businesses throughout the Nebraska economy gain from the money attracted to Nebraska due to military activity.

Economic multipliers are used to estimate the multiplier impact. An economic multiplier shows the ratio of the multiplier impact to the direct impact. For example, an employee compensation multiplier would show the dollars and cents of multiplier compensation for each \$1 of direct employee compensation. An employee compensation multiplier of 0.6 would imply that there is \$0.60 of employee compensation at other Nebraska businesses for each \$1 of compensation at a Nebraska military base. Economic multipliers can be calculated for Nebraska for output, employee compensation and employment. Economic multipliers are calculated with the IMPLAN model software. The IMPLAN model software is the leading multiplier model with capacity to estimate the economic impact of businesses and organizations in over 400 industries or public sectors, in cities, counties, states, or combinations of states and/or counties. Federal government, military is one sector in the IMPLAN model and is used to estimate multiplier impacts for Nebraska military bases.

Figure 1 shows how the annual economic impact will be calculated for the operations of Nebraska military bases: Offutt Air Force Base, Nebraska National Guard, and Reserve Components. The total economic impact for each component is the sum of the direct spending impact and the multiplier impact.

Figure 7. Approach for Calculating the Annual Economic Impact of Military Bases on Nebraska



The multiplier approach also is used to calculate the economic impact from DoD military pension and Veterans Affairs expenditures in Nebraska. This spending includes pensions for DoD retirees and veterans compensation, spending on Veterans Affairs operations and construction, and Veterans Affairs services such as health care, education and vocational rehabilitation. The IMPLAN model contains appropriate industry detail to calculate unique economic multipliers for each relevant industry or type of household spending.⁵⁷

Economic Impact of Military Base Spending

Military bases generate an economic impact on Nebraska by employing military personnel and contractors and through other aspects of operations such as purchasing utilities. In some years, there is also an impact from major construction projects. For Nebraska, the largest economic impact is from Offutt Air Base but there is also an impact from the Nebraska National Guard and from the Reserves.

⁵⁷ Income from military pensions and veterans compensation only generates a multiplier impact as income is spent.

Offutt Air Force Base. The report Offutt Air Force Base Economic Impact 2016 reported military and civilian employment at the base of 9,024 and \$695.6 million⁵⁸ in military and civilian payroll. Payroll is combined with \$137.4 million in other federal expenditures to yield a direct output impact of \$833.0 million. The output, payroll (employee compensation) and employment values are reported in Table 12.

The report Offutt Air Force Base Economic Impact 2016 further indicates that there is spending of \$366.6 million on service contracts and that 84.3% of that contract spending is with businesses which perform the service either at Offutt Air Force Base or in Bellevue. If remaining spending is assumed to occur out of state, there is an estimated \$309.2 million in service contracts let to businesses either located in Nebraska (either a Nebraska company or a company conducting the work at a Nebraska location). These values are also reported in Table 12. Based on industry averages available from the IMPLAN model and the distribution of contract services among industries in the Offutt Air Force Base Economic Impact 2016 document, that level of service contract spending would support direct employment in Nebraska of 2,112 full-year equivalent jobs⁵⁹ with employee compensation of \$128.4 million. These values also are reported in Table 12, along with a footnote to indicate that the figures are estimates using IMPLAN.

Offutt Air Force Base Economic Impact 2016 also reports construction spending during fiscal year 2016 of \$172.9 million, primarily on the new USSTRATCOM headquarters building. Based on industry averages available from the IMPLAN model, that level of construction spending would support an estimated 1,300 full-year jobs and \$72.0 million in employment compensation during the year.

Table 12 also shows totals. The total direct output impact of Offutt Air Force Base during Fiscal Year 2016 was \$1,314.9 million. The total direct impact in terms of employee compensation is \$896.3 million and the direct employment impact is 12,437 jobs.

Base			
		Employee	
	Output	Compensation	
	(Millions of \$)	(Millions of \$)	Employment
Military and Civilian	\$833.0	\$695.6	9,024
Service Contracts	\$309.2	\$128.4 ¹	2,112 ¹
Construction	\$172.7	\$72.2 ¹	1,300 ¹
Total	\$1,314.9	\$896.3	12,437

¹ Indicates value estimated using IMPLAN; otherwise estimates from source document

⁵⁸ Employment at the Base Exchange and on-base branch of the SAC Federal Credit Union is not included in the employment of 9,024. These jobs will be captured in the multiplier impact. As a result, the payroll for base jobs is subtracted from the total payroll of \$700.2 million to yield estimate of \$695.6 million in payroll in 9,024 jobs. ⁵⁹ The estimates 2,112 full-year contract service jobs and 1,300 construction jobs are less than the estimated 6,665 contractor personnel counted as operating on-base at Offutt in the Offutt Air Force Base Economic Impact 2016

report. However, that count of contractors would include some partial year positions.

These values also are included in Table 13, in the direct impact column. The Table further includes an estimate of the annual multiplier impact on the Nebraska economy for Fiscal Year 2016. The multiplier impacts are calculated by the UNL Bureau of Business Research utilizing the IMPLAN model. The total annual economic impact is the sum of the direct and multiplier impacts. The total annual impact from Offutt Air Force Base during Fiscal Year 2016 was \$2,195.7 million in output, including \$1,172.1 million in employee compensation paid to 18,895 workers.

Table 16. The Annual Economic Impact of Offutt Air Base on Nebraska				
	Direct Impact	Multiplier Impact	Total Impact	
Output (Millions of \$)	\$1,314.9	\$880.8	\$2,195.7	
Employee Compensation (Millions of \$)	\$896.3	\$275.8	\$1,172.1	
Employment	12,437	6,458	18,895	
Source: Offutt Air Force Base Economic Impact 20	016 and BBR calculat	ions using IMPLAN		

National Guard. The Nebraska National Guard also generates an economic impact on the state by drawing in resources to employ military personnel and operate base facilities. The National Guard provides estimates of its economic impact through its Annual Report 2016: Community-Based, Nebraska-Focused, Globally-Engaged. The report provides detailed data on employment, payroll, resources for cooperative agreements, and operation and maintenance expenses of the Army National Guard, Air National Guard, and the Nebraska Emergency Management Agency. Given the focus of the current study, economic impact analysis focused on data for the Nebraska Military Department. All 4,518 employees of these three agencies are in positions fully or partially supported by federal funds or federal funds which pass through Nebraska state government, and are therefore part of the direct employment impact on Nebraska. These employees receive payroll support and bonuses of \$136.7 million from the federal government, again either directly or passed-through state government. Note payroll supported by the Nebraska general fund is not included in the direct employee compensation impact. An additional \$56.6 million in operations and maintenance funds and funds for cooperative agreements appropriated by the Federal Government is combined with payroll information to yield the direct output impact of \$193.3 million.

