

**The U.S. Air Force Transformed Approach to Military Family Housing: An
Organizational Routine Case Study in Change and Learning**

John S. Medeiros

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Matthew Dull, Chair
Margaret Cowell
Adam Eckerd
Anne Khademian
James Wolf

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ABSTRACT

In 1996, the U.S. Congress initiated a change to the Department of Defense (DOD) military family housing program. Applying organizational learning and change theories, this study of the Department of the Air Force (AF) reveals how the AF used \$617 million of federal funds and \$8.3 billion of matching private investment to significantly upgrade or construct and manage 53,323 AF family housing units. Using an outcome-oriented process tracing methodology, I examine the process changes, organizational structure modifications, and strategy adjustments the AF instituted to implement this latest attempt at providing military family housing. To understand how those adjustments occurred, this research uses organizational routine theory to help explain how organizations generate change by performing their day-to-day activities. This single-case historical study of AF family housing privatization, used process tracing to identify five primary organizational routines that determine when there is a minimally sufficient explanation of how the AF learned and changed while privatizing the existing military family housing stock. These organizational routines help to clarify the organizational strategy, implementation process, and structure changes that emerged during privatization to address the quality, quantity, affordability, and timeliness of AF military family housing. The AF approach to transforming military family housing might be applicable to other publicly funded housing programs.

Dedication

I dedicate this research to the men and women of the U.S. military. You deserve the very best our nation can provide as you defend the freedoms your fellow soldiers, airmen, sailors, and marines protected and preserved before you. Quality family housing for you and your families is one small, but important enhancement to your quality of life while you deploy doing the nation's bidding. To the many people around the world who live in freedom's blessing because of you, thank you for your service.

Acknowledgements

During one of the interviews, one of the AF senior staff members mentioned about the DOD housing transformation “it’s one of the largest, if not the largest, quality-of-life programs the Department (of Defense) has ever initiated.” Thank you to the people who implemented the DOD military family housing privatization program. Your time, energy, creativity, and vision as you provide the best possible family housing for our troops is remarkable. You represent what is exceptional about our national commitment to taking care of our military families in an all-volunteer force. I also thank the many people who opened your military family housing treasure chest of information to make my research possible. To my committee, especially my committee chair, you were relentless in making sure I did not wander and stayed on task to complete this work. Lastly, I thank my wonderful wife, Della, for her support and willingness to let me pursue this academic adventure.

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Chapter One

Introduction

In 1995, the report of the Defense Science Board Task Force (1995) on military personnel quality of life explicitly linked the readiness of the armed forces to service member quality of life. This report identified the poor condition of military family housing across the Department of Defense (DOD) and specifically emphasized the shortage of quality, affordable family housing. At the time, DOD managed 387,000 housing units, and more than 65% of the housing was inadequate (Marsh, 1995). DOD defined inadequate housing as not meeting modern design standards, or unaffordable (Marsh, 1995; Office of the the Deputy Undersecretary of Defense (Installations and Environment) (ODUSD (I&E)), 2010). In addition, the Defense Science Board report (1995) identified the largest segment of service members, junior enlisted personnel, as the most vulnerable and underserved segment. The report highlighted the need for a transformed process that would reduce the time needed to improve the quality of family housing for all eligible service members (Marsh, 1995; Twiss & Martin, 1999).

The Defense Science Board report (1995) was significant for identifying the quality-of-life expectations of military families and their follow-on decisions to remain on active duty in an all-volunteer military force. First, DOD had been unsuccessful in resolving military family housing inadequacies and managing 387,000 family housing units (Marsh, 1995). Second, the delivery mechanisms DOD used to provide family housing provided limited capability to obtain the \$20 billion needed to improve the condition of existing housing stock (Else, 2001; Marsh, 1995). Last, the overall number of military members had steadily decreased since the end of WWII until the present day (Walker, 2013). While the number of DOD members decreased, starting in the 1970s,

service members began expecting quality, affordable housing and used it as a consideration for remaining in an all-volunteer military. Military members identified adequate military family housing as housing that provides a sense of community, is affordable, and meets quality and quantity standards (Marsh, 1995). The military members' perspective on housing as a significant component of quality of life and military leadership's desire to comply with the Defense Science Board recommendations (1995) drove DOD toward managing a housing program for excellence.

