Theses and Dissertations | 1. Thesis and Dissertation Collection, all items

2021-09

SYSTEM ANALYSIS OF THE ARMY COMMUNICATION NETWORK IN SUPPORT OF ENHANCED RECRUITING

Bennett, Michael A.; Delaney, Thomas B., III; Kalousdian, Justin A.; Shoultz, Michcell L.; Stiller, Priya; Szwarc, Kyle A.

Monterey, CA; Naval Postgraduate School

http://hdl.handle.net/10945/68297

NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

SYSTEMS ENGINEERING CAPSTONE REPORT

SYSTEM ANALYSIS OF THE ARMY COMMUNICATION NETWORK IN SUPPORT OF ENHANCED RECRUITING

by

Michael A. Bennett, Thomas B. Delaney III, Justin A. Kalousdian, Michcell L. Shoultz, Priya Stiller, and Kyle A. Szwarc

September 2021

Advisor: Joel J. Hagan
Co-Advisors: Alejandro S. Hernandez
Robert Semmens

Approved for public release. Distribution is unlimited.

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE	*Form Approved OMB No. 0704-0188*

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC, 20503.

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE September 2021	3. REPORT TYPE AND DATES COVERED Systems Engineering Capstone Report

4. TITLE AND SUBTITLE SYSTEM ANALYSIS OF THE ARMY COMMUNICATION NETWORK IN SUPPORT OF ENHANCED RECRUITING	5. FUNDING NUMBERS
6. AUTHOR(S) Michael A. Bennett, Thomas B. Delaney III, Justin A. Kalousdian, Michcell L. Shoultz, Priya Stiller, and Kyle A. Szwarc	

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.	12b. DISTRIBUTION CODE A

13. ABSTRACT (maximum 200 words)

Methods of communication have increased greatly over the past 25 years. Faster, more targeted communication enables organizations to influence their audience with greater precision and achieve their effect with greater impact on those receiving the message. Communication has moved from the days of broadcasting (equivalent to the basic "dumb bomb") to targeted messaging aimed at specific groups or even individuals (equivalent to today's precision-guided munitions [PGM]). Targeted information is a "PGM" the Army can use to achieve a number of desired goals if that "weapon" is employed properly. Recruiting is a prime example of where precisely targeted communication can benefit the Army. The communications network, which includes messages, mediums, outlets, and audience, is a system that can be analyzed at its nodes and arc capacitance. Moreover, the operational effectiveness of the system is an area of analysis that will have an impact on the design and development of the network.

14. SUBJECT TERMS recruit, recruiting, recruitment, recruiting efforts, communication network, social media, media engagement, media platforms, virtual platforms, future generations, next generation, Gen Z, targeted messaging, effective messaging, sustained readiness, demographics, diverse population, diversity, advertisement campaign, marketing, influential, effectiveness, military service, TRADOC, USAREC	15. NUMBER OF PAGES 91
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

THIS PAGE INTENTIONALLY LEFT BLANK

SYSTEM ANALYSIS OF THE ARMY COMMUNICATION NETWORK IN SUPPORT OF ENHANCED RECRUITING

Michael A. Bennett, Thomas B. Delaney III, Justin A. Kalousdian,

Michcell L. Shoultz, Priya Stiller, and Kyle A. Szwarc

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN SYSTEMS ENGINEERING MANAGEMENT

from the

**NAVAL POSTGRADUATE SCHOOL
September 2021**

Lead Editor: Thomas B. Delaney III

Reviewed by:

Joel J. Hagan   Alejandro S. Hernandez
Advisor   Co-Advisor

Robert Semmens
Co-Advisor

Accepted by:

Oleg A. Yakimenko
Chair, Department of Systems Engineering

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Methods of communication have increased greatly over the past 25 years. Faster, more targeted communication enables organizations to influence their audience with greater precision and achieve their effect with greater impact on those receiving the message. Communication has moved from the days of broadcasting (equivalent to the basic "dumb bomb") to targeted messaging aimed at specific groups or even individuals (equivalent to today's precision-guided munitions [PGM]). Targeted information is a "PGM" the Army can use to achieve a number of desired goals if that "weapon" is employed properly. Recruiting is a prime example of where precisely targeted communication can benefit the Army. The communications network, which includes messages, mediums, outlets, and audience, is a system that can be analyzed at its nodes and arc capacitance. Moreover, the operational effectiveness of the system is an area of analysis that will have an impact on the design and development of the network.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

AAA   Army Audit Agency

AEMO   Army Enterprise Marketing Office

AIDA   Awareness-Interest-Desire-Action

AMRG   Army Marketing and Research Group

BDE   Brigade

BG   Brigadier General

BMA   Business Mission Area

CBSA   Core Based Statistical Area

CPM   Cost per mile

CRM   Customer Relationship Management

DDB   Doyle, Dane, Bernbach

DOD   Department of Defense

eBRC   Electronic Business Reply Card

EKR   Enterprise Knowledge Repository

GAO   Government Accountability Office

HQDA   Headquarters-Department of the Army

JAMRS   Joint Advertising, Market Research and Studies

LOE   Lines of Effort

M&RA   Manpower and Reserve Affairs

MBSE   Model-Based System Engineering

MOS   Military Occupation Specialties

MRC   Marketing Research Cell

OEMA   Office of Economic and Manpower Analysis

OPM	Office of Personnel Management
OVB	Operation Virtual Blitz
PGM	Precision Guided Munitions
POC	Points of Contact
PPC	Pay Per Click
PRIZM	Potential Rating Index for Zip Markets
SEA	Search Engine Advertising
SEO	Search Engine Optimization
SQL	Sales-Qualified Lead
TRADOC	Training and Doctrine Command
USAREC	United States Army Recruiting Command
USP	Unique Selling Points
VRS	Virtual Recruiting Station
WIP	Work in Process

EXECUTIVE SUMMARY

The Army's efforts to meet recruitment numbers have systematic challenges. Many Americans do not qualify to join the Army for a myriad of reasons not related to lack of patriotism. In 2018 the Army missed its recruiting goal for the first time since 2005 (MWI USMA 2019). Solving the recruiting problem involves numerous factors contributing to meeting recruitment numbers and maintaining a volunteer force. This study examines the Army's accessions system along with the national-level advertising and marketing system that supports it. The responsibilities of attracting and enlisting recruits to fill the Army ranks falls within the scope of two key organizations, the United States Army Recruiting Command (USAREC) and the Army Enterprise Marketing Office (AEMO). USAREC's primary mission is to recruit America's daughters and sons to position the Army to win and dominate across all domains in a complex world. USAREC's recruiting is enhanced by the effectiveness of AEMO's marketing and advertising campaigns.

This report explores the organizational landscape and processes of Army recruiting and marketing and provides recommendations to improve these processes to better meet accession goals and sustain readiness. A principled systems analysis process added structure and a tested method to fully understand today's gaps across marketing and recruiting processes. Blanchard and Fabrycky's Systems Analysis Workflow Diagram (Fabrycky 2011) consisting of eight sequential steps was selected to guide structured analysis and problem solving. A combination of two research methods were used: snowball sampling and archival research. The snowball began with a single point-of-contact (POC) in the Training and Doctrine Command (TRADOC) and expanded to ultimately encompass many POCs within the accessions network across organizations that included USAREC and AEMO. The study's archival research came from various sources including Government Accountability Office (GAO) Reports, Army Audit Agency (AAA) Reports, Campaign Plans, Army Accession Mission Letters, Marketing Segmentation Guides, and internal organization presentations.

The study's research led to decomposing the effective need into four analytic sub-categories to address causes of recruiting deficiencies. Each sub-category was analyzed using various methods as described below with resulting findings.

1. Marketing and Sales Funnel Analysis: Marketing and sales funnel data was provided by USAREC and AEMO that provided insight into how each funnel strategy aligns with each of the organizational business models. Analysis methods utilized Model-based systems engineering (MBSE) tools to generate a spider diagram to visually represent the roles and responsibilities of both organizations and identify areas of shared functionality and overlap.

2. Process Model Analysis: Research identified process models within the Army's Enterprise Knowledge Repository (EKR) specific to marketing and recruiting. Analysis methods leveraged information from USAREC and AEMO along with MBSE tools to create IDEF(0) and swim-lane diagrams to analysis the Army's existing marketing and recruiting processes. The analysis confirmed a clear distinction in roles that each organization performs in terms of marketing, lead generation, and recruitment; however, despite these distinct roles, inefficiencies and issues exist within the process that hinder the Army from optimizing its recruiting.

3. Production Modeling Analysis: The study leveraged a USAREC report detailing results of its national Operation Virtual Blitz (OVB) recruiting event, which depicted the event's numerical results throughout each step of the process culminating in signed recruit contracts. This study analyzed the OVB results by applying production model analysis techniques to determine if its principles could be applied to the recruiting process. MBSE tools were used to model the process. Little's Laws production analysis formulas were applied to calculate throughput and determine bottlenecks. The findings revealed that production modeling could be applied to the OVB results and identified the last step in the OBV process as the capacity constrain or system process bottleneck.

4. Fishbone Analysis: Brainstorming, affinity diagramming, a fishbone diagram, and the "5 Why's" method were applied to find the root cause for identified issues within the marketing and recruiting processes. The team noted five findings with one cause, that was not addressed by other analyses. That cause being a small candidate pool leading to fewer leads that result in fewer contracts. The candidate pool at its current trajectory will continue to shrink. This negatively impacts the number of available and qualified individuals that could be Army recruits. The Army's brand image, increased obesity, and preexisting health issues were the largest contributors, with the Army's brand image as the most actionable finding.

This research was synthesized to further refine the findings, determine areas requiring additional research, and document conclusions and recommendations to answer identified research questions for each subcategory.

1. Marketing and Sales Funnel: The results in the sales funnel analysis identified that the differing organizational marketing and sales funnels could be causing disconnect and overlap in approach and execution. This study recommends creating a collaborative working group of individuals from USAREC and AEMO to establish a single marketing and sales funnel that emulates the evolved roles of advertising and sales since the advent of digital marketing.

2. Process Model: The process model analysis identified sufficient baseline processes and assigned roles and responsibilities but identified opportunities that for process improvement. This study recommends leveraging the production modeling principles by applying cycle times to the existing EKR process charts to objectively identify inefficiencies, which could be improved through process reengineering result in revised technical publication updates. The study additionally recommends establishing a common operating picture in the Army Vantage data platform through data visualization to proactively unify the various organizations to meet Army Military Occupation Specialties (MOS) requirements.

3. Production Modeling: Production model analysis concluded that capacity constraints, or bottlenecks in the recruiting process, are a cause for diminishing

recruiting numbers. Applying production modeling principles to the accessions process provides a scientific method to objectively identify and improve system inefficiencies. This study recommends that future analysis perform production modeling of the overall accession processes. Application of production modeling principles will continually enable our stakeholders to objectively identify weaknesses in the dynamic process and provide scientific data to support targeting the specific bottleneck step that for which efficiency improvement will result in the immediate return on investment.

4. Fishbone: This study recommends that the Army continue its current marketing strategy aimed at Generation Z and their influencers, predominantly parents, to demonstrate the Army's diverse workforce reflective of country's population, that together serves a mission critical to country's survival. This study recommends the Army create the sense of urgency that drives motivation and leads to enlistment. Competitive pay, benefits, and fair treatment are essential elements to driving recruitment, but the focus should remain on the Army's primary mission and the values exemplified by its forces.

The conclusions and recommendations presented in this report are intended for consideration, tailoring, further study and use by the key stakeholders responsible for Army marketing and recruiting efforts. The report outlines organizational and process-related areas that can benefit from further study or improvement addressing the Army's need for an efficient and effective marketing and accession system that supports Army readiness.

References

Blanchard, Benjamin S., and Wolter J. Fabrycky. 2011. *Systems Engineerng and Analysis.* 5th ed. Upper Saddle River, NJ: Prentice Hall.

MWI USMA. 2019. mwi.usma.edu. Accessed 2021. https://mwi.usma.edu/not-economy-army-missed-recruitment-goals/.

I. INTRODUCTION

A. OVERVIEW

The "Army People Strategy" declares with conviction, "The Total Army must remain ready as the world's premier combat force. That readiness *relies upon people* [emphasis added]*"* (Army 2019). The Army's efforts to meet recruitment numbers have systemic challenges. Many in America do not qualify to join the Army for a myriad of reasons not related to a lack of patriotism. This reduces the pool of candidates, but the Army must find qualified individuals who are able and willing to serve, like a needle in a haystack.

Additionally, the methods to search the haystack are getting more complicated by today's evolving communication climate, along with a public relations and image issue that the Army faces. Although the Army has embraced new communication methods such as viral marketing techniques to target future recruits better, meeting recruitment numbers remains concerning. To address this concern, the Army is focusing on marketing innovations that include improving how the Army communicates to the American people, what messages reach every demographic, and how to communicate who the Army is as an entity (WBR Insights n.d.).

The U.S. Army Recruiting Command (USAREC) recruits America's daughters and sons to position the Army to win and dominate across all domains in a complex world. USAREC's recruiting is supplemented by national marketing efforts from the Army Enterprise Marketing Office (AEMO). This capstone report explores the organizational landscape and processes of Army recruiting and marketing. Figure 1 illustrates the organizational landscape and the capstone project boundaries as illustrated by the dashed area in the context diagram. This report provides recommendations to the Army to improve recruiting and marketing processes, with the aim of better meeting accession goals and sustaining readiness. The proposed methodologies are anticipated to be deployable within the Army for current and future recruiting efforts as well as across the Department of Defense (DOD).
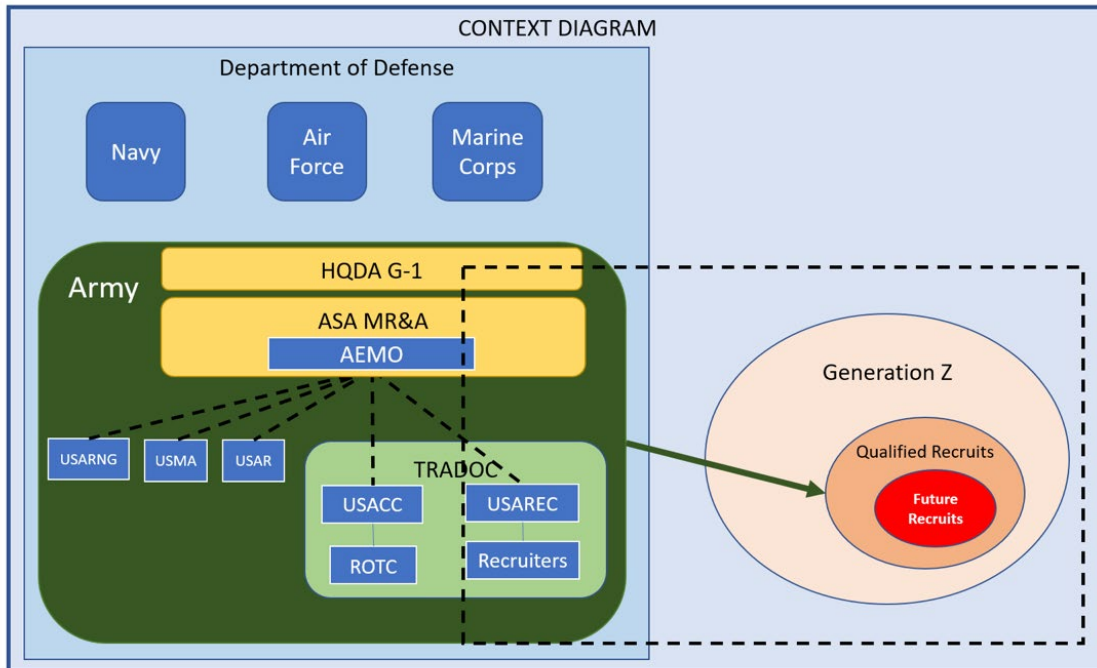
Figure 1:   Army Recruiting Context Diagram

B.   PROBLEM STATEMENT

In 2018, the Army missed its recruiting goal for the first time since 2005. They are facing other emerging challenges that could negatively affect readiness (MWI USMA 2019). Solving the recruiting problem involves numerous factors contributing to meeting recruitment numbers and maintaining a volunteer force. This capstone project focuses on a portion of that problem based on the following effective need:

The Army has a recognized need for an efficient and effective national-level advertising and marketing system that supports the Army's accession program. Recent actions to address U.S. Army Audit Agency (AAA) findings resulted in nascent processes that can benefit from further study and improvement.

Addressing this effective need involves recognizing the current challenges that recruiters and marketers face that have become starkly apparent in appealing to the most immediate target population, Generation Z—commonly referred to as Gen Z. Generation Z consists of people born between 1997 and 2012 (Beresford Research 2021). In his July

2020 article about Army recruiting, "How to Reach Generation Z," Sergeant Major (SGM) Darren Lee Colwell explains that each generation is different and military recruitment marketing approaches need to adapt to those differences (Colwell 2020). SGM Colwell adds that the Army recognizes this challenge and must find a way to appeal to Generation Z and inspire them to fill the ranks or face "rippling national security implications" (Colwell 2020).

C.   RESEARCH OBJECTIVE

The capstone project objective is to provide recommendations to the Army to improve recruiting and marketing processes to better meet accession goals and sustain readiness. The main research question is: How can the marketing process be enhanced to meet accession goals for the Army?

As the capstone team gathered data from stakeholders and sources to answer the research question, four sub-questions were progressively formulated to holistically address the problem. The recommendations are presented to address the effective need by answering the following sub-questions:

1. What are the organizational relationships, roles, and responsibilities in the accession process and are these relationships synergized?

