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**AN ANALYSIS OF NAVY MANAGED
CHILD DEVELOPMENT CENTERS**

June 2015

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AN ANALYSIS OF NAVY MANAGED CHILD DEVELOPMENT CENTERS

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ABSTRACT

The Navy currently provides child care for 24,005 children within Navy Regions Mid-Atlantic, Southwest, and Naval District Washington. With ongoing concerns relating to the federal budget, we endeavored to see whether a policy change in regards to Navy child care was needed. The policy changes we analyzed were increasing the current capacity, building new CDC facilities, and subsidizing child care in the civilian market. We took current data, provided by CNIC, and analyzed the current costs and the effects these policies would have if implemented.

We found that all of the policies analyzed will have increased costs to the Navy in the short run. We also found that the effects of providing child care are positive for the Navy and the military members who utilize them. When comparing all three options, however, we found that increasing the current capacity of the CDCs will give the best return on investment for the Navy and its members.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACA	Affordable Care Act
APF	Appropriated Funds
BES	Budget Estimate
CBA	Cost Benefit Analysis
CCDBG	Child Care Development Block Grant
CDC	Child Development Center
CDH	Child Development Homes
CDP	Child Development Programs(s)
COA	Council on Accreditation
DOD	Department of Defense
DODINST	Department of Defense Instruction
ECD	Early Childhood Development
FCC	Family Child Care
FY	Fiscal Year
GAO	Government Accountability Office
IPC	Interagency Policy Committee
MCCA	Military Child Care Act
MCCYN	Military Child Care in your Neighborhood
NAC	National Accreditation Commission
NACCRRRA	National Association of Child Care Resource & Referral Agencies
NAEYC	National Association for the Education of Young Children
NAFCC	National Association for Family Child Care
NECPA	National Early Childhood Program Accreditation
OMCC	Operation Military Child Care
OMN	Operations and Maintenance, Navy
PCS	Permanent Change of Station
PSD	Presidential Study Directive
TFI	Total Family Income

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—Jamie

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—Robin

I. INTRODUCTION

In this report, we study the military child care market. Specifically, we describe the current child care market; the main providers in this market, the main recipients of military child care and the shortfall of child care facilities on base. These shortfalls force families to utilize more expensive off-base child care solutions. We suggestion potential solutions to the current shortfall that take two forms: more on-base military child care centers and subsidies to purchase off-base child care. We will base our policy suggestions by focusing on costs, problems with the market, and advantages/disadvantages of center based care provided by the DOD.

Since sequestration was enacted in 2013, the U.S. government has been looking for more ways to save taxpayer's money. This has had an especially profound impact on the Department of Defense (DOD), which has been looking for ways to trim the budget in this more fiscally constrained environment. As personnel costs continue to rise, one of the areas that money may be able to be saved would be in the support elements offered to service members, possibly coming from Child Development Center(s) (CDC). Taking into account the factors that go into funding these "quality of life" programs, we will analyze the background of CDCs, how the funding for them works, and how this tool for retention is utilized.

During a speech given at the United States Naval Academy on 13 May 2015, the Secretary of the Navy announced that CDCs, Navy and Marine Corps wide, would be extending their operations two hours in the morning and two hours in the evening to accommodate parents and the increased operational tempo they currently work under. This recognition by the Navy that support programs, such as CDCs, must be more flexible in their hours is an added bonus for parents. Currently, CDCs keep the hours of 0700 to 1800. If a child is not picked up on time, a penalty fee is charged to the parent. By extending the care hours to 0500 to 2000, it will allow parents to keep to their command's hours better and not make them feel like they must rush out of work at the end of the day or arrive at work barely in time for the morning routine. This initiative is

being rolled out this year and is dependent upon each CDC hiring enough new employees to cover the extended hours.

The Department of Defense (DOD) currently supports the largest employer-sponsored system of high-quality child care in the country (RAND, 1999, iii) comprised of approximately 23,000 workers who either directly serve or subsidize care for 200,000 military children (Floyd & Phillips, 2013). Although parents have the ability to use any child care option they see fit, the DOD offers three direct non-parental care options: (1) Child Development Centers (2) Family Care Centers (FCC), and (3) School Age Care (SAC) programs and other DOD-subsidized care options are provided through resource and referral agencies, such as Child Care Aware of America, which connects DOD employees to local child-care centers through the Military Child Care in Your Neighborhood (MCCYN) program (Floyd & Phillips, 2013). Due to the size and scope of the DOD child care system, the issues affecting it and the costs associated with it, are worth a more in depth study.

A. BACKGROUND

Prior to the 1990s, the U.S. Military's child care system suffered from a series of problems, some due to increasing demand across services as women entered the workforce at ever increasing rates, others due to systematic problems inherent to the DOD system (Campbell Appelbaum, Martinson, & Martin, 2000). The DOD child care system had upwards of 25,000 children on the waiting lists for center care and this did not take into account the numbers who would have been interested in center care if it were available (GAO, 1999). "According to the 1982 GAO report, there were no DOD-wide comprehensive standards for military child care, and those issued by the individual Services were inadequate in addressing issues such as maximum group size, educational activities and staff training... As a result, centers could not successfully compete for the best employees – which meant they suffered from turnover rates as high as 300 percent at some bases and were sometimes forced to retain poorly performing personnel (Campbell et al., p. 7–8)." With the high level of turnover surpassing the civilian rate of 30 percent

(Whitebook & Sakai, 2003) and lack of standards, DOD officials as well as Congress found the issue worth their attention.

Parent fees alone could not support the changes that were needed, and resource allocations from public funds were insufficient to make up the difference. These factors all lead to a much-needed change in the quantity and quality of child care the Department of Defense provided for its members. The shortage of affordable child care was a serious problem for the DOD, leading one Army official to testify that, “Like our counterparts in the corporate world, we have found that child care is a major force issue. Lack of availability of quality child care impacts on productivity and is an increasing factor in work absenteeism and tardiness” (Campbell et al., p. 8).

Single-parent families and families in which both parents are employed in the workforce have steadily increased over the years, and consequently, the demand for child care has increased as well. According to the Bureau of Labor Statistics, 64.7 percent of mothers with children younger than six were in the labor force in 2012. Correspondingly, approximately 13 million children receive non-parental child care, and more than 7.4 million of those children were enrolled in center-based child-care programs (National Center for Education Statistics, 2013). Due to these rising numbers of children requiring child care, the Department of Defense has implemented child care options to help support service members.

Since the implementation of the Military Child Care Act of 1989, DOD has focused on assuring high-quality services by establishing standards, accreditation and licensing requirements, and expanding access through subsidies in DOD-sponsored or civilian child care, which Congress approved in 2000. Most notably, military child care has become a best practices model for the rest of the nation (Floyd & Phillips, 2013).

B. PURPOSE

The military child care system has received much praise for its high quality; however, there are some concerns that reducing costs for child care might reduce quality. Furthermore, there are existing concerns that the civilian centers’ quality is not equivalent (Floyd & Phillips, 2013). The goal of this project is to analyze the costs of the Navy’s

Child Development Centers looking specifically at the shortfalls in the system and how these shortfalls could possibly be corrected to provide a better system for the Navy.

The demand for military child care far exceeds the supply but is hampered by the budget constraints that DOD faces from Congress (Floyd & Phillips, 2013). The cost of operating military child care is increasing as the budget apportionment for child care increases each year due to program growth. In fiscal year 2014, the DOD was appropriated \$1.3 billion to fund child care across 900 Child and Youth Development locations to provide services and subsidized care for more than 200,000 children (DOD Comptroller, 2014). Of the \$1.3 billion, the Navy was appropriated \$181.3 million toward “Child and Youth Development” programs, which is a six percent increase from the previous year (Operations and Maintenance, Navy (OMN) Budget Estimates, 2014). Due to sequestration and fiscal constraints, policies and programs that are not deemed critical or central to the defense of the United States have come under debate (Floyd & Phillips, 2013). Military child care is currently one of those programs whose future funding has come into question.

Because of future uncertainty, policies that are implemented now could have significant lasting implications on future budgets. By providing DOD and policy makers with more information on CDCs, the costs associated with them, and the supply versus demand for child care, they will be able to make more informed decisions. These more informed decisions would ensure that the money allocated by DOD is spent on the programs/projects that matter most and lead to a better trained, equipped, manned and provided for force. Much like RAND Corporation (1999) found, this information will be of interest to “officials responsible for DOD child care policy and other quality of life issues. It should also be of interest to child care managers in other federal organizations, child care researchers, and child care policymakers at the national, state, and local levels who grapple with the issue of estimating the need for child care” (iii).

C. RESEARCH QUESTIONS

This study will examine the cost of child care administered by the Navy and similar care provided in the civilian market; this project will also analyze the benefits the

Navy and its Sailors receive from this care. Furthermore, we will look at the policy options available to decision makers in regards to handling the possible changes to the CDC program.

1. Primary Research Question

Force reductions and budget cuts will force military officials and policymakers to weigh the priorities of the services and make tough decisions regarding policies. One policy that may be affected is the Navy’s child care program and associated subsidies. Hence, our primary research question is: should the Navy keep the CDC program in its current form? If not, what are the possible options that are available?

2. Secondary Research Question

Should the Navy expand the current Child Development Centers by increasing capacity via expanding existing CDCs or build new facilities?

3. Scope and Limitations

We wish to focus this study on Navy child development centers in three key regions, Navy Region Southwest, Navy Region Mid-Atlantic, and Navy District Washington, and compare to similar care provided by civilian child care centers under the “Military Child Care in Your Neighborhood” program administered by Child Care Aware. Navy Region Southwest and Navy Region Mid-Atlantic include both fleet concentrations in urban areas, San Diego, California, and Norfolk, Virginia, as well as more rural bases. Navy District Washington is unique in its cost characteristics of a large metropolitan area, but gives a glimpse of more costly areas that child care is offered. This diversity of bases provided by these three areas will give a snapshot of the economic effects of closing Navy administered child development centers in a variety of settings.

D. METHODOLOGY

The research questions will be answered with a quantitative and qualitative analysis. In order to answer our question we will analyze the shortfalls in the current DOD system as well as shortfalls in other child care options. We will compare the

numbers of children currently being accommodated by the CDCs and analyze the costs associated with creating additional CDCs, enlarging the current CDCs, or providing a subsidy for those unable to fit within the current CDC capacity.