The DOD has a history, dating back to before the 20th century, of providing housing for military members (Baldwin, 1996). Starting in the 1930s, however, competing priorities from domestic and other defense programs severely constrained military family housing funding (Baldwin, 1996; Else, 2001). As will be discussed in a later chapter, for a variety of reasons, inadequate funding levels continued for the next 70 years.

Over the course of the intervening years, in an attempt to remedy inadequate housing conditions, DOD, along with Congress and private industry, explored the use of private capital to provide military housing. Beginning in the late 1940s with build-to-rent programs, then build-to-own programs in the 1950s, and eventually guaranteed housing lease and rental programs in the 1980s, the DOD had limited success using private equity for military family housing (Baldwin, 1996, 1998; Else, 2001). Budget deficits, Congressional partisanship, and lack of mechanisms to provide adequate oversight hindered the use of private equity for military housing (Baldwin, 1996, 1998; Else, 2001). An attempt to remedy these problems and provide adequate housing to all

service members began in 1995 when the Defense Science Board (1995) assessed the impact of housing on troop retention in an all-volunteer military.

This dissertation uses organizational routine as a framework for examining the AF strategy, processes and organizational structure during implementation of the Defense Science Board recommendations (Marsh, 1995). The AF approach to transforming military family housing has many possible theoretical lens that provide research alternatives: organizational theory and governance (Feldman & Khademian, 2002; Goodsell, 2011; Ott, 2012; Wilson, 1989); the budgetary process (Wildavsky, 1974); public management and privatization (Chamberlin & Jackson, 1987; Feldman, 2005; Moe, 1987; Moore, 1995; Sullivan, 1987); public policy, analysis, and evaluation (Kingdon, 1995; Pressman & Wildavsky, 1984); economic perspectives on public organizations (Coase, 1974; Vining & Weimer, 2005; Williamson, 2010); public housing theory (Cisneros & Engdahl, 2009; Crowley, 2009; Edson, 2011; Hunt, 2009; Husock, 2003; Schwartz, 2006); and there are others. This research approach is concerned with organizational learning and the transformed AF military family housing processes, strategy development, and organizational structure that changed because of that learning. Transforming the AF military family housing program and implementing a new approach to providing housing is a complex, often ambiguous and interactive public policy concern. Organizational routine theory, provided a reasonable approach to organizational learning and is the approach taken for this research.

The Defense Science Board report (1995) recommended a housing renewal strategy that was divided into three stages for a 21st century approach to providing military family housing:

- Foundation of change.
- Review and revision of key pillars of change.
- Planning, organization, and establishment of an overall DOD military housing authority.

Using organizational routine as a theoretical lens, the researcher considers how AF strategy, process, and structure evolved during the AF transformation of military family housing that began in 1996. The overall DOD approach included using private equity to privatize military family housing under a program called the Military Privatized Housing Initiative (MPHI).

The definition of privatization deserves some attention. Within scholarly literature, contracting out and outsourcing are contracting strategies often combined with privatization. The Office of Management and Budget (OMB) Circular A-76, Performance of Commercial Activities, governs the federal uses of these types of acquisition strategies.¹ Since OMB Circular A-76 was instituted in 1966, the policy of the federal government has been to rely on and not compete against the private sector for commercial services when economical (OMB Circular No. A-76, 1999). However, the economic effectiveness of the OMB A-76 policy has been the subject of debate (Moe, 1987; Warner, 2008). Some proponents view the policy as a catalyst for competition in the marketplace and as the vehicle to increase efficiencies, lower costs, and encourage

¹ Within the OMB Circular A-76, Performance of Commercial Activities, outsourcing and contracting out are used interchangeably and represent synonymous contracting/acquisition strategies.

technological advancements (Shafritz & Hyde, 2012). Opponents tend to view OMB Circular A-76 as an effort to dismantle what has been traditionally the proper role of government, often referred to as inherently governmental (Grasso, 2005; Moe, 1987).² Since the early 2000s, contracted out or outsourced commercial services are increasingly being reversed for a variety of reasons including cost, accountability and control, effectiveness and quality of services, employment impacts, and inherently governmental responsibilities (Luckey, 2009; Sullivan, 1987; University of Maine, 2008; Warner, 2008).