2. What processes are in place to ensure the right people are creating a consistent and influential message that appeals to the different demographics within the target audience?

3. Would the application of production modeling principles to the accession process provide specific targets for process improvement?

4. What process specific opportunities exist to improve the functions and integration within the Army's Marketing and Recruiting processes?

The capstone team recognized that answering the sub-research questions would require an understanding of three key areas to address the problem. First, we needed to understand current challenges and the dynamic environment social media enabled within marketing, advertising, and sales—the key functional mission areas essential to solving the

3

problem. Next, we needed to understand the processes used by the Army communications network. Lastly, we needed to understand the organizational relationship between the agencies involved to provide recommendations to our stakeholders.

D.   PRINCIPLED APPROACH

The capstone project was guided by a principled systems analysis process to add structure and a tested method to provide improvement recommendations for the Army's marketing and recruiting processes. The team utilized the Systems Analysis Workflow Diagram represented below in Figure 2. The systems analysis workflow consists of eight sequential steps: (1) Requirements, (2) Analysis Approach, (3) Evaluation Criteria, (4) Evaluation Techniques, (5) Modeling, (6) Data Collection, (7) Evaluations of Alternatives, and (8) Analysis Results. The capstone report walks through a tailored version of the 8-step process. The requirements of the Army and pertinent information necessary for a thorough analysis of the problem are outlined in Chapter II. More details on the workflow's use are provided in Chapter III outlining the evaluation techniques used to understand, synthesize and analyze the problem with various analysis methods. In Chapter IV, each research sub question is addressed by a selected analysis method along with the associated results. Finally, the conclusions and recommendations of the analysis are presented in Chapter V.
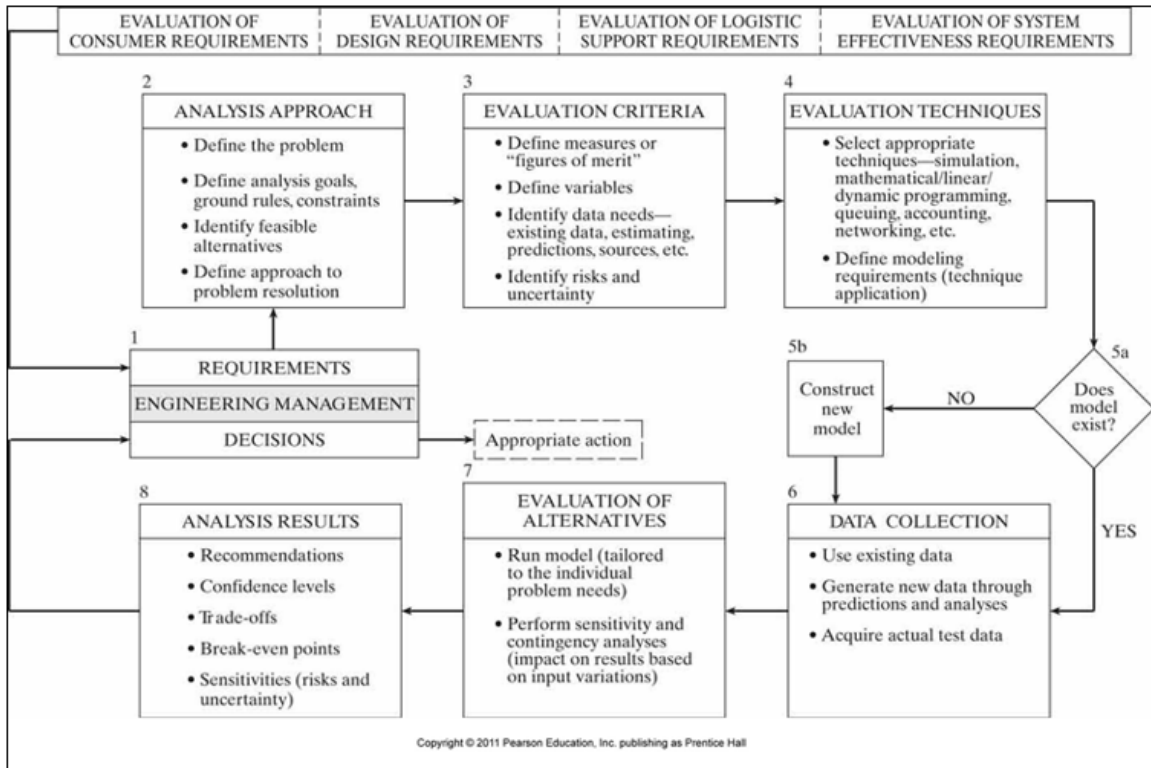
Figure 2:   Systems Analysis Workflow Diagram. Source: Blanchard and Fabrycky (2011).

THIS PAGE INTENTIONALLY LEFT BLANK

II.   LITERATURE REVIEW

This chapter outlines the relevant background, previous efforts, related work, and pertinent information on the Army's recruiting and national level marketing system that supports the Army's accession program.

A.   ARMY MARKETING AND ADVERTISING RECENT HISTORY

The U.S. Government Accountability Office (GAO) performed two studies, the first in 2016 and another in 2019, to examine the effectiveness of the DOD advertising activities. In 2016, the U.S. Senate provisioned GAO to assess the DOD's advertising coordination among the service components, adherence to commercial best practices for assessing effectiveness for generating leads for potential recruits, and oversight of components' advertising activities (U.S. Senate 2015). In their 2016 report, "DOD Advertising: Better Coordination Performance Measurement, and Oversight Needed to Help Meet Recruitment Goals (GAO–16–396)," GAO found that although there is some coordination, DOD lacked oversight of components' programs, formal coordination processes, and consistent measurement of programs, especially at the local level (U.S. Government Accountability Office (GAO) 2016).

In response to recommendations from GAO–16–396, DOD Instruction (DoDI) 1304.35, *Military Marketing,* was published on 1 November 2017. This instruction "implements a formal process for information sharing among the services and seeks to eliminate duplication, overlap, and fragmentation that may result from a lack of coordination" (Department of Defense Instruction 2020). The instruction is applicable to "the Office of the Secretary of Defense (OSD), Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DOD Field Activities, and all other organizational entities within the DOD" and mandates that senior marketing representatives from each service attend a quarterly coordination meeting (Department of Defense Instruction 2020). The DOD intended for these meetings to create a venue to share best practices, lessons learned, and eliminate

duplicative efforts between stakeholder organizations while also providing those organizations an opportunity to discuss emerging advancements and trends within private industry that could have application to improve the recruiting process.

At the Department of the Army (DA) echelon, the Army designated the Army Enterprise Marketing Office (AEMO) with the responsibilities for the advertising efforts for the Active Component, Reserve Component, and Army National Guard. Table 1 illustrates the Army organizations with a responsibility in the accession process. AEMO responsibilities, formerly performed by the Army Marketing and Research Group (AMRG), are listed at the top.

Table 1:   Army Organizations with Roles and Responsibilities in the Army's Marketing and Advertising Program. Source: United States Government Accountability Office (2019).

Army Organization	Roles and Responsibilities
Army Marketing and Research Group (AMRG), recently redesignated as the Office of the Chief Army Enterprise Marketing[a]	• Plan and execute the Army's national marketing strategy • Oversee the Army's primary marketing and advertising contract • Provide guidance and oversight for the Army's local marketing and advertising activities • Conduct marketing and accessions research
U.S. Army Training and Doctrine Command (TRADOC)	• Exercise responsibility for the Army's accessions mission and recruit and train soldiers • Provide guidance and resources specific to supporting the accessions mission and generating leads • Develop current market insights and local market innovations
U.S. Army Recruiting Command (USAREC)[b]	• Recruit Active Duty and Army Reserve soldiers and some officer candidates • Conduct local marketing and advertising activities in support of its recruiting goals
U.S. Army Cadet Command (USACC)[b]	• Administer the Army Reserve Officers' Training Corps program and, through that program, recruit Army officer candidates • Conduct local marketing and advertising activities in support of its recruiting goals
Office of the Chief, Army Reserve	• Collaborate with AMRG on national marketing and advertising for the Army Reserve • Provide guidance to USAREC and USACC on local marketing and advertising activities
Army National Guard	• Support state-level marketing and advertising activities

Source: GAO analysis of Department of the Army information. | GAO-20-93

In November 2019, the GAO released a report titled "Army Marketing: The Army Has Taken Recent Actions That Could Improve Program Oversight, Effectiveness, and Workforce Practices (GAO-20-93) (U.S. Government Accountability Office 2019)." Contained within this report were follow-up to findings published in two 2018 AAA studies titled "The Army's Marketing and Advertising Program: Return on Investment, Audit Report A-2018-0036-MTH (Fort Belvoir, Va.: Apr. 13, 2018)" and "The Army's

Marketing and Advertising Program: Contract Oversight, Audit Report A-2018-0033-MTH (Fort Belvoir, Va.: Apr. 13, 2018)." GAO-20-93 recounted findings concerning AMRG's insufficient oversight of performance by the contractor in execution of marketing and advertising requirements. At that time, AMRG was responsible for administering national marketing and advertising programs for the Army. According to GAO-20-93, AMRG took the following actions to address the 2018 AAA findings:

- "Contract Oversight: AMRG has developed processes for overseeing the advertising agency's performance and services. For example, AMRG developed a form program manager use to validate that proposed advertising services are not already provided through other contracts (U.S. Government Accountability Office 2019)."
- "Program Effectiveness: AMRG has taken steps in several areas related to revising its strategic marketing goals to support Army recruiting, updating how it assesses marketing and advertising effectiveness, and improving the reliability of data systems. AMRG's steps are consistent with commercial best practices that GAO identified for assessing the effectiveness of advertising, such as identifying outcomes from advertising" (U.S. Government Accountability Office 2019).

As a result, the GAO-20-93 report asserted that the Army had "taken steps to improve the oversight of its primary marketing and advertising contract and measurement of the effectiveness of its marketing and advertising program in response to two AAA reports" (U.S. Government Accountability Office 2019). Further information was published on GAO's website in March 2020 on the additional progress of actions taken by the DOD because of the implementation of DOD Instruction 1304.35. The DOD had leveraged its advertising resources which resulted in an improved posture to reduce unnecessary duplication, overlap, and fragmentation (U.S. Government Accountablilty Office 2020).

Figure 3 and Figure 4 illustrate the phases of Army marketing and advertising activities progressing toward obtaining overall recruitment goals. As explained in the GAO-20-93 report, the three phases depicted in these figures align to a potential recruit's decision-making process to join the military and how the military's marketing efforts change by phase to progressively motivate individuals to enlist (United States Government Accountability Office 2019). Also, from GAO-20-93, the model is an inverted pyramid

that is wider at the top and gradually narrows as it descends, to emphasize how marketing efforts are designed to start the "consumers journey" to enlistment with broad awareness of military service and opportunities and then provide more focused and tailored marketing content to targeted individuals as they progress through the process to increase the probability of successful recruitment.

Figure 3:　　Army Marketing and Advertising Phase and Activities in Support of Recruitment Goals. Source: United States Government Accountability Office (2019).

Figure 4:　　Comparison of the Fiscal Year 2018 and Fiscal Year 2019 Army Marketing Goals to Marketing and Advertising Phases. Source: United States Government Accountability Office (2019).

AEMO is critical to USAREC's ability to develop and put forth advertising and marketing content and brand strategy is the Army's marketing organization. AEMO arose as a reaction to the adverse 2018 GAO report findings. In May 2019, AMRG was redesignated as the Office of the Chief Army Enterprise Marketing, was reassigned as a field operating agency of the Deputy Chief of Staff, G–1, and moved to Chicago in accordance with Army General Order (AGO) 2019-18 (Esper 2019). AGO 2019-18 documents that AEMO assumes AMRG's national marketing and advertising mission for the Army and includes transfer of authorities, responsibilities, personnel, and resources (funding, equipment, and property) from AMRG to AEMO.

According to the AEMO LinkedIn home page, "AEMO is the central entity responsible for developing an integrated, experiential marketing framework and strategy that leverages the existing equity of the Army and its sub-brands to support recruiting priorities. AEMO provides modern and agile marketing capability through investments in talent, data, and infrastructure and works with premier partners to develop best-in-class, integrated marketing campaigns designed to help the Army efficiently and effectively meet its recruiting mission" (AEMO 2021). According to an article published by AEMO Public Affairs on 3 September 2020, "The creation of the Functional Area (FA) 58 career field provides the talent for AEMO by attracting well-qualified active-duty Army officers with skills related to marketing strategy, content creation, content delivery and marketing analytics" (AEMO 2020). Creating a new career field was an effort to build the resource bench required for an effective marketing organization and to find talent to rival consultants at a civilian ad agency. Geographical location information specified in the September article pointed out that "most FA58 officers move to Chicago, IL where they engage in marketing operations alongside the Army's contracted advertising agency, Doyle Dane Bernbach (DDB) Chicago. Some FA58 officers move to West Point, NY where they form the core of an independent Marketing Research Cell that analyzes marketing challenges through an academic lens" (AEMO 2020).

There has been some controversy with DDB Chicago. The DDB company was sued for $100M by Hero Collective in 2017 (afaqs! News Bureau 2021). Hero Collective is a minority-owned marketing agency located in New York City and specializes in digital

content for culturally driven messages to influence business growth and social impact (Hero Collective 2021). In their lawsuit, Hero Collective claimed DDB committed fraud and "exploited" the Hero Collective to secure a ten-year, four-billion-dollar Army marketing contract (afaqs! News Bureau 2021). Research indicates this litigation is still ongoing and without resolution (Pacer Service Center 2021).

Despite ongoing litigation, DDB has continued to develop and produce campaigns for AEMO. Just before the Army National Hiring Days 2021, a major recruiting initiative, the Army rolled out a marketing campaign depicting real soldiers as anime characters that tell their unique stories. The marketing campaign featured short, animated videos, "to help as kind of complementary [effort] to what we are doing in Army National Hiring Days 2021," as stated by Brigadier General Patrick Michaelis, Deputy Commander of USAREC (Cox 2021). This was designed to be a colossal recruiting effort scheduled from mid-May through mid-June 2021 and focused on connecting with approximately 60,000 people from Generation Z. Army National Hiring Days was created in 2020 in response to COVID-19 and focuses on virtual recruiting in the absence of face-to-face recruiting opportunities due to COVID restriction.

A remaining question after reviewing the documentation is what systems are being used to track effectiveness. While AEMO and USAREC use google analytics tools to track effectiveness of digital advertising, research did not reveal any current systems capable of analyzing effectiveness of overall advertising campaigns. Automated systems to analyze the effectiveness of traditional advertising are not available, beyond services that query market opinions on those traditional advertising campaigns through questionnaires and surveys. This lack of capability is detailed in the subsequent section on traditional advertising methods.

B.   OTHER ADVERTISING AND MARKETING STAKEHOLDERS

To understand the recruiting process, it is necessary to see it holistically and identify external and internal influences on the context of the accession system. Research explored this context to identify all organizations that participate in the Army recruiting

process as stakeholders. This overview provides a landscape image of the directly involved and their association or responsibility in meeting accession targets.

1. United States Army Training and Doctrine Command (TRADOC)

Originally established in July of 1973, the TRADOC is a major command of the Army. TRADOC recruits, trains, educates, develops, and builds the Army by establishing standards, driving improvements, and leading change to ensure the Army can deter, fight, and win on any battlefield now and into the future (TRADOC 2021). With five subordinate commands as detailed in Figure 5, 32 Army Schools organized under 10 Centers of Excellence, more than 750,000 Soldiers and service members are recruited, trained, and educated annually (TRADOC 2021). TRADOC is responsible for the overall Army recruiting mission. As the parent organization to USAREC, TRADOC is also responsible for establishing the annual recruiting targets for USAREC to achieve.
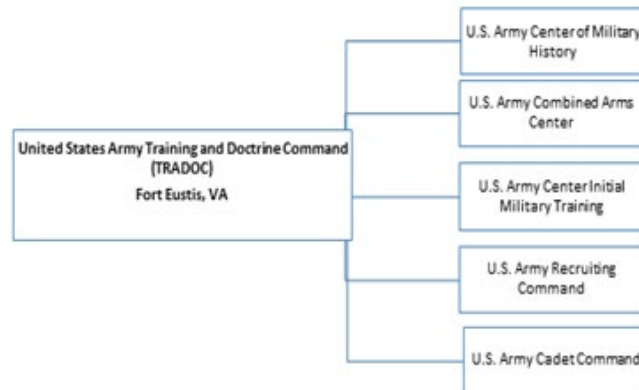
Figure 5: Subordinate Commands and Centers of TRADOC. Source: U.S. Army Training and Doctrine Command (2021)

2. United States Army Recruiting Command (USAREC)

The United States Army Recruiting Command (USAREC) consists of approximately 10,900 recruiters working at over 1,400 recruiting stations both in America and overseas (USAREC, U.S. Army Recruiting Command, official website 2021c). The composition of the USAREC organization expands into subordinate organizations. The breakout of these subordinate organizations includes five recruiting brigades, the medical

recruiting brigade and the marketing and engagement brigade as outlined in Figure 6 (USAREC, U.S. Army Recruiting Command, official website 2021c). Their mission is to "recruit America's best and brightest volunteers that are able to deploy, fight and win" (USAREC, U.S. Army Recruiting Command, official website 2021c). Army recruiters need to be proficient in the enlistment process, opportunities the Army offers new recruits prior to starting work at a recruiting station. Also, from the USAREC website, "USAREC is an innovative team of empowered, accountable, and trustworthy leaders that competes for quality talent who are motivated, resilient, and fit to win, because winning matters" (USAREC, U.S. Army Recruiting Command, official website 2021c). To be considered for recruiting duty, candidate soldiers need to possess the capability to represent the Army and its military service traditions.
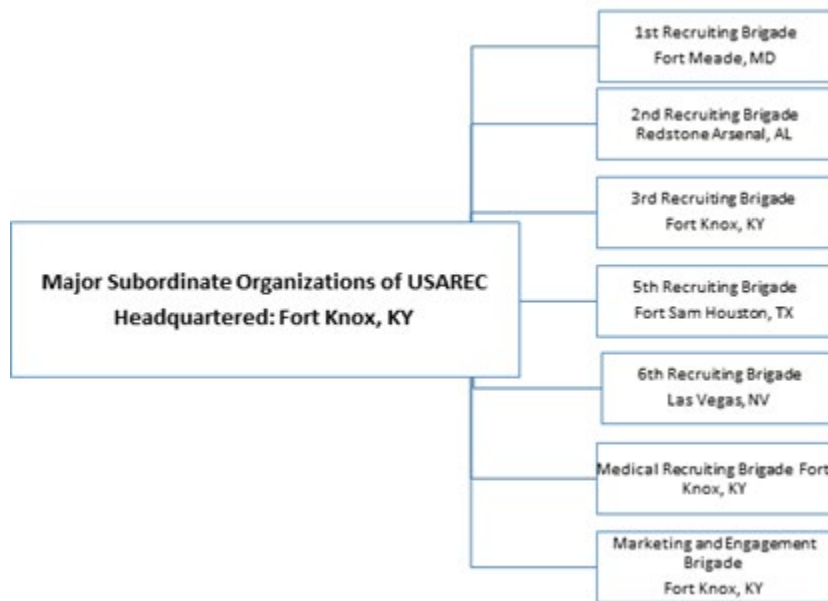
Figure 6: USAREC Organizational Breakout. Source: USAREC, U.S. Army Recruiting Command, official website (2021c).

