

RETURNING TO CENTERLINE: HOW THE AIR FORCE COULD BETTER
LEVERAGE HUMAN BEHAVIOR AND MOTIVATION THEORIES TO
INCREASE RETENTION

BY

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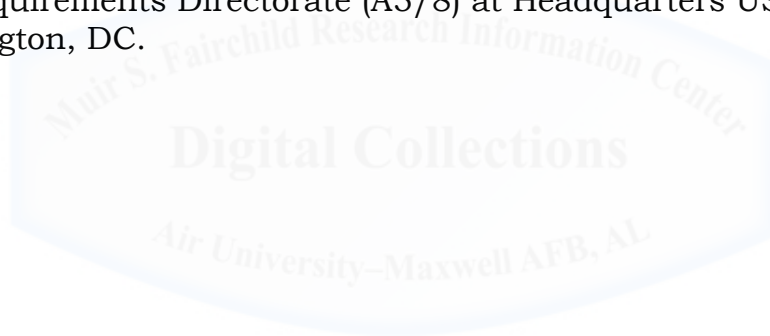
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ABSTRACT

The Air Force is facing a severe retention challenge that is affecting the health of the force. One stark example is pilot manning: As of November 2017, the Air Force was short 2,000 pilots.¹ This shortfall has prompted Congress to insist top Air Force leaders find ways to reverse the trend. A common starting point in past retention efforts has been to evaluate compensation. Many people may think in terms of monetary benefits when discussing compensation; however, the DOD also routinely uses non-monetary incentives as part of their comprehensive compensation packages.² Surprisingly, however, the DOD has not assessed the effectiveness of non-monetary measures with regard to incentivizing behavior. This thesis explores the effectiveness and limitations of monetary and non-monetary incentives by integrating extant theories to create a new, proposed model of behavior and motivation. Insight gained will provide Air Force leaders recommendations to inform decisions on incentives available to reduce personnel compensation costs and increase retention.



¹ Ashley Burns, "Air Force Pilot Shortage Reaches 2000," *Flying*, 13 November 2017, <https://www.flyingmag.com/air-force-pilot-shortage-reaches-2000>.

² Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate*, "Military Compensation" GAO-17-39, (Washington, DC: 2017) 79.

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INTRODUCTION

We are in a crisis. If we don't find a way to turn this around, our ability to defend the nation is compromised.

Air Force Chief of Staff, General David Goldfein

"You are facing a personnel crisis...And what confounds me is the Air Force comes over to say, 'We just need more money.' ...You are addressing this issue of pilot shortage from exactly the wrong direction...this whole idea of trying to outbid the airlines on the keeping people in the Air Force is foolish.

Chairman of the Senate Committee on Armed Services,
Senator John McCain

The Air Force is facing a severe retention challenge that is affecting the health of the force. United States Air Force Chief of Staff, General David Goldfein's comments above highlight just how severe and widespread the crisis has become.¹ One stark example is pilot manning: As of November 2017, the Air Force was short 2,000 pilots, and there is fear that the situation will get worse before it gets better.² This shortfall has Congress and top Air Force leaders looking for answers to help explain and then reverse the trend.

However, as Senate Armed Services Committee Chairman, Senator John McCain's statement above attests,³ there is no consensus on how to fix the Air Force's retention challenge. McCain's statement speaks to a mindset that runs contrary to traditional monetary benefits used by the Department of Defense (DOD) to incentivize behavior and raises a host of

¹ General Goldfein's quote is cited in Christopher Woody, "'We're burning out our people': The Air Force says its pilot shortage is getting worse," *Business Insider*, 9 November 2017, <http://www.businessinsider.com/air-force-pilot-shortage-crisis-getting-worse-2017-11>.

² Ashley Burns, "Air Force Pilot Shortage Reaches 2000," *Flying*, 13 November 2017, <https://www.flyingmag.com/air-force-pilot-shortage-reaches-2000>.

³ Senator McCain's quote is cited in John Haltiwanger, "Trump's plan to save the Air Force from collapse due to pilot shortage won't work, U.S. military says," *Newsweek*, 14 November 2017, <http://www.newsweek.com/trumps-plan-save-air-force-collapse-due-pilot-shortage-wont-work-us-military-711668>.

questions directly related to this issue: What actually motivates people? Should the DOD change how it uses benefits in order to increase retention? Can the DOD and the Air Force incentivize personnel by incorporating non-monetary compensation in such a way to offset the manning crisis?

In a 2017 statement to the Government Accountability Office (GAO), the DOD asserted that in addition to monetary benefits, the services routinely use non-monetary benefits as part of their comprehensive compensation packages.⁴ The DOD cited “*non-monetary benefits* such as choice of duty location, unit assignments, education benefits, Post 9-11 GI Bill transferability, and career intermission programs *as practical alternatives* to cash bonuses and [monetary] incentives” (italics added).⁵ However, the DOD acknowledged they have not made any formal assessment to determine the effectiveness of these non-monetary measures. Therefore, there is no understanding if service-members view these benefits as incentives and no understanding of the extent to which these non-monetary benefits actually incentivize behavior.

The lack of formal assessment could be related to the difficulty associated with measuring the effectiveness of non-monetary incentives. Non-monetary incentives are difficult to accurately assess, as their value is based on personal preferences, whereas monetary incentives are more easily quantifiable. Paragraph 3.1. of the DOD Instruction 1304.29, *Administration of Enlistment Bonuses, Accession Bonuses for New Officers in Critical Skills, Selective Reenlistment Bonuses, and Critical Skills*

⁴ Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate*, “Military Compensation” GAO-17-39, (Washington, DC: 2017) 79.

⁵ Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate*, “Military Compensation” GAO-17-39, 79.

Retention Bonuses for Active Members, lays out how the DOD uses incentives to meet personnel requirements. It states, “The intent of bonuses is to influence personnel inventories in specific situations in which *less costly methods* have proven inadequate or impractical” (italics added).⁶

The DOD provides the military services the authority to incentivize through the use of monetary bonuses, as the services desire, in order to best accomplish the mission. Yet, in light of the DOD’s revelation that they do not measure the effectiveness of non-monetary incentives, this statement creates a paradox. The extent to which these “less costly methods” have had a measurable effect on retention is unknown.⁷

The GAO expects the DOD to use non-monetary incentives as a cost-efficient measure to retain personnel and foster top talent.⁸ The DOD’s lack of formal assessment of non-monetary measures prompted the GAO to issue the following recommendations for executive action to the Under Secretary of Defense for Personnel and Readiness, in coordination with the military services, in their February 2017 Report to the Committee on Armed Services, U.S. Senate concerning Military Compensation:

- Review whether [special and incentive] pay programs have incorporated key principles of effective human

⁶ Department of Defense Instruction 1304.29, *Administration of Enlistment Bonuses, Accession Bonuses for New Officers in Critical Skills, Selective Reenlistment Bonuses, and Critical Skills Retention Bonuses* Change 1, 11 July 2016, 2.

⁷ Department of Defense Instruction 1304.29, *Administration of Enlistment Bonuses, Accession Bonuses for New Officers in Critical Skills, Selective Reenlistment Bonuses, and Critical Skills Retention Bonuses* Change 1, 2 . For a more detailed understanding of the DOD’s military pay policy including the Air Force Special and Incentive Pay, including Assignment Incentive Pay, Aviation Career Incentive Pay, and Aviation Continuation Pay, see the DOD Financial Management Regulation 7000.14-R Volume 7A: *Military Pay Policy – Active Duty and Reserve Pay*, DOD Financial Management Regulation 7000.14-R Volume 5: “*Dispersing Policy*,” and DOD Directive 1304.21, *Policy on Enlistment Bonuses for New Officers in Critical Skills, Selective Reenlistment Bonuses, and Critical Skills Retention Bonuses for Active Members*.

⁸ United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate*, “Military Compensation” GAO-17-39, 8.

capital management and used resources efficiently, and prioritize and complete the establishment of measures for the efficient use of resources

- Routinely assess the impact of non-monetary incentive approaches on retention behavior and on the necessary levels of [special and incentive] pays
- Clarify existing guidance for [special and incentive] pay programs regarding the extent to which personnel performance should be incorporated into retention decisions⁹

The DOD seeking more cost-effective measures is an issue of concern to Congress. They see personnel compensation requirements often coming at the expense of readiness and modernization programs.¹⁰ With nearly a third of the defense budget being spent on personnel compensation in recent years, the DOD, and by extension the Air Force, have a compelling interest in researching how they could use non-monetary incentives to help address retention challenges.¹¹

This research aims to answer the following question: How can research and theories on human behavior and motivation help senior Air Force leaders reshape personnel policy in order to reduce the manning crisis? To answer the stated research question, this thesis explores the effectiveness and limitations of monetary and non-monetary incentives and integrates extant theories to create a new, proposed model of behavior and motivation. Insight gained from this model should provide Air Force leaders recommendations to inform decisions on incentives

⁹ United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, "Military Compensation"* GAO-17-39, 28.

¹⁰ United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, "Military Compensation"* GAO-17-39, 1.

¹¹ United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, "Military Compensation"* GAO-17-39, 1.

available, to reduce personnel compensation costs, and increase retention.

Conceptual Framework

The remainder of the current chapter provides an understanding of the conceptual framework used in this thesis. First, the limitations and scope of this research are outlined, followed by an overview of the remaining chapters.

Limitations and Scope

To provide insight into the effectiveness and limitations of monetary and non-monetary incentives, this research leverages theories on motivation and human behavior that span nearly a century. This research examines these theories and attempts to synthesize them to provide useful information and recommendations to Air Force leaders. However, motivation and human behavior is a vast field. Existing theories cover an array of topics and contain insights that are valuable to the holistic understanding of human motivation and behavior. Due to the limited nature of this research, a small number of these theories are addressed directly. Additionally, this research provides a single perspective. The author has attempted to remain impartial; however, biases from personal experience as a career military officer likely influenced the work.

Additionally, this research is limited to helping solve the Air Force retention problem, but increasing retention alone is not the entire solution. In 2015, the RAND Corporation published a study titled *Reducing Air Force Fighter Pilot Shortages*, in which researchers identified and evaluated three key elements pertaining to the manning crisis: pilot

production, pilot absorption, and pilot sustainment.¹² After examining the problem, the RAND researchers found that increasing supply, through efforts such as increasing retention, would have little long-term effect in balancing manning, without a complementary reduction in demand.¹³

Finally, while the scope of this research includes providing immediate recommendations to the Air Force's Aircrew Crisis Task Force (ACTF) to address aircrew and pilot retention, the utility of the analysis may extend beyond aircrew and pilots. The Air Force can use this research to inform strategic-level decisions across career fields. Furthermore, the concepts may be applicable to other services and organizations outside the DOD.

Overview of Chapters

Chapter 1 provides a background of motivation and behavior research, introduces basic terms pertaining to the foundational theories in the field, and presents five accepted theories: Maslow's Hierarchy of Needs; Herzberg's Motivation-Hygiene Theory; the Job, Career, Calling Theory; and McGregor's Theory X and Theory Y. Chapter 2 outlines Air Force-specific considerations that shape the manning crisis and impact possible solutions. Chapter 3 synthesizes the motivation and behavior theories discussed in chapter 1 to create a new, proposed model of motivation and behavior. Chapter 4 then uses the proposed model to analyze current and potential Air Force retention initiatives. The final chapter provides insights and collective observations and recommendations for how the Air Force can use the proposed model to

¹² Robbert, Albert A., Anthony D. Rosello, C. R. Anderegg, John A. Ausink, James H. Bigelow, Bill Taylor, and James Pita. *Reducing Air Force Fighter Pilot Shortages*, (Santa Monica, CA: RAND Corporation, 2015), ix-x. https://www.rand.org/pubs/research_reports/RR1113.html.

¹³ Robbert et al., 66.

help inform retention and incentive decisions, identifies areas for future study, and provides implications for the Air Force.



CHAPTER 1

Motivation Theories

This chapter is grouped into three segments. First, it outlines the background of motivational research. Second, it defines basic terms that pertain to the extant theories. Third, it explains the five applicable motivation theories: Maslow's Hierarchy of Needs; Herzberg's Motivation-Hygiene Theory; the Job, Career, Calling Theory; and McGregor's Theory X and Theory Y.

Background

There are varying schools of thought about why people act the way they do and how to best motivate someone. In fact, numerous researchers have rigorously studied this field over the last century. In the 1920s, Elton Mayo and Fritz Roethlisberger conducted a series of experiments on the workers at the Hawthorne plant of the Western Electric Company pictured in Figure 1.



Figure 1: Hawthorne Plant of the Western Electric Company, ca. 1925, Location of the Hawthorne Studies.

Source: Lumen Learning, "Behavioral Perspectives," accessed 28 February 2018, <https://courses.lumenlearning.com/boundless-management/chapter/behavioral-perspectives>.

The Mayo and Roethlisberger experiments examined “socio-psychological aspects of human behavior in organizations.”¹ The researchers manipulated incentives, supervision, and working conditions to determine the drivers of productivity.² They found “*monetary incentives* and good working conditions are generally *less important* in improving employee productivity than *meeting employees’ needs* and [fulfilling their] desire to belong to a group and be included in decision-making and [have input into their] work (italics added).”³

The results from the Hawthorne Studies set off a series of related research projects. Over the last century, there have been thousands of studies in the fields of behavior, motivation, work experience, and job satisfaction.⁴ These shed light on the effectiveness and limitations of incentives when it comes to behavior and motivation, including studies focusing on individual personality-based impacts or individual needs for advancement, growth, achievement, and economic growth.⁵

¹ Lumen Learning, “Behavioral Perspectives,” accessed 28 February 2018, <https://courses.lumenlearning.com/boundless-management/chapter/behavioral-perspectives>.

² Edwin A. Locke and Gary P. Latham, “What Should We Do About Motivation Theory? Six Recommendations for the Twenty-First Century,” *The Academy of Management Review*, Vol. 29, No. 3 (July 2004), 388.

³ Lumen Learning.

⁴ Dean B. McFarlin, Edward A. Coster, Robert W. Rice, and Alison T. Cooper, “Facet Importance and Job Satisfaction: Another Look at the Range-of-Affect Hypothesis,” *Basic and Applied Social Psychology*, 1995, 489.

⁵ Well-known studies in the area of cognitive growth include Vroom’s valence-instrumentality expectancy model; Herzberg, Mausner, and Snyderman’s work on job satisfaction and job enrichment; and Hackman and Oldham’s work on increasing employee satisfaction and motivation to excel. Other studies, such as Bandura’s efforts on goals and self-efficacy, Locke and Latham’s work on goal-setting theory, Weiner’s attribution theory, and Bandura’s social-cognitive theory, focused on “specific psychological processes.” Still others focused on the social impacts on motivation including organizational decisions, and impacts of leadership on culture and motivation. Famous studies include Luthans and Kreitner’s work on organizational behavior modification and Argyris’ work on the congruence between the individual’s needs and organizational demands. For more information, see Locke and Latham, 388.

Terms

This section presents some of the basic terms that are sine qua non for the follow-on discussion of monetary and non-monetary retention efforts within the Air Force.

Motivation

Psychologists Edwin Locke and Gary Latham provide a simple, straightforward definition of motivation: “internal factors that impel action and external factors that can act as inducements to action.”⁶ This definition stands in contrast to noted American social scientist Victor Vroom’s definition. Vroom defines motivation as “the force impelling a person to perform a particular action, as determined by the interaction of (a) the person's expectancy that his act will be followed by a particular outcome, and (b) the valence [inherent attractiveness] of that (first-level) outcome. This valence, in turn, is a function of the valences of all other (second-level) outcomes and . . . (the first-level outcomes) instrumentality for the attainment of these other outcomes.”⁷ In other words, Vroom contends that first-level outcomes, such as performance, are a function of one’s expectancy that a certain level of performance will induce second-order outcomes, such as pay or a promotion. Vroom then couples expectancy with valence, which is the attractiveness or averseness of an outcome, and uses this as the measure of motivation.⁸

Vroom’s definition has important implications for this study. First, it demonstrates that valence is subjective; two individuals may assign

⁶ Locke and Latham, 388.

⁷ Quoted in Edward E. Lawler II and J. Lloyd Suttle, “Expectancy Theory and Job Behavior,” *Organizational Behavior and Human Performance*, (Cambridge, MA: Academic Press Inc., 1973), 482-483.

