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INVISIBLE THREAD: PRE-SERVICE SUCCESS INDICATORS AMONG MARINE GENERAL OFFICERS

December 2017

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**INVISIBLE THREAD: PRE-SERVICE SUCCESS INDICATORS AMONG
MARINE GENERAL OFFICERS**

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INVISIBLE THREAD: PRE-SERVICE SUCCESS INDICATORS AMONG MARINE GENERAL OFFICERS

ABSTRACT

The purpose of this study is to identify commonalities that may exist among general officers within the United States Marine Corps. This exploratory analysis focuses on pre-service indicators of success and assesses the existence of any competitive advantages. The data used in this analysis includes pre- and post-accession information obtained from the United States Marine Corps' Total Force Data Warehouse (TFDW), as well as semi-structured interviews with six general officers, varying in rank (O-7 to O-9), gender, race, and duty status (active/retired).

The methodology includes both a quantitative and qualitative analysis of the data. The qualitative analysis revealed the presence of mentors throughout each general officer's childhood. The quantitative analysis confirmed the value of networking and mentorship, revealing that 62% of general officers in the study accessed from either the Naval Academy or an NROTC program.

Recommendations for further research are to survey the active duty colonel population with questions derived from both the interviews and gaps in the TFDW data, to assess whether the same common success indicators exist. It is also recommended that this study is conducted on O-3s and below to identify whether the same trends are reflected in the junior officer population.

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I. INTRODUCTION

A. BRIEF HISTORY

The United States Code regulates the number of general officers authorized to serve on active duty at any given time. The Marine Corps is limited to 62 active duty general officers spanning the ranks of brigadier general (O-1) to general (O-4) (10 U.S. Code § 526). Additionally, U.S. federal statute mandates that no appointment of an officer should be made that would result in more than two four-star generals at any given time within the Marine Corps (10 U.S. Code § 525). However, for a brief moment in history, there was an exception to this rule.

For the first time in Marine Corps history, in 2013, there were six four-star generals on active duty at the same time. Figure 1 shows Marine Generals John Kelly, James Mattis, Joseph Dunford, James Amos, and John Allen and John Paxton Jr., all active duty at the time, gathered together at the Home of the Commandant in Washington, D.C. Today, Kelly serves as the White House Chief of Staff, Mattis as Secretary of Defense, and Dunford as the Chairman of the Joint Chiefs of Staff. Equally as captivating as the photo is the journey that each Marine must take in order to reach the highest rank within the organization. While there is no written roadmap that guarantees promotion to general, there are some basic similarities and/or pre-requisites.



From left to right: John Kelly, James Mattis, Joseph Dunford, James Amos, John Allen, and John Paxton Jr.

Figure 1. Six four-star generals at the Home of the Commandants in Washington, D.C. Source: *MarineTimes* (2013).

B. PURPOSE

The purpose of this study is to identify commonalities that may exist among general officers within the United States Marine Corps. Specifically, this exploratory analysis focuses on pre-service indicators of success and assesses the existence of any competitive advantages. The data used in this analysis includes pre-and-post accession information obtained from the United States Marine Corps' Total Force Data Warehouse (TFDW), as well as semi-structured interviews with six general officers, varying in rank (O-7 to O-9), gender, race, and duty status (active/retired). The methodology used is a convergent parallel mixed method design that includes both a quantitative and qualitative analysis of the data.

II. BACKGROUND

A. CAREER PROGRESSION

To become a Marine officer, candidates must first have a bachelor's degree and either be a graduate of the U.S. Naval Academy or Officer Candidates School. Upon graduation from either institution, officer candidates are commissioned as second lieutenants and proceed to the next training requirement, The Basic School. After successfully completing six months of the intense leadership, tactics, and weapons training, lieutenants report to their respective Military Occupational Specialty schools, each varying in length, before finally entering the operating forces.

The minimum time in grade obligation for a second lieutenant to be eligible for promotion to first lieutenant is approximately eighteen months.¹ Once promoted to first lieutenant, two years is the minimum time in grade obligation² but a long-term career in the Marine Corps is still not guaranteed. First lieutenants must be selected for career designation in order to continue their service beyond the minimum obligation. In order to achieve this, first lieutenants are required to have a minimum of 540 days of observed performance by a superior officer reflected on semi-annual fitness reports³. Those reports are then reviewed by an Officer Review Board, which according to Marine Corps Order is "used to determine which company grade officers will be offered the opportunity for continued service beyond their initial active service obligation." (MCO 1001.65, 2014, p. 2). This process "accomplishes the objectives of retaining the best qualified officers on active duty and maintaining the active component population in each year of commissioned service." (MCO 1001.65, 2014, p. 2).

¹ "Eighteen months, in the case of an officer holding a permanent appointment in the grade of second lieutenant or ensign" (U.S. Code Title 10, Chapter 36, Subchapter II, Section 619).

² "Two years, in the case of an officer holding a permanent appointment in the grade of first lieutenant or lieutenant (junior grade), except that the minimum period of service in effect under this subparagraph before October 1, 2008, shall be eighteen months" (U.S. Code Title 10, Chapter 36, Subchapter II, Section 619).

³ Officer Retention and Prior Service Accessions MCO 1001.65

From the rank of captain up to colonel, the career path is fairly standard, as depicted in Figure 2. There are various time-in-grade obligations, Professional Military Education (PME) requirements, a balance of supporting establishment and operating forces assignment, and milestones for being in command of an entire unit at certain ranks.

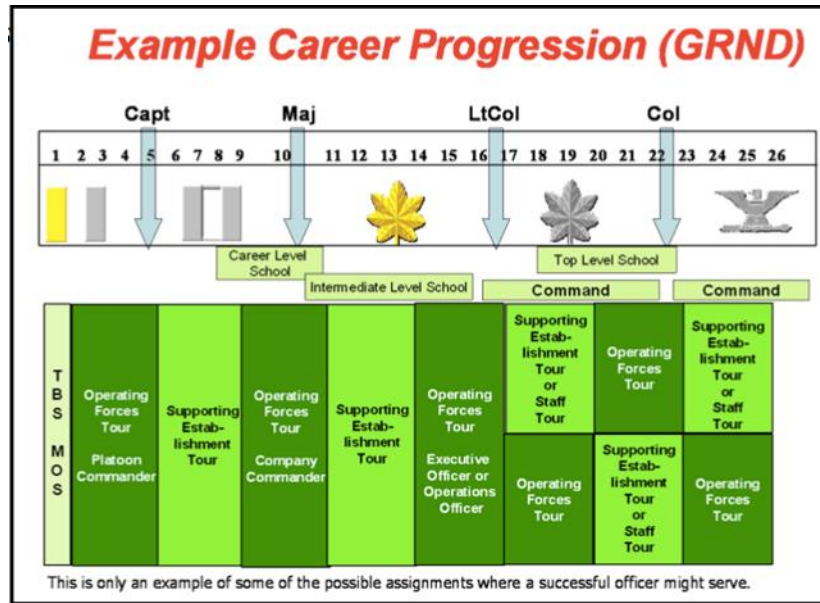


Figure 2. Standard Marine Officer Career Progression Timeline. Source: 9th Marine Corps District L.I.N.K.S. for Spouses Brief (2008).

B. PROMOTION TO GENERAL

As previously stated, allocations for promotions to the general officer ranks are limited (by statute) and require selection by a very competitive board comprised of active duty general officers, as well as Senate approval. Historically, colonels who are selected for brigadier general have the following key milestones in common:

1. Joint Service Officers (often called JQOs); successful tour in a joint service billet
2. Resident top-level school
3. Successful colonel-level command (most often in the operating forces)/often, but not always accompanied by successful O-5 command

4. Consistently above-average fitness reports throughout career
5. Specific letters of recommendation from current general officers

While these variables are fairly reliable indicators of promotion to general officer, they are not the only pathway to success, nor are they proclaimed to be a roadmap to the top. Plenty of general officers, past and present, have deviated from the typical career track. General James Amos, 35th Commandant of the Marine Corps was the first aviator to hold that position, in the Corps' 235 years of existence at that time. During an interview with a commanding general, conducted for this study, he expressed his concerns about being selected for promotion to brigadier general because his career did not follow the "typical" path, stating, "Then I went off to command and I thought at that point I was going to be done because I went to command a supporting and establish—that wasn't the path to success as far as that went." He then went on to say, "there's a traditional path as far as it goes and traditional is an interesting word. You've got guys that have come in, in the supporting establishment that are not general officers, commanded ESOIs or been in the training command and stuff. Have done well. Really it kind of depends on who is out there and who is keeping an eye out for you, as far as that goes." Although the path to success may vary, there are benefits to knowing and understanding the basic pre-requisites.