USAREC has not updated its Local Recruiting Marketing Program Regulation, USAREC Reg 601-208, since 2015. As such, it may be uncoordinated with the new organizational structure of strategic marketing. The scope of the 2015 regulation: "a well-

conceived and carefully executed local marketing program developed through the fusion cell process is an essential part of the Army's accession system. It enables the Army, at reasonable unit cost, to contact prospects and give them compelling reasons to see an Army recruiter and enter the accession funnel. It elicits the assistance of parents, educators, and other influencers by providing them information about Army opportunities and options. It gives recruiters the means to interact face-to-face or mouse-to-mouse in social media channels, with prospects at multiple venues and through multiple media platforms (USAREC 2015)." In November 2020, USAREC issued a technical publication, "USAREC Techniques Publication 3-10.4: The Conduct of Virtual Recruiting Activities," acknowledging AEMO's newly established role in the marketing and recruiting process. In addition, the publication discusses ways for recruiters to implement new virtual recruiting to supplement their traditional processes and procedures to increase likelihood of achieving USAREC's recruiting mission (USAREC 2020d).

C.   THE ARMY PEOPLE STRATEGY

The Army People Strategy defines itself as being "foundational to the readiness, modernization, and reform efforts described in the Army Strategy" (Army 2019). The strategy states that, "The Total Army will acquire, develop, employ and retain the diversity of Soldier and Civilian talent needed to achieve Total Army readiness" (Army 2019). Further, the strategy seeks to, "build cohesive teams for the Joint Force by maximizing the talents of our people, the Army's greatest strength and most important weapon system" (Army 2019). There are four lines of effort (LOE) that support the vision of the Army People Strategy which are to acquire talent, develop talent, employ talent, and retain talent. Each line of effort contributes towards desired strategy outcomes of maintaining a ready, professional, diverse, and integrated force by the year 2028 as illustrated in Figure 7.
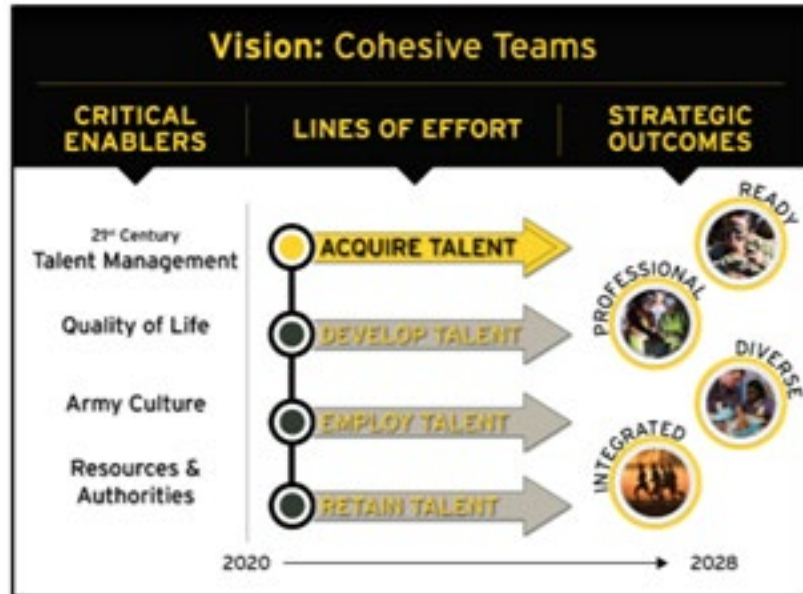
Figure 7:   Strategic Approach through 2028. Source: Army (2019)

The first line of effort within the Army People strategy is to Acquire Talent, "Total Army is our main effort through 2028 because it will ensure that we have the breadth and depth of talent needed for the multidomain operations capable force of 2035 envisioned by the Army Strategy" (Army 2019). The Army must place a greater emphasis on acquiring the right people to begin with, to save resources and reduce overall attrition. The Acquire Talent LOE has three subobjectives: market, recruit, and onboard. Market is to employ the latest marketing techniques to increase labor market awareness of Army service opportunities. The primary goal is to target talent where it exists while conveying a specific message to shape preferences against available service opportunities. This will drive the second subobjective of recruitment which is to screen and select recruits that respond to subobjective a, market. Subobjective c, onboard, is the last step in the accession process where the Army aligns the recruits' talent against their individual objectives which will establish their initial service contract with the Army. The process of talent management does not end with simple accession the army people strategy through LOE two through four, as illustrated in Figure 7, demonstrates continuous talent development and employment as keys to unlocking and achieving strategic effects.

The USAREC Annual Recruiting Operations Plan is nested under the TRADOC Campaign Plan Analysis and the Army People Strategy. The Army Accession Mission Letter sets the target recruitment numbers for the Army to maintain the total authorized end-strength. In FY21, their target recruitment objectives are 72,000 Active Army, 15,850 Army Reserves and 2,940 Career Management Field Special Forces, 214 Counterintelligence Agents, 340 Psychological Operations Specialists, 864 Civil Affairs Specialists, 707 Special Operations Aviation Regiment service members, and 2,210 additional Warrant Officers (USAREC 2020a).

D.   MARKETING

A fundamental aspect of finding the right talent for the Army is having a basic understanding of marketing. Marketing is the link between an organization and its customers. It is the process of understanding target customers to build and nurture a relationship. Marketing must be a continuous process to remain competitive. The objective of marketing is to positively impact the mind of a customer to cultivate the brand. A brand image is a perception in the mind of a customer created from experiences, connections, and emotions that formed from all the interactions with an organization. Marketing seeks to understand what great interactions should be to create an excellent brand.

Marketing is a key component in the long-term success of an organization. It is vital to understand customers and their culture. Marketing is analytical and grounded in research, using market analytics to present a product or service to the marketplace. A marketing campaign is a promotional mix that uses various marketing methods to reach a target audience identified from research and market analytics. Marketing campaigns are designed to create an impression on consumers that are focused on driving consumers toward a desired action. The development of the campaign will create brand identity, establish a personality, and have emotional appeal (Decker 2020).

The Army depends on the civilian population to support its mission. Since the 18th century, the Army has had to sell itself by using marketing campaigns (Darling 2017). The Army has transitioned over the years to be composed of volunteers. Army marketing campaigns are directed at men and women to create an emotional connection to serving

their country. There have been numerous marketing campaigns used with varying success dating back to World War I (Darling 2017). Recent marketing campaigns using the slogan "Be All That You Can Be" created a strong relationship with the American society. That consistent theme presented an attractiveness of service to the country and educational opportunities. The key to the success of Army recruiting is its marketing campaign and the use of the different mediums available to promote a focused idea.

E.   ADVERTISING METHODS

Advertising is a key component of any marketing campaign. Advertising leverages the results from data analytics to determine the correct mix of traditional and non-traditional advertising media. The organization deploys and develops targeted brand focused messaging and content for each stream of media it plans to utilize. While marketing prepares a product or service for the market and determines the target audience, advertising determines how to reach and appeal to that audience (Concordia St. Paul 2021).

Media types are composed of two broad categories: traditional and non-traditional. Traditional media is meant to have mass appeal to broad audiences while non-traditional media is intended to be targeted. There are numerous mechanisms within each media type that are used to advertise to a target audience. The advertising strategy considers the budget available and develops the appropriate mix of media types to maximize the value of audience reach for each dollar spent.

1.   Traditional media

Traditional media types have been around for decades and do not rely on the internet. These typically involve national campaigns that are designed to reach and appeal to mass audiences. These types of media require significant investment when compared to non-traditional means, so it is necessary to determine the appropriate amount to include in an advertising campaign, given the customer's unique budget and goals. While costly, traditional national campaigns do produce results. For example, research has shown that television advertisements reach 70% of the national population in a day and 90% within a week (Wharton School of the University of Pennsylvania 2019).

a. *Print*

Print media is the oldest of all the traditional media types. It is believed to have existed as far back as ancient Egyptian times. Print media involves advertising printed on paper and in publications such as in newspapers, magazines, newsletters, and brochures. The use of print media has dropped largely because news and magazine publications largely moved to a digital distribution format. However, print advertising is still relevant in today's market, especially in certain segments such as high-income segments that report print ads in newspapers as the most memorable advertising media (Klein 2020). Generation Z is also showing a surprising interest in printed media due to their appreciation for physical experiences (Brown 2016).

b. *Broadcast*

Broadcast advertising media is divided into two key segments: television and radio. Broadcast media maintains the top spot for broad reach. In the first quarter of 2019, television achieved a weekly reach of at least 90% of all age groups except for those 18–34 who only captured 81% reach (Stoll 2021). Radio advertising also remains highly effective given 91% of adults listen to the radio in their vehicles each week with an average listening time of over 1.5 hours per day (Adgate 2020). Despite these strong numbers among adults, Generation Z may be the first generation to contradict these trends given the preference for other entertainment sources such as video games, music, internet, and social media over television and movies (Deloitte 2021).

c. *Direct Mail*

Direct mail marketing is one of the most cost effective and targeted forms of advertising that includes a multitude of print media that is mailed to consumers including catalogues, coupons, post cards, fliers, letters, or advertising circulars. While direct mail cannot reach the broad audience of broadcast and print, it can be targeted and thus effective at reaching niche markets. Direct mail can target individual areas or demographics to home in advertisements on exactly the audience it is trying to reach. Despite Generation Z's preference for digital media, the same appeal that may draw them to traditional print media could also prove effective for direct mail.

d. *Telephone*

Telephone marketing, commonly referred to as tele-marketing, is the practice of placing cold calls to consumers to advertise a product. This strategy does not aim to reach a broad audience but focuses on generating sales. Despite its bad reputation, cold calling is still effective and ranks second in reaching potential customers falling behind referrals (Conn 2020). This media has shown itself to be less effective with younger generations.

2. Non-traditional Media

All advertising methods that do not fall into the traditional category of long-standing advertising media are by default labeled as non-traditional. Traditional and non-traditional methods are not only set apart by their age, but also by the ability to measure their effectiveness. For instance, it is easy to measure the reach of traditional advertising, but it is difficult to measure its effectiveness without conducting research and surveys to identify advertisements that made an impression on their audience. Conversely, non-traditional marketing and especially digital marketing thrive on data and real-time feedback to determine not only the reach of the advertising, but also the effectiveness of drawing in a specific target audience.

a. *Digital media*

Digital advertising is the largest of the non-traditional media that spans across the digital network including the internet, email, and social media. Digital advertising is extremely cost effective when compared to traditional advertising means and is therefore attainable by businesses of any size. An advantage of digital advertising is the instant feedback available on the effectiveness of advertising dollars. Digital media can measure overall traffic, source of traffic, new or return visitors, quantity of sessions, duration of sessions, and other data that provide value to advertisers in determining the effectiveness of digital campaigns based on customer needs (Digitaldot 2021). Generation Z is a prime consumer of digital advertising, with a strong preference of authentic advertisements with real-life testimonials and socially conscious companies that contribute to society (Williams 2020). There are six primary categories of digital advertising.

(1)   Pay Per Click (PPC)

PPC is where advertising customers pay for an ad each time an individual clicks on an advertisement regardless of whether the click is converted into a sale or not. PPC is a quick and inexpensive way for a company to start a digital advertising campaign.

(2)   Cost Per Mile (CPM)

CPM, or cost per impression, is when a company pays for advertising based on the number of impressions. Impressions are measured in thousands or more and the company pays a fee each time the impression measure is met. This type of advertising is intended to generate wide awareness rather than to specifically generate clicks or sales like PPC.

(3)   Search Advertising

Search advertising is a tailored type of PPC advertising that relies on internet search engines that insert a company's digital advertisement within a set of search results. The insertion is based on pre-determined keywords aimed toward the target audience. Companies pay a fee when an individual clicks on the advertisement link within the search results. This method can jump-start results for companies that are not seeing an impact from their search engine optimization efforts.

(4)   Display Remarketing

Display remarketing takes advantage of digital advertising data that tracks customers that have visited a company's website. Display remarketing places advertisements on other web pages and social media sites to drive return visits from customers that have exhibited prior interest. This advertising strategy aims to increase sales from existing customers rather than expanding customer reach.

(5)   Social Media

Social media is used as a marketing tool for research and data gathering, as well as an advertising media to push digital ads to a growing list of social media platforms. Current social media platforms include Snapchat, Instagram, Facebook, YouTube, Twitter, Pinterest, TikTok, Tumblr, and LinkedIn. This category also includes social messaging

platforms like WhatsApp, Facebook Messenger, and WeChat. Marketers use social media to determine how a brand is received and to monitor comments from users to inform decisions. Advertisers use social media to push targeted advertisements to prospective customers.

(6)   Email

Advertisers take email addresses entered on a company's website from prior visits or transactions and push targeted email advertisements to encourage return business.

(7)   Guerrilla Marketing

Guerilla marketing is a low-budget grass roots advertising strategy that relies on word-of-mouth and viral sharing to create buzz for a product. Guerilla marketing aims to find unconventional and unique ways to connect individuals with products in a personal way that makes an impression. This type of advertising can be very cost effective and can yield tremendous results if it is effective enough to cause an organic viral spread on social media. The personal element that results from guerilla marketing strategies has appealed to the Generation Z audience with authentic communication from real-life individuals as opposed to polished traditional advertisements.

(8)   Other non-traditional media

Table 2 shows a list of other non-traditional marketing and advertising mediums. The list evolves as non-traditional advertisers continue to find new ways to present products to consumers.

Table 2:   Forms of Non-traditional Media. Adapted from Blakeman (2014).