⁸ “A comprehensive review of 300 studies determined that there is a correlation between job satisfaction and performance.” For a more detailed discussion see, Timothy A. Judge and Ryan Klinger, “Promote Job Satisfaction Through Mental Challenge,” Locke, Edwin, ed., *Handbook of Principles of Organizational Behavior: Indispensable knowledge for evidence-based management, Second Edition*, Ch 6, John Wiley & Sons, 2011, 106.

vastly different values to the same expected outcome. For example, one individual may view an initiative as holding inherent attractiveness (positive valence), while another may see that initiative as non-attractive (holding negative valence). Second, if an organization understands the types of initiatives that have high positive valence with their workforce, they should be able to use these initiatives as incentives, which may induce the desired first-order behavior (in the context of this study, the decision to remain in the service), in order to achieve the desired second-order outcome (positive retention).

Behavior

A term closely related to motivation is behavior. Behavior is the way a person conducts himself, while motivation has to do with the reason one conducts himself in such a way.⁹ Psychologist Abraham Maslow provides a distinction between the two similar terms. He asserts that behavior is “multi-motivated,”¹⁰ meaning that many variables influence behavior. These variables may be interdependent, related to one another non-linearly. Economist Timur Kuran asserts that non-linear interdependence makes variables imperfectly observable.¹¹ Kuran contends that individuals often make decisions in response to changing incentives;¹² however, when variables are related to one another non-linearly, “a small perturbation in one variable, which normally produces small changes in other variables, may under the right set of circumstances have large consequences.”¹³ In the context of this research, for example, if morale is a problem in a unit, it may have a

⁹ Merriam-Webster dictionary defines behavior as “the way in which someone conducts oneself or behaves” and defines motivation as “the condition of being motivated.” <https://www.merriam-webster.com/dictionary/behavior>. <https://www.merriam-webster.com/dictionary/motivation>

¹⁰ Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943), 390.

¹¹ Timur Kuran, “Now Out of Never: The Element of Surprise in the East European Revolution of 1989,” *World Politics* 44 (01), 1991, 47.

¹² Kuran, 46.

¹³ Kuran, 46.

cascading effect across the community, which could adversely affect retention. Projecting the potential impacts of interrelated variables make implementation and quantification of individual initiatives challenging for organizations.

Maslow further asserts that behavior is not just motivated, rather, it is “biologically, culturally, and situationally determined, as well.”¹⁴ Hence, while organizations cannot change individuals’ biology, they can change the culture within the organization and they can shape certain situations. This has important implications for the Air Force, which has the ability to alter organizational culture and shape aspects of the situational environment.

Job Satisfaction

Another closely linked term is job satisfaction. American psychologist Edwin Locke defines job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences."¹⁵ Job satisfaction has three important implications for this study. First, satisfaction is the result of an emotion, and emotions are alterable. Second, overall job satisfaction can be distinct from work facet satisfaction. Therefore, a person could theoretically be satisfied with work overall, but dissatisfied with certain facets of that work. For example, an Air Force pilot may be satisfied with her work in general, but dissatisfied with having to perform additional duties. Reciprocally, a person could be dissatisfied with his work, but satisfied with certain facets of that work. Again, using an Air Force example, an Air Force pilot may love to fly, a facet of his job, but he may be dissatisfied with his overall work-life. A key implication for the Air Force is that by identifying and removing undesirable work facets, the Air Force may improve overall

¹⁴ Maslow, 371.

¹⁵ Timothy A. Judge and Ryan Klinger, 105.

job satisfaction.¹⁶ Third, job dissatisfaction displays a consistent negative correlation with absenteeism and turnover.¹⁷ Therefore, if the Air Force is looking to retain personnel, they may want to focus, in part, on reducing job dissatisfaction.

Calling

The term calling has often been associated with having a religious vocation.¹⁸ While the term certainly encompasses a religious aspect, it is not restricted to this definition in this paper. Instead, this research applies the term to a vocation that meets Shoshana Dobrow's seven criteria for a calling. These seven criteria, outlined in Table 1, include passion, identity, urgency, longevity, consciousness, meaning, and self-esteem. Dobrow contends that these seven criteria form a "new, integrated typology" to understand a calling,¹⁹ which she describes as "an extreme form, of subjective career success that transcends any particular job or organization context."²⁰

¹⁶ For further information on job facet satisfaction, see Spector, Paul E. *Job satisfaction: Application, assessment, causes, and consequences*. Vol. 3. Sage publications, 1997.

¹⁷ Timothy A. Judge and Ryan Klinger, 106.

¹⁸ Wrzesniewski et al. state, "the word 'calling' was originally used in a religious context, as people were understood to be 'called' by God to do morally and socially significant work." They give credit for this concept to M. Weber. For further information see, *The Protestant Ethic and the Spirit of Capitalism*, (New York, NY: Scribner, 1958) and M. Weber, *The sociology of religion*, (Boston, MA: Beacon, 1963). Wrzesniewski et al., 22. [Weber, in turn, credits Martin Luther for creating the concept]

¹⁹ Shoshana R. Dobrow. Extreme Subjective Career Success: A New Integrated View of Having a Calling" Published in Best Paper Proceedings, Academy of Management Conference, 2004, 1.

²⁰ Dobrow, 1.

Table 1: The Seven Criteria for Having a Calling

Passion	a sense of passion, or deep enjoyment and satisfaction from engaging in one's work
Identity	the degree to which people identify with their work domain or profession
Urgency	a sense of destiny about engaging in a particular type of work
Longevity	timeframe is career or life, rather than operating on a moment-by-moment or even job basis
Consciousness	one's work domain is continuously present in one's consciousness
Meaning	a perception of one's activities as being meaningful or gratifying
Self-Esteem	people's subjective perceptions and feelings about their abilities in association with the work domain

Source: Author's Visual Depiction Based on Shoshana R. Dobrow. "Extreme Subjective Career Success: A New Integrated View of Having a Calling" Published in Best Paper Proceedings, Academy of Management Conference, 2004, 3-4.

Rewards and Incentives

Rewards and incentives are two related, but distinct terms. Human Resource expert and author Michael Armstrong defines rewards as "financial or non-financial" recognition "provided to people for their achievements and contribution."²¹ According to Armstrong, rewards that are "designed to encourage people to achieve objectives" or to "provide direct motivation" are considered incentives. Armstrong's definition is similar to others in the field of human behavior. Researchers Robert Kottkamp, Marilyn Cohn, Eugene Provenzo, Jr., and Gary McCloskey define incentives as "rewards that are anticipated on the condition that

²¹ Michael Armstrong, *A Handbook of Employee Reward Management and Practice*, 2nd Edition, (London, United Kingdom: Kogan Page, 2005), 122.

their potential recipients take particular action.”²² However, the extent to which a person values or disvalues a reward, and the extent to which that person is motivated or incentivized by specific rewards, is personally subjective, and is the topic of the remainder of this chapter.

Motivation Theories

Maslow’s Hierarchy of Needs

The first motivation theory examined in detail is Maslow’s Need Hierarchy Theory. This theory postulates that predictable needs motivate individuals,²³ and these predictable needs occur in a hierarchy, as shown in Figure 2. This hierarchy is inherent in all humans and satiating these needs is a life-long process.²⁴ Unfilled needs can act as motivators, while fulfilled needs can lose their motivational qualities.²⁵ Maslow asserts that humans fulfill their needs in “hierarchies of prepotency.”²⁶ In other words, the lowest level needs are more potent and must be filled prior to an individual moving to the next higher level in the hierarchy.

²² Cited in Mary E. Dilworth, *Motivation, Rewards, and Incentives. Trends and Issues Paper No. 3*. ERIC Clearinghouse on Teacher Education, One DuPont Circle, NW, Suite 610, Washington, DC 20036-2412, 1991.

²³ Maslow asserted that there were multiple determinants of behavior and that not all behavior is determined by the basic needs. Furthermore, he acknowledged the variance of applicability in individuals and acknowledged the complexity of the degree of relative satisfaction would vary. For example, one may be 75 percent satisfied in a particular need and then move on to a higher order need, whereas another individual may need only 20 percent satisfaction of the need. For a detailed discussion on the degree of relative satisfaction and determinants of behavior see, Maslow, 388-391.

²⁴ Maslow, 388-391.

²⁵ Maslow had one exception to this rule. He asserted that the highest level of the hierarchy, self-actualization, actually has the opposite effect. Maslow believed that growth-motivated individuals who begin to self-actualize will feel an increased need to continue the process and thereby will be more strongly motivated the more they fulfill the highest level in his hierarchy. For further information see, Maslow, 370-396.

²⁶ Maslow, 370.

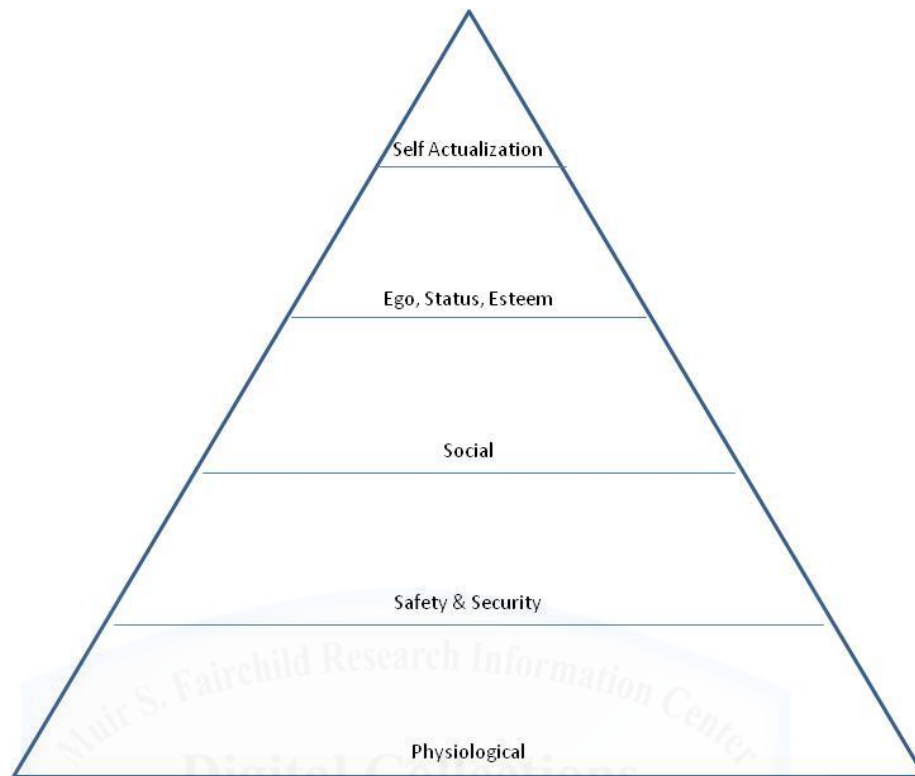


Figure 2: Maslow's Need Hierarchy.

Source: Based on Maslow's Hierarchy of Needs Theory. Abraham H. Maslow, "A Theory of Human Motivation." Psychological review 50, no. 4 (1943).

The lowest level in Maslow's hierarchy is termed physiological. Basic human needs such as food, water, and shelter make up this level.²⁷ Maslow asserted that "if all the needs are unsatisfied, and the organism is then dominated by the physiological needs, all other needs may become simply non-existent or be pushed into the background...For the man who is extremely and dangerously hungry, no other interests exist but food. He dreams food, he remembers food, he thinks about food, he emotes only about food, he perceives only food, and he wants

²⁷ Maslow was reluctant to create an all-inclusive list of needs, which encapsulate this level. He found it "impossible as well as useless to make any list of fundamental physiological needs for they can come to almost any number one might wish, depending on the degree of specificity of description." For more information on Maslow's physiological level see, Maslow, 372.

only food.”²⁸ This means that deprivation of the basic needs forces an individual to concentrate only on survival.

Once an individual has satisfied his physiological level needs, he can continue to move up the hierarchy. The second level is the safety and security level; this level is typically associated with needs such as health, employment, and family and social stability. Maslow asserts, “As in the hungry man, we find that the dominating goal [of safety and security] is a strong determinant not only of his current world-outlook and philosophy but also of his philosophy of the future. Practically everything looks less important than safety [and security]. A man, in this state, if it is extreme enough and chronic enough, may be characterized as living almost for safety [and security] alone.”²⁹ This means that an individual who lacks safety or security is likely to be motivated by these second level concerns, above all others.

An individual who has met his first and second level needs can move to the third level, the social level. The social level deals with relational needs such as friendship, family, intimacy, and a sense of connection. Maslow contends, “Now the person will feel keenly, as never before, the absence of friends, or a sweetheart, or a wife, or children. He will hunger for affectionate relations with people in general, namely, for a place in his group, and he will strive with great intensity to achieve this goal. He will want to attain such a place more than anything else in the world and may even forget that once, when he was hungry, he sneered at love.”³⁰ Again, fulfillment of the needs at this echelon is necessary before an individual can progress further up the hierarchy.

²⁸ Maslow, 373-374.

²⁹ Maslow, 376.

³⁰ Maslow, 381.

When an individual fulfills the needs of the third level, he can move to the fourth level, the esteem level. The esteem level deals with an individual's achievement, confidence, respect from others, and the need to be perceived as a unique individual. Maslow asserts, "All people in our society (with a few pathological exceptions) have a need or desire for a stable, firmly based, (usually) high evaluation of themselves, for self-respect, or self-esteem, and for the esteem of others."³¹ Once an individual fulfills his esteem needs, he can continue up the hierarchy to the last level.

Few people completely ascend Maslow's hierarchy, yet Maslow asserted, "Discontent and restlessness will soon develop, unless the individual is doing what he is fitted for."³² Doing what one "is fitted for" represents the highest level of Maslow's hierarchy, the self-actualization level.³³ As Maslow put it, "a musician must make music, an artist must paint, a poet must write, if he is to be ultimately happy. What a man can be, he must be."³⁴ This uppermost level is associated with the highest-order needs such as purpose, meaning, and the cultivation of inner potential.

This process of ascending Maslow's hierarchy is continual. At any given time, an individual may have to revert to a lower level if his lower level needs are no longer being met. This is important to the Air Force, which must help meet Airmen's lower-level needs. If the Air Force is going to benefit from individuals who feel they can, in the words of Maslow, do what they are fitted for and be what they must be, meeting the lower-level physiological needs of its Airmen must be a continual priority.

³¹ Maslow, 381.

³² Maslow, 382.

³³ Maslow, 382.

³⁴ Maslow, 382.

Herzberg's Motivation-Hygiene Theory

Another widely accepted motivation theory, the Motivation-Hygiene theory, comes from psychologist Fredrick Herzberg.³⁵ Herzberg contends the factors that satisfy humans are distinct from those that cause dissatisfaction.³⁶ Figure 3 illustrates Herzberg's theory. The factors that lead to satisfaction are depicted in blue and the factors that lead to dissatisfaction are depicted in red.



³⁵ This theory is also known as dual-factor theory or two-factor theory. Talbot describes the origins of the theory: The motivation-hygiene theory is based on the results of 203 “semi-structured interviews” with accountants and engineers in the Pittsburgh area. The subjects were asked to identify periods in their own histories when feelings about their jobs were unquestionably higher or lower than usual. The subjects were also asked to describe how their attitudes affected their behavior during these high and low feelings. The contents of the interviews were then analyzed and coded as to what type of events led to what type of attitudes and behaviors.” For more information, see Terry R. Talbot, “Job Satisfaction: Literature Review and Empirical Test of a Job Facet Satisfaction Model” Master’s of Science Thesis (Wright-Patterson Air Force Base, OH: Air Force Institute of Technology, 1979), 22-23.

³⁶ Fredrick Herzberg, “One More Time: How Do You Motivate Employees” *Harvard Business Review*, January February 1968, 57-61.



Figure 3: Herzberg's Motivation-Hygiene Theory.

Source: Author's Visual Depiction of the Concept put forth by Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January - February 1968.

Herzberg labels the factors that can cause dissatisfaction "hygiene" factors,³⁷ and contends that the opposite of job dissatisfaction is not job satisfaction; it is simply a lack of job dissatisfaction.³⁸ Herzberg borrowed the term "hygiene" from the medical field; he equated the maintenance of these basic factors to the basic maintenance of hygiene

³⁷ Herzberg, 57-61.

³⁸ Ronald L. Pardee, "Motivation Theories of Maslow, Herzberg, McGregor, and McClelland: A Literature Review of Selected Theories Dealing with Job Satisfaction and Motivation" February 1990, 76.

essential for good health.³⁹ Herzberg's hygiene factors include working conditions, status, company policies and supervision, interpersonal relations among peers, supervisors and subordinates, and fringe benefits. Each of these factors, if lacking or not fulfilled, can lead to dissatisfaction.

