



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CALIFORNIA**

## **THESIS**

**MARINE CORPS CHILDCARE DEVELOPMENT  
CENTER (CDC) WAITLIST TRENDS AND IMPACT ON  
FAMILIES**

by

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March 2021

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**MARINE CORPS CHILDCARE DEVELOPMENT CENTER (CDC) WAITLIST  
TRENDS AND IMPACT ON FAMILIES**

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## **ABSTRACT**

Across the fleet, Marine Corps installations provide childcare services to support military members and their families. These on-base services include those provided by the Childcare Development Center (CDC), which serves infants and children through age five. While the main goal of the CDC is to provide high quality and easily accessible childcare to military families, many locations have developed excessive waitlists. This thesis compares the CDC capacity data to the population, by age group, from January 2010 to March 2020 at Marine Corps installations across the fleet. A detailed comparison across the bases is made to identify trends that potentially have an impact on childcare waitlists. This thesis also examines the waitlist data for each installation from March 2018 to March 2020 to analyze seasonal enrollment fluctuations. Data from thirteen Marine Corps Bases, including those in Japan and Hawaii, is analyzed.

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## TABLE OF CONTENTS

|      |                                           |    |
|------|-------------------------------------------|----|
| I.   | INTRODUCTION.....                         | 1  |
| A.   | PURPOSE.....                              | 2  |
| B.   | SCOPE AND METHODOLOGY .....               | 3  |
| C.   | RESULTS AND FINDINGS .....                | 4  |
| D.   | ORGANIZATION AND CHAPTERS.....            | 5  |
| II.  | BACKGROUND .....                          | 7  |
| A.   | LEGISLATION.....                          | 7  |
| B.   | CURRENT POLICIES.....                     | 8  |
| C.   | FUNDING.....                              | 9  |
| III. | LITERATURE REVIEW .....                   | 11 |
| A.   | RAND CORPORATION TECHNICAL REPORTS .....  | 11 |
| B.   | CHILDCARE IN THE CIVILIAN SECTOR.....     | 14 |
| IV.  | DATA AND METHODOLOGY .....                | 17 |
| A.   | DATA DESCRIPTION .....                    | 17 |
| 1.   | Demographic Data .....                    | 17 |
| 2.   | Waitlist Data.....                        | 18 |
| 3.   | Capacity Data .....                       | 20 |
| 4.   | Summary Statistics .....                  | 21 |
| B.   | METHODOLOGY .....                         | 23 |
| C.   | SCOPE AND LIMITATIONS .....               | 24 |
| V.   | RESULTS .....                             | 25 |
| A.   | CAPACITY .....                            | 25 |
| 1.   | Camp Lejeune versus Camp Pendleton.....   | 25 |
| 2.   | MCI Pacific Installations.....            | 27 |
| 3.   | MCAS Miramar .....                        | 28 |
| 4.   | MCI West Kindergarten Care.....           | 29 |
| B.   | WAITLIST .....                            | 30 |
| 1.   | MCI East Installations.....               | 32 |
| 2.   | MCI Pacific Installations.....            | 33 |
| 3.   | MCI West Installations.....               | 34 |
| C.   | DISCUSSION .....                          | 35 |
| VI.  | RECOMMENDATIONS AND FUTURE RESEARCH ..... | 37 |

|      |                                                                                           |    |
|------|-------------------------------------------------------------------------------------------|----|
| A.   | RECOMMENDATIONS.....                                                                      | 37 |
| 1.   | Data Collection .....                                                                     | 37 |
| 2.   | One Size Does Not Fit All .....                                                           | 38 |
| B.   | FUTURE RESEARCH.....                                                                      | 38 |
| VII. | CONCLUSION .....                                                                          | 41 |
|      | APPENDIX A. NEWLY IMPLEMENTED PRIORITIES.....                                             | 43 |
|      | APPENDIX B. MCI PACIFIC RATIO DESCRIPTIVE GRAPHS .....                                    | 45 |
|      | APPENDIX C. MCI EAST RATIO DESCRIPTIVE GRAPHS .....                                       | 47 |
|      | APPENDIX D. MCI WEST RATIO DESCRIPTIVE GRAPHS .....                                       | 49 |
|      | APPENDIX E. RATIO DESCRIPTIVE GRAPH COMPARISON OF CAMP<br>LEJEUNE AND CAMP PENDLETON..... | 51 |
|      | LIST OF REFERENCES.....                                                                   | 53 |
|      | INITIAL DISTRIBUTION LIST .....                                                           | 57 |

## LIST OF FIGURES

|            |                                                                                                                                                                      |    |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 1.  | Total Direct Support to the DOD’s Child Development Program.<br>Source: (Kamarck, 2020). .....                                                                       | 10 |
| Figure 2.  | Military Family Types and DOD Priorities (prior to Sep. 2020).<br>Source: (Military Child Care, 2020) .....                                                          | 19 |
| Figure 3.  | Average Number of Children, by Age, per Base Between 2010–<br>2018. Adapted from Total Force Data Warehouse, raw data sent to<br>the author, September 2, 2020. .... | 22 |
| Figure 4.  | Population to Capacity Ratio of Infants and Preschool for Camp<br>Pendleton and Camp Lejeune-New River between 2011–2019 .....                                       | 27 |
| Figure 5.  | Population to Capacity Ratio of Toddler-Age Children for MCI<br>Pacific Bases between January 2010 and January 2020 .....                                            | 28 |
| Figure 6.  | Population to Capacity Ratio of Pretoddler- and Toddler-Age<br>Children at MCI West Bases between January 2010 and January<br>2020.....                              | 29 |
| Figure 7.  | Population to Capacity Ratio for Kindergarten-Age Children for<br>MCI West Bases between January 2010 and January 2020 .....                                         | 30 |
| Figure 8.  | Average Wait Time for Families, Including Children Placed After<br>Their DCN, Across All Age Groups.....                                                             | 31 |
| Figure 9.  | Total Number of Children from MCI East Bases on the Waitlist<br>Between 31 March 2018 and 31 March 2020 .....                                                        | 32 |
| Figure 10. | Total Number of Children from MCI Pacific Bases on the Waitlist<br>Between 31 March 2018 and 31 March 2020 .....                                                     | 34 |
| Figure 11. | Total Number of Children from MCI West Bases on the Waitlist<br>Between 31 March 2018 and 31 March 2020 .....                                                        | 35 |
| Figure 12. | September 2020 Military Family Types and DOD Priority Chart.<br>Source: (Military Child Care, 2020). ....                                                            | 43 |
| Figure 13. | Population to Capacity Ratio at Each MCI Pacific Installation for<br>Infant, Pretoddler, Toddler, Preschool, and Kindergarten Age<br>Groups.....                     | 45 |

|            |                                                                                                                                                                       |    |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 14. | Population to Capacity Ratio at Each MCI East Installation for Infant, Pretoddler, Toddler, Preschool, and Kindergarten Age Groups.....                               | 47 |
| Figure 15. | Population to Capacity Ratio at Each MCI West Installation for Infant, Pretoddler, Toddler, Preschool, and Kindergarten Age Groups.....                               | 49 |
| Figure 16. | Population to Capacity Ratio Comparison between Camp Pendleton (MCI West) and Camp Lejeune (MCI East) for Infant, Pretoddler, Toddler, and Preschool Age Groups ..... | 51 |

## LIST OF TABLES

|          |                                                               |    |
|----------|---------------------------------------------------------------|----|
| Table 1. | Marine Corps Installation Descriptive Data .....              | 18 |
| Table 2. | Capacity Data per Marine Corps Installation by Age Group..... | 23 |

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## LIST OF ACRONYMS AND ABBREVIATIONS

|          |                                                    |
|----------|----------------------------------------------------|
| APF      | Appropriated Funds                                 |
| AVF      | All Volunteer Force                                |
| CDC      | Childcare Development Center                       |
| CDP      | Childcare Development Program                      |
| COVID-19 | 2019 Novel Coronavirus                             |
| CRS      | Congressional Research Service                     |
| DCN      | Date Care is Needed                                |
| DOD      | Department of Defense                              |
| FCC      | Family Child Care                                  |
| FY       | Fiscal Year                                        |
| MCAS     | Marine Corps Air Station                           |
| MCB      | Marine Corps Base                                  |
| MCC      | MilitaryChildCare.com                              |
| MCCA     | Military Child Care Act of 1989                    |
| MCIEAST  | Marine Corps Installations East                    |
| MCIPAC   | Marine Corps Installations Pacific                 |
| MCIWEST  | Marine Corps Installations West                    |
| MCLB     | Marine Corps Logistics Base                        |
| MCMWTC   | Marine Corps Mountain Warfare Training Center      |
| MCRD     | Marine Corps Recruit Depot                         |
| MCRMC    | Military Compensation Retirement Commission        |
| MFRC     | Military Family Readiness Council                  |
| NAF      | Non-Appropriated Funds                             |
| NDAA     | National Defense Authorization Act                 |
| PCS      | Permanent Change of Station                        |
| PVV      | Supplemental Program/Resource & Referral/Other     |
| QRMC     | <i>Quadrennial Review of Military Compensation</i> |
| SAC      | School Age Care                                    |
| USMC     | United States Marine Corps                         |

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## **I. INTRODUCTION**

The Department of Defense (DOD) provides the military force, across all branches, necessary for ensuring the security of the United States of America (Department of Defense, 2014). This multifaceted responsibility of the DOD relies heavily on two concepts: recruitment and retention. Military members find comfort in the support the DOD provides both them and their families throughout their tenure. Building a culture of support around the military member and their family enables the services to recruit and retain talent (Larson, 2020). Over the course of its existence, the DOD has established programs and policies that ensure the best performance from military members, especially when executing the mission. The focus on welfare extends, especially, to the member's family. In 2018, the United States Marine Corps (USMC) reported 161,751 immediate Marine family members, 92,816 of which were children (United States Marine Corps, 2018). This puts incredible emphasis on the need for the proper programs and adequate care accessible to Marines throughout their career. With the Military Child Care Act (MCCA) of 1989, the DOD provided the necessary funds for an overhaul of the childcare development program (CDP) provided by military installations (Kamarck, 2020). In fiscal year (FY) 2020, Congress appropriated \$1.2 billion directly to the DOD's CDP to be dispersed across the four branches of the military (Kamarck, 2020). Since the MCCA, across the services, the DOD's on-base childcare program has faced scrutiny due to quality and accessibility (Zellman & Johansen, 1998). With a favored service, such as on-base childcare, comes the potential for an adverse effect when it has subsequent shortcomings. Excessive waiting lists have caused military members and their families to be disheartened about the childcare program, leading to negative effects on retention (Gates et al., 2006).

The birth of a child comes with new responsibilities and stressors that effect the health and well-being of the parents (Bellows-Riecken & Rhodes, 2008; Saxbe et al., 2018). The early years are crucial to the mental and emotional development of a child (Center of the Developing Child, 2015). The CDP provides care to all ages; however, this study will focus specifically on the childcare development center (CDC), which offers care to infants and children through age five. As of 2018, the Marine Corps had 43,252 children

between infancy and age five (United States Marine Corps, 2018). Furthermore, there are roughly 5,000 babies born to active-duty Marines each year (Larson, 2020; Healy et al., 2020). The growing number of infants and young children continues to put strain on an already overtaxed CDC system. The DOD is not required, by law, to provide childcare to military families; however, offering on-base childcare is a powerful tool for retention and recruitment (Gates et al., 2006). The DOD recognizes the importance of on-base childcare and, over the last three decades, has tasked the RAND Corporation with analyzing the effects of CDP; these referenced studies will be discussed in the following chapter. This thesis aims to join the conversation and analysis of, specifically, Marine Corps CDCs in hopes of positively effecting the support of Marine families.

## **A. PURPOSE**

There is a significant increase in the level of stress experienced by a parent with the birth of a child (Larson, 2020). For Marines and other service members, this additional stress is compounded with the demands of their daily duties and responsibilities. The purpose of my thesis is to inform future policy and resourcing decisions by providing empirical analysis that identifies which bases have the largest, most reoccurring issue with supporting Marine Corps families with childcare between infancy and age five. Furthermore, I hope to provide seasonal trend data that will assist in CDCs being able to adequately prepare themselves for an influx of childcare-seeking families. With readiness and retention being two of the top driving forces for the DOD when it comes to military policymaking, finding ways to alleviate the stress placed on a military member who is trying to find their children care is critically important. As will be more thoroughly discussed in the following chapter, many scholars cite the benefits of providing childcare but also the harm of extensive waiting list. The outcome of this thesis is not to fix the CDC waitlist issue; moreover, it is to identify the concerns in a manner that offers the DOD the ability to cast a spotlight on specific shortfalls.

The challenges facing CDCs are not the same across all Marine Corps installations. For example, the proximal cause of excessive waitlists at one installation may be vastly different from another. I believe that for the DOD to fix the reoccurring issue of excessive

waitlists, it needs to approach each location independently. Meaning, just as the cause may vary across the fleet, so does the remedy. This thesis aims to draw the DOD's attention to specific installations based on factors such as the base's population and the relative demand associated with its size.