Direct Marketing	Electronic Media	Sales Promotion
Card deck mailings	Augmented reality	Auto shelf and aisle advertising
Catalog bind-ins/blow-ins	Banners	Card deck mailings
Co-op mailings	Blogs	Coupons
Direct mail	Buzz advertising	Package inserts (PIP)
Door-to-door advertising	Social media	Point of purchase displays (POP)
E-direct marketing	DVR advertising	Product placement
E-mails	Downloadable videos	Sampling programs (Product/brand)
Endorsements	E-zines	Event–based sampling
Interactive TV	iPods	Flash mob brand sampling
Sponsorships	Online classifieds	Fill concept brand sampling
Issue advertising	Online video advertising	Point-of-use product sampling
Newsletters	Podcasts	Nightlife product sampling
Payroll/credit card stuffers	Really simple syndication	Covert product sampling
Ride along	Satellite radio	In-venue brand sampling
Telemarketing	Search advertising	Van/truck product sampling
Tradeshows	Viral marketing	Intercept brand sampling
	Webisodes	Supermarket Shelf Talkers
Transit	Websites	Sweepstakes/contests
Airport advertising		
Buses (Inside and out)	**Specialty**	**Out-of-Home**
Bus shelters	Bathroom advertising	3-D out-of-home
Bus/train/subway terminals	Body billboards	Billboards
Bus wraps	Branded vinyl stickers	Digital out-of-home
Pedicabs	Business card backs	Wallscapes
Police cars	CDs	Live mobile billboards
Taxi cabs (Inside/outside)	Chopstick advertising	Mobile billboards
Ticket jackets	Cinema advertising	Mobile video cubes
Trucks	Coffee cup sleeves	Moving walkways
Vehicle wraps	Doggie bag advertising	Parking garage advertising
	Escalator handrail/steps	Parking meters
Furniture/Machines	Fruits and vegetables	Street art (Sidewalks/streets)
ATM machine advertising	Green graffiti	Video projection advertising
Chairs/benches	Manhole covers	
Exercise equipment	Milk cartons	**Mobile**
Gas pump tops	Movie promotions	Location-based advertising

(continued)

Gus pump nozzles	Parking garage ticket	Mobile couponing
Grocery/golf carts	Pop-up brand experiences	Mobile video
Scaffolding	Shopping bags	Texting
	Sidewalk chalking's	
Body Advertising	Sidewalk decals	**Airborne Advertising**
Hand-stamp advertising	Snappable ads	Aerial advertising
Temporary tattoos	Sports marketing	Bubble clouds
	Stickers (All types)	
Guerrilla Marketing	Tissue-packs	**Gaming**
Bilingual street teams	Toilet seats	Advergaming
Poster campaigns	Toilet stalls	Videogame/online gaming
Wild posting	Vacant store windows	
Rip-away wild posters	Valet tickets/ permits	**Print**
Snipe media wild postings	Word-of-Mouth	3-D catalogs
Static-cling wild postings		Flyers (Traditional/suction cups)
Urban street postings		Freestanding inserts

F. TARGET POPULATION FOR ARMY RECRUITING: GENERATION Z

According to the Pew Research Center, the concept of generations is one way to group people of similar ages (age cohorts) with similar formative experiences, outlook on life, and most commonly refer to groups born over a 15–20-year span (Dimock 2019). The primary target audience for current Army recruiting efforts is Generation Z because they are currently in the prime 17–24 age range for military service (Joint Advertising, Marketing Research and Studies (JAMRS) 2016). However, it is important to note that those in Generation Z have direct influencers categorized in older generations such as parents, grandparents, teachers, public figures, and media personalities. Therefore, preceding generations such as Baby Boomers, Generation X, and Millennials (also known as Generation Y) should be considered an integral part of the marketing and advertising effort as well (Dimock 2019). Generational cutoff years are not universally accepted, so depending on the source providing the cutoff years, the starting and or ending dates may differ slightly (see Figure 8 and Figure 9). Based on this information, Baby Boomers were

born after World War II through the time the U.S. officially sent combat forces to Vietnam (mid-1940s through the mid-1960s), Generation X followed from the mid-1960s through the late-1970s and early-1980s, Millennials (Generation Y) were born between the early-1980s through mid-1990s and early 2000s, and Generation Z were born from the mid-1990s through late-2000s and early 2010s. Finally, the most current and still in progress age cohort, Generation Alpha, was born around the early 2010s (Dimock 2019).
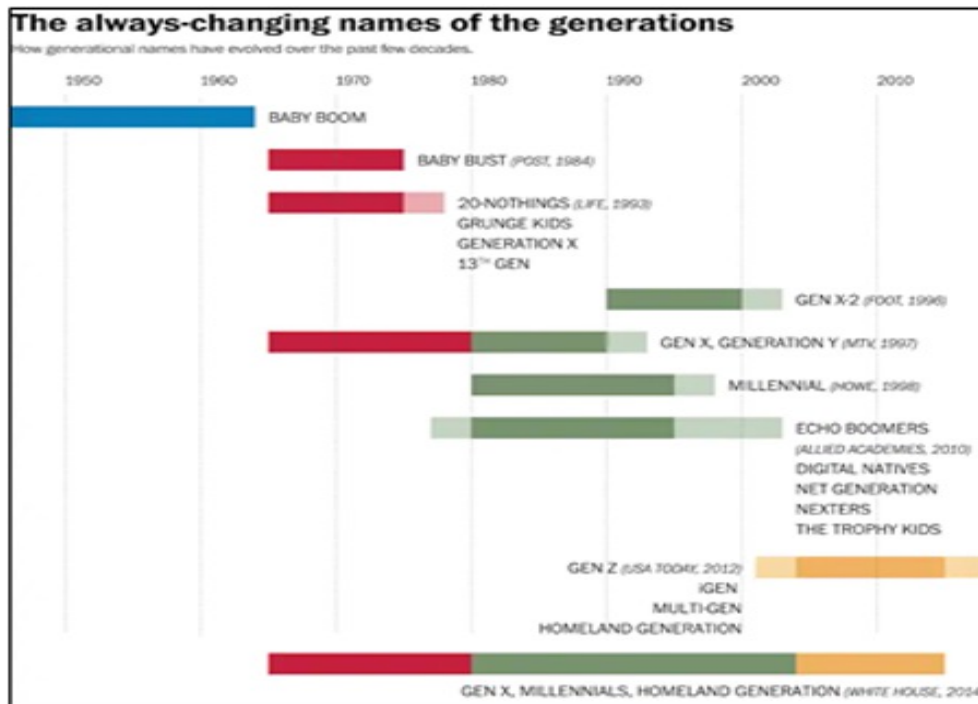
Figure 8:   Generation Names. Source: Bump (2015).
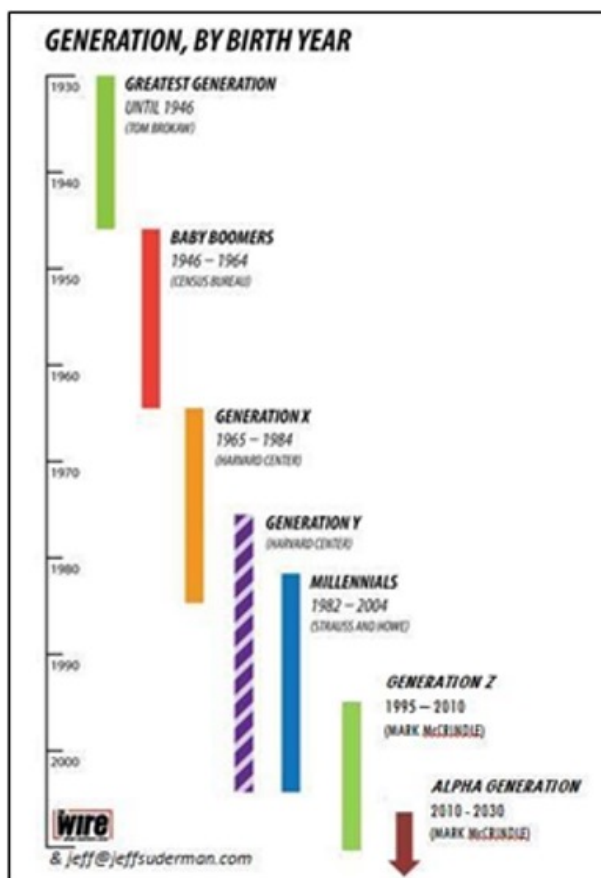
Figure 9:   Generation Birth-Years. Source: Bump (2014).

In 2021, the age range for Generation Z is 9–24 years old. Generation Z is statistically the most, "racially and ethnically diverse generation, as a bare majority of 6 to 21-year-olds (52%) are non-Hispanic whites" (Dimock 2019) and are expected to be the most educated generation as well with "the oldest post-Millennials...enrolling in college at a significantly higher rate than Millennials were at a comparable age." The term "iGen," sometimes used as a synonym for Generation Z, is a general reference to modern consumer technology (the "i" in Apple products; iPhone, iPad, or iPod). The iGen, or "digital natives…have little or no memory of the world as it existed before smartphones" (Parker and Igielnik 2020).

Other notable events have shaped Generation Z besides the current digital transformation. For instance, most of the population within Generation Z had not been born, or were too young, to remember the terrorist events of September 11, 2001 (9/11) …

26

however, that event had significant impacts on Generation Z and their future way of life (Hoffower 2019). Following 9/11, various armed military conflicts over the next several years occurred in the Middle East (Stickles 2018). Generation Z has also grown up during two major economic downturns; the late 2000s mortgage crisis during childhood years, and the Coronavirus (COVID-19) Pandemic economic slowdown during their teenage and young adult years. Comparing Generation Z to previous generations that knew a life before 9/11, ongoing conflict in the Middle East, and two "once in a lifetime" economic downturns reveal how experiences form opinions and outlooks within generations.

Calling back to SGM Darrin Lee Colwell's council from Chapter I, that generations are different and military marketing must adapt to those differences, SGM Colwell adds that the Army must, "find the words, images and sense of calling that connect with America's youth" (Colwell 2020). To that end, what is known about how Generation Z is different than other generations regarding things that influence them and how marketers can adapt to those influences. According to the *Social Media Today* website, "the key to Gen Z is video content, which is relevant, meaningful, and authentic," and that Generation Z can sense when they are "being sold to," so traditional "cold calling" marketing does not work as well with them as it may with prior generations (SocialMediaToday 2020). Short format video content found on social media platforms like YouTube, Snapchat, and TikTok has given video bloggers, or "vloggers," tremendous popularity and celebrity status with the younger generation. Further from *Social Media Today*, "according to a study published last year, children are now 3x as likely to want to be a YouTube star, as opposed to an astronaut, the past standard for aspiration."

G. MARKET SEGMENTATION: HOW THE ARMY STUDIES AND UNDERSTANDS THE TARGET POPULATION

According to the *Journal of Marketing and Management* (Tynan and Drayton 1987), market segmentation is a marketing strategy that attempts to identify "sets of buyers" that become targets for an organization's marketing and advertising plan. These "segments" or groups of potential buyers can be divided in several ways (i.e., geographic or demographic) and are anticipated to respond similarly to marketing and advertising campaigns. The Army utilizes an annually published guide from the Joint Advertising,

Market Research and Studies (JAMRS), called the *Segmentation Marketing Guide* to identify their "sets of buyers" or potential recruits. The *Segmentation Marketing Guide* utilizes 68 "PRIZM (Potential Rating Index for Zip Markets) Premier" segments of the U.S. population as defined by the marketing company, Claritas. Each of the 68 segments contain vital information about youth demographics, descriptors, and interests relative to that specific segment or "clusters of households" (JAMRS 2020). To assist recruiters, there are eight primary content areas per segment depicted in Figure 10 (JAMRS 2020). In theory, an Army recruiter should be able to look up a zip code within their jurisdiction and use the JAMRS *Segmentation Marketing Guide* to identify the assigned segment out of the 68 PRIZM Premier segments to uniquely tailor their recruiting approach in that area. According to the Claritas website, "'PRIZM Premier' is the industry's most widely adopted segmentation solution. Built to help marketers find prospects faster and sell smarter, "PRIZM Premier" provides rich insights into every household in the U.S. including demographics, lifestyle and media preferences, shopping behaviors and technology usage" (Claritas 2021).

The *JAMRS Segmentation Marketing Guide* (the *Guide*) was developed to provide its users with military-relevant information about the interests, attitudes, and beliefs of youth, influencers, and new recruits within each of the 68 Claritas PRIZM Premier segments. The *Guide* allows users to more effectively market to these segments by understanding their unique attitudes toward military service. Additionally, the *Guide* highlights the types of media commonly used by each segment (e.g., newspaper, radio, television, internet) to advise users on effective communication channels. Eight primary content areas are provided for each segment:

1. Demographic Descriptors;
2. High-Accessing Segment Service Flags;
3. Armed Forces Qualification Test (AFQT) Categories I–IIIA and Eligibility Rates and Disqualifier Flags;
4. Top Ways to Reach the Segment;
5. Top Five Geographic Markets;
6. Youth Attitudes and Interests;
7. Influencer Attitudes and Interests; and
8. New Recruit Attitudes and Interests.

Figure 10:   JAMRS Segmentation Marketing Guide Technical Report.
Source: JAMRS (2020).

III. METHODOLOGY

Given the extensive research already conducted on areas of our focus and availability of research material, a mixed-methods approach to conduct our research was deemed the most suitable. Step 4, Evaluation Techniques of the Blanchard and Fabrycky Systems Analysis Workflow Diagram (Figure 2), will be followed using a mixed-method approach with snowball sampling and archival research. Chapter III explains the method that will be used, how data will be collected, and the analysis methods that will be used to address each research sub-question.

A. METHODOLOGICAL APPROACH

At the project inception, our capstone team's direct information resources were initially limited to points of contact (POC) at TRADOC and the Marine Corps. Understanding a plethora of data would be required and with a limited supply of provided contacts, the team evaluated various methods of gathering documentation, literature, and data associated with our problem statement. The team concluded that the best method of obtaining pertinent information was to utilize a combination of two research methods: snowball sampling and archival research.

This systematic mixed-methods approach for research led to numerical and textural data being collected from the primary Army organizations responsible for recruiting (i.e., TRADOC, USAREC and AEMO), the Enterprise Knowledge Repository (EKR), and publicly available online sources. The collection of data was facilitated by continuous communication with key stakeholders. This research focused on the Army recruiting and marketing system, recruitment needs of the DOD and its Services, and a generational analysis. The team analyzed this data, determined answers for the research question and sub-questions, and deduced recommendations. This was the most suitable approach to answering our research questions. Given the mixed methodology, the project utilized statistical analysis as well as content, thematic, and discourse analysis. The details on the data collection and analysis methods can be found in the next two sections.

B. DATA COLLECTION METHODS

Snowball Sampling is a multi-phased method of sampling which typically starts with the identification of a small sample of the subject population who are willing to assist in the participation of either a test or study. In our case, the small sample of the subject population consisted of primary POCs provided by TRADOC. As relationships with those individuals increased and dialog became more natural, those individuals communicated with other stakeholders who shared a common interest in finding a solution to the problem at hand. Figure 11 illustrates the snowball sampling utilized for this capstone project. As the snowball started to build with active participants providing valuable information, our team gained better insight into the Army's core recruiting problems.
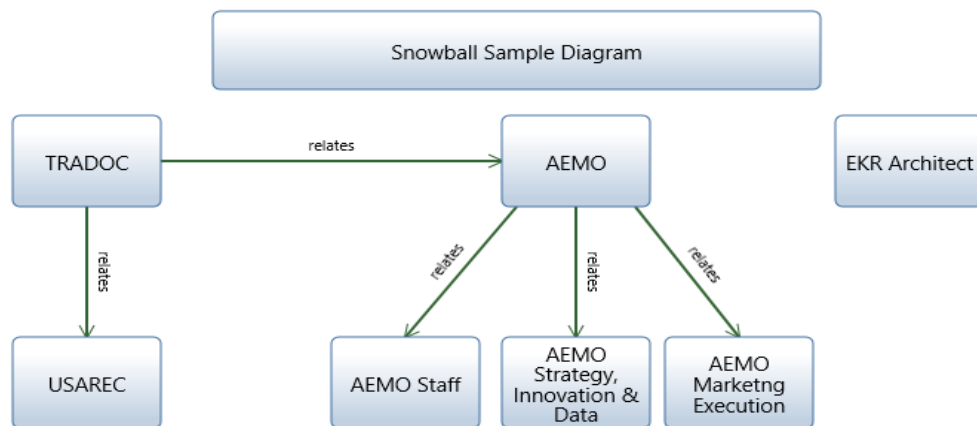
Figure 11:   Snowball Effect Diagram

Snowball sampling gradually built our relationships with proactive stakeholders who shared a common interest in solving the Army's recruiting problem. That information sharing came in a manner referred to as archival research. Archival research involves primary sources, which we gathered through snowball sampling, who hold a repository of information either from the organization to which they belong or secondary resources. This information came from various means to include GAO Reports, AAA Reports, Campaign Plans, Army Accession Mission Letters, Segmentation Marketing Guides, and internal organization presentations. A key benefit of using archival research was the ability to

minimize research time as compared to starting from nothing. The team also received unbiased data that assisted in identifying the core issues that the Army faces with recruiting.

The initial conversations and information gathered formed a basis for our research efforts to focus on the Army recruiting process within and between key organizations responsible for performing the Army mission. A reliable source for Army Marketing and Recruiting information was the EKR, as well as the enterprise architect from HQDA G-1, whose responsibility included updating the human resource related models within EKR. EKR is a decision support tool that enhances the Army's ability to manage its portfolio of business systems and streamline business processes in a collaborative environment based upon the Army Business Enterprise Architecture (Office of Business Transformation 2021). The key take-away is that EKR enabled the capstone team to view the marketing and recruiting processes in multiple dimensions, by capability, process, data, application, and technology architecture. This provided an understanding of the Army Recruiting process and its attributes. This information supplemented the agency-specific information provided by the key Army marketing and recruiting offices, USAREC and AEMO. Online research on existing marketing and recruiting practices and other related work built on our data collection efforts.

C.   ANALYSIS METHODS

The data gathered through snowball sampling and archival research provided the information to analyze the Army marketing and recruiting processes. As highlighted in Figure 12 the team used a three-step analysis technique, tailored from step 4, Evaluation Techniques, of the Blanchard and Fabrycky Systems Analysis Workflow Diagram delineate. Key to our analysis was first to understand the Army accessions process given the information gathered from stakeholders and team research; then conduct synthesis to see if or how the various stakeholder organizations and processes share inputs, outputs, and/or dependencies; and finally, to conduct an analysis to determine where gaps and potential efficiencies exist.
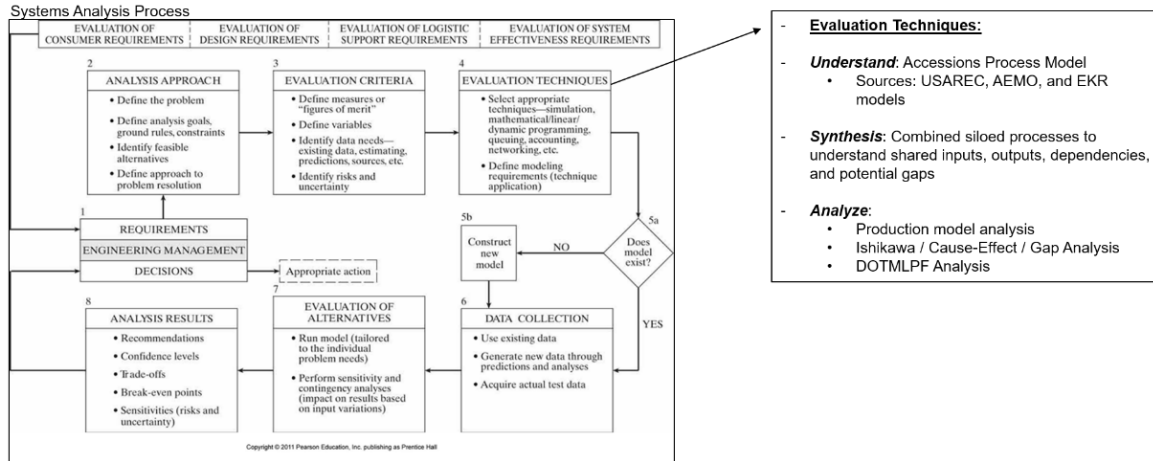
Figure 12:   Blanchard and Fabrycky Systems Analysis Process –
Evaluation Techniques. Source: Blanchard and Fabrycky (2011).