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⁶⁰ Discussions with leadership at the Nebraska at the Joint Force Headquarters indicated there were was little new capital construction spending during fiscal year 2016. Therefore, this report does not include an estimate of the impact from Guard capital construction projects.

⁶¹ The 37 NEMA employees were not included in the present analysis. Thus, the total number of employees is 4,518 rather than 4,555.

⁶² For the economic impact estimate presented, the total salary of the National Guard (\$80,136,256), the total salary of the Air National Guard (\$47,538,013), bonuses for the National Guard (\$1,234,125) and Air National Guard (\$697,500), and federal salary (\$5,371,702) and benefits (\$1,721,459) to Agency 544 are included. Ultimately, the salary total used in the economic impact estimate is \$136,699,055, rather than the \$138,254,852 presented in Chapter 2.

⁶³ The total of \$56.6 million includes the operation and maintenance funds (\$17,813,271), cooperative agreements (\$21,937,198), as well as the total amount of federal funds dedicated to Agency 544 minus salary, benefits, and capital expenditures (\$16,853,000). Total direct output is the sum of analyst-computed payroll (\$136.7 million) and operations and maintenance funds (\$56.6 million). The total (\$193.3 million), therefore, differs from the total (\$213.3 million) presented in Chapter 2.

Table 14 shows the total annual economic impact of the Nebraska National Guard on the state during Fiscal Year 2016. The total annual impact includes the direct impacts estimated in its *Annual Report 2016: Community-Based, Nebraska-Focused, Globally-Engaged* and the multiplier impacts calculated by the UNL Bureau of Business Research utilizing the IMPLAN model. Multiplier impacts are adjusted to reflect that \$4.9 million in payroll was to National Guard personnel who reside in other states. The annual impact from the Nebraska National Guard was \$293.7 million in terms of output, including \$167.6 million in employee compensation paid to workers in 5,272 jobs.

Table 17. The Annual Economic Impact of t	ble 17. The Annual Economic Impact of the Nebraska National Guard on the State		
	Direct Impact	Multiplier Impact	Total
			Impact
Output (Millions of \$)	\$193.3	\$100.4	\$293.7
Employee Compensation (Millions of \$)	\$136.7	\$30.9	\$167.6
Employment	4,518	713	5,272
Source: Nebraska National Guard, Annual Report 201	16: Community-Based	Nebraska-Focused Glob	nally-Engaged and

Source: Nebraska National Guard, Annual Report 2016: Community-Based, Nebraska-Focused, Globally-Engaged and BBR calculations using IMPLAN

Reserve Forces. The Air Force, Army, Marine Corps and Navy Reserve also generate an economic impact on the State of Nebraska. Table 15 shows the direct annual economic impact in terms of employment, payroll (payroll) and output (payroll plus operating costs) reported for each branch of the Reserves.⁶⁴

Table 10. Direct Employment, Employ	ce compensation and	Sutput impact of it	CDI a3Ka-ba3Ca
Reserve Forces			
	Qutnut	Employee Compensation	
	Output		
	(Millions of \$)	(Millions of \$)	Employment
Air Force Reserve	\$6.6	\$5.9	279
Army Reserve	\$27.1	\$23.3	1,325
Marine Corps Reserve	\$2.7	\$2.4	131
Navy Reserve	\$2.2	\$2.2	275

Table 18. Direct Employment, Employee Compensation and Output Impact of Nebraska-based

Source: Air Force Reserve Command (AFRC) Economic Impact Assessment (EIA): A Summary of the Economic Impact of AFRC in Nebraska in 2017, Army Reserve Presence and Economic Impacts, Marine Corps Reserve Point Paper, Navy Operational Support Center Omaha, NE Economic Impact

Total

\$38.6

\$33.7

The total direct economic impact of Reserve Components in Nebraska is \$38.6 million each year. The impact includes \$33.7 million in compensation spread over 2,010 jobs.

⁶⁴ Air Force Reserve Command (AFRC) Economic Impact Assessment (EIA): A Summary of the Economic Impact of AFRC in Nebraska in 2017, along with a count of Air Force Reservists assigned to USSTRATCOM. Army Reserve Presence and Economic Impacts. Marine Corps Reserve Point Paper, Navy Operational Support Center Omaha, NE Economic Impact.

These values also are included in Table 16, in the direct impact column. The Table further includes an estimate of the annual multiplier impact on the Nebraska economy. The multiplier impacts are calculated by the UNL Bureau of Business Research utilizing the IMPLAN model. The total annual economic impact is the sum of the direct and multiplier impacts. The total annual impact from the Nebraska Reserves was \$63.9 million in output, including \$41.5 million in employee compensation paid to workers in 2,201 jobs.

Table 19. The Annual Economic Impact of Re	able 19. The Annual Economic Impact of Reserve Forces on Nebraska		
	Direct Impact	Multiplier Impact	Total
			Impact
Output (Millions of \$)	\$38.6	\$25.3	\$63.9
Employee Compensation (Millions of \$)	\$33.7	\$7.8	\$41.5
Employment	2,010	191	2,201

Source: Air Force Reserve Command (AFRC) Economic Impact Assessment (EIA): A Summary of the Economic Impact of AFRC in Nebraska in 2017, Army Reserve Presence and Economic Impacts, Marine Corps Reserve Point Paper, Navy Operational Support Center Omaha, NE Economic Impact, and BBR calculations using IMPLAN

Overall Annual Economic Impact of Nebraska Military Bases. The overall annual impact is the sum of the impact from Offutt Air Force, National Guard and Reserve bases in the state which was summarized in Tables 13, 14, and 16. These impacts are summed and presented in Table 17 below. The overall annual economic impact from Nebraska military bases was \$2,553.2 million in terms of output, including \$1,381.1 million in employee compensation paid to workers in 26,368 jobs.

Table 20. The Overall Economic Impact of N	able 20. The Overall Economic Impact of Nebraska Military Bases on the State		
	Direct Impact	Multiplier Impact	Total
			Impact
Output (Millions of \$)	\$1,546.8	\$1,006.4	\$2,553.2
Employee Compensation (Millions of \$)	\$1,066.6	\$314.5	\$1,381.1
Employment	18,965	7,403	26,368
Source: BBR calculations using IMPLAN			

Economic Impact of DoD Military Retirement Pensions

There were \$372.95 million in payments by the military retirement system to residents of Nebraska during Fiscal Year 2016, according to the *Statistical Report on the Military Retirement System Fiscal Year 2016* (DoD Office of the Actuary, 2017). These payments were made to 13,746 eligible DoD military retirees living in the state. The payments impact the Nebraska economy but do not result in economic activity in the state until the income is spent. As a result, there is no direct economic impact from the payments, however, there is a substantial multiplier impact. The multiplier impact occurs as retiree households spend their payments at Nebraska businesses including retail stores, restaurants, rent, health services, insurance and entertainment and recreation. ⁶⁵ The multiplier impact is also the total

⁶⁵ The multiplier impact is little higher than the amount of military retirement payments for two reasons. First, a portion of the income received by Nebraska military retirees is spent in other states. Second, for retail spending

economic impact of the Military Retirement System. Table 18 shows the total annual economic impact on Nebraska from military retirement payments during Fiscal Year 2016. The annual impact from military retirement payments was \$373.3 million in terms of output, including \$114.2 million in employee compensation paid to workers in 2,783 jobs.