## **B. SCOPE AND METHODOLOGY**

In 2016, the DOD created the comprehensive website, MilitaryChildCare.com, to provide military families with the ability to request and manage their childcare. Per the Department of Defense Instruction (DODI) 6060.02, each individual CDC location is required to ensure families are properly utilizing the website (Department of Defense, 2014). This then allows for the MilitaryChildCare.com program managers to collect and compile waitlist data for individual branches. For the Marine Corps, the Marine and Family Programs Division is responsible for tracking and maintaining the data for reporting purposes. This division oversees the following Marine Corps installations: Marine Corp Base (MCB) Camp Pendleton, Marine Corps Air Station (MCAS) Cherry Point, MCAS Iwakuni, MCAS Miramar, MCAS Yuma, MCB Camp Butler, MCB Hawaii, MCB Quantico, MCAS Beaufort, Marine Corps Recruit Depot (MCRD) Parris Island, Marine Corps Logistics Base (MCLB) Albany, MCLB Barstow, Marine Corps Mountain Warfare Training Center (MCMWTC) Bridgeport, MCB Twentynine Palms, MCB Camp Lejeune and MCAS New River. Due to small population size, I do not conduct analysis on MCLB Albany, MCLB Barstow, and MCMWTC Bridgeport; therefore, they will not be referenced for the remainder of this thesis. Furthermore, the Marine and Family Programs Division consolidates bases into singular locations. Specifically, MCAS Beaufort and MCRD Parris Island will be hereafter be referred to as "South Carolina" and MCB Camp Lejeune and MCAS New River will henceforth be described as "Lejeune-New River." Finally, the bases are consolidated into their specific regional installation commands which are as follows: Marine Corps Installation (MCI) East, MCI West, and MCI Pacific.

Capacity is relative to the target population at each individual installation; therefore, to fully understand the DOD's ability to support childcare needs at each base, this analysis uses the dependent data associated with active-duty or reserve Marine officer

and enlisted stationed at the named bases from January 2010 through January 2020. Marine Corps' Total Force Data Warehouse (TFDW) originally provided 27,756,317 person-to-month observations. After removing Marines who were not stationed at the named installations, the dataset was reduced to 17,913,072 observations. The TFDW data used in this study allowed for me to track the number of dependents, infancy through age five, and compare the demand for childcare to the capacity allotted over the course of nine years.

MilitaryChildCare.com and the Marine and Family Programs Division provided the waitlist data for the previously-named installations. These data enable me to analyze the number of dependents on waitlists over the course of a period. A limitation of this study was the longevity and consistency of the data provided. The MilitaryChildCare.com Program Manager provided data that includes both the number of dependents on waitlists and the average waitlist times between June 2019 through March 2020. The Marine and Family Programs Division provided data between March 2018 through March 2020 that includes the total number of dependents on waitlists; however, does not include the average waitlist metric.

## **C. RESULTS AND FINDINGS**

This study found that families who seek care for their child or children between infancy and age five wait an average of 102 days to be placed in their respective installation's CDC. This number includes families who were placed and those who were on the waiting list when the data was drawn from MilitaryChildCare.com. For installations located in the continental United States, annual waitlists for all CDC age groups experience a significant spike between the months of August and September. Summer moves allow for children to be placed at the start of the academic year; however, on-base childcare is unable to adequately support the influx of children. The waitlist spike begins to decline in the month of October each year.

The results of comparing the population of the individual early-childhood age groups to the physical capacity of Marine Corps CDCs were staggering. The on-base childcare system would be significantly more overwhelmed should all families desire to enroll their child in care. Nearly two decades ago, the DOD set a goal for the CDCs to

support 80 percent of military families' childcare needs (Gates et al., 2006). To further compare that goal to the current posture of CDCs, I generated a ratio comparing the number of eligible military children to the allotted physical capacity at each installation's CDC. In other words, I calculate how many children, based on age group, there are per seat. I refer to this value as the supportability percent, rate or ratio because it describes the individual CDC's ability to provide childcare support to military dependent children. For example, South Carolina's average supportability ratio is 1:3 because it has one seat for every three children compared to Camp Lejeune-New River, which can support one of every five military children eligible for CDC care. My findings also showed that Camp Pendleton has a 16.7 percent supportability rate for children across the five age groups. This exemplifies the disparity between the capacity allotted per base and the children who have the potential to require childcare which, in turn, are contributing to the long waitlist times. Chapter V analyzes the ratio in more detail with a breakdown, by age group, of each base.

#### **D. ORGANIZATION AND CHAPTERS**

The following chapters provide a more detailed analysis and description of this thesis. Chapter II explains the background of the military's childcare system through historical legislation and current policies. I will then discuss related childcare through the lens of the military and civilian sectors. Chapter IV provides the full data analysis, method, and results of my research. Lastly, I provide recommendations for future studies and potential policy changes.

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## **II. BACKGROUND**

In 1973, the United States military made the monumental shift from the draft to an all-volunteer force (AVF), which led to a rise of women serving on active duty. The expansion of the role of women in the military resulted in a substantial increase of single female service members as well as dual-military married couples (Patten & Parker, 2011). From 1973 to 2010, the number of active-duty enlisted women increased from 2% to 14% of the force; similarly, the number of female commissioned officers grew from 4% to 16% (Patten & Parker, 2011). The initiation of the AVF moved in step the DOD's push to provide more extensive on-base family services, recognizing how critical that is to both readiness and retention.

### **A. LEGISLATION**

The legislative evolution of family programs at the Department of Defense level is important to discuss because it explains the conversation that has been occurring on Capitol Hill since the 1970s; a dialogue that this thesis aims to join. Furthermore, understanding previous legislation provides to why the DOD operates the way it does today regarding military families and readiness. With the rising need to provide families with sufficient childcare, the Department of Defense Appropriation Act for Fiscal Year 1982 was the first appropriation of funds allocated by Congress for new facilities (Addabbo, 1981). A 2020 Congressional Research Service, report titled *Military Child Development Program* explains how the Military Family Act of 1985 widened the lens of military programs to focus on families as well. The Office of Family Policy was created and became the direct line of advocacy to the Secretary of Defense on behalf of military families (Patten & Parker, 2011). An important biproduct of this act was the ability to survey military family members on the effectiveness of the family support programs. Shortly following the Military Family Act of 1985 was the Military Child Care Act of 1989 (MCCA). In 1988, a congressional inquiry brought to light child abuse allegations, an underqualified workforce, and concerns that CDPs lacked the proper capacity to support the demand of military families (Kamarck, 2020). The MCCA invested immensely into correcting the quality of the CDP employees

and the issue of child abuse; however, there was no official remedy identified for the inadequate capacity on military installations. In recognizing that the on-base CDP capacity could not completely keep up with the increase demand for the service, Congress passed a bill that allowed the DOD to subsidize civilian childcare programs. The Authorization of Childcare Fee Assistance Program explicitly spelled out the requirements that would allow a family to be provided subsidies for off-base childcare (Kamarck, 2020). In 2011, both Congress and President Barack Obama took exceptional interest in military childcare which resulted in Congressional and Executive Oversight Initiatives. The DOD was now required to submit reports to the Armed Services Committees on a biennial basis regarding childcare, in both regarding families' needs being met on installations as well as fiscal constraints. The 2011 report provided to President Obama concluded that the CDP would need 37,000 additional slots to meet demand (Kamarck, 2020).

The issue of adequately meeting childcare demand across all branches is a reoccurring topic at both the legislative and executive level. The Military Compensation and Retirement Commission (MCRMC) was established, as a result of the National Defense Authorization Act (NDAA) for fiscal year (FY) 2013, to provide recommendations to the President and Congress on how to better support service members and their families (MCRMC, 2015). Prior to FY2016, the RAND Corporation was the only entity conducting surveys on military families and their childcare experiences (Kamarck, 2020). The Senate proposed in the NDAA for FY2016 that there be a biennial requirement that military families be surveyed; however, this was not put into practice due to the House not passing such a provision. The RAND Corporation studies will be discussed in detail in the following section and the bridge between this failed piece of legislation and their continuous recommendations to the DOD will be gapped.

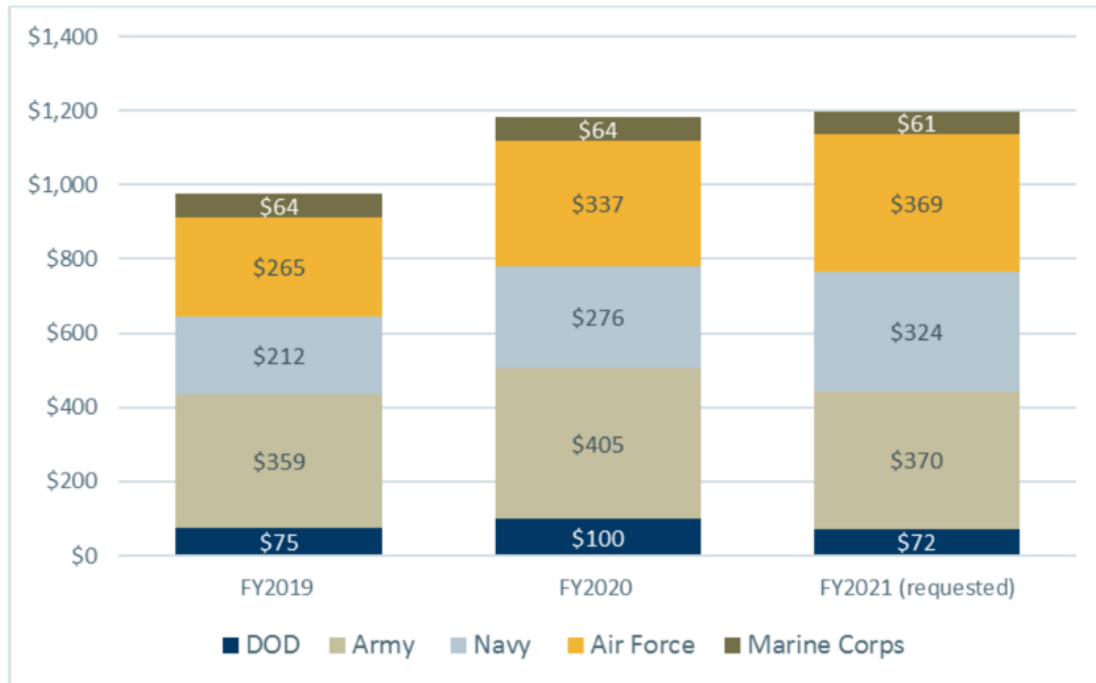
## **B. CURRENT POLICIES**

Effective on 01 September 2020, the priorities of care changed significantly (see Appendix A for a review). Along with the policy change, the military childcare governing document, DODI 6060.02 was revised as well. Originally issued in 2014, this document provides comprehensive guidance delegated from the Secretary of Defense down to the

Directors of Defense Agencies and DOD Field Activities (Department of Defense, 2014). The instruction provides guidance on program, staff, building, and instruction compliance. The revision included an update to the annual report requirements for the specific councils assigned to managing CDCs across the DOD. The management and tracking of waitlist data are explicitly noted. The instruction continues by explaining that families who desire military childcare are instructed to do so on the streamlined, centrally located MilitaryChildCare.com (Department of Defense, 2014). The DODI 6060.02 directs installation CDPs to utilize the MCC as a method to manage their base's childcare; there are no further requirements. From this instruction, the Military Family Readiness Council (MFRC) was established to meet specific annual report requirements (Department of Defense, 2014). The purpose of this council "is to review, evaluate and monitor military family readiness policies, programs, plans, and initiatives" (Secretary of Defense for Personnel and Readiness, 2018, p. 1). While the scope of this council is very broad, for this thesis, it is important to understand where the council gathers their information from the services branches, specifically the Marine Corps. The Marine and Family Programs Division provides information to the MFRC through the Secretary of Defense's Child Care Officer. The division director briefs the MFRC on a quarter basis to ensure they remain informed of the waitlist data and other childcare issues across the Marine Corps.

### **C. FUNDING**

CDCs are funded by appropriated funds (APF) and non-appropriated funds (NAF) (Department of Defense, 2014; Kamarck, 2020). For APF, Congress allocates funds for the DOD's CDP each FY and are put into different accounts based on their purpose (Department of Defense, 2014; Kamarck, 2020). Military construction (MILCON) funds support the construction of childcare facilities whereas money for operational purposes is allocated from both Operation and Maintenance (O&M) and Morale, Welfare, and Recreation (MWR) funds. NAF is generated by parent fees and is primarily used for staff salaries (Department of Defense, 2014; Kamarck, 2020). For FY 2020, approximately \$1.2 billion of O&M funds were directly allocated to the entire DOD CDP (Kamarck, 2020). Figure 1 provides a graphical comparison of the funding dispersion across the branches.



Note: Measured in millions of dollars. Totals include CDCs, Family Care Centers (FCCs), Supplemental Program/Resource & Referral/Other (PVV), and School Age Care (SAC) for active and reserve component.

Figure 1. Total Direct Support to the DOD's Child Development Program.  
Source: (Kamarck, 2020).

For FY2019 and FY2020, the Marine Corps was provided 6.4 percent and 5.3 percent of the O&M funds provided for direct childcare support (Kamarck, 2020). To provide context for future discussion, APF impacts physical capacity of CDCs with the construction or modification of facilities while NAF affects the ability to hire more staff. Both directly contribute to the ability to care for more children and potentially reduce excessive waitlists.