E. ORGANIZATION OF THE RESEARCH

Chapter II will be an institutional background. It will discuss the overview of the military child development programs both offered on military installations and DOD-subsidized civilian centers. Chapter III will be our review of the pertinent literature used in this project. In Chapter IV, the methodology for our analysis will be outlined and explained. Chapter V will be a data analysis of the CDCs. Our conclusion will be discussed in Chapter VI.

II. BACKGROUND

In the early 1980s the military child care centers were under a lot of scrutiny from the Government Accountability Office over unsafe conditions, allegations of sexual abuse, lack of adequate standards, and untrained/under compensated staff. The GAO found that many installations did not meet fire, health, or safety standards. Discrepancies with fire code, lead paint, and leaking roofs were all problems experienced DOD wide. The GAO noted in 1986 that there was a lack of adequate child abuse prevention and detection mechanisms as well, following allegations of widespread sexual abuse. The DOD was also operating without comprehensive standards for their facilities (Campbell et al. 2000). All of this meant that the system needed a change for the positive, and governmental oversight was going to make sure these changes took place.

The current makeup of the military is diverse and covers several different types of demographics. The table below gives a snapshot of the military, according to the most recent census.

Demographic Variable	DoD Active Duty	Reserve and Guard (Selected Reserve)
MEMBERS		
Total Number	1,388,028	848,302
Ratio of officers to enlisted members	1 to 4.8	1 to 5.6
% women / % men	14.6% / 85.4%	18.2% / 81.8%
% minorities	30.3%	24.5%
% located in United States, U.S. territories	87.5%	99.1%
% 25 years old or younger	42.7%	33.8%
% with bachelor's degree or higher	19.0%	20.5%
% married	56.1%	47.0%
% in dual-military marriages	6.3%	2.6%
Number of separations	201,958	137,439
Retired personnel	1,542,783	732,718 (Ready Reserve)
FAMILIES		
Number of family members	1,941,669	1,135,295
Number of spouses	709,776	400,991
% with children	43.9%	43.0%
Average age at birth of first child	25.4	27.1
% of children age 0 to 5	42.4%	29.3%
Number of adult dependents	10,952	1,938
% single parents	5.2%	9.4%

Figure 1. Make-up of the military (from Census, 2012)

A. INSTITUTIONAL BACKGROUND

The bedrock of the military child care program, as it is today, is the Military Child Care Act (MCCA) of 1989. Until the passage of the MCCA, military provided child care was adequate, at best, and was not uniform across the services or from base to base. The purpose of the MCCA was “to improve the availability, management, quality, and safety of child care for members of the Armed Forces.” This was accomplished through increased funding by the services; new training and pay requirements for child care employees; child abuse prevention and safety initiatives; and parent participation. It also standardized parent fees based on a family’s income (Military Child Care Act [MCCA], 1989). All of these changes are still in use today.

To codify the MCCA, the Department of Defense (DOD) drafted and disseminated an instruction that outlines how child care is to be administered through out the Armed Forces. This instruction has been updated on a regular basis, the most recent being DOD Instruction (DODINST) 6060.02, which was signed on 5 August 2014 by Jessica Wright, the Undersecretary of Defense for Personnel and Readiness. DODINST 6060.02 ensures that the services’ child development program(s) (CDP) support retention, family and mission readiness, and force morale. This instruction codifies and implements the MCCA and Title 10 of the United States Code. Specific eligibility and priority is outlined, as well as types of care provided. Procedures for the administration, funding, and oversight of programs are defined and personnel required for running and maintaining a program are delineated. Program standards of operation are also laid out to include training requirements for all employees (Department of Defense Instruction 6060.02, 2014).

Providing affordable child care has become a national interest and the federal government recognized the importance in 1990 with the passage of the Child Care Development Block Grant (CCDBG) and the expansion of financial assistance through tax credits. Similarly, improving the accessibility and flexibility of child care for the military is one of the four priorities of President Barack Obama as outlined in *Strengthening our Military Families: Meeting America’s Commitment, January 2011* (Office of the President of the United States, 2011). Although military child care is not a

right, it is a privilege that DOD provides as child-care services is a factor that improves combat effectiveness and manpower readiness.

Approximately 203,000 female service members make up 14.6 percent of the active duty force. In addition, more than 154,000 female service members comprise 18.2 percent of the selected reserve force. The demographics given by the Department of Defense also reflect a similar trend for single-parent families and families where both parents are employed. Of all military personnel 6.8 percent are single parents, 34.5 percent are married to a civilian with children, and 2.3 percent are dual-military with children. Across the DOD, there are almost 2 million military children ages 0–22 years old. The largest percentage of military children, 37.5 percent, is in between 0 and 5 years of age. Furthermore, 65 percent of spouses of active duty service members are in the labor force (Defense Manpower Data Center (DMDC), 2012).

In November 1989, the Military Child Care Act (MCCA) was passed to improve the quality and management of, expand the availability of, and make access to child care more equitable (Military Child Care Act, 1989). It also aimed to assuring child safety. The MCCA focused on establishing comprehensive standards, enforcing licensing, mandating accreditation requirements, and expanding child-care access through subsidies (Floyd & Phillips, 2013). Major components of the MCCA include the following:

- (1) increase the appropriated funds (APF) to Child Development Services;
- (2) develop training requirements and materials for staff;
- (3) provide specialists to support training and curriculum development;
- (4) increase pay for child-care employees who directly provide care;
- (5) give military spouses priority for hiring/promotion;
- (6) implement parent fees based on Total Family Income (TFI); and,
- (7) expand on safety requirements and prevention against child abuse (Zellman Johansen, Meredith, & Selvi., 1992).

In 1996, an amendment to the MCCA required the DOD to adopt accreditation standards for the child development centers from the nationally recognized accreditation

agency, the National Association for the Education of Young Children (NAEYC) (Campbell et al. 2000).

Table 1. Primary DOD-subsidized child-care programs (from Floyd, 2013, p. 83)

Program	Setting	Purpose
Child-Development Center	On-installation child-care centers certified, inspected, and operated by the DOD and the services.	Provides high-quality full-time or part-time child care.
Family Child Care	On- and off-installation care in military housing. Providers—usually military spouses—are trained and certified by the services, and the homes are inspected according to DOD and service requirements.	Provides an alternative to CDC care if CDCs are full or if families' needs are not met by CDCs. Some Family Child Care may offer overnight, emergency, or infant care, for example.
School-Age Care	On-base or off-base providers, including CDCs, Family Child Care, youth centers, community-based nonprofits, or schools. Providers must be certified or licensed, and inspected, by the DOD or the state.	Provides before-school, after-school, and summer/holiday care.
Operation Military Child Care and Military Child Care in Your Neighborhood	Off-installation child-care providers licensed and inspected by the state, including child-care centers and family child-care homes. Military Child Care in Your Neighborhood providers must be accredited to ensure quality comparable to a CDC. In practice, service branches may waive this requirement if no accredited provider is available.	Subsidizes the cost of off-installation care if on-installation facilities are full or there is no installation nearby. Operation Military Child Care is intended for short-term care, primarily during deployment.

There are more than 900 child development centers, which include over 300 school age program sites, as well as more than 4,500 family child care/child development homes. The Military Child and Development programs consist of 23,000 employees that provide and subsidize care for more than 200,000 children from infant to twelve years of age. Based on priority levels, military child-care programs are available to active duty service members, National Guard and Reserve members (activated or attending training), as well as Child and Youth employees, DOD civilians, DOD contractors, other Federal employees, or military retirees. However, active duty service members and DOD

civilians who are single parents or have spouses that work full-time may have top priority when the demand exceeds the supply (Floyd & Phillips, 2013).

B. MILITARY-SPONSORED PROGRAMS

Child Development Centers are the lynchpin of the military child care system. The Navy operates 133 CDCs located on-site and offers care for children from six weeks to five years of age (OMN Budget Estimates, 2014). Generally, most CDCs offer full-time care, but they also offer part-time and hourly drop-off care. Operating hours vary, but typically cover normal working hours from 0600 to 1730 on weekdays, year-round (Navy Child and Youth Programs, 2011) and are expected expand in 2016. Additionally, all CDCs are DOD certified and accredited by a national accrediting body, such as the NAEYC. Furthermore, staffs are held to higher hiring standards, such as education level and background checks (Floyd & Phillips, 2013).

Family Child Care (FCC) and Child Development Homes (CDH) are an alternate option if CDCs are full or if CDCs do not meet a family's needs, such as a child with special needs. Providers (usually military spouses) care for a small group of children in their own home (either on or off base) from infants to children who are twelve years of age. More flexible than the CDC hours, additional care is offered before and after school, nights, and on weekends aside from the typical weekday working hours. Providers are certified and trained by the specific service branches and their homes are inspected using service and DOD's requirements. The Family Child Care and Child Development Homes are rarely accredited, but must be a Child Development Associate through the Council for Professional Recognition or have an Associate's Degree or higher in Child Development or Early Childhood Education (Child Care Aware of America, 2012).

While Child Development Centers, Child Development Homes and Family Child Care tend to be open during regular business hours (0800-1700), the School Age Care (SAC) program usually offers child care before and after school, on holidays, and summer day camps for children between 6 and 12 years of age. SAC providers are either on or off base as care is offered through CDC, FCC/CDH, youth centers, schools, or community-based nonprofit organizations. While most SAC program care takes place in

the youth center or school, some program providers share spaces with the CDC. Providers must be certified/licensed and inspected by the DOD or the state (Floyd & Phillips, 2013).

C. CIVILIAN CHILD CARE

When there are shortages in care from the military CDCs due to operating at capacity, or for families who live in remote or isolated areas with no access to military child care programs, the other affordable option is to use DOD subsidized civilian child care centers. The centers can also be used in instances of geographic isolation, parents deploying, or other such reason. Partnered with the DOD, Child Care Aware of America is a nonprofit organization that provides support for military families as the DOD provides subsidies through Operation Military Child Care (OMCC) and Military Child Care in Your Neighborhood (MCCYN) programs (Military Families, 2014). These programs comply with DOD policies, regulations, and standards (Floyd & Phillips, 2013).

OMCC provides fee assistance to families of deployed or mobilized service members, including National Guard and the Reserves. However, the level of assistance depends on geographic availability of care and funding (Floyd & Phillips, 2013). Furthermore, the subsidy program is only provided to single parent families, families where the spouse is employed, enrolled in school, or has a special medical condition. While all OMCC child-care providers must be licensed by their respective state and inspected annually, OMCC does not require accreditation (Military Families, 2014).