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III. QUANTITATIVE ANALYSIS

This chapter provides information on the quantitative portion of this research. It details from where the data was derived, the selection criteria, and the creation of the variables for an empirical analysis. The statistical analysis in this chapter is primarily descriptive and will be used in conjunction with the quantitative results.

A. DATA

The data was derived from the United States Marine Corps', Total Force Data Warehouse (TFDW) which houses the Marine Corps Recruiting Information Support System (MCRISS) and Marine Corps Total Force System (MCTFS). For the purposes of this study, data from MCRISS and MCTFS was used.

The MCRISS is a modern web-based system that reduces some redundant data entry, and captures information at the point in which an applicant meets the recruiter (DiEugenio, 2001). Unfortunately, MCRISS did not exist when the general officers from this data pool were applicants, therefore their information had to be imported in to MCRISS from TFDW; this explains some of the redundancies observed in the data.

MCTFS is an "electronic system that contains personnel and pay data on all active and reserve Marine Corps personnel" (SSIC 1070 18 MARINE CORPS TOTAL SYSTEM, 2008 p. 2). While MCRISS collects pre-accession data, MCTFS allows data to be collected post-accession. Analyzing pre-and-post accession data further reduces the number of missing variables in the study.

The data file received from TFDW contained many observations with the same identifier, due to redundant entries being created as the general officer's record was updated throughout their career. Duplicate observations were removed resulting in 91 total observations. The method used to remove duplicate observations was to keep the most recent observation. If the most recent observation had missing variables, then the variables from the older observations were populated into the most recent observation, if

applicable. This method proved to be effective, however it did not result in all missing variable being replaced. Missing fields are captured in the data as “not provided”.

B. INDEPENDENT VARIABLES

Data in this research reflects 91 Marine Corps General Officers on active duty as of October 2, 2017. TFDW sent one file with 116 variables that were consolidated down to 78 variables after an initial analysis revealed multiple variables provided the same information. Prior to the file being transmitted, all personally identifiable information was removed and replaced by randomly generated identifier numbers developed by TDFW.

Although there were a total of 78 variables, some of the variables were listed twice as numeric codes and non-numeric descriptions. Table 1 represents the 12 variables that were used in the study. The number of observations within each variable varied, resulting in some variables not having data for all 91 individual observation sets.

Table 1. Participant Characteristics

Variables	Number of Observations
Accession Type	90
Age Distribution	91
Blood Type	91
Date of Rank	91
Education	86
Race/Ethnicity	91
Pay Grade	91
Marital Status	91
Place of Birth State	83
Quarter of Birth	64
Religion	91
Sex	91

1. Accession Type

Accession type defines which program each general officer completed in order to commission in to the Marine Corps. There were a total of seven commissioning programs available for the general officers in this study during the time period that they accessed: The United States Naval Academy, Marine Enlisted Commissioning Education Program (MECEP), Navy Reserve Officers Training Corps (NROTC), Officer Candidate Course (OCC), Platoon Leaders Class (PLC), Unknown, and Woman Officer Candidate. Figure 3 depicts how the general officers in this study are aligned with each commissioning program.

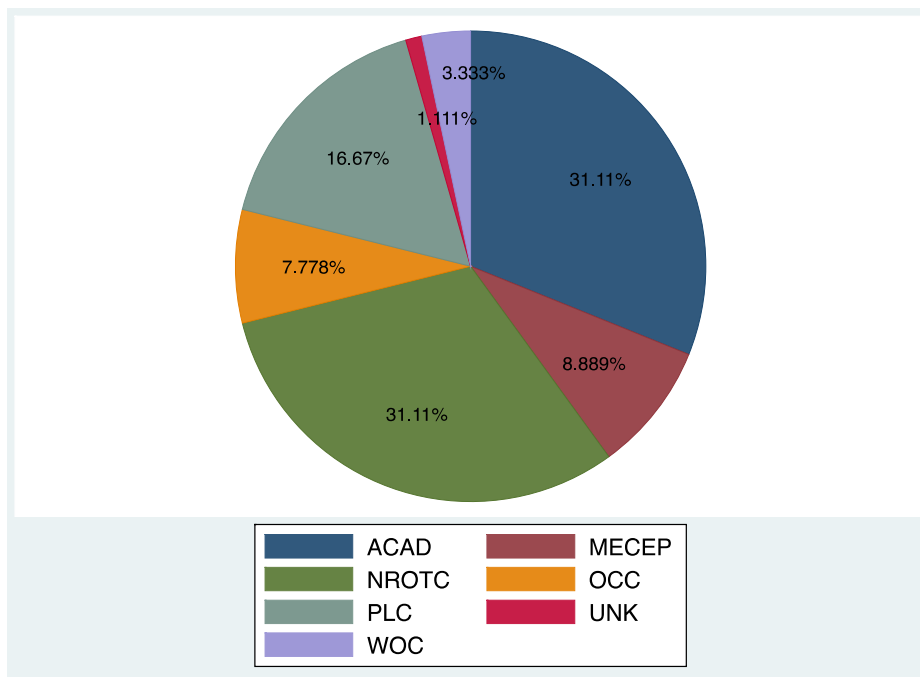


Figure 3. Commissioning Program Utilization. Source: Total Force Data Warehouse (2017).

Analysis of the data revealed that the overwhelmingly majority of general officers, 78.89%, accessed from the Naval Academy, NROTC or PLC, which is in stark contrast to the percentage of officers accessed from each of the other commissioning programs. As of February 10, 2017, Figure 4 illustrates the amount of accessions by each

type among all USMC officers on active duty who accessed in 2017. Due to the limitations in data available, the accessions by commissioning program within the general officers commissioning timeframe was not available.

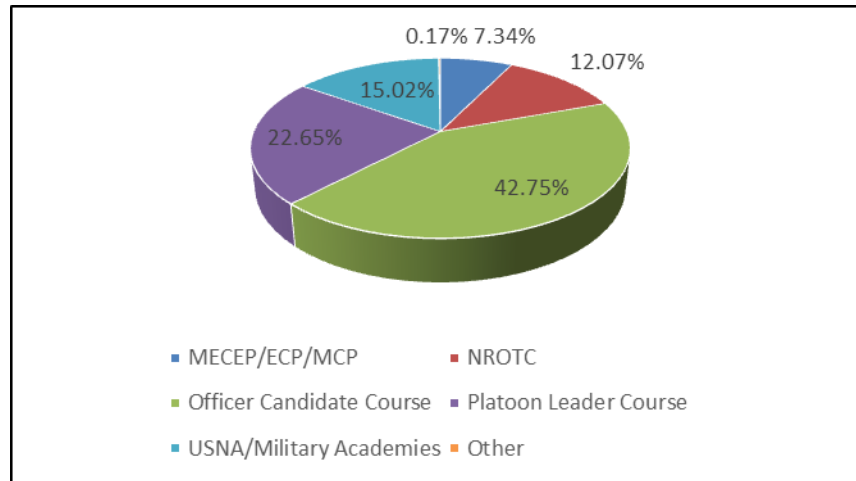


Figure 4. General Officer Accession Type. Source: Total Force Data Warehouse (2017)

The United States Marine Corps Concepts and Programs found that 49.74% of officers commissioned in to the Marine Corps accessed from the Naval Academy, NROTC or PLC (U.S. Marine Corps, 2017). The disparity between general officers who accessed from the Naval Academy, NROTC or PLC versus all officers that accessed from the programs represent 29.15% of the TFDW data. The findings indicate that there is an over-representation of general officers from the Naval Academy and NROTC. General officers that accessed from PLC were excluded from the over-representation as PLC accounted for 22.65% of accessions and 16.67% of general officers in the TDFW data, which makes them under-represented.

2. Age Distribution

The age distribution spanned 24 years, with the oldest officers representing the most senior by rank, depicted in Table 2. The data indicates that most of the general

officers were born during the Vietnam War or shortly thereafter, and came to young adulthood during the all-volunteer force era.

Table 2. Age Distribution

Age	Frequency	Percent
41-45	2	3.12
46-50	41	64.06
51-55	12	18.76
56-60	5	7.81
61-65	4	6.25

3. Gender and Marital Status

The data set revealed that 98.9% of the general officers were male. Out of the nine individual observation sets, there was one female general officer. The female general officer was the only one not married. Out of the 90 male general officers, two were divorced and 88 were married.

4. Blood Type

The blood type variable was analyzed to identify any trends. Table 3 shows that the majority of general officers' blood type aligned with the United States average, O+. The national average numbers were derived from Lancaster General Health. The general officer averages were derived from TFDW. The second and third most popular blood types in the United States (A+ and B+) were also the second and third most popular blood types found in the data.