Table 21. The Annual Econom Nebraska Economy	ic Impact of Mili	itary Retirement System Payn	nents on the
	Output (Millions \$)	Employee Compensation (Millions \$)	Employment (Jobs)
Total Economic Impact	\$373.3	\$114.2	2,783
Source: Statistical Report on the Mili	tary Retirement Syst	tem Fiscal Year 2016 and BBR calcula	tions using IMPLAN

Economic Impact of Veterans Affairs Spending

The U.S. Department of Veterans Affairs spent \$1.16 billion in the State of Nebraska during Fiscal Year 2016, according to the report *Geographic Distribution of VA Expenditures for Fiscal Year 2016* produced by the National Center for Veterans Analysis and Statistics. Veterans Affairs spent on a variety of programs including compensation and pensions for injured veterans, vocational rehabilitation, education services and health care services. The administration also had general operating expenses for providing veterans programs in Nebraska and spent on facilities construction. Table 19 shows Fiscal Year 2016 spending by purpose and program. The largest components of spending are for compensation and pensions and medical care, with education and vocational rehabilitation programs third. General operating expenses for Veterans Affairs programs in Nebraska was \$37.2 million.

able 22. Veterans Affairs Spending in Nebraska Fiscal Year 2016 By Program		
Purpose/Program	Amount Fiscal Year 2016 (Millions \$)	
General Operating Expenses	\$37.2	
Construction	\$15.3	
Compensation and Pension	\$594.5	
Medical Care	\$433.5	
Education & Vocational Rehabilitation/Employment	\$65.8	
Insurance & Indemnities	\$11.2	
Source: Geographic Distribution of VA Expenditures for Fiscal Year 20	016	

Table 20 shows the direct impact, multiplier impact and total economic impact for each purpose and program. The impact is presented in terms of output, since output is the broadest measure of economic activity. With two exceptions, the expenditures reported in Table 20 are also the direct economic impact on Nebraska. The first exception is the compensation and pensions categories. Like payments from the military retirement system, these Veterans Affairs compensation and pension payments do not

such as groceries, clothing and gasoline, only the mark-up portion of spending generates an impact on the local economy, as most retail items are manufactured or refined in other parts of the country or other parts of the world.

generate a direct economic impact but do lead to a multiplier impact as they money is spent at Nebraska businesses. The second exception is the expenditures on the insurance and indemnities program. These are payments received as part of insurance programs sponsored by the Veterans Affairs. However, as with all insurance, the insurance benefit payments are supported by premiums. In other words, benefit payments are not new money for the Nebraska economy since premium payments are made by Nebraskans. There is therefore no direct impact, or multiplier impact, on the economy from Veterans Affairs insurance and indemnity payments.

Table 20 also shows multiplier impacts. Multiplier impacts are estimated using economic multipliers developed from IMPLAN. The largest annual economic impact is from Veterans Affairs spending on medical care. The annual economic impact is \$782.8 million, including a direct economic impact of \$433.5 and a multiplier impact of \$349.4. The total annual economic impact from employee compensation and pension payments is \$595.1 million. The total annual economic impact from all Veterans Affairs spending in Nebraska was \$1,583.9 during Fiscal Year 2016.

Table 23. The Annual Economic Impact on Nebraska from Veterans Affairs Spending			
	Direct	Multiplier	Total
	Impact	Impact	Impact
Impact in Terms of Output	(Millions \$)	(Millions \$)	(Millions \$)
General Operating Expenses	\$37.2	\$21.1	\$58.3
Construction	\$15.3	\$13.2	\$28.6
Compensation and Pension	\$0.0	\$595.1	\$595.1
Medical Care	\$433.5	\$349.4	\$782.8
Education & Vocational Rehabilitation/Employment	\$65.8	\$53.3	\$119.1
Total			\$1,583.9
Source: Geographic Distribution of VA Expenditures for Fiscal Year 201	6 and BBR calculat	ions using IMPLAN	V

Table 21 shows the total economic impact of Veterans Affairs spending on Nebraska by program for the two additional measures of impact: employee compensation and employment. The total annual impact across all purposes and programs was \$612.3 million in employee compensation paid to workers in 12,712 jobs. Once again the largest contribution to the annual impact was Veterans Affairs spending on medical care followed by spending on compensation and pensions.

Table 24. The Annual Economic Impact on Nebraska fro	m Veterans Affairs Spending: E	mployee
Compensation and Employment		
	Employee Compensation	Employment
	(Millions \$)	(Jobs)
General Operating Expenses	\$34.3	432
Construction	\$9.9	200
Compensation and Pension	\$182.1	4,436
Medical Care	\$346.0	6,445
Education & Vocational Rehabilitation/Employment	\$40.1	1,198
Total	\$612.3	12,712
Source: Geographic Distribution of VA Expenditures for Fiscal Year 20	016 and BBR calculations using IMPLAN	

Summary of Annual Economic Impact

This chapter provided estimates of the annual economic impact of Nebraska Military bases on the state economy during Fiscal Year 2016. The chapter also provided estimates of the annual economic from payments to Department of Defense military retirees residing in Nebraska from the military retirement system as well as the annual economic impact from Veterans Affairs spending on the State of Nebraska. The economic impact from each source is presented in Table 22 below. Military bases have the largest annual economic impact on the State of Nebraska. Veterans Affairs spending has the second largest annual impact. Payments through the military retirement system also have a substantial economic impact.

Table 25. The Annual Economic Impact on N Veterans Affairs Spending on the State of N		irement System Pa	yments and
Source of Impact	Output (Million \$)	Employee Compensation (Millions \$)	Employment (Jobs)
Military Bases	\$2,553.2	\$1,381.1	26,368
Military Retirement System Payments	\$373.3	\$114.2	2,783
Veterans Affairs Spending	\$1,583.9	\$612.3	12,712
Source: BBR calculations using IMPLAN	•	•	

The impact from retirement payments also has potential to grow if Nebraska can retain and attract more military retirees to the state. Further, military retirees and other veterans also impact the state economy by adding to the available labor force in the state. A larger, skilled workforce populated with skilled military retirees and other veterans would help more Nebraska businesses expand. The next two chapters of this report examine such "supply-side" benefits from Nebraska's military bases.