MCCYN provides fee assistance for families of active duty and DOD civilians who are unable to access on-site child-care centers due to different reasons, such as CDC operating at capacity limits, living far from on-site care, or being stationed in a remote location where on-site care is not accessible at all (Floyd & Phillips, 2013). Additionally, families who live within fifteen miles of a military installation must be on the on-site care waiting list before receiving fee assistance for an off-site child care center. To receive DOD subsidy, DOD requires providers under the MCCYN program to be accredited by a national accreditation agency to ensure quality comparable to an on-site CDC. In addition, centers must be state licensed and inspected (Military Families, 2014).

D. QUALITY ASSURANCE

The quality of child care is an important part of the costs associated with child care services. In general, the higher the quality of child care, the higher the costs associated with providing that care. “Studies show that much of the ECE (Early Childhood Education) care children receive in centers and in family child care does not promote their cognitive, social, and physical development, nevertheless, there is considerable evidence from previous research that good-quality ECE can make a difference in the developmental outcomes of children” (Helburn, 1995, p. 12). Certain factors, such as staff-to-child ratios, group size, and staff training levels, are linked to positive outcomes for children and thus high quality child care is linked to qualitative measures versus quantitative (Peisner-Feinberg et al., 1999). State licenses, DOD certification, and accreditation are the mechanisms and standards in place the DOD uses to recognize quality child care centers.

Licensing laws and standards vary from state to state (Military OneSource, n.d.) However, they usually involve inspections of the child care facilities to enforce general standards on observable attributes that can be measured to ensure the safety and well being of the children, such as staff-to-child ratio, group size, and square footage (RAND, 2002). The DOD has developed its own process for certifying child care centers. The DOD’s certification requires child care centers receiving DOD funds to meet basic safety and health requirements, parent involvement, and staff training requirements. Furthermore, DOD standards are the same in all locations as they are based on the same checklist from the DOD instruction (Military OneSource, 2015). In addition, unannounced inspections are conducted annually to include both a thorough fire and safety inspection and a health and sanitation inspection (Floyd & Phillips, 2013).

Accreditation increases the overall quality of a child care center (RAND, 1994). Therefore, all military child care providers must be accredited by a nationally recognized agency (Floyd & Phillips, 2013). The following are approved national accreditation agencies:

- National Association for the Education of Young Children (NAEYC)
- National Accreditation Commission (NAC)

- National Early Childhood Program Accreditation (NECPA)
- Council on Accreditation (COA) for school age programs
- National Association for Family Child Care (NAFCC)

Of those agencies, NAEYC is the most common within the military child care system and has been in existence for two decades. The accreditation by NAEYC is a three-step process, which is conducted every three years. First, the child-care provider will conduct a self-study based on NAEYC's accreditation criteria. Second, a team of trained volunteer validators will conduct a site visit to validate the accuracy of the program's self-study. Lastly, a three-member national committee, who are recognized as experts in child care and early childhood education, will make a commission decision based on the first two eligibility criteria.

The accreditation status is recognized as a high-quality indicator as it covers various aspects of the program, such as interactions between children and caretakers, curriculum, relationships among center employees and families, staff qualifications and professional development, administration, staffing, physical environment, health and safety, and nutrition service. Roughly 10 percent of the civilian child care centers are accredited; nevertheless, respective service branches waive the accreditation requirement in the interim if there are no immediate accredited child care providers available (Floyd & Phillips, 2013).

E. FUNDING AND FEES

Funding for military child care is covered by parent fees and from annual appropriated federal funds. Based on a sliding fee scale, parent fees vary depending on the Total Family Income (TFI). There are nine categories to determine what amount parents will pay, as shown in Figures 2 and 3. However, these fees may vary geographically. Where parent fees are used for center caregiver salaries, the federal funds go mainly towards supplies, equipment, associate staff training costs, and other staff salaries. (U.S. Government Accountability Office, 1999).

Table 2. Total family income categories
(from Child Care Aware of America, 2014)

Category	TFI
I	\$0 - \$30,466
II	\$30,467 - \$36,993
III	\$36,994 - \$47,873
IV	\$47,874 - \$59,841
V	\$59,842 - \$76,162
VI	\$76,163 - \$88,079
VII	\$88,080 - \$103,622
VIII	\$103,623 - \$129,572
IX	\$129,573 +

Table 3. Rate by category for 1st child
(from Child Care Aware of America, 2014)

Category	Weekly Rate 1 st Child
I	\$57.00
II	\$71.00
III	\$88.00
IV	\$102.00
V	\$117.00
VI	\$129.00
VII	\$134.00
VIII	\$138.00
IX	\$142.00

When families use civilian child care, there is a cap on the subsidy amount and the parents must pay for the difference in the event that cost exceeds the subsidized cap (Floyd & Phillips, 2013). To receive a subsidy, the parent fee rate shall not exceed the maximum fair market rate of \$900.00 per month for all locations. If the fee exceeds \$900.00 per month, the family is responsible to pay the DOD rate as well as the additional cost above \$900.00 per month. Furthermore, if the difference is less than \$25 a month, then the fee assistance will not be authorized (Military Families, 2014). This allocation insures that parents are using cost effective child care when applicable, and if additional quality/quantities of child care are needed or wanted, that the parents are responsible to make up the difference.

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III. LITERATURE REVIEW

This literature review informs our understanding of military and civilian child care. The studies, articles, legislation, and Department of Defense instructions we have read and reviewed have helped us to focus our project and hone our research questions. By no means are the following the be all, end all of research conducted on military child care, but they have been the most enlightening and helpful to us in this process.

Information found in the MCCA and DODINST 6060.02 were primarily used for program background and were cited by numerous studies we reviewed. These are the governing documents for how the DOD administers its program and operates its centers. MCCA is the law passed by Congress, and the DODINST is the way the DOD applies and complies with that law.

A. DEMOGRAPHICS

The following demographic reports were helpful in defining who uses child care provided outside the home, as well as the make-up of the current workforce. These reports encompass both the military and civilian workforce to get a holistic understanding of the market for child care.

2012 Demographics: Profile of the Military Community, compiled by the Defense Manpower Data Center, is a comprehensive profile of the entire military community. The authors look at all active duty, reserve and guard, as well as DOD civilians. The personnel are broken down by age, gender, marital status, location (state/country/base), service, education level, family status, number of dependents, and pay grade. The report uses 2012/2013 pay and allowances tables to calculate pay per family.

This report will be critical in analyzing the shape of the force for our analysis. These figures and tables will provide the numbers needed to break down service members geographically. The report also gives family status, which is the most important information for figuring out if eligible families use the CDCs or not. By analyzing the tables and figures in this report, we will be able to better understand the number of military members and what their needs for child care might be.

Women in the Labor Force: A Databook traces the history of women working outside the home starting since World War II. The information contained in this report shows trends over time of female participation in the workforce as well as age, marital status, and if she has children or not. The databook also contains information on men in the work force and does a good job comparing them to women using the same metrics (United States Department of Labor, 2014).

The data contained in this report, will help generate the numbers of women currently working and their occupations. We can take that information to show trends over time of women working and the direction the numbers seem to still be heading and what that means for child care requirements. The information also has children in various groupings depending on the mothers, and by using that information we will be able to see how many women and men in the military have children that are in need of child care and then use that information to estimate the impact of adding those children to military child care.

The 2012 State Fact Sheets is an annual report compiled by Child Care Aware of America on the status of child care for each individual state. The information contained in this report gives facts and figures related to income, number of children, single parent families, age of children, school age children, and children involved in out of family care.

This report gives an overview of the child care market for the United States. It also gives the number of children currently in child care situations across the U.S. as well as the demographics of the parents. Furthermore, It gives a good analysis of the cost ranges associated with different states for levels of child care offered. We will use this to compare and contrast the civilian child care market and the DOD child care options.

We began our investigation into the benefits of early child care and education by studying the *Digest of Education Statistics, 2013*. This report is an annual publication that looks into various aspects of the American education system. The statistics gathered look at ethnicity/sex/socio-economic background as well as results from various science, math, and language proficiency tests. The statistics are broken down by region and state as well as private, public, and DOD schools (United States Department of Education, 2014).

This information will be essential to analyzing the numbers of students in DOD schools and the scores associated with those children. By looking at the DOD schools versus public and private schools we will be able to get an idea of the quality offered by DOD schools versus private or public schools. This data is useful in showing the quality of the DOD child care system compared to what is publically offered.

B. ECONOMIC STUDIES

The study, *Economic Impacts of Early Care and Education (ECE) in California* from UC Berkeley, indicated that participation in quality ECE in California leads to benefits that accrue both to the individual participants and to the general public over the course of years and decades. The cost of high quality ECE is recouped many times over due to participants' higher earnings, lower crime rates, and lower use of public services. Lastly ECE allows parents to participate fully in the labor market and also increases economic output, jobs, and tax revenue throughout the entire California economy as a result of the multiplier effect spending has on other industries beyond ECE (MacGillivray & Lucia, 2011).

This is a high quality report that delves into the child care market of low income families. This is not directly related to the general population of the DOD, but there are some military members who do fall into this population. We will use this report as a qualitative analysis of the increases that are possible by offering lower income families with children a quality early childhood education option.

In the Lynch study, conducted by the *Economic Policy Institute*, they indicated that there is a strong consensus among the experts who have studied high-quality early childhood development (ECD) programs on the substantial payoffs these programs have. Investments in high-quality ECD programs consistently generate benefit-cost ratios exceeding 3-to-1 or more than \$3 return for every \$1 invested. An analysis of four ECD programs which had carefully controlled studies found benefit-cost ratios that varied from a minimum of 3.78-to-1 to a high of 8.74-to-1. (Lynch, 2004). This study will help us to extrapolate the external benefits of the Navy Child Development Centers.

The Lynch study is a high quality study with sound methodology. They used known facts and extrapolated them over a known time period for all available data. The data was then quantified to the best of their ability accounting for as many variables as possible that could be contributed to early childhood education. The information is pertinent to low income families and the results seem very viable. We will not assume that all of the information is directly attributable to the DOD, but some of the data can be used to describe parts of the DOD's population.