Table 3. General Officer Blood Type versus National Average

Blood Type	National Average	General Officer Average	Difference
O+	37.40%	45.05%	7.65%
O-	6.60%	7.69%	1.09%
A+	35.70%	24.80%	10.90%
A-	6.30%	4.40%	1.90%
B+	8.50%	14.29%	5.79%
B-	1.50%	1.10%	0.40%
AB+	3.40%	2.20%	1.20%
AB-	0.60%	1.10%	0.50%

An oddity was found in blood types B + and O + within the Caucasian general officer community, shown in Table 4. When compared to the United States National blood type average for Caucasians, (Red Cross), blood type B + was under-represented and O + was over-represented, within the general officer community.

Table 4. Blood Types within Caucasian Population

Blood Type	National Average	General Officer Average	Difference
B+	9.00%	4.29%	191.08%
O+	37.00%	48.57%	31.27%

5. Date of Rank

Given the military's use of the "up and out" promotion system (Vasquez & Williams, 2001) the general officers' date of rank aligned with that of their peers, shown in Table 5. The general officers that represented the majority of the 86% were comprised of officers in the pay grades of O-7 and O-8.

Table 5. Date of Rank

Decade Commissioned	Frequency	Percent
1975-1979	11	12%
1980-1989	78	86%
1990	2	2%

6. Education

The data in Figure 5 overwhelmingly shows that 89% of the general officer population has at least a master’s degree, compared to the United States average of 12% (Ryan & Bauman, 2016). The disproportionate percentage of general officers with advanced degrees can be linked to general officer’s attending top-level military schools. Top-level military schools provide its students with an opportunity to receive a master’s degree upon completion of a thesis, which makes it surprising that eight general officers only had a bachelor’s degree.

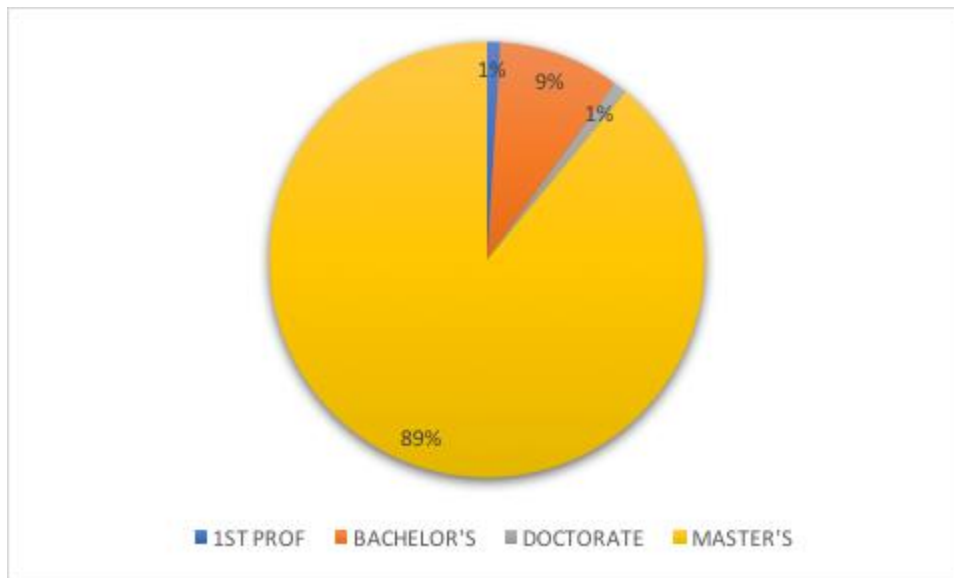


Figure 5. General Officer Education Levels

Given that general officers attend top-level schools, 9% of the population had only obtained a bachelor agree an anomaly. Although the data could not explain the

anomaly, there was a trend among the 9% with bachelor's degrees. All of the general officers with a bachelor's degree were Caucasian males, born in the South or Midwest (U.S. Census Bureau, 2015), had blood types O+ or B+ and were married. From the 9%, 75% were catholic, and 50% went either to the Naval Academy or to a NROTC program.

Figure 6 illustrates the breakdown of majors based upon The Spruce's Guide to College Majors by Academic Area (Burrell, 2017). The Spruce consolidated academic areas into the following categories: Visual and Performing Arts-Related Majors, Science and Math Majors, Environment-Related Majors, Business Majors, Engineering & Technology Majors, Language, Literature & Social Science Majors (Burrell, 2017). This study further consolidated the academic areas in to four categories: STEM, Social Sciences, Business and Arts, and created one category, Law. The data overwhelmingly showed that the majority of general officer's education background is vested in the social sciences.

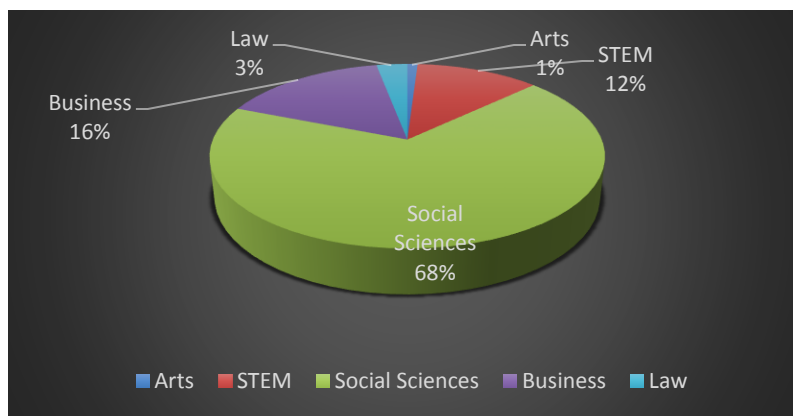


Figure 6. General Officer Education Levels

7. Race and Ethnicity

During the data analysis, four race categories were created using the data from TFDW: White (Non-Hispanic), Black, Hispanic and Other (including declined to respond). The "Other" category consisted of two general officers from an Asian decent and one general officer that declined to respond. The data, depicted in Figure 7, revealed

that the general officer community is comprised of 86% White (non-Hispanic), 7% Black, 4% Hispanic and 3% Other (including declined to respond).

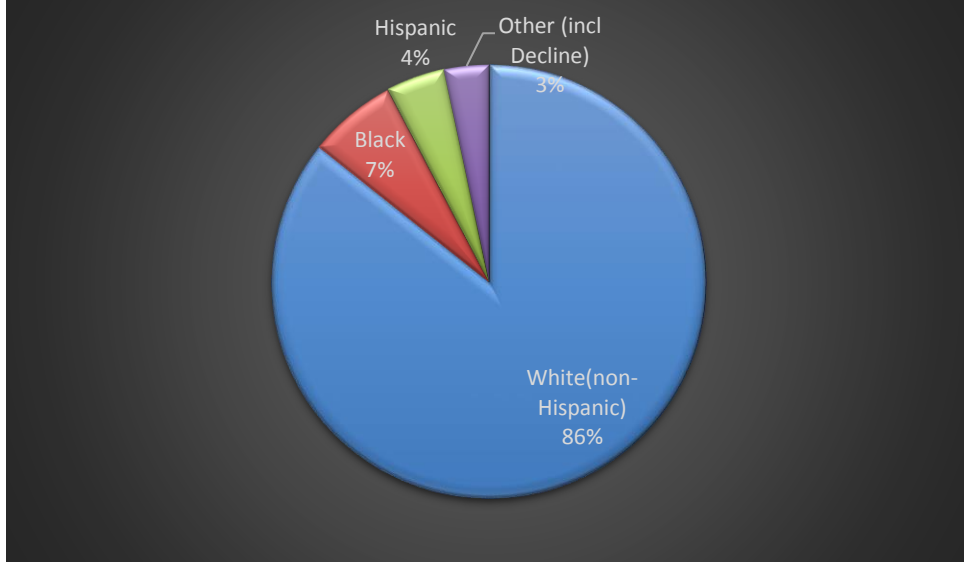


Figure 7. General Officer Race Distribution

As of July 1, 2016, the United States Census Bureau’s population estimates showed that White (non-Hispanic) represented 61.3% of the population, Hispanics represented 17.8% of the population, Blacks represented 13.3% of the population, and Asian represented 5.7% of the population (U.S. Department of Commerce, 2016). Table 6 depicts the over/under representation of each race category in the general officer population.