### **III. LITERATURE REVIEW**

The topic of childcare began to pique the interest of researchers in the 1970s as the number of women in the workforce increased. Like the military, there was a demographic shift in the corporate world. Households in which both the mother and father worked full time increased from 31% in 1970 to 49.4% in 2019 (Parker et al., 2015; Bureau of Labor Statistics, 2019). The DOD began to focus on providing more readily available childcare a significant increase of female members of the military in the 1970s. The literature on military childcare is sparse; however, by request of the DOD, RAND Corporation conducted a research study series on military childcare throughout the past three decades. Conversely, the research on childcare in the civilian sector is bountiful. While the military differs from the civilian sector on a multitude of levels, the topic of on base or on-site childcare is one that allows for a close comparison. In the following chapter, I will analyze the literature associated with military studies of on-base childcare and compare it to that of the civilian sector.

#### **A. RAND CORPORATION TECHNICAL REPORTS**

The RAND Corporation has been tasked by the DOD, on several occasions, to conduct both survey and qualitative analysis on military childcare. The RAND studies span across 15 years; however, the recommendations remain relatively consistent with one another despite such separation in time. With each study, RAND concludes that the ability for CDCs to adequately support the needs of military families is substandard in some areas; however, the reasons RAND identifies for this failure varies (Zellman et al., 1992; Zellman & Johansen, 1998; Zellman & Gates, 2002; Gates et al., 2006; Moini et al., 2006). Consistent with this thesis, the issue of waitlists across Marine Corps Installations is a metric RAND uses to measure how effective the DOD is in supporting military families with on base childcare

One of the earliest issues within the DOD regarding childcare was a common goal. Regardless of branch, service members throughout the ranks can attest to criticality of having all members of a unit fully know and understand the mission; it is difficult to lead

or follow if the goal is unclear. In the early 90s, “the multiplicity of goals reflects different childcare constituencies and the failure of policy makers to clarify which groups and which needs it will satisfy” (Zellman et al., 1992). There were glaring inconsistencies and a general misunderstanding of what the purpose of military childcare was; for a program that affects thousands of individuals as well as their families, this was a major issue. Speaking to the specific period, the military was steadfast in the ideology that childcare was not an entitlement; however, in the same breath it was expressed that childcare impacts readiness and retention (Zellman et al., 1992). If service members are expecting to have specific support and the institution does not provide it, this may diminish the propensity to stay in. With an organization as large as the DOD, standardizing processes and goals will result in the proper management of expectations.

As discussed in the previous chapter, the MCCA of 1989 was a key piece of legislation in the storyline of military childcare. Ten years after the implementation of the bill, RAND released the report, *Examining the Implementation and Outcomes of the Military Child Care Act of 1989* (Zellman & Johansen, 1998). In this report, RAND unveils one of earliest reasons why waitlists on military installations began to grow and remains an issue today. The main goals of the MCCA were to address the quality of care which included a new set of criteria each location within the branches had to abide by as well as the capacities across the DOD (Kamarck, 2020). Teachers were required to obtain higher qualifications and the on-base CDCs became accredited; overall meeting the intent of the MCCA of increasing quality of care. There was an unfortunate repercussion to the increase in quality; due to the cost of each CDC spot significantly increasing many locations were fiscally unable to create more slots (Zellman & Johansen, 1998). In short, while the quality increased, the quantity had an inverse affect; ultimately, the MCCA was a success in its main goal with the caveat regarding the less than favorable effect on capacity (Zellman & Johansen, 1998). There is a tug-of-war which the DOD continues to face trying to correct for quality, quantity, and remain within a designated budget. While challenging to meet the objectives of all three areas, it presents how paramount it is for the DOD to determine which is their top priority.

The terms “need” and “preferences” are two that have become ways in which the DOD classifies military families; whether for survey purposes or in the case of the Marine Corps, in the current waitlist tracking database (Moini et al., 2006). Regarding military members seeking or currently utilizing childcare, families can either have met and unmet needs, along with met and unmet preferences; those on waitlists have unmet needs. Further, an unmet preference is defined as those families receiving a childcare service that is secondary or tertiary to what they desire (Moini et al., 2006); for example, a family receives childcare at CDC A yet would prefer their child to be at CDC B. The DOD Instruction 6060.02 assigned the responsibility of maintaining waitlist data for each age group and priority to the individual CDC locations (Department of Defense, 2014). Divisions within military branch headquarters, either preexisting or inaugurated, were charged with collecting and maintaining historical record of CDC waitlists.

To determine the magnitude of unmet needs and preferences, the DOD tasked RAND with conducting a survey. While the breadth of this survey was relatively minimal, 1,137 active-duty families participating, the demographic was diverse and served as an effective representation of the population (Moini et al., 2006). Coinciding with this thesis, the study showed that 30 percent of respondents with children between the ages of infant and five years had unmet preferences and 9 percent of respondents had unmet needs (Moini et al., 2006). There are various other outcomes for this study; however, the metric for unmet needs and preferences is key to note for this thesis. This study further validates the assumption that there are families with unsatisfied needs and preferences. As previously mentioned, a second order effect to the lack of CDC availability is retention. RAND further analyzes the impact the unmet preferences and needs have on retention finding that, for ages infant to five years, 36 percent of families articulated that dissatisfaction with childcare would cause them to depart the military (Moini et al., 2006). The topic of retention and readiness is a reoccurring theme throughout the childcare RAND series and continues to be a great concern that is conveyed to the DOD.

For the past three decades, RAND conducted several studies on military childcare at the request of the DOD. With most, they conducted surveys on roughly 1,300 military families (Zellman et al., 1992; Zellman & Johansen, 1998; Gates et al., 2006; Moini et al.,

2006). Recalling the background chapter, the Senate proposed in the NDAA for FY2016 that the DOD require a biennial survey of families to determine where the DOD is falling short on fulfilling needs and preferences. The RAND reports continued to survey, analyze, and provide recommendations to the DOD; such recommendations had significant overlap which leaves the reader to believe that the same problems continue to exist. It seems paramount for the DOD to require surveys for formal action to be taken. Reports such as this thesis, will point out critical shortfalls of the current CDP and make recommendations; however, it is not a requirement of the DOD to act on such recommendations. The implementation of a required survey would undoubtedly lead to action to be taken on the Secretary of Defense level; discussion on this topic will continue in the Conclusion chapter of this thesis.

## **B. CHILDCARE IN THE CIVILIAN SECTOR**

The number of large firms, organizations that have a workforce of over 100 individuals, offering on-site childcare grew more than 15 percent in 20 years (Ratnasingam et al., 2012). A study conducted in 1992 showed that only 3 percent of large firms provided on-site childcare; compared to the 20 percent in 2012 (Kossek & Nichol, 2006; Ratnasingam et al., 2012). Mirroring the DOD, the increasing number of women in the workforce has driven up the need for childcare, and companies are beginning to meet this demand to retain talent and improve productivity. “Employers have viewed on-site childcare as a strategic tool to attract and retain a talented workforce” (Ratnasingam et al., 2012, p.435). Furthermore, research shows that companies that sponsor childcare programs believe that such involvement helps increase recruiting ability, efficiency, optimism, and quality (Goff et al., 1990; Ratnasingam et al., 2012). The concept of absenteeism was introduced by several studies to explain a potential byproduct of not providing adequate childcare and described it as a direct influencer of an employee’s performance (Goff et al., 1990; Ratnasingam et al., 2012; Kossek & Nichol, 2006). The way Kossek and Nichol see it, if performance is a function of ability, opportunity and motivation then on-site care provides the employee with the opportunity to perform. As mentioned in the first chapter of this study, parents with children must balance the stress of work alongside the stress of providing adequate childcare so that they may continue working. The concerns about

childcare are associated with conflict between work and family roles (Goff et al., 1990). This is a concept that researchers identified as role conflict and define “as the simultaneous occurrence of two or more sets of pressures such that compliance with one would make more difficult compliance with the other” (Goff et al., 1990, p. 795). Whether civilian or military, providing on-site or subsidies for childcare alleviates stressors caused by the demands of work and the responsibility to care for your child. Childcare is not only used by an organization as a means of strategically retaining talented employees (Ratnasingam et al., 2012), but it also provides families with opportunity to have greater control over the work-family conflict (Kossek & Nichol, 2006).

One of the key components of retention lies in winning the hearts and minds of those who work for the organization, whether military or civilian. Meaning, that it is imperative that the employees feel as if they are being taken care of which is embodied by the concept known as the Organizational Support Theory (Ratnasingam et al., 2012). This theory can assist in explaining how providing childcare enhances the organization-employee relationship and influences retention. “When employees perceive their organization cares about their well-being and values their contributions, they develop a felt obligation to care about their organizational needs of respect and approval” (Ratnasingam et al., 2012, p. 436). Contrary to most literature related to this subject, Ratnasingam et al. (2012) set out to discover if childcare has a negative effect on work performance. They present a possible converse outcome where on-site childcare users perceive their organization as unsupportive if it (a) fails to empathize or respect their family life and/or (b) provides poor childcare quality (Ratnasingam et al., 2012, p. 436). In line with the topic of this thesis, research derives the notion that there are downsides to on-site childcare when it lacks in quality and availability (Ratnasingam et al., 2012; Goff et al., 1990; Kossek & Nichol, 2006). Kossek and Nichol (2006) examined an organization’s on-site childcare by assigning those on the waiting list as the control group and employees with children enrolled in the care as the treatment group. They found that there are negative consequences coupled with providing on-site childcare when some are successfully enrolled, and others are on waiting lists. It creates the frustration effect where employees on waitlists view the benefit as unfair, thus resulting in negative job attitude and performance (Ratnasingam et

al., 2012; Kossek & Nichol, 2006). Furthermore, studies found that users of childcare had higher tenure resulting in the far more successful recruitment and retention for the organization (Kossek & Nichol, 2006).

The waitlists in both the military and civilian sector indicate that the demand for on-site childcare is far greater than the supply. The literature related to this topic reinforces the notion that waitlists are a dynamic issue. The problem has been identified; however, the solution is neither simple nor universal. The following thesis aims to contribute the existing literature, not by providing a solution, but by identifying trends in hopes of assisting the DOD in getting ahead of the overwhelming waves of military families seeking on-base childcare throughout the year.

## **IV. DATA AND METHODOLOGY**

### **A. DATA DESCRIPTION**

#### **1. Demographic Data**

This thesis includes data from two different sources. The first source is the Marine Corps' Total Force Data Warehouse (TFDW) which provided a dataset of 535,903 unique individuals categorized as active-duty Marines. Those individuals have been observed from January 2010 through January 2020. An observation in this study is a monthly account of the individual Marine; therefore, there are 24,999,122 person-month observations. The TFDW data source includes demographic information such as rank, age, gender, and marital status. This thesis focuses on CDCs which is the care provided to children between infancy and age five; therefore, the dataset provided by TDFW contains detailed dependent data. Subsequently, variables were created to describe the number of children belonging to each Marine between infancy and age five.

The Marine and Family Programs Division oversees the CDCs and maintains waitlist data for 14 Marine Corps installations; therefore, the dataset was reduced to 16,157,860 after removing observations that were not ever stationed at one of the fourteen locations. A variable for each base location was created using the unit Zip code. The bases are separated into three regional commands known as Marine Corps Installations (MCI). Table 1 displays descriptive data for each installation. Each installation is assigned a base designator which include: Marine Corps Air Station (MCAS), Marine Corps Base (MCB), and Marine Corps Recruit Depot (MCRD). For the remainder of the reports' graphs and tables, the installations will be referenced, in tables and graphs, without their base designator.

Table 1. Marine Corps Installation Descriptive Data

| Region  | Base                               | Location       | Marine Population | CDC per Base |
|---------|------------------------------------|----------------|-------------------|--------------|
| MCIWEST | MCAS Miramar                       | California     | 8,110             | 1            |
|         | MCB Camp Pendleton                 | California     | 37,023            | 6            |
|         | MCB Twentynine Palms               | California     | 10,686            | 2            |
|         | MCAS Yuma                          | Arizona        | 3,999             | 1            |
| MCIEAST | MCAS Cherry Point                  | North Carolina | 6,552             | 3            |
|         | MCB Lejeune, MCAS New River*       | North Carolina | 40,612            | 7            |
|         | MCAS Beaufort, MCRD Parris Island* | South Carolina | 9,636             | 2            |
|         | Quantico                           | Virginia       | 7,412             | 2            |
| MCIPAC  | MCB Camp Butler                    | Okinawa        | 8,076             | 4            |
|         | MCB Hawaii                         | Hawaii         | 8,029             | 2            |
|         | MCAS Iwakuni                       | Japan          | 1,138             | 1            |

Note: MCB Camp Lejeune and MCAS New River are combined into a single installation. Similarly, MCAS Beaufort and MCRD Parris Island are combined. The installations will be referred to as Lejeune-New River (NR) and South Carolina, respectively. Adapted from Total Force Data Warehouse, raw data sent by email to the author, September 2, 2020

## 2. Waitlist Data

The Marine and Family Programs Division provided the second source of data. A portion of the dataset spans from 30 June 2019 to 31 March 2020. These data are a product of the new system implemented by MilitaryChildCare.com in the Spring of 2019 and gives a detailed breakdown of each age group and placement priority. The Marine and Family Programs Division provided archived data from 31 March 2018 to 31 March 2019, which was not as detailed, but allowed for more longevity of information to analyzed.

