

AIR COMMAND AND STAFF COLLEGE

AIR UNIVERSITY

THE AIRMAN WEAPONS SYSTEM:

IMPROVING HUMAN CAPITAL MANAGEMENT IN THE US AIR FORCE

By

Amy Hansen, Major, USAF

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

Advisor: Dr. Richard L. Smith

Maxwell Air Force Base, Alabama

August 2017

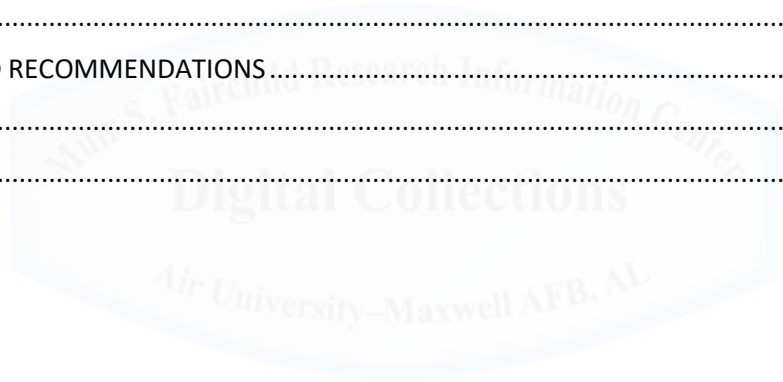
DISTRIBUTION A. Approved for public release: distribution unlimited.

DISCLAIMER

The views expressed in this academic research paper are those of the author and do not reflect the official policy or position of the US government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.

TABLE OF CONTENTS

DISCLAIMER.....	ii
PREFACE	iv
ABSTRACT.....	vi
INTRODUCTION.....	1
PROBLEM AND KEY ISSUES	4
METHOD AND EVALUATION	9
The Air Force Through the Structural Frame	10
The Air Force Through the Human Resources Frame.....	14
The Air Force Through the Political Frame	20
The Air Force Through the Symbolic Frame.....	23
ANALYSIS	27
CONCLUSION.....	30
LIMITATIONS AND RECOMMENDATIONS	32
NOTES.....	34
BIBLIOGRAPY.....	40



PREFACE

I have never met US Army Lt Gen Robert B. Brown or Col Robert M. Taradash, but I would like to thank them both for writing an article published in Army Magazine in May 2015 called *Humility, A Mission Command Essential*. It captured a belief I have developed in my own study and application of leadership in and out of uniform—we are only as great as we know we are not. My attempt to research the importance of humility as a leadership trait expanded into research about servant leadership, which is a style I now use daily in my civilian job in a health care organization. Most people I come across want to learn, grow, and serve others in some capacity, and my role there as a servant leader is to support them in doing so. I continue to communicate expectations, uphold standards, and make strategic decisions, but now I do it in the context of how staff member strengths align with company goals. I enjoy going to my civilian job every day, and most of my coworkers seem happy and fulfilled. The staff turnover rate is less than 5% a year and revenue has increased by over a million dollars in the past five years. Staff-led innovation is at an all-time high.

When I put on my Air Force uniform, I have the same desire to be productive and serve. I have volunteered to die for this country. But at every juncture in my military career, antiquated administrative regulations, a risk-intolerant culture, and strictly autocratic leadership have thrown up barriers to the contributions I would willingly make. Sixteen years into my Air Force career, I've frequently heard advice about how to progress including, "don't rock the boat," "check the boxes," and "suck it up, buttercup." The opportunity to do this research makes me optimistic that the Air Force can become a better, more participative, more innovative place to serve. I have seen something in the spirit of this Service that makes me believe it can adapt with the right guiding hands.

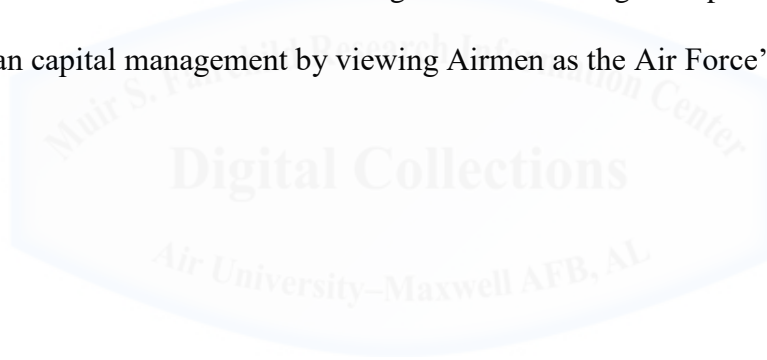
I want to thank my professor, Dr. Richard Smith, for many long conversations about why teaching a leadership trait will not change organizational culture, why process improvement is never enough to overcome autocracy, and even for advising me to lower my expectations about what this research could realistically achieve. His guidance and patience was invaluable, and I only hope that I have done his field of expertise some justice. Dr. Smith's contributions to my efforts were outdone only by those of my family, who juggled child care and household responsibilities while I worked, often late into the night. Thank you, family. You are the love and the light in my life.

To my readers, I humbly present you with my heartfelt research about how we can improve our Air Force with the hope it will at least start a conversation about maximizing the value and contributions of each Airman. As Spencer Johnson wrote in his book Who Moved My Cheese, "See what you're doing wrong, laugh at it, change, and do better."¹

1. Spencer Johnson, Who Moved My Cheese (New York, NY: G.P. Putnam's Sons, 1998).

ABSTRACT

This research focuses on identifying barriers to better human capital management in the Air Force. Although the Air Force's 2015 Strategic Master Plan includes an imperative to become a more agile, innovative force, the Service is still experiencing a significant recruiting and retention crisis, especially in high-demand areas such as intelligence, surveillance, reconnaissance, and aviation. Bolman and Deal's four-frame model is used to examine the Air Force's cultural strengths and limitations from the structural, human resources, political, and symbolic perspectives. Growth opportunities and barriers are identified and analyzed based on current research in the fields of organizational design, psychology, economics, and business. It concludes with a discussion of how to create organizational change and presents the idea of prioritizing human capital management by viewing Airmen as the Air Force's most important weapons system.



INTRODUCTION

In the preparations for national defense we have to follow an entirely new course because the character of future wars is going to be entirely different from the character of past wars.

—Giulio Douhet, 1921

According to a letter to the Airmen of the United States dated July 31, 2017, the Secretary of the Air Force and Chief of Staff listed the priorities of the Air Force in the face of “serious and ever-changing threats” as restoring readiness, modernizing, driving innovation, developing exceptional leaders, and strengthening alliances.¹ In the 2014 National Commission on the Structure of the Air Force’s Report to the President and Congress, the US Air Force was challenged with positioning itself to effectively carry out a new military strategy, including “high-end warfare and fighting in denied environments,” as well as to continue growing high-tech mission capabilities such as “cyber, space, intelligence, surveillance, and reconnaissance.”² To effectively meet these challenges set forth by US and Service leadership, the Air Force must become more agile, innovative, efficient, and committed to recruiting and retaining highly-trained members out of a “recognition that the current and future budgetary and security environments present challenges that require new solutions.”³ While Congressional and Air Force leaders have taken action to fund research and acquisition of modern weapons,⁴ efforts to fund, research, and improve human capital management in the Air Force have not been as successful,⁵ despite policy references to Airmen as the Service’s “most critical asset.”⁶

Human capital management is an organization’s comprehensive effort to recruit, energize, and retain top people to accomplish the mission at the lowest possible cost, and the Air Force has recently attempted to examine and improve its own human capital management. The US Air Force’s 2015 Strategic Master Plan (SMP) included an imperative to increase agility over the next 20 years “by strengthening our culture of adaptability and innovation in Airman development and education, capability development, operational training and employment, and

organizations.”⁷ The SMP also included a “Human Capital Annex,” an 18-page document “that translates comprehensive goals and objectives required to achieve the Air Force Strategy (entitled *A Call to the Future*) into tangible actions, initiative, and priorities.”⁸ Furthermore, in 2016 the Air Force established a human capital analytics cell as a two-year pilot program within the office of the Assistant Secretary for Manpower and Reserve Affairs to examine human capital data trends and opportunities.⁹

Despite the attention human capital management has received in recent Air Force policy, actual issue identification and solution implementation have not occurred fast enough to solve the current retention crisis, which could potentially degrade mission effectiveness, especially in high-technology missions like remotely piloted aircraft and cybersecurity.¹⁰ According to the Department of Defense’s 2016 Status of Forces Survey of Active Duty Members, only 62% of respondents said it was likely or very likely they would stay on active duty if given the opportunity.¹¹ Author and former Air Force officer Tim Kane’s research showed talent is leaving the Service instead of entering it.¹² In his book, *Bleeding Talent: How the U.S. Military Mismanages Great Leaders and Why it is Time for a Revolution*, he asserted that many intelligent and talented members of the all-volunteer force become stifled by the steeply hierarchical organizational structure and “one size fits all” culture which recognizes seniority over merit.¹³ Kane states that although members make a free and often idealistic choice to join the military, from then on the autocratic system limits free choice about career progression, which negatively impacts retention.¹⁴

For years, the Air Force has recognized the need for change and improvement, as seen in programs like Quality Air Force and Air Force Smart Operations for the 21st Century. However, these programs target process improvement and have not created long-term changes in Air Force

culture because they act at the transactional level of the organization rather than at the transformational level.¹⁵ Other stand-alone initiatives to improve human capital management processes, such as a revision of performance report forms and the current Chief of Staff's initiative to "Revitalize the Squadron," are not likely to be successful because, according to organizational change theorists Burke and Litwin, only external environmental pressure can result in transformational organizational change.^{16,17} Policies have been circulated about mentorship, career-broadening, and key personnel lists, but talent is still leaving the Air Force and current members are often stymied in career aspirations.¹⁸ As stated in the SMP, "An agile organization requires more than just adaptable, innovative people; it requires an environment – an organization – in which agility is a constant."¹⁹

In the book, *The Dance of Change: The Challenges to Sustaining Momentum in Learning Organizations*, the authors detail how change in an organization is a phenomenon that can be assessed in terms of growth factors versus limiting factors.²⁰ While the Air Force's newer personnel policies and process improvement initiatives might be growth factors, human capital management in the Service is unlikely to improve if the limiting cultural factors aren't identified and addressed. This research will use the Bolman and Deal Four-Frame model to identify and analyze the Air Force culture to identify opportunities to improve human capital management using current research in the fields of business, psychology, economics, and organizational change.²¹ Furthermore, it will explain why the US should view its Airmen as its most important Air Force weapons system, creating a fundamental cultural change which will position the US Air Force to be the agile, innovative force needed to defeat all types of future air, space, and cyber threats.