Table 6. Racial Representation

	Over-Represented	Under-Represented
White (Non-Hispanic)	25%	
Black		6%
Hispanic		14%
Other		3%

8. Pay Grade

The 91 observation sets were broken out into the four general officer pay grades, shown in Figure 8. O-7 (Brigadier General), O-8 (Major General), O-9 (Lieutenant General), and O-10 (General). The percentage of officers in each category also reinforced the “up and out” promotion system (Vasquez & Williams, 2001).

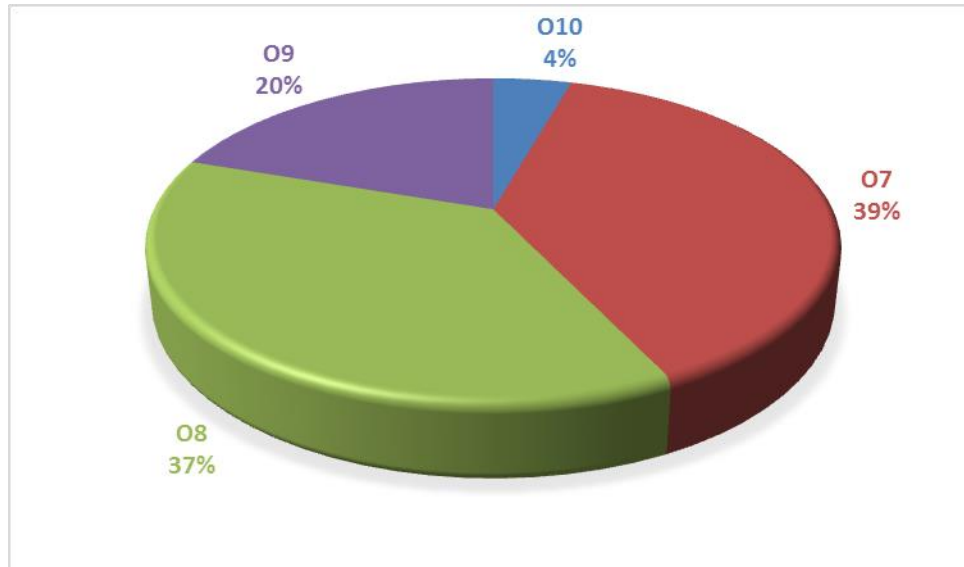


Figure 8. Pay Grade Distribution

9. Place of Birth

The birth state variable had 83 observation sets out of the 91 total observations. Of the 91, only eight were born outside of the United States. Birth states were split into the four regions identified by the United States Census, shown in Figure 9. The four regions were West, South, Midwest, Northeast (U.S. Census Bureau, 2015). The data showed that 31% of general officers in the study were born in the South, 25% in the Northeast, 24% in the West and 19% in the Midwest.

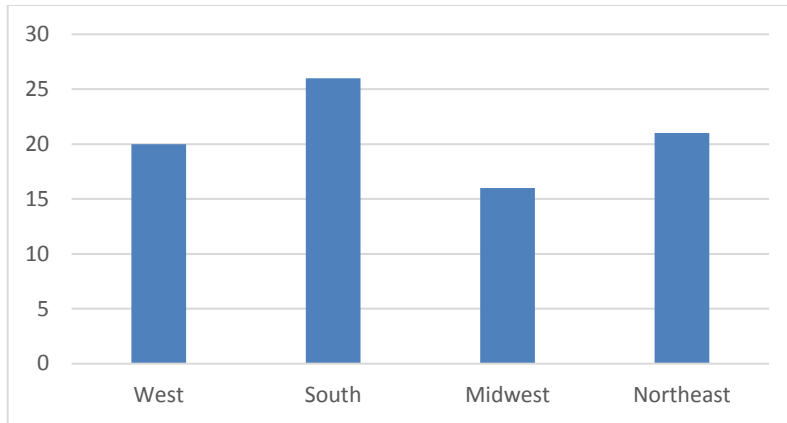


Figure 9. Birth Place by Region

Further analysis was completed to determine if any trends existed at the state level. In Figure 10, a heat map displays the birth state for each of the 83 general officers born in the United States. The State of California represented the state with the most number of general officers (10), followed by Arkansas (8), New Jersey (8), and Pennsylvania (7). It was noted that the 83 general officers in the study were born in 30 of the 50 States.

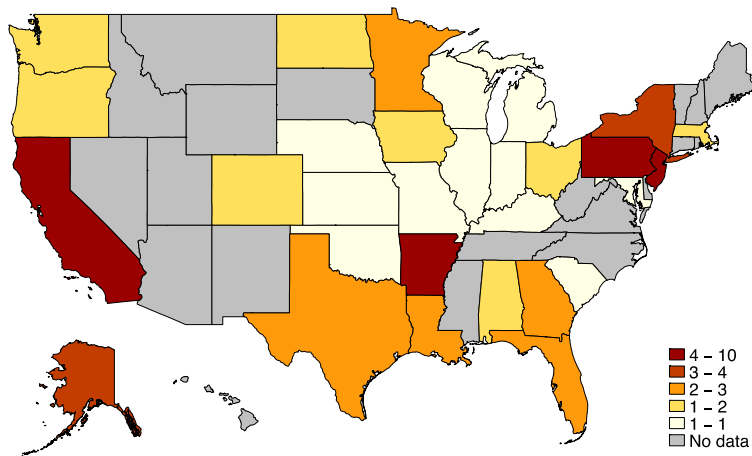


Figure 10. Birth State Heat Map

10. Quarter of Birth

Extensive research by economist on the association between the quarter of birth and a person's financial earnings determined that those born in the first and fourth quarters of the calendar year have the greatest earnings potential (Bound & Jaeger, 2016). Due to a combination of school entry and minimum schooling laws, children born in the first or fourth quarters, on average, have higher educational attainment compared to children born in the second or third quarters. If earning power within the general officer population is evaluated, then the theory of the association between birth quarter and earning potential holds true, as 75% of O-10s are born in either the first or fourth quarter, and O-10s have the greatest earnings among all general officers. Figure 11 depicts the general officer birth quarter distribution.

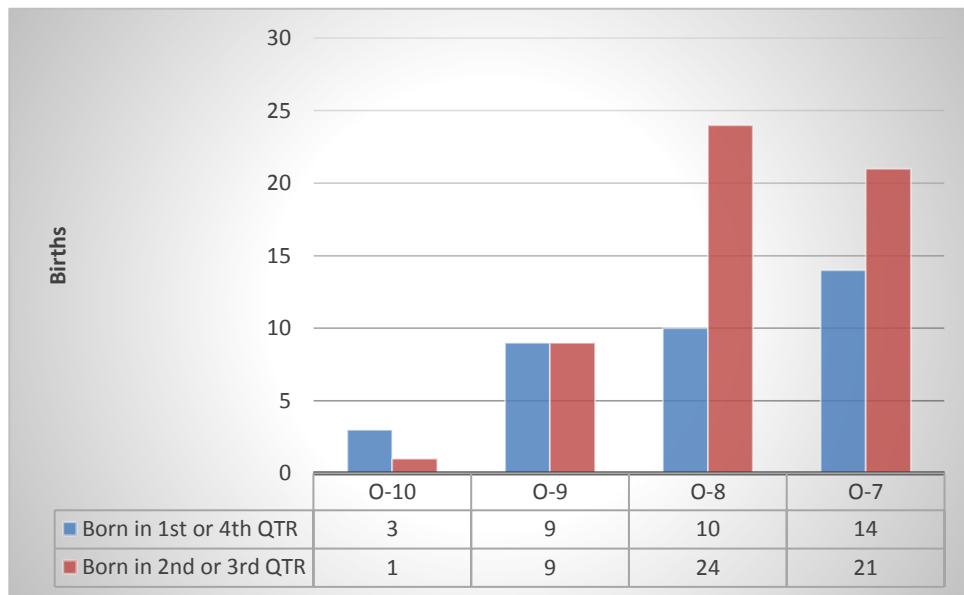


Figure 11. Birth Quarter Distribution by Rank

Figure 12 shows that 60% of the general officers in this study were born in the second or third quarter, while the remaining 40% were born in the first and second quarter. Without correlating the quarter of birth to the potential of financial earnings economic model, it appears as though there is over-representation of first and fourth quarter births at the O-10 level. In fact, the over-representation of O-10s with first and

fourth quarter births confirms the theory. It is possible that the general officers that were born in the first or fourth quarter had more opportunities for leadership while engaged in K-12 schooling. A longitudinal study to determine the quarter of births of future O-10s in this study would need to be conducted to determine if any systematic trends exist.