Furthermore, since the factors that influence satisfaction are distinct from those that influence dissatisfaction, the presence of hygiene factors does not lead to satisfaction or superior performance.⁴⁰ In other words, hygiene factors cannot motivate, and "when used to achieve this goal it can actually produce negative effects over the long run."⁴¹ For example, just because an Airman has decent working conditions, adequate policies, supervision, and interpersonal relationships, does not mean she will be motivated or satisfied. Rather, it may simply mean she will probably not be dissatisfied. Whereas, an Airman who lacks hygiene factors, such as administrative support, is likely to experience dissatisfaction.

Conversely, Herzberg contends the opposite of job satisfaction is not job dissatisfaction; it is no job satisfaction.⁴² Herzberg calls the satisfying factors "motivators" because he contends that they motivate and satisfy employees. Motivators include such things as achievement, recognition, enjoyment of the work itself, increased responsibility, advancement, and personal growth. However, since the factors that influence satisfaction are distinct from those that influence dissatisfaction, the absence of motivators will not necessarily result in dissatisfaction; rather, they may only result in a lack of satisfaction. For example, an Airman who has her basic hygiene needs met will likely not

³⁹ Pardee, 10.

⁴⁰ Pardee, 9.

⁴¹ Pardee, 8.

⁴² Quoted in Pardee, 9.

be dissatisfied, but if she has no ability to grow or advance, she is likely to lack job satisfaction. Whereas, an Airman who has both hygiene factors, such as good working conditions and strong peer relationships, as well as motivators, such as the potential for growth, advancement, and achievement, is likely to experience satisfaction.

Hygiene factors and motivators can be further separated into extrinsic and intrinsic factors, respectively. Extrinsic factors provide individuals “the motivation to work primarily in response to something apart from the work itself, such as reward or recognition or the dictates of other people.”⁴³ The Air Force uses many traditional DOD benefits, such as special and incentive pay, the G.I. Bill, and retirement pensions, in this fashion.

Reciprocally, intrinsic factors are internal feelings that drive individuals to do quality work and to perform well. They can be thought of as the joy that one feels after working hard or doing a job well, or what some refer to as the labor of love. Research into intrinsic motivation has examined qualities such as self-determination and competence, interest and excitement, elation and the “flow” of deep task involvement and happiness, surprise, and fun.⁴⁴ Previous research has found intrinsically motivated individuals perform the work “because the work itself is interesting, engaging, or in some way satisfying.”⁴⁵ For Airmen, intrinsic

⁴³ Teresa M. Amabile, Karl G. Hill, Beth A. Hennessey, and Elizabeth M. Tighe, “The Work Preference Inventory: Assessing Intrinsic and Extrinsic Motivational Orientations,” *Journal of Personality and Social Psychology* 1994, Vol. 66, No. 5, pg 950. For a more detailed discussion of extrinsic motivators, see Calder & Staw, 1975; Kruglanski, 1975; Lepper & Greene, 1978).

⁴⁴ Amabile et al. assert “Deci and Ryan's (1985a) cognitive evaluation theory posits that self-determination and competence are the hallmarks of intrinsic motivation. Other theorists have proposed the affective components of interest and excitement (Izard, 1977); elation and the “flow” of deep task involvement (Csikszentmihalyi, 1975, 1978); and happiness, surprise, and fun (Petry & Seligman, 1983; Reeve, Cole, & Olson, 1986). For a more detailed description see Teresa M. Amabile, Karl G. Hill, Beth A. Hennessey, and Elizabeth M. Tighe, “The Work Preference Inventory: Assessing Intrinsic and Extrinsic Motivational Orientations,” *Journal of Personality and Social Psychology* 1994, Vol. 66, No. 5, 950.

⁴⁵ Amabile et al., 950. For a more in-depth discussion of intrinsic motivations, see Berlyne, 1971; Harlow, Harlow, & Meyer, 1950; Hunt, 1965; Montgomery, 1954; White, 1959

motivation can come from many work facets, such as one's love of flying or the joy one gets from developing leaders.

Moreover, a number of researchers have continued to expound on Herzberg's work. Behavioral psychologists Teresa M. Amabile, Karl G. Hill, Beth A. Hennessey, and Elizabeth M. Tighe examined motivation using a tool termed the *University of Pennsylvania Work-Life Questionnaire*. Amabile et al. describe the *Work-Life Questionnaire* "as a direct, explicit assessment of individual differences in the degree to which adults perceive themselves to be intrinsically and extrinsically motivated toward what they do."⁴⁶ By having individuals self-identify the degree to which they identify with statements such as "I enjoy tackling problems that are completely new to me" and "what matters most to me is enjoying what I do,"⁴⁷ researchers were able to measure the salience of intrinsic and extrinsic motivators.

Amabile et al. found that individuals could reliably be divided into four groups with regard to motivation: dually motivated, intrinsically motivated, extrinsically motivated, and unmotivated.⁴⁸ This has applicability to the Air Force because it supports the idea that a range of intrinsic and extrinsic retention benefits are necessary. Intrinsic benefits are necessary to incentivize intrinsically motivated Airmen, as these Airmen are motivated by the joy they get from the work itself. Extrinsic benefits are necessary to incentivize extrinsically motivated Airmen, since these Airmen are motivated by rewards, such as the aviation bonus. Both intrinsic and extrinsic benefits are needed to motivate dually motivated Airmen, the Airmen who are motivated by both intrinsically and extrinsically. Finally, there will be some Airmen who will remain unmotivated, regardless of the benefits available.

⁴⁶ Amabile et al., 950. .

⁴⁷ Amabile et al., 956.

⁴⁸ Amabile et al., 966.

Job, Career, Calling

The next motivation theory discussed is the Job, Career, Calling Theory, advanced by Amy Wrzesniewski, Clark McCauley, Paul Rozin, and Barry Schwartz. Wrzesniewski et al. assert an individual's assessment of the work he performs is subjective and varies with each individual. The theory is based on the original concept from *Habits of the Heart*, authored by Robert N. Bellah, Richard Madsen, William M. Sullivan, Ann Swidler, and Steven M. Tipton, in which they contend individuals view their work as a *job*, as a *career*, or as a *calling*.⁴⁹

The first of the three work classifications is *job*. Individuals who consider their work to be a job typically describe their work as a chore or necessity.⁵⁰ Wrzesniewski et al. assert, "People who have a job are only interested in the material benefits from work and do not seek or receive any other type of reward from it."⁵¹ The researchers describe these individuals as being motivated by a paycheck and as having an expectation to be compensated in direct relation to the effort expended or the number of hours worked.⁵² These individuals are described by Wrzesniewski et al. as viewing their work not as "an end in itself, but instead [as] a means that allows [them] to acquire the resources needed to enjoy their time away from the job."⁵³

The second classification is *career*. While those who see their work as a career can still view work as a means to an end, they typically "have a deeper personal investment in their work and mark their achievements

⁴⁹ Quoted in Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, careers, and callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997), 22.

⁵⁰ "People who have Jobs are only interested in the material benefits from work and do not seek or receive any other type of reward from it. The work is not an end in itself, but instead is a means that allows individuals to acquire the resources needed to enjoy their time away from the Job. The major interests and ambitions of Job holders are not expressed through their work." Wrzesniewski et al., 22.

⁵¹ Wrzesniewski et al., 22.

⁵² Wrzesniewski et al., 22.

⁵³ Wrzesniewski et al., 22.

not only through monetary gain, but through advancement within the occupational structure.”⁵⁴ Wrzesniewski et al. describe these individuals as viewing their work as a competition.⁵⁵ Both intrinsic and extrinsic motivators energize career-oriented individuals.⁵⁶ These include prestige, power, advancement, and subsequent pay raises.⁵⁷ Since “advancement often brings higher social standing, increased power within the scope of one’s occupation, and higher self-esteem for the worker,”⁵⁸ career-oriented individuals look forward to that next promotion.

The third classification is the workers who view their work as a *calling*. Calling-oriented individuals describe their work as a passion or a privilege.⁵⁹ These individuals are motivated largely by intrinsic incentives, such as the personal growth, pleasure, and sense of accomplishment or mastery that the work itself brings.⁶⁰ These individuals expect to be able to contribute to their organization or to a higher purpose and get a sense of fulfillment by doing a good job.⁶¹ They are likely to look forward to additional work because they see the work as an end in and of itself.⁶²

Wrzesniewski et al. build on this concept and identify dominant characteristics that delineate the three types of work by using the same

⁵⁴ Wrzesniewski et al. give credit for this concept to Bellah et al., however, the quote itself comes from, Wrzesniewski et al., 22. For more information see, Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M., *Habits of the Heart* (New York, NY: Harper & Row, (1985), 66.

⁵⁵ “People who have Careers have a deeper personal investment in Finally, people with Callings find that their work is inseparable from their life. A person with a Calling works not for financial gain or Career advancement, but instead for the fulfillment that doing the work brings to the individual.” Wrzesniewski et al., 22.

⁵⁶ Wrzesniewski et al., 22.

⁵⁷ Wrzesniewski et al., 22.

⁵⁸ Wrzesniewski et al. give credit for this concept to Bellah et al., however, the quote itself comes from, Wrzesniewski et al., 22. For more information see, Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M., *Habits of the Heart* (New York, NY: Harper & Row, (1985), 66.

⁵⁹ Dobrow, 3-4.

⁶⁰ Dobrow. 3-4.

⁶¹ Dobrow. 3-4.

⁶² Wrzesniewski et al., 22.

University of Pennsylvania Work–Life Questionnaire described in the previous section. Through use of this questionnaire, the researchers were able to identify incentives that motivate individuals who identify with each of the three classifications. Wrzesniewski et al. found that job- and calling-orientations “seem[ed] to fall on a single dimension having to do with work as fulfillment versus work as a boring necessity.”⁶³ This means that calling-oriented individuals identified heavily with receiving fulfillment from work and job-oriented individuals viewed work as a boring necessity.⁶⁴ Furthermore, Wrzesniewski et al. found an individual’s “self-perception as having a career seem[ed] to be orthogonal to this dimension.”⁶⁵ This means that career-orientation appears to be statistically independent of the fulfillment-boring necessity spectrum. Therefore, a career-oriented person may plausibly view her work either as a source of fulfillment or as a boring necessity. Figure 4 depicts the three categories of work classifications along a spectrum of fulfillment, using a visual model. The red shaded area corresponds to the job-oriented classification; the green shaded area corresponds to career-oriented classification; and the blue shaded area corresponds to the calling-oriented classification.

⁶³ Wrzesniewski et al., 31.

⁶⁴ Wrzesniewski et al., 31.

⁶⁵ Wrzesniewski et al., 31.

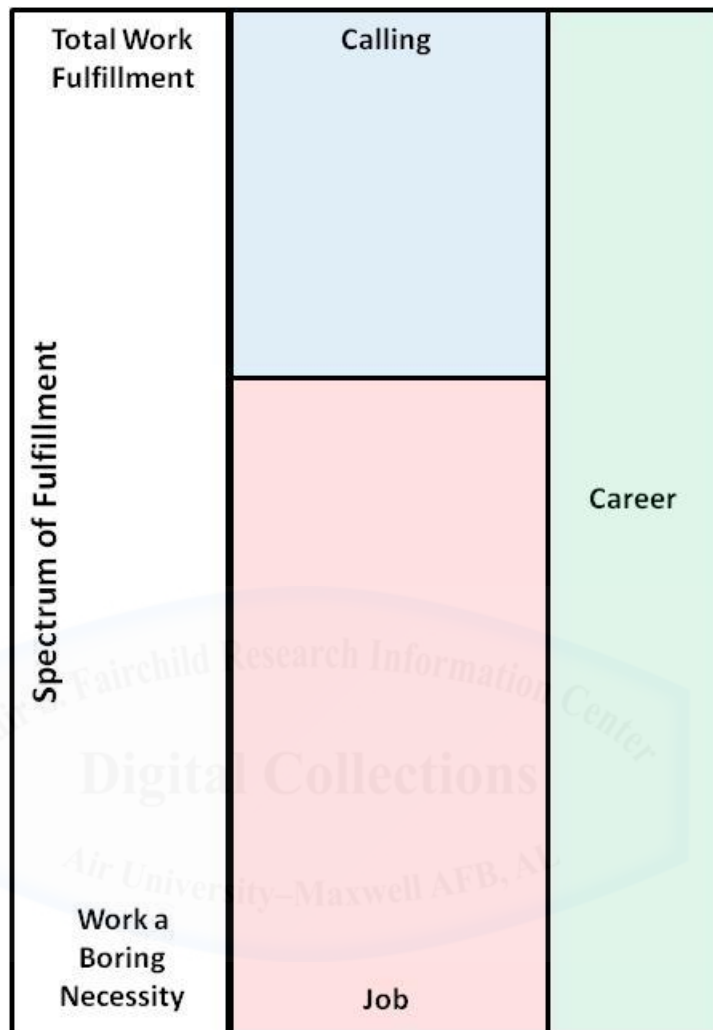


Figure 4: Job, Career, Calling Model.

Source: Author's Visual Depiction of the Concept put forth by and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997).

In their research, Wrzesniewski *et al.* found stark distinctions that align to how individuals view their work: as a *job*, as a *career*, or as a *calling*. Surprisingly, they are unable to qualitatively link these three classifications to any particular type of work. Consequently, three Air Force members performing the same work, such as fighter pilots, could theoretically fall in each of the three categories, one in the *job* category,

one in the *career* category, and one in the *calling* category. Disposition testing may help align individuals to careers that correspond to work that they would likely view as a calling, based on individual preferences.

Furthermore, while Wrzesniewski et al. found that individual preferences varied, the researchers postulated that there are certain types of work that should theoretically contain more individuals who view their work as a calling, due to the nature of the work and the individuals drawn to that type of work.⁶⁶ Wrzesniewski et al. provide examples of these postulated groups, such as Peace Corps workers and nurses, but one could extend this assertion to individuals serving in the Armed Forces, many of whom feel a connection to a higher purpose.⁶⁷

McGregor's Theory X and Theory Y

The final two theories outlined are Douglas McGregor's Theory X and Theory Y. The author presents these theories because of the insight they add, but does not integrate them into the proposed model presented in chapter 3, due to the similarities McGregor's theories have with both Maslow's Hierarchy of Needs and Herzberg's Motivation-Hygiene Theory. McGregor asserted that conventional management treated workers as elements of production, which management had to direct, persuade, reward, punish, and control, in order to maximize productivity and economic profits.⁶⁸ He called this theory of management Theory X and asserted that it was driven by the following underlying beliefs:

1. The average man is by nature indolent—he works as little as possible

⁶⁶ Wrzesniewski et al., 22.

⁶⁷ "The Job–Career–Calling distinction is not necessarily dependent upon occupation. Within any occupation, one could conceivably find individuals with all three kinds of relations to their work. Although one might expect to find a higher number of Callings among those in certain occupations, for example, teachers and Peace Corps employees, it is plausible that salespersons, medical technicians, factory workers, and secretaries could view their work as a Calling." Wrzesniewski et al., 22.

⁶⁸ McGregor, Douglas. "The human side of enterprise." *Classics of Organization Theory* (1966). 166.

2. He lacks ambition, dislikes responsibility, prefers to be led
3. He is inherently self-centered, indifferent to organizational needs
4. He is by nature resistant to change
5. He is gullible, not very bright, the ready dupe of the charlatan and the demagogue⁶⁹

Like Maslow, McGregor asserted that individuals progress up a hierarchy of needs.⁷⁰ Once satisfied, needs are no longer a motivator of behavior. He believed a new management theory was required in order to motivate workers who had progressed beyond the lower-level needs.⁷¹ McGregor called this new management theory, Theory Y. Theory Y held that people are not passive by nature, nor are they resistant to organizational needs. Rather, McGregor asserted that “the motivation, the potential for development, the capacity for assuming responsibility, the readiness to direct behavior towards organizational goals are all present in people.”⁷² McGregor held that the essential task of management was “to arrange organizational conditions and methods of operation so that people can achieve their own goals best by directing their own efforts toward organizational objectives.”⁷³

McGregor’s Theory X and Theory Y, while similar to both Maslow’s Hierarchy of Needs and Herzberg’s Motivation-Hygiene Theory, has key implications for this research. First, McGregor acknowledged the impact management can have on a worker’s perception of the work he performs. For example, take a creative, ambitious worker and put that worker into

⁶⁹ McGregor, 166.

⁷⁰ McGregor, 169.

⁷¹ McGregor, 169.

⁷² McGregor, 169.