For the military family housing privatization initiative, DOD does not contract out or outsource commercial services or inherently governmental responsibilities. This distinction is important, since the legal basis for DOD housing privatization is not a contract mechanism, but rather a real estate lease agreement; therefore, housing privatization is subject to real estate law and not contract law. In essence, the federal government leases federal land to a developer for the developer to own, operate, maintain, sustain, and recapitalize the developer owned housing units. The developer does not determine the military member's eligibility, housing allowance, housing requirement, or market; privatization legislation required the federal government to continue performing those functions as inherently governmental (National Defense Authorization Act for Fiscal Year 1996).

Since the functions DOD includes in the housing privatization real estate transaction are neither inherently governmental nor a commercial service, they are not subject to the OMB Circular A-76 Performance of Commercial Activities (Grasso, 2005).

² The Federal Activities Inventory Reform Act (FAIR Act), Public Law 105-270, defines inherently governmental as so intimately related to the public interest it mandates performance by federal employees.

Specifically, housing privatization legislation provided for the transfer and leasing of federal property to real estate developers as part of a 50-year real estate lease agreement, not as part of a commercial services contracting transaction (National Defense Authorization Act for Fiscal Year 1996). Once DOD enters into a lease agreement with the privatization developer, DOD divests housing infrastructure that then becomes the property of the developer to own, operate, maintain, sustain, and divest (Executive Order 13327, 2004), and the inherently governmental functions of determining housing allowances, housing eligibility, and housing stock requirements, and performing private market analysis remains with DOD.

To implement the Defense Science Board recommendations (1995), the DOD, as part of a legislative proposal, set a goal to eliminate military family housing inadequacies by 2006 (Else, 2001). The parties involved in providing DOD housing recognized reaching this goal was unattainable given the lack of available federal appropriations at the time, inadequate existing legislation, out-of-date housing size and amenity standards, and a limited understanding of the housing deficit DOD-wide. In 1996, prompted by an under-resourced, inefficient, and outdated delivery system for military housing, Congress established the bipartisan Military Housing Privatization Initiative (National Defense Authorization Act for Fiscal Year 1996).

Using a case study, this dissertation considers how the AF institutionalized privatization of its family housing stock. The analysis specifically examines how the AF upgraded and repaired or replaced 53,323 family housing units through the use of housing privatization as an alternative housing delivery mechanism (Air Force Civil Engineer Center (AFCEC), 2013). To understand housing privatization, and how the

most recent approach changed the way the AF provides housing for military families, the researcher examines the process changes, organizational structure modifications, and strategy adjustments made by the AF. To understand how the adjustments occurred, the researcher uses organizational routine theory to explain how organizations generate change by performing their day-to-day activities (Feldman & Pentland, 2003). These organizational routines help explain how the AF organizational strategy adaptation, implementation process improvement, and structure modifications for housing privatization evolved to address the quality, quantity, affordability, and timeliness of military family housing.

Data gathering occurred in two stages. First, documentary data was gathered from archival records, interviews, direct observation, program documents, and participant observation. These sources helped frame the historical DOD housing program and highlighted the various attempts by DOD and the private sector to provide housing for military members. Presidential executive orders, budgetary guidance, and the Defense Science Board report (1995) helped link data on the impact of family housing on military quality of life. These sources offered insights into DOD housing programs regarding enabling legislation, financial status, execution strategies, milestones and implementation goals, and overarching policy guidance and directives. This first phase of data gathering was important in establishing a housing privatization perspective and background for designing questions for use during one-on-one interviews in the second phase of the research. The first phase also was instrumental in identifying organizational routine as a theoretical lens for the researcher's observations (Feldman, 2000; Feldman & Pentland, 2003). Just as important, this first

phase helped establish AF housing privatization organizational routine as a unit of analysis for this research and helped the researcher select an investigative, outcome-oriented approach to process tracing as the research methodology (Beach & Pedersen, 2013; Pentland & Feldman, 2005).