PROBLEM AND KEY ISSUES

“Flexibility is the key to airpower” is a motto many Air Force recruits learn in commissioning and basic training classes. This phrase is presented amid lessons on the groundbreaking technology and strategy used by Airmen since the advent of aviation. Even the creation of the US Air Force as a stand-alone military branch in 1947 is touted as a triumph of innovative Army Air Corps planners, like General William “Billy” Mitchell, who knew airpower could have a major strategic impact rather than just a tactical role in support of ground forces during wartime.²²

While the US Air Force has remained a highly capable and publicly respected military branch, and individual Airmen are usually intelligent and hard-working, the Service has become mired in bureaucracy and can no longer claim the flexibility and innovation that were once its hallmark.²³ A personnel system that rewards seniority rather than merit, a risk-averse hierarchical structure, and one-way power flow have combined to produce an environment where members are compelled to “check the boxes” and often feel powerless to effect positive change for themselves or the Air Force.²⁴ Subsequently, highly trained, talented personnel are leaving, and bureaucratic processes dominate the careers of those who stay.²⁵

In the past, strict obedience from members might have been an asset to military leaders engaged in conventional, large force-on-force warfare, but in today’s world of unconventional threats and irregular warfare, prototypical followers and authoritative leadership could be a liability. In Jim Collins book, *Good to Great*, his group of researchers found that companies which demonstrated exponential growth and productivity had a culture which encouraged feedback and innovation from employees, as well as leadership humble enough to listen and act on feedback.²⁶ When asked to what extent unit leaders in the Air Force allowed innovation,

creativity, or openness to new ideas, only 52% of active duty Airmen indicated this was the case to a large or very large extent.²⁷ This shows a clear gap between the current culture and the agile, innovative culture the Air Force wants to build. It also creates an opportunity to move toward a more participatory culture in the Air Force to allow for the interchange of ideas in both directions, increasing job satisfaction, innovation, and performance.²⁸ As stated in the SMP, “in the future, organizations with distributed decision-making and execution authority will be optimally poised to engage emergent obstacles and threats.”²⁹

In attempt to move toward improved human capital management in the Air Force, the Human Capital Annex of the SMP contains five objectives with subtasks addressing agility and one objective with subtasks relating to inclusiveness (Table 1).³⁰ However, when leaders or agencies assess their own organizations, there are likely to be blind spots due to the human tendency to rely on a single perspective.³¹ According to the authors of *Reframing Organizations*, Lee Bolman and Terrence Deal, “Decision makers too often lock themselves into flawed ways of making sense of their circumstances.” Furthermore, they assert that when people are unsure of what to do, they do more of what they are familiar with.³²

Utilizing the same solutions attempted in the past does not appear to be solving the current pilot retention problem. According to March 2017 Congressional testimony by Lt Gen Gina Grosso, Air Force Deputy Chief of Staff for Manpower and Personnel Services, the Air Force was short 1,555 pilots at the end of fiscal year 2016, including 1,211 fighter pilots.³³ For an organization whose mission is to “Fly, fight, and win in air, space, and cyberspace,” such a significant pilot shortage has the potential to degrade the US Air Force’s ability to fulfill even its conventional mission. According to Air Force pilot and author Nate Jaros, the Pentagon’s attempts to solve the pilot retention problem by offering ever-increasing bonuses is not working,

as evidenced by only 34% of eligible pilots taking the bonus over a period of 10 months in fiscal year 2016.³⁴ Jaros further asserts that robust airline hiring is only a part of the reason for the exodus, and many Air Force pilots report frustration with the organizational climate, which is one of “paperwork and overtasking,” as well as out-of-touch or powerless leadership.³⁵

Table 1. The Air Force’s 2015 human capital management objectives (Reprinted from the US Air Force’s “Human Capital Management Annex to the 2015 USAF Strategic Master Plan”³⁶

AR1 (AG1.1.H1) Ensure the Air Force’s human capital management programs are based on and integrated to address strategic capability gaps in two primary areas: emerging missions and transitioning to a more agile workforce.
DF1 (AG1.2.H1) Leverage leading-edge education and training practices to ensure education and training programs support emerging mission requirements and efforts to develop innovation, collaboration, and agility in addition to institutionalizing Air Force Core Values.
TM1 (AG1.6.H1) Adapt human capital management and talent management practices within the Air Force to ensure an institutional HR system capable of rapidly recognizing and adapting to the changing environment. This effort will leverage progressive Human Resource Management (HRM) and Human Resource Development (HRD) practices based on relevant standards found in other large, complex, diverse, and successful organizations that will result in a workforce with the required qualities, knowledge, and skills.
RR1. (AG1.6.H2) Implement a proactive, career-long retention approach that provides a variety of financial and non-financial retention measures to commanders and Airmen. Assess Airmen Sustainment Service while maintaining approved Air Force standard levels of resiliency, readiness, retention, and morale through integrated resources and local community capabilities.
AI1 (AG3.3.H1) Instill innovation and agility in our Airmen and organizations in order to ensure an institutional system capable of rapidly recognizing and adapting to the changing environment.
OF1 (IN1.2.H1) By FY21, increase opportunities for component integration, produce appropriate force mix options, and eliminate structural, legal, and cultural barriers wherever possible to increase the flexibility of our force structure, and optimize our operational response.

In addition to the pilot retention crisis, in a world of unconventional threats such as cyber warfare and terrorism, it is unlikely the Air Force will be able to recruit and retain much-needed tech-savvy millennials who “desire more flexibility and opportunity than they are being offered in the military.”³⁷ According to Marine Corps Lt Col Wayne Sinclair, the Millennial generation,

born between about 1981 and 2002, has tremendous potential to prevail in the irregular conflicts the US may face in the near future due to their affinity for order, hard work, creativity, the greater good, the role of protector, and desire for consensus (Table 2).³⁸ However, due to antiquated Air Force systems, processes, and culture, potential recruits may look elsewhere. As stated in the Human Capital Annex to the SMP, “We must explore whether certain cultural and procedural anachronisms fail to inspire some of our desired Airmen.”³⁹

Table 2. Millennials’ Military Assets and Liabilities (Adapted from Lt Col Wayne Sinclair’s *Millennials Merging: Leading a New Generation in War*)⁴⁰

Millennials’ Military Assets	Millennials’ Maneuver Warfare Liabilities
Orderly and structured	Unsettled by chaos and friction
High self-esteem	Can’t connect with difficult people
Positive attitude	Have not experiences much loss
Technologically savvy	Lack creative thinking
Team collaboration	Trouble leading without consensus
Determined to matter	Easily dejected [sic] by adversity
Trusting of authority	Expect and need guidance in most situations
Safety a priority	Averse to risk taking
Good followers	Prone to piecemeal efforts
	Poor self-discipline

Some may argue that the American public has high confidence in the capabilities of the current Air Force, but highly-trained Airmen are leaving the organization at a rate that has the potential to degrade mission effectiveness,⁴¹ and the new generation of military recruits has “little patience for red-tape, glacially slow information systems, and antiquated ways of doing business.”⁴² If the Air Force fails to evolve to attract top-quality Airmen and allow them to act quickly and creatively in the face of rapidly-evolving enemy technology and tactics, it may be out-manuevered by its enemies. Fundamental cultural changes may be required to attract, retain, and promote innovative Airmen.⁴³ Research shows that steeply hierarchical and autocratic

organizations are less agile, less innovative, and less efficient than counterparts with a more risk-tolerant and participative culture.⁴⁴

The current issues with retention and recruiting bring into question whether the US Air Force is evolving its culture and human capital management fast enough to maintain air, space, and cyberspace superiority in the conflicts of the future. According to the RAND Corporation, “the services are having a challenging time holding together the ranks on some of the smaller, high-demand technologically intensive areas like cyber, nuclear deterrence, remotely piloted aircraft and fighter pilots.”⁴⁵ If current Airmen are frustrated and dissatisfied, and the new generation of military recruits is looking for more flexibility, the current efforts towards improving human capital management in the Air Force may not be enough to create the agile, innovative force needed to counter fast-paced modern threats.⁴⁶

If the Air Force wants to position itself to decisively defeat its enemies in the next decades, it should adopt the perspective that human capital is equivalent in value to physical weapons, and dedicate similar investment, research, and design into creating a culture where Airmen are able to fulfill their potential to the benefit of the Air Force.⁴⁷ By recognizing Airmen as a weapons system, the Air Force can present a compelling argument to national leadership to investigate and legislate positive and comprehensive changes in processes, structures, and organizational design supporting service members just as it would for aircraft acquisitions. Taking bold action to support the Air Force’s most precious resource, its Airmen, will help recapture the innovative spirit and strategically-superior Air Force General Billy Mitchell envisioned nearly 100 years ago.