⁷³ McGregor, 169.

an environment where he feels stifled by management practices, a lack of administrative support, and a lack of empowerment. The experience of working under poor management conditions is likely to contribute to the worker becoming a passive employee: an employee that is not willing to work hard for the good of the organization.⁷⁴ Second, McGregor discussed the importance of decentralization and delegation within an organization, which provide workers the autonomy and self-direction necessary to achieve higher-level needs.⁷⁵ Third, McGregor advocated job enlargement.⁷⁶ This process enables workers to have input into shaping and growing their responsibility, which helps to satisfy workers. Fourth, McGregor encouraged participation and consultative management practices, which “provide encouragement to people to direct their creative energies toward organizational objectives” as well as “give [workers] some voice in decisions that affect them.”⁷⁷ This can be as easy as talking to people and giving them input on how they will accomplish their work and how they could increase their responsibilities or do things more effectively.⁷⁸ Fifth, McGregor advocated for employees to have input in setting their own objectives and in performing self-evaluation, which encourages employees to take “greater responsibility for planning and appraising his own contribution to organizational objectives.”⁷⁹ This, McGregor held, was important to achieving one’s self-fulfillment needs.⁸⁰

⁷⁴ McGregor, 169.

⁷⁵ McGregor, 170.

⁷⁶ McGregor, 170.

⁷⁷ McGregor, 170.

⁷⁸ McGregor, 170.

⁷⁹ McGregor, 170-171.

⁸⁰ McGregor, 171.

Summary

This chapter presented five leading theories on human motivation. The first theory covered was Maslow's Hierarchy of Needs. Maslow postulated that hierarchical needs motivate people.⁸¹ An individual's unfulfilled needs provide motivation to action in a predictable, linear fashion.⁸² The second theory presented was Herzberg's Motivation-Hygiene Theory. This theory held that the factors that satisfy humans are distinct from those that influence dissatisfaction.⁸³ The third theory discussed was the Job, Career, Calling Theory posed by Wrzesniewski et al.,⁸⁴ which asserted that one's individual assessment of the work they perform can be perceived as a *job*, as a *career*, or as a *calling*, and individuals who identify with each of the work-orientations is motivated by distinct factors.⁸⁵ The fourth and fifth theories presented were McGregor's Theory X and Theory Y. Theory X asserted that conventional management treated workers as elements of production in order to maximize productivity and economic profits.⁸⁶ Theory Y held that motivation is present in all workers and the essential task of management is stoking that innate motivation.⁸⁷

These five theories all provide important insight into the complexity of human motivation and behavior. The basic understanding of these theories is important to the analysis, synthesis, and recommendations offered in subsequent chapters. Chapter 2 details the Air Force manning

⁸¹ Maslow that there were multiple determinants of behavior and that not all behavior is determined by the basic needs. Furthermore, he acknowledged the variance of applicability in individuals and acknowledged the complexity of the degree of relative satisfaction would vary. For example, one may be 75 percent satisfied in a particular need and then move on to a higher order need, whereas another individual may need only 20 percent satisfaction of the need. For a detailed discussion on the degree of relative satisfaction and determinants of behavior see, Maslow, 388-391.

⁸² Maslow, 388-391.

⁸³ Herzberg, 57-61.

⁸⁴ Wrzesniewski et al., 22.

⁸⁵ Wrzesniewski et al., 22.

⁸⁶ McGregor, Douglas. "The human side of enterprise." *Classics of Organization Theory* (1966). 166.

⁸⁷ McGregor, 169.

crisis, including extant research and potential solutions being considered by service leaders.



CHAPTER 2

Air Force Applicability

This chapter is divided into three segments. The first segment outlines Air Force-specific considerations that shape how the service can potentially remedy the manning crisis. The second segment elaborates on the problem itself. The third segment addresses current Air Force efforts to address the crisis.

Unique Air Force Considerations

The DOD uses monetary compensation, in the form of bonuses and incentive pay, and non-monetary benefits to incentivize service members. Air Force monetary bonuses and incentive pay is termed Special and Incentive Pay. It includes Assignment Incentive Pay, Aviation Career Incentive Pay, and Aviation Bonus (Table 2).¹ The rules regarding use of special and incentive pay are regulated by the *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*. This regulation outlines the methods by which services can use special and incentive pay to improve accession and retention of service members and to “help meet staffing targets” for “high-skill occupations.”²

¹ GAO 17-39 states, “It is DOD policy that the military services use enlistment, accession, reenlistment, and retention bonuses as incentives in meeting personnel requirements. The intent of bonuses is to attract and retain service members in specific skills or career fields in which less costly methods have proven inadequate or impractical. According to policy, the military services must exercise this authority in the most cost-effective manner, considering bonus employment in relation to overall skill, training, and utilization requirements. Military skills selected for the award of enlistment, accession, reenlistment, and/or retention bonuses must be essential to the accomplishment of defense missions.” For more information, see United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, “Military Compensation”* GAO-17-39.

² United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, “Military Compensation”* GAO-17-39, 6.

Table 2: USAF Special and Incentive Pay

USAF Special & Incentive (S&I) Pay
Assignment Incentive Pay (AIP)
Aviation Career Incentive Pay (ACIP)
Aviation Bonus (AvB)

Source: Based on DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay.

The first type of Air Force Special and Incentive pay is Assignment Incentive Pay. Assignment Incentive Pay includes up to \$1,500 per month in financial compensation and is used to entice Airmen to accept assignments at specified locations that the service secretary deems necessary and potentially difficult to fill.³ The second type of Air Force Special and Incentive pay is Aviation Career Incentive Pay. Aviation Career Incentive Pay, often called “Flight Pay,” is “restricted to regular and reserve officers, who hold, or are in training leading to an aeronautical rating or designation, and who engage and remain in aviation service on a career basis,”⁴ and meet minimum flight requirements.⁵ The amount of Aviation Career Incentive Pay awarded varies by rank and number of years flying and is subject to a number of restrictions. The third type of Air Force Special and Incentive pay is the Aviation Bonus. This bonus includes awarding up to \$35,000 per year,⁶

³ Assignment Incentive Pay is subject to eligibility and payment restrictions as outlined in DODI 7000.14-R Volume 7A, Chapter 15. Pertinent sections include, 15-5 – 15-6, 15-18 - 15-21. For more information see, *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, April 2017.

⁴ *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, April 2017, 22-12 - 22-13.

⁵ *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, 22-15.

⁶ “The [Aviation Bonus] amount, covered by the written agreement described in paragraph 200501 between the Regular or RC officer and the Secretary of the Military Department concerned for each 12-month period of obligated service specified in 37 U.S.C. § 334(c)(1)(B), will not exceed the following, unless

“to increase [the] ability to attract and retain officers in a military aviation career,”⁷ as determined by the service secretary. This monetary bonus is issued in accordance with Title 37, United States Code (U.S.C.), section 334(b), when there is a shortage or a projected shortage of Regular or Reserve Component (RC) officers qualified in critical aviation specialties,”⁸ and in cases in which the Aviation Bonus “*can be expected to affect retention trends*” (italics added).⁹

However, as discussed in the previous chapter, monetary benefits, while quantifiable, have differing valence based on the preferences and needs of individual service members. Additionally, variables influencing valence may be interdependent and related to one another non-linearly, making it difficult to isolate specific trends, as discussed in the previous chapter. This non-linear interdependence makes variables imperfectly observable,¹⁰ and therefore, makes implementation and quantification of individual initiatives challenging for organizations, and specifically, for the Air Force.

Furthermore, DOD Instruction 1304.29, *Administration of Enlistment Bonuses, Accession Bonuses for New Officers in Critical Skills, Selective Reenlistment Bonuses, and Critical Skills, Retention Bonuses for Active Members*, directs the military services to exercise this authority for

otherwise updated by the Assistant Secretary of Defense (ASD) (Manpower and Reserve Affairs (M&RA)):

A. \$35,000 per year for Regular Component officers or RC Active Guard and Reserve officers performing qualified flying duty.” *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, 20-4.

⁷ *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, 20-3.

⁸ *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, 20-3.

⁹ *DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay*, 20-2

¹⁰ Kuran, 47.

bonuses and incentive pay in “the most cost-effective manner,”¹¹ with the intent of attracting and retaining “service members in specific skills [sic] or career fields in which less costly methods have proven inadequate or impractical.”¹² Non-monetary benefits, cited by the DOD as “practical alternatives to cash bonuses and [monetary] incentives” include choice of duty location, unit assignments, education benefits, Post 9-11 GI Bill transferability, and career intermission programs (Table 3).¹³ Similar to monetary incentives, the valence of non-monetary incentives varies, based on the needs and preferences of individuals. However, diverse non-monetary options are oftentimes more difficult to quantify than monetary alternatives.

Table 3: DOD-cited Non-monetary Incentives

Non-monetary Benefits
Choice of Duty Location
Unit Assignments
Education Benefits
Post 9-11 GI Bill Transferability
Career Intermission Program (CIP)

Source: Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, Report to the Committee on Armed Services, U.S. Senate, “Military Compensation” GAO-17-39.

The Air Force Deputy Chief of Staff, Manpower, Personnel and Services, Lieutenant General Gina M. Grosso, has recognized the importance of diverse non-monetary incentive options. Grosso told

¹¹ DOD Instruction 1304.29, *Administration of Enlistment Bonuses, Accession Bonuses for New Officers in Critical Skills, Selective Reenlistment Bonuses, and Critical Skills, Retention Bonuses for Active Members*, 2.

¹² United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, “Military Compensation”* GAO-17-39, 8.

¹³ Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, “Military Compensation”* GAO-17-39, 79.

Congress that the “Air Force must divest [from] a ‘one size fits all’ retention model, and [the service] should tailor retention packages to the individual Airman from a host of options.”¹⁴ General Grosso’s proposed tailored retention model sounds promising, but as the nation’s largest single employer, the DOD faces a number of obstacles and constraints that make the application of individualized incentives difficult.¹⁵ First, numerous regulations dictate how the services award monetary incentives. This level of control is essential for an organization with over two million active duty and civilian personnel.¹⁶ However, these regulations also limit flexibility. The inflexibility of the system as a whole may restrict the tailored retention model Grosso described. Second, large organizations, such as the DOD and the Air Force, often fall into a rigid outlook and pattern of behavior termed the organizational behavior paradigm. This paradigm often limits organizational flexibility, as a by-product of the stable nature of organizational culture, priorities, and perceptions.¹⁷ This inflexible organizational behavior results in slow, incremental change, in which new policies are often just a slight alteration of previously established programs or existing standard operating procedures.¹⁸

While the nature of the DOD’s and Air Force’s structure create some obstacles and constraints that make the application of individualized incentives difficult, they also hold some advantages. First,

¹⁴ Lieutenant General Gina M. Grosso, Deputy Chief Of Staff Manpower, Personnel and Services, United States Air Force, “Military Pilot Shortage,” Presentation To The Subcommittee On Personnel Committee On Armed Services, United States House Of Representatives, March 29, 2017, 7-8.

¹⁵ These figures come from DOD’s website, which states, “with over 1.3 million men and women on active duty, and 742,000 civilian personnel, we are the nation’s largest employer. Another 826 thousand serve in the National Guard and Reserve forces. More than 2 million military retirees and their family members receive benefits.” <https://www.defense.gov/About>.

¹⁶ <https://www.defense.gov/About>.

¹⁷ Graham Allison and Philip Zelikow, *Essence of Decision* (New York, NY: Addison-Wesley Publishers Inc., 1999) 180.

¹⁸ Allison and Zelikow, 178-180.

the DOD has a predictable budget process. This allows the services to forecast monetary compensation options years in advance. Second, the nature of Air Force service commitments mandates that military members serve for a pre-designated minimum number of years. Service commitment lengths vary by career field, but provide a limited ability to forecast when personnel will be likely to leave the service; therefore, specific career fields can be easier to target with incentives.

Furthermore, the military attracts many individuals who join because of the nature of service. Military service offers individuals the opportunity to be a part of something larger than themselves. This connection to a larger purpose aligns with Dobrow's seven criteria of a calling, discussed in chapter 1.¹⁹ Actively promoting the connection to a higher purpose and intrinsic fulfillment that comes with doing a good job may provide an opportunity for the DOD and the Air Force that may be useful in retention efforts.

Refining the Problem

The Air Force has decided to make a concerted effort to reduce the manning crisis in the fighter pilot community. However, it is a complex and multi-faceted challenge, which has left the service in a state where less than 50% of units are at acceptable readiness levels.²⁰ In a 2013 School of Advanced Air and Space Studies thesis titled, *Blunting the Spear: Why Good People Get Out*, Brian T. Stahl, an Air Force officer and fighter pilot, examined Air Force pilot retention in order to determine why many of the best officers were separating from the service.²¹ Stahl found that the contextual differences between communities within the Air Force

¹⁹ Shoshana R. Dobrow. "Extreme Subjective Career Success: A New Integrated View of Having a Calling" Published in Best Paper Proceedings, Academy of Management Conference, 2004, 3-4.

²⁰ United States Government Accountability Office, *Report to Congressional Addressees*, "Actions Needed to Address Five Key Mission Challenges" GAO-17-369, 9.

²¹ Brian T. Stahl, *Blunting the Spear: Why Good People Get Out*, Drew Paper No. 24, (Maxwell Air Force Base, AL: Air University Press, 2015), xv.

add to the difficulty of assessing the problem, as individuals from different communities cited differing variables as being the most influential to their retention decisions.²²

Air Force leaders have subsequently attempted to determine what those variables are. In a 2015 exit survey, the top five factors cited by separating Air Force pilots as reasons for leaving the service were: additional duties, the challenge of maintaining a healthy work-life balance, the availability of civilian jobs, repeated deployments, and the uncertainty brought about by the assignment process (see table 4).²³

Table 4: 2015 US Air Force Rated Exit Survey Results - Pilots Top 5 Influences to Leave the Service

“Top 5 Influences to Leave”	
Additional Duties	37%
Maintaining work/life balance and meeting family commitments	31%
Availability of Civilian Jobs	24%
Home Station Tempo (length of duty day/work schedule)	22%
The potential to leave your family for a deployment	21%

Source: cited from “Military Pilot Shortage,” Presentation to The Subcommittee On Personnel Committee On Armed Services, United States House Of Representatives, March 29, 2017.

Analysis of Rated Officer Comments from the 2015 Military Career Decisions Survey

In a 2017 doctoral dissertation titled, *I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey*, Christopher M. Carson, an Air Force officer and RAND Doctoral Fellow, examined responses related to Air Force pilots’ decisions to remain or depart the service.²⁴ By using “a range of qualitative data

²² Stahl, 105.

²³ Grosso, 4.

²⁴ Christopher M. Carson, *I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey*, Pardee RAND Graduate School dissertation, July 2017, iii.

analysis techniques,”²⁵ Carson evaluated the survey results of Air Force rated officers in the grades Second Lieutenant through Lieutenant Colonel, and compared them to existing models of turnover.²⁶

Carson found that individuals who had decided to separate “indicate[d] their decisions [were] not necessarily centered on financial concerns. In fact, many respondents stated they were satisfied with the pay and benefits they received in the [Air Force].”²⁷ Instead of monetary concerns, these Airmen “expressed frustrations with leadership, deployments, quality of life issues, [related to reduced manpower and personnel,] and non-flying administrative duties.”²⁸ Individuals who desired to stay in the service “indicate[d] their decisions [to stay] were influenced more by the [sense of] camaraderie and community they find in the [Air Force].”²⁹ He also found that individuals who had made the decision to stay in the service were “more likely to express the importance of receiving a military retirement and the associated financial benefits of military service.”³⁰

Furthermore, Carson deduced, “the bonus clearly has had effect on retention, for some [individuals].”³¹ However, he found that “it’s not all about the money.”³² Carson’s analysis provides insight that challenges the DOD’s historical over-reliance on monetary incentives. He claimed, “All groups indicated either the amount associated with the bonus was not enough to change their decision or the bonus was not a factor in their retention decision.”³³ Carson asserts that these individuals

²⁵ Carson, iii.

²⁶ Carson, 6.

²⁷ Carson, 92.

²⁸ Carson, 92.

²⁹ Carson, 92.

³⁰ Carson, 92.

³¹ Carson, 92.

³² Carson, 92.