C. QUALITATIVE STUDIES

The link between high quality child care and long term benefits became a recurring theme in our research. It was noted in several studies that the military has set the benchmark for high quality child care and that civilian programs can learn from the military's system. We found numerous articles and reports that outlined these links, the following are a few of that we gleaned the most information from.

In GAO's report, *Child Care: How do military and civilian center costs compare?*, the authors are tasked with comparing child care costs and determining whether DOD's high-quality child development program is more expensive than comparable programs in the civilian market. This report found that it costs roughly seven percent more to operate military child care centers as the DOD aims to provide high quality and it accentuates the importance of the interaction between the children utilizing the facility and with their caregivers. The sizes of the group/classroom and staff-child ratio were important variables to examine the quality aspect.

The compensation scheme for CDC workers generates higher costs for the centers. This is due to the DOD prescribing the minimum amount that each worker can be paid as well as having higher mandated accreditation protocols. Nonetheless, improved wages, comprehensive-training requirements for military CDC caregivers, and centralized oversight promote high-quality care (GAO, 1999).

This report will be used to quantify levels of care provided by CDCs when compared to civilian administered child care programs. By having a government look at the specific differences between the CDCs and civilian institutions, this report will be

essential in showing the difference in quality that the CDC's provide. This difference in child care provided by the DOD is one of the most important selling points for proponents of DOD provided CDCs.

In the article, "Child Care and Other Support Programs," found in the journal *The Future of Children*, Floyd and Phillips studied the difference between on-site and off-site child care programs and noted that the military's child care success is due to the following factors: DOD certification, accreditation, hiring policy, and pay scale. First, the DOD certification process ensures the child's wellbeing through multiple safety and health/sanitation inspections of the facilities. Second, the accreditation by NAEYC sets the military child care centers apart from most of the civilian centers. Third, the military child care centers have a hiring policy that sets educational and other standards for their staff. Lastly, the military child care staffs are paid much higher than their civilian counterparts to discourage staff turnover rates (Floyd & Phillips, 2013).

This article will be helpful in comparing the quality of military and civilian child care programs. The factors that Floyd and Phillips identified will be compared to state and civilian program requirements.

The article titled, "Be all that we can be: Lessons from the military for improving our nation's child care system," takes a comprehensive look at the history of military child care. The report looks at events prior to the passage of the MCCA and how government provided child care for service members has changed since the implementation of the MCCA. By looking into the benefits associated with quality child care, they were able to provide analysis for how to make child care more affordable as well. This report also takes a look at the state of child care today in the DOD and has a list of lessons learned that can be applied to other programs that rely on a measurement based on qualitative objectives instead of quantitative objectives (Campbell et al., 2000).

For our project this report will be useful in helping us quantify the qualitative measurements of a child care system. The report also has a history of child care in the DOD that can be a building block for the background discussion of the problem. This report also looks at civilian child care today, which can lead to a starting point for

comparison of the two types of child care. This comparison will be essential to this project and help contribute to the final recommendations for if it is more effective to increase capacity, build new facilities, or subsidize civilian child care for DOD members.

The report *Cost, Quality, and Child Outcomes in Child Care Centers* takes a look at child care centers in four states and delves into the quality of child care centers. These centers are said to be mediocre unless the person sending their children to the centers has sufficient monetary means to afford top-level child care. This report highlights that the more you spend on child care, the better the results for your children in the future could be (Helburn, 1995). It is not clear though whether the child care centers are more expensive because of where they are located or if they are located there because of the increased income. Determining the causality due to costs of these centers can be hard to justify. The higher quality child care centers may be located in those areas because that is what higher income families want, or it could be that the higher costs are associated with costs in higher income neighborhoods due to land, building, and construction costs.

This report will help us determine if spending on child care and quality of the children coming from these child care centers are directly correlated. This report will compare nicely with the Floyd and Phillips article regarding military child care quality levels. By comparing these two reports we will have a better understanding of the quality that is offered by CDCs and how this compares to what is offered in the civilian market. By comparing them, we will be able to justify or disprove the need to expand or offer subsidies when CDCs are over capacity.

The Children of the Cost, Quality, and Outcomes Study Go To School is a comprehensive look at the factors affecting child development from an early age. The report assigns variables to different levels of child care and the factors present at each level to predict what factors influence the development of children. This study is different than most because it looks more heavily into the presence of child care centers and the increasing rolls they are playing in developing children (Peisner-Feinberg, et al., 1999).

Peisner-Feinberg's study found that:

- “High quality child care is an important element in achieving the national goal of having all children ready to learn when they come to school
- That high quality child care continues to be positively related to children's performance well into their school careers
- That children who have traditionally been at risk of not doing well in school are affected more by the quality of child care experiences than other children
- The quality of child care classroom practices was related to children's cognitive development, while the closeness of the child care teacher-child relationship influenced children's social development through the early school years” (Peisner-Feinberg et al., 1999, p. 40–41).

In summation, if American wants children to be ready for school, early child care is important for this to happen.

This report is well developed and looks at several different factors that play into the development of children. They use both in home as well as outside the home factors to measure the quality of care provided to children, and how this impacts their future development. The study is helpful to us, by showing the positive impacts that high quality child care has on children, and we can use this to amplify the information we have gathered on CDCs.

In the study, *Is quality certification effective? Evidence from the child care market*, Xiao researches whether quality certification is effective within child care centers. When determining high quality, most child care centers must be accredited by recognized accreditors, such as NAEYC. Yet, this study points out that the quality certification mechanisms, such as child care accreditation, are effective only to a limited extent because they often provide inaccurate information.

The author presents a model of consumer demand that infers product quality from a program's certification status and its reputation as well as analyzing the effectiveness and the impact of the accreditation system. The results suggest that consumers value accreditation and recognize it as a quality measure. However, the consumer values certification differently from a certifying agency. In addition, the consumer does not

really benefit from this formal assessment, as they do not gain much information beyond what they infer from a program's reputation (Xiao, 2005).

This will be used to make inferences in how parents judge the quality of the child care they have chosen for their child. It is difficult to understand why a parent chooses one form of child care over another, but certifications and standards can help.

The National Association for the Education of Young Children (NAEYC), the most common accrediting body of DOD facilities, has set ten standards for the programs that they evaluate and accredit. A facility must meet all ten standards in order to be accredited by the NAEYC. These standards are: relationships, curriculum, teaching, assessment of child progress, health, teachers, families, community relationships, physical environment, and leadership and management. Under each standard is a brief summary of what the NAEYC is looking for in a program and bullets that parents should be looking at when evaluating whether a program is right for their child. This resource allows the parents to be an advocate for their child when choosing a program based on the families and the child's specific needs and desires. These standards were developed in coordination with early childhood educators and experts (NAEYC, 2015).

This resource will be utilized in our institutional background as well as when evaluating the benefits of Navy CDCs over non-accredited civilian child care programs. It gives concrete criteria that the NAEYC uses when accrediting a facility and exactly what a parent should look for in a facility. It may be difficult to quantify some of the more intangible standards such as family involvement and the relationships between child and caregiver and fellow children in the program.

D. COSTS ASSOCIATED WITH CHILD CARE

To begin our discussion of the cost of child care in the military, we began with a RAND report that examined the costs across all branches of the Armed Forces. We then reviewed the most recent budget estimate and request submissions from the Navy. These documents assisted us in our review and analysis of the raw data we collected regarding CDCs in three of the Navy's regions.

In the report, *Examining the Cost of Military Child Care*, the RAND Corporation highlights the costs that go into the military child care system and answers whether high quality equals high costs. RAND surveyed Child Development Centers, Child Development Homes, and contractor-run centers on military installations across all services to understand where child care costs come from and how much is covered by parent fees or DOD budget. The RAND researchers confirmed that the younger the child, the higher overall care costs are and that as a child ages the associated cost of care decreases. The reason for this higher overall cost of care at younger ages is due to a lower child to adult ratio. As the children grow, less caregivers are required per child, leading to a higher child to adult ratio.

It was also noted that the Navy's cost of care is the highest among all branches of service. The researchers equated this with the type of funds used by the Navy to pay its child care providers, Appropriated funds (APF) vice Non-appropriated funds (NAF). APF comes from the overall budget given to the Navy to cover child care from the DOD child care budget. Parent fees and income from other non-appropriated enterprises, such as base clubs and golf courses, generate NAF. The data collected on contractor-run centers was lacking due to the small number of survey respondents and the fact that the contracts that included child care were not necessarily solely for child care, but also included other base services (Zellman & Gates, 2002).

This report will be helpful in focusing on the Navy breakdown of what the budget pays for and what parent fees cover. It will be interesting to see if the Navy still covers much of its costs with APF or have they moved more to NAF due to fiscal restrictions imposed since the publishing of this report. Being able to associate the costs of quality is something that RAND had issues quantifying, and we will also omit any calculations to try and quantify the qualitative aspects of child care.

The 2015 Navy Budget Estimate (BES) is the approved form for the Navy to let Congress and the president know what they plan on spending money on in the coming year. This form breaks down the costs associated with several sections of the Navy and presents a breakdown across all areas the Navy is involved with. The BES will be useful in providing up to date numbers with regards to personnel costs.

The *Fiscal Year 2015 Budget Request* is the document presented to the “... and Congress that prioritizes the Department of Defense’s budget for FY15. This document shows how the individual services are prioritizing the money they wish to spend. This is a high level document that does not give specific amounts, but general spending plans that are required by Congress. While the budget request has many weapons systems and other programs that the DOD uses, it also lists quality of life programs and base infrastructure improvements.

The budget request will help organize the priorities for the services. One of these priorities is to reduce the amount spent and re-coup efficiencies lost during sequestration and continuing resolutions. By knowing the priorities of the DOD, we can use the information to help analyze how CDCs fit into this picture. This knowledge will be important when it comes to making recommendations involving the CDCs. We can make recommendations, but if they are not based on the facts associated with the budget and current fiscal constraints, they will not be worth making.

A recurring issue in the literature was delivering the right child care to the right population at the right location. This would seem to be a problem, for the military, due to the increased deployment of Reserve forces to support the wars in Iraq and Afghanistan, but we learned that is not the case. As early as 1992, the RAND Corporation was studying this issue. The “... of the United States, through a study directive, readdressed it in 2011. New and improved resources have been created, such as Military One Source, to assist military families that are geographically isolated from resources found on military installations.