The childcare DOD priorities dictate the order in which families receive childcare based on family and job type. The DOD updated its priorities in September 2020; however, this thesis utilizes data that dates to before the changes were implemented. Figure 2 presents the DOD priorities before September 2020 and, for reference, Appendix A is the updated list of priorities. The observations included in this thesis are based on the duty station of the Marine; therefore, I do not conduct analysis on specific priorities. However, the priorities associated with Active Duty and the Reserve on Orders stationed at the previously listed installations will be incorporated: 1C, 1D, 2, 3, SA.

| Military/Family Type                                 | Priority | Military/Family Type                               | Priority |
|------------------------------------------------------|----------|----------------------------------------------------|----------|
| <b>ACTIVE DUTY COMBAT RELATED WOUNDED WARRIOR</b>    |          | <b>DOD CIVILIAN</b>                                |          |
| Active Duty Combat Related Wounded Warrior           | 1A       | Single DOD CIV                                     | 1E       |
| <b>CHILD &amp; YOUTH DIRECT CARE EMPLOYEE</b>        |          | Dual DOD CIV                                       | 1E       |
| Single C&Y Direct Care Employee                      | 1B       | DOD CIV w/Working Spouse                           | 1F       |
| C&Y Direct Care Employee w/Working Spouse            | 1B       | DOD CIV w/Spouse Seeking Employment                | 2        |
| C&Y Direct Care Employee w/Spouse Seeking Employment | 2        | DOD CIV w/Student Spouse                           | 3        |
| C&Y Direct Care Employee w/Student Spouse            | 3        | DOD CIV w/Non-Working Spouse                       | SA       |
| C&Y Direct Care Employee w/Non-Working Spouse        | SA       | <b>SURVIVING SPOUSE COMBAT RELATED</b>             |          |
| <b>ACTIVE DUTY</b>                                   |          | Surviving Spouse Combat Related-Working            | 1G       |
| Single Active Duty                                   | 1C       | Surviving Spouse Combat Related-Seeking Employment | 2        |
| Dual Active Duty                                     | 1C       | Surviving Spouse Combat Related-Student            | 3        |
| Active Duty w/Working Spouse                         | 1D       | Surviving Spouse Combat Related-Not Working        | SA       |
| Active Duty w/Spouse Seeking Employment              | 2        | <b>DOD CONTRACTOR</b>                              |          |
| Active Duty w/Student Spouse                         | 3        | Single/Dual DoD CTR                                | SA       |
| Active Duty w/Non-Working Spouse                     | SA       | DoD CTR w/Working Spouse                           | SA       |
| <b>GUARD/RESERVE on Orders</b>                       |          | DoD CTR w/Spouse Seeking Employment                | SA       |
| Single Guard/Reserve on Orders                       | 1C       | DoD CTR w/Student Spouse                           | SA       |
| Dual Guard/Reserve on Orders                         | 1C       | DoD CTR w/Non-Working Spouse                       | SA       |
| Guard/Reserve on Orders w/Working Spouse             | 1D       | <b>OTHER FEDERAL EMPLOYEES</b>                     |          |
| Guard/Reserve on Orders w/Spouse Seeking Employment  | 2        | Single/Dual Other FED Employee                     | SA       |
| Guard/Reserve on Orders w/Student Spouse             | 3        | Other FED Employee w/Working Spouse                | SA       |
| Guard/Reserve on Orders w/Non-Working Spouse         | SA       | Other FED Employee w/Spouse Seeking Employment     | SA       |
| <b>MILITARY RETIREES</b>                             |          | Other FED Employee w/Student Spouse                | SA       |
| Military Retiree                                     | SA       | Other FED Employees w/Non-Working Spouse           | SA       |

Figure 2. Military Family Types and DOD Priorities (prior to Sep. 2020).  
Source: (Military Child Care, 2020)

The dataset is organized by Marine Corps installations. Within the dataset, there are two overarching categories in which families are placed based on whether their childcare needs are met or unmet. Both categories are broken down further into the priorities previously defined and the age of the child. Children with met needs indicates that the child is receiving childcare and children with unmet needs represents those who are currently on a waiting list. As a military family prepares for a permanent change of

station (PCS), they establish a Date Care is Needed (DCN) via MilitaryChildCare.com which informs the inbound CDC when the family needs to begin care. Furthermore, the DCN is used as a measuring point. Time is measured with a different variable for the category of children with met needs and children with unmet needs: placement time and wait time, respectively. Placement time measures, in days, how long it took for the child to be placed into care after the established DCN. For example, if a family's DCN was 01 March 2019 and their child began care on 15 April 2019, then their placement time would be 46 days. Wait time is the number of days in which the family has been waiting since the DCN. Using the same example, if the Marine and Family Programs Division pulled data on 05 April 2019, then the family with the 01 March 2019 DCN would have a wait time of 36 days. Given that their child has not yet been placed into care, they would have a wait time vice a placement time. For this thesis, both the placement and wait time will be analyzed at each Marine Corps installation over the specified time domain to observe trends and identify consistently troubled or effective CDC sites.

### **3. Capacity Data**

The Marine and Family Programs Division provided capacity data for each installation by level of education: infant, pretoddler, toddler, preschool, and kindergarten. This Division tracks both structural and personnel capacity; however, this thesis will utilize the structural capacity data for the analysis. Each level of education is associated with a specific age range; for the remainder of this analysis, the level of education will be connected to the following age ranges and referred to as "age group." Infants are between 4 weeks and 12 months, pretoddler are 13 to 24 months, toddlers are 25 to 36 months, preschool, are 37 months to five years old, and kindergarten is designated to five years old. For context, children between the ages of six and 12 years old join the SAC program. This study will not incorporate the data or age group associated with Marine installation SACs. I created a variable for each age group that was the ratio of the capacity to the corresponding population. For this study, I assumed that capacity remained constant between 2010–2019; therefore, that value did not change while being compared to the totals by year. Details of the capacity will be provided in the following summary statistics section.

#### **4. Summary Statistics**

Figure 3 contains a bar graph for each age group and depicts the average monthly number of children at each base between 2010 and 2019. This figure provides graphical representation of the total number of military children who are eligible to request childcare at each location based on their age. The results in Figure 3 correspond with the Marine population in Table 1. I expected to see bases such as MCAS Yuma and MCAS Iwakuni have relatively small infant through age five average populations. Similarly, Camp Lejeune-New River and Camp Pendleton support the most children across the age groups which is to be anticipated given they are each the largest base, in population, on their respective coast. The similar population size of dependent children allowed for me to conduct a detailed comparison of the two installations.

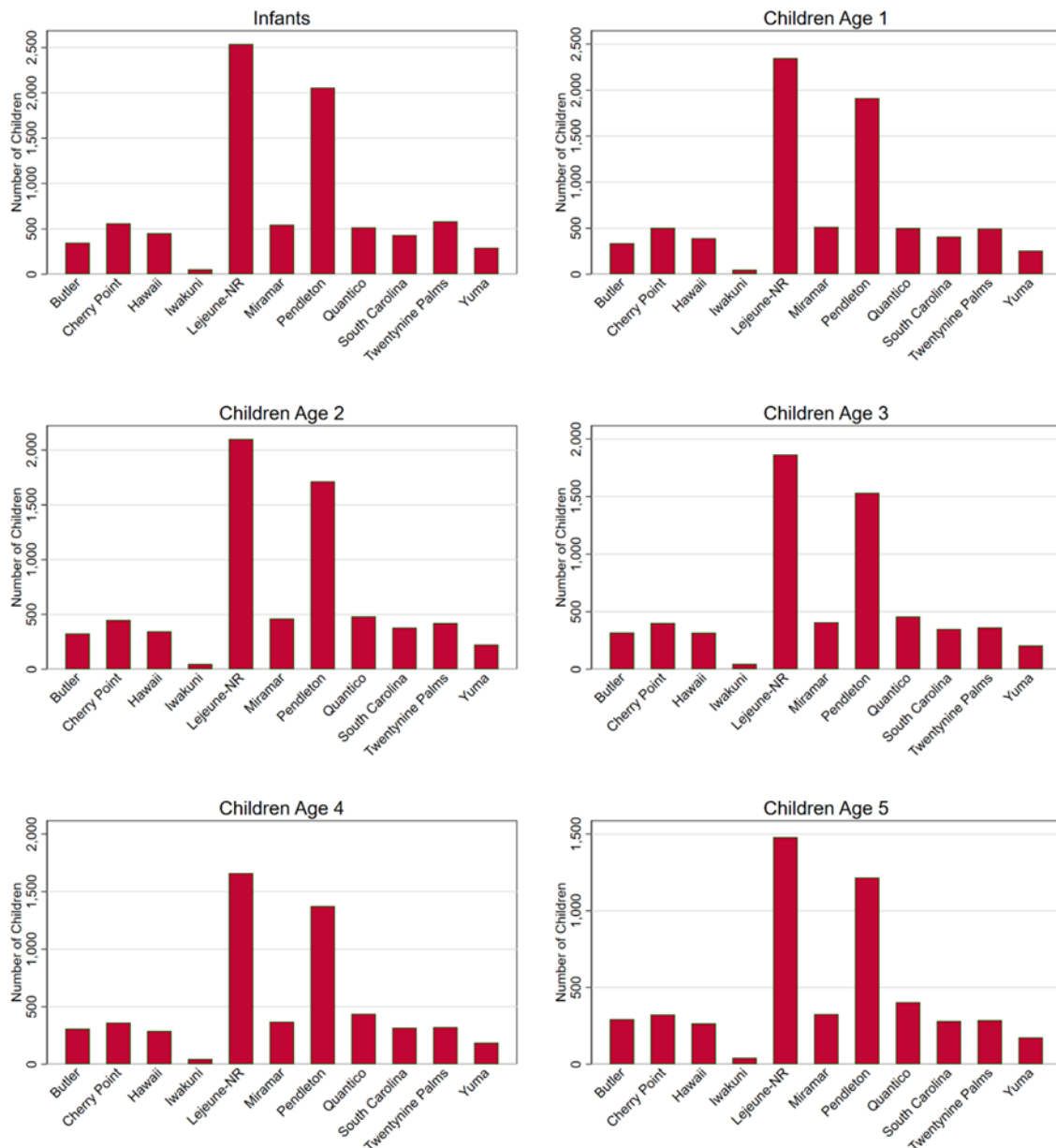


Figure 3. Average Number of Children, by Age, per Base Between 2010–2018. Adapted from Total Force Data Warehouse, raw data sent to the author, September 2, 2020.

Table 2 provides the capacity at each base for the specific age group. Several bases do not offer kindergarten care within their CDC program, because kindergarten is not a requirement in every state. Kindergarten is specifically for children who are five years of

age. If the base does not offer kindergarten, then the child will continue with preschool education until the age of 6, then join their respective SAC.

Table 2. Capacity Data per Marine Corps Installation by Age Group

| Region  | Base             | Age Group |             |         |            |              |
|---------|------------------|-----------|-------------|---------|------------|--------------|
|         |                  | Infant    | Pre-Toddler | Toddler | Pre-School | Kindergarten |
| MCIWEST | Miramar          | 0         | 3           | 4       | 16         | 36           |
|         | Pendleton        | 116       | 150         | 238     | 384        | 96           |
|         | Twentynine Palms | 64        | 60          | 98      | 168        | 30           |
|         | Yuma             | 32        | 50          | 42      | 96         | 24           |
| MCIEAST | Cherry Point     | 80        | 80          | 84      | 240        | 0            |
|         | Lejeune-NR       | 256       | 340         | 392     | 624        | 0            |
|         | South Carolina   | 60        | 80          | 100     | 240        | 50           |
|         | Quantico         | 72        | 110         | 126     | 345        | 0            |
| MCIPAC  | Butler           | 88        | 101         | 11      | 264        | 0            |
|         | Hawaii           | 64        | 60          | 70      | 144        | 30           |
|         | Iwakuni          | 32        | 47          | 41      | 82         | 34           |

Chapter V will compare the data provided in Figure 3 to Table 2 to determine if on-base childcare is adequately supporting the children of active-duty Marines.

## B. METHODOLOGY

For this research, I created and analyzed two different sets of data. The first set of data is produced by combining the TFDW data with the capacity data for each installation. I assumed that the CDC capacity remained consistent from January 2010 through January 2020. I take the average count of children by age, by location for each month. To measure capacity and demand, I calculate a ratio of children to spaces available. This ratio represents the number of children per available slot; a value of one indicates each child could have a slot. The “right” ratio is not obvious, but it is likely higher than one because not every family need or want a slot at the CDC for their child.

I create three types of lines graphs across the ten-year period. One analyzes the raw count of children per month over time. One examines the ratio of children to available CDC

slots. The third evaluates the number of children on waitlist, at each installation, across a period of time.

### **C. SCOPE AND LIMITATIONS**

A limitation to the research was the amount of waitlist data able to be collected. MilitaryChildCare.com is only able to generate data from March 2019 to current day due to a system update. However, the Marine and Family Programs Division maintains an archive of waitlist data back to March 2018. There are disparities between the variables collected in the more recent data than the archived information; however, I conducted a limited analysis on this period. Even with the two years of data, a significant limitation of this study remains the inability to analyze waitlist information from 2010 through 2019. This would have aligned with the TFDW demographic data and provided a far more thorough analysis. Another limitation was the change to the Military Family Type and DOD priorities. The new list of priorities went into effect in September 2020; therefore, it does not have a direct effect on this thesis; however, this change will make it somewhat difficult for future studies to utilize the results of this thesis. Still, the overall findings that there are more children than available slots will remain under the new system; the shift will be in who spends time waiting for those slots.