³³ Carson, 92.

accepted the bonus only after they had already made the decision to remain in the Air Force.³⁴

Stahl reached a similar conclusion. His research indicated that monetary compensation was “not a significant driver” in retention decisions.³⁵ Stahl recommended “A more focused approach of proactively identifying the most affected communities,” and tailoring the financial bonuses offered in order to optimize retention of personnel from each of those communities.³⁶

Air Force Efforts

In a March 2017 presentation to the House of Representatives Personnel Committee on Armed Services, General Grosso described the Air Force’s renewed effort to reduce the pilot shortage. Grosso stated, “The Air Force is [now] committed to a holistic strategy to maintain our pilot inventory...through bold monetary and non-monetary programs.³⁷ This inclusion of non-monetary incentives may be an attempt to implement the GAO recommendations. It appears to be a departure from previous attempts at increasing retention levels.

The main effort in the Air Force’s fight to reduce its pilot shortfall is the Aircrew Crisis Task Force (ACTF). The Air Force created this General Officer-led group to provide “strategic direction and actionable recommendations to the [Air Force] Chief of Staff on issues regarding the aircrew manning crisis across the Total Force.”³⁸ The task force is charged with “exploring every option possible to mitigate this crisis with short-, mid- and long-term solutions across the spectrum of requirements, accession, production, absorption, retention, and aircraft

³⁴ Carson, 92.

³⁵ Stahl, 109.

³⁶ Stahl, 110.

³⁷ Grosso, 5.

³⁸ United States Air Force Deputy Chief Of Staff Operations, “Aircrew Crisis Task Force Charter” (August 2017), 3.

availability.”³⁹ To achieve these goals the ACTF is focused on the following seven lines of effort:

- 1) Requirements
- 2) Accession
- 3) Production
- 4) Absorption
- 5) Retention
- 6) Aircraft Availability
- 7) Industry Collaboration⁴⁰

While all seven lines of effort may influence the service’s ability to curb the manning crisis, the utility of this work centers on the ACTF’s line of effort five, Retention. Furthermore, the ACTF’s retention effort is further broken down into three parts, all of which can help incentivize behavior: improving quality of life, quality of service, and ensuring adequate monetary compensation.

Based on recent news reports, the Air Force is already making a number of changes to reduce the manning crisis. These changes are outlined in Table 5. First, the Air Force is reviewing the Voluntary Rated Return to Active Duty (VRRAD) program.⁴¹ This program would enable “qualified retired pilots to return and fill critical-rated staff positions, allowing active-duty pilots to stay with units that need them for missions.”⁴² Second, the Air Force raised bonus limits and “increased pay for some officers and enlisted personnel for the first time since 1999.”⁴³ Third, the Air Force is currently reviewing administrative, deployment, and training requirements to improve quality of life for service members and improve retention. Finally, there are discussions

³⁹ United States Air Force Deputy Chief Of Staff Operations, 3.

⁴⁰ United States Air Force Deputy Chief Of Staff Operations, 3.

⁴¹ ⁴¹ Christopher Woody, “The Air Force is facing a ‘quiet crisis’ of manpower, but recruitment isn’t the problem” Business Insider, 9 October 2017, <http://www.businessinsider.com/air-force-has-a-pilot-shortage-due-to-lack-of-training-resources-2017-10>.

⁴² Woody, The Air Force is facing a ‘quiet crisis’ of manpower, but recruitment isn’t the problem.”

⁴³ Woody, The Air Force is facing a ‘quiet crisis’ of manpower, but recruitment isn’t the problem.”

about reducing fighter pilot staff and deployment requirements,⁴⁴ as recommended by RAND, and other measures such as increasing annual pilot production, and giving personnel more input into the assignment process.⁴⁵

Table 5: New and Proposed USAF Retention Initiatives

USAF Retention Initiatives
Extending VRADD
Raising of Bonus Limits
Increasing of Pay
Review of administrative requirements
Review of deployment requirements
Review of training requirements
Limiting Lengthy Deployments
Increasing Support Staff

Source: Compilation of Information provided in two articles by Christopher Woody, “The Air Force is facing a ‘quiet crisis’ of manpower, but recruitment isn’t the problem” Business Insider, 9 October 2017, and Christopher M. Woody, “We Are A Service That Is Too Small: An Air Force Crisis Looks For A Shakeup,” Task & Purpose, 18 September 2017.

Summary

This chapter discussed the Air Force manning crisis and factors that shape how the service can potentially remedy the problem. This chapter was divided into three segments: The first segment outlined unique Air Force considerations, including a discussion on DOD and Air Force usage of monetary and non-monetary incentives. The second segment refined the complex and multi-faceted challenge by providing

⁴⁴ Christopher M. Woody, “We Are A Service That Is Too Small: An Air Force Crisis Looks For A Shakeup,” Task & Purpose, 18 September 2017, <https://taskandpurpose.com/service-small-air-force-crisis-looks-shakeup>.

⁴⁵ Woody, “We Are A Service That Is Too Small: An Air Force Crisis Looks For A Shakeup.”

2015 rated officer exit survey results and summarizing the top reasons cited as influencing pilots' decisions to leave the service. The final segment focused on the Air Force's proposed holistic strategy to maintain pilots. The next chapter synthesizes the individual extant theories, introduced in chapter 1, to create a new proposed model of motivation and behavior. This model will be used in chapter 4 to analyze the Air Force current and proposed retention efforts.



CHAPTER 3

Proposed Model

With a basic understanding of the motivational theories and their applicability to the Air Force, a synthesis and analysis are now possible. This chapter systematically integrates the motivational theories from chapter 1 to build a new, proposed, and comprehensive model of behavior and motivation.

Synthesis

The theories of behavior discussed in chapter 1 began with a summary of Maslow's Hierarchy of Needs. Maslow postulated that individuals are motivated by predictable needs that can be placed into a hierarchy.¹ He asserted that unfulfilled needs motivate individuals to action and that individuals progress in a systematic fashion up the hierarchy. This process is a life-long process and many individuals never progress to the highest level of self-actualization.

Next, Herzberg's Motivation Hygiene Theory was introduced. This theory held that the factors that satisfy humans are distinct from those that influence dissatisfaction. Herzberg called the satisfying factors "motivators," which included such things as achievement, recognition, enjoyment of the work itself, increased responsibility, advancement, and personal growth. Herzberg labeled the factors that can lead to dissatisfaction "hygiene" factors, which included constructs such as poor working conditions, low status, poor company policies and supervision,

¹ Maslow that there were multiple determinants of behavior and that not all behavior is determined by the basic needs. Furthermore, he acknowledged the variance of applicability in individuals and acknowledged the complexity of the degree of relative satisfaction would vary. For example, one may be 75 percent satisfied in a particular need and then move on to a higher order need, whereas another individual may need only 20 percent satisfaction of the need. For a detailed discussion on the degree of relative satisfaction and determinants of behavior see, Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943), 388-391.

and poor interpersonal relations.² Herzberg postulated that hygiene factors could not motivate workers or lead to satisfaction.³

The first step in building the proposed, integrated, model of motivation and behavior is a side-by-side comparison of Maslow and Herzberg's theories (Figure 5). The two dashed lines, which extend across the two models, provide a visual depiction of the key consonance of the two theories. When compared, Herzberg's hygiene factors, the factors leading to dissatisfaction, are largely associated with the bottom three levels of Maslow's hierarchy. In addition, Herzberg's motivators, the factors that lead to satisfaction, are more closely associated with Maslow's top two hierarchy levels.

The one significant incongruity of the two theories is "status." Status is a level four need in Maslow's hierarchy, and yet it is a hygiene factor according to Herzberg. Thus, the horizontal dashed lines are drawn slightly above the line that distinguishes Maslow's third and fourth levels.

² Fredrick Herzberg, "One More Time: How Do You Motivate Employees" Harvard Business Review, January February 1968, 57-61.

³ Quoted in Ronald L. Pardee, "Motivation Theories of Maslow, Herzberg, McGregor, and McClelland: A Literature Review of Selected Theories Dealing with Job Satisfaction and Motivation" February 1990, 59.

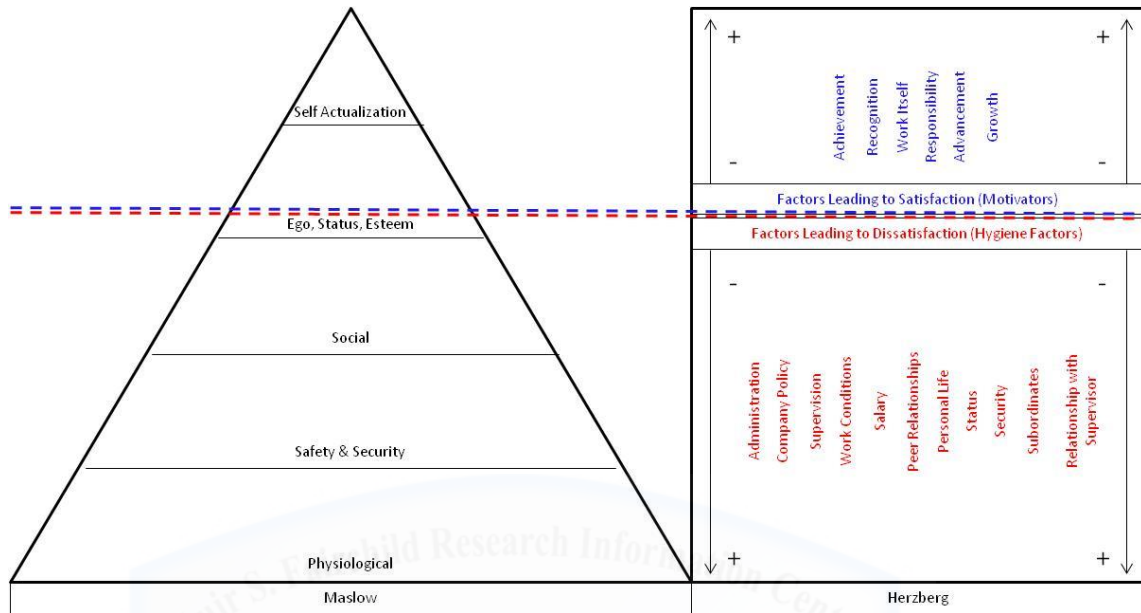


Figure 5: Step-one in Building the Proposed Model of Motivation and Behavior, a Side-by-side Comparison of Maslow's Need Hierarchy and Herzberg's Motivation Hygiene Theory.

Source: Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943) and Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968.

Figure 6 shows the second step in building the proposed model of motivation and behavior, the synthesis of both Maslow's and Herzberg's theories. It is an incremental change intended to fuse the two models. This fused model will be expanded upon in the subsequent steps of building the proposed model.

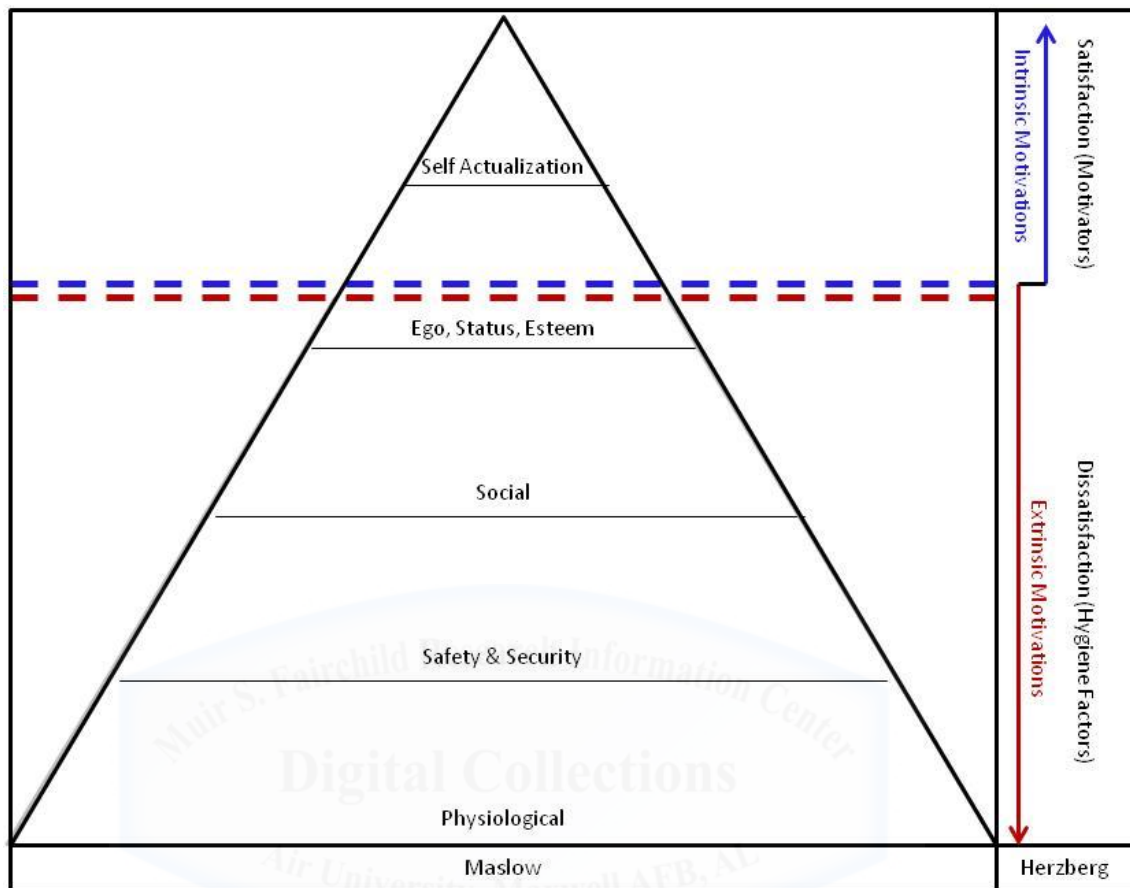


Figure 6: Step-two in Building the Proposed Model of Motivation and Behavior, Assimilation of Maslow's Need Hierarchy and Herzberg's Motivation Hygiene Theory.

Source: Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943) and Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968.

The third major motivation theory discussed was the Job, Career, Calling Work assessment, posed by Wrzesniewski et al., which asserts that one's individual assessment of the work he performs can be perceived as either a *job*, as a *career*, or as a *calling*.⁴ Those who viewed their work as a *job* typically described their work as a chore or necessity

⁴ Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, careers, and callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997), 22.

were motivated by a paycheck, and work to be able to have time-off.⁵ Those who saw their work as a *career* described their work as a competition and were motivated by prestige, power, advancement, and subsequent pay raises.⁶ Those who identified with having a calling described their work as a passion or a privilege and were motivated largely by intrinsic incentives such as the personal growth, pleasure, and sense of accomplishment or mastery that the work itself brings.⁷

The third step in building the integrated model is a side-by-side comparison of the newly integrated Maslow and Herzberg models (Figure 6) with the Job, Career, Calling model (Figure 4). As stated in chapter 2, Wrzesniewski et al. found that job- and calling-orientations “seem[ed] to fall on a single dimension having to do with work as fulfillment versus work as a boring necessity.”⁸ This means that calling-oriented individuals identified heavily with receiving fulfillment from work and job-oriented individuals viewed work as a boring necessity.⁹

Furthermore, Wrzesniewski et al. found an individual’s “self-perception as having a career seem[ed] to be orthogonal to this dimension.”¹⁰ This means that career-orientation appears to be statistically independent of the fulfillment-boring necessity spectrum. Therefore, a career-oriented person may be plausibly view their work either as a source of fulfillment or as a boring necessity.

Figure 7 shows this side-by-side comparison. As previously stated, the Job, Career, Calling model depicts the three categories of work classifications along a spectrum of fulfillment, using a visual model. The red shaded area corresponds to the job-oriented classification; the green

⁵ Wrzesniewski et al., 22.

⁶ Wrzesniewski et al., 22.

⁷ Wrzesniewski et al., 22.

⁸ Wrzesniewski et al., 31.

⁹ Wrzesniewski et al., 31.

¹⁰ Wrzesniewski et al., 31.

shaded area corresponds to career-oriented classification; and the blue shaded area corresponds to the calling-oriented classification.