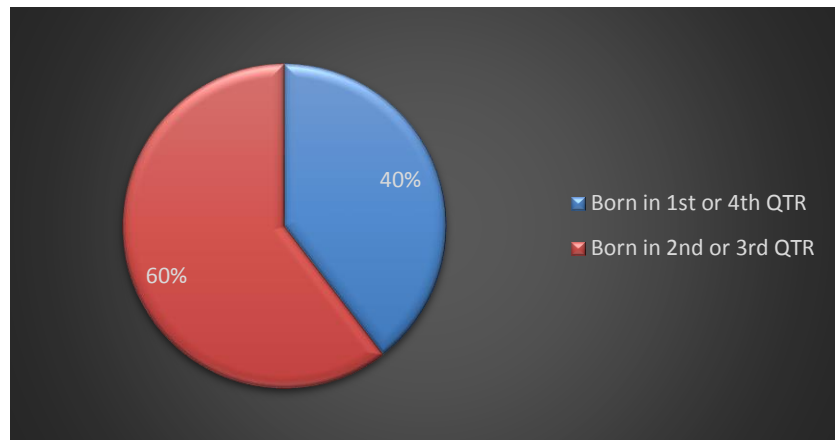


Figure 12. General Officer Birth Quarter Pie Chart

11. Religion

The religion variable was collapsed in to three categories: Catholic, Protestant and no religious preference. The Catholic category consisted of observations that identified as Catholic, while the Protestant category was comprised of all other Christian religions that were not tied to Catholicism (Just, Who Are Christians?, 2017). The final group, no religious preference included general officers that did not identify with a religious group. The data revealed that 98% of the general officers in the study identify as Christians with the remaining 2% expressing no religious preference, shown in Figure 13. Of those that identify as Christians, 50% identified as Protestants and 48% identified as Catholics. An anomaly was found at the O-10 level, as all O-10s identified as Roman Catholics. By and large, Roman Catholic is the largest denominational category given that Protestant encompassed all other Christian denominations such as Baptist, Methodist, and Evangelicals.

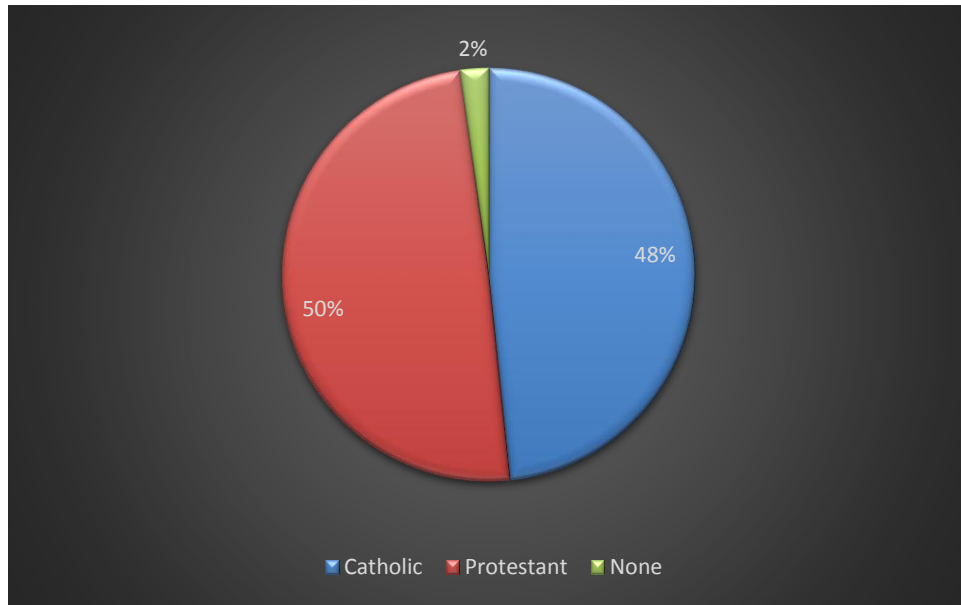


Figure 13. General Officer Religious Preferences

C. DATA AND PRELIMINARY ANALYSIS SUMMARY

This chapter described the data obtained from TFDW and how the analysis was constructed. It explained the methods and logic used to transform the raw data into a combined dataset for analysis. It also presents descriptive statistics for 12 independent variables. The data suggests that the Marines most likely to become a general officer are Caucasian, married males that attend a NROTC program or the Naval Academy, obtain an undergraduate degree in social science, earn a master's degree, were born in the South or California, had a Christian faith and had a date of birth in the second or third quarter of the calendar year.

IV. QUALITATIVE METHODS AND ANALYSIS

When considering our research question, whether pre-service success indicators exist among successful Marine Officers, we quickly realized that little to no data may exist on such a topic. Current data only offers descriptive statistics, like the data used in the quantitative portion of this research, whereas the purpose of this portion of the analysis was to pull out any qualitative common threads that may exist. According to R. Garud et al (2017), some characterize qualitative research as exploratory in nature, which is the exact nature of this portion of the analysis. Like J. H. Block et al.'s study (2015), we designed the qualitative portion around interviews as the basis for case studies, which provided us with a holistic view on possible common threads among general officers.

A. METHODS

We collected data through semi-structured interviews. Participants were selected through convenience sampling. Because of the sensitivity of interviewing general officers and the exploratory nature of the study, we were approved to interview up to 9 participants, we conducted 6 in total.

1. Data Sources

We identified potential participants by sending out approved recruitment e-mails to several general officers who recently attended a social networking conference that we also attended. This method of selecting participants presents limitations, in that it may not yield the best representation of the target population and therefore may be biased (Bornstein et al, 2017). Participant demographic characteristics are summarized in Table 7.

Table 7. Participant Characteristics

Component	Rank/Grade	Sex	Race/Ethnicity	Occupational Field
2 Retirees 4 Active Duty	2 BGen (O-7) 2 MGen (O-8) 2 LtGen (O-9)	1 Female 5 Males	3 Black 2 White 1 Hispanic	1 Aviation 3 Ground 1 Combat Service Support 1 Intelligence

2. Data Collection

Participants were asked the following open-ended questions:

1. Can you tell me about yourself before the Marine Corps?
 - a. Tell me about your family, siblings, parents?
 - b. Tell me about where you grew up, your friends?
 - c. What did you like to do when you were growing up?
 - d. Did you have any family who served in the military?
2. From your story, what do you think are the things that you believe influenced your success?
 - a. What are the critical experiences/incidents/opportunities/people that may have contributed to your success?
3. Now that you have discussed some of the things in your story that you think may have contributed to your success, can you qualify those experiences, how do you think they contributed to your success, in what ways did they contribute?
 - a. Of those things, what are most important, which had the most impact on your success?

All six interviews were conducted telephonically and were recorded and transcribed. One member of the team acted as the primary interviewer while the other two members of the team took notes. The six interviews lasted from 55 to 124 minutes

for a total of over eight hours of recording. The interviews yielded 127 pages of transcription and 16 pages of detailed written notes. A summary of the data is displayed in Table 8.

Table 8. Interview Data

Interview Number	Interviewer	Date	Duration	Interview Documentation
1	Major Common	11 Aug 2017	87 mins	28 transcribed pages 3 handwritten pages
2	Maj Munoz	25 Aug 2017	55 mins	10 transcribed pages 2 handwritten pages
3	Maj Common	26 Aug 2017	74 mins	16 transcribed pages 2 handwritten pages
4	Maj Common	29 Aug 2017	97 mins	21 transcribed pages 3 handwritten pages
5	Maj Common	2 Sep 2017	124 mins	37 transcribed pages 4 handwritten pages
6	Maj Common	27 Sep 2017	66 mins	15 transcribed pages 2 handwritten pages

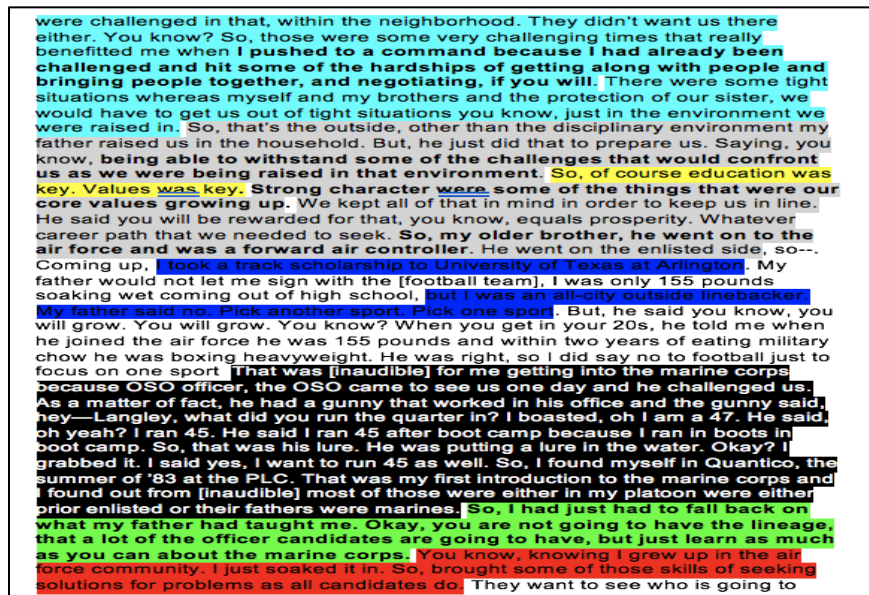
B. ANALYSIS

We systematically approached the data by first reviewing all notes and transcripts (Miles and Huberman, 1994). Two researchers, independently, analyzed the data to identify themes, letting theme codes emerge from the analysis. Then the two researchers

combined codes, eliminating duplicates, resulting in eight codes. The original codes were as follows:

- | | |
|-----------------------|-------------------------------------|
| 1) Education | 5) Leadership Opportunities |
| 2) Religion | 6) Culture |
| 3) Work/Employment | 7) Sports/Activities |
| 4) Military Influence | 8) Personal Perspectives of Success |

Next, we applied the codes to the transcripts, highlighting text in a different color representing each code. We highlighted all text related to our codes. An example of the coded transcripts is shown in Figure 14.



were challenged in that, within the neighborhood. They didn't want us there either. You know? So, those were some very challenging times that really benefitted me when I pushed to a command because I had already been challenged and hit some of the hardships of getting along with people and bringing people together, and negotiating, if you will. There were some tight situations whereas myself and my brothers and the protection of our sister, we would have to get us out of tight situations you know, just in the environment we were raised in. So, that's the outside, other than the disciplinary environment my father raised us in the household. But, he just did that to prepare us. Saying, you know, being able to withstand some of the challenges that would confront us as we were being raised in that environment. So, of course education was key. Values was key. Strong character were some of the things that were our core values growing up. We kept all of that in mind in order to keep us in line. He said you will be rewarded for that, you know, equals prosperity. Whatever career path that we needed to seek. So, my older brother, he went on to the air force and was a forward air controller. He went on the enlisted side, so---. Coming up, I took a track scholarship to University of Texas at Arlington. My father would not let me sign with the [football team], I was only 155 pounds soaking wet coming out of high school, but I was an all-city outside linebacker. My father said no. Pick another sport. Pick one sport. But, he said you know, you will grow. You will grow. You know? When you get in your 20s, he told me when he joined the air force he was 155 pounds and within two years of eating military chow he was boxing heavyweight. He was right, so I did say no to football just to focus on one sport. That was [inaudible] for me getting into the marine corps because OSO officer, the OSO came to see us one day and he challenged us. As a matter of fact, he had a gunny that worked in his office and the gunny said, hey—Langley, what did you run the quarter in? I boasted, oh I am a 47. He said, oh yeah? I ran 45. He said I ran 45 after boot camp because I ran in boots in boot camp. So, that was his lure. He was putting a lure in the water. Okay? I grabbed it. I said yes, I want to run 45 as well. So, I found myself in Quantico, the summer of '83 at the PLC. That was my first introduction to the marine corps and I found out from [inaudible] most of those were either in my platoon were either prior enlisted or their fathers were marines. So, I had just had to fall back on what my father had taught me. Okay, you are not going to have the lineage, that a lot of the officer candidates are going to have, but just learn as much as you can about the marine corps. You know, knowing I grew up in the air force community, I just soaked it in. So, brought some of those skills of seeking solutions for problems as all candidates do. They want to see who is going to

Figure 14. Coded Transcript Example

We then constructed a table in Excel, listing the eight codes and corresponding text. Next, we thoroughly reviewed the completed table. We kept asking ourselves, “What is the text really telling us?”, “Are these codes the right codes?”, “Is the language correct?” We added and adjusted codes as needed to fully capture the data, iteratively

discussing among the research team and returning to the data, which resulted in the following 16 codes:

- | | |
|-----------------------------|--------------------------------------|
| 1. Independence | 9. Sports |
| 2. Education | 10. Other Activities |
| 3. Religion | 11. Personal Perspectives on Success |
| 4. Work/Employment | 12. Mentors |
| 5. Military Lineage | 13. Unique Opportunities |
| 6. Leadership Opportunities | 14. Adversity |
| 7. Culture/Environment | 15. Other |
| 8. Family Dynamics | 16. How/Why Marine Corps |

We continued reviewing the data and deleted quotes that were not pertinent to our research question and combined codes that represented similar themes. For example, Military Lineage was combined with Family and Other was combined with Unique Opportunities/Experiences. Finally, we settled on 14 first order codes. We continued to read through the data, comparing the coded segments of text and grouping them into themes. This analysis resulted in three higher order themes that fully captured the data, shown in Table 9:

1. Critical Incidences/Experiences
2. Character Building
3. Self-Perceptions of Pre-service Success Indicators

Table 9. Final First Order Codes and Higher Order Themes

Critical Incidences/Experiences	Character Building	Self-Perception of Pre-Service Success Indicators
Mentors Unique Opportunities/Experiences Motivation to Join the Marine Corps	Independence Leadership Opportunities Education Religion Work Family Activities Sports Adversity Culture/Environment	Personal Perspectives on Success

1. Findings

This section details the prominent themes derived from the interviews.

a. Critical Incidences/Experiences

The higher order theme was derived from John C. Flanagan’s famed Critical Incident Technique (1954). When defining a critical incident, he states:

By an incident is meant any observable human activity that is sufficiently complete in itself to permit inferences and predictions to be made about the person performing the act. To be critical, an incident must occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects. (Flanagan, 1954, p. 327)

Because each interviewee was given a copy of the research questions and the stated purpose of the research prior to the interview, both the participants and researchers had agreed on the “purpose or intent” of the observations revealed in the interview. According to Flanagan, critical incidents are “observed incidents having special significance and meeting systematically defined criteria” (p. 324). These included mentors, unique experiences, and motivation to join the Marine Corps. Table 10 depicts

this higher order theme and its supporting quotations. Critical incidences were defined based on the verbiage “profound impact”, “prime mentor and inspiration”, “foundational summer”, and “helped to define” as found in Flanagan’s Critical Incident Technique (1954).

Table 10. Critical Incidences/Experiences

Critical Incident/Experience	Supporting Dialogue
Mentors	<ul style="list-style-type: none"> • So, he had a profound impact on me, both as a father, but probably more importantly as a coach. You know, teaching me things like little witty sayings like it’s not the size of the dog in the fight, but the size of the fight in the dog. My dad taught me to cry. He told me that’s okay. Even men do that now and then. It’s okay to be emotional • So, my prime mentor and inspiration [REDACTED]. He was tough. He didn’t have any favorites. He didn’t show me any favoritism, but he was tough on all of us, but he was imminently fair and he reminded me a lot of my dad. He was very much like my father. So, I decided I wanted to be like him. • They instilled discipline, were role models, funny, faith based, built character. Very educated women providing her direction. So, it was run by the Dominican nuns who had a very disciplined I think environment. Yet at the same time, you know, for the era, were kind of like incredible role models. They were smart, they were funny, the stressed academics. You know, they stressed excellence in everything that you did. They really stressed faith. It was about character and I think those were all very attractive to me. • the OSA, the officer selection assistant, [REDACTED] was as much as an influence as anything else to get me interested and keep me interested. He was a Vietnam era infantryman.
<ul style="list-style-type: none"> • Unique Opportunities/ Experiences 	<ul style="list-style-type: none"> • Then the other thing was my mom and dad allowed me to go and supported me in going away the summer prior to my senior year and the summer prior to my junior year to two national science foundation summer institutes. • Forever and ever I will be indebted to that recruiter