METHOD AND EVALUATION

This research will utilize the Bolman and Deal Four-Frame Model to evaluate the current culture of the Air Force compared to current research on human capital management to identify strengths as well as opportunities for improvement.⁴⁸ The purpose of the model is to evaluate an organization from four different perspectives to increase the accuracy of identifying growth and limiting factors, and to expand the solutions and choices available to solve the identified problems.⁴⁹ The model includes the structural, human resources, political, and symbolic frames, and each frame focuses on a challenge an organization must meet to be successful (Figure 1).⁵⁰ The challenge of the structural frame is how to attune the structure of the organization to its task, technology and environment. The challenge of the human resources frame is whether an organization can align its own needs with the human needs of its members. The challenge of the political frame is how to handle power, conflict, competition, and organizational policies, while the challenge of the symbolic frame is how to inspire and create meaning. Expanding the Air Force's understanding of human capital management factors through the four frames will lead to broader identification of potential solutions and more effective change efforts.⁵¹

**Exhibit 1.1.
Overview of the Four-Frame Model.**

	FRAME			
	STRUCTURAL	HUMAN RESOURCE	POLITICAL	SYMBOLIC
Metaphor for organization	Factory or machine	Family	Jungle	Carnival, temple, theater
Central concepts	Rules, roles, goals, policies, technology, environment	Needs, skills, relationships	Power, conflict, competition, organizational politics	Culture, meaning, metaphor, ritual, ceremony, stories, heroes
Image of leadership	Social architecture	Empowerment	Advocacy and political savvy	Inspiration
Basic leadership challenge	Attune structure to task, technology, environment	Align organizational and human needs	Develop agenda and power base	Create faith, beauty, meaning

Figure 1. Bolman and Deal Four-Frame Model (Reprinted from *Reframing Organizations*)⁵²

The Air Force Through the Structural Frame

Success in the structural realm relies on aligning organizational structure with mission, technology, and environment,⁵³ so it is important to first understand the Air Force’s organizational structure. The Air Force is a bureaucracy as defined by Max Weber in the early 20th century: a strict top-down hierarchy controlled by rules and regulations in which success is based on technical proficiency to maximize reliable results regardless of individual differences.⁵⁴ In the Air Force, a broad base of enlisted Airmen with little power form the bottom of the triangle and the Air Force Chief of Staff, the most powerful and highest-ranking officer, is at the top of triangle, with everyone else assigned to ascending levels. This structure, with power concentrated at the top, was largely inherited from the US Army when the Air Force was created

from the US Army Air Corps in 1947. Historically, Armies have been structured with a hierarchical design to facilitate the coordination of strategic-level victories in large force-on-force engagements by employing unity of command.⁵⁵

The positive features of a hierarchical organizational design include centralized command and control, clear lines of authority, and efficiency in coordinating many people and resources into a single strategic effort.⁵⁶ Some negative features of hierarchies include the tendency to uphold the status quo, the lack of agility created by many layers of supervision, and the accepted power distance between members.⁵⁷ Power distance refers to “the degree of inequality existing between a less powerful and a more powerful person, which in industry would be represented by the superior-subordinate relationship.”⁵⁸ Geert Hofstede’s research from the 1960s through the 1980s showed that in countries with an expectation of higher power distance, organizations demonstrated more formal superior-subordinate relationships, closer supervision, more task-orientation, and a belief in the necessity of making people work hard.⁵⁹ The US society as a whole has a relatively low power distance index of 40, which means that the strict hierarchy in the military is not generally consistent with the expectations American citizens have for equality and participation in the workforce.⁶⁰ In addition, the Millennial generation’s preference for team collaboration (Table 2) does not match well with the strict hierarchical structure and expected submission to authority in the current organizational structure of the US Air Force.⁶¹

Other common styles of organizational design include a flat structure, where all employees have equal power, and a flattened hierarchy, where there are fewer levels between the lowest and highest staff members.⁶² According to the Human Capital Annex, the Air Force “must design flatter, dynamic, diverse and networked organizations that maximize flexibility and agility while reducing hierarchy and stove piping.”⁶³ A flatter structure in which front-line

employees are empowered to solve problems and give input has been shown to increase innovation, decrease costs, and make organizations more effective.⁶⁴ Companies like McDonald's and Morning Star have successfully incorporated some of the principles of flatter management, such as delegating decision-making authority.⁶⁵ Harvard business student Julie Wulf warned in 2012 that based on her research, flattening must happen in a very specific way to avoid pushing the decision-making higher up to leaders at the top of an organization instead of down to front-line employees as intended.⁶⁶ Simply removing layers of middle management will not result in a more agile, innovative organization without specific efforts to empower the decision-makers.⁶⁷

Closely related to organizational structure is the style of management within a company. There are three general management styles, including *laisses-faire*, participative, and autocratic.⁶⁸ Organizations with a *laisses-faire* style typically have few guidelines for participation and little directive management, and all employees collaborate.⁶⁹ Companies with participative management styles encourage employee participation in leadership decisions, but leaders are ultimately responsible for the final decisions.⁷⁰ In autocratic organizations, like the Air Force, communication and decisions usually flow down from the top. Research has shown that the autocratic management style hinders the agility and innovation of organizations because there is little opportunity for feedback and idea generation from the lowest, but largest, group of employees.⁷¹ On the other hand, participative management "is one of the elements most cited by investigators as a factor in facilitating organizational change."⁷²

Compared to the other US military service branches, the Air Force is often considered to be the one where the rank structure does not require blind obedience, and does allow for discussion and idea exchange.⁷³ In work centers, this may be true, but according to Adam

Grissom, the author of “The Future of Military Innovation,” the levels of hierarchy beyond work centers in the military quickly block most recommendations, even ones shown to solve known problems.⁷⁴ For ideas to flow up from an Airman Basic to the Air Force Chief of Staff would require at least five people in the Airman’s chain of command to agree with and take action to elevate the idea. This is unlikely to happen based on sociology research that people seldom want to run the risk of challenging the status quo, especially if it might negatively impact their own career progression.⁷⁵ Combined with the human resources and political disadvantages of pointing out flaws in the organization discussed later, the current structure and management style of the Air Force are a barrier to the implementation of new and innovative ideas.

Some routes to innovation bypass the chain of command, like the “Revitalizing Air Force Squadrons Idea Site” crowdsourcing program and certain enterprise-level surveys, but during everyday operations, communication between higher and lower echelons of power in the Air Force is typically a one-way channel down.⁷⁶ Even feedback in official documentation, like lessons-learned and after-action reports from exercises, are subject to being written and then misplaced or forgotten about by the next exercise due to personnel turnover, time constraints, and a cultural reluctance to challenge the status quo.

In some ways, the hierarchy and autocratic attributes of the Air Force provide an advantage. For example, if there is a need for the rapid mobilization of the Air Force, the requirement flows down from the top and units and individual Airmen can promptly respond and be ready to deploy.⁷⁷ In this example, there may be no time for a feedback loop. On the other hand, continuing a tradition of top-down communication can limit or impede the potential to harness the technological-savvy and innovative genius of the youngest generation of Airmen.⁷⁸ If the challenge for a successful organization is to align structure with the operational tasks,

technology, and environment, a flatter organizational structure and a more participative management style more closely synchronizes with the Air Force's mission to fly, fight, and win in air, space, and cyberspace.

The Air Force Through the Human Resources Frame

The human resources frame highlights the need for successful organizations to align the human needs of the members with the organization's needs (Figure 1).⁷⁹ The worker in an organization is a person, with human desires and needs, and the companies with the best performance find ways to support those needs in harmony with the organization's mission.⁸⁰ The field of positive psychology has shown that people who feel empowered and supported at work are more engaged and more productive, which typically results in a higher-performing organization.⁸¹ Job satisfaction is directly correlated with job commitment and an unwillingness to quit.⁸²

The Air Force's human resources system begins with recruiting qualified volunteers for military service. Many enlisted recruits are young, male, and high-school educated, although the Air Force does have the highest percentage of females of any US military branch, with about 20%.⁸³ Recruits pass a medical exam and physical fitness test, and then must successfully complete basic military training (BMT) to begin a career in the Air Force.⁸⁴ Common reasons for joining the Air Force include patriotism, money for education, training in a career field, and opportunities for travel and adventure.⁸⁵ Common officer recruiting sources include the Air Force Academy, the Reserve Officer Training Corps (ROTC), and Officer Training School (OTS).⁸⁶ Officers require a Bachelor's Degree and must meet medical and physical fitness standards to earn a commission in the Air Force.⁸⁷

In the late 1970's, a major change in the recruiting portion of the Air Force's human resources framework took place when the all-volunteer force was instituted.⁸⁸ With the elimination of the draft, the nature of service in the Air Force moved from compulsory to volunteer. Based on research in the field of motivation, successful volunteers base the decision to join the military on internal, or intrinsic, factors such as patriotism and a desire to serve rather than on external, or extrinsic, factors such as money or glory.⁸⁹ Interestingly, when the all-volunteer force was instituted, human capital management policies did not change to reflect the intrinsic motivational factors important to the volunteer Airman.⁹⁰ This fact alone could be evidence of a disconnect between the policies and the people impacted by them.

After being recruited, officers and enlisted candidates attend BMT for an Air Force culture orientation.⁹¹ This training currently includes rigorous physical challenges, strict obedience, academics, and practice of skills like marching, military courtesies, and attention to detail.⁹² This type of training, like the organizational structure, was adopted from the Army when the Air Force became its own Service in 1947, and it has been used primarily to instill a sense of group membership, accomplishment, and followership into recruits.⁹³

Earning a place in the military by surviving the stressful situations imposed by the BMT instructors is a long-standing and symbolic tradition. There are advantages to removing individuation and building up pro-group qualities like followership, discipline, and stress tolerance.⁹⁴ However, the tradition of BMT as a rite of passage in the military has perhaps prevented serious inquiry into the usefulness of the training environment for cultivating skills desirable in modern Airmen.⁹⁵ While the Army might require a high level of followership due to the unique nature of ground combat, where all members are working toward a common physical goal, the Air Force might benefit more from cultivating problem-solving skills, innovation, and

respectful collaborative dialogue. According to the 2015 SMP, “We must develop innovation catalysts that leverage creative people throughout the entire Air Force...True innovators can be recognized as people who work best in environments where risk, openness, and idea-sharing are the norm; where ideas outrank seniority; where being wrong is not a failure; where learning is recognized as a continual process; and who have a sense of urgency, energy, and optimism.”⁹⁶ These skills would be far more applicable to complex, fast-paced technical challenges in the Air Force, such as overcoming a technological barrier to a satellite launch, developing cyber policy, or making targeting decisions for an unmanned aerial vehicle. A modernized training environment might also be more palatable to a new generation of potential recruits who are technologically savvy and eager to learn and serve, but who are not inclined to subject themselves to the deprivations of the current BMT program.⁹⁷ Critics might say this could lead to a less-disciplined, less-resilient Air Force, so it would be important to determine what attributes make successful, innovative, and resilient Airmen and re-structure BMT to shape those qualities rather than for qualities useful in Soldiers.