The analysis methods used to execute the three-step technique for analysis included a (1) marketing and sales funnel analysis to understand discrepancies in sales approaches between our stakeholders, (2) process model analysis to learn more about activities and functions, (3) production model analysis for investigating bottlenecks, and (4) fishbone analysis (also known as Ishikawa or Cause-and-Effect diagram) for determining the root cause of discovered problems. The ensuing paragraphs will provide greater insight into each of these methods and describe why they were a good fit for the data we collected, and the analysis required to answer our research question and sub-questions.

1.   Marketing and Sales Funnel Analysis

Created as the Awareness-Interest-Desire-Action (AIDA) model, marketing and sales funnels have morphed into unique processes that allow for the proper representation of the journey a potential customer, or soldier candidates, take from the initial discovery of a brand to lead generation and eventually making a purchase or signing a contract. The basic concepts of marketing and sales funnels have been used by marketers and advertisers for years but have now become more prevalent. The journey to influence potential customers consists of mass communication methods, such as email and social media platforms. The marketing and sales funnel provides the blueprint for optimizing successful conversions at every step in the process. Technology now enables marketers to engage

target customers throughout all phases of the marketing and sales funnel even when those customers are not interfacing with a salesperson or recruiter. The marketing and sales funnel allows marketers to map out the marketing campaigns that need to be considered in a more structural approach to keep users moving towards the ultimate end goal (sales or contracts). The marketing and sales funnel analysis our team will perform for the Army accessions process will include evaluating the existing marketing and sales funnel processes used by AEMO and USAREC. Our team will seek to determine duplicate areas of effort, synchronization between organizations and areas of improvement to align with organizational goals.

2. Process Model Analysis

The process model analysis seeks to evaluate existing processes within the accession program. Process models within EKR are grounded by the Army Business Enterprise Architecture and enable the team to view the marketing and recruiting processes in multiple dimensions: capability, process, data, application, and technology architecture. Information provided by AEMO and USAREC also described internal processes. Together this information served as the basis for the process model analysis.

Several tools assist in the process model analysis. The process synthesis aids in understanding how various stakeholder organizations and processes share inputs, outputs, and dependencies. An IDEF0 diagram documents high level interfaces with the system of interest. A swim lane diagram visualizes the relationship between the entities involved in current accession processes and the processes within and between those entities. The information will be used to analyze the overall processes and identify gaps, redundancies, and inefficiencies in the process and highlight what works well.

3. Production Model Analysis

We were able to collect data from several stakeholder organizations—especially USAREC. The team considered all available stakeholder data to determine a new method of applying systems engineering analysis techniques that add value to the recruiting process. Both AEMO and USAREC have data analytics personnel, and both have access to external resources from DDB, RAND corporation, and the Marketing Research Cell

(MRC) at the Office of Economic and Manpower Analysis (OEMA). To differentiate from what these resources can provide, the team pivoted to using production model analysis based on an idea that propensed individuals could be analogous to Work In Process (WIP) from a production engineering standpoint.

As a result, the team applied production modeling principles and analysis techniques to analyze the accession process through the lens of production process modeling. Using production modeling principles allowed the team an opportunity to apply a measurable scientific method to the Army's marketing and recruiting problems, resulting in objective findings on process efficiencies and inefficiencies. The primary production modeling principle applied was Little's Law, which was used to identify bottlenecks that could indicate areas for recommendations. Applying this analysis methodology confirmed that production model analysis could be a useful tool for the Army or other services in future efforts. With the dynamic nature of the current environment, having a science-based tool for the Army to perform future analyses could prove beneficial. The model could be applied to segments in the process and be built to encompass the entire process to analyze weaknesses in the overall recruiting process objectively.

4.   Fishbone Analysis (Ishikawa or Cause-and-Effect Diagram)

The extensive amount of research conducted on this project required robust analysis tools. The fishbone diagram provided a structured approach to brainstorming causes of the recruiting problems identified through research. The team determined this tool to be more structured than other approaches investigated. In experimenting with the cause-and-effect analysis, the team incorporated the "Five Why's" concept into the fishbone diagram to ensure causes, not just symptoms, were adequately identified. Conducting a root cause analysis in this way enabled the team to identify underlying causes for gaps. It also assisted the team in categorizing issues and finding common themes that might have been overlooked if an approach without categorization had been applied. The value of using the fishbone diagram for this capstone project was to go beyond the research to better understand the pain points in the processes examined.

IV. ANALYSIS

This chapter captures the capstone team's analysis of the Army marketing and recruiting processes executed with the analysis methods described above in Chapter III, Section C.

A. MARKETING AND SALES FUNNEL ANALYSIS

1. Research Question

The Marketing and sales funnel data was obtained from AEMO and USAREC (Figure 13 (AEMO 2021) and Figure 14 (USAREC 2021a)) to analyze. The team's goal was to understand each of the organization's funnel strategies to align with the organization's business model. The analysis sought to answer the research question: *What are the organizational relationships, roles and responsibilities in the accession process and are these relationships synergized?*

Figure 13:   AEMO Marketing and Sales Funnel. Source: AEMO (2020).

Figure 14: USAREC Marketing and Sales Funnel. Source: USAREC (2021a).

2. Analysis

As AEMO is responsible for developing, executing, and analyzing national-level marketing campaigns supporting the Army's recruiting mission, our capstone team analyzed their marketing and sales funnel, illustrated in Figure 13. AEMO's top-level step in the marketing and sales funnel process is to "Generate Awareness to Drive Visits." AEMO does this by conducting expansive market research to optimize marketing programs through testing, measurement, and analytics to entice future candidates of the Army. Once that step is implemented, AEMO seeks to further "Create Interest and Educate" prospective candidates by executing best in class marketing and advertising campaigns. Following the creation of interest and education, AEMO seeks to "Obtain Contact Information" and to "Refine and Engage Leads." AEMO then passes the lead to USAREC to "Meet with Prospects," "Obtain Enlistments" and establish "Contracts."

Commensurate with their website, USAREC is "an innovative team of empowered, accountable, and trustworthy leaders that competes for quality talent who are motivated, resilient, and fit to win" (USAREC, U.S. Army Recruiting Command, official website 2021c). As the capstone team analyzed the USAREC marketing and sales funnel,

illustrated in Figure 14, it found that initiation starts further down the USAREC funnel than the AEMO process. USAREC relies on outside organizations, to include AEMO, as influencers to reach their "Prospecting" step. Once prospecting concludes, the next step in the process is "Making the Appointment" and then "Conducting Appointments." These steps allow recruiters to conduct interviews and allow for the Army story to be told to potential candidates. Once a candidate funnels through those steps in the process, they are required to complete a series of "Tests." Upon successfully completing the testing phase, they become "Future Soldiers" and prepare for the Army ahead of serving in their first tour of duty. Upon successfully completing the testing phase, they become "Future Soldiers" and prepare for the Army ahead of serving in their first tour of duty.

3. Findings

To illustrate the relationships between the assets and actions, or components and functions of the two marketing and sales funnels, our capstone team constructed a spider diagram within the Innoslate Model-Based System Engineering (MBSE) tool, as shown in Figure 15. The spider diagram reflects the two key components, AEMO and USAREC, along with the functions detailed in their perspective marketing and sales funnels. As the legend in Figure 15 indicates, the spider diagram reflects the functions that both AEMO and USAREC are performing. Figure 15 helped our capstone team understand and identify the roles and responsibilities of both organizations, along with identifying areas of shared functionality and overlap. The creation of the spider diagram allowed our capstone team to further analyze and identify the functional responsibilities of each of the organizations that assisted in developing recommendations that will be provided in Chapter V of the report.
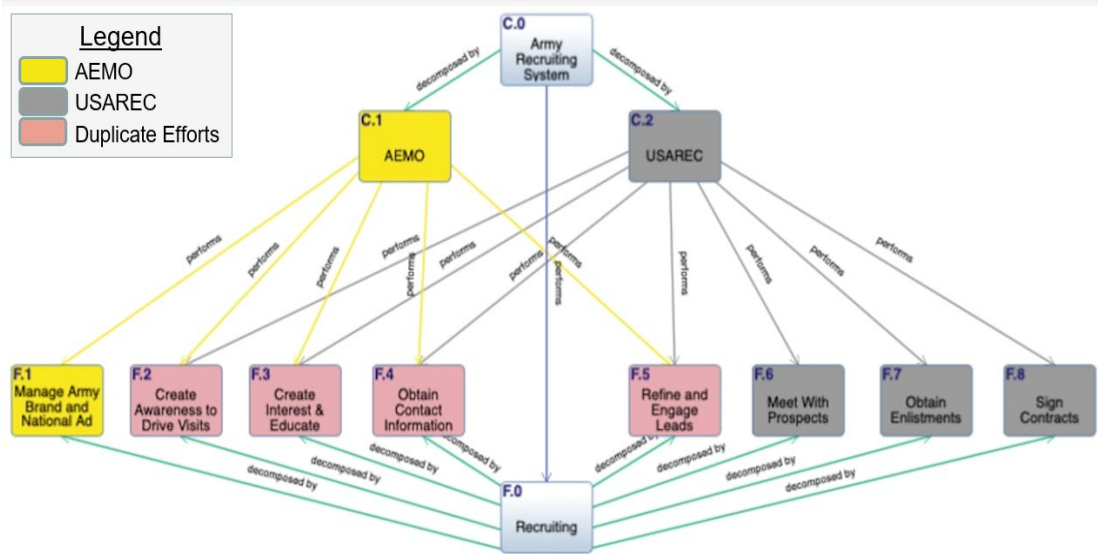
Figure 15:   AEMO and USAREC Recruiting System Functional Spider
Diagram

B.   PROCESS MODEL ANALYSIS

1.   Research Question

Understanding the accession process within the Army is essential to identify issues and gaps in the process. Through snowball sampling and archival research, the capstone team was able to collect information on existing processes. The team supplemented existing information by developing a swim lane and IDEF(0) diagrams. The analysis sought to answer the research question: W*hat processes are in place to ensure the right people are creating a consistent and influential message that appeals to the different demographics within the target audience?*

2.   Analysis

The Army Business Mission Area (BMA) develops and maintains its business process architecture within EKR, which enabled us to view the marketing and recruiting processes in multiple dimensions, by capability, process, data, application, and technology architecture. Based on our effective need question, we started our search within EKR at the

end-to-end process view (or Level 0) to the Hire-to-Retire process (Figure 16) within the Human Resources functional area of BMA.
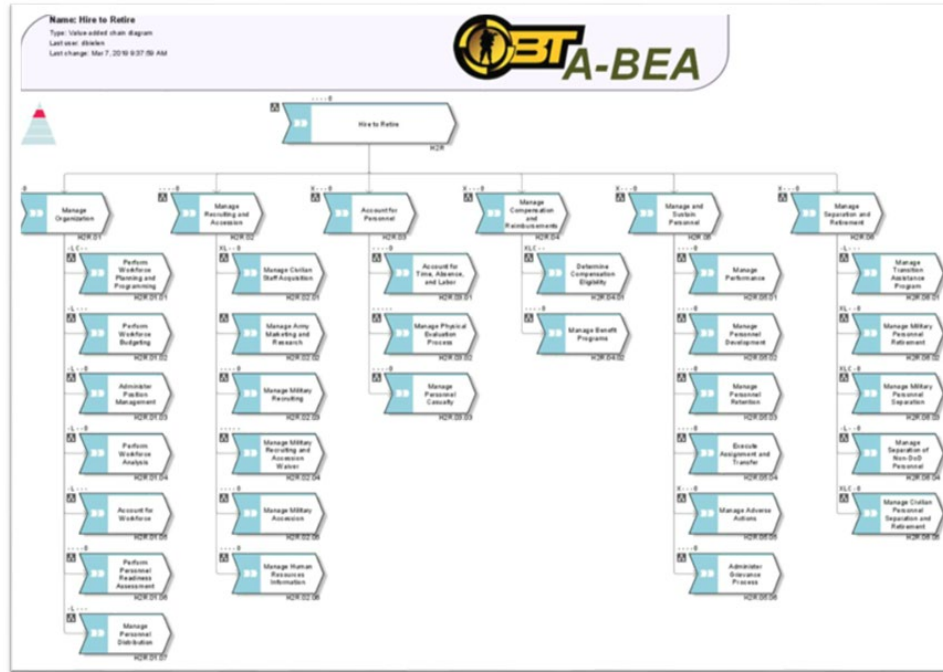
Figure 16:   Hire-to-Retire End-to-End Business Process from EKR.
Source: Office of Business Transformation (2021).

Within the larger end-to-end process, level-two activities provided the backbone to our process analysis, "Manage Army Marketing and Research" and "Manage Military Recruiting." The team examined the functional definitions as executed under each identified activity level and matched it to the project's scope. The "Manage Army Marketing and Research" activity includes establishing marketing plans, identifying target markets, planning, defining marketing campaigns, executing, and evaluating the performance of marketing campaigns. The team found all these functions to fit within the scope of this capstone project. The "Manage Military Recruiting" activity includes functions that were beyond this capstone project's scope, such as conducting initial applicant interviews and managing recruitment applicants.

The gaps in the process architecture are evident in the execution of the marketing process as we found during our research. The team found that within the diagrams, the systems and processes defined showed disconnected functions. The role assigned to all functions within the scope was assigned to a recruitment specialist rather than a marketing specialist for marketing functions (Figure 17). This information became input into our Fishbone Diagram Analysis.
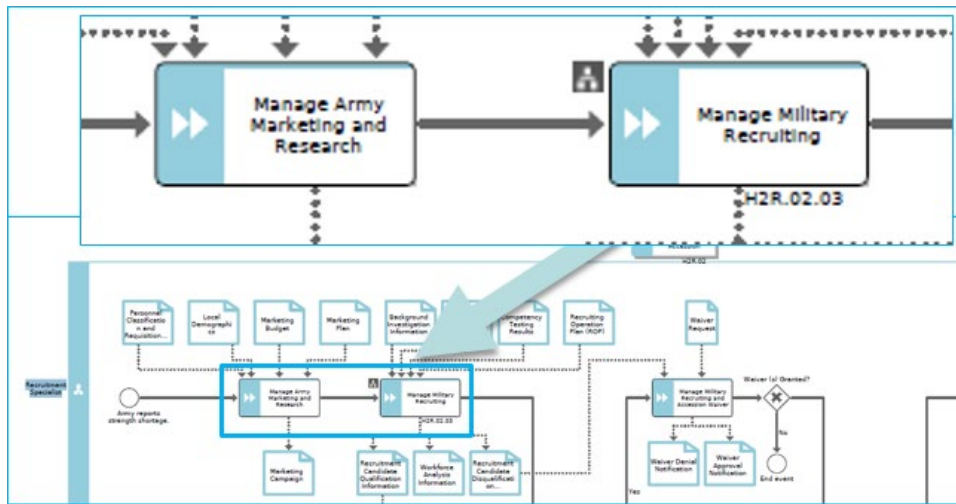
Figure 17:   Excerpt from Marketing and Recruitment Diagram from EKR. Source: Office of Business Transformation (2021).