	<p>because what that time in boot camp did was that it really essentially reinforced everything I think my parents tried to instill in me, which was that whole idea that nobody is going to give you anything, you are going to have to earn</p> <ul style="list-style-type: none"> • So, he—for Christmas, I got an electronics set. A 101 electronics set out of Radio Shack. It had all of the capacitors, transistors, integrated circuits and all the wires associated and you could do 100 things with it. Reading schematics in the fifth grade, learned about the Ohm's Theory, and so I was technical. I was off and running. Then I went down to [REDACTED] house and we would experiment in his garage because he did get a chemistry set. So, you know, we were trying to mash up electronics and chemistry. So, yes so that was you know, my love for math and science/That's where it really took off and then you know, again over at the General Dynamics, they did have a computer club. So, once a week I would go and they would have an IBM 3030 and they would let us sit at the terminal. I would fool around with them and that was so I was introduced to you know, FORTRAN and language at an early age. So, I had a high school class of 500 and something and only two of us could actually code. • One summer, I think was a foundational summer for me. Something I think kind of made me understand purpose, I guess, was this [REDACTED], they paired you up with nonprofits. Right? So, you would go—the government would be paying you to work for a nonprofit. So, the nonprofit that I got paired up with was not the school, which everybody else got paired up with—not everybody—three of us got paired up with the city and what the city does is pick up trash and get on trash trucks and ride around.
<p>Motivation to Join the Marine Corps</p>	<ul style="list-style-type: none"> • Decided I wanted to go to the Naval Academy after seeing a program on television called Men of Annapolis when I was in 7th grade. • That was [inaudible] for me getting into the marine corps because OSO officer, the OSO came to see us one day and he challenged us. As a matter of fact, he had a gunny that worked in his office and the gunny said, hey—[REDACTED], what did you run the quarter in? I boasted, oh I am a 47. He said, oh yeah? I ran 45. He said I ran 45 after boot camp because I ran in boots in boot camp. So, that was his lure. He was putting a lure in the water. Okay? I

	<p>grabbed it. I said yes, I want to run 45 as well. So, I found myself in Quantico, the summer of [REDACTED] at the PLC.</p> <ul style="list-style-type: none"> • Got really interested in military history as a kid. Read a lot of books. Lot of things as far as that goes. You know, kind of those things helped to kind of define what service I wanted to go into, and what I wanted to do as far as that. • I didn't start thinking about the military until I was about a year away from graduation and I knew I wasn't going to go to law school. I had a buddy of mine who was in the marine corps. - So, my buddy used to write me letters. He was stationed in Guam for a while. You know, he wrote me a lot of letters and you know, he was having a pretty good time. So, I went down to see a recruiter and he said hey, you can be an officer. You are—first he asked me if I was going to graduate college. Then he said you can be an officer. I said ok, that sounds all right. What do I have to do? All I had to do really was take a PT test and go to OCS. So, that's what I did.
--	--

b. Character Building

This higher order theme was derived from Aristotle's view of developing intellectual and moral virtues, commonly referred to as character. In his famed *The Nicomachean Ethics*, Book II, Chapter I, he states:

Excellence, then, being of these two kinds, intellectual and moral intellectual excellence owes its birth and growth mainly to instruction, and so requires time and experience, while moral excellence is the result of habit or custom.

Also

It is by our conduct in our intercourse with other men that we become just or unjust, and by acting in circumstances of danger, and training ourselves to feel fear or confidence, that we become courageous or cowardly. (*The Nicomachean Ethics*, Book II, Chapter I).

And finally,

Hence, we ought to make sure that our acts be of a certain kind; for the resulting character varies as they vary. It makes no small difference,

therefore, whether a man be trained from his youth up in this way or in that, but a great difference, or rather all the difference. (*The Nicomachean Ethics*, Book II, Chapter I).

From these passages, we can draw parallels between how Aristotle viewed “act of a certain kind” that develop of character with how the generals described their upbringings. Character building in this sense included independence, education, religion, work, family, sports, activities, adversity and culture.

Table 11 displays codes with supporting quotes. The vast articulation of their foundational character building experiences was itself a common theme among those interviewed. These coded quotes comprised nearly 70% of the codes used in this study.

Table 11. Character Building.

Critical Incident/Experience	Supporting Dialogue
Independence	<ul style="list-style-type: none"> • So, you had to fend for yourself. So, you—I think I became somewhat independent early on • I was very independent as a child. Pretty much by the time I came along, everybody was [inaudible] and they just you know, go outside, and figure out how to do it. • So, here’s the deal, like I said, I was pretty much left on my own by the time I had gotten to the, you know, the eighth grade, • I got a lot of autonomy. I mean probably got a lot more autonomy than I gave my kids. It was a different time and place.
Education	<ul style="list-style-type: none"> • I think it was hey, if you have an opportunity to go to college, you went to college. Neither of my parents went to college, but I think where we grew up, if you had an opportunity to go to college, which we did, and you wanted to go, then you were able to go. • So, you know, education was kind of way up there for me. I didn’t have a choice. You studied or else. • I was surprised because I—my study habits were good too. My mom and dad had really equipped me academically

Religion	<ul style="list-style-type: none"> • I became an Episcopalian of my own choosing because I really wanted to be an altar boy. I really like that. They had a lot of athletic activities and other kinds of stuff and we had a great priest who our church did a radio program • So, I have been to Pentecostal and all of the denominations. So, church was part of—when my brother was able to drive, and my father worked at night, he couldn't take us as much as he wanted to. Early in life, he was always taking us to church. Then my brother took that responsibility and then—yes. So, I was baptized—my brother got baptized together and my sister another church and get baptized. But, we are pretty diverse today. • I am a Christian because that's what I was born into. The church for us was a gathering place. It was a—I mean my memory of the church, because I participated in it, I sang in a choir, I cleaned the church, by the way.
Work	<ul style="list-style-type: none"> • I did work from when I was 14 on. So, when I was 14 and 15 I worked for a moving company moving furniture. - Then when I was—when I turned 16, I went to work up in Vermont with my father. They were building six miles of a big highway up there—91 in Vermont. So, I got a truck basically and drove all over Vermont and New Hampshire and everywhere else getting parts for every piece of construction gear that you can imagine when you are building six miles of a highway. So, I was basically on my own doing tasks every day, all day, driving around. • I started working when I was in the 7th grade and I worked in the summers full time from 7th grade to 12th grade • I worked. I got my first job. I think you can get your worker's permit or your working permit at age 14, and before that, cut grass. When I got my permit, I went to work at a pharmacy. They didn't pay enough money. Went back to cutting grass. Whatever. Did whatever I could—cleaned yards. • Worked from middle school all the way through high school and then when I was in college, I worked four years at school. • I delivered papers. That was my first money making activity.
Family	<ul style="list-style-type: none"> • So, immigrant family. Into New York City, and made their way—mother came over on a trip, stayed, married an American citizen, and then eventually became a naturalized citizen. I was born in Dayton, and we moved from Dayton to New Jersey when I was eight years old. - My mother was a housewife. She worked as a secretary originally and then once she got married and had children, she stayed at home and did that until I was out of the house. Went back to

	<p>workforce after I had left.</p> <ul style="list-style-type: none"> • Yes, so single parent home. My mom was a teacher's aide. She also worked in—I guess you would call it a café wouldn't be the right thing. That's what we called it. It was like a—I grew up in a town of about 1200 or 1300 people, so it was a place to go and eat, so she was a waiter—a waitress there. She did that after school. She had two jobs. I had an oldest sister that lived with us and then an older sister that was so old that I never grew up with her. I had a brother at home that was older and then a brother junior to me at home. • I grew up in an air force family. Okay? My father was 25 years as enlisted man, and so you know, we had early life I was in Florida.
Sports	<ul style="list-style-type: none"> • I said I played football in high school, but my best sport, my favorite sport was actually swimming. • Trampoline, Swimming, Basketball in college • I took a track scholarship to [REDACTED]. My father would not let me sign with the [football team], I was only 155 pounds soaking wet coming out of high school, but I was an all-city outside linebacker.
Activities	<ul style="list-style-type: none"> • So you know, we started going to summer camps which was kind of interesting because I was working and I was still able to take off and go to the summer camps. They were like a week camp place. • Was a member of a couple of different clubs. So, you know, fairly well balanced. - I worked on the school paper. Was the sports editor. Belonged to a fraternity • in the computer club with General Dynamics at the time and Lockheed Martin, but outside of that, I was in the choir
Adversity	<ul style="list-style-type: none"> • my sophomore year I blew out my ACL. So, now I have got bills—medical bills that I have got a bad knee. Academics are terrible, so I just really said you know what? I am done. I am going to drop out • So, me and my brothers and my sister were challenged in that, within the neighborhood. They didn't want us there either. You know? So, those were some very challenging times that really benefitted me when I pushed to a command because I had already been challenged and hit some of the hardships of getting along with people and bringing people together, and negotiating, if you will • But, because we didn't have a car as a family. I never had a car at home. -So, they tease you and that kind of stuff. In a jesting way, but that was—that was pretty formative for me, I think. Other than being poor and understanding what that means and understanding how you sacrifice and I mean that

	was life for me
Culture/Environment	<ul style="list-style-type: none"> • Well, you know, I come from a generation, you know, this is way into your history. So, you know, you have to kind of envision that I grew up, you know, when it was really safe and simple lifestyle and you know, in the early 60s. you know, you could play outside. You stayed out until it was dark. You know, kids weren't snatched. There was no big technology. everybody had one black and white TV and that was pretty much it. • It was a case where it was eye opening because this was when desegregation was going on, bussing had started, and the African American kids and Hispanic kids that were bussed in from [abroad] questioned us why weren't getting on the bus at the end of the day • because of the times that we grew up in, we were outside all the time. We were running, jumping - I grew up in a time when Vietnam was unpopular. Women and just civil rights in general were very prevalent and my aunt was very pro-rights, I guess.

c. Self-Perceptions of Pre-Service Success Indicators

We asked participants what they thought in their backgrounds contributed to their success. In this category, they linked their stories and experiences to what they believe were pre-service success indicators. This theme was captured separately and encompassed only their responses to that specific question. Table 12 summarizes the responses. This final category reinforced the validity of the other two categories, as references to both previous categories were present in their responses to this question. For example, both the individual first order codes and the higher order themes were articulated; encouragement from others and multiple references to mentors (mentorship), making it through an influential plebe summer (adversity), the environment provided by the Girl Scouts (activities), not passing opportunities to excel (character building) and other things that happened along the way (critical incidences) are examples of this reinforcement.