In the current human resources framework, during BMT for enlisted members, or on commissioning for officers, the centrally-managed Air Force personnel system matches each person with a career field, or Air Force Specialty Code (AFSC). A person’s AFSC ultimately meets the needs of the Air Force, and may or may not reflect an Airman’s interests and aptitude.⁹⁸ Tools like the Air Force Officer Qualifying Test and Armed Services Vocational Aptitude Battery are used to assist in AFSC assignments, and most Airmen can submit preferences, but the personnel system ultimately matches individuals to career fields. Duty locations are assigned in a similar manner after the completion of specialized career training. Enlisted career progression requires on-the-job training, competency tests, performance reports,

and completion of professional military education. For officers, time-in-grade largely determines promotion from the rank of First Lieutenant through Major.⁹⁹ Both officers and enlisted active-duty Airmen are relocated frequently.

Unfortunately, centrally-managed job placement, promotions based on seniority rather than merit, and forced relocations may adversely impact the retention of top performers in organizations. Author Tim Kane reported that the officers with the most potential often choose to leave the military to pursue careers where they have more choices and control.¹⁰⁰ Kane offers several examples of officers who left military service when they were not allowed to pursue career paths where they excelled due to the bureaucratic assignment process.¹⁰¹ According to manpower experts Daniel Ginsberg and Ray Conley, “There is a need to move from a personnel system that works like a blunt instrument and focuses on filling large career areas, to one that uses leading-edge policies and systems to work as a kind of scalpel, focused and targeted on managing individuals and the most pressed career areas.”¹⁰²

There is also a functional-area stovepipe effect that occurs in the Air Force human resources system. Cross-training into a different field is acceptable early in the career, but once enlisted members become functional-area experts, they are more likely to be promoted if they stay in their initial specialty.¹⁰³ This creates enlisted Airmen who are essentially discouraged from career broadening opportunities until the very highest ranks. Officers are subject to nearly automatic promotions until the rank of O-4, and then must comply with a strict up-or-out career progression pathway that requires “checking the boxes” to be considered for eventual promotion to O-6.¹⁰⁴ These “boxes” include professional military education, deployment experience, an assignment in the National Capital Region, a joint assignment, and a command position. Although time in grade and career broadening experiences provide depth and breadth to an

officer, the current promotion system gives little weight to innate aptitude and skill, resulting in the attrition of many young officers who go on to become very successful in the civilian business world.¹⁰⁵

Research in human capital management, economics, and psychology shows that high-performing workers in an environment which does not promote based on merit are more likely to leave for better opportunities to advance.¹⁰⁶ It also shows that workplaces that engage and develop the strengths of individuals are more productive and more innovative than jobs which do not capitalize on the unique potential of each employee.¹⁰⁷ According to the Human Capital Annex, “Diversity, in general, is a collective mixture of differences as applied to mission accomplishment and is a strategic necessity.”¹⁰⁸ In a 2015 RAND Corporation article on human capital management, the authors highlighted that the current personnel system “prizes the cookie-cutter over the peculiar, penalizing anyone whose career progress is outside the usual. People who took time away to earn a Ph.D., for example, have a hard time continuing upward, while women voluntarily leave the service at a much higher rate than men.”¹⁰⁹ This outflow of uniquely talented Airmen may indicate that a centrally-managed personnel system with a heavy emphasis on time-in-grade and “checking the boxes” is not the best way to retain the Air Force’s professional and diverse force.

Once Airmen are recruited, trained, proficient in a functional area, and beginning to “check the boxes” for promotion, they are often 10-15 years into a career with a promise of eligibility for retirement at 20 years. At this point, psychology research is clear: protecting one’s career and future financial well-being becomes a top priority for military members, who by now often have households to support.¹¹⁰ In a 2012 study of intelligence personnel, having children at home was strongly associated with positive intentions to reenlist.¹¹¹ The desire for economic

stability may well lead to an aversion to professional risk-taking. A risk-intolerant environment is one where innovation and process improvement initiatives are perceived as less desirable because they do not conform to normative choices in the bureaucracy.¹¹²

Risk intolerance in Air Force culture is made worse by the “up or out” system, where a failure to get promoted means the end of a person’s military career.¹¹³ Promotion is heavily influenced by performance reporting, which is typically accomplished annually by an Airman’s supervisor and endorsed by that person’s supervisor.¹¹⁴ Airmen have a strong incentive to please the people evaluating their performance and research indicates that challenging the status quo is often too personally risky in the Air Force.¹¹⁵ The consequences of questioning a supervisor, even with the intention of improving processes, has the potential to lead to a lower rating on a performance report and negatively impact promotion and career opportunities.¹¹⁶

Research shows that organizations who, even unintentionally, fail to challenge the status quo ultimately lose their competitive edge because they are not learning, growing, and innovating to meet the front-line challenges faced at the lowest levels of staff.¹¹⁷ Principles of economics indicate that a way for the Air Force to encourage both excellence and innovation in human capital management might be to evolve from a centrally-managed assignment process to a free market competitive process.¹¹⁸ For example, the Air Force Reserve currently allows members to see and compete for many job openings within career and rank restrictions. Members apply, submit resumes and performance reports, and often interview for these positions. This gives members more control and choice over career progression, which is correlated with higher productivity and job satisfaction.¹¹⁹ Ginsberg and Connelly propose allowing members to stay at the same rank longer and re-assigning them less would also provide more stability to career Airmen.¹²⁰

Of course, even if the Air Force moved to a competitive hiring system, top-down performance reporting would continue to create pressures to maintain the status quo.¹²¹ In business research, many companies, including the US Army, are trying a 360-degree performance feedback process.¹²² This allows superiors, subordinates, and peers to offer both positive and constructive feedback and creates a better representation of all aspects of an employee's performance.¹²³ For members who are not interested in seeking additional responsibilities, another consideration would be a career track without time-in-grade restrictions if performance requirements are being met. Canada has this dual-track system for its military members.¹²⁴ This would reduce the cost of recruiting and training new functional-area experts without negatively impacting the career prospects of Airmen seeking promotion and leadership opportunities.

The Air Force Through the Political Frame

In the Bolman and Deal Four-Frame Model, the challenge of the political frame is how to deal with power, conflict, competition, and organizational policies (Figure 1). In the model, advocacy and coalition building are ways to deal with organizational politics effectively, while manipulation and fraud are considered strategies which are not conducive for organizational success in the long-term since they lower trust and effectiveness in a workplace.¹²⁵

In the Air Force, the political frame begins with the very senior leadership echelon, where civilians have ultimate control over military policy and funding through Congress, the President, the Secretary of Defense, and the Secretary of the Air Force. In a democracy, civilian control of the military is essential to preserving the balance of power and security of the citizens. As stated by Carl von Clausewitz, "War is a mere continuation of policy by other means."¹²⁶ The military

is just one of several instruments of power the US government can choose to use to influence foreign policy, but it receives far more funding and manpower than other government agencies, including the Department of State. According to the federal budget, the estimated 2017 budget for the Department of Defense's Base Discretionary Funding was 549.1 billion dollars, while the Department of State combined with other international programs was estimated to receive 39.7 billion dollars.¹²⁷ However, both at the Congressional level and within the Department of Defense, there is fierce competition for financial resources and equipment acquisition, which was seen with the Air Force's emphasis on the for F-22 Raptor funding over the F-35 Joint Strike Fighter.¹²⁸ Even within the Air Force, in-fighting for resources is constant as the major commands vie for manpower and equipment, which are both needed to keep up with evolving technology and warfare. Generals at the highest levels are tasked to inform the civilian decision-makers about Air Force priorities and advocate for resources to maintain air, space, and cyberspace supremacy.¹²⁹

The high-level focus on securing resources in the Air Force is necessary in a bureaucratic system, but it also obscures a potentially more important goal, which is efficiency. Efficiency is an organization's ability to utilize available resources to the greatest extent possible with the smallest amount of waste. In the corporate world, resource limitations are a fact of business, so companies actively seek out better ways of doing things. For example, Wal-Mart recently identified that it had lost its innovative edge due to its size, and created a team to develop and test "small business initiatives" without the bureaucratic red tape which had been slowing the process.¹³⁰ In addition to money and equipment, people are Air Force resources that can be used more efficiently.

One example of a lack of efficiency regarding people in the Air Force is poor retention of highly-trained Airmen. As Lt. Gen. Maryanne Miller, the Commander of Air Force Reserve Command, said in a 2017 speech at Beale Air Force Base, “it doesn’t matter how many new recruits you bring in the front door if all of our experienced people are leaving through the back door.”¹³¹ She went on to describe a 1,400-person shortage in the command’s full-time Air Reserve Technician positions, especially in the areas of cyber, aviation, and intelligence, surveillance, and reconnaissance.¹³² Pilot retention is particularly expensive for the nation, as it costs the taxpayers \$11 million in training per fifth-generation fighter pilot.¹³³

Acquisition and retention of Airmen for these high-demand positions has been lagging for some time. In a 2012 Pardee RAND Graduate School dissertation, John Langley wrote, “recognizing the need for additional personnel, the Air Force has steadily increased the number of authorized ISR positions, but has consistently been unable to fully man these positions.”¹³⁴ His study of 238 active-duty intelligence and non-intelligence personnel working at a Distributed Common Ground Station found that about 20% of respondents did not want to remain in the Air Force, and a further 30% were undecided. Burnout factors associated with negative health outcomes and performance issues, including high emotional exhaustion and high cynicism, were significantly greater in the intelligence group than in the non-intelligence group.¹³⁵ “Without addressing burnout, the Air Force could lose many of its trained personnel as soon as they are eligible to separate.”¹³⁶

Financial incentives alone are not enough to retain members whose idealistic reasons for joining the Air Force become buried under administrative requirements and antiquated systems they have no power to change.¹³⁷ In Langley’s study, he found that high professional efficacy had a positive relationship with organizational commitment, indicating the feeling of doing

something important improves retention.¹³⁸ Organizations that experience exponential growth and financial success empower employees to innovate and create efficiencies which are then embraced by the company.¹³⁹