5. Impact of Military Service on Employee Skills and Salaries

Military veterans also make a substantial contribution to the Nebraska economy as part of the state labor force, both as skilled wage and salary workers and as entrepreneurs. Veterans contribute to the supply of labor in the state economy. That contribution includes an increase in the number of workers and an increase in the skill of workers. This supply-side economic contribution allows Nebraska businesses to expand employment, invest in new plant and equipment and reach new markets.

Skills Accumulated through Military Services

On-the-job training has long been acknowledged as a key aspect of human capital development which, along with education and health, influences labor force participation, wages earned and other key labor market outcomes. Skill development on the job occurs in the military as well as in a civilian setting.

Wenger et al. (2017) summarize soft skills – essential nontechnical skills – critical to military service. Adaptability and integrity are emphasized as characteristics particularly associated with military service. Further, surveys of members of the military indicate that reliability, leadership and "operating safely" are other important characteristics for military duty. Members of the military build these skills as part of the successful conduct of their military service. Similarly, the United States Bureau of Labor Statistics indicates that teamwork, perseverance and leadership are skills learned in the military (Dillon, 2007).⁶⁷

Beyond these soft skills, research emphasizes transferable skills developed during military service. Transferable skills are specific job skills, similar to those which would be earned during civilian employment, which can be transferred from a military occupation to a specific civilian occupation or set of civilian occupations (Dillon, 2007; Wenger, et al., 2017). The degree to which specific military job skills are transferable is evaluated by matching the job requirements of military occupations with the job requirements of civilian occupations (Petroff, 1998; Wenger, et al., 2017). In particular, veterans with transferable skills were those with a military occupation description which closely matched with one or more civilian occupation descriptions.

A related question is how the pace of skill accumulation during military service compares to the pace of skill accumulation in the civilian labor force. Several studies have compared earnings of military veterans post-service after they join the civilian labor force with the earnings of civilian workers without military service (or with much less military service). Comparisons naturally control for age, education background and other factors in order to isolate the relative impact of military service on civilian earnings. The resulting findings indicate the marginal gain or loss in earnings from spending time in

⁶⁶ Wenger, Jeffrey, Ellen Pint, Tepring Piquado, Michael Shanley, Trinida Beleche, Melissa Bradley, Jonathon Welch, Laura Werber, Cate Yoon, Eric Duckworth, and Nicole Curtis, 2017. *Helping Solders Leverage Army Knowledge, Skills, and Abilities in Civilian Jobs*. Rand Corporation (www.rand.org).

⁶⁷ Dillon, C. Hall, 2007. "Military Training for Civilian Careers," *Occupational Outlook Quarterly* (Spring), 7-17.

⁶⁸ Petroff, Steven, 1998. "The Effect of Military Service and Skill Transferability on the Civilian Earnings of Veterans," Master's Thesis, Naval Post-Graduate School, Monterrey, California (March). Wenger, Jeffrey, Ellen Pint, Tepring Piquado, Michael Shanley, Trinida Beleche, Melissa Bradley, Jonathon Welch, Laura Werber, Cate Yoon, Eric Duckworth, and Nicole Curtis, 2017. *Helping Solders Leverage Army Knowledge, Skills, and Abilities in Civilian Jobs*. Rand Corporation (www.rand.org).

military service versus the alternative of spending that same time in the civilian labor force. Results tend to show little difference in labor market outcomes. A Congressional Budget Office study utilizing data from the *American Community Survey* found little difference between the civilian labor force participation rate and civilian unemployment rate of military veterans and similarly-situated workers who had not spent time in the military; although unemployment rates were somewhat higher for the youngest veterans.⁶⁹ Petroff (1998) finds that veterans who develop skills which are more readily transferable to civilian life match the earnings of their non-veteran counterparts.

Overall, skill development during full-time military service, including both specific job skills and soft skills, is sufficient to allow military veterans to compete on par with non-veterans in the civilian workforce. Veterans bring a wealth of skills to the labor market, and of course, there may be specific occupations where veterans are particularly well qualified, especially occupations such as logistics and electronics where some receive extensive training during military service, or civilian occupations which emphasize soft skills such as leadership, adaptability, and discipline. A further point is that National Guard and Reserve service may provide an advantage in terms of skill development to the extent that service represents additional employment (a part-time job in addition to a full-time job). The extra work associated with guard and reserve service provides additional opportunities for on-the-job skill development.

Settlement of Military Veterans and Other Retirees in the State of Nebraska

Beyond the overall skill development during military service, another important labor supply issue is whether the presence of the Offutt Air Force Base in Nebraska leads to more veterans settling within the state. Some impact would be expected. Individuals who serve at a particular base often have significant personal and sometimes professional incentives to remain in the area after leaving military service. Professional incentives come in the form of employment opportunities with local businesses which may have made a strategic decision to recruit individuals as they exit military service. As described above, many local businesses would be interested in the skills developed during military service. Personal incentives are even more prevalent. New veterans with school age children have an incentive to allow their children to continue to study in the same school system, particularly after the periodic moves that may have been required during military service. The spouses of new veterans also may have found a good job match while their spouse was serving at a nearby military base. A new veteran may have even married a civilian who lives in the area during their period of service at a local base. Each of these factors would be expected to lead to a concentration of military retirees and other veterans in the communities and states surrounding large military bases.

Within Nebraska, the strongest evidence for this phenomenon lies in data on the number of military retirees residing in state, which is available by branch of service. Table 23 shows the total number of Nebraska DoD retirees by branch of service, regardless of whether they receive compensation. Similar

⁶⁹ Congressional Budget Office, 2017. Labor Force Experiences of Recent Veterans, (May), Available at: www.cbo.gov/publication/52418

data is provided for DoD retirees living within the United States as a whole. The data are from fiscal year 2016.

Note that 59.6% of Nebraska retirees served in the Air Force, compared to 31.9% of DoD retirees living in the United States overall. This result is not surprising given the large contingent of Air Force personnel at Offutt Air Force Base. The results appear to show that a meaningful number of military retirees from Offutt Air Force Base are settling in the state after their retirement.

	Nebraska Ret	tired Personnel	United States	Retired Personnel
	Number	Percentage	Number	Percentage
Army	3,572	24.4%	830,756	38.8%
Navy	1,943	13.3%	498,938	23.3%
Marines	412	2.8%	129,649	6.0%
Air Force	8,733	59.6%	684,334	31.9%
DoD Total	14,660	100.0%	2,143,677	100.0%

Source: DoD Office of the Actuary, Statistical Report on the Military Retirement System, Fiscal Year 2016. Available at: http://actuary.defense.gov/Portals/15/Documents/MRS StatRpt 2016%20v4%20FINAL.pdf?ver=2017-07-31-104724-430

Results in Table 23 seem to indicate that Air Force retirees are more likely to settle in Nebraska. However, an alternative interpretation of the data could be that DoD retirees from other branches are just settling in Nebraska at lower rates. To address this interpretation, Table 24 provides a measure of the ratio of DoD retiree to total population for Nebraska and the United States as a whole. Results confirm that Nebraska has nearly twice as many DoD retirees who served in the Air Force per person living in the state than in the United States overall. This provides even clearer evidence that retirees from Offutt Air Force Base are settling within the State of Nebraska, and perhaps, that Air Force retirees who served at other states are coming to join this Nebraska community. Results in Table 24 also show that Nebraska has a smaller share of DoD retirees from other branches of service. This latter result may make sense because Nebraska does not have a major active duty Army, Navy or Marine base. Note that Nebraska does have somewhat more total DoD retirees on a per capita basis than the United States as a whole.