Table 12. Self-Perception About Pre-Service Success Indicators

Supporting Dialogue
<ul style="list-style-type: none"> • There were far more than that handful who encouraged me every step of the way. Did things for me to make sure that I had every advantage that anybody else would have. • Oh, I think at the Naval Academy, once I got through plebe summer, to be quite honest, again different people began to influence the things I did. • Self Confidence, Resilience, overcome adversity, does not matter where you are from, only matters what you do. Strong desire for survival and "can do" attitude. • having the self-confidence to say hey, I am as good as, if not better than you are at doing this. • I think between Girl Scouts kind of creating a safe you know, environment that was kind of a very gender specific and then going to a girl's high school, I think it really started giving me the self-confidence to be able to develop my leadership skills. • And not passing on opportunities to excel. Embracing hardships. Having thick skin. So, he focused on always think before you act. Because bad decisions are so hard to overcome. Also, they are never beyond redemption. Instilled the values of education, the importance of character. My father instilled those things and the focus on education. • I think I have been really fortunate and if you ask me how I became a general officer, I think it really comes down to the fact that I had a couple of really good mentors who saw more in me than I saw in myself. • I am just convinced that it's before you arrive that you know, you already have what you have and all the Marine Corps—any other place that you wind up. • There were just people who made sure in my experience that I was held accountable and held to those standards. Those high standards. • I mean I think it's pretty darn evident that those things that I talked to you about form who I am and made me what I am today. The marine corps and the opportunity that I have, have allowed me to say hey, look at what this little country boy from Texas with his background, with his experiences, and then with now the marine corps giving me an education, opportunity, given me insights, given me other folks around to learn from, that's what came out. That's what's not written down on a fitness report. That's what can't be captured on a fitness report. • I mean I have no idea, you know, other than I believe in my head that my experiences, my environment, those things that happened to me along the way, certainly got me where I am.

2. Discussion and Conclusion

a. Summary

The qualitative portion of this research used six semi-structured interviews with general officers as the method to identify if any common pre-service success indicators

existed among general officers. The interviews were transcribed and analyzed. During analysis, they were coded for common themes and supported by quotes then encapsulated in a table. Next, the themes were further organized into higher order themes based on existing literature and placed in a smaller table.

b. Key Findings

Our study shows the common threads are; our leaders were very busy growing up, they came from diverse families, they spent a lot of time outside interacting with different people and they gave a lot of credit for their success to the interest and work of others. Additionally, they grew up outside, participating in many activities and sports, building their body of experiences, their knowledge, their skills, learning important lessons, facing trials and tribulations, honing their own leadership skills, orienting themselves, understanding their surroundings and making connections with others. All of them encountered people who taught them life lessons, who saw more in them, than they did themselves, people who shaped their beliefs and people who possibly set their life's trajectory.

c. Limitations

Due to the diverse group of generals, we interviewed, the rich detail of their stories, and the design of our study, there is no way to recommend what an ideal candidate would look like. The convenience sampling and the small sample size used, make it difficult to make any sweeping generalization about the population, it was strictly exploratory in nature. The purpose of this study was to identify any common threads that existed among our senior leaders and to see if those threads provided a competitive advantage for success. The qualitative portion cannot seek to answer that question alone. However, when we combine both the findings of the qualitative and quantitative portions of this study, the conclusions drawn may better satisfy our stated purpose for the research.

d. Contributions

This portion of the research provides a starting point for the identification of qualitative factors that may be contributing to the success of our senior leaders. For example, mentorship came up a lot in the research. It being a common thread throughout does not tell the whole story. We know that is important, but we cannot qualify it, nor can we make a causal link to success directly. Education was another theme that all the generals talked about in some way, but what about education is important, the promotion of education, the actual education or the perceived benefits of the education. Sports was common as well, however the generals made no direct statements about how sports contributed to their success. Was it the fact that the sports made them more physically fit, and that's the competitive advantage or could it have been that fact that all of them played multiple sports increasing their physical skillsets that helped them, or was it just the social aspect of sports or the leadership roles taken while playing sports. Every one of the 14 themes and the three higher-order themes lead to further questions, but their identification in this study was the first step in answering those questions. Also, further exploration of the themes in pertinent literature in fields like psychology or organizational behavior might be the next logical step for an exploratory study like this.

e. Further Research

A follow-on study that increases the sample size and uses a more reliable sampling method should be conducted in order build the body of knowledge on this subject, which may one day lead to theory building on this topic. Another useful study, albeit difficult to conduct, would be a counter-factual study. Where the researchers look at the population that did not become general officers, to see what conclusions can be drawn then compare to this study. And finally, we recommend a similar study be conducted on different populations in the Marine Corps, like Captains at career designation or Lieutenant Colonels selected for command; to see if generational differences exist between what common threads can identified in the different populations.

V. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this research was to conduct a qualitative and quantitative exploratory analysis to determine if pre-service common threads on Marine Corps Colonels and above existed. After further analysis, the scope of the project was limited to Marine Corps general officers. The end state of the project was to use the data to inform senior leaders of any statistically significant information that may helped the Marine Corps recruiting and retention efforts.

Throughout the interview process each of the general officers expressed how their exposure to educational resources at an early age contributed to their success in the Marine Corps. The data collected in the qualitative chapter was supported in the quantitative chapter as it was found that 91% of the general officers earned a master's degree, which reinforced their commitment to being a lifelong learner.

A common theme throughout the interview process was the presence of mentors throughout each general officer's childhood that provided them with leadership and guidance. Each of the general officers credited someone else's support as a key to their accomplishments. The quantitative analysis confirmed the value of networking and mentorship, finding that 62% of general officers in the study accessed from either the Naval Academy or a NROTC program. The Naval Academy and NROTC programs both offer its students an opportunity to be in a four-year military networking environment, with a focus on future career growth.

A. LIMITATIONS

There were three main limitations throughout this study, data error rate, authorized interviews and surveys. Although the limitations created a minor setback, it did not affect the accuracy or reliability of the information collected.

The researchers relied on TFDW's methods of data collection, vice collecting the data. Due to the complexities in collecting and aggregating data, errors were assumed to be introduced in to the data. The error rate was not provided by TFDW. The researchers

were not able create measures to control for the errors in the data collection, therefore assumed the error rate.

The second limitation was the number of authorized interviews. The study was limited to completing no more than nine general officer interviews. Of the nine interviews authorized, six were performed and two of the six Marines were retired. Due to two of the six interviews being retired, their information was not included in the quantitative analysis.

The third limitation was not being able to conduct a survey of the Marine Corps colonel population. Initially the information gained from the interviews was going to be used to help shape the interview questions sent out to Marine colonels. Due to time limitations, the interview questions were not created and thus Marine Colonels were not surveyed.

B. RECOMMENDATIONS

It is recommended that this study is conducted on O-3s and below to identify if the common threads among the general officer population is reflective in the junior officer population. One of the questions posed in this study was how younger Marine “Millennials” differ from previous generations. An interview respondent provided information to suggest that stark differences do exist, however empirical data to support the respondent’s claim was not collected.

Counter-factual information was not included in this study, resulting in the researchers not being able to determine if Marines not selected to general officer or the next general officer grade have the same common threads. It is recommended that a counter-factual study be conducted to determine whether the same common threads exist among officers selected for promotion to general and those who were not.

To counter-balance this study it is recommend that a comparative analysis is conducted on chief executive officer’s in industry to determine if the common threads found among Marine general officers, is the same common threads found in industry.

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