Certain leadership styles have the potential to mitigate the negative effects of the Air Force's rigidly hierarchical system by reducing perceived power distance, creating trust, and encouraging feedback among unit members.¹⁴⁰ A defining quality of leaders capable of creating this type of environment is humility.¹⁴¹ Not to be confused with passivity, humility is a trait defined as not assuming one has all the answers.¹⁴² Leaders who demonstrate humility through actions and words open a space for two-way dialogue with colleagues and subordinates alike. By not assuming one has all the solutions because of rank or position, the collective power of all unit members can be used to solve problems.¹⁴³ Humility is not an inability to make decisions alone, but is rather an emotionally-intelligent strategy to empower Airmen and gain team buy-in, consensus, and new solutions.¹⁴⁴ Employees who feel empowered have higher job satisfaction leading to both improved retention and better job performance.¹⁴⁵

According to Jim Collins, a prominent business researcher, humility can be learned.¹⁴⁶ Leadership styles with a component of humility include transformational, servant, authentic, and coaching styles. These are all more participative management styles than the top-down authoritative leadership style currently widely used in the Air Force. Participative management styles have been shown to increase employee satisfaction and empowerment.¹⁴⁷

The Air Force Through the Symbolic Frame

The challenge of the symbolic frame in Bolman and Deal's model is how to inspire and create meaning in an organization, as this will lead to increased employee job satisfaction,

retention, and better performance (Figure 1).¹⁴⁸ For many civilian for-profit companies, it can be a challenge to unite and motivate employees to work to their highest potential. The Air Force starts with an advantage; since the 1970s, military service in the US has been all-volunteer. Motivation research clearly shows that people who volunteer for military service do so for intrinsic reasons having to do with a desire to serve the country, although extrinsic motivators like money for education do play a role.¹⁴⁹ Those who elect to stay in the military have been shown to have pro-military feelings as early as middle and high school.¹⁵⁰

Motivation and leadership theories have evolved over the last 50 years. In the 1970s, Douglas McGregor proposed Theory X and Y.¹⁵¹ He postulated that leaders and managers assume people have an inherent tendency to do as little as possible, Theory X, or that people given the chance will do the best they can, Theory Y.¹⁵² In a 2014 study of 50 military leaders and 150 of their followers, a management style consistent with Theory Y was found to be positively associated with the followers' satisfaction with their leader, affective commitment, and organizational citizenship behavior.¹⁵³ The Air Force, perhaps due to its origins as a compulsory service, has historically created policies in accordance with Theory X, assuming Airmen require strict oversight and regulation to maintain work standards.¹⁵⁴ The BMT environment establishes Airmen as cogs in the greater Air Force machine rather than empowered individuals with a desire to serve. This indoctrination into the top-down information flow informs new Airmen of their relative powerlessness as the lowest members of the hierarchical rank system.¹⁵⁵

While it may be true that newer Airmen benefit from the structure and clear expectations accorded by the rank system, according to the Human Capital Annex, the Air Force does not benefit from a training system which might discourage creative thought and professional

discourse.¹⁵⁶ The ramifications of taking individual power away from an intrinsically motivated volunteer could eventually be frustration, feelings of powerlessness, and an increased likelihood of departure from the Service to pursue jobs where they can feel more valued and heard.¹⁵⁷

Some may argue that Airmen earn the right to provide input and ideas as they move up through the ranks, but even a Colonel typically has to accept the leaders' priorities or risk a poor performance report, which would negatively impact career progression and personal financial security.¹⁵⁸ For those who join the Air Force with a service-oriented spirit, it can be demoralizing to deal with antiquated systems, tolerate autocratic leadership, and know that change is unlikely.¹⁵⁹

While the all-volunteer force represents service-oriented individuals, it is also comprised of people who tend to appreciate the structure and warrior ethos found in the military environment.¹⁶⁰ Great leaders have been shaped by military service, with its emphasis on structure, standards, and good order and discipline. These are characteristics which lead to success both in the chaotic environment of the battlefield and at negotiating opportunities in the business world.¹⁶¹ The ultimate symbolic representation of military service is the warrior ethos, where strong leaders with obedient followers use physical, technological, and mental prowess to defeat an enemy and safeguard American principles.¹⁶² Ultimately, the job of military members at all levels is to carry out ultimate actions when ordered to do so by the nation, generally without questioning why. This requirement for rapid obedience to orders is often used as the justification for a hierarchical system where information flows down from the top with no tolerance for dissent.¹⁶³ However, research shows that characteristics of good leadership, specifically humility and openness to ideas from all unit members, increases combat effectiveness.¹⁶⁴

In other service organizations where members voluntarily put themselves into danger for the greater good, like the fire department, order and discipline are maintained within a flatter system which tolerates more feedback.¹⁶⁵ Firefighters who are dissatisfied with those in positions of authority or with certain firehouse processes can apply for a firefighting job elsewhere. Consistent with the economic principle that competition drives performance up and cost down, firefighting leadership must provide an environment conducive to employee satisfaction to attract good people.¹⁶⁶ One idea to align the interests of Airmen more closely with the interests of the Air Force is by empowering them with as many choices as possible regarding professional growth and career progression.¹⁶⁷

In their model of motivation in the military, researchers Kenneth Thompson and Eric Jansen explain that in an all-volunteer force, capitalizing on the intrinsic motivation of military members will lead to more self-management, better innovation, and increased satisfaction.¹⁶⁸ Using a coaching leadership style instead of a directive and controlling leadership style is presented as the best way to support intrinsic motivation.¹⁶⁹ The current autocratic Air Force culture with a downward flow of power does not necessarily support intrinsic motivation or bottom-up innovation, so the Air Force may not be optimizing a critical opportunity to maximize the potential of its members.¹⁷⁰ In a study on burnout among Distributed Common Ground Station personnel, having a good supervisor was one of only two factors strongly associated with positive intentions for reenlistment.¹⁷¹

Finally, in the challenge to inspire and create meaning, the US government has moved the military toward a more tolerant, egalitarian force by eliminating the ban on women in combat and supporting equal opportunity protections.¹⁷² However, in her article on military culture, Lt. Col. Karen Dunivin highlights that a conservative, masculine warrior ethos is still widely present

in today's Armed Forces.¹⁷³ In this context, masculine refers to traits like aggressiveness, physical toughness, and a low tolerance for emotional expression. According to research on emotional intelligence, this approach is not conducive to effective team performance or innovation, because empathy and vulnerability can break down communication barriers and increase trust.¹⁷⁴ The challenge for the US Air Force in the symbolic frame is to harness the enthusiasm and spirit of service that members enter with, and allow them opportunities to use that enthusiasm for the benefit of the organization.

ANALYSIS

By examining the Air Force's human capital management through Bolman and Deal's Four-Frame model, it appears that the Service's policies are frequently not aligned with current research on organizational success.¹⁷⁵ According to organizational systems theorists, "the organization's performance rests upon the alignment of each of the components-the work, people, structure, and culture-with all of the others."¹⁷⁶ Structurally, the Air Force is organized largely based on its historical roots in the Army, where a strict hierarchy and authoritative leadership enabled unity of command over vast numbers of ground troops in traditional force-on-force warfare. Although this is not the mission of the Air Force or the environment it operates in today, the structure of the force has never been adjusted significantly.

Current missions, like cyber, space, reconnaissance, and counterinsurgency, require specialized equipment, people with a high level of technological expertise, and more delegated control to rapidly innovate solutions to novel threats. Members of the Millennial generation, who are considered good multi-taskers and technologically-savvy,¹⁷⁷ will likely be the recruits of choice for the Air Force. This group is accustomed to group collaboration and consensus-

building, so will likely not be content with a steeply hierarchical system and autocratic management offered by today's Air Force.¹⁷⁸ "Millennials look to their leaders to create an environment that respects individuals yet promotes collaborative problem solving."¹⁷⁹ They also "expect light speed and interactive communications tools and are comfortable conveying and receiving information in sound bytes [sic] and cryptic keystrokes."¹⁸⁰

Similarly, the policies of the Air Force's human resources system are outdated and may not support the emotional intelligence and job satisfaction which are shown to increase organizational performance, innovation, and retention. The positive symbolism associated with volunteering for military service is negatively affected by centrally-managed assignments, promotions based on seniority rather than merit, performance reports based on one supervisor's perspective, and the "up-or-out" system. Politically, authoritative leadership and tradition-based training emphasize power differentials between ranks, which stymies two-way discourse, preventing the development of empowered and innovative Airmen at all levels which is called for in the Air Force's 2015 SMP.

So why hasn't current knowledge in the fields of psychology, economics, sociology, and business been successfully incorporated into human capital management processes in the Air Force? Successful organizations are ones that can grow, adapt, and innovate to meet current challenges by identifying and reducing barriers to change while implementing positive change initiatives, according to researcher Peter Senge.¹⁸¹ Author Tim Kane identified the major barrier to human capital management change as the interface between Congress and military leadership.¹⁸² The civilians in control of military resources and policy at the Congressional level, who are mostly non-veterans, look to military leaders for input on priorities.¹⁸³ Military leaders understandably prioritize requests for modern weapons systems, facilities, and general manpower

over human capital management initiatives. If Congress does not know the impact of the current system on morale, retention, recruiting, and maintaining a competitive edge against modern threats, clearly the issue will not be researched or solved.

In Dr. John Kotter's 8-Step Change Model, the first two steps are to create a sense of urgency and build a guiding coalition of advocates. If Congress becomes aware of how human capital management issues are affecting retention, recruiting, and military effectiveness, a legislative caucus or coalition could be formed to champion research and advancement in the field. The current pilot retention crisis in the Air Force, combined with recent cyber and conventional threats from China and North Korea, should create a sense of urgency to increase efforts toward human capital management reform in the military. This is consistent with organizational change researchers Burke and Litwin, who proposed that only external environmental pressure could create transformational culture change in organizations.¹⁸⁴

The next barrier to overcome would likely be resistance from the Air Force itself. Organizational change requires buy-in from leadership at the very top, and due to higher-priority strategic and operational concerns, human capital management would likely be deemed less critical. Change also creates fear and uncertainty, requires money, communication, and time, and may seem unnecessary if essential mission requirements are still being met within the current human capital management system. According to military innovation expert Adam Grissom, "The four contemporary schools of military innovation, and virtually every major study on the subject, argue that military organizations are intrinsically inflexible, prone to stagnation, and fearful of change."¹⁸⁵ Furthermore, a transformational change in human capital management would likely take long-term leadership, and high-year of tenure limitations and frequent reassignments mean top Air Force leaders are not in place long enough to effect comprehensive

change. It is also not consistent with human nature for a person to challenge the structure of the system in which they rose to the top.¹⁸⁶

Despite the challenges, Air Force and civilian leaders have made some positive changes in human capital management processes recently, including the introduction of the Airman Comprehensive Feedback Form, static close-out dates for enlisted performance reports, an extension of maternity leave, the Blended Retirement System, a reduction in Computer-Based Trainings, and a trial of a program allowing Airmen to take a break-in-service without penalties to their careers. The new Air Force Inspection System (AFIS) has a major graded area titled “Taking Care of Airmen,” and the emphasis of the system is on accurately identifying mission capabilities and shortfalls rather than complying with every directive in the regulations.