Lastly, I chose not to use any data past March 31, 2020 because of 2019 Novel Coronavirus (COVID-19).

## **V. RESULTS**

This chapter highlights three major findings from my research grouped broadly into the categories of waitlists and capacity. Specifically, I show the relationship between the physical capacity and the population at each installation across time, I compare the two largest bases on the East and West coast, and I provide a detailed analysis of waitlist trends.

### **A. CAPACITY**

The figures presented in this section depict the ratio between the number of Marine dependents and the capacity of the CDC for each geographic location and the specific age group. After collapsing and analyzing the data, I removed three bases: MCLB Albany, MCLB Barstow, and MCCS Bridgeport. The installations were small compared to the other bases, thus could be considered outliers in the data. For all graphs, the y-axis (vertical axis) represents the ratio of dependents to the capacity of the specified age group. A value of one indicated that the installation could support every eligible military dependent in that specific age group. However, not every parent will request care for their child, so I expect this ratio to be greater than one. Meaning, it indicates the installations' ability to support the specific age group should all eligible military dependents request care. For pretoddler, toddler, preschool, and kindergarten age groups, I plot the data for each month between January 2010 and January 2020 as indicated by the x-axis (horizontal axis). There is a delay between childbirth and the system accounting for the new dependent; therefore, the x-axis for the respective graphs is January 2010 through June 2019. The color of each line signifies a specific base as indicated by the legend to the right of the graph. I produced graphs for each age and location during this portion of the analysis which can be found in Appendixes B, C, and D. I discuss Figures 4 (Camp Lejeune and Camp Pendleton), 5 (MCI Pacific Installations), 6 (MCAS Miramar), and 7 (MCI West kindergarten care) in detail.

#### **1. Camp Lejeune versus Camp Pendleton**

The largest base on the east and west coast, based on population, is MCB Camp Lejeune-MCAS New River and MCB Camp Pendleton, respectively. Across the ten-year period, this study examined an average of 40,612 Marines stationed at Camp Lejeune-New

River and 37,023 Marines at Camp Pendleton. Along with having the largest population of active-duty Marines, these two bases also have the highest number of dependents. Figure 3 in the previous section depicted the average number of children, by age group, who were located at each installation between 2010–2019. Camp Lejeune-New River maintains a higher average of dependent children, infants through age five, compared to Camp Pendleton. Figure 4 graphically depicts the ratio of the average population of children to the capacity for each base by month for different age groups. The age groups in focus are, first, infants because that age group has the highest average population and, second, preschool because the CDC capacity for that level of care is the largest compared to the others.

The left portion of Figure 4 indicates that, across the nine-year period, Camp Pendleton's CDC can support, on average, one of every 18 infants of military families that are eligible to request childcare compared to Camp Lejeune-New River that can support an average of one of every nine infants. For both age groups and installations, the ratios are falling over time. Further analysis indicates that the decline is due to a decrease in the infant and preschool population. I am unable to draw the conclusion that the decrease is attributed to more effective and efficient childcare services being provided. The right section of Figure 4 depicts preschool-age children. The ratio is half of what it is for the infant population. Across the nine-year period, Camp Pendleton supports an average of 12 percent of their preschool-age dependents, compared to Camp Lejeune-New River which supports, on average, 20 percent of the eligible preschoolers.

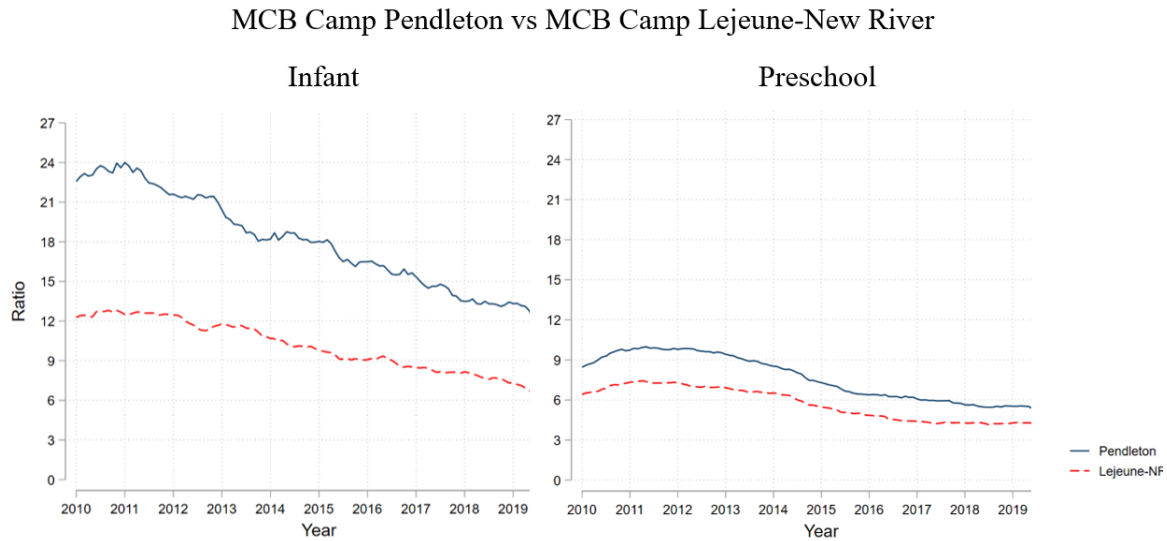


Figure 4. Population to Capacity Ratio of Infants and Preschool for Camp Pendleton and Camp Lejeune-New River between 2011–2019

In comparing these two installations, Camp Lejeune-New River does see a higher average of dependents compared to Camp Pendleton; however, Lejeune-New River provides care with seven CDCs whereas Pendleton has six. Appendix E provides the remaining age group comparison of Camp Pendleton and Camp Lejeune-New River.

## 2. MCI Pacific Installations

The MCI Pacific bases have the lowest ratios compared to the other MCI installations which raises the question of what is allowing for the respective CDCs to better support Marine families? The answer is unique to each base given their individual circumstances. Figure 5 compares the toddler age group to the allotted capacity for each MCI Pacific location. The graphs corresponding to the remaining age groups, located in Appendix B, behave similarly to that of toddlers; therefore, I selected this age group to provide context for the other graphs. The base closest to the DOD’s 80 percent supportability rate is MCAS Iwakuni which is supporting the smallest number of children across all age groups. Camp Butler and MCB Hawaii support about eight times the number of Marines and roughly four times the number of children across the age groups. Both bases have strikingly similar summary statistics; however, the number of CDCs on the respective installations differs. Camp Butler is spread across the island of Okinawa; therefore,

supporting the multiple locations requires four CDCs. MCB Hawaii supports the same number of dependents with only two CDCs. Figure 5 displays the difference in capacity between the two bases; Camp Butler supports one of every two toddlers compared to MCB Hawaii's ability to support one of every three toddlers. This is an example of physical capacity being the limiting factor for which is discussed in the final section of Chapter V.

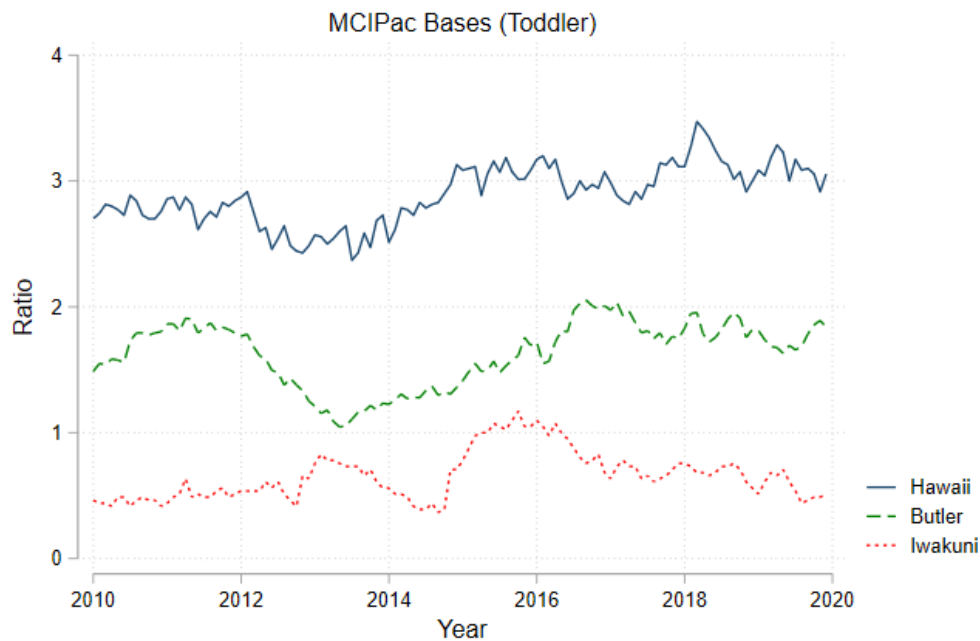


Figure 5. Population to Capacity Ratio of Toddler-Age Children for MCI Pacific Bases between January 2010 and January 2020

### 3. MCAS Miramar

The CDC aboard MCAS Miramar supports pretoddler, toddler, preschool, and kindergarten-age children; it does not provide infant care. In Figure 6, the line representing the population to capacity ratio for MCAS Miramar is substantially disproportionate to those of the other three MCI West installations. The left portion of Figure 6 depicts that the average supportability ratio across the nine-year period for pretoddler- age children is one to 150 at MCAS Miramar. Similarly, the right side of Figure 6 illustrates that, on average, one of every 125 toddlers can obtain a spot at the CDC. As staggering as these numbers are, they are to be expected given the population size (Figure 3) compared to the

single digit capacity numbers (Table 2) of the previous chapter. This analysis indicates that, compared to the other MCI West installations, MCAS is significantly over capacity and unable to adequately support the population of Marines.

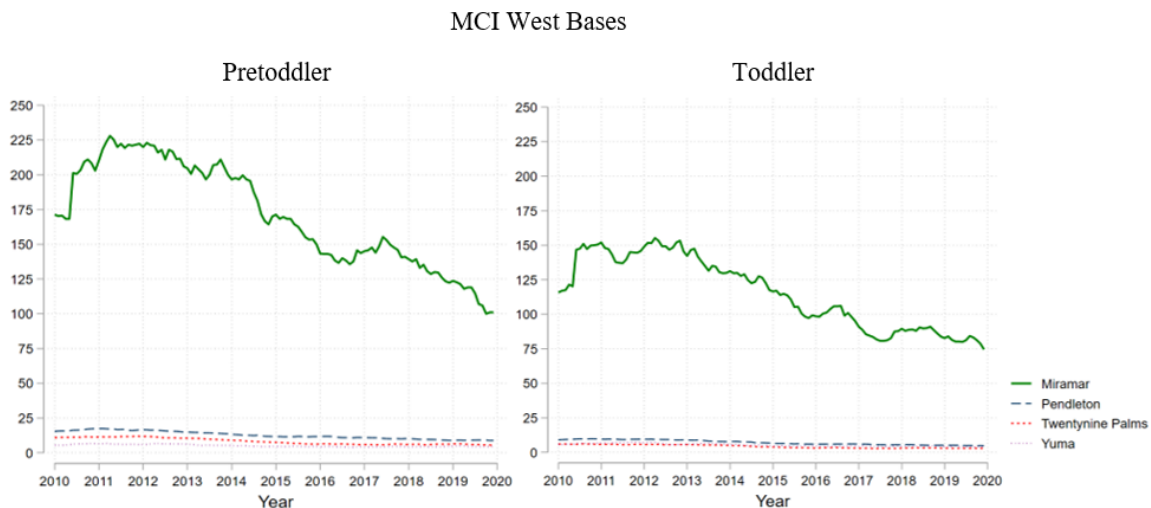


Figure 6. Population to Capacity Ratio of Pretoddler- and Toddler-Age Children at MCI West Bases between January 2010 and January 2020

#### 4. MCI West Kindergarten Care

All four of the MCI West bases provide kindergarten care at their respective CDCs. Of the four age groups which MCAS Miramar provides care, their capacity numbers for kindergarten allow for more sufficient support. Figure 8 shows an average seat to child ration of one to nine between January 2010 and January 2020. While the CDC is still unable to adequately support most of the military children eligible for care, the larger capacity of their kindergarten program compares more closely to the ratio of other MCI West bases. The line associated with MCB Twentynine Palms shows a similar ratio to MCAS Miramar and MCAS Yuma displays the ability to support a smaller average of seven kindergarteners to each seat. The downward trend of all four MCI West installations is driven by a decrease in the number of kindergarten-age children.