Process charts were developed using information gathered from USAREC and AEMO to supplement the process information found in EKR. A high-level view of current Army accession and marketing interfaces is illustrated in Figure 18, depicting inputs, mechanisms and outputs that enable the process. Research efforts of this capstone project are focused on analyzing AEMO and USAREC's role in the accession process as depicted by the red shaded area within Figure 18.
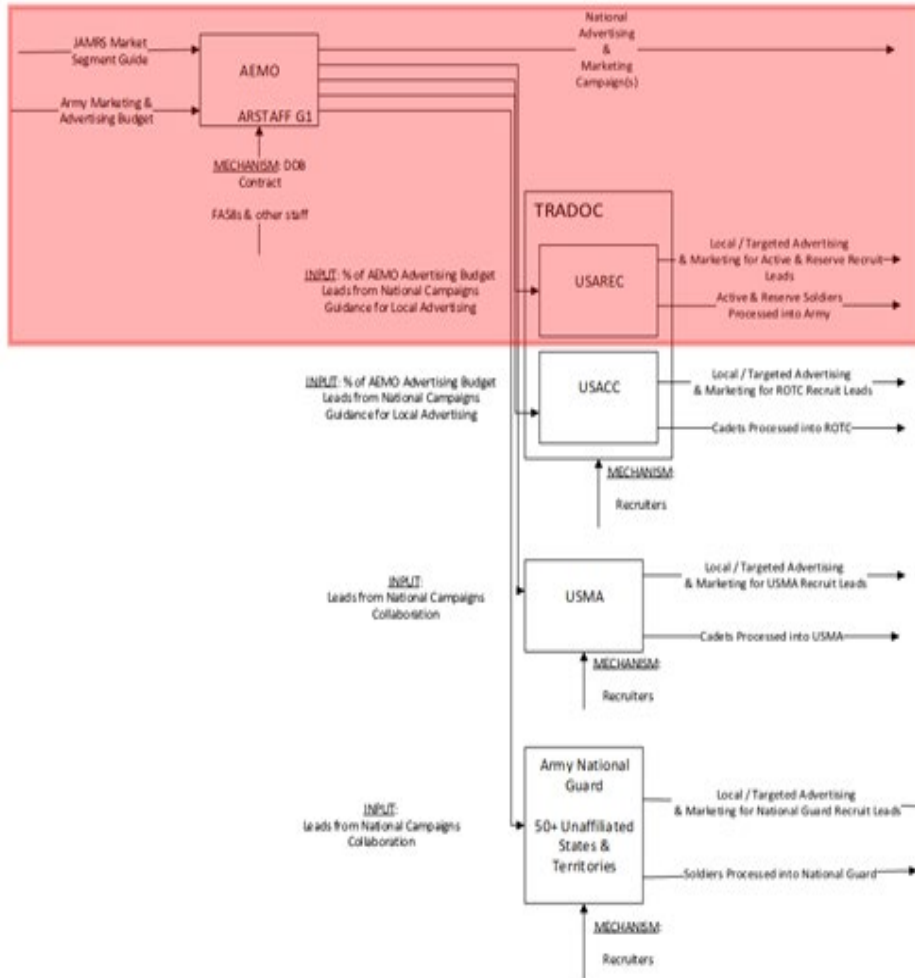
Figure 18:   IDEF(0) Diagram of the Accession System

The JAMRS *Segmentation Marketing Guide*, is an annual report consisting of "military-relevant information about the interests, attitudes, and beliefs of youth, influencers, and new recruits" and the Army Marketing and Advertising Budget go to the HQDA G1 AEMO (JAMRS 2020). Using internal staff and a contract with DDB, AEMO delivers the Army's National Advertising and Marketing Campaign. USAREC receives a marketing budget from AEMO to deliver local marketing and advertising to generate leads. USAREC uses recruiters and local recruiting resources to reach their end goal of processing soldiers into the Army.

A traceability matrix using available data gathered from the project stakeholders was developed to account for the Army's existing processes, roles, and responsibilities (see appendix A). The information from the traceability matrix was the basis for the swim lane diagram presented in Figure 19. Figure 19 illustrates the existing inner workings of each organization and their connections by outlining the accession and marketing process from the determination of accession requirements to the signing of a contract by a future Soldier. The diagram highlights an area of concern. The red verbiage and red arrows show how the current state of national campaigns do not align with military MOS requirements. The swim lane diagram (Figure 19) will be used in a gap analysis to identify process gaps and inefficiencies which are analyzed further in a fishbone diagram.
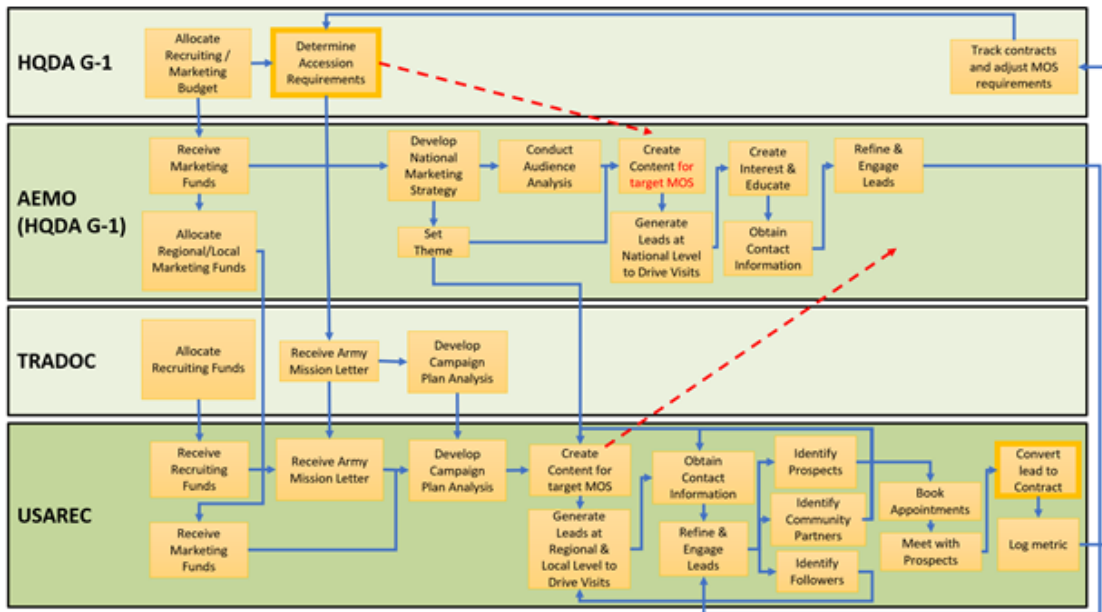
Figure 19:   Swim-Lane Diagram of Accession System Stakeholders

The swim lane diagram (Figure 19) visually depicts four key areas. First, the flow of the two funding sources required for the accession and marketing system is charted, including a marketing and a recruiting budget. AEMO provides USAREC a portion of their marketing budget and TRADOC allocates a recruiting budget to USAREC. Secondly, the diagram illustrates the point at which the accession requirement enters our system of interest at the HQDA G-1 level, then proceeding to TRADOC and USAREC to be used as

a foundational component of the agencies' marketing and recruiting efforts. Next, the marketing process flow is depicted with AEMO setting the theme for enterprise marketing efforts and generating leads at the national level for USAREC. USAREC, on the other hand, focuses efforts at the regional and local level where recruiters classify and nurture leads as either prospects, community partners, or followers, as illustrated in USAREC's virtual recruiting station activities process in Figure 20.

Figure 20:   USAREC Virtual Recruiting Station Activities. Source: USAREC (2020c).

Finally, USAREC's recruiting process converts the identified prospects to meet the end state goal of converting leads to contracts. This process is illustrated in USAREC's recruiting station prospecting activities contained within Figure 21.

Figure 21:   USAREC Virtual Recruiting Prospecting Activities.
Source: USAREC (2020c).

3.   Findings

The process model analysis outlined existing marketing and recruiting processes within the Army. The two key organizations, AEMO and USAREC, who are responsible for Army recruitment have existing, but separate processes in place to execute their missions. The process analysis confirmed a clear distinction in roles that each organization performs in terms of marketing, lead generation and recruitment. AEMO is responsible for national-level marketing and generating leads. USAREC is responsible for regional and local level marketing, lead generation and converting leads to contracts. Despite this distinction, inefficiencies and issues exist within the process that hinder the Army from optimizing recruiting efforts in the most efficient manner.

C. PRODUCTION MODELING ANALYSIS

1. Research Question

Using the principles of production modeling for analysis shifted the perspective to view propensed recruiting candidates as WIP in a process model. The analysis set out to answer this research question: *Would the application of production modeling principles to the accession process provide specific targets for process improvement?*

2. Analysis

USAREC provided extensive research support and one document was especially useful for production modeling and efficiency analysis. The USAREC hot wash document provided specific data points for recruiting at each step in the process (USAREC 2020b). This data is the results of Operation Virtual Blitz (OVB)—a national virtual and non-virtual career fair event aimed to identify new leads for USAREC to convert to contracts. The OVB results by USAREC brigade are shown in Figure 22.

OVB Totals	Responses	Leads	Contacted w/I 72 hrs	Total Contacted	Total Not Contacted	Appts Made	Appts Conducted	Contracts
1 BDE	1019	949	500	660	289	273	195	4
2 BDE	1410	1364	966	1319	45	242	137	8
3 BDE	1095	956	804	889	67	81	50	1
5 BDE	1736	1677	1313	1558	119	233	148	4
6 BDE	552	539	430	508	31	73	42	1
Total	5812	5485	4013	4934	551	902	572	18

Figure 22:   Operation Virtual Blitz Results. Source: USAREC (2020b).

The data in Figure 23 shows the geographic location of the data shown in Figure 22. While the source document represented in Figure 23 does not provide a legend for the red and orange map shading, research reveals that the map shading indicates the top performing CBSAs (Core Based Statistical Areas) that are identified in the bottom right of the figure.

Top 10 CBSAs	
CBSA	**Leads**
Houston	1,223
Orlando	312
Washington DC	206
Tampa	200
Atlanta	192
Los Angeles	186
Dallas	163
Chicago	134
Baltimore	121
Indianapolis	115
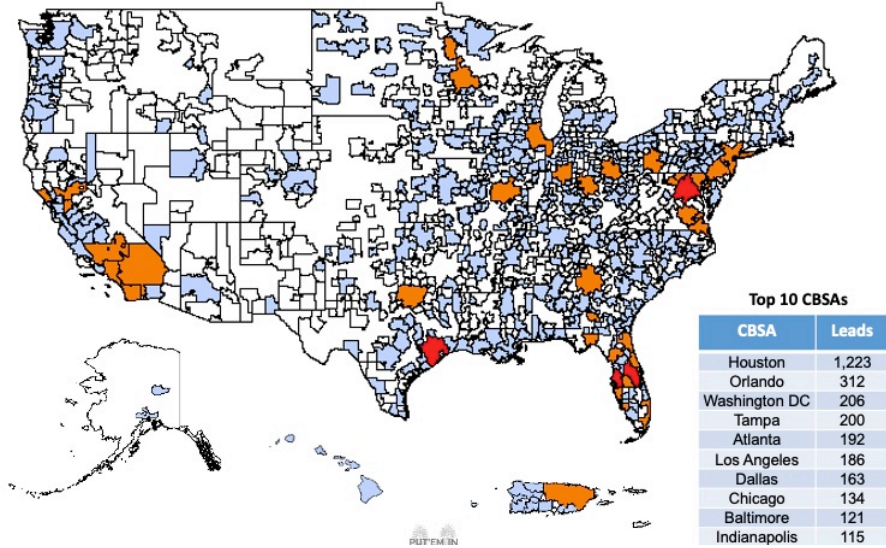
Figure 23:   OBV Lead Results by CBSA. Source: USAREC (2020b).

The team noticed that the OVB results provided stepped interval data like the intervals described in USAREC and AEMO's marketing funnels that are identified in Figure 13 and Figure 14. The team also realized that these funnels could then be visualized as a production system. To visualize OVB as a production system, the team developed a spider diagram to illustrate the components and functions of the OVB in a system context. Figure 24 decomposes the USAREC organization to a lower hierarchy level to show more detail on the specific components we believe responsible for performing each function.
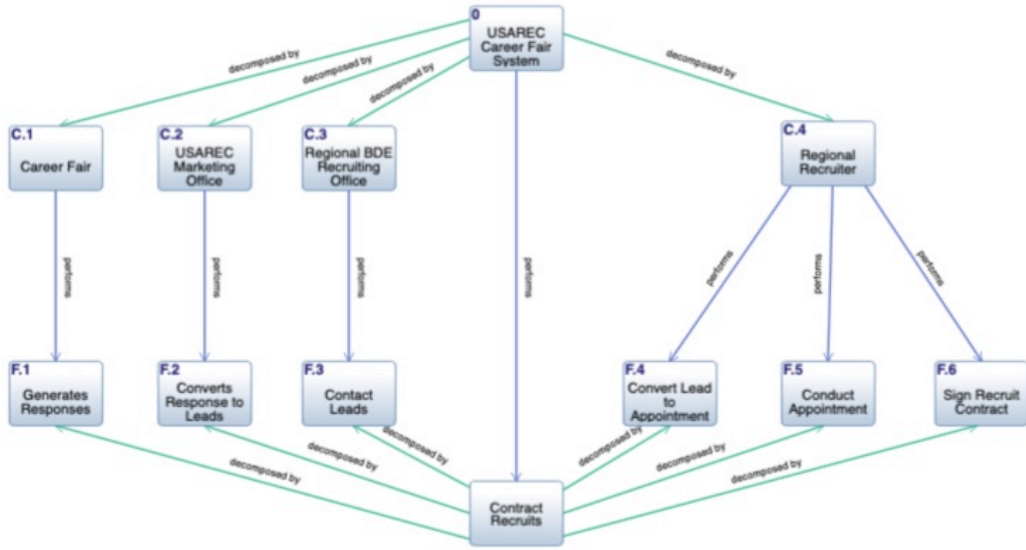
Figure 24:   OVB Spider Diagram

Next, the team used Innoslate MBSE software to develop an action diagram that shows the sequence of OVB functions as shown in Figure 25. The data points in the action diagram are taken from Figure 22, identifying the OVB performance for USAREC's 1st Brigade (USAREC 2020b). The purple box in the action diagram indicates the input into the production model, which is the population that the operation is targeting. Each of the green boxes details the output from each function in the process, which in-turn becomes the input for the subsequent step.
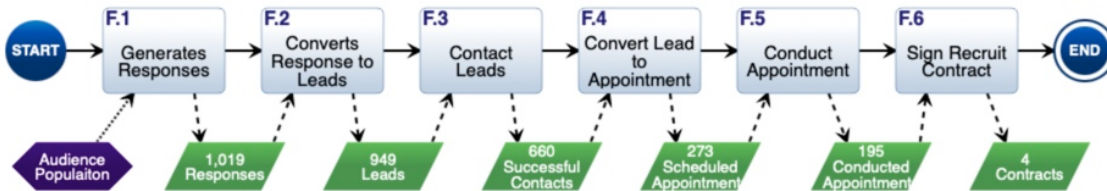
Figure 25:   OVB Action Diagram

The action diagram in Figure 25 provides a visualization of a production model on which we can apply the concepts of production modeling to analyze the process for efficiencies or shortcomings. The first law of production modeling says that "Input =

47

Output [– defects] (Wysk 2006)." With that understanding, the team concluded that the 1,019 responses received Figure 25:result in 1,019 recruiting contracts if the process is absent any defects. Most systems are filled with defects, and the principles of production modeling provide an analytical means to identify those defects through its many proven laws and formulas.

Limitations in a production process, or bottlenecks, are the step in the production process that yields the lowest capacity. We can use analytics to find bottlenecks and then work to increase the efficiency of that step in the process, increasing its capacity, thus increasing the overall capacity of the process. Production modeling tells us that:

$$\text{Capacity} = \text{throughput rate}$$

$$\text{Throughput rate} = 1/\text{Cycle Time}$$

$$\text{Cycle time} = \text{WIP}/\text{Throughput}$$

These equations are known as Little's Law, which is an extremely effective tool for determining cycle time in any process and is key to performing a bottleneck analysis (Pound, Bell, and Spearman 2014). A bottleneck analysis can be performed by applying Little's Law using the step-by-step process in Table 3.

Table 3:   Steps to Analyze Complex Systems. Source: NPS (2020).

1.	Look at the process step by step.
2.	Determine the throughput rate (i.e., capacity) of each step.
3.	Identify the process bottleneck (smallest processing rate, or largest cycle time).
4.	Note the capacity of the process is equal to the capacity of the bottleneck

3.   Findings

The results of applying Little's Law to USAREC's OVB data in the first quarter are shown in Table 4. It is simple to identify that the process step with the lowest capacity

is Sign Recruit Contract." We can see that while 572 units of WIP moved from step five to step six, the capacity of step six was only able to convert 18 into contracts, a 3% conversion rate. The last step is the bottleneck.

Table 4: OVB Capacity Analysis

Process Step:	Capacity:
1. Generate Responses	5812
2. Convert Responses to Leads	5485
3. Contact Leads	4934
4. Convert Leads to Appointment	902
5. Conduct Appointment	572
6. Sign Recruit Contract	18

D.   FISHBONE ANALYSIS

1.   Research Question

The capstone team conducted a holistic analysis to determine where potential gaps exist in the Army marketing and recruiting processes. The team used brainstorming to elicit pain points in the marketing and recruiting processes. We established categories using affinity diagramming to ensure we identified critical areas of the process for our gap analysis. The Fishbone, or Ishikawa, Diagram analysis answered the following research question: What process-*specific opportunities exist to improve the functions and integration within the Army's Marketing and Recruiting processes?*

2.   Analysis

The purpose of this analysis is to produce a root cause for the issues within the marketing and recruiting processes. The results were grouped into six categories (recruit pool, marketing, recruiting, policy/procedure, measures) that were then decomposed using

the "5 Why's" method. For each category we list a top root cause according to our analysis in Figure 26.
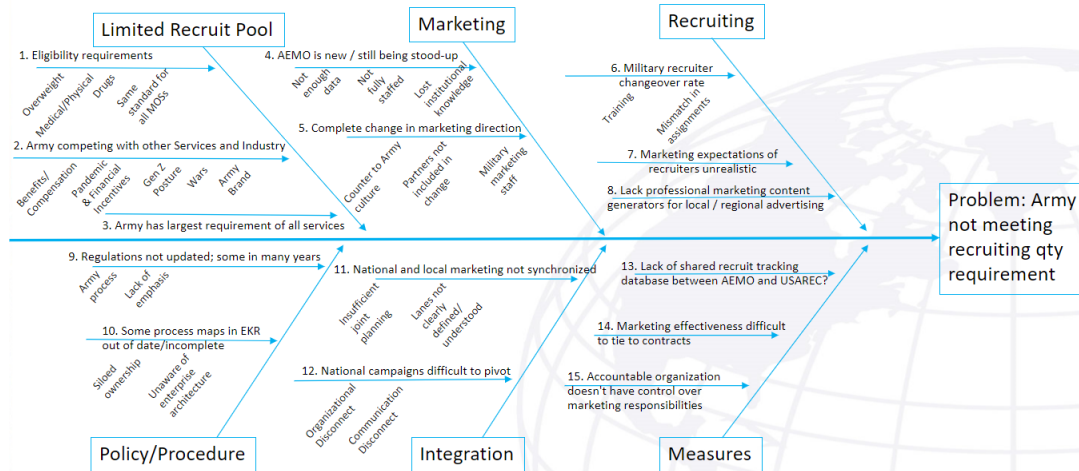
Figure 26:   Fishbone Diagram Analysis

3.   Findings

The cause-and-effect analysis led us to key themes that will be further decomposed to create recommendations. The themes are categorized into as Gaps. Gaps are the areas where our analysis led us to determine shortcomings between the current state of marketing and recruiting, and the desired end-state. These gaps are then prioritized and refined into recommendations.

a.   Recruiting Pool

The recruiting pool for the Army is limited by many factors and appears to be shrinking. Recruits must meet minimum qualifications and, according to USAREC, at least 70% of Generation Z Americans are ineligible "due to obesity, mental-health issues, past drug use, criminal records, or lack of a high school degree" (USAREC 2021b). One aspect we focused on is the obesity epidemic, with one in four young adults too heavy to serve (CDC 2021). The Army requires physically fit recruits to keep costs and attrition low. The other major contributor that warranted deeper analysis was past drug use. Marijuana usage recreationally and medically is accepted in many states across the country, but still illegal

at the federal level. Although recruiting outcomes have not been found to be harmed by the increased usage it could deter applicants and increase the need for waivers (Rempfer 2021).