In this initial phase of research, data collection focused on existing data from housing privatization performance, program management, and historical context. The most meaningful data provided insight on financial and program performance, previous housing privatization program organization, and structure, processes, and strategy. Collected data also focused on adequacy of housing stock and programmatic issues, determination of housing standards and amenities, and enabling legislation or congressional oversight investigations. This data established the framework for questions in follow-on interviews with DOD and AF housing privatization senior staff, program managers and housing residents.

Questions developed for interviews with housing privatization program managers and oversight officials included financial indicators, program assessment, quality-of-life objectives, and long-term viability of privatization. For military members who lived in privatized housing or in local community housing, interviews included questions about the value of privatized housing compared to local market housing, quality of privatized housing, and comparative data to previously occupied DOD housing or private-market housing.³ The research and data gathered from the initial phase and during interviews eventually revealed five causal mechanisms that are discussed in Chapter 5. These causal mechanisms led to identification of housing privatization organizational routines that influenced the processes, organizational structure, and execution strategy that most

³ A full accounting of the research questions is included in the research protocols in Appendix A and B3.

significantly changed during the AF implementation of housing privatization. The five causal mechanisms for housing privatization, identified by using an outcome-oriented methods approach, helped the researcher understand privatization implementation from an organizational routine perspective (Beach & Pedersen, 2013).

The second stage of data gathering involved interviewing individuals involved in housing privatization and reviewing source program documents to validate interview data. Individuals were interviewed for a variety of reasons and selected mostly for their responsibilities and experience with military family housing privatization (see Table A1 for an accounting of the 21 interviews and the subjects' involvement in military family housing privatization engagement areas). Several senior program official interview subjects included Congressional, OSD, and AF staff members who authored the original 1996 housing privatization enabling legislation and the 2006 permanent legislation (National Defense Authorization Act for Fiscal Year 1996; National Defense Authorization Act for Fiscal Year 2006). Other interviewees were in the Office of the Principal Assistant Deputy Undersecretary of Defense (Installations and Environment) and the OSD privatization offices. AF senior executive service and staff members from the AF Housing Privatization Executive Steering Group and from the AF central program office were also interviewed. Private developer interviews included persons located on military installations with housing privatization projects as well as persons identified during previously conducted interviews. Housing resident interviews included military members and their families who currently or previously lived in government, privatized, or local community housing.

The data collected for this phase concentrated primarily on the AF from an organizational strategy, structure, and process perspective. Additional interview subjects included housing residents, program oversight individuals, and housing developers involved in day-to-day operations of housing-privatization projects. During the interview process, archival, program management, and process documentation provided validating data that added clarity and depth to previous data collected and to how organizations learn and change by constantly updating and refining organizational processes, strategy and structure (Feldman, 2000; Feldman & Pentland, 2003; Jarzabkowski, 2008; Mintzberg & Waters, 1985).

The interviews and documentation provided insight into how projects evolved from decentralized execution of projects into a more centrally managed program. Data recounts how the AF processes, organizational structures, and strategies changed from disparate organizations and structures to consolidated project oversight and a centralized portfolio management activity that could oversee and apply lessons learned across the entire AF housing privatization program (HQ U.S. Air Force Installations, Logistics and Engineering (HQ USAF ILE) 2001).

In Chapter 2, this dissertation establishes the context of the research setting by briefly identifying the state of military family housing before the 1995 housing privatization initiative. This chapter discusses previous attempts to provide family housing and highlights the major components of the previous programs to privatize military family housing. Previous programs such as Wherry Housing and Capehart Housing privatization efforts, build-lease and rent-lease guarantees, and traditional

military construction highlight DOD's previous attempts to provide housing for military members and their families (Baldwin, 1996; Else, 2001).

Chapter 3 defines the broad elements of housing privatization. This chapter presents why housing standards, understanding the local housing market dynamics and availability of adequate, affordable housing is essential in defining military family housing needs. Financing, revenue streams, and motivated developers are the core component to making the 50-year real estate lease agreements work. Yet, housing privatization goes beyond brick and mortar structures; multiple interviews with residents living in privatized housing reflect aspects of privatization such as quality of life and the importance of community. Additionally, the interviews addressed the responsibilities and accountability of the people who manage the day-to-day activities of privatized housing. This chapter frames the perspectives of residents, developers