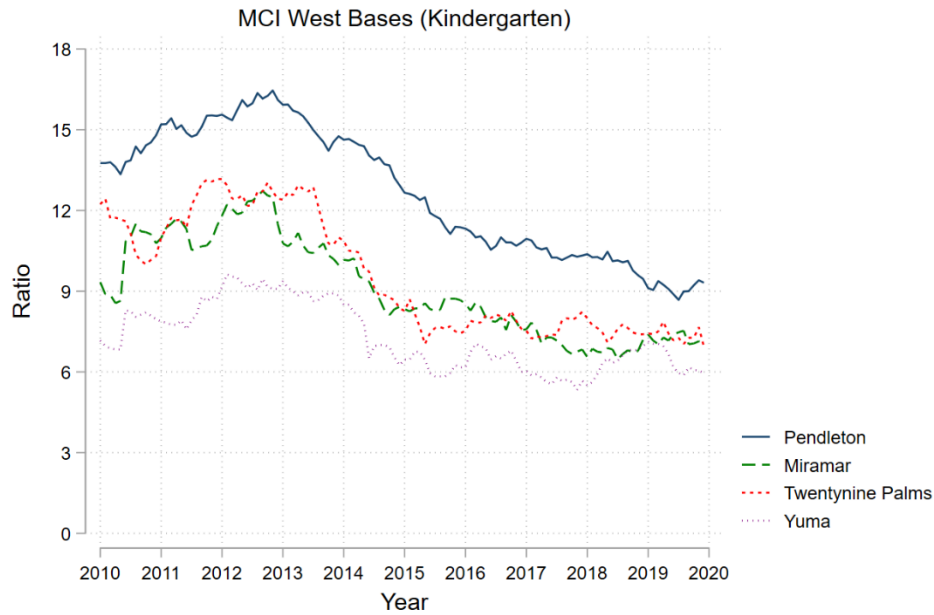


Figure 7. Population to Capacity Ratio for Kindergarten-Age Children for MCI West Bases between January 2010 and January 2020

Appendix D contains the remaining graphs for MCI West bases. The results of the infant analysis appear to be like Figure 8; however, MCAS Miramar is not represented because it does not offer care. The graph for preschool has a similar outcome to that of Figures 6 and 7.

## B. WAITLIST

Each year, the U.S. Transportation Command moves about 430,000 active-duty service member and their families to new duty stations; roughly 60 percent of these moves occur during summer (Werner, 2020). This allows families to get settled in a new location prior to the school year; however, it also affects the CDCs' ability to adequately support the new additions. The DOD's goal is to place children within 90 days of when care is needed (Kamarck, 2020). Figure 8 depicts the average number of days families wait for childcare at each installation, across all age groups. The compiled data is based on three distinct snapshots in time, 30 September 2019, 31 December 2019, and 31 March 2020.

The values include the wait time of the families that were placed after their DCN, at the specified point in time, as well as those currently on the waitlist.

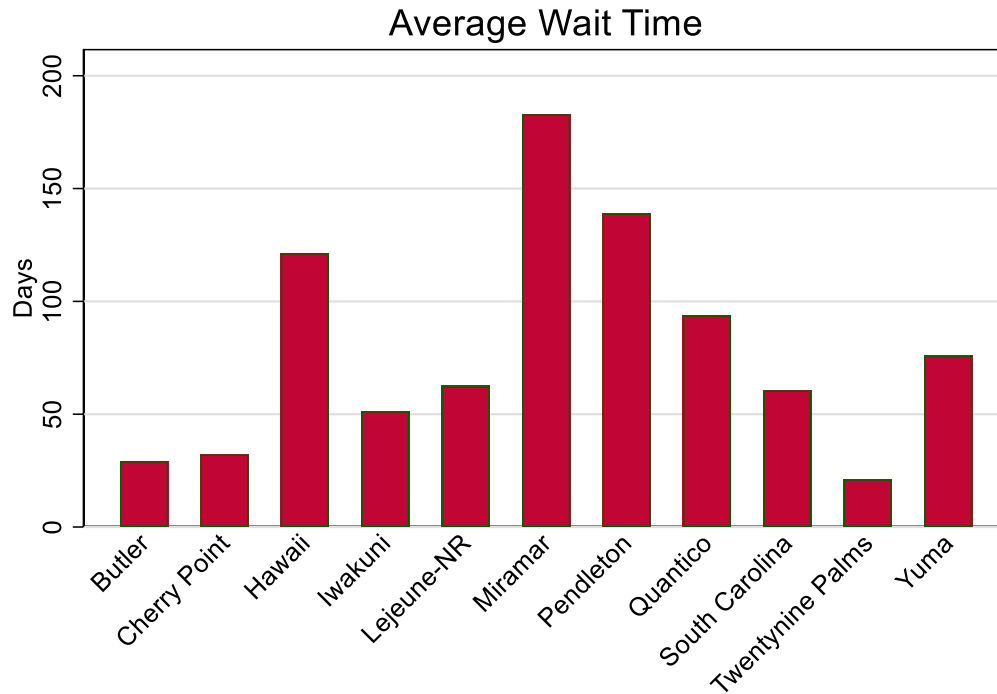


Figure 8. Average Wait Time for Families, Including Children Placed After Their DCN, Across All Age Groups.

This section of Chapter V draws attention to the waitlists across Marine Corps installations. Given the limitations discussed in the previous chapter, the line graphs in subsection two through four represent the total number of children on a waitlist between 31 March 2018 until 31 March 2020. The trend lines associated with each graph have straight properties because the waitlist data was provided at points in time throughout a two-year period. The snapshots plotted include 31 March 2018, 30 September 2018, 31 March 2019, 30 September 2019, 31 December 2019, and 31 March 2020. All age groups are combined, and the bases are organized by their respective MCI region.

## 1. MCI East Installations

Figure 9 depicts the MCI East Bases. Across the six snapshots, between 31 March 2018 and 31 March 2020, the highest peak for three of the four installations is on 30 September. I believe these spikes are caused by the overwhelming numbers of children requesting childcare at the beginning of the school year. Lejeune-NR's waitlist reached 290 total children in September 2019; the majority of which are either infants or preschool-age. Figure 8 indicates that the average wait time for families during this spike was 59.62 days. The MCI East installations valley in two time periods: around the end of the calendar year and March. This would indicate that prior to the early fall spikes, CDCs experience an efflux of children due to departures of winter and early summer movers.

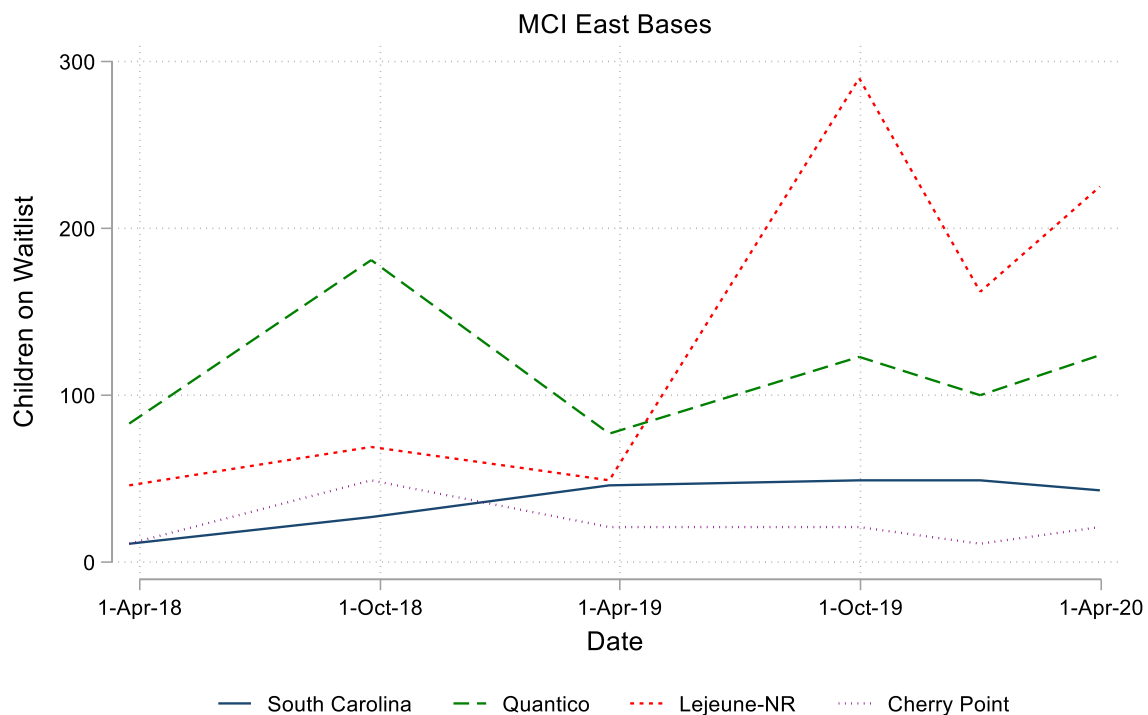


Figure 9. Total Number of Children from MCI East Bases on the Waitlist Between 31 March 2018 and 31 March 2020

## **2. MCI Pacific Installations**

The outcome depicted in Figure 10 is unique to Marines who received PCS orders to a base that is outside the continental United States (OCONUS). Two things that are specific to the MCI Pacific bases in Figure 10 . First, Marines with dependents are afforded the opportunity to execute their orders as either unaccompanied or accompanied which, in turn, affects the length of the tour. Specific to the installations in Figure 10, the accompanied tour length is 36 months whereas the unaccompanied tour length is 24 months. The MCI Pacific bases seem to experience similar seasonal spikes that were observed with the MCI East installations. MCB Hawaii has roughly four times the average number of children on their waitlists compared to the other two bases. The limitations of the data in Figure 8 disable me from providing exact waitlist times for the March 2018 spike; however, given that the peak in September 2019 is coupled with an average waitlist time of 96.26 days, I assume that the wait time in March 2018 was significantly greater than 96.26 days.

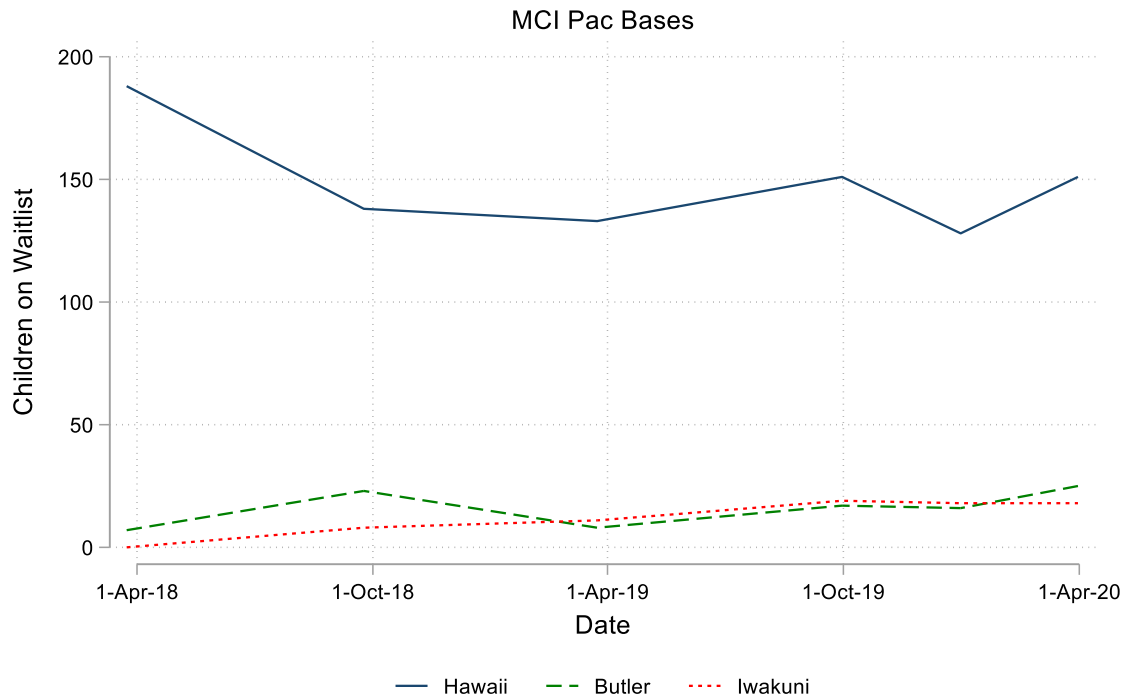


Figure 10. Total Number of Children from MCI Pacific Bases on the Waitlist Between 31 March 2018 and 31 March 2020

### 3. MCI West Installations

The trends seen in Figure 11 are like those of the other regional MCIs; increases in waitlist numbers are higher at the end of September each year than the end of March. The graph shows Pendleton with triple the number of children on the waitlist; however, during the September spike in 2019, the average wait time (including children placed after the DCN) was 143.29 days compared to MCAS Miramar's 189.65. Further supported by Figure 8, while MCB Pendleton has more children on the waitlist across time, MCAS Miramar is less effective in placing children in care. This aligns with the notion that families relocating in June will not have childcare until three to four months later. Given the smaller population, MCAS Yuma and Twentynine Palms still experience the annual flux; however, their average wait times are 16.24 day and 56.09 days, respectively. The spikes are far less steep compared to the other two bases.