How many more Air Force retirees are living in Nebraska relative to what would be expected? Nebraska has 0.0025 additional Air Force retirees per person (0.0046 less 0.0021). When this figure is multiplied by the 2016 population of Nebraska, which was 1,907,116, there are an estimated 4,800 additional Air Force retirees living in Nebraska.

Table 27. DoD Retirees Per Person, Nebraska and The United States, FY 2016				
	Nebraska Ratio	United States Ratio		
Army	0.0019	0.0026		
Navy	0.0010	0.0015		
Marines	0.0002	0.0004		
Air Force	0.0046	0.0021		
DOD Total	0.0077	0.0066		

A comparison with the national average is useful but does not represent the best way to gauge how the presence of Offutt AFB enhances the settlement of DoD retirees and other veterans in the state. The United States contains many cities which host or are adjacent to large military bases. To capture how Omaha benefits from having a base such as Offutt AFB, an improved comparison would be between the Omaha metropolitan area and other mid-size metropolitan areas which are not host to a military base. In particular, we compare the settlement pattern of military retirees and other veterans between Omaha and four Midwestern metropolitan areas which are not home to a large military base: Des Moines, Iowa; Grand Rapids, Michigan; Madison, Wisconsin; and Milwaukee, Wisconsin.

The total number of DoD retirees in the Omaha area was computed using the three-digit ZIP code figures contained in the *Statistical Report on the Military Retirement System, Fiscal Year 2016.* The total number of DoD retirees in the Omaha area (10,009) was compared to the total population of the City of Omaha (446,970). While there was not a one-to-one geographic match between the retiree population data and the total population data, the comparisons between the two is noteworthy. The comparisons are reported in Table 25. The analysis shows that DoD retirees comprise 2.24% of the total population of Omaha. The share of DoD retirees in Omaha is higher than in comparison cities without a major military base. The share is also higher in Oklahoma City, another city with a large military base. Percentages are lower in the four cities without a military base, with the average share across all four cities being 1.50%. When the difference in share of 0.0074 (0.0224 less 0.015) is multiplied by the 2016 population of Omaha (446,970), there would be an estimated 3,300 additional DoD retirees living just within the City of Omaha. This finding is similar to the result of 4,800 additional Air Force retirees estimated earlier. The estimate of 3,300 differs from the estimate of 4,800 for three reasons: 1) the smaller geographic focus, 2) the focus on all retirees rather than only Air Force retirees, and 3) differences in the geographic definition of the retiree and total population data presented in Table 25.

Table 28. Retired DoD Personnel as Percentage of Select Local Populations						
	Base	Retired DoD	City Population	Percent Retired DoD		
Oklahoma City	Tinker AFB	15,401	638,367	2.41%		
Omaha	Offutt AFB/USSTRATCOM	10,009	446,970	2.24%		
Wichita	McConnell AFB	5,607	389,902	1.44%		
Des Moines	No Base	3,912	215,472	1.82%		
Grand Rapids	No Base	3,772	196,445	1.92%		
Madison	No Base	3,037	252,551	1.20%		
Milwaukee	No Base	6,243	595,047	1.05%		

Sources: Retired DoD Personnel derived from:

http://actuary.defense.gov/Portals/15/Documents/MRS StatRpt 2016%20v4%20FINAL.pdf?ver=2017-07-31-104724-430 City Population Data derived from: https://www.census.gov/data/tables/2016/demo/popest/total-cities-and-towns.html Percentages calculated by the authors.

⁷⁰ DoD Office of the Actuary, Statistical Report on the Military Retirement System, Fiscal Year 2016. Available at: http://actuary.defense.gov/Portals/15/Documents/MRS StatRpt 2016%20v4%20FINAL.pdf?ver=2017-07-31-104724-430

Another useful comparison is to look at the concentration of all veterans in the Omaha area. After all, the incentives to live near the base where you served would apply to all veterans leaving the military, and not just long-serving members who are eligible for DoD retirement benefits. The concentration of all veterans (which includes DoD retirees) also would be expected to be larger in magnitude. Further, more precise estimates can be made for all veterans, since data on veterans is collected at the county level, making an exact geographic match feasible between the count of veterans and the count of total population within a metropolitan area.

Data on the number of veterans residing during 2016 in each U.S. county is available from the National Center for Veterans Analysis and Statistics. County data can be used to assemble the number of veterans living in the Omaha, Des Moines, Grand Rapids, Madison and Milwaukee metropolitan areas, as well as the total 2016 population in each area. Interestingly, analysis of the 2016 data indicates that between 5.2% and 5.8% (with an average of 5.4%) of the population in each of the four comparison metropolitan areas were veterans; there was very little variation in the share. By contrast, in the Omaha Metropolitan Area, veterans accounted for 7.4% of the population living in the metropolitan area during 2016 (see Table 26). This difference suggests that the presence of a major military base does substantially change the settlement pattern of veterans towards the surrounding metropolitan region.⁷¹ Further, given that the population of the Omaha Metropolitan Area was approximately 924,000 during 2016, the difference between 5.4% and 7.4% implies that an additional 18,175 veterans are living in the Omaha Metropolitan Area. The estimate for just the Nebraska portion of the Omaha area (excluding Pottawattamie, Harrison and Mills counties) is 15,067.

Table 29. Veterans as a Percentage of Metropolitan Population 2016							
	Base	Veterans	Metropolitan Population	Percentage			
Omaha	Offutt AFB/USSTRATCOM	67,949	924,129	7.4%			
Wichita	McConnell AFB	43,297	637,205	6.8%			
Des Moines	No Base	36,599	634,725	5.8%			
Grand Rapids	No Base	55,431	1,047,199	5.3%			
Madison	No Base	32,748	630,573	5.2%			
Milwaukee	No Base	83,199	1,572,482	5.3%			

Sources: Veterans population derived from: National Center for Veterans Analysis and Statistics, FY 2016 Geographic Expenditures Table. Omaha total is based on total number of veterans estimated to live in the eight counties that comprise the Omaha Metropolitan Statistical Area (5 in Nebraska and 3 in Iowa). Metropolitan Population Data derived from: U.S. Bureau of Census

Percentages calculated by the authors.