These are positive opportunities to improve parts of the human capital management system, but a few transactional changes will not create a comprehensive transformation of human capital management unless the effort continues, according to researcher and author Jim Collins.¹⁸⁷ Without a coalition of advocates at the top of the hierarchy and a compelling external driver of transformational change, the momentum will end short of creating an agile, efficient, innovative force which is positioned to defeat air, space, and cyber threats in the future.

CONCLUSION

The US Air Force is considered the greatest Air Force in the world, but it will be difficult to maintain that distinction if it cannot recruit and retain innovative Airmen for high-value missions such as aviation, cyberspace, intelligence, surveillance, and reconnaissance. Piecemeal efforts to improve processes, reduce administrative burdens, and institute new policies to improve retention and innovation will likely have limited success, because Air Force culture

remains stagnant. The analysis through the Bolman and Deal Four-Frame Model indicates that hierarchical structure, autocratic style of leadership, antiquated personnel processes, and a misalignment of human and organizational needs are barriers preventing the organization's appropriate evolution.

To create a real transformational change in Air Force culture will require advocacy and action from Congress and senior Air Force leaders. This could begin with a caucus or special committee, and emphasize using research in human capital management and organizational design to determine the best approach to using Airmen efficiently and in alignment with their human needs.

The Airman Weapons System (AWS) could be the name representing the comprehensive capabilities of Air Force members. This would be a simple way to encompass the idea of using solid scientific research to support the efficient use of personnel. Just as the Air Force bids contracts for aircraft design, it could bid contracts for organizational design and human capital management based on the AWS concept. Finding efficiencies by researching and implementing AWS in the Air Force has the potential to save taxpayer money. For example, a single fifth-generation fighter pilot deciding to stay in the Service prevents an expenditure of \$11 million dollars to train a replacement.¹⁸⁸

If Congress and Air Force leaders are not able to dedicate precious time and resources to AWS, supervisors at every level can still make a difference in their own work areas. This research shows that good supervision is correlated with more positive intentions to stay in the Air Force. Current leadership research shows high employee satisfaction, increased performance, and increased retention result from participative management styles, such as servant leadership, authentic leadership, and transformational leadership. Finally, organizations

that grow exponentially often share the characteristic of having a humble leader who is open to learning and changing.

LIMITATIONS AND RECOMMENDATIONS

The scope of this research is not broad enough to determine if the best business and human capital management practices mentioned in the evaluation section would succeed in a military setting. In an AWS construct, each factor should be researched more comprehensively before it becomes another process improvement initiative or policy disseminated to an audience constrained by the Air Force's organizational design and culture. For example, 360-degree performance evaluations are a hot trend in businesses today. The Army has implemented the 360-degree Multi-Source Assessment and Feedback tool, but according to a *Military Review* article by Col. Kevin McAninch, it is not having the desired effect on leadership improvement.¹⁸⁹ As in the Air Force, the Army has a specific culture and structure which may not allow for the success of a 360-degree feedback tool, at least as it is currently utilized. The idea of the AWS is that the topics listed in Figure 2 would get legitimate research attention for applicability to the Air Force as part of a comprehensive transformational initiative rather than through a series of stand-alone process changes.

Finally, this research was conducted with the Air Force specifically in mind. The other Services have different missions and cultures, and so an entirely separate analysis would have to be completed to determine if there are human capital management issues of concern. The ideas contained herein may not transfer easily to the other Services, and interoperability should always be considered when it comes to the joint warfighter.

Structural Frame

How can the hierarchical structure of the Air Force be flattened to promote agility and innovation?

- Utilize special innovation cells with the authority to pilot ideas
- Strengths-based assessment or 360-degree performance evaluations to reduce impact of immediate supervisor on ratings and career progression
- Competitive hiring and self-selection of assignments
- Eliminate or reform centrally-managed promotions
- Development of leadership track and worker track
- Combine officer and enlisted ranks

Human Resources Frame

How can Air Force human resource policies be improved to attract and retain talent?

- Analyze Basic Military Training for desired cultural outcome and palatability to Millennials
- Allow more personalized career choices, flexible schedules, and leaves of absence
- Allow longer assignments
- Eliminate high year of tenure requirements
- Do not penalize, and perhaps incentivize, cross-training and civilian higher education programs
- Eliminate "one strike, you're out" policies to improve risk tolerance
- Reform promotion criteria to incentivize idea generation over "box-checking"
- Remove 20-year career requirement

Political Frame

How can the Air Force make human capital management improvements within its political constraints?

- Utilize the label "Airman Weapons System" to rally both Air Force and civilian leaders around the concept of positive human capital management change
- Form a legislative caucus to champion human capital management in the Air Force
- Fund research and pilot programs on organizational design, corporate best practices, and applicability to the military
- Encourage Air Force leaders and members to embrace change as strength
- Overtly teach humility as a leadership skill
- Teach participative management styles, such as servant leadership, authentic leadership, and transformational leadership

Symbolic Frame

How can the Air Force capitalize on the all-volunteer force's intrinsic motivation and align itself more closely with the service goals of its Airmen?

- Provide opportunities to effect positive change at all levels
- Encourage members to respectfully question status quo without fear of supervisor reprisal in performance reporting and negative impact on career progression
- Continue to offer opportunities to participate in deployments, temporary duty, education, and humanitarian missions
- Right-size the budget and manpower
- Eliminate continuing resolutions
- Update or replace antiquated personnel software systems
- Conduct more research on *in extremis* leadership

Figure 2. Research recommendations for a comprehensive, transformational approach to human capital management and the Airman Weapons System in the US Air Force.

Notes

1. Heather Wilson, Secretary of the Air Force, Gen David L. Goldfein, Air Force Chief of Staff, and Kaleth O. Wright, Chief Master Sergeant of the Air Force, to Airmen of the United States Air Force, letter, 21 July 2017.
2. National Commission on the Structure of the Air Force, *Report to the President and the Congress of the United States* (Arlington, VA: January 2014), 12.
3. Ibid.
4. Deborah Lee James, "Meet the Air Force's New Acquisition System," *Defense One* (13 January 2016): <http://www.defenseone.com/ideas/2016/01/meet-air-forces-new-acquisition-system/125102>.
5. Daniel Ginsberg and Ray Conley, "Investing in Military Human Capital," *Military Times*, November 2015.
6. United States Air Force, *Human Capital Annex to the USAF Strategic Master Plan* (Washington, DC: United States Air Force, May 2015): A-5, http://www.af.mil/Portals/1/documents/Force%20Management/Human_Capital_Annex.pdf?timestamp=1434024283105.
7. Deborah Lee James and Gen Mark A. Welsh, III, *United States Air Force Strategic Master Plan* (Washington, DC: United States Air Force, May 2015): 3, http://www.af.mil/Portals/1/documents/Force%20Management/Strategic_Master_Plan.pdf.
8. USAF, *Human Capital Annex*, A-2.
9. Jaren Serbu, "Air Force Creates New Office to Crunch Human Capital Management Data," *Federal News Radio* (20 October 2016, 3:54 p.m.): <https://federalnewsradio.com/on-dod/2016/10/air-force-creates-new-office-crunch-human-capital-data>.
10. Ginsberg and Conley, "Investing in Military Human Capital."
11. Defense Research, Surveys and Statistics Center, *Status of Forces Survey of Active Duty Members: Tabulation of Responses* (Defense Manpower Data Center, September 2016), 68.
12. Tim Kane, *Bleeding Talent: How the U.S. Military Mismanages Great Leaders and Why It's Time for a Revolution* (New York, NY: Palgrave Macmillan, 2013).
13. Ibid.
14. Ibid.
15. W Warner Burke and George H. Litwin, "A Causal Model of Organizational Performance and Change," *Journal of Management* 18, no. 3, (1992): 523-545.
16. Air Force News Service, *AF announces Squadron Revitalization Idea Site* (Washington, DC: Secretary of the Air Force Public Affairs, 15 May 2017).
17. Burke and Litwin, "Organizational Performance and Change," 523-545.
18. Kane, *Bleeding Talent*.
19. USAF, *Human Capital Annex*, A-13.
20. Peter Senge, et al., *Dance of Change: The Challenges to Sustaining Momentum in Learning Organizations* (New York, NY: Doubleday, 1999).
21. Lee G. Bolman and Terrence E. Deal, *Reframing Organizations: Artistry, Choice, and Leadership*, 4th ed. (San Francisco, CA: Jossey-Bass, 2008).
22. Blake Stilwell, *10 Legendary Heroes of the US Air Force* (January 2016), <http://www.wearethemighty.com>.
23. Kane, *Bleeding Talent*.
24. Kane, *Bleeding Talent*.
25. Kane, *Bleeding Talent*.