The RAND Corporation study, *Improving the delivery of military child care*, was conducted for policy makers to develop a policy that will produce an optimal mix of child care options. The study found that there was not much of a cost difference between centers operated by contracted child care and DOD operated centers. Additionally, contractor-operated centers’ cost per infant was lower than DOD run centers. However, the contractor-operated centers’ cost per toddler was higher than DOD run centers. Overall, child care centers are labor intensive. High-quality care requires more labor, therefore more money (Zellman et al., 1992).

Besides cost analysis, the authors address and compare quality mechanisms, such as state licensing, DOD certification standards, and NAEYC accreditation requirements. First, state licensing does not contribute to the quality aspect, as quality is determined based on the relationship between children and their caregivers. Second, NAEYC requirements were found to be generally more extensive than DOD certification (Zellman et al., 1992).

This report will assist us in highlighting the standards that the DOD requires of its centers compared to the standards that civilian centers are held to. These standards and metrics are essential in the choices parents make in regard to child care. By looking into these standards and how they are applied across the spectrum of child care options; we will be able to provide a better analysis of the data, leading to a better recommendation in the end.

Strengthening Our Military Families: Meeting America's Commitment is a response to Presidential Study Directive/PSD-9; and was prepared by an Interagency Policy Committee (IPC) with representatives from the Departments of Defense, Veterans Affairs, Homeland Security, Agriculture, Health and Human Services, Labor, and Education. The report has four main initiatives to assist military families – enhance the well-being and psychological health of the military family; ensure excellence in military children's education and their development; develop career and educational opportunities for military spouses; and, increase child care availability and quality for the armed forces. Our focus is on the fourth initiative. Much of this initiative is focused on Active Reservists who do not live near a military base and Active Duty families that choose to leave their base to be near family during a deployment. These two groups are not able to utilize DOD run or certified child care facilities and need to be able to access programs that meet DOD standards. The report also recognizes the overall shortfall in child care spaces and wants to remedy this shortfall with construction projects to increase capacity (Office of the President of the United States, 2011).

This report is useful for institutional background, and helps shape the discussion for increasing CDC capacity. This is from the Office of the President, and thus carries a lot of weight when promulgated to the DOD. The reasoning behind increasing the

population served and the worry over the current status of military child care shows that this is an ongoing issue that garners the highest levels of our government's attention.

Another resource that may be helpful is the National Association of Child care Resource and Referral Agencies (NACCRRA) website as a resource to help those families that are not near a military base with child care facilities, to be able to get adequate civilian care for their children. The NACCRRA website is a resource families are directed to if they do not live within fifteen miles of a military base with child care facilities. This website is useful to our analysis because it gives up to date prices associated with DOD child care as well as other information that is pertinent to military child care.

Military OneSource is a "one stop shop" for resources pertinent to military members and their families. Under the "Children, Youth, & Teens" tab is a summary of the standards that DOD child care facilities follow. All military child care facilities, both on and off base, are state and DOD certified. DOD standards are uniform across the services and around the world. Ninety-seven percent of military facilities are also accredited by a national child care accrediting body. These resources give involved parents reassurances that choosing a military child care facility is a good choice for their children.

This resource helps to give a foundation for the institutional background of this project, but will need to be reinforced with other resources from accrediting bodies and state child care licensing bodies because of a lack of hard data. This is a good reference for parents looking into using military child care, but does not show where the data they use comes from. We will be able to base military child care facts off of the website, but will continue to use other data to incorporate into the analysis.

The resources we utilized in this research have helped to give us a basis for our data analysis that follows. These articles and reports are not perfect, but through critical review we were able to understand exactly how beneficial the military child care system is and how civilian systems can learn and benefit from it. It has also been enlightening to get a better understanding of the population that utilizes the child care system. The data analysis that follows is a reflection of what we learned through the research we conducted.

IV. METHODOLOGY

For our analysis we will break the problem of government provided child care into several smaller sections. These four sections will consist of the status quo, current market conditions, other factors to consider, and possible solutions to the problem. We will build off each section, leading to a series of possible solutions or outcomes that would make a proposal to DOD leadership.

Section one, the status quo, will be designed to look at the current conditions for child care in both the civilian and military markets. We will compare the costs associated with operating a quality child care facility by the DOD with similar institutions in the private sector. We will also look at the differences in quality that can be found in both situations. This sets the framework for the possible proposals and their ability to meet the needs of the DOD and Congress.

Section two, current market conditions, will assess the supply and demand for child care. We will take the data we have collected for Navy child care facilities, such as waiting lists, capacity limits, and number of children currently participating, and compare/contrast them to those in the civilian market. This section will be an analytical look at the numbers supporting current policy, and will help shape the discussion for how to move forward with future policy proposals.

Section three, other factors to consider, will take a look at the parts of the child care system that are more qualitative. We will examine the difference between child to caregiver ratios and the effects these have on the children, the turnover rate of caregivers, pay for caregivers and its effect, and the future benefits to society and the children from receiving center based child care.

Section four, possible solutions to the problem, will outline our three proposed solutions to the child care problem currently being faced by the DOD. We will look at the effects of leaving the system as it is, increasing the size of the system to absorb the additional children on the waiting lists, and providing a subsidy for parents to utilize outside child care options. These solutions are in no way, the only options available to the

DOD, but these are the ones we felt were the most likely to occur and probable for government action.

By carefully taking into consideration as many factors as we can, we will build and support these proposals to provide DOD and civilian decision makers (the president and Congress) with enough information to make an informed decision. These proposals will take into account the fiscally constrained environment we are currently under, and provide policy options that have a good return on investment for those involved in the system and the greater society at large.

V. ANALYSIS

Before the Military Child Care Act of 1989 was enacted, the burden for child care fell upon the civilian sector; both at center based child care or family child care homes. Currently the United States spends upwards of \$11 billion to subsidize child care annually and covers over 1.5 million children each month (Matthews & Schmit, 2014). The average cost of child care is dependent on the state, but range from \$5,496 to \$16,549 for infants and from \$4,515 to \$12,320 for 4-year-olds in center based child care and from \$4,560 to \$12,272 for infants and from \$4,039 to \$9,962 for 4-year-olds in a family child care home. Of these costs, the parents assume almost 60 percent of the cost (Child Care Aware, 2012). For the middle and upper classes, a larger percentage of the costs are borne by the family, as they are less likely to receive any subsidies.

Now that the MCCA is law, the DOD is responsible for providing child care to its members. This has removed the burden, for most families, to find affordable, reliable child care for their children. For the families who have not made it into the centers and placed on a waiting list, the challenge is greater, but the DOD provides several resources to help with the search, to ensure that those children also receive the appropriate level of care.

A. STATUS QUO

Currently the Navy has capacity to care for 24,005 children between CDCs, FCCs, and SACs within the three regions we are focusing on. This number does not include those on waiting lists or who have chosen alternative child care options to care for their children. According to the 2012 census, there are 12,499,000 children, under the age of 5, currently in a regularly arranged child care situation. While numbers for the civilian child care capacity of center based care is not available, we would have to assume that if the need were present, the free market would fulfill the excess requirement for those positions on its own. The current number of children using center based care is 4,797,000 children while the number being taken care of in a provider's home is 1,554,000 children (Census, 2012).

1. Funds

We will do a CDC cost analysis using data from three Navy regions Mid-Atlantic, Southwest, and Naval District Washington. The data provided was not itemized in terms of costs to operate the centers (utilities, salaries, supplies, etc.). The data contained the installation funding in terms of Appropriated Funds (APF) and Non-Appropriated Funds (NAF). On our analysis we will assume that the cost to operate the CDCs is equal to the total of the APF and NAF. The child care program has three care settings CDC, FCC and SAC. The APF for the three care settings total \$85,207,727 and a total of \$75,602,781 for the NAF. The yearly cost to operate the CDC centers on the three regions is equal to \$128,399,611.

Table 4. Navy Mid-Atlantic, Southwest and Naval District Washington funding

Care Setting	Appropriated	Non-Appropriated	Total
CDC	\$69,367,265	\$59,032,346	\$128,399,611
FCC	\$7,994,247	\$9,430,264	\$17,424,511
SAC	\$7,846,215	\$7,140,171	\$14,986,386
Total	\$85,207,727	\$75,602,781	\$160,810,508

Table 5. Navy Mid-Atlantic, Southwest and Naval District Washington funding percentages

Care Setting	Appropriated	Non-Appropriated	Total
CDC	81%	78%	80%
FCC	9%	12%	11%
SAC	9%	9%	9%
Total	100%	100%	100%

Table 4 and 5 summarize the funds by care setting terms of dollars and percentages. CDC care settings use 80% of the APF and NAF funds followed by FCC with 11% and SAC with 9%. Child Development Centers, by far, take the largest

proportion of funding provided by the Navy. These facilities are the most costly in terms of money, time, and resources used to run them.

2. Capacity

There is capacity for 24,005 children in all three regions, which includes 11,210 CDC participants, 6,972 FCC participants and 5,823 SAC participants. The CDC is divided in different age groups infant, pre-toddler, toddler, pre-school and school-age. Each age group has a different capacity. The infant group has capacity for 1,993, pre-toddler for 2,215, toddler for 3,142, pre-school for 3,575 and school-age. Table 6 illustrates the capacity breakdown by age group for the three regions analyzed.

The age ranges for each group are as follows: Infant (0-12months), Pre-Toddler (12-24 months), Toddler (2-3 years), Pre-school (3-5 years), School-Age (5-12 years)

Table 6. Navy Mid-Atlantic, Southwest and Naval District Washington regions Capacity by age group

Age Group	Capacity
Infant	1,993
Pre-toddler	2,215
Toddler	3,142
Pre-school	3,575
School-age	285
Total	11,210

Table 7. Navy Mid-Atlantic, Southwest and Naval District Washington regions capacity percentages by age group

Age Group	Capacity
Infant	18%
Pre-toddler	20%
Toddler	28%
Pre-school	32%
School-age	3%
Total	100%

The pre-school group utilizes 32% of the total capacity followed by the toddler group with 28%, pre-toddlers with 20%, infants with 18% and 3% for school age. See Table 4. These numbers illustrate a cross section of the children being cared for. Pre-School aged children take up the largest percentage of space in the centers, which is to be expected due to them having the largest age range. Once a child is old enough they go to school and no longer utilize the CDC of FCC. At that point they are eligible for the SAC program and spend the majority of their time in school not being cared for by the DOD.