⁷¹ This was not a pattern unique to the Omaha Metropolitan area. For example, we also examined the settlement pattern of veterans in the Wichita Metropolitan area, which is home to the McConnell Air Force Base and found that veterans accounted for 6.8% of the 2016 population.

The Net Increase in the Size of the Workforce and the Resulting Economic Impact

Estimates provided above indicate that there are 15,067 additional veterans living in the Nebraska because of Offutt Air Force Base, including thousands of veterans with a sufficient length of service to qualify for the status of DoD military retirees. These population impacts are noteworthy given the skill set which military retirees and other veterans bring to the state economy. Many of these veterans are married so there also are an estimated 9,558 spouses living in Nebraska based on *American Community Survey* data on the age, gender and marital status of Nebraska veterans. The combined population impact is 24,625, with an estimated 8,106 veterans age 18 to 64 and 6,961 veterans age 65 and older. Among spouses, there are an estimated 4,604 age 18 to 64 and 4,954 age 65 and older.

These veterans and spouses, particularly those age 18 to 64, make a substantial contribution to the Nebraska labor force. However, caution should be used when estimating the overall size of the labor force impact. In particular, there is an estimated increase of 12,710 veterans and spouses age 18 to 64 living in Nebraska due to the operation of Offutt Air Force Base. Does this imply that the Nebraska labor force is 12,710 greater? Not necessarily. First of all, not all adults age 18 to 64 are part of the labor force. But the more pertinent issue is the potential for substitution. In particular, an increase in military retirees and other veterans working in Nebraska's civilian labor force may influence the number of nonveterans living in the state. For example, a veteran may be highly qualified for a position in the manufacturing industry, providing an excellent option for a Nebraska employer searching for a skilled worker in the state's typically "tight" labor market. Since the veteran is available in the state labor force, that employer will not need to recruit a worker from another state to staff the difficult-to-fill position. Through this process, the large number of veteran (and spouse) workers in Nebraska may translate into a much smaller net increase in workers (combined veteran and non-veteran).

Further, retired veterans and spouses who do not work would not make a contribution to the state labor force. However, these retirees do add to the population of the state.

Utilizing the Regional Economic Models Incorporated⁷² (REMI) model for the State of Nebraska, the net increase in population, employment and economic output is estimated. Specifically, the Bureau used the REMI model to estimate how the presence of approximately 13,000 working age veterans and spouses, as well as several thousand older veterans and spouses who continue to work, contributes to employment and economic activity in Nebraska. Table 27 shows the estimated long-run impact on the Nebraska economy.

Table 30. The Economic Impact of Additional DoD Military Retirees and Other Veterans on the Nebraska Economy			
Measure	Impact		
Net Employment	1,900		
Net Population	13,000		
Annual Output Associated with Net Employment and Net Population (Millions \$)	\$357		
Source: Bureau of Business Research estimates using the REMI model			

⁷² Regional Economic Models Incorporated. Available at: http://www.remi.com/

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Note that the net employment impact of 1,900 is significantly less than the total increase in working-age veterans and spouses. The difference is the result of the substitution effect, and the fact that some working-age veterans and spouses are not in the labor force. The net employment impact of 1,900 further implies more business activity in the state. The annual output impact is \$357 million, which is a significant "supply side" impact for the Nebraska economy. Note also that the population impact is approximately 13,000. The population impact is much larger than the employment impact because a significant share of veterans and spouses are individuals of retirement age who do not work.

6. Modeling Impacts of Tax Incentives Upon Veteran/Retiree Migration and Settlement

Military retirees make a significant contribution to the Nebraska economy, both by adding to the labor force and by bringing pension income to the state. For example, military retirement system payments were found to bring a several hundred-million-dollar impact to the Nebraska economy each year. Likewise, military retirees and other veterans were found to contribute thousands of workers to the Nebraska economy by adding to the state labor supply.

The State of Nebraska can grow these economic impacts by attracting and retaining more military retirees, especially retirees who served at Offutt Air Base. In particularly, income tax incentives provide an approach for increasing the number of military retirees choosing to reside in Nebraska. Currently, military retirees are allowed to exempt 40 percent of their military pension income. Expanded tax incentives which allow retirees to keep more of their retirement income could provide a significant incentive, especially for retirees who are aware of the cost of living and quality of life advantages of living in Nebraska.

Any tax incentive, however, would need to be designed carefully. Tax incentives which are too limited would have little influence on where retirees choose to live, and therefore, lead to a loss of revenue with an insufficient increase in the number of military retirees. Likewise, a tax incentive which is too generous may be effective in attracting and retaining military retirees but be too costly in terms of state tax revenue. This is an important consideration given that military retirees, like other citizens, demand services from state government.

Tax incentives must provide a trade-off between new revenue and new population which is consistent with the wishes of policymakers. Therefore, policymakers charged with designing a tax incentive would benefit from a statistical model which predicts the likely response of military retirees to tax incentives of varying amounts. Such a model would need to be carefully developed to study the behavior of military retirees.

This chapter discusses how to develop such a model, including preferred approaches for building an econometric (i.e., statistical) model, key model variables and the most appropriate data sources. Actual model development would be left for a future report. The Bureau will specifically evaluate the following potential data sources: the *Current Population Survey* (CPS), the *American Community Survey* (ACS), and data available through the Central Plains Federal Statistical Research Data Center.

The Relationship Between Tax Rates and Mobility

Research into the migration response of military retirees to state income tax rates is challenging, and to date, limited. Reports at the state level which have examined the issue have typically utilized assumptions about potential scenarios rather than developing and utilizing an econometric (i.e., statistical) model to estimate the specific migration response (Pace, 2017).⁷³ Insights on how to

⁷³ Pace, Levi, 2017. *Analysis of Military Retirees in Utah: Impacts, Demographics and Tax Policy*. Prepared for the Utah Department of Veterans and Military Affairs. Kem C. Gardner Policy Institute, University of Utah (January).

approach estimation, therefore, must come from the broader economics and public policy literature, from studies which examined the general issue of how state income tax rates influence state-to-state migration. Naturally, tax and migration studies which focus on populations which share traits with military retirees would be especially useful. The results of several such studies are discussed below.

Afonso (2015) examined the influence of state income taxes on the state residency choices of active duty members of the military using counts of the number of members by state, branch and rank provided by the Department of Defense.⁷⁴ Military members may be especially sensitive to differences in tax rates because these active duty military members may choose a state of residency which is different than the state where they are based. Afonso (2015) found that states with no state income tax or which charged no state income taxes on military pay had a 99.6% higher residence count for active duty service members. States with a partial income tax exemption for military pay had a 39% higher residency count. The influence of taxes also rises with rank and tenure in the military, hinting that findings may be relevant for the behavior of military retirees.

There has been other recent published research examining the relationship between income tax rates and migration decisions for select high income populations such as star scientists and millionaires (Moretti and Wilson, 2015; Young, et al., 2016). The decision-making process of these successful individuals from other fields may provide insights for military retirees. Further, higher income individuals in all fields should be more impacted by, and therefore may be more responsive to, differences in marginal tax rates (Afonso, 2015; Moretti and Wilson, 2015).