26. Jim Collins, *Good to Great* (New York, NY: HarperCollins Publishers, Inc., 2001).
27. Defense Research Center, *Status of Forces Survey*, 174.
28. Collins, *Good to Great*.
29. James and Welsh, *Strategic Master Plan*.
30. USAF, *Human Capital Annex*.
31. Bolman and Deal, *Reframing Organizations*.
32. Ibid.
33. Karen Parrish, "Congress Probes Military Pilot Shortage," *DoD News* (Defense Media Activity, 30 March 2017).
34. Nate Jaros, *USAF Pilot Retention: Throwing Money at Problems* (September 2016), <https://fightersweep.com/6192/usaf-pilot-retention-throwing-money-at-problems/>.
35. Ibid..
36. USAF, *Human Capital Annex*, A-6.
37. Ginsberg and Conley, "Investing in Military Human Capital."
38. Lt Col Wayne A. Sinclair, "Millennials Merging: Leading a New Generation in War," *Marine Corps Gazette* 90, no. 9 (September 2006): 71-76.
39. USAF, *Human Capital Annex*, A-6.
40. Sinclair, "Millennials Merging," 71-76.
41. Jaros, *USAF Pilot Retention*.
42. Ginsberg and Conley, "Investing in Military Human Capital."
43. Kane, *Bleeding Talent*.
44. Miodraga Stefanovska-Petkovska, Marjan Miodraga, and Zlatko Mucunski, "Does Participative Management Produce Satisfied Employees? Evidence from the Automotive Industry," *Serbian Journal of Management* 10, no.1 (February 2015).
45. Ginsberg and Conley, "Investing in Military Human Capital."
46. Kane, *Bleeding Talent*.
47. Ginsberg and Conley, "Investing in Military Human Capital."
48. Bolman and Deal, *Reframing Organizations*.
49. Ibid.
50. Ibid.
51. Ibid.
52. Ibid.
53. Ibid.
54. Pamela Spahr, "What is Bureaucratic Leadership? How Rules Can Guide People," *St. Thomas University Online*, 30 October 2015, <http://online.stu.edu/bureaucratic-leadership>.
55. Ginsberg and Conley, "Investing in Military Human Capital."
56. Samson Girma, "The Relationship Between Leadership Style, Job Satisfaction and Culture of the Organization," *International Journal of Applied Research* 2 (2016): 35-45.
57. Spahr, "What is Bureaucratic Leadership?"
58. Stephen Bochner and Beryl Hesketh, "Power Distance, Individualism/Collectivism, and Job-Related Attitudes in a Culturally Diverse Work Group," *Journal of Cross-Cultural Psychology* 25 (1994): 233-235.
59. Ibid.
60. Ibid.
61. Sinclair, "Millennials Merging," 71-76.

62. Jane Fullerton Lemons, "Flat Management: Established Companies Flatten Structures," *Sage Publishing* (2 February 2015): <http://businessresearcher.sagepub.com/sbr-1645-94858-2644703/20150202/short-article-established-companies-flattenstructures>.
63. USAF, *Human Capital Annex*, A-13.
64. Lemons, "Established Companies Flatten Structures."
65. Ibid.
66. Julie Wulf, "The Flattened Firm – Not as Advertised" (working paper, Harvard University, March 2012), 2.
67. Lemons, "Established Companies Flatten Structures."
68. Girma, "The Relationship Between Leadership Style," 35-45.
69. Girma, "The Relationship Between Leadership Style," 35-45.
70. Manuela Pardo-del-Val, Clara Martinez-Fuentes, and Salvador Roig-Dobon, "Participative management and its influence on organizational change," *Management Decision* 50 (University of Valencia: Emerald Group Publishing Limited, 10 November 2012):1843-1860.
71. Adam Grissom, "The Future of Military Innovation Studies," *The Journal of Strategic Studies* 29, no. 5 (October 2006); 901-934.
72. Pardo-del-Val, et al., "Participative management,"1843-1860.
73. Maj Jeff Donnithorne, "Tinted Blue: Air Force Culture and American Civil-Military Relations," *Strategic Studies Quarterly*, (Winter 2010): 101-135.
74. Grissom, "Military Innovation Studies," 901-934.
75. Kane, *Bleeding Talent*.
76. Grissom, "Military Innovation Studies," 901-934.
77. Girma, "The Relationship Between Leadership Style," 35-45.
78. Sinclair, "Millennials Merging," 71-76.
79. Bolman and Deal, *Reframing Organizations*.
80. Collins, *Good to Great*.
81. Ibid.
82. Girma, "The Relationship Between Leadership Style," 35-45.
83. United States Air Force Website, "Air Force Demographics" (30 June 2017): <http://www.afpc.af.mil/Air-Force-Demographics>.
84. S.A. Redmond, et al., "A Brief Introduction to the Military Workplace Culture," *Work* 50 (Los Angeles, CA: University of Southern California School of Social Work Center for Innovation and Research on Veterans & Military Families, 23 September 2014): 9-20.
85. Redmond, et al., "A Brief Introduction," 9-20.
86. USAF, "Air Force Demographics."
87. Redmond, et al., "A Brief Introduction," 9-20.
88. Kane, *Bleeding Talent*.
89. Michael T. Ford, et al., "Pre-Entry Expectations, Attitudes, and Intentions to Join Predict Military Tenure," *Military Psychology* 25, no. 1 (2013): 36-45.
90. Kane, *Bleeding Talent*.
91. Redmond, et al., "A Brief Introduction," 9-20.
92. Ibid.
93. Ibid.
94. Ibid.
95. Ginsberg and Conley, "Investing in Military Human Capital," 3.
96. James and Welsh, *Strategic Master Plan*, 60.

97. Ginsberg and Conley, "Investing in Military Human Capital."
98. Kane, *Bleeding Talent*.
99. Ibid.
100. Ibid.
101. Ibid.
102. Ginsberg and Conley, "Investing in Military Human Capital."
103. Kane, *Bleeding Talent*.
104. Ibid.
105. Ibid.
106. Ibid.
107. Tom Rath and Barry Conchie, *Strengths Based Leadership: Great Leaders, Teams, and Why People Follow* (New York, NY: Gallup Press, 2008).
108. USAF, *Human Capital Annex*, A-13.
109. Ginsberg and Conley, "Investing in Military Human Capital," 1.
110. Kane, *Bleeding Talent*.
111. John K. Langley, "Occupational Burnout and Retention of Air Force Distributed Common Ground System (DCGS) Intelligence Personnel" (dissertation, Pardee RAND Graduate School, 2012), 65.
112. Spahr, "What is Bureaucratic Leadership?"
113. Kane, *Bleeding Talent*.
114. Scott Bethel, et al., "Developing Air Force Strategists: Change Culture, Reverse Careerism," *Joint Forces Quarterly* 58 (3rd Quarter 2010): 82-88.
115. Ibid.
116. Ibid.
117. Collins, *Good to Great*.
118. Kane, *Bleeding Talent*.
119. Ibid.
120. Ginsberg and Conley, "Investing in Military Human Capital," 2.
121. Bethel, et al., "Developing Air Force Strategists," 82-88.
122. Col Kevin McAninch, "How the Army's Multi-Source Assessment and Feedback Program Could Become a Catalyst for Leader Development," *Military Review* (United States Army, September/October 2016): 84-93.
123. Ibid.
124. Canada National Defence, "Canadian Armed Forces 101 for Civilians," <https://www.cfmws.com/en/AboutUs/MFS/ResourcesMFRCs/Documents/Military%20101%20for%20civilians/CAF%20101%20For%20Civilians,%20Aug%2016.pdf>.
125. Bolman and Deal, *Reframing Organizations*.
126. Carl von Clausewitz, et al., *On War* (Princeton, N.J: Princeton University Press, 1984).
127. Office of Management and Budget, "Budget of the U.S. Government, Fiscal Year 2018: A New Foundation For American Greatness," <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf>.
128. Kane, *Bleeding Talent*.
129. Bethel, et al., "Developing Air Force Strategists," 82-88.

130. Daniel B. Kline, "Wal-Mart and Starbucks are Trying to Think Like Start-Ups," *Fox Business* (16 March 2017): <http://www.foxbusiness.com/markets/2017/03/16/wal-mart-and-starbucks-are-trying-to-think-like-start-ups.html>.

131. Lt Gen Maryanne Miller, Chief of Air Force Reserve and Commander of Air Force Reserve Command (address, 940th Air Refueling Wing, Beale Air Force Base, CA, 15 July 2017).

132. Ibid.

133. Parrish, "Congress Probes Pilot Shortage."

134. Langley, "Occupational Burnout and Retention," 6.

135. Ibid, 57.

136. Ibid, 28.

137. Kane, *Bleeding Talent*.

138. Langley, "Occupational Burnout and Retention," 77.

139. Collins, *Good to Great*.

140. Pardo-del-Val, et al., "Participative management," 1843-1860.

141. Collins, *Good to Great*.

142. Lt Gen Robert Brown and Col Robert Taradash, "Humility: A Mission Command Essential," *Army Magazine* (May 2015), 37-39.

143. Ibid.

144. Ibid.

145. Pardo-del-Val, et al., "Participative management," 1843-1860.

146. Collins, *Good to Great*.

147. Pardo-del-Val, et al., "Participative management," 1843-1860.

148. Bolman and Deal, *Reframing Organizations*.

149. Redmond, et al., "A Brief Introduction," 9-20.

150. Michael T. Ford, et al., "Pre-Entry Expectations," 36-45.

151. Sait Gurbuz, Faruk Sahin, and Onur Koksall, "Revisiting of Theory X and Y: A Multilevel Analysis of the Effects of Leaders' Managerial Assumptions on Followers' Attitudes," *Management Decision* 52, no. 10 (London, 2014): 1906-1888.

152. Ibid.

153. Ibid.

154. Kane, *Bleeding Talent*.

155. Redmond, et al., "A Brief Introduction," 9-20.

156. USAF, *Human Capital Annex*.

157. Kane, *Bleeding Talent*.

158. Bethel, et al., "Developing Air Force Strategists," 82-88.

159. Kane, *Bleeding Talent*.

160. Ibid.

161. Ibid.

162. Redmond, et al., "A Brief Introduction," 9-20.

163. Ibid.

164. Brown and Taradash, "Humility," 37-39.

165. Deirdre Dixon, "Staying Alive: The Experience of *In Extremis* Leadership" (dissertation, Case Western Reserve University, 17 February 2014).