The other major area that limits the recruiting pool is the Army Brand. Many in Generation Z have difficulty seeing themselves in the military. This limitation is due in part to only 7 % of young people having a close family member serving in the military (Grady 2019). The widening divide between those who serve and the civilians who cannot directly identify with military service is hindering the effectiveness of recruiting and the marketing that aims to bring them into the Army. For those civilians it is often the negative impact of service that they see, an Army that bears the burdonburden19-year war in Afghanistan and is therefore not an attractive alternative to industry. Negative press around veteran's care and sexual violence contribute to this perception. This concern in the broader populace then turns into a self-fulfilling prophecy, with recruiters continuing to favor areas with larger veteran populations, in the south and near military installations, to meet their recruiting numbers.

b. Marketing

The Army reorganized its marketing apparatus to address past audit findings. This has addressed some issues, but also caused some loss of institutional knowledge and a culture shift that has created gaps with trading partners. The capstone team found in its research that although AEMO is revamping their culture, it has not influenced their partners, which has created conflict in operational interactions. Further, staffing AEMO with a military-led cadre presents novel issues with training, retention, and backfilling vacant positions.

c. Recruiting

The team found some issues that arise from turnover of recruiters, unrealistic expectations, and disconnect with national-level marketing support. Turnover of recruiters is part of the natural cycle of military assignments. Knowing this is the case, we did not find the expectations of recruiters to be realistic. Recruiters must learn their region and find contacts within an abbreviated period to be effective. They are expected to find opportunities to not only participate in community events but create opportunities to do so.

In addition, they are required to be proficient in social media usage and gain interactions and reshares on postings with insufficient coordination with national-level marketing events.

d.   Policy/Procedure

One effect of revamping of the Army's marketing approach is that some policies and guidance are no longer relevant. An example is Army Regulation 601-208, The Army Brand and Marketing Program, has not been updated since 2013. It establishes roles and responsibilities, defines marketing and advertising programs, and explains the Army Brand. This is a gap as it provides the connective tissue for other marketing-related regulations and procedures.

e.   Integration

The capstone team found that national and local marketing are not fully integrated. The team found a lack of joint planning brought on by unclear role definitions and the establishment of new lines of communication due to the newness of the marketing approach and the outdated policies/procedures previously mentioned. We also found that AEMO is unable to quickly adjust national campaigns to meet local needs. The team found trading partners disconnected and lacked an effective communication network.

f.   Measures

The team explored themes in its analysis of measures: the absence of meaningful metrics shared amongst the various Army marketing and recruiting organizations, the relationship between a marketing campaign and the direct influence it has on obtaining signed contracts, and the accountable organization for meeting recruiting goals and the control they have over the marketing responsibilities. After analyzing these themes, is the team found a lack of measurable data available to correlate activities within the marketing process to signed contracts. Data does not exist to show a precise number of signed contracts directly resulting from a specific marketing campaign. In addition, other outside variables play into the decision to sign a contract, making correlation even more difficult. The capacity to separate these variables into measurable data relies on participation from

the recruit. Without their participation, meaningful metrics do not exist. This lack of measurable data prevents the various Army marketing and recruiting organizations from thoroughly measuring the effectiveness of each individual marketing campaign, making attribution of success difficult.

THIS PAGE INTENTIONALLY LEFT BLANK

V. CONCLUSIONS AND RECOMMENDATIONS

Using steps seven and eight of Blanchard and Fabrycky's systems analysis process (Figure 2), "Evaluation of Alternatives" and "Analysis Results," respectively, the capstone team synthesized the research to further refine the findings, determined areas that needed additional research, and then collaborated on documenting our recommendations and future courses of action to address our defined problem and research question.

A. MARKETING AND SALES FUNNEL CONCLUSIONS AND RECOMMENDATIONS

Analysis in Chapter IV details the roles and responsibilities of the key stakeholder organizations in the accession network—AEMO and USAREC. The team found that differing organizational marketing and sales funnels are causing disconnect and overlap in approach and execution. Our team's recommendation to both AEMO and USAREC would be to collaboratively create a working group with individuals from both organizations to establish a single marketing and sales funnel for both AEMO and USAREC. Although different organizations, coordination is a critical driver as each organization plays a critical role in the entire recruiting process. Figure 27 shows a simplified single marketing and sales funnel that could allow for initial collaboration to better identify roles and responsibilities, accurately define holistic goals aligned with metrics of each organization and increase accountability of both organizations in the total process model. Then on either a quarterly, semi-annual, or yearly basis, take the prior year execution results and start from the top and drive through the funnel on a continuous cycle, making essential changes from experiences and lessons learned.
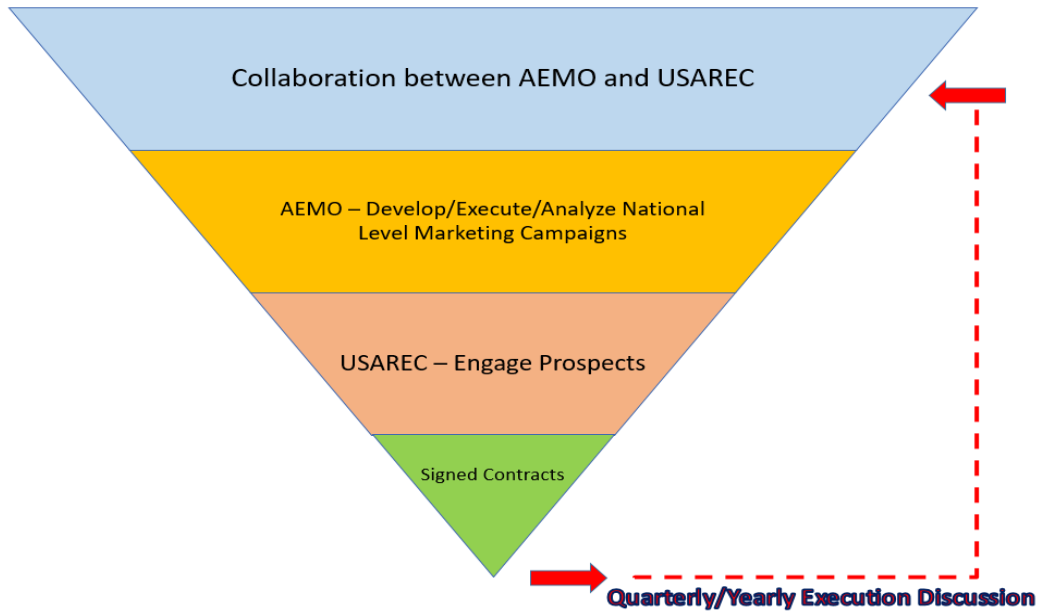
Figure 27:   Simplified Single Marketing and Sales Funnel for AEMO
                          and USAREC

In addition to collaboratively creating a single marketing and sales funnel, our team recommends re-aligning the marketing and sales funnel to reflect the change in buyer behaviors since the advent of digital marketing and social media. As shown in Figure 28, the New Marketing and Sales Funnel (Patrizi 2012), marketing used to only be involved in the first three phases of the funnel (awareness, interest, and consideration) until the sales team took over to close the deal (consideration, intent, evaluation, and purchase). Patrizi states, "in theory it seems like a reasonable approach, but it was flawed, and typically created a sizable rift between the marketing and sales organizations: sales were dissatisfied with the leads that marketing delivered and felt there were alone in pursuing revenue, and marketing felt sales couldn't convert the leads they delivered and felt alone in developing strategy." Therefore, we recommend aligning the marketing and sales funnel so disconnects across organizations do not occur. Each organization plays a critical role in executing the marketing plan and understanding the distinct aspects may increase successful recruits.
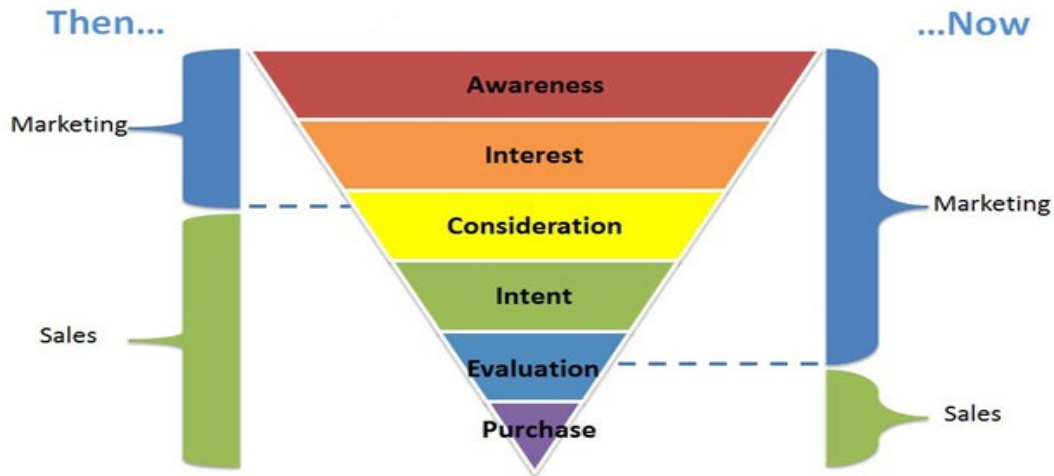
Figure 28:   The New Marketing and Sales Funnel. Source: Patrizi (2012).

B.   PROCESS MODEL CONCLUSIONS AND RECOMMENDATIONS

The conclusion drawn from the results of the analysis performed in Chapter IV is that the following processes exist within the accession system:

1. The EKR Level 0 process outlines the Hire-to-Retire process with assigned roles as well as the Level 2 processes "Manage Army Marketing and Research" and "Manage Military Recruiting."

2. USAREC has documented processes for local and regional recruiting and marketing efforts. They also have a virtual recruiting manual. These processes begin from receiving funds and accession requirements, through lead generation and refinement to signing a contract.

3. AEMO has existing processes to evaluate the market segment and deliver national-level marketing to generate leads.

There are sufficient baseline processes and assigned roles and responsibilities being executed to create influential messages that appeal to various demographics within the target pool that can be evaluated and improved.

The process model analysis resulted in two key findings which lead to the following recommendations:

1. Use process charts established in the EKR and apply cycle times to leverage the production analysis formula presented Section B of Chapter IV to identify additional bottlenecks and inefficiencies that could be addressed through process reengineering and drive a revised technical publication update.

2. Establish a common operating picture through using data visualizations in the Army Vantage data platform to proactively unify the various organizations to meet Army MOS requirements.

C. PRODUCTION MODELING CONCLUSIONS AND RECOMMENDATIONS

The analysis detailed in Chapter IV focused on Little's Law based on the research assumption that the accession process is a stable system given its longevity and consistent execution over the years to meet recruiting goals. As a result of this assumption, this analysis and resulting findings conclude that capacity constraints, or bottlenecks in the process, are the cause for diminishing recruiting numbers through each process step.

The analysis demonstrated effective application of production model analysis and the analysis' findings revealed a system bottleneck. This supports the research question hypothesis that production modeling principles can be applied to the accession process. While it is possible that other principles of production modeling such as WIP starvation, process variability, or flow variability could be the cause of diminishing recruits through each step of the process, even if true it would not change the analysis' findings relative to the hypothesis. If those other principles are in-fact the cause of diminishing recruits in the accession system, that would still lend utility to using production modeling principles as a scientific method to objectively verify that fact and provide proven processes such as queuing theory or blocking that can be applied to improve the revealed system inefficiencies.

Future analysis and research should be performed to apply process analysis to the overall accession process. The research has shown that the principles of production

modeling and production engineering analysis can objectively identify the bottlenecks in the process for our Stakeholders and provide its leaders with data to make informed decisions on what steps of the process require immediate attention and will result in the greatest return on investment upon realizing those process efficiency improvements.

The analysis performed on USAREC's performance in the OVB event is one micro-level piece of the vastly complex recruiting process. If it is possible to apply this practice at the micro-level to determine bottlenecks, then it is also possible to expand this practice across the entire recruiting process. This would provide a holistic view of process efficiencies and bottlenecks to inform decision-makers on the areas that most need to improve.

As an example, one could model the combined AEMO/USAREC funnel, and use the total propensed recruiting pool of 144,000 17–24-year-olds is shown in Figure 29 to represent the input into the system, or starting WIP, for the overall recruiting process. Once modeled across the accession system, the same step-by-step analysis method outlined in Table 3 can be applied to analyze the overall process.
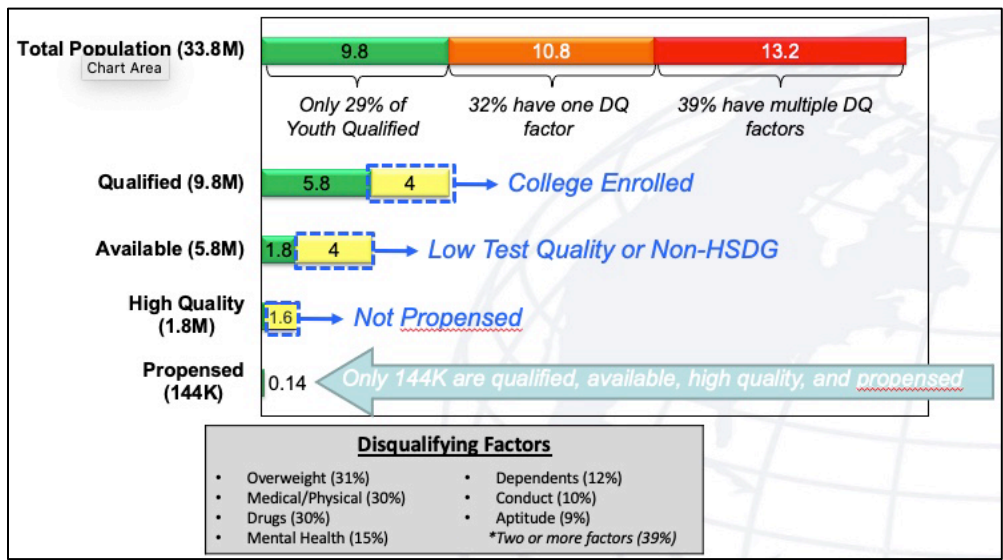

Figure 29: Youth Population, 17–24 Years Old. Source: USAREC (2021b).

The research performed also revealed that both AEMO and USAREC have an enormous amount of data on each step in their process. They also have statisticians and data analysts in their organizations. This research does not recommend taking away capacity to perform analytics on the effectiveness of digital marketing and advertising campaigns but recommends utilizing this in-house analytics expertise to consider the vast data from a different production modeling perspective.

D.   FISHBONE CONCLUSIONS AND RECOMMENDATIONS

The cause-and-effect analysis conducted as part of the project analysis revealed several high-level conclusions from which recommendations were derived to address the root cause identified. The conclusions found were as follows:

- The direct link from marketing campaigns to total leads and then contracts is unclear. We recommend building developing measures to quantify this relationship. Benchmarking industry may be a fruitful way to leverage the existing marketing contracts to explore data collected earlier in the process that can show the connection to leads.

- New processes are not fully documented and socialized causing an impediment to full implementation. The team recommends that more effort is given to developing joint procedures with trading partners to clearly define roles, responsibilities, and processes for execution of marketing campaigns and coordination with recruiters. The recent improvements in marketing approach appear to appeal to Generation Z. We recommend increased cross-organizational planning development and cultural socialization events for the new marketing approach to help with adoption in partner organizations.

- The relocation of AEMO higher headquarters (twice in the last year) has resulted in some organizational disconnect with trading partners, hindering efficiency and effectiveness. The team recommends that stronger ties be developed between AEMO and USAREC with an outcomes-based

partnership driven by recruiting goals. USAREC's mission and AEMO's delivery of support should be highly synchronized. Regional cross functional teams comprised of AEMO marketers and USAREC recruiters that meet regularly could be a way to create a functional feedback loop between the organizations and extend professional marketing resources down to the regional and local levels.

Based on our analysis, we recommend that the Army continues its new marketing campaign aimed at Generation Z and the influencers, predominantly parents, to show that the Army is a diverse workforce that reflects the country's population, but also serves a mission that is critical to the survival of the country. We recommend the Army create the sense of urgency that drives motivation and leads to enlistment. Competitive pay, benefits, and fair treatment are essential elements to driving recruitment, but the focus needs to remain on the Army's primary mission and the values exemplified by its forces.