Among these studies, Moretti and Young (2015) find that higher income "star scientists" move in response to higher marginal tax rates. Specifically, an increase in marginal income tax rates which lead to a 1% decline in after tax-income will generate a 1.7% increase in the number of star scientists leaving a state and a similar reduction in the number moving to a state. Young et al. (2016) also find that higher marginal tax rates encourage out-migration and discourage in-migration by millionaires, although the magnitude of the response is smaller than that measured by Moretti and Young (2015). Pulito (2011) examined households with over \$200,000 in taxable income. State-to-state migration of high income earners was a function of top marginal tax rates.⁷⁵ The authors find that the ratio of in-migration to out-migration for a home state rises by 0.004 for each 1% that the highest marginal income tax rate of the alternative state exceeds that of home state.

One other study examined state-to-state migration the entire population. Cohen et al. (2011) examined the influence of state tax rates on the odds of migrating out of a state versus staying within the same state.⁷⁶ Specifically, Cohen et al. (2011) estimated the relationship between a state having a 1% lower

⁷⁴ Afonso, Whitney, 2015. "State Income Taxes and Military Service Member' Legal Residency Choice," *Contemporary Economic Policy*, 33(2): 334-350.

⁷⁵ Davies, Antony, and John Pulito, 2011. *Tax Rates and Migration*. Mercatus Center Working Paper 11-31. (August), George Mason University.

⁷⁶ Cohen, Roger, Andrew Lai, and Steindel, Charles, 2011. *The Marginal Effects of Tax Rates on Interstate Migration in the U.S.* Office of the Chief Economist/Office of Revenue and Economic Analysis, New Jersey Department of Treasury.

individual income tax rate and the probability of choosing to move to another state. Based on that research an individual would be 0.14% less likely to move out of a particular state in any year if that state had a 1% lower income tax rate.

Methodological Approaches

The choice of statistical model and the choice of data set are two key decisions in implementing a state-to-state migration model. The statistical model must control for all relevant factors, including the socioeconomic characteristics of military retirees, in order to isolate the influence of taxation. The data set also must offer a large enough sample of military retirees to support statistical estimates.

Models. A variety of econometric (i.e., statistical) models and dependent variables were utilized in the reviewed studies. Cohen et al. (2011) utilized a logit model with the probability of migration between a pair of states as a function of relative marginal income tax rates, housing prices and unemployment rates, as well as the distance between the two states. Davies and Polito (2011) use the ratio of inmigration to out-migration between a home and alternative state controlling for unemployment rates and other tax rates, such as sales and property tax rates. Afonso (2015) utilizes a count of the number of military service members in each state as the dependent variables after controlling for tax rates, tax exemptions for military service members and characteristics of each state. Moretti and Davis (2015) model how the share of star scientists moving between pairs of states is a function of the relative tax burden of the two states and other characteristics of the home state.

While each model is unique, the tendency is for researchers to utilize a separate measure of inflow and outflow between pairs of states as a dependent variable. Flows are modeled as a function of marginal tax rates faced by the relevant population, the distance between states and state characteristics. Researchers who utilize micro-level data aggregate observations to the state level to estimate state-to-state migration flows.

Data Sets. Edwards (2016) and Afonso (2015) were the only studies which specifically examined a military population. Edwards (2016) used data from the 2003 Survey of Retired Military which contains approximately 16,200 individual observations of complete data for individuals with 20 or more years of active duty.⁷⁷ The data set also has an extensive set of individual information including age, education, rank, health, disability status, race, gender, home ownership, labor market status and earnings. The survey also asks about factors which influence the retiree's current choice of location, and about their plans for relocation (Defense Manpower Data Center, 2006).⁷⁸ The survey, however, covers individuals who retired during between 1971 and 2011, and does not cover the decisions of more recent retirees. Most importantly, the survey was designed to be a national sample and there are not questions about state of residence or state of residence at the time of military service. Afonso (2015) focused on active duty service members. She did not have individual records for service members but instead had statewide counts of the number of active duty service members by branch and rank; the latter information is critical since expected pay varies by rank. The dependent variable was the count of service members in each category during each year so the dataset allowed the author to measure how the number of active duty military members varied with state marginal tax rates, and other state-level control factors such as house prices, poverty rates, climate and political preferences (as a proxy for spending patterns). However, the data set regarding active duty military service members is not suited to study the migration decisions of DoD retirees. Further, the data set was provided through special arrangement with the Department of Defense and may not be publicly available.

Moretti and Wilson (2015) also utilize a specialized data source, specifically micro-level data for individuals gathered via patent citation records the 1976 to 2010 period. This data set simultaneously provides a way to identify star scientists (who are very active with patents) and a way to track their migration, as a current address is listed in patent filings. As with Afonso (2015), individual data is aggregated to provide statewide totals for state-to-state migration. Young et al. (2016) use a time series of IRS tax data for high income Americans over 13 years which cover nearly 4 million tax filers, and determines migration using the address on tax filings and information on marital status and the number of dependents which can also be developed from tax filings. Other state characteristics which can influence migration are such as climate, per capita income and unemployment rate are included.

The research examined above utilized an interesting group of datasets to study the migration behavior of skilled and high-income populations. However, none of these data sets contained observations for military retirees with a state identifier. Such information is required to examine how state income taxes influence the migration decisions of military retirees. In the next section, we discuss a data set which can provide this required information, and recommend its use in future research.

⁷⁷ Edwards, Ryan, 2016. "Health, SES, and the timing of education among military retirees," *Education Economics*, 24(4): 393-410.

⁷⁸ Defense Manpower Data Center, 2006. 2003 *Survey of Retired Military: Overview of Findings*. DMDC Report 2004-010 (March).

Recommendations

The recommendation is to develop a model of state-to-state migration for military retirees using individual level data developed from the *Current Population Survey* of U.S. Bureau of Census and U.S. Department of Labor. Survey data could be used to model the probability of migration between pairs of states based on the relative income tax rate applied to military retiree income and other relevant control variables. The *Current Population Survey* also gathers data on key personal characteristics for military retirees which influence the probability of migration including age and the presence of children in the household. Information about the relevant state characteristics, such as climate, housing costs, or the structure of state economy, can be gathered from other federal government sources. Data also would be gathered on the distance between pairs of states. The model would estimate how relative state income tax rates would influence the probability of moving, both directly and by interacting relative marginal tax rates with income as in Afonso (2015). This dual approach would more fully capture the marginal influence of tax rates on migration.