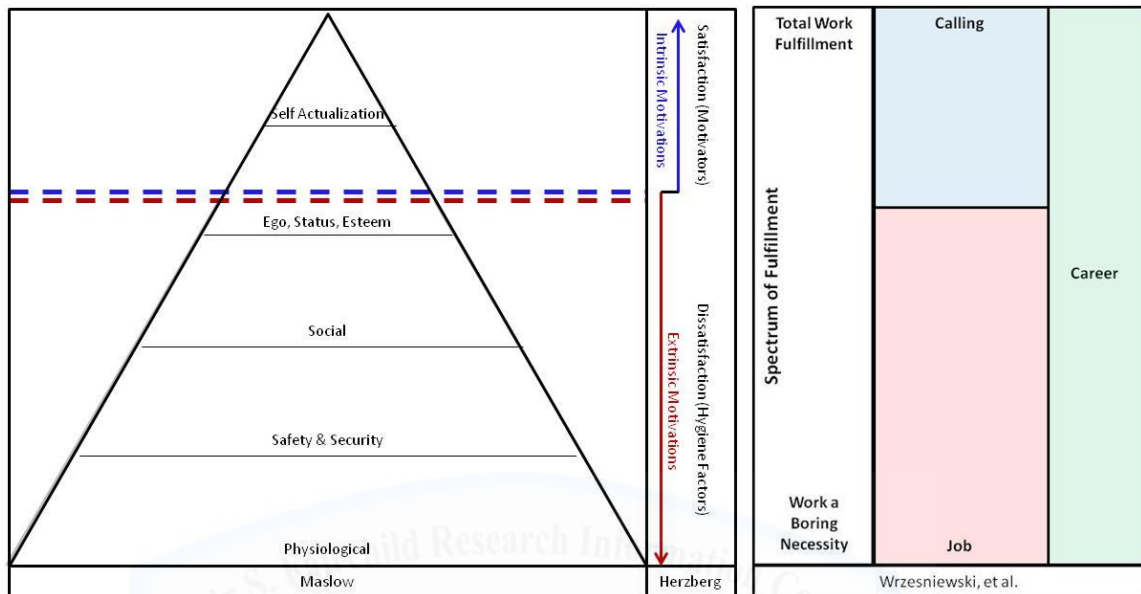


Figure 7: Step-three in Building the Proposed Model of Motivation and Behavior, a Side-by-side Comparison of the Integrated Maslow's Need Hierarchy and Herzberg's Motivation Hygiene Model with the Job, Career, Calling Model.

Source: Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943); Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997).

The fourth step in building the proposed model of motivation and behavior is to assimilate the two fragmentary models shown in Figure 7 into a single, more inclusive model (Figure 8). The job- and career-orientations will be discussed first in this section due to their inverse relationship.¹¹ The job orientation from the Job, Career, Calling model is shown in red. Those who view their work as a *job* typically describe their

¹¹ Wrzesniewski et al. found that while "job and calling seem to fall on a single dimension, having to do with work [being considered a source of] fulfillment versus work [being considered] a boring necessity." Wrzesniewski et al., 31.

work as a chore or necessity, are motivated by a paycheck, and work in order to be able to have time-off.¹² The job-orientation aligns with the base needs in Maslow's hierarchy (Maslow's psychological level, safety and security level, and social level), along with Herzberg's extrinsic, hygiene factors.

The second work-orientation from the Job, Career, Calling model, is calling and appears in blue in the proposed model. Those who identify with having a calling describe their work as a passion or a privilege, and are motivated largely by intrinsic incentives such as the personal growth, pleasure, and sense of accomplishment or mastery that the work itself brings.¹³ The calling-orientation aligns with the higher-level needs in Maslow's hierarchy (the ego, status, and esteem level and the self-actualization level) and Herzberg's motivators, which are primarily intrinsic.

Finally, the career orientation appears in green in the proposed model. Those who saw their work as a *career* described their work as a competition and were motivated by prestige, power, advancement, and subsequent pay raises.¹⁴ Since the career orientation has been shown to be independent from the fulfillment-boring necessity spectrum, outlined in chapter 1 (Figure 4),¹⁵ the career orientation spans the entirety of the vertical spectrum of the proposed model.

Similar to the incongruity noted in step one of the proposed model, which specified "status" as a fourth-level need according to Maslow, yet being a hygiene factor, according to Herzberg, the Job, Career, Calling theory shares some inconsistencies with both Maslow's and Herzberg's theories. There is overlap in the models since there are some incentives,

¹² Wrzesniewski et al., 22.

¹³ Wrzesniewski et al., 22.

¹⁴ Wrzesniewski et al., 22.

¹⁵ Wrzesniewski et al., 31.

motivators, and hygiene factors, such as Air Force benefits and retention initiatives, which, by their nature should hold positive valence for individuals in more than one group of work-orientation. For example, someone who views their work as a job could, theoretically, view work-related education as a boring necessity, but something that they must do in order to continue to earn their paycheck. Yet, for a calling-oriented individual work-related education may bring fulfillment. The lack of clear delineation of some of the factors is the reason the Job, Career, Calling orientation does not align precisely with the previous models. This overlap becomes more evident when the incentives, motivators, and hygiene factors are integrated into the model in step five.



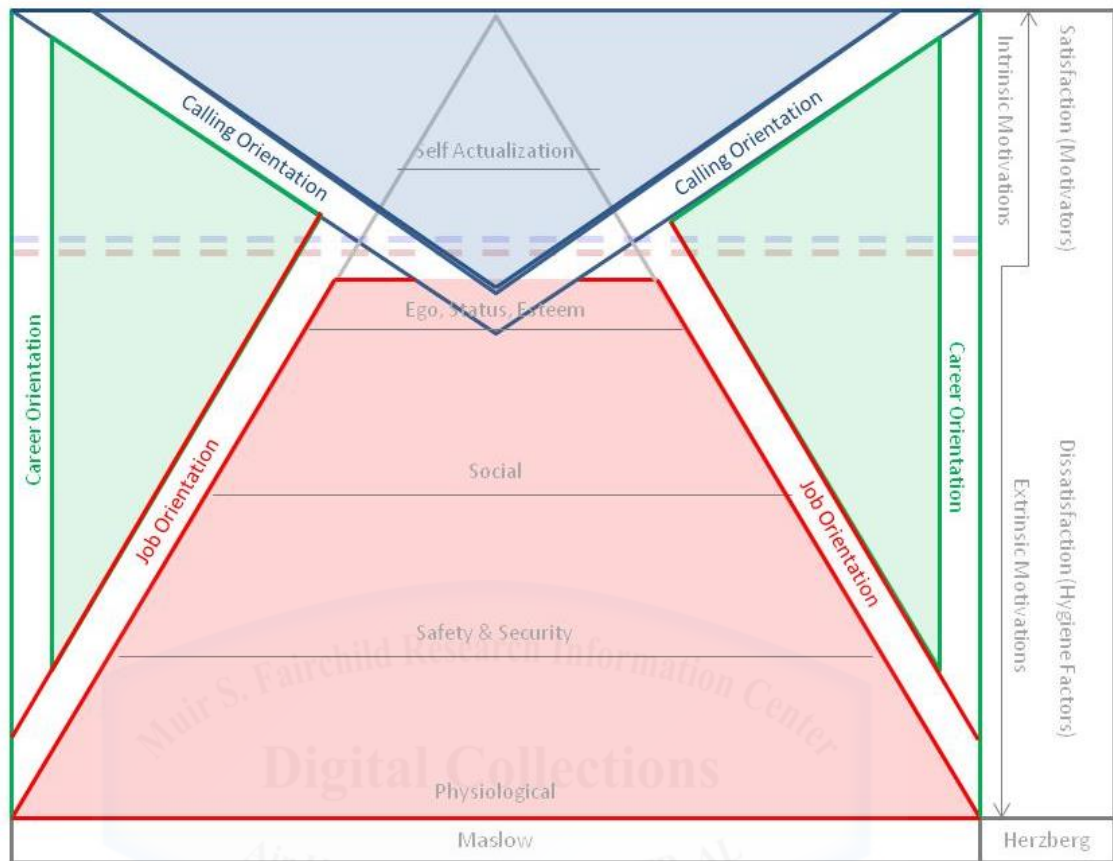


Figure 8: Step-four in Building the Proposed Model of Motivation and Behavior, Maslow's Need Hierarchy and Herzberg's Motivation Hygiene Model Integrated with the Job, Career, Calling Model the Job, Career, Calling Model.

Source: Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943); Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997).

To complete the proposed model of behavior and motivation, individual incentives, motivators and hygiene factors, and base needs from the literature are added (Figure 9). The each of these factors were placed into their respective locations to depict the primacy with regard to the category they fall in to, based on the extant theories. For example,

individuals who are motivated by pay, time-off, and decreased responsibilities are most likely to view their work as a job.¹⁶ Whereas, individuals motivated by mastery, the work itself, and personal growth are more likely to view their work as a calling.¹⁷

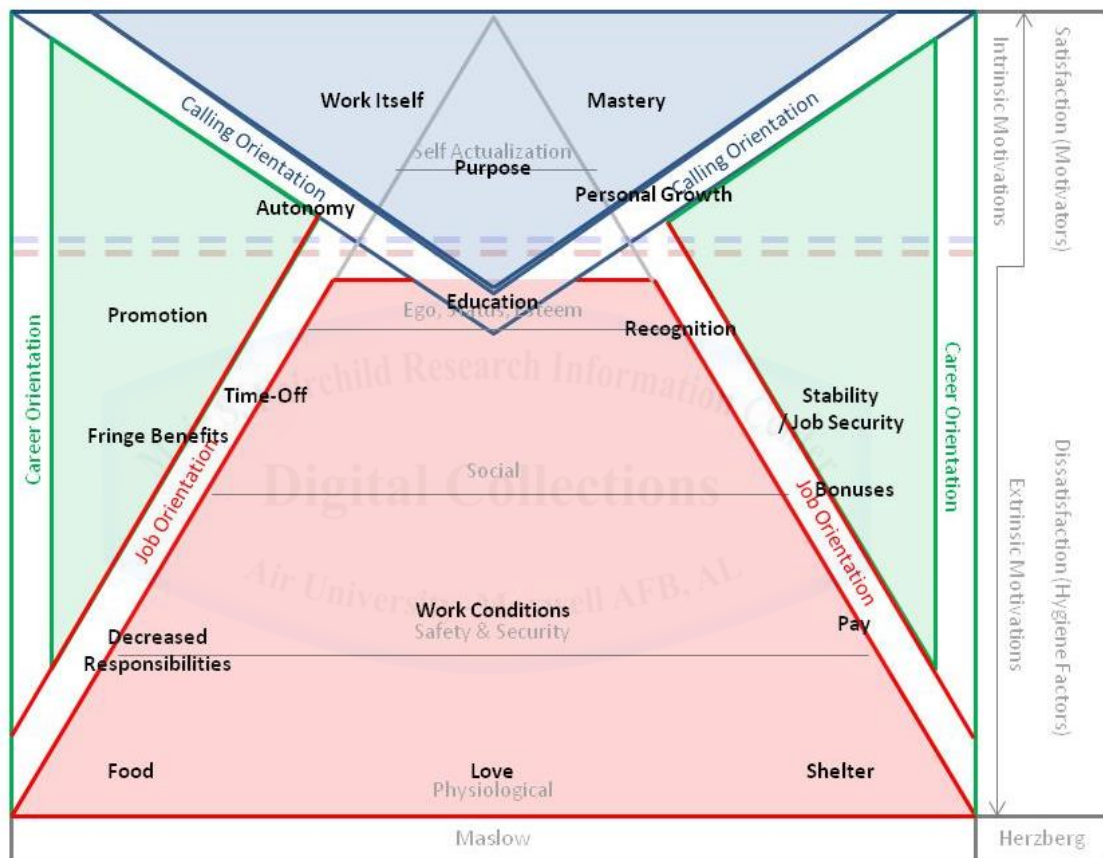


Figure 9: Step-five, the Completed Proposed Model of Motivation and Behavior.

Source: Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943); Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997).

¹⁶ Wrzesniewski et al., 22.

¹⁷ Wrzesniewski et al., 22.

Now that the proposed model is fully integrated (Figure 9), it can be used to provide a more thorough contextual understanding of the incentive options available to an organization. This is done, first, by showing the utility of a specific benefit. For example, is a particular benefit that an organization is using as an “incentive” a hygiene factor that will only prevent dissatisfaction when provided? Is a particular benefit a motivator that can help provide increased satisfaction? Is it a job, career, or calling-oriented benefit? What is the impact of using that benefit as an incentive? Second, this proposed model allows an organizational leader to assess the range of benefits her organization offers, in order to ensure that there is adequate distribution across the range of intrinsic and extrinsic incentives. These different types of incentives will be able to provide options to target the intrinsically-, extrinsically-, and dually-motivated individuals. Third, cost effectiveness can be determined once the options are outlined and separated into monetary and non-monetary incentives.

Summary

This chapter provided a systematic synthesis of the motivation and behavior theories from chapter 1 into a new, proposed model. This proposed model integrated Maslow’s Need Hierarchy; Herzberg’s Motivation Hygiene Theory; and Wrzesniewski et al.’s Job, Career, Calling Theory. This proposed model is used in chapter 4 to analyze current and potential Air Force retention initiatives.

CHAPTER 4

Analysis

This chapter uses the proposed model introduced in chapter 3 to analyze new and proposed Air Force retention initiatives, Air Force Special and Incentive Pay and non-monetary benefits, along with reasons cited in the 2015 Air Force Exit Survey to remain in or leave the service. This analysis provides a contextual understanding of how the incentive options available to the Air Force align with the modeled theories.

New and Proposed Air Force Retention Initiatives

The first retention-related initiatives applied to the model are the new and potential Air Force retention initiatives introduced in chapter 2 (Table 6). Applying these initiatives to the proposed model (Figure 10 and Table 7) reveals the level of need that the incentive satisfies (Maslow), the type of incentive, whether a motivator or a hygiene factor (Herzberg), and the work-related disposition that the “incentive” is tailored towards (Wrzesniewski et al.).

Table 6: New and Proposed Air Force Retention Initiatives

USAF Retention Initiatives
Extending VRADD
Raising of Bonus Limits
Increasing of Pay
Review of administrative requirements
Review of deployment requirements
Review of training requirements
Limiting Lengthy Deployments
Increasing Support Staff

Source: Based on data provided by Christopher M. Woody, “We Are A Service That Is Too Small: An Air Force Crisis Looks For A Shakeup,” Task & Purpose, 18 September 2017.

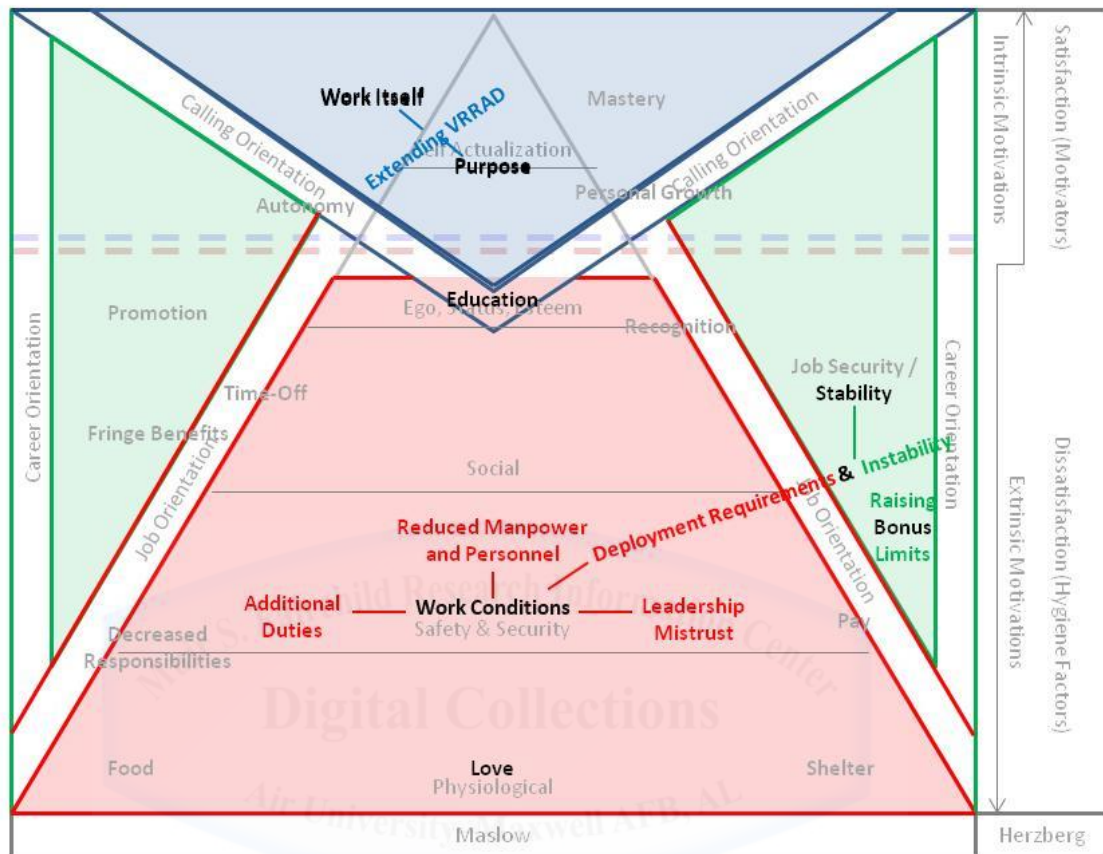


Figure 10: Analysis of New and Proposed Air Force Retention Initiatives using the Proposed Model of Motivation and Behavior.