The infants and pre-toddlers represent 38% of the population for the centers. This is the largest group as well as the group that requires the most caregivers to watch them. This is where the majority of costs associated with personnel for the child care centers will be present. If an area were to be increased, it would be hiring more people to help care for these youngest age groups.

3. Waiting list

The data provided seems to indicate that the CDCs in these regions are operating at capacity based on the amount of people in the waiting list. On the waiting list there are 1,861 infants, 482 pre-toddlers, 291 toddlers, 225 preschoolers and 30 from school-age. Table 8 summarizes the waiting list by age group.

With 1,861 infants on the waiting list and only capacity to hold 1,993 it is obvious that this is the largest growing group needing child care. These new parents are going back to work and need their very small children taken care. The need for infant care is almost double the amount that the Navy is able to provide in these regions. This represents a large gap in capacity of the centers.

The waiting list is a good indication of the growing size of families within the Navy and that those numbers will keep increasing as the centers are already at capacity. The only caveat to the growing number of people in the CDC system is that children can be placed on a waiting list prior to showing up in their new duty stations. We do not have the number of children that fit in this category. A child could be counted twice, once being already in a center and the other being on a waiting list for the new duty station.

Table 8. Navy Mid-Atlantic, Southwest and Naval District Washington regions waiting list by age group

Age Group	Waiting
Infant	1,861
Pre-toddler	482
Toddler	291
Pre-school	225
School-age	30
Total	2,889

Table 9. Navy Mid-Atlantic, Southwest and Naval District Washington regions waiting list percentage by age group

Age Group	Waiting
Infant	64%
Pre-toddler	17%
Toddler	10%
Pre-school	8%
School-age	1%
Total	100%

The infant group represents 64% of the waiting list total capacity followed by the pre-toddlers group with 17%, toddlers with 10%, pre-school with 8% and 1% for school age. See Table 9.

The average wait time for all centers and all age groups is 47 days. We do not know how this compares to the civilian sector in terms of wait days to get into center based care, but for the military this could be a problem when starting a new job in a new location that you do not know and not having child care upon arrival. This is a factor that most civilian families do not have to deal with on a regular basis. The military is a mobile community with several moves in every career, while in the civilian sector; the amount of moving for work is significantly less on average. With large wait times for the younger children, the impact on parents ability to go back to work after having a child could be affected, leading to longer absences and increased use of vacation days to cover the inability to get into child care centers. Military families may not have the option of using

family care due to the location they are in, that civilian families may have. Usually the support network for those in the services is not as robust and other child care options may need to be utilized.

Table 10. Navy Mid-Atlantic, Southwest and Naval District Washington average wait time by age group

Age Group	Average Wait Time
Infant	89 days
Pre-toddler	95 days
Toddler	70 days
Pre-school	34 days
School-age	3 days
Total	47 days

Table 11. Navy Mid-Atlantic, Southwest and Naval District Washington Waitlist to total capacity

Age Group	Waiting	Capacity	Waiting/Capacity
Infant	1861	1993	93%
Pre-toddler	482	2215	22%
Toddler	291	3142	9%
Pre-school	225	2573	6%
School-age	30	285	11%
Total	2889	11210	26%

Table 11 shows the capacity of the Navy’s CDC, SAC, and FCC to hold children. We then compare the size of the wait list to the number of children available in the centers. In general all of the Navy programs have a wait list for children that are substantial. The highest need for care is that of the infants and pre-toddlers. The Navy would have to increase the size of centers substantially to cover the increased need for these age groups alone. It would take an increase of 26% in CDC, FCC and SAC size to cover the current demand.

B. CURRENT MARKET CONDITIONS

Throughout the United States, the child care market is very volatile. The ranges in prices for child care services vary by state and region dramatically. Overall the cost to provide child care is on the rise. Figure 1 shows that the costs remain a stable percentage of families income, but overall the costs in dollars is rising. This trend does not seem to be slowing down either. Costs will continue to rise and be a larger and larger burden on families.

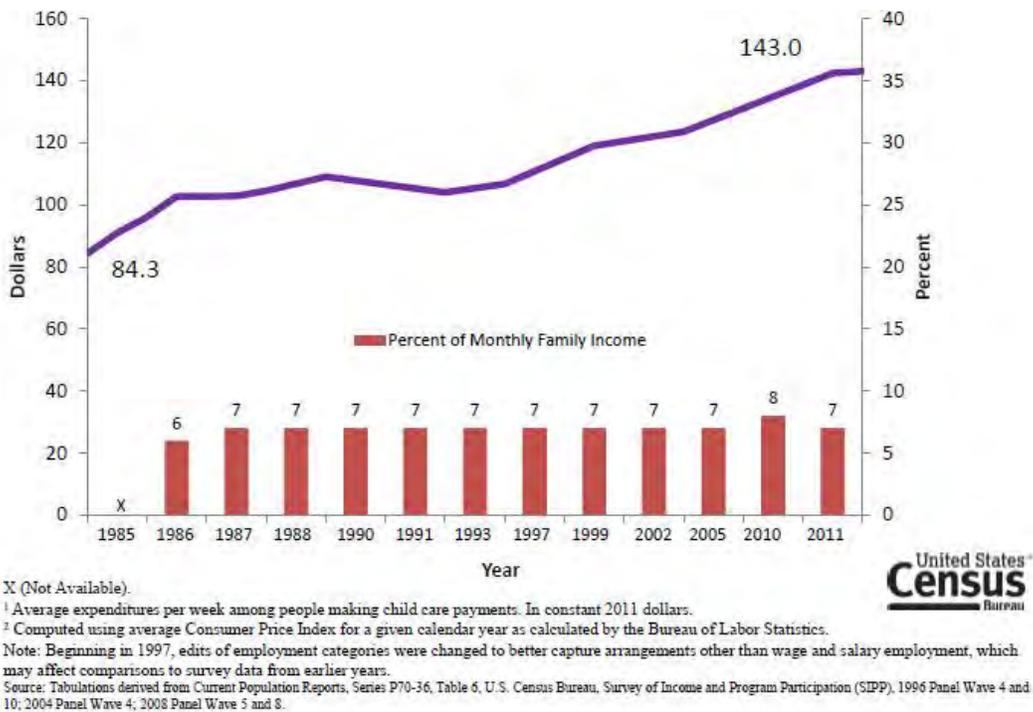


Figure 2. Average cost of child care 1986–2011 (from Census, 2012)

In the last quarter century, costs have almost doubled while the average salary for a child care provider has remained the same. “The median wage for a full-time child care worker did not increase over the last 20 years. The median wage for a child care worker in 2011 was \$19,098, not different from \$19,680 in 1990 (in constant 2011 dollars)” (Census, 2011). The DOD provides their child care workers with wages comparable to the civilian sector and varies depending on location. Additionally, the employees are paid

wages equivalent to those of other employees on the same military base with comparable training, seniority, and experience” (Government Accountability Office (GAO) 1999, GAO/HEHS-00-7). This is how the DOD has adjusted their policies to maintain a more stable workforce and not lose well-trained employees to the civilian sector. By maintaining a workforce with a lower turnover rate, they are able to increase the quality and reduce costs associated with training and hiring new employees at a lower rate than the civilian child care sector.

Even though the wages have not increased for the child care providers, the costs to run the facilities have increased. This can be attributed to increases in utilities and facility improvements. Most civilian child care centers now offer amenities such as wireless monitoring of the children and caregivers as well as improvements in activities to be more beneficial to the learning of the children. Costs will continue to increase for the basic maintenance of the facilities, and if wages for employees do not change, their costs associated with retraining employees who have turned over will rise.

We do not know how the improvements to facilities but not increasing the wages of employee’s affects the quality of the care provided in the civilian market. The costs could be offsetting where the facility improvements make the center better, but with high turnover and the average pay remaining the same, the quality of the people working in the care centers may be decreasing. We are unable to analyze whether the increase in facilities is of more importance or if lower wages affects quality more.

Costs associated with running the child development centers are close to uniform across the DOD. The Marine Corps has slightly cheaper costs associate with running their CDC’s but this is most likely attributed to the areas that they are located in. The Navy and Air Force have the highest costs associated with running their child care centers, but according to RAND this is negligible when compared to the other services. The costs at larger installations have the best return on investment per child, while the costs at smaller installations have higher costs per child. The differences between large and small installations are due to the economies of scale associated with the larger bases and their ability to consolidate costs to the bigger centers.

Quality may be the hardest aspect of child care to gauge. Every study on quality child care uses different metrics to measure kind of care that is being received, but without a doubt quality does matter. Across the nation “most observational studies to date suggest that much of family child care is of “adequate” quality” (Morrissey & Banghart, 2007). Adequacy may be a good metric to use for child care in general, but the DOD strives to provide more than an “adequate” child care situation, but also a superior form of child care. According to DODINST6060.02 “CDP’s provide access and referral to available, affordable, *quality* programs and services that meet the basic needs of children, from birth through 12 years of age, in a safe, healthy, and nurturing environment.”

There are several systems in place to measure the quality of child care that is present in child development programs. The systems either measure physical characteristics; child to adult ratio, group class size, caregiver formal education, and caregiver specialized training, or abstract characteristics; sensitivity to children’s needs, interaction with children, intellectual and environmental characteristics, engagement, punishment, warmth, and responsiveness (Vandell, 2000). All of the systems take into account health and safety to the children. This seems to be a universal constant that is present in all child care options. If the center is not safe and does not have a certain standard level of cleanliness/health standards, the center has a negative effect on the children and has the ability to undermine any positives that are achieved by utilizing child care. Conversely, if the center has superior health/safety and educational aspects they have a great effect on the children and their development.

Using the Vandell study as a model for costs associated with quality, we see that by increasing the average education of the teaching staff there is a 3.4% increase in total costs, including the additional 5.8% increase in wages for having a higher level of education (2000). With this increase in wages associated with education there is a .6% decrease in center total costs. There is an inverse relationship with increasing the amount of education present for the centers and the costs associated with running the centers. As the quality of the staff increases, the costs associated with running the centers decrease. This inverse relationship is interesting and makes sense. It would seem that as the care givers become more educated they are able to provide better care at less cost overall. A

small investment in the education of the caregivers leads to a decrease in overall operation costs to the centers.