The research needs to be conducted utilizing the Current Population Survey. While the Current Population Survey has a significantly smaller sample size then the American Community Survey of the U.S. Bureau of Census, only the Current Population Survey has key information which can be used to identify military retirees. In particular, the Current Population Survey has a specific question in its March Income Supplement about whether individuals receive a military pension (most, but not all, military retirees receive such a pension, as discussed in Chapter 3). Both surveys also have information about both the current and year-ago state of residence. In the Current Population Survey, this information on migration can be combined with information on military pension income to track the movement of retirees between states based on levels and changes in state tax rates. Further, a sufficient sample of several thousand military retirees can be developed by combining Current Population Survey March Supplement observations over multiple years. There is one other advantage to using the Current Population Survey. Cohorts of households selected to participate in the Current Population Survey are surveyed three times over a one year period, making it feasible to identify a subsample of military pension recipients who were in the military when first surveyed one-year earlier. In other words, the Current Population Survey can be used to identify a subsample of recent retirees, and observe how frequently the retirees change states after leaving the military.

Finally, we note that matched government records from the Central Plains Federal Statistical Research Data Center based at the University of Nebraska-Lincoln was also considered as a potential data source. Such data also would provide very detailed individual-level records about military retirees, and would have greater potential to match records over time. The concern is that access to data at the Central Plains data center is restricted for research purposes and can only be conducted as part of a census-approved research project. Essentially, this would require that an academic paper be developed outlining the response of military veterans to state tax rates and incentives. In particular, coefficient estimates from that research paper could be used to predict the response of military retirees to incentives. However, this could only occur after the paper is completed and published in an academic journal, which would be the first point at which the coefficient estimates would be publicly available. This process would take multiple years and would come with other limitations; for example, it would not

be feasible to update estimates over time with updated data, and opportunities to customize the results to the particular profile of military retirees in Nebraska would be more limited. Further, as with any proposed research project at a Federal Statistical Research Data Center, there is also some uncertainty as to whether the U.S. Census Bureau would approve a proposed research project.

Recommendations for Additional Future Research

The BBR discussed the need for additional research with members of the Commission, as well as outside stakeholders, to determine areas that might help to better inform policy decisions in the state. In consultation with the Commission and stakeholders, four additional potential studies were identified.

First, the BBR identified the need for a state level analysis of the ways in which tax policies related to veterans' and DoD retiree compensation vary across states. The study would help identify variation in such policies at the state level.

Second, the BBR recommends a study to examine the ways in which interstate variations in tax policy might impact the immigration and settlement patterns of DoD retirees living near a military base near a state border. Such a nation-wide study would allow the BBR to estimate the extent to which advantageous tax policies for veterans in Iowa, for example, are drawing DoD retirees from Nebraska.

Third, the BBR recommends studying the potential impact of military installations and military facilities on local property values. This study, in conjunction with the information contained in the present report, would yield an even more comprehensive estimate of the economic impact of military assets in the state.

Fourth, the BBR recommends executing a study to examine the potential impact of a base closure or mission change for DoD installations or VA locations in the state. For example, if Offutt AFB lost the 55th Wing to another base, or if USSTRATCOM had a major shift in mission, what might be the impact upon the Nebraska economy? Similarly, if the VA were to reduce its scope within the state, what might be the effect? Related, what steps might Nebraska take to mitigate the negative effects of such events in the state? This set of studies would allow policy makers to better anticipate the potential effects of these events, as well as prepare policies in response to such events.

Appendix: About the UNL Bureau of Business Research and Key Personnel

The Bureau of Business Research

The Bureau of Business Research is a leading source for analysis and information on the Nebraska economy. The Bureau conducts both contract and sponsored research on the economy of Nebraska and its communities including: 1) economic and fiscal impact analysis; 2) models of the structure and comparative advantage of the current economy; 3) economic, fiscal, and demographic outlooks, and 4) assessments of how economic policy affects industry, labor markets, infrastructure, and the standard of living. The Bureau also competes for research funding from federal government agencies and private foundations from around the nation and contributes to the academic mission of the University of Nebraska-Lincoln through scholarly publication and the education of students.

Key Personnel

Dr. Eric Thompson

Dr. Eric Thompson is the Director of the Bureau of Business Research and an Associate Professor of Economics at the University of Nebraska-Lincoln. Dr. Thompson has conducted a broad group of economic impact studies including impact studies of Nebraska agriculture, Sandhill Cranes migration, the Nebraska child care industry, the Omaha Zoo, the Nebraska horseracing industry, Husker Harvest Days, and the UNL Athletic Department. Dr. Thompson also works on demographic projections and analyses of economic development programs for Nebraska and cities in Nebraska. He also has conducted numerous economic impact studies for the Lincoln Department of Economic Development, the Omaha Chamber of Commerce, the Nebraska Department of Economic Development, various Nebraska industries, and Nebraska tourism attractions. Dr. Thompson's research has received support from the United States Department of Labor, the Robert Wood Johnson Foundation, the Center for Economic Analysis, the Nebraska Health and Human Services System, as well as Lincoln, Omaha, and Nebraska organizations and agencies. In his previous employment, Dr. Thompson served as the Director of the Center for Business and Economic Research and a Research Associate Professor of Economics at the University of Kentucky. Dr. Thompson received his Ph.D. in agricultural economics from the University of Wisconsin-Madison in 1992. His research fields include regional economics, economic forecasting, and state and local economic development. His research has been published in Regional Science and Urban Economics, the Journal of Regional Science, the American Journal of Agricultural Economics, and the Journal of Cultural Economics.

Dr. Mitchel Herian

Dr. Mitchel Herian serves as a Research Associate through the Bureau of Business Research, a faculty fellow at the University of Nebraska Public Policy Center, and an adjunct professor in the Political Science department at UNL. Dr. Herian has recently conducted applied research for agencies such as the U.S. Army, the U.S. Air Force, the National Aeronautics and Space Administration (NASA), the Nebraska Supreme Court, the Nebraska Department of Education, and the Kansas Department of Corrections. His research has received support from agencies including the National Science Foundation and the National Institute of Justice. Dr. Herian's research has been published in a variety of peer reviewed journals including the Journal of Public Administration Research and Theory, American Review of Public Administration, Policy Studies Journal, State and Local Government Review, and Ecology & Society.

Mr. Phillip O'Donnell

Mr. Phillip O'Donnell serves as the first Military Affairs Liaison for the State of Nebraska's Commission on Military and Veteran Affairs. Mr. O'Donnell graduated with merit from the U.S. Naval Academy before serving as a surface warfare officer in the U.S. Navy with engineering, operations, and intelligence assignments in Japan, Bahrain, and Washington DC. After completing his active duty service, Mr. O'Donnell earned a Master of Arts degree in International Relations and International Economics from the Johns Hopkins University's School of Advanced International Studies (SAIS) and a Master of Business Administration degree from the University of Nebraska-Lincoln. Mr. O'Donnell has worked for both large and small consulting firms in the defense industry and continues to serve in the Navy Reserve as an operations officer at the U.S. Strategic Command.