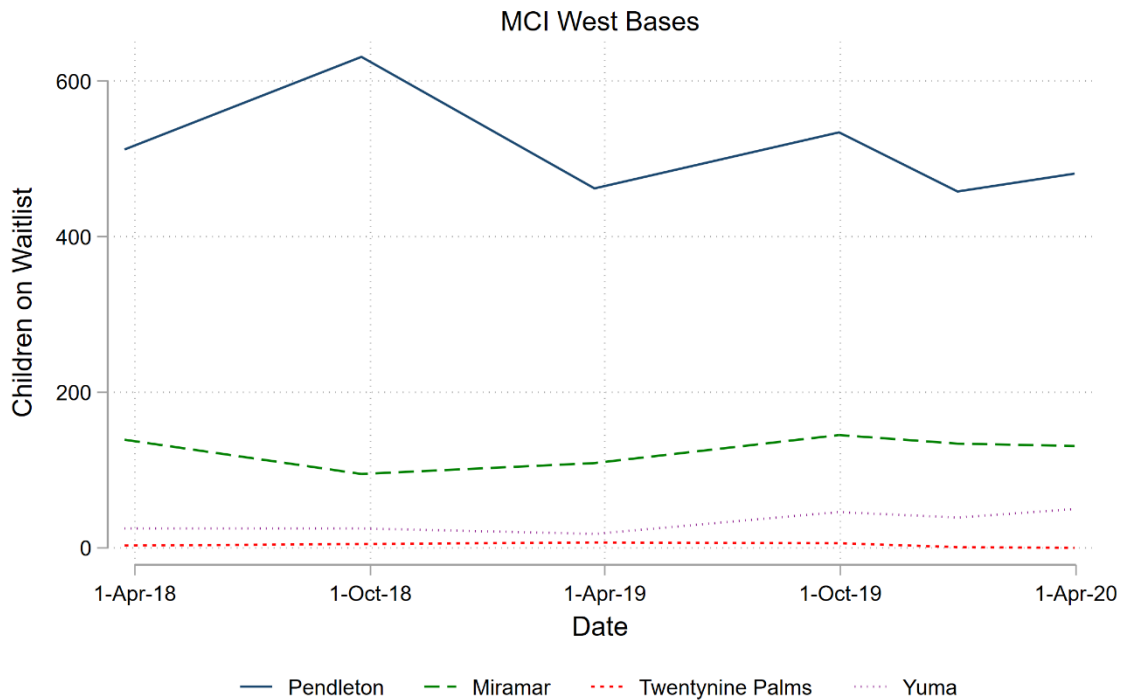


Figure 11. Total Number of Children from MCI West Bases on the Waitlist Between 31 March 2018 and 31 March 2020

### C. DISCUSSION

Through my analysis, I found that there are two main reasons why CDCs accrue waitlists. The first is lack of physical capacity. Chapter V, Section A concludes that multiple installations do not have the adequate physical capacity to support the children of military families. The remedy is, then, to simply create new physical capacity. New buildings or the remodeling of facilities are funded with APF allocated by Congress. The second is lack of employees. Among the installations in this study, there are CDCs that are unable to employ the adequate number of staff required to care for more children. In some cases, installations have physical capacity; however, are unable to fill empty seats due to lack of care takers, according to the Marine and Family Programs Division and (Kamarck, 2020). The remedy is an increase in NAF which is, in part, designated to pay employees. It is critically important that the root of the issue causing excessive waitlists is identified at each individual base. Data continues to be collected on waitlists and capacity; however, the

issue with manning is not being included which is compounding the problem. The data provided reveals the disparity between population and capacity, but it is impossible to differentiate the installations whose waitlists are being affected by capacity, lack of personnel, or both based on how the data is collected. Further discussion of this topic is provided in the following chapter.

## **VI. RECOMMENDATIONS AND FUTURE RESEARCH**

### **A. RECOMMENDATIONS**

#### **1. Data Collection**

Longevity and consistency in data collection is critically important for organizations who have identified an issue they hope to solve. Whether for a hired agency such as RAND or an analyst conducting a study, being able to analyze changes over time will assist in pinpointing the problem. The Marine and Family Program Division provides a report to the Deputy Commandant of Programs and Resources (DC P&R). The detailed presentation provides a current snapshot of the CDC waitlists. The first recommendation stemming from my study is presenting data to the DC P&R and the MFRC that is across time rather than a snapshot. This allows for leadership to see problem trends and begin to address the issues before they occur. With the proper analysis, the approach to the excessive CDC waitlists can be proactive rather than reactive. Continuing to observe a snapshot is simply confirming a problem that has been identified as such for over two decades.

The second recommendation is to properly archive data. As I mentioned in Chapter IV, a new MilitaryChildCare.com system came online in 2019; therefore, I was limited in the longevity of my data. Even though the Marine and Family Program Division was able to provide the year prior to that change, the lack of archived data from both entities was concerning. Properly maintaining records over time will allow for a far more effective analysis.

Thirdly, I recommend modifications to the Excel spreadsheet generated by the new MilitaryChildCare.com system. The concepts within the spreadsheet are rather difficult to grasp and the values are tedious to compile by an outside analyst. In a CDC waitlist presentation provided to the DC P&R, the terms from the Excel are modified to a more simple and easily digested version. This is what inspired recommendation three. Simplifying the website's Excel output will make it easier for a data analyst to understand

and compile information for future research as well as removing the extra step required for the division in preparing these briefs.

## **2. One Size Does Not Fit All**

The discussion at the end of Chapter V presents the idea that issues faced at one installation are not necessarily the same across the other. I presented two circumstances occurring at Marine Corps CDCs which are contributing to excessive waitlists. The first being lack of physical capacity and the second is lack of employees. The DOD identified waitlist issues within their CDP several years ago and, despite efforts to remedy the problem, excessive waitlists remain. Recommendation four is for the DOD to cease taking the one size fits all approach. In 2017, the Trump Administration established a hiring freeze for the executive branch which magnified the CDC hiring and recruitment issues (Kamarck, 2020). When the restriction lifted, the DOD was left with the problem of an inadequate number of employees at certain installations. The answer for a lack of caretakers is the ability to provide competitive pay with the use of NAF; however, Congress continues to allocate more APF as a solution for excessive waitlists. The use of NAF is delegated down to the respective Installation Commander; therefore, I believe the conversation regarding CDC waitlists needs to include the Commanding Officers as advocates for their installation's specific issue.

In FY2020, Congress took a step towards solving the physical capacity issue by providing the DOD an additional \$158 million of APF (Kamarck, 2020). This money was specifically designated for completing CDC construction projects across the DOD. I submit that approaching each installation independently will allow for the proper remedy to be applied, which will result in a more productive allocation of resources.

## **B. FUTURE RESEARCH**

The study of military childcare has several avenues of approach. I chose to take one specific to capacity and waitlists, which has the potential to be significantly built upon. Further research on this topic is contingent on the amount and quality of data collected by MilitaryChildCare.com and the Marine and Family Programs Division. For future analysts, I recommend that at least a year of data is collected by the new MilitaryChildCare.com

system prior to attempting to analyze trends. This would allow for further validation of the summer spikes in the waitlists as well as to potentially identify other seasonal spikes. Preparing for seasonal increases in the needs of military families allows for the DOD to provide more adequate support. If the recommendations mentioned in the previous section are implemented, an analysis on staffing can identify which installation waitlists are a result of capacity or the lack of employment. Subsequently, the proper funding can then be applied to the respective CDCs.

This study could be expanded by taking the fiscal approach. Future research could include the comparison of fees charged for on-base care and the subsidies provided to families for off-base childcare. Furthermore, a comparison between the waitlists on-base and those of the surrounding off-base facilities could be useful. This research could help determine whether it is more fiscally advantageous to keep families on the CDC waitlist or immediately refer them to off-base facilities based on the cost.

Lastly, further research could be conducted on the effects of the changes made to the placement priorities in 2020. The focus could be on the effectiveness of the change. Are the wait times decreasing for the intended groups? Furthermore, conducting a survey would indicate whether the change is noticeable by the individual families within the priority groups.

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## VII. CONCLUSION

The results of this study highlight the waitlist problem faced by the Marine Corps CDCs. The DOD acknowledges that waitlists are extremely difficult to avoid which is why the goal is for families to spend no more than 90 days on a waitlist (Gates et al., 2006). Based on this study, many of the Marine Corps installations are exceeding three-month waitlists. The analysis indicates that insufficient capacity is further compounding the issue. The ratio created in this thesis is designed to indicate the installations that lack physical capacity to adequately support military families. The value can be utilized to set more appropriate capacity goals for the future. Comparing the installations to each other enabled me to identify the CDCs that are being affected by the lack of physical capacity or potentially another factor. The current conversation as it relates to the DODs CDP is inefficient staffing. Therefore, the quantitative analysis coupled with further qualitative research supported the conclusion that installations suffer from issues with physical capacity, staffing, or both. Such results led to the recommendations related to more robust and detailed data collection. In turn, more adequate data collection allows for the DOD to accurately identify what is causing the excessive waitlists at specific installations. Knowing the cause of the waitlists ensures the proper form of funding is provided to the respective CDCs. In recent years, the Marine Corps made substantial strides towards supporting parents through childbirth. As the Marine Corps makes significant adjustments to the force, the CDCs aboard installations are very much a part of the conversation and changes are on the horizon. I anticipate that the recent shift in fiscal appropriation, internal to the Corps, will cause significant changes to the CDP; however, I am confident that the DOD will ensure the military family is provided adequate childcare support of some variation.

This study emphasizes that the DOD's CDP is a multifaceted operation. As simple as it may seem to identify the issue, the remedy appears to be far more intricate. Future research of this topic is crucial to solving the problem. The CDP is a resource that is designed to support the military member and their families given the immense sacrifices they make. It is important, for future recruitment and retention, that CDCs become a more accessible and effective service.

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## APPENDIX A. NEWLY IMPLEMENTED PRIORITIES



### Military Family Types and DoD Priority

Families select their sponsor type (e.g., Active Duty Military, DoD Civilian) and spouse status (e.g., Working, Student, Seeking Employment, Non-Working) when they create or update their MCC household profile. MCC uses this information to create a military family type for the household, which is associated with a DoD priority. MCC uses the assigned DoD priority, along with the request for care date to determine sequence on the waitlist.

The chart below contains a complete list of all DoD priorities. You can use this chart as a quick reference when speaking to families about the DoD placement process or their specific DoD priority for care.

| Military Family Type                                                      | Priority | Military Family Type                     | Priority |
|---------------------------------------------------------------------------|----------|------------------------------------------|----------|
| <b>CHILD DEVELOPMENT PROGRAM STAFF</b>                                    |          | <b>GOLD STAR SPOUSE (COMBAT RELATED)</b> |          |
| Child Development Program Staff                                           | 1A       | Gold Star Spouse (Combat Related)        | 3D       |
| <b>ACTIVE DUTY COMBAT RELATED WOUNDED WARRIOR</b>                         |          | <b>DOD CONTRACTOR</b>                    |          |
| Combat Related Wounded Warrior*                                           | 1B.1     | Single/Dual DoD Contractor               | 3E       |
| <b>ACTIVE DUTY MILITARY/ACTIVE DUTY COAST GUARD</b>                       |          | With Full-Time Working Spouse            | 3E       |
| Single/Dual Active Duty Military/Coast Guard                              | 1B.2     | With Spouse Seeking Employment           | 3E       |
| With Full-Time Working Spouse                                             | 1B.4     | With Full-Time Student Spouse            | 3E       |
| With Part-Time Working Spouse                                             | 1C.1     | With Part-Time Working Spouse            | 3F       |
| With Spouse Seeking Employment                                            | 1C.1     | With Non-Working Spouse                  | 3F       |
| With Full-Time Student Spouse                                             | 1D.1     | <b>OTHER ELIGIBLE</b>                    |          |
| With Non-Working Spouse                                                   | 3A       | Deactivated Guard/Reserve Personnel      | 3F       |
| <b>GUARD/RESERVE ON ACTIVE DUTY OR INACTIVE DUTY TRAINING STATUS</b>      |          | Other Federal Employees                  | 3F       |
| Single/Dual Guard/Reserve on Active Duty or Inactive Duty Training Status | 1B.3     | Military Retirees                        | 3F       |
| With Full-Time Working Spouse                                             | 1B.5     |                                          |          |
| With Part-Time Working Spouse                                             | 1C.2     |                                          |          |
| With Spouse Seeking Employment                                            | 1C.2     |                                          |          |
| With Full-Time Student Spouse                                             | 1D.2     |                                          |          |
| With Non-Working Spouse                                                   | 3A       |                                          |          |
| <b>DOD/COAST GUARD CIVILIAN</b>                                           |          |                                          |          |
| Single/Dual DoD or Coast Guard Civilian                                   | 2A       |                                          |          |
| With Full-Time Working Spouse                                             | 2B       |                                          |          |
| With Spouse Seeking Employment                                            | 3B       |                                          |          |
| With Full-Time Student Spouse                                             | 3C       |                                          |          |
| With Part-Time Working Spouse                                             | 3F       |                                          |          |
| With Non-Working Spouse                                                   | 3F       |                                          |          |