Source: *New and Proposed Retention Initiatives Based on Information Provided by Christopher M. Woody, "We Are A Service That Is Too Small: An Air Force Crisis Looks For A Shakeup," Task & Purpose, 18 September 2017. Proposed Model Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." Psychological review 50, no. 4 (1943); Fredrick Herzberg, "One More Time: How Do You Motivate Employees" Harvard Business Review, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." Journal of Research in Personality 31, no. 1 (1997).*

Plotting the proposed Air Force initiatives into the model reveals the following general observations: First, all of the initiatives assessed, with the exception of extending VRRAD, satisfy only lower-level needs

(level two and three of Maslow's Hierarchy) and are hygiene factors according to Herzberg's theory. This does not mean they are not important; it simply means the Air Force cannot use them to effectively motivate. They may only serve to reduce dissatisfaction. Third, of the eight initiatives assessed, five fall into the job orientation, meaning they appeal to those who view their work as a job. Two of the remaining three initiatives are career oriented. The only initiative that can be considered calling-oriented and connected with the highest levels of Maslow's Hierarchy is "extending VRRAD"; therefore, this is the only current initiative that the Air Force could use to motivate calling-oriented individuals. Table 7 provides a matrix that delineates each of the Air Force retention initiatives discussed and outlines where they fall in the proposed model.



Table 7: Air Force Retention Initiatives Matrix

USAF Retention Initiatives	Hierarchy of Needs Level (Maslow)	Motivator or Hygiene Satisfaction or Dissatisfaction (Herzberg)	Job, Career, Calling Work Disposition (Wrzesniewski et al.)
Extending VRRAD	Level 4 - Ego, Status, Esteem Level 5 – Self-Actualization	Motivator	Calling
Raising of Bonus Limits	Level 2 - Safety & Security	Hygiene (non-motivator)	Career
Increasing of Pay	Level 2 - Safety & Security	Hygiene (non-motivator)	Job
Review of administrative requirements	Level 2 - Safety & Security	Hygiene (non-motivator)	Job
Review of deployment requirements	Level 2 - Safety & Security	Hygiene (non-motivator)	Job
Review of training requirements	Level 2 - Safety & Security	Hygiene (non-motivator)	Job
Limiting Lengthy Deployments	Level 2 - Safety & Security Level 3 - Social	Hygiene (non-motivator)	Career
Increasing Support Staff	Level 2 - Safety & Security	Hygiene (non-motivator)	Job

Source: *New and Proposed Retention Initiatives Based on Information Provided by Christopher M. Woody, “We Are A Service That Is Too Small: An Air Force Crisis Looks For A Shakeup,” Task & Purpose, 18 September 2017.*

Air Force Special and Incentive Pay and Non-monetary Benefits

The new and proposed incentives can now be compared to the existing Air Force Special and Incentive pay and non-monetary benefits (Table 8). Applying these initiatives to the proposed model reveals the level of need the incentive satisfies, the type of incentive, whether a motivator or a hygiene factor, and the work-related disposition that the “incentive” is tailored towards (Figure 11 and Table 9).

Table 8: Air Force Special and Incentive Pay and Non-monetary Benefits

USAF Special & Incentive (S&I) Pay
Assignment Incentive Pay (AIP)
Aviation Career Incentive Pay (ACIP)
Aviation Bonus (AvB)
Non-monetary Benefits
Choice of Duty Location
Unit Assignments
Education Benefits
Post 9-11 GI Bill Transferability
Career Intermission Program (CIP)

Source: USAF Special & Incentive Pay based on DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay. Non-monetary-benefits data from Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, Report to the Committee on Armed Services, U.S. Senate, “Military Compensation” GAO-17-39.

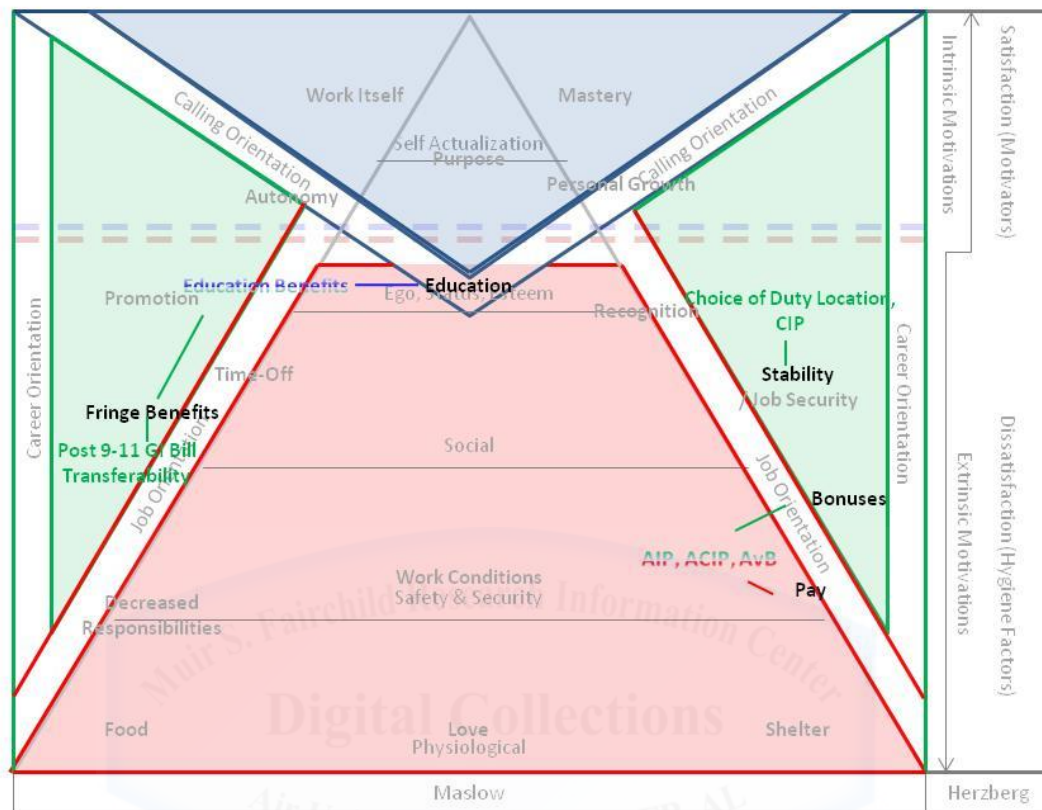


Figure 11: Analysis of Air Force Special and Incentive Pay and Non-monetary Benefits using the Proposed Model of Motivation and Behavior.

Source: USAF Special & Incentive Pay based on DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay. Non-monetary-benefits data from Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, Report to the Committee on Armed Services, U.S. Senate, “Military Compensation” GAO-17-39. Proposed Model Author’s Work Based on Abraham H. Maslow, “A Theory of Human Motivation.” *Psychological review* 50, no. 4 (1943); Fredrick Herzberg, “One More Time: How Do You Motivate Employees” *Harvard Business Review*, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. “Jobs, Careers, and Callings: People’s relations to their work.” *Journal of Research in Personality* 31, no. 1 (1997).

Plotting the Air Force Special and Incentive Pay and Non-monetary Benefits into the proposed model reveals the following general

observations. First, only one of the initiatives has motivating factors, education. However, how education is perceived is subjective; this initiative is only a motivator if viewed as such by the individual. In other words, while the chance to further one's education could be motivating to one, it can be seen as something that one has to do, rather than something that one wants to do. This variance in valence is the reason education is depicted at the intersection of job and calling orientations in the proposed model. Second, the other initiatives, post 9-11 GI Bill transferability, choice of duty location, CIP, and the special and incentive pay (AIP, ACIP, and AvB), can be considered as largely career-oriented. The one exception is the special and incentive pay, which could also be viewed as pay, and therefore, understood as job-oriented initiatives. Table 9 provides a matrix that delineates the Air Force Special and Incentive Pay and non-monetary benefits discussed and outlines where they fall in the proposed model, based on Maslow's Hierarchy of Needs Theory; Herzberg's Motivator-Hygiene Theory; and Wrzesniewski et al.'s Job, Career, Calling Theory.

Table 9: Air Force Special and Incentive Pay and Non-monetary Benefits Matrix

Existing Air Force Special & Incentive Pay and Non-monetary Benefits	Hierarchy of Needs Level (Maslow)	Motivator or Hygiene Satisfaction or Dissatisfaction (Herzberg)	Job, Career, Calling Work Disposition (Wrzesniewski et al.)
Assignment Incentive Pay (AIP)	Level 2 - Safety & Security	Hygiene (non-motivator)	Job, Career
Aviation Career Incentive Pay (ACIP)	Level 2 - Safety & Security	Hygiene (non-motivator)	Job, Career
Aviation Bonus (AvB)	Level 2 - Safety & Security	Hygiene (non-motivator)	Job, Career
Choice of Duty Location	Level 3 - Social	Hygiene (non-motivator)	Career
Unit Assignments	Varied	Hygiene or Motivator	Varied - Job, Career, or Calling
Education Benefits	Varied	Hygiene or Motivator	Varied - Job, Career, or Calling
Post 9-11 GI Bill Transferability	Level 3 - Social	Hygiene (non-motivator)	Career
Career Intermission Program (CIP)	Level 3 - Social	Hygiene (non-motivator)	Career

Source: USAF Special & Incentive Pay based on DOD Financial Management Regulation 7000.14-R Volume 7A: Military Pay Policy – Active Duty and Reserve Pay. Non-monetary-benefits data from Comments from the Department of Defense, (Appendix VI), United States Government Accountability Office, Report to the Committee on Armed Services, U.S. Senate, “Military Compensation” GAO-17-39.

USAF 2015 Pilot Exit Survey Retention Correlations

A further comparison can be made to the findings and recommendations from the Carson dissertation, *I Hear What You Are Saying*. Carson analyzed the 2015 Rated Exit Survey and found numerous similarities among the responses.¹ These patterns correlated both positively and negatively with pilot retention decisions (Table 10).

¹ Christopher M. Carson, *I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey*, Pardee RAND Graduate School dissertation, July 2017, 92.

Table 10: USAF 2015 Pilot Exit Survey Retention Correlations

Negative Retention Correlations (Reasons for Leaving the Air Force)
Leadership mistrust
Deployment-related instability
Reduced Manpower and Personnel
Additive Additional Duties
Positive Retention Correlations (Reasons for Staying in the Air Force)
Sense of Camaraderie
Sense of Community
Retirement Pensions
Reconnecting with the mission

Source: Authors Work Based on Christopher M. Carson, I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey, Pardee RAND Graduate School dissertation, July 2017.

As discussed in chapter 2, Carson asserted that, overall, personnel were not dissatisfied with the pay and benefits they received, and the bonus was not a factor in retention decisions.² Furthermore, he detailed a number of quality of life and quality of service issues that had a negative correlation to retention. These issues were creating a desire to leave the service; these reasons included lack of trust in leadership, deployment-related instability, reduced manpower and personnel, and additive non-flying administrative duties that kept individuals from performing the mission.³ Figure 12 and Table 11 show these negative correlations in the context of the proposed model.

² Carson, 92.

³ Carson, 92.

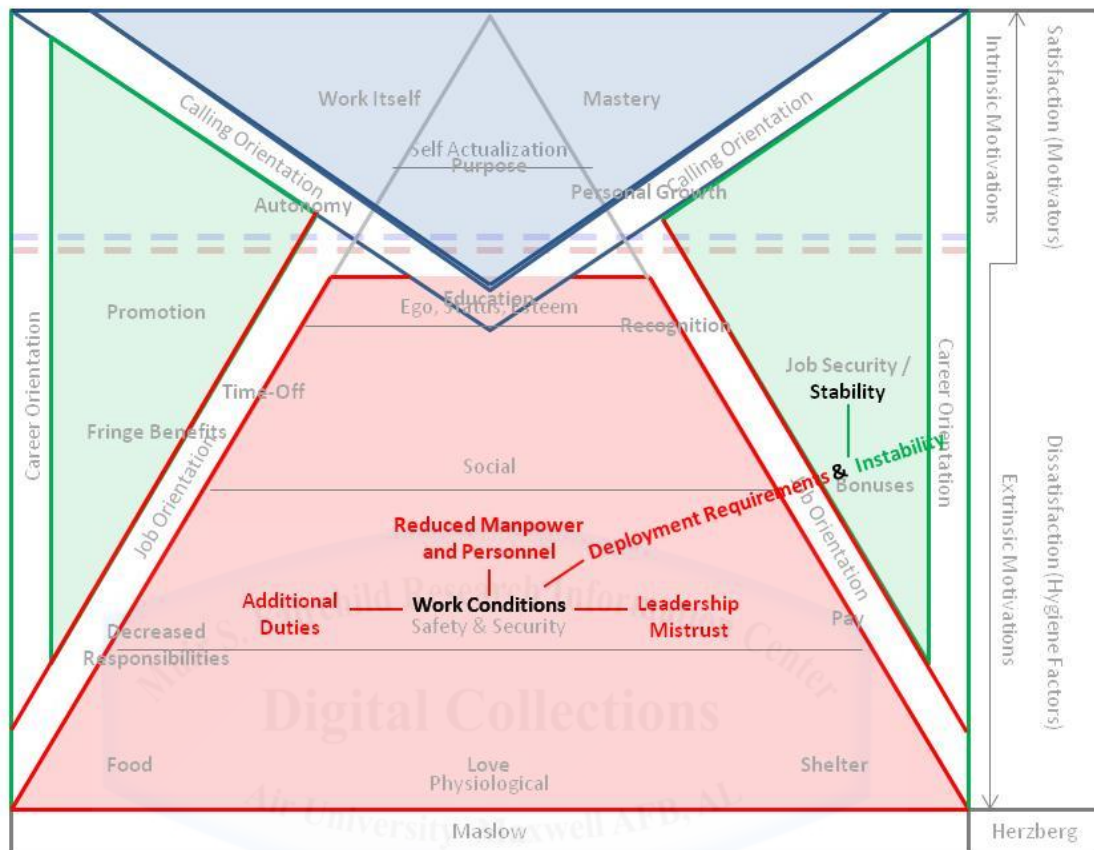


Figure 12: Analysis of Air Force Pilot-cited reasons for Leaving the Service, using the Proposed Model of Motivation and Behavior.

Source: Air Force Pilot-cited Reasons for Leaving the Service from Christopher M. Carson, *I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey*, Pardee RAND Graduate School dissertation, July 2017. Proposed Model Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943); Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997).

Table 11: Air Force Pilot-cited Reasons for Leaving the Service

Negative Retention Correlations (Reasons for Leaving the Air Force)	Hierarchy of Needs Level (Maslow)	Motivator or Hygiene Satisfaction or Dissatisfaction (Herzberg)	Job, Career, Calling Work Disposition (Wrzesniewski et al.)
Leadership mistrust	Level 2 - Safety & Security	Hygiene (non-motivator)	Job
Deployment-related instability	Level 2 - Safety & Security Level 3 – Social	Hygiene (non-motivator)	Job, or Career
Reduced Manpower and Personnel	Level 2 - Safety & Security	Hygiene (non-motivator)	Job
Additive Additional Duties	Level 2 - Safety & Security	Hygiene (non-motivator)	Job

Source: Air Force Pilot-cited Reasons for Leaving the Service from Christopher M. Carson, I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey, Pardee RAND Graduate School dissertation, July 2017.

The negatively correlated retention factors from Carson's work are all lower-level needs, based on Maslow's hierarchy. This means that individuals who cited these as influential reasons for leaving the service were perhaps stranded at the lower levels of Maslow's hierarchy. Furthermore, leadership mistrust, deployment-related instability, reduced manpower and personnel, and additive additional duties can all be considered hygiene factors. In accordance with Herzberg's Motivation-Hygiene Theory, their absence is creating dissatisfaction within the Air Force, which, as discussed in chapter 2, is distinct from a lack of satisfaction. Additionally, these factors are all consistent with job or career dispositions. Therefore, someone who cites these reasons for leaving is very unlikely to view their work as a calling.