C. OTHER FACTORS FOR CONSIDERATION

There are several external factors that influence and impact child care programs. Some of these factors are long term outcomes, while others deal with short term impacts. Both short and long term impacts of child care can be attributed to the children as well as the parents of the children participating. Child care programs have been extensively studied and all studies find different factors that they then attribute to the outcomes that are generated. In general it is said that those who receive early childhood education and care, are better set up for the challenges they will face throughout their lives and the parents of these children are able to function better, knowing their children are receiving adequate child care.

1. Absenteeism

The MacGillvary and Lucia study shows that parents who have access to reliable and affordable child care, have reduced absenteeism, turnover, increase their productivity as well as increase economic output, jobs and tax revenue through the multiplier effect spending has on other industries outside of child care. The study estimates the increase in purchasing power of those parents who are able to fully participate in the labor market to be \$26.4 billion per year (MacGillvary & Lucia, 2011). The study shows that for every one dollar spent in the child care industries, two dollars in economic output are returned. Because a large number of naval bases are located in California, the amount of investment and the return on those investments should be very closely correlated. This economic impact may not be directly attributed to the DOD as increases in revenue, but with increases in productivity and decreases in absenteeism, the DOD clearly benefits from having a more engaged workforce.

According to the Mazurkiewicz study, “the average working parent in America misses five to nine days of work per year because of child care problems” (Mazurkiewicz, 2010). Although the CDC’s do not allow you to leave children that are sick, all cases of absenteeism can not be attributed to illness. Parents who have difficulty

finding reliable child care may miss several days due to these issues as well. Military members are paid a salary, so missing days does not directly correlate to decreases in their spending power, but it can be associated with decreases in productivity that must be accounted for by other military members covering for the work that needs to be completed by a member missing work. The cost of missing work because of child care problems “costs U.S. businesses \$3 Billion a year in lost productivity” (Mazurkiewicz, 2010). Being able to have reliable access to child care is something that enables parents to work the required hours, learn the requisite skills necessary to perform their jobs, and perform their duties in a way that decreases absenteeism and allows for them meet both work and family obligations. As the MacGillvary study showed, “it was found that 40 percent of the employees who used the business-supported depend care reported feeling less stress and worrying less at work about their families; 35 percent reported being better able to concentrate at work; and 30 percent reported having to leave work less often to deal with family issues.” (MacGillvary, 2000, p. 13) All factors we have found show that having reliable family care is directly attributable to being a better worker and having higher job satisfaction, which translates to better, more engaged and devoted employees.

2. Women in the workforce

A couple of the biggest impacts to the military in the last few decades has been the advent of the all volunteer force and a substantial increase in society’s view of women working. The forces have trended away from mostly single males and towards career-oriented individuals with families. As of 1985 “about 60 percent of enlisted personnel in all Services were married, about 43 percent were married with children, and about 3 percent were single parents Seventy-five percent of officers were married, 60 percent were married with children, and 2 percent were single parents” (Campbell et al. 2000, p. 5). As these changes have happened, the number of enlisted women and officers has increased as well as the number of dual military couples (Campbell et al., 2000). This represents an increase in purchasing power for these families as well as an increase in the amount of child care that is needed for these families.

Another issue with due to the increase of women in the workforce deals with the difference in pay attributed to men and women. As the MacGillvary study stated, women's careers are interrupted more than men's when there is a child brought into the family. Women's work history suffers when there is a gap in their work history. This gap is sometimes directly attributed to the birth of a child and the lack of reliable child care. Workers careers can be interrupted when there is unreliable, unaffordable, or unavailable child care (MacGillvary, 2011).

3. Future Returns to the Children

Early childhood education is able to directly attribute improvement in the child care to improvements in performance later in life by the children. By improving the skills of the future workforce the U.S. could be strengthened in more ways that just an improved balance sheet. The GDP will increase as more skilled laborers enter the workplace, poverty will decrease as workers earn more, and the U.S. will strengthen its position globally in terms of competitiveness (Lynch, 2004). The future benefits from child care will directly improve the United States and have a positive effect on the economy as well as the entirety of the country.

Children who attend some sort of early childhood education are more likely to attain higher levels of education. Parents, who are able to maintain a more stable job, tend to provide a more stable home environment for their children as well as spend more money on child care. As Lynch stated, "even economists who are particularly skeptical about government programs make an exception for high-quality ECD programs. Follow-up studies of poor children who participated in these programs have found solid evidence of markedly better academic performance, decreased rates of criminal conduct, and higher adult earnings than among their non-participating peers" (Lynch, 2004, p. vii). Although the study conducted was specifically directed at low income families, the military does have members who fall into this category. We can assume that if it is a large improvement for those who are poor, there must also be an improvement for those who are better off financially. The returns may be slightly different, but there is without a

doubt an increase in educational attainment and improvements to society at large. Lynch found that those who participated in high quality child care over the long term had:

- Higher levels of verbal, mathematical, and intellectual achievement;
- Greater success at school, including less grade retention and higher graduation rates;
- Higher employment and earnings
- Better health outcomes
- Less welfare dependency
- Lower rates of crime
- Greater government revenues and lower government expenditures (Lynch, 2004, p. 3–4)

By improving the skills of the future workforce the U.S. could be strengthened in more ways than just an improved balance sheet. The GDP will increase as more skilled laborers enter the workplace, poverty will decrease as workers earn more, and the U.S. will strengthen its position globally in terms of competitiveness (Lynch, 2004). The future benefits from child care will directly improve the United States and have a positive effect on the economy as well as the entirety of the country.

4. Health

Improved health is a difficult aspect of child care to measure. The most likely cause of the improved health will be due to the increased income and ability to live in better conditions and afford healthcare when it is needed. For the military members participating in child care options, TRICARE is able to cover any health issues that arise. This is not something that is necessarily present in the civilian market, especially amongst the lowest income people. With the implementation of the Affordable Care Act (ACA), theoretically everyone in the U.S. now has the ability to receive the same health care benefits. Healthcare costs for DOD members, specifically active duty military and reservists, may not be useful in any comparison due to military TRICARE. Active duty members and family have the ability to use TRICARE to cover most, if not all, expenses related to healthcare. We can assume that the people using CDC's, for the most part, are active duty members and have had sufficient, if not superior, healthcare available to them. Due to the ACA and TRICARE the advantages from improved health should be

equal across both systems now. It can be said that if a child has better health though, they are able to achieve more than those who are deficient.

The benefits of health generated from early child care are seen most prominently in the low-income single parent families. Although this does not represent the DOD at large, there is 5.2% of the military population who are single parent families. We can assume that some of these people fall into the category of low-income. Refer to Figure 1. for more information on make-up of the military.

5. Legislation

According to OMB Circular A-76, the federal government can outsource an activity to a contractor following a competitive bidding process only if the contracted costs are at least 10 percent lower than the government's proposed cost (OMB Circular A-76). This would require local child care centers to compete against the DOD's CDC, FCC, and SAC programs to provide child care services. With the large percentage of child care being implemented in non-institutionalized homes, this would be a difficult process to undertake for most organizations. Only the largest child care centers would be able to put in a competitive bid against the DOD. Currently DOD child care is provided for with a cost of \$6,699 per child per year across all care settings, while civilian institutions offer care at a cost dependent on quality of the institution. RAND found that low cost installations the cost was being provided for infants at \$7,000/child/year while at high cost installations, the cost was \$20,000. Infants require the most attention and have the lowest number of children per caretaker ratio. The Navy's cost per child at child development centers is near the lower end of cost. This is a good area to be considering the quality of DOD child care facilities is considered higher than that of their civilian counterparts.

Table 12. Cost/child/year in each care setting

Care Setting	Total Cost	# of Children	Average Cost/Child/Year
CDC	\$128,399,611	11210	\$11,454
FCC	\$17,424,511	6972	\$2,499
SAC	\$14,986,386	5823	\$2,574
Total	\$160,810,508	24005	\$6,699

As the CDC's have undergone competition from civilian institutions, the DOD has used the information they have attained to streamline their own institution. The DOD has realized that there is a large organizational overhead associated with running of the CDC's, FCC, and SAC programs. Because of these associated overhead costs, the Navy has localized the administration to regional commanders instead of leaving the administration to each individual base. The administrative burden is now split between three regional commanders at Navy Region Mid-Atlantic, Naval District Washington, and Navy Region Southwest.

Part of the reason that the DOD is able to provide such affordable child care to its employees is due to the subsidies the central government provides to the child care organizations. If a similar subsidy were provided for in the public sector, it would be substantially larger. There is no guarantee that the rise in subsidy for civilian organizations would decrease the overall costs enough for them to meet the 10% decrease in costs necessary for them to compete against the DOD programs. As the RAND report found, the goal of the DOD's child care is to provide *affordable* child care to military families. The DOD does this through a substantial subsidy, which varies with child age, and the subsidy is most generous for the parents of infants. The DOD has done a good job achieving affordability while not sacrificing quality. For a similar civilian institution, it would be difficult to meet the same standards the DOD has been able to achieve without also receiving a substantial subsidy as well.

D. POLICY CHANGE PROPOSAL

The policy changes we will analyze and propose will be to increase the size of the CDC, SAC, and FCC programs, build more facilities to handle the large waiting lists, or

provide a subsidy to families to find outside child care options. We believe these are the three most likely scenarios for a change to the current DOD offered child care options. While this list is in no way comprehensive, it is a good starting place for a discussion on changing the current system.

All of the funding for these options would have to come from appropriated funds provided by congress to the Navy. For some of the options it would be 1 large increase to cover construction costs and then supplemental increases each year to cover the additional salaries. For the subsidy option, it would be an ever changing amount appropriated to cover the subsidy.

1. Increase Capacity

For the Navy to cover the waiting lists that are currently present they will have to look at several options at how to cover this. The two most obvious answers are to increase the number of employees and/or expand the size of the current facilities. Both of these options will involve a substantial investment from the Navy to cover the increased costs to employ the additional employees. These costs will be in background checks, healthcare cost, training, insurance, and the additional salaries these employees will incur.

If the Navy decides to increase the size of the current centers, they will incur the costs associated with expanding the centers. These centers will be under construction for some time and might require unconventional child care until the additions to the facilities can be completed. These expansions may also require additional land purchases or conversion of existing land to hold the now larger facilities.

These new, larger facilities will need to be of sufficient size to cover the current wait list as well as projected increases as families continue to grow. They will be able to fall under the command structure already in place and should not be an additional administrative burden except for the required paperwork to put the new children into the child care setting. These children are already presenting a burden administratively to the child care centers due to them having to account for them and provide additional outside resources to cover the child care needs.