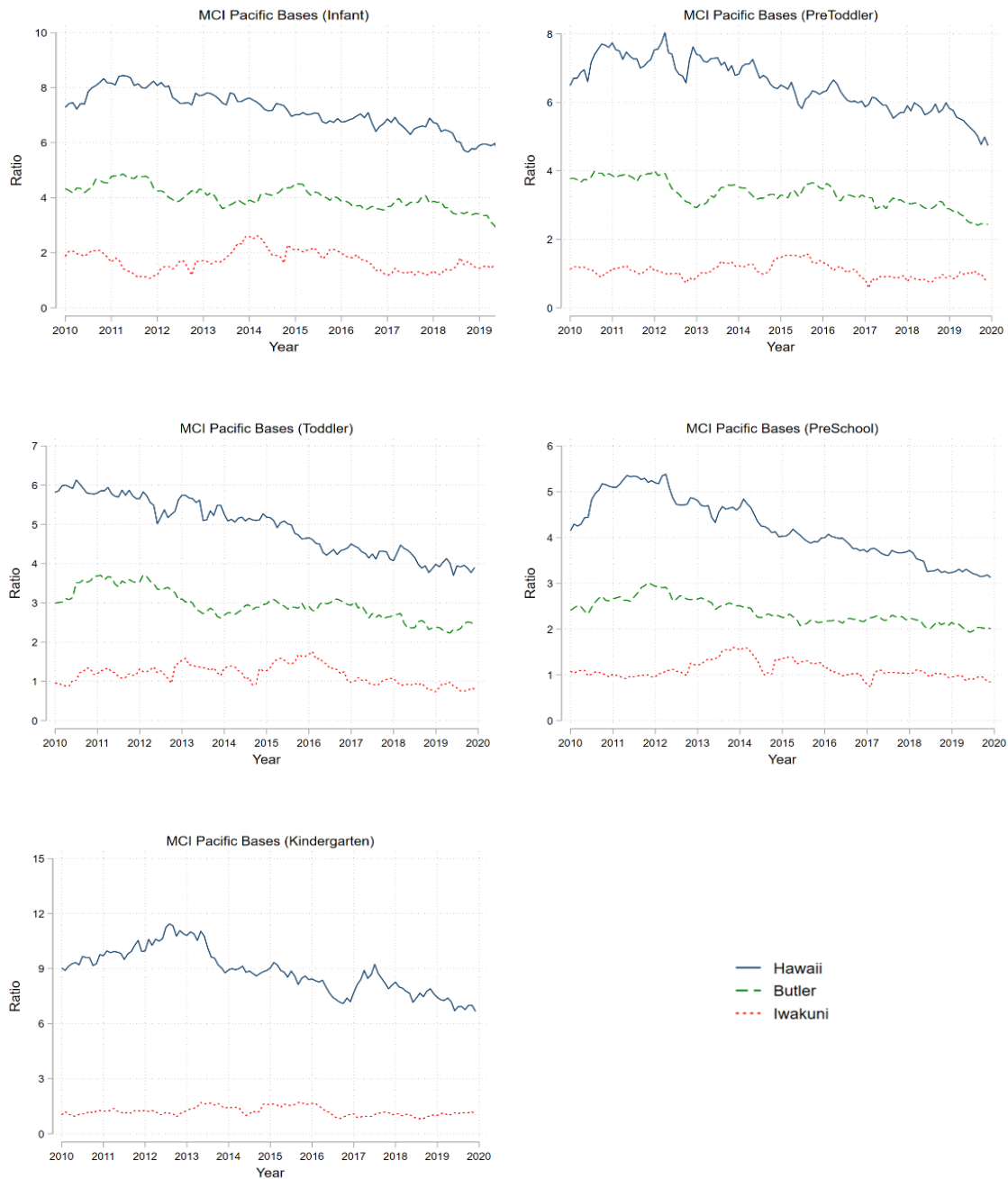
- \*When Service members designated as combat-related wounded warrior in an Active Duty status require hospitalization, extensive rehabilitation, or significant care from a spouse or care provider and requires full-time child care, they may be placed into Priority 1B. This designation requires installation commander approval (this authority cannot be delegated).
- Definitions: Full-Time and Part-Time Working
  - Full-Time Working: Working 30 hours per week or 100 hours per month OR working less than 30 hours per week or 100 hours per month and enrolled in a post-secondary educational institution
  - Part-Time Working: Working less than 30 hours per week or 100 hours per month
- Guidance: Full-Time and Part-Time Student
  - Full-time student status will be verified once an offer is made. The family may be asked to show documentation from the school verifying the full-time status during the eligibility verification process.
  - Part-time students who are not working should select "Non-Working."

MilitaryChildCare.com | September 2020

Figure 12. September 2020 Military Family Types and DOD Priority Chart.  
Source: (Military Child Care, 2020).

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## APPENDIX B. MCI PACIFIC RATIO DESCRIPTIVE GRAPHS

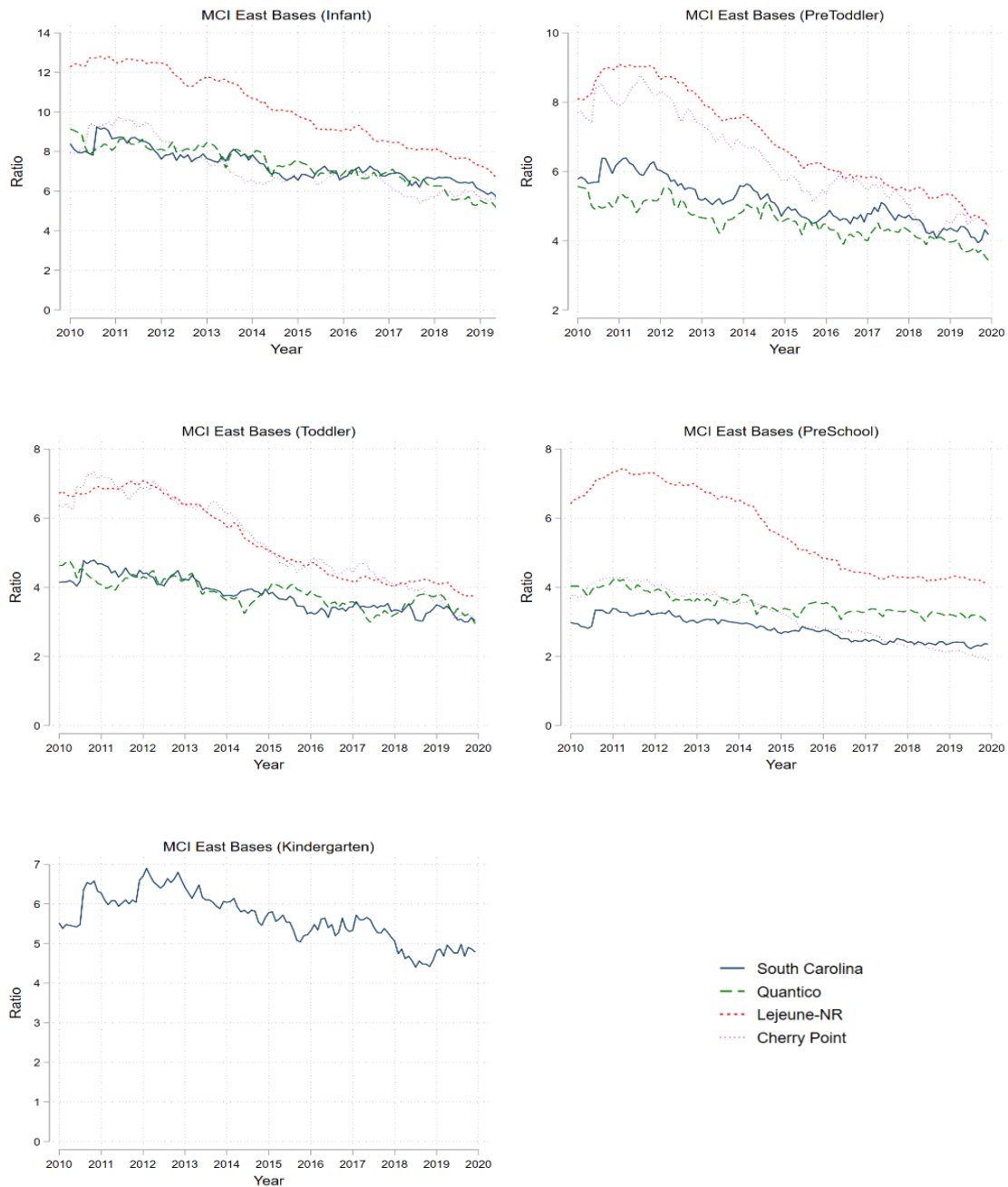


Note: Data plotted in pretoddler, toddler, preschool and kindergarten graphs is between January 2010 and January 2020. Due to the delay between childbirth and reporting the dependent in the system, the infant graphs span between January 2010 and June 2019.

Figure 13. Population to Capacity Ratio at Each MCI Pacific Installation for Infant, Pretoddler, Toddler, Preschool, and Kindergarten Age Groups

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## APPENDIX C. MCI EAST RATIO DESCRIPTIVE GRAPHS



Note: Data plotted in pretoddler, toddler, preschool and kindergarten graphs is between January 2010 and January 2020. Due to the delay between childbirth and reporting the dependent in the system, the infant graphs span between January 2010 and June 2019.

Figure 14. Population to Capacity Ratio at Each MCI East Installation for Infant, Pretoddler, Toddler, Preschool, and Kindergarten Age Groups

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## APPENDIX D. MCI WEST RATIO DESCRIPTIVE GRAPHS

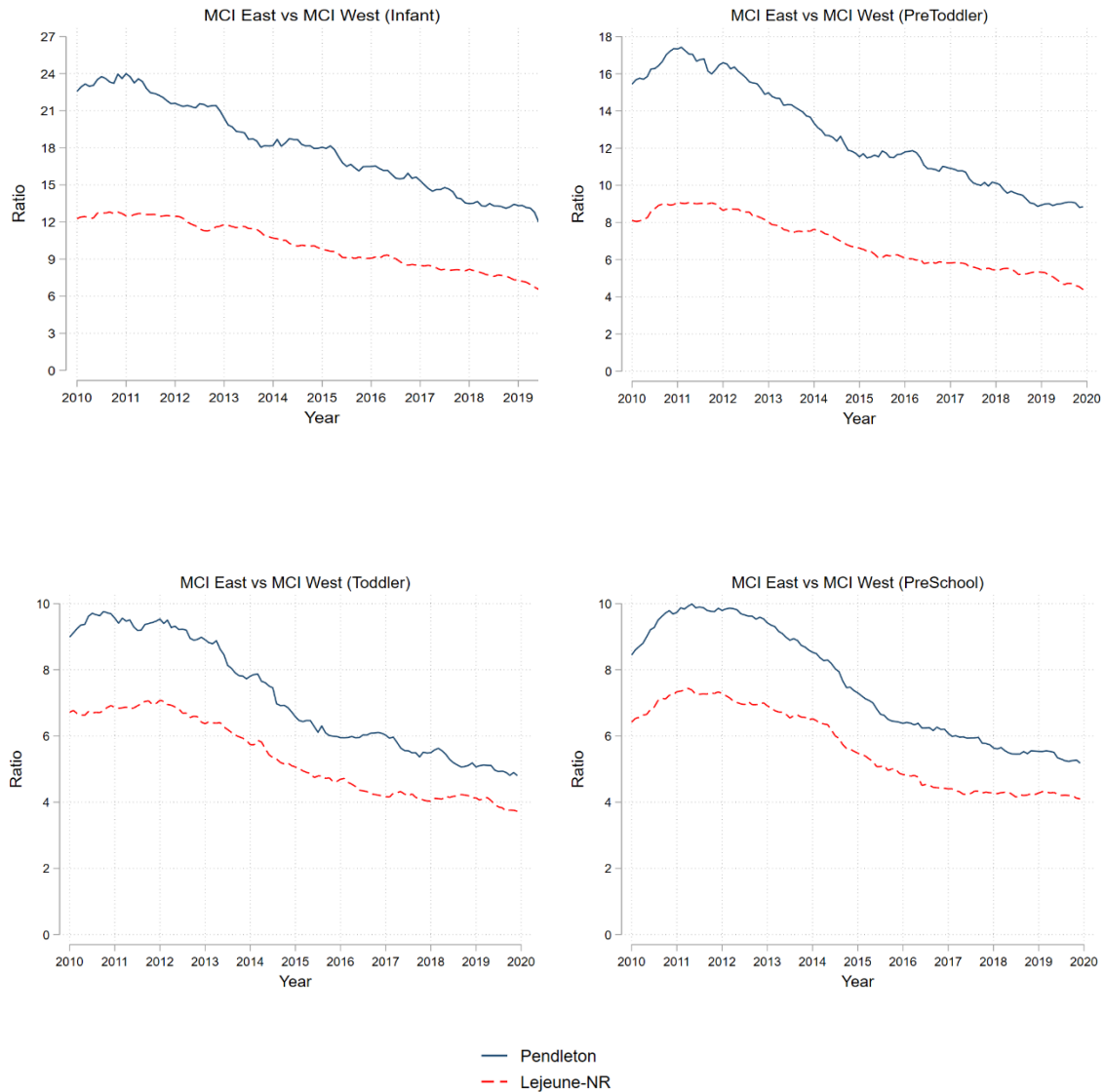


Note: Data plotted in pretoddler, toddler, preschool and kindergarten graphs is between January 2010 and January 2020. Due to the delay between childbirth and reporting the dependent in the system, the infant graphs span between January 2010 and June 2019.

Figure 15. Population to Capacity Ratio at Each MCI West Installation for Infant, Pretoddler, Toddler, Preschool, and Kindergarten Age Groups

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## APPENDIX E. RATIO DESCRIPTIVE GRAPH COMPARISON OF CAMP LEJEUNE AND CAMP PENDLETON



Note: Camp Lejeune does not offer kindergarten care; therefore, no graph was generated for that age group. Data plotted in pretoddler, toddler, and preschool graphs is between January 2010 and January 2020. Due to the delay between childbirth and reporting the dependent in the system, the infant graphs span between January 2010 and June 2019.

Figure 16. Population to Capacity Ratio Comparison between Camp Pendleton (MCI West) and Camp Lejeune (MCI East) for Infant, Pretoddler, Toddler, and Preschool Age Groups

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