Positive retention factors included a sense of camaraderie and community in the Air Force, as well as benefits, such as receiving a military retirement pension, and the appeal of performing their Air Force

mission, rather than “non-flying administrative duties.”⁴ Figure 13 and Table 12 show the positively correlated retention factors in the context of the proposed model.

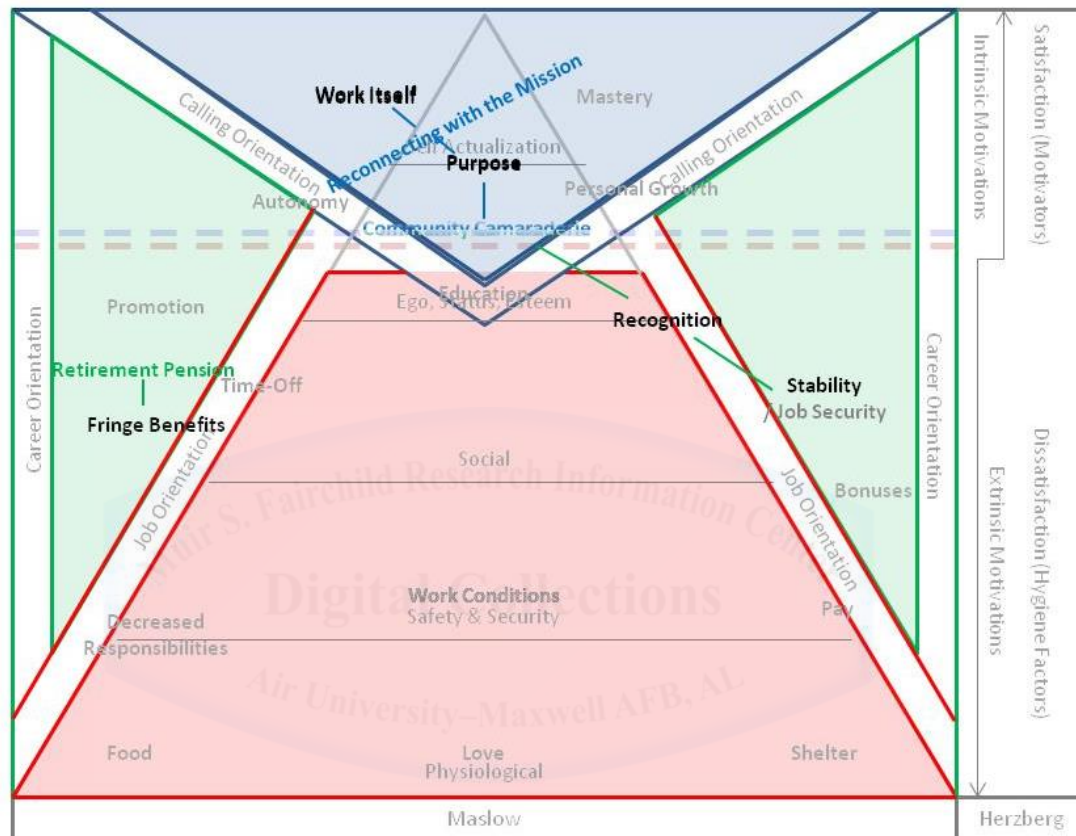


Figure 13: Analysis of Air Force Pilot-cited Reasons for Remaining in the Service, using the Proposed Model of Motivation and Behavior.

Source: Air Force Pilot-cited Reasons for Remaining in the Service from Christopher M. Carson, *I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey*, Pardee RAND Graduate School dissertation, July 2017. Proposed Model Author's Work Based on Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943); Fredrick Herzberg, "One More Time: How Do You Motivate Employees" *Harvard Business Review*, January February 1968; and Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, Careers, and Callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997).

⁴ Carson, 92.

Table 12: Air Force Pilot-cited Reasons for Remaining in the Service

Positive Retention Correlations (Reasons for Staying in the Air Force)	Hierarchy of Needs Level (Maslow)	Motivator or Hygiene Satisfaction or Dissatisfaction (Herzberg)	Job, Career, Calling Work Disposition (Wrzesniewski et al.)
Sense of Camaraderie	Level 3 - Social Level 4 - Ego, Status, Esteem	Hygiene or Motivator	Varied - Career, or Calling
Sense of Community	Level 3 - Social Level 4 - Ego, Status, Esteem	Hygiene or Motivator	Varied - Career, or Calling
Retirement Pensions	Level 3 - Social	Hygiene (non-motivator)	Career
Reconnecting with the mission	Level 4 - Ego, Status, Esteem Level 5 - Self-Actualization	Motivator	Calling

Source: *Air Force Pilot-cited Reasons for Remaining in the Service* from Christopher M. Carson, *I Hear What You Are Saying: Analysis of USAF Rated Officer Comments from the 2015 Military Career Decisions Survey*, Pardee RAND Graduate School dissertation, July 2017.

Carson's positive retention correlations are primarily higher-level needs, based on Maslow's hierarchy. This means that individuals who cited these as influential reasons for staying in the service likely feel their lower-level needs are fulfilled, and desire the attainment of the higher-level needs. Additionally, these initiatives all correspond to career- and calling-oriented individuals. As discussed in chapter 2, calling-oriented initiatives are not only less costly, they are also motivators, in accordance with Herzberg's Motivation-Hygiene Theory. This means that the presence of these initiatives can influence satisfaction and a lack of these initiatives has the potential to result in a lack of satisfaction, not to create dissatisfaction.

Summary

This chapter used the proposed model to analyze current and potential Air Force retention initiatives, Air Force Special and Incentive Pay and non-monetary benefits, along with reasons cited in the 2015 Air Force Exit Survey to remain in or leave the service. This analysis

provided contextual understanding of how the incentive options available to the Air Force align with the modeled theories. The final chapter provides observations and recommendations for how the Air Force can use the proposed model to inform retention incentive decisions, along with areas for future research and implications for the Air Force.



CHAPTER 5

Conclusion

This final chapter is divided into three sections. The first section provides the six most germane observations and recommendations derived from the collective analysis using the literature and the proposed model on what the Air Force can do to address the manning crisis. The second section recommends areas for future research. The final section concludes this research with implications for the Air Force.

Observations

Observation 1. The Air Force has not assessed the impact non-monetary incentives have on the service's ability to retain personnel and foster top talent.¹

Recommendation 1. The Air Force should incorporate longitudinal survey results and focus group feedback to help assess the impact non-monetary initiatives have on retention and fostering talent. This data should help inform the overall DOD the assessment on non-monetary incentives, as directed by the GAO.

Observation 2. Air Force Airmen are engaged in a continual process of fulfilling prioritized needs and ascending Maslow's Needs Hierarchy. However, at any given time, an Airman may have to revert to a lower level if those lower-level needs are not being met.

¹ United States Government Accountability Office, *Report to the Committee on Armed Services, U.S. Senate, "Military Compensation"* GAO-17-39, 8.

Recommendation 2. The Air Force should identify programs and benefits that are key to fulfilling lower-level needs and ensure Airmen have access to these programs and benefits. This could include having adequate support staff and providing family support. Additionally, commanders and supervisors should understand that unless lower-level needs are fulfilled their airmen will not be able to focus on fulfilling higher-level needs, which would benefit the service as well as the individual.

Observation 3. Hygiene factors, those factors that lead to dissatisfaction, are distinct from motivators, the factors that lead to satisfaction.² Moreover, the presence of hygiene factors does not lead to satisfaction or superior performance.³ Many traditional DOD incentives, such as incentive pay, are examples of extrinsic, hygiene factors and have limited impact on motivation, satisfaction, or superior performance.

Recommendation 3. The ACTF and Air Force leaders should not try to motivate or incentivize behavior through the use of hygiene factors. Rather, they should categorize incentive options into hygienes and motivators and then offer a balance of extrinsic and intrinsic

² Ronald L. Pardee, "Motivation Theories of Maslow, Herzberg, McGregor, and McClelland: A Literature Review of Selected Theories Dealing with Job Satisfaction and Motivation" February 1990, 9.

³ Pardee, 9.

initiatives. This should help alleviate frustration with incentive misalignment and should help to motivate and retain Airmen at differing levels of the needs hierarchy.

Observation 4. Locke's studies on work satisfaction reveal a consistent negative relationship with turnover.⁴ Airmen who are dissatisfied with their work are likely to leave the organization.

Recommendation 4. The ACTF should clearly identify and distinguish motivators and hygiene factors and work to reduce job dissatisfaction. This can be accomplished by ensuring Airmen have their hygiene needs met. An airman who lacks hygiene factors (such as administrative support) is likely to be dissatisfied, even if motivators (such as the availability of promotion) are present.

Observation 5. Locke provides an important distinction between overall work satisfaction and work facet satisfaction. One could be satisfied with their work overall, but dissatisfied with certain facets of that work. For example, the 2015 Exit Survey reported large numbers of Airmen who cited additional duties as a top reason for leaving the service.

Recommendation 5. The Air Force should identify and minimize undesirable work facets, where able, in order to

⁴ Timothy A. Judge and Ryan Klinger, "Promote Job Satisfaction Through Mental Challenge," Locke, Edwin, ed., *Handbook of Principles of Organizational Behavior: Indispensable knowledge for evidence-based management, Second Edition*, Ch 6, John Wiley & Sons, 2011, 106.

help reconnect Airmen with the mission and improve overall job satisfaction.⁵

Observation 6. Wrzesniewski et al. showed individuals who view their work as a calling oftentimes are not as concerned about career advancement; rather, they desire to do work they enjoy, for the love of the work itself.⁶ These individuals tend to work harder and report higher levels of life and overall work satisfaction.⁷ This may be frustrating for Airmen who are unable to remain doing work they enjoy due to personnel policies, such as up-or-out and the current Air Force promotion requirements.

Recommendation 6. The Air Force should consider offering Airmen who desire to continue to perform work they enjoy the option to achieve mastery of their technical and tactical skills without many of the leadership and advancement pressures commissioned officers and non-commissioned officers face. These options might include providing a Warrant Officer career track, ending the exclusive use of year groups for officer promotions, or reducing up-or-out policies.⁸

⁵ For further information on job facet satisfaction, see Spector, Paul E. *Job satisfaction: Application, assessment, causes, and consequences*. Vol. 3. Sage publications, 1997.

⁶ Wrzesniewski, Amy, Clark McCauley, Paul Rozin, and Barry Schwartz. "Jobs, careers, and callings: People's relations to their work." *Journal of Research in Personality* 31, no. 1 (1997), 29.

⁷ "Calling respondents reported notably and significantly higher life and job satisfaction than Job and Career respondents" ... "Calling respondents also ranked work satisfaction significantly higher (relative to hobbies and friends) than did Job and Career respondents" Wrzesniewski et al., 29.

⁸ In the book *Bleeding Talent*, Tim Kane offers an alternative to current military officer force management called the total volunteer force (TVF). One of the steps Kane identifies in the transition to his TVF is

Areas for Future Research

The following section identifies areas for future research. This section is similar to the observations and recommendations offered in the previous section. However, the observations cited need more research to determine the efficacy and applicability to the Air Force.

The first area for future research is related to Airmen's perception of their work and management's ability to systematically alter that perception. McGregor showed the impact management can have a positive (calling-oriented) or negative (job-oriented) impact on a worker's perception of the work they perform. The Air Force may be able to cultivate Airmen's perception of fulfilling a calling by increasing delegation, job enlargement, participation, consultative management practices, and giving employees input in setting their own objectives and in performing self-evaluation. This area should be studied to determine the degree to which this perception can be altered and to determine the feasibility of such an initiative.

The second area for future research is related to the Air Force mission providing Airmen a connection to a higher purpose. The military attracts many individuals who join because of the nature of service and offers individuals a connection to something larger than themselves. The impact of promoting calling-oriented aspects of Air Force service and using calling-oriented incentives is unclear. However, this should be studied to determine if the Air Force could increase the degree to which Airmen view their work as a calling, thereby potentially increasing

ending the use of year groups after officers have accrued a requisite amount of experience. Kane asserts that this would both free up officers to develop expertise in their primary specialty and afford the military the ability to promote individuals with the right mix of work ethic, technical expertise, integrity, creativity, and personality." For more information, see Tim Kane, *Bleeding Talent: How the US Military Mismanages Great Leaders and Why It's Time for a Revolution*, (New York, NY: Palgrave MacMillan, 2012), 136-139.

motivation and retention through bolstering a service-wide perception of having a work-based connection to a higher purpose.⁹

The final area for future research is related to the social status of serving in the Air Force. Wrzesniewski et al. found that prestige was more closely related to calling orientation than pay.¹⁰ This means that individuals who identify with having a calling generally perceive their work as having high social status, whereas individuals who identify with having a job or career generally perceive their work as having a lower-level social status.¹¹ Recommend the Air Force study the degree to which Airmen perceive their work to as prestigious and then determine if this perception can be altered. If it can be systematically altered, the Air Force could theoretically cultivate calling orientations by propagating information within the service on the prestige of being in the armed forces and the high level of trust citizens have in the armed forces, in general, and in the Air Force, more specifically.

⁹ Shoshana R. Dobrow. Extreme Subjective Career Success: A New Integrated View of Having a Calling” Published in Best Paper Proceedings, Academy of Management Conference, 2004, 3-4.

¹⁰ Wrzesniewski et al. found that “satisfaction with life and with work may be more dependent on how an employee sees his or her work than on income or occupational prestige.” Furthermore, they found that “respondents with Jobs, Careers, and Callings were very similar in age, income, and education, but may have differed in self-perceived social standing of their occupation (Career highest) and years in present position (Career between Job and Calling).” Wrzesniewski et al., 29 and 31.

¹¹ Wrzesniewski et al., 29 and 31.

Implications for the Air Force

It's nice to have the additional resources and we appreciate Congress' authority to be able to increase aviation bonuses...But if we're going to retain these pilots, it's going to be about reconnecting to the value proposition.

Air Force Chief of Staff, General David Goldfein

I talk to too many [pilots] all the time. They say, 'Senator McCain, all I want to do is fly. I want to be in combat.' That's what they're all about.

Chairman of the Senate Committee on Armed Services,
Senator John McCain

What General Goldfein and Senator McCain are really talking about is the intrinsic desire to serve.¹² This desire connects a person to something larger than himself: It is a man's or woman's intrinsic need to do "what he [or she] is fitted for."¹³ Doing what one "is fitted for" represents the highest level of Maslow's hierarchy and is at the center of the Air Force retention crisis. If the Air Force is going to be able to reconnect Airmen with the value proposition General Goldfein describes, the service needs to make sure Airmen perceive their work as valuable. The Air Force needs to ensure Airmen feel they belong to an organization that understands them and will work to fulfill their needs.

The Air Force faces a tremendous challenge. It is currently over 2,000 pilots short, and many fear that the problem will continue to grow. The challenge is similar to an aircraft that is desperately trying to land but, due to some poor decisions made by the pilot and due to some

¹² ¹² General Goldfein's quote is cited in Christopher Woody, "'We're burning out our people': The Air Force says its pilot shortage is getting worse," *Business Insider*, 9 November 2017, <http://www.businessinsider.com/air-force-pilot-shortage-crisis-getting-worse-2017-11>. Senator McCain's quote is cited in John Haltiwanger, "Trump's plan to save the Air Force from collapse due to pilot shortage won't work, U.S. military says," *Newsweek*, 14 November 2017, <http://www.newsweek.com/trumps-plan-save-air-force-collapse-due-pilot-shortage-wont-work-us-military-711668>.

¹³ Abraham H. Maslow, "A Theory of Human Motivation." *Psychological review* 50, no. 4 (1943), 382.

events outside of the pilot's control, is far from centerline, with a runway quickly coming up to meet the aircraft.

Fortunately, there seems to be a way out of the situation, and extant theories on motivation and behavior point the way back to centerline. This research attempted to answer the following question: How can research and theories on human behavior and motivation help senior Air Force leaders reshape personnel policy in order to reduce the manning crisis? To answer this question, this thesis explored the effectiveness and limitations of monetary and non-monetary incentives and integrated extant theories into a proposed model of behavior and motivation the ACTF and Air Force leaders can use to address the retention crisis. This tool can help Air Force leaders evaluate and implement incentive options by doing three things. First, it can help ensure that the service is adequately providing Airmen the tools and support necessary to help them transition up the hierarchy of needs. Second, it can be used to ensure hygiene factors are used to alleviate dissatisfaction and motivators are being tailored and used to incentivize behavior. Third, it can help the Air Force tailor calling-oriented initiatives to create more effective organizations, more satisfied Airmen, and ultimately to retain more Airmen.

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