The conclusions and recommendations presented in this report are intended for consideration, tailoring, further study and use by the key stakeholders responsible for Army marketing and recruiting efforts. The report outlines organizational and process-related areas that can benefit from further study or improvement addressing the Army's need for an efficient and effective marketing and accession system that supports Army readiness.

E. APPENDIX TRACEABILITY MATRIX

		Funding	Requirements	Planning	Identify Audience	Generate Leads
HQDA G1		Allocate Recruitment Budget	Set and Disseminate Assession Requirement (Army mission letter)			
AEMO (ASA MR&A)		Receive Marketing Funding Allocate Regional and Local Marketing Funding		Develop National Marketing Strategy Plan & Set Marketing Theme (USAREC (2020c))	Conduct Audience Analysis Disseminate Audience Analysis	Generate Awareness at Strategic Level to Drive Visits - The Army Brand (USAREC (2020c))
TRADOC		Allocate Recruitment Funding to USAREC	Receive Assession Requirements USAREC (2021a)	Develop Campaign Plan Analysis USAREC (2021a)		
USAREC	HQ G-7 ACofS	Receive Annual Marketing and Recruitment Funding	Receive Assession Requriement USAREC (2021a)	Develop Recruiting Operations Plan USAREC (2021a)		
	HQ Public Affairs Office (PAO)			Develop and sustain positive relations with traditional and non-tradtional social media outlets - facilitates HQ USAREC engagements. Manages all public facing tools (USAREC (2020c))		Generates strategic, operational, and tactical public affairs plans & orders (USAREC (2020c))
	HQ G-3 (Virtual Recruiting Division)	Develops and updates training support packages and training sustainment programs and doctrine as needed. (USAREC (2020c))	Assist brigades in support of battalion VRS's when necessary and monitor and moderate VRC/VRS social media platforms. (USAREC (2020c))	Capture lessons learned, tactics, techniques and procedures in central location. (USAREC (2020c))		Generate regional Awareness - The Army Brand (USAREC (2020c))
	HQ Virtual Recruiting Center					
	HQ G-5 Fires, Effects, Coordination Cell (FECC)				Identify audience (Lead for USAREC Targeting Working Group) (USAREC (2020c))	Allocates assets with high payoff events. (USAREC (2020c))
	Battalions (Virtual Recruiting Stations)					Generate city-local awareness - deliver Army Message. (USAREC (2020c))
	Brigades					Generate city-local awarenes -Deliver Army Message (USAREC (2020c))
	Station/ Recruiters					

		Interest	Evaluation	Contract	Data
HQDA G1					Track Army Accession
AEMO (ASA MR&A)		Create Interest & Educate (AEMO (2020)) Obtain Contact Information (AEMO (2020))	Refine & Engage Leads (AEMO (2020))		
TRADOC					
USAREC	**HQ G-7 ACofS**				Executitve agent for Enterprise Marketing Management (EMM) system execution (USAREC (2020c))
	HQ Public Affairs Office (PAO)				
	HQ G-3 (Virtual Recruiting Division)	Obtain Contact Information (AEMO (2020))			
	HQ Virtual Recruiting Center		Responsible for refinement and pre-qualification of leads from various Army & National Sources (USAREC (2020c))		
	HQ G-5 Fires, Effects, Coordination Cell (FECC)				
	Battalions (Virtual Recruiting Stations)	Conduct Engagement and Repeat Visibility (followers and Fans) (USAREC (2020c)) Obtain Contact Information (AEMO (2020))	Conversion - ask for more information (USAREC (2020c)) Refine Leads: 1) Prospects 2) Community Parter 3) Followers (USAREC (2020c))	Obtain Englistments (AEMO (2020))	Convert Leads to Contract (AEMO (2020))
	Brigades	Obtain Contact Information (AEMO (2020))		Obtain Englistments (AEMO (2020))	Convert Leads to Contract (AEMO (2020)
	Station/ Recruiters		Make Appointment (USAREC (2020c)) Conduct Interview (USAREC (2020c))	Obtain Englistments (AEMO (2020))	Convert Leads to Contract (AEMO (2020))

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

Adgate, Brad. 2020. "Measuring The Effectiveness of Radio Advertising In Connected Cars." Accessed May 6, 2021. https://www.forbes.com/sites/bradadgate/2020/10/09/measuring-the-effectiveness-of-radio-advertising-in-connected-cars/?sh=105acbbd5fc7.

AEMO. 2020. "Selection Procerss for New Army Functional Area Now Open." *AMEO Public Affairs.* Accessed May 4, 2021. https://www.army.mil/article/238753/selection_process_for_new_army_functional_area_now_open.

———. 2021. "Army Enterprise Marketing Office (AEMO)." LinkedIn. Accessed August 2021. https://www.linkedin.com/company/army-enterprise-marketing-office/.

afaqs! News Bureau. 2021. "DDB Is Being Sued For USD 100 Million." Accessed May 7, 2021. https://www.afaqs.com/news/advertising/ddb-is-being-sued-for-usd-100-million.

Beresford Research. 2021. "Age Range by Generation." Accessed August 2021. https://www.beresfordresearch.com/age-range-by-generation/.

Blakeman, Robyn. 2014. *Nontraditional Media in Marketing and Advertising.* Knoxville, TN: SAGE Publications, Inc.

Blanchard, Benjamin S., and Wolter J. Fabrycky. 2011. *Systems Engineerng and Analysis.* 5th ed. Upper Saddle River, NJ: Prentice Hall.

Brown, Nicholas. 2016. "Generation Z and the Future of Print Marketing." Accessed May 15, 2021. https://www.business.com/articles/nicholas-brown-generation-z-and-the-future-of-print-marketing/.

Bump, Philip. 2014. *Here Is When Each Generation Begins and Ends, According to Facts.* March 25. https://www.theatlantic.com/national/archive/2014/03/here-is-when-each-generation-begins-and-ends-according-to-facts/359589/.

———. 2015, Arpil 01. "Your Generational Identity Is a Lie." https://www.washingtonpost.com/news/the-fix/wp/2015/04/01/your-generational-identity-is-a-lie/.

CDC. 2021. "Chronic Diseases and Military Readiness." Accessed July 30, 2021. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/military-readiness.htm.

Claritas. 2021. "PRIZM Premier." Accessed May 29, 2021. https://claritas.com/prizm-premier/.

Colwell, SGM Darrin Lee. 2020. "How to Reach Generation Z." Accessed August 2021. https://www.ausa.org/publications/how-reach-generation-z.

Concordia St. Paul. 2021. "Marketing vs. Advertising: What's the Difference?" Accessed May 29, 2021. https://b.online.csp.edu/resources/article/marketing-vs-advertising/.

Conn, Tim. 2020. "Yes, Cold Calling Can Still Work In 2020." Accessed May 6, 2021. https://www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2020/05/19/yes-cold-calling-can-still-work-in-2020/?sh=690c1140136f.

Cox, Matthew. 2021. *Army Embraces Anime in New Recruiting Campaign.* Accessed May 8, 2021. https://www.military.com/daily-news/2021/05/06/army-embraces-anime-new-recruiting-campaign.html.

Darling, STAFF SGT. Brian C. 2017. *Army Marketing Strategies and the Future of Word-Of-Mouth Marketing.* February 17. Accessed May 8, 2021. https://www.armyupress.army.mil/Journals/NCO-Journal/Archives/2017/February/Army-Marketing-Strategies-and-the-Future-of-Word-Of-Mouth-Marketing/.

Decker, Allie. 2020. *The Ultimate Guide to Marketing Campaigns.* December 2. Accessed May 6, 2021. https://blog.hubspot.com/marketing/marketing-campaigns.

Deloitte. 2021. *Digital Media Trends.* 15th ed*, Courting the consumer in a world of choice.* April 16. Accessed May 6, 2021. https://www2.deloitte.com/us/en/insights/industry/technology/digital-media-trends-consumption-habits-survey/summary.html.

Department of Defense Instruction. 2020. *DOD Instruction 1304.35*. *Military Marketing.* Department of Defense.

Digitaldot. 2021. *How To Measure The Success Of Your Digital Marketing Strategy.* Accessed May 5, 2021. https://digitaldot.us/how-to-measure-the-success-of-your-digital-marketing-strategy/).

Dimock, Michael. 2019. "Defining generations: Where Millennials End and Generation Z Begins." Accessed May 3, 2021. https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/.

Esper, Mark T. 2019. "Redesignation, Reassignment, and Relocation of the U.S. Army Marketing and Research Group as the Office of the Chief Army Enterprise Marketing, a Field Operating Agency of the Deputy Chief Of Staff, G–1." *Department of the Army, Secretary of the Army.* May 30. Accessed May 7, 2021. https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/ARN17522_AGO_2019_18_FINAL.pdf.

Grady, John. 2019. "USNI News." Accessed July 30, 2021. https://news.usni.org/2019/06/17/panel-says-u-s-military-recruitment-pool-must-broaden.

Hero Collective. 2021. "Hero Collective – A Creative and Digital Un-Agency Built For Heros." Accessed August 5, 2021. https://herocollective.co/un-agency/.

Hoffower, Hilary. 2019. "Gen Z Started Building Wealth Earlier than Millennials, and an Expert Says 9/11 is the Main Event that Divided the 2 Generations and Their Views On Money." Accessed July 21, 2021. https://www.businessinsider.com/millennials-vs-gen-z-divided-by-911-different-money-habits-2019-4.

Joint Advertising, Marketing Research and Studies (JAMRS). 2016. *dacowits.defense.gov.* Accessed 2021. https://dacowits.defense.gov/Portals/48/Documents/General%20Documents/RFI%20Docs/Sept2016/JAMRS%20RFI%2014.pdf?ver=2016-09-09-164855-510.

———. 2019. *Your Guide To More Effective Recruiting.* Alexandria, VA: Department of Defense.

———. 2020. *Segmentation Marketing Guide Technical Report.* Technical Report, Alexandria, VA: Joint Advertising, Market Research and Studies.

Klein, David. 2020. *9 Facts That Prove Newspaper Advertising Is Still Effective in 2020.* January 6. Accessed May 27, 2021. https://macromark.com/blog/9-facts-that-prove-newspaper-advertising-is-still-effective-in-2020.

Kyle Rempfer. 2021. Armytimes.com. March 12. Accessed July 30, 2021. https://www.armytimes.com/news/your-army/2021/03/12/marijuana-legalization-hasnt-harmed-armys-recruit-outcomes-study-says/), .

MWI USMA. 2019. MWI.USMA.edu. Accessed 2021. https://mwi.usma.edu/not-economy-army-missed-recruitment-goals/.

NPS. 2020. "Little's Law: Models Relating Cycle-time, Throughput, WIP and Batch Sizes." Course materials in SE4520, Fall Semester 2021.

Office of Business Transformation. 2021. *Enterprise Knowledge Repository.* July 07. https://ea.ekr.cprobe.army.mil/.

Pacer Service Center. 2021. *1:21-cv-00340 HERO Group Inc. v. DDB Chicago Inc.* https://ecf.ilnd.uscourts.gov/cgi-bin/HistDocQry.pl?164267564869352-L_1_0-1.

Parker, Kim, and Ruth Igielnik. 2020. *On the Cusp of Adulthood and Facing an Uncertain Future: What We Know About Gen Z So Far.* Accessed May 2, 2021. https://www.pewresearch.org/social-trends/2020/05/14/on-the-cusp-of-adulthood-and-facing-an-uncertain-future-what-we-know-about-gen-z-so-far-2/.

Patrizi, Steve. 2012. "Would the Application of Production Modeling Principles to the Accession Process Provide Specific Targets for Process Improvement?" *The New Marketing and Sales Funnel.*

Pound, Edward, Jeffrey Bell, and Mark Spearman. 2014. *Factory Physics for Managers.* New York: McGraw-Hill.

Rempfer, Kyle. 2021. "Marijuana Legalization Hasn't Harmed Army's Recruit Outcomes, Study Says." Accessed July 30, 2021. https://www.armytimes.com/news/your-army/2021/03/12/marijuana-legalization-hasnt-harmed-armys-recruit-outcomes-study-says/.

Serbu, Jared. 2019. "Federal News Network." Accessed May 7, 2021. https://federalnewsnetwork.com/army/2019/08/army-stands-up-chicago-based-marketing-operation-to-help-bolster-recruitment/.

SocialMediaToday. 2020. *SocialMediaToday.* Accessed June 2021. https://www.socialmediatoday.com/news/what-gen-z-is-watching-online-and-what-that-means-for-marketers-in-2020/572021/.

Stickles, Brendan. 2018. *17 years after 9/11, what it means to have Generation Z military.* Accessed July 21, 2021. https://www.brookings.edu/blog/order-from-chaos/2018/09/10/17-years-after-9-11-what-it-means-to-have-generation-z-military/.

Stoll, Julia. 2021. *TV Reach in the U.S. Q1 2019, by age.* Accessed May 18, 2021. https://www.statista.com/statistics/468360/tv-reach-usa/#statisticContainer.

Talbot, Paul. 2021. *Forbes.com.* Accessed 2021. https://www.forbes.com/sites/paultalbot/2021/03/23/best-practices-for-marketing-to-gen-z/?sh=4d8c357b4319.

TRADOC. 2021. *U.S. Army Training and Doctrine Command.* https://www.tradoc.army.mil/.

Tynan, Caroline A., and Jennifer Drayton. 1987. "Market Segmentation." *Journal of Marketing Management* 301 - 335.

U.S. Army. 2019. *The Army People Strategy.* Arlington, VA: U.S. Army.

U.S. Army. 2021. "Who We Are." Accessed August 2021. https://www.army.mil/about/.

USAREC. 2015. "Local Recruiting Marketing Program." USAREC Reg 601-208. Fort Knox, KY: Headquarters, United States Army Recruiting Command (USAREC), October 28. https://recruiting.army.mil/Portals/15/Documents/Forms%20and%20Pubs/Regulations/UR%20601-208.pdf?ver=2019-02-08-140606-043.

———. 2019a. "USAREC Manual 3." *USAREC Manual 3, Recruiting.* Fort Knox, KY: USAREC.

———. 2019b. "USAREC Manual 3-0." *USAREC Manual 3-0.* Fort Knox, KY: USAREC.

———. 2020a. *Fragmentary Order 1 to Operation Order 21-0001, USAREC FY21 Annual Guidance.* Fort Knox, KY: USAREC.

———. 2020b. "OVB Hotwash 15 DEC." Fort Knox, KY: USAREC.

———. 2020c. "The Conduct of Virtual Recruiting Activities." *Publication 2-10.4.* Fort Knox, KY: U.S. Army.

———. 2020d. "The Conduct of Virtual Recruiting Activities." *USAREC Techniques Publication 3-10.4.* Fort Knox, KY: Headquarters, United States Army Recruiting Command (USAREC).

———. 2021a. *Campaign Plan FY21–28.* Fort Knox, KY: USAREC.

———. 2021b. *The Recruiting Market and its Challenges.* Fort Knox, KY: USAREC.

———. 2021c. U.S. Army Recruiting Command, Official website. Accessed May 8, 2021. https://recruiting.army.mil/aboutUSAREC/.

United States Government Accountability Office. 2016. *DOD Advertising: Better Coordination, Performance Measurement, and Oversight Needed to Help Meet Recruitment Goals.* Report to Congressional Committees; GAO-16-396, Washington, D.C.: United States Government Accountability Office.

———. 2019. *Army Marketing: The Army Has Taken Recent Actions That Could Imporve Program Oversight, Effectiveness, and Workforce Practices.* Report to Congressional Committees, Washington, D.C.: U.S. Government Accountability Office.

———. 2020. *Defense: DOD Avertising 2017-05.* Executive Branch, Washington, D.C.: U.S. Government Accountablilty Office. Accessed May 8, 2021. https://www.gao.gov/action-tracker/defense-dod-advertising-2017-05.

U.S. Senate. 2015. *National Defense Authorization Act for Fiscal Year 2016.* Senate Report 114-49, Washington, D.C.: U.S. Senate.

Watson, Amy. 2020. "Frequency of Using Selected News Sources among Generation Z in the United States as of May 2021." Accessed June 2021. https://www.statista.com/statistics/1124119/gen-z-news-consumption-us/.

WBR Insights. n.d. *The U.S. Army's Marketing and Recruitment Strategy.* https://b2bmarketing.wbresearch.com/blog/us-army-dramatically-restructuring-marketing-strategy.

Wharton School of the University of Pennsylvania. 2019. "Digital Versus Traditional Marketing: What Today's C-Suite Needs to Know." Accessed May 29, 2021. https://online.wharton.upenn.edu/blog/digital-versus-traditional-marketing/.

Williams, Robert. 2020. "Gen Z Wants Brands To Be 'Fun,' Authentic', and 'Good', Study Says." Accessed May 6, 2021. https://www.marketingdive.com/news/gen-z-wants-brands-to-be-fun-authentic-and-good-study-says/581191/).

Wysk, Dr. R. A. 2006. "Models Relating Cycle-time, Throughput, WIP and Batch Sizes." *Penn State College of Engineering.* https://www.engr.psu.edu/cim/ie450/ie450pp13.ppt .

YPulse. 2020. "These 3 Charts Show How Gen Z and Millennials' Media Viewing Is Not The Same." https://www.ypulse.com/article/2020/09/02/these-3-charts-show-how-gen-z-millennials-media-viewing-is-not-the-same/.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
   Ft. Belvoir, Virginia

2. Dudley Knox Library
   Naval Postgraduate School
   Monterey, California