2. Build More Child Care Facilities

The second option for policy changes would be to build more child care facilities. These new facilities represent the largest cost the government could face, but offers new, high quality facilities. In addition to building these facilities, the Navy will also need to find child care providers to staff these centers. These new employees will have to be trained, certified, and administratively added to the system.

For building more facilities, the Navy will have to find the appropriate land near their bases, which could be a substantial cost, if the new facilities are in already expensive areas such as San Diego, Los Angeles, or Washington, D.C., They would also absorb the construction costs. These construction projects could be outsourced to other organizations or the SEABEES could be put in charge of designing and building these new sites.

The overhead associated with operating these new facilities will also increase. The new facilities will need power, water, and sewage as well as be taken care of administratively. The new facilities very well could add to the burden of the existing command structure and need additional employees to cover the increases in the administrative burden for management.

3. Provide a Subsidy

There are two options when it comes to subsidies that could be applied. The first option is to subsidize just those on the waiting list to cover the child care need, while the second option would be to completely subsidize the child care and do away with CDC's entirely. The first option handles the excess children we do not have room for in the current setup, while the second still covers all children, but removes some jobs and the ability for the government to manage their own child care system.

Figure 2 shows the impact on work when employees were given a subsidy to offset child care costs. Across the board, no matter what the subsidy was, the parents all viewed a subsidy as a good investment that improved their overall performance. This would be true for those in the DOD as well if a subsidy was provided. The current child

care system offers a subsidy that is not seen by the parents. The funding is currently split between APF and NPF. The APF are the subsidy that the parents receive indirectly.

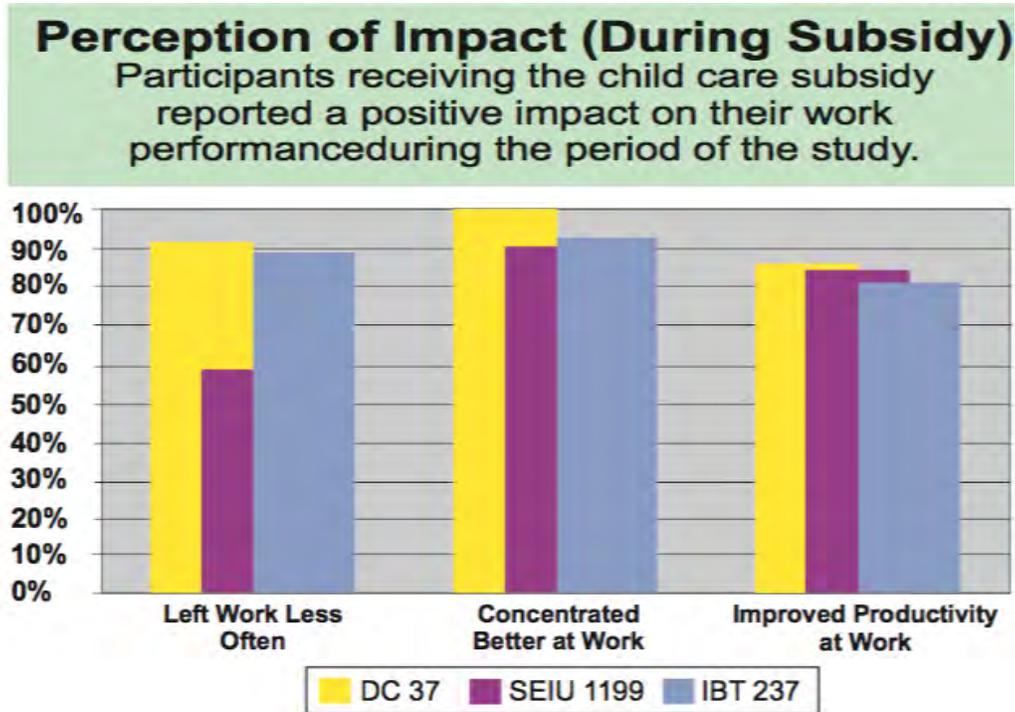


Figure 3. Perception of impact during different types of subsidies (from Mazurkiewicz, 2010, p. 2)

For the first option in subsidizing the children on the waitlist we discovered the costs would be from \$20,223,000 to \$57,780,000. We calculated this using the high and low level costs of the RAND report for quality child care. We then took the current waitlist and multiplied the numbers of children present for each one to get the range. This subsidy would be per year and need to be added into the budget.

Table 13. High and Low end estimates for subsidizing waitlisted child care

Age Group	Low end	High end	Wait list	Total (Low End)	Total (High End)
Infant	\$7,000	\$20,000	1861	\$13,027,000	\$37,220,000
Pre-toddler	\$7,000	\$20,000	482	\$3,374,000	\$9,640,000
Toddler	\$7,000	\$20,000	291	\$2,037,000	\$5,820,000
Pre-school	\$7,000	\$20,000	225	\$1,575,000	\$4,500,000
School-age	\$7,000	\$20,000	30	\$210,000	\$600,000
Total			2889	\$20,223,000	\$57,780,000

For the second option of getting rid of the CDC, SAC, and FCC options, the costs to subsidize the children completely on the economy would be between \$188,258,000 and \$537,880,000 again using the RAND report for high and low amounts. This would cover all 24,005 children currently in the system as well as the children on the waitlist.

Table 14. High and low end estimates for subsidizing all children currently on the wait list and in center care

Care Setting	Low end	High end	Capacity	Total (Low End)	Total (High End)
CDC	\$7,000	\$20,000	14099	\$98,693,000	\$281,980,000
FCC	\$7,000	\$20,000	6972	\$48,804,000	\$139,440,000
SAC	\$7,000	\$20,000	5823	\$40,761,000	\$116,460,000
Total			26894	\$188,258,000	\$537,880,000

These are substantial costs that the Navy would have to plan for and subsidize each year to offer the same level of child care they currently offer if this option were the one to be chosen. This is not a practical solution when the current costs in APF are \$85,207,727 and the cost to subsidize would cost anywhere from 2.2 – 6 times as much to the Navy.

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VI. CONCLUSION

After analyzing the data provided for Navy Regions Mid-Atlantic and Southwest and Naval District Washington and comparing it to that of similar private sector child care programs, it can be determined that Navy provided child care is a benefit to the families using it and the Navy. An analysis of overall quality of care was an element that was noted as being very difficult to analyze in a number of studies we reviewed during our research. Our basis for the quality of the child care provided was based on whether the program was certified by a national institution, such as the NAEYC, and internal published assessments.

The short-term benefits of Navy provided child care are seen most by the participating families and the Navy. Navy CDCs are an effective force readiness tool, and can be considered an indirect retention measure. By providing high-quality, reasonably priced child care to its Sailors and civilian employees, the Navy is able to have a workforce that misses less work and is not distracted by outside concerns while at work. Knowing that your child is being taken care of by a well-trained and educated staff is considered a great relief to parents that must work outside the home. As more women enter the work force and the number of dual military couples continues to increase, the need for the Navy to provide child care at a reasonable rate, that is safe, high quality, and easily accessible will continue to grow.

If the Navy were to divest itself of the role of child care provider and contract it out or provide a subsidy for parents to choose a private sector provider, it would have less control over the quality of care provided and the level of education and training the providers have. This option is also very expensive and leads to changes having to be made in the way the Navy uses appropriated funds. Since the passage of the MCCA in 1989, child care provided DOD wide has greatly improved. Outsourcing could cause that improvement to reverse. It has been recognized by other services that outsourcing would not be cost effective in the long run, for both parents and the services. Another drawback to outsourcing is that the jobs currently provided to military spouses in the CDCs would no longer be available, and military spouses would not be given hiring preference like

they are now (Zellman & Gates, 2002, p. 18). This is an added benefit to the Navy and the families. Some of these parents would be able to work in outside child care facilities, but that is completely dependent on the local market, and takes the option out of the hands of the Navy.

With the new hiring initiative due to extending operating hours, the Navy should look into expanding its CDC facilities in order to accommodate the wait list that it is currently carrying. As of the writing of this project, the three regions studied had a wait list of 2,889 children. This wait list is for all CDCs and age groups studied. It should be understood that some of these children are on the wait list because their parents were proactive in signing them up prior to a Permanent Change of Station (PCS) or birth and will be accommodated upon moving to their new duty station or turning six weeks of age. Those that cannot be accommodated are given the option to attend an FCC/CDH while on the waiting list. This option is often used in high fleet concentration areas such as Norfolk and San Diego where the wait lists for certain ages is extensive. A further incentive to expand is that by adding more children to a program, the costs per child are reduced (Zellman & Gates, 2002, p. 41–42). By expanding the child care programs and facilities, the Navy will be able to leverage the economies of scale to decrease the cost per child and accommodate the increased size of the wait list.

The new initiative for increasing the hours at child care centers is being rolled out by the Secretary of the Navy. These new hours will require an increase in funding to cover the extended operations. While we do not know what the future cost to parents will be in terms of fee increases, we can assume that it will not be too substantial as to decrease participation. The cost of completely subsidizing child care for the Navy is far too expensive, and by changing the way they are currently being operated, the Navy is filling a gap in services.

When viewed as a whole, the benefits of quality child care provided by the Navy far outweigh the costs incurred by the Navy to provide it. Navy CDCs are a vital force readiness support program. If the Navy were to divest itself of this program, either by ending the program entirely or outsourcing it, Sailor readiness would greatly decline. This decline would be felt most intensely by operational commands that rely on a Sailor

to be deployable. It would also be felt by the local economy where a Navy base is located. Quality child care in the civilian sector is difficult to find and when found, usually has a lengthy wait list and high costs associated with it. By discontinuing the CDCs and providing a subsidy to pay for civilian care, the Navy would flood the civilian marketplace with new customers that would not be served as they were on base. By providing quality child care through the CDCs and FCCs, the Navy is filling a service that could not be filled by the civilian sector and has lasting impacts that cannot be overlooked.

In summary, the Navy's child care is top notch and a great benefit to those who use it and the Navy. The Navy should increase the current capacity of its child care facilities to accommodate the waitlist. This is the most economically feasible option and one that policy makers should take a closer look at. By increasing the current capacity, more families would be helped, the benefits to those families and the Navy would be amplified, and overall the investment in new facilities would be recognized very quickly.

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