166. Kane, *Bleeding Talent*.

167. Ibid.

168. Kenneth Thomas and Erik Jansen, "Intrinsic Motivation in the Military: Models and Strategic Importance," *Eighth Quadrennial Review of Military Compensation* (Arlington, VA: Naval Postgraduate School, September 1996).
169. Ibid.
170. Ibid.¹⁷⁰
171. Langley, "Occupational Burnout and Retention," 65.
172. Lt Col Karen O. Dunivin, "Military Culture: Change and Continuity," *Armed Forces and Society* 20, no. 4 (Summer 1994): 531-547.
173. Ibid.
174. Brown and Taradash, "Humility," 37-39.
175. Bolman and Deal, *Reframing Organizations*.
176. Mercer Delta Consulting LLC, "The Congruence Model," *Mercer Delta* (2004): 7, http://ldt.stanford.edu/~gwarman/Files/Congruence_Model.pdf.
177. Sinclair, "Millennials Merging," 71-76.
178. Ibid.
179. Ibid.
180. Ibid.
181. Senge, et al., *Dance of Change*.
182. Kane, *Bleeding Talent*.
183. Bethel, et al., "Developing Air Force Strategists," 82-88.
184. Phil Wahba, "Walmart is Launching a Tech Incubator in Silicon Valley," *Fortune* (20 March 2017): <http://fortune.com/2017/03/20/walmart-incubator-tech-silicon-valley>.
185. Grissom, "Military Innovation Studies," 919.
186. Bolman and Deal, *Reframing Organizations*.
187. Collins, *Good to Great*.
188. Parrish, "Congress Probes Pilot Shortage."
189. McAninch, "Multi-Source Assessment and Feedback," 84-93.

BIBLIOGRAPY

- Air Force News Service. "AF announces Squadron Revitalization Idea Site." Washington, DC: Secretary of the Air Force Public Affairs, 15 May 2017.
- Berry, Leonard and Kent Seltman. *Management Lessons from Mayo Clinic: Inside One of the World's Most Admired Service Organizations*. 1st ed. Chicago: McGraw-Hill Education, 2008.
- Bethel, Scott, Aaron Prupas, Tomislav Ruby, and Michael Smith. "Developing Air Force Strategists: Change Culture, Reverse Careerism." *Joint Forces Quarterly* 58 (3rd Quarter 2010): 82-88.
- Bochner, Stephen and Beryl Hesketh. "Power Distance, Individualism/Collectivism, and Job-Related Attitudes in a Culturally Diverse Work Group." *Journal of Cross-Cultural Psychology* 25 (1994): 233-235.
- Bolman, Lee G., and Terrence E. Deal. *Reframing Organizations: Artistry, Choice, and Leadership*. 4th ed. San Francisco: Jossey-Bass, 2008.
- Brown, Lt Gen Robert, and Col Robert Taradash. "Humility: A Mission Command Essential." *Army Magazine*, May 2015, 37-39.
- Burke, W. Warner, and George H. Litwin. "A Causal Model of Organizational Performance and Change." *Journal of Management* 18, no. 3 (1992): 523-545.
- Canada National Defence. "Canadian Armed Forces 101 for Civilians." <https://www.cfmws.com/en/AboutUs/MFS/ResourcesMFRCs/Documents/Military%20101%20for%20civilians/CAF%20101%20For%20Civilians,%20Aug%2016.pdf>.
- Clausewitz, Carl von, Michael Howard, Peter Paret, and Bernard Brodie. *On War*. Princeton: Princeton University Press, 1984.
- Collins, Jim. *Good to Great*. New York: HarperCollins Publishers, Inc., 2001.
- Defense Research, Surveys and Statistics Center. *Status of Forces Survey of Active Duty Members: Tabulation of Responses*. Defense Manpower Data Center, September 2016.
- Dixon, Deirdre. "Staying Alive: The Experience of *In Extremis* Leadership." Dissertation, Case Western Reserve University, 17 February 2014.
- Donnithorne, Maj Jeff. "Tinted Blue: Air Force Culture and American Civil-Military Relations." *Strategic Studies Quarterly*, Winter 2010.
- Douhet, Giulio. *The Command of the Air*. Translated by Dino Ferrari. Reprint. Washington, DC: Air Force History and Museums Program, 1998.

- Dunivin, Lt Col Karen O. "Military Culture: Change and Continuity." *Armed Forces and Society* 20, no. 4 (Summer 1994): 531-547.
- Ford, Michael T., Andrew L. DeCesare, Jennifer L. Gibson, Sean M. Marsh, and Brian K. Griepentrog. "Pre-Entry Expectations, Attitudes, and Intentions to Join Predict Military Tenure." *Military Psychology* 25, no. 1 (2013): 36-45.
- Ginsberg, Daniel and Ray Conley. "Investing in Military Human Capital." *Military Times*, Nov 2015. <http://www.rand.org/blog/2015/11/investing-in-military-human-capital.html>.
- Girma, Samson. "The Relationship Between Leadership Style, Job Satisfaction and Culture of the Organization," *International Journal of Applied Research* 2 (2016): 35-45.
- Grissom, Adam. "The Future of Military Innovation Studies." *The Journal of Strategic Studies* 29, no. 5 (Oct 2006): 905-934.
- Gurbuz, Sait, Faruk Sahin, and Onur Koksali. "Revisiting of Theory X and Y: A Multilevel Analysis of the Effects of Leaders' Managerial Assumptions on Followers' Attitudes." *Management Decision* 52, no. 10 (London, 2014): 1906-1888.
- James, Deborah Lee. "Meet the Air Force's New Acquisition System." *Defense One*, 13 January 2016. <http://www.defenseone.com/ideas/2016/01/meet-air-forces-new-acquisition-system/125102>.
- James, Deborah Lee, and Gen Mark A. Welsh, III. *United States Air Force Strategic Master Plan*. United States Air Force, May 2015. http://www.af.mil/Portals/1/documents/Force%20Management/Strategic_Master_Plan.pdf.
- Langley, John K. "Occupational Burnout and Retention of Air Force Distributed Common Ground System (DCGS) Intelligence Personnel." Dissertation, Pardee RAND Graduate School, 2012.
- Lemons, Jane Fullerton. "Flat Management: Established Companies Flatten Structures." *Sage Publishing*, 2 February 2015. <http://businessresearcher.sagepub.com/sbr-1645-94858-2644703/20150202/short-article-established-companies-flattenstructures>.
- Kane, Tim. *Bleeding Talent: How the U.S. Military Mismanages Great Leaders and Why It's Time for a Revolution*. New York: Palgrave Macmillan, 2013.
- Kline, Daniel B. "Wal-Mart and Starbucks are Trying to Think Like Start-Ups." *Fox Business*, 16 March 2017. <http://www.foxbusiness.com/markets/2017/03/16/wal-mart-and-starbucks-are-trying-to-think-like-start-ups.html>.

- McAninch, Col Kevin. "How the Army's Multi-Source Assessment and Feedback Program Could Become a Catalyst for Leader Development." *Military Review* (September/October 2016): 84-93.
- Mercer Delta Consulting LLC. "The Congruence Model," *Mercer Delta*, 2004. http://ldt.stanford.edu/~gwarman/Files/Congruence_Model.pdf.
- Miller, Lt Gen Maryanne, Chief of Air Force Reserve and Commander of Air Force Reserve Command. Address. 940th Air Refueling Wing commander's call, Beale Air Force Base, CA, 15 July 2017.
- National Commission on the Structure of the Air Force. *Report to the President and the Congress of the United States*. Arlington, VA: January 2014.
- Office of Management and Budget. "Budget of the U.S. Government, Fiscal Year 2018: A New Foundation For American Greatness." <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/budget.pdf>.
- Pardo-del-Val, Manuela, Clara Martinez-Fuentes, and Salvador Roig-Dobon. "Participative Management and its Influence on Organizational Change." *Management Decision* 50 (10 November 2012):1843.
- Parrish, Karen. "Congress Probes Military Pilot Shortage." *DoD News*, 30 March 2017.
- Rath, Tom, and Barry Conchie. *Strengths Based Leadership: Great Leaders, Teams, and Why People Follow*. New York: Gallup Press, 2008.
- Redmond, S.A., S.L. Wilcox, S. Campbell, A. Kim, K. Finney, K. Barr, and A.M. Hassan. "A Brief Introduction to the Military Workplace Culture." *Work* 50 (2015): 9-20.
- Senge, Peter, Charlotte Roberts, Richard Ross, George Roth, and Bryan Smith. *The Dance of Change: The Challenges to Sustaining Momentum in Learning Organizations*. New York, NY: Doubleday, 1999.
- Serbu, Jaren. "Air Force Creates New Office to Crunch Human Capital Management Data." *Federal News Radio*, 20 October 2016. <https://federalnewsradio.com/on-dod/2016/10/air-force-creates-new-office-crunch-human-capital-data>.
- Sinclair, Lt Col Wayne A. "Millennials Merging: Leading a New Generation in War." *Marine Corps Gazette* 90, no. 9 (September 2006): 71-76.
- Spahr, Pamela. "What is Bureaucratic Leadership? How Rules Can Guide People." *St. Thomas University Online*, 30 October 2015. <http://online.stu.edu/bureaucratic-leadership>.

Stefanovska-Petkovska, Miodraga, Marjan Miodraga, and Zlatko Mucunski. "Does Participative Management Produce Satisfied Employees? Evidence from the Automotive Industry." *Serbian Journal of Management* 10, no.1 (February 2015).

Stilwell, Blake. "10 Legendary Heroes of the US Air Force." January 2016. <http://www.wearethemighty.com>.

Thomas, Kenneth, and Erik Jansen. *Intrinsic Motivation in the Military: Models and Strategic Importance*. Naval Postgraduate School report. Arlington, VA: Eighth Quadrennial Review of Military Compensation, September 1996.

Wilson, Heather, Secretary of the Air Force, Gen David L. Goldfein, Air Force Chief of Staff, and Kaleth O. Wright, Chief Master Sergeant of the Air Force. Letter. To Airmen of the United States Air Force, 21 July 2017.

United States Air Force. *Human Capital Annex to the USAF Strategic Master Plan*. Washington, DC: May 2015. http://www.af.mil/Portals/1/documents/Force%20Management/Human_Capital_Annex.pdf?timestamp=1434024283105.

United States Air Force. "Air Force Demographics." Accessed 30 June 2017. <http://www.afpc.af.mil/Air-Force-Demographics>.

Wahba, Phil. "Walmart is Launching a Tech Incubator in Silicon Valley." *Fortune*, 20 March 2017. <http://fortune.com/2017/03/20/walmart-incubator-tech-silicon-valley>.

Wulf, Julie. "The Flattened Firm – Not as Advertised." Working paper, Harvard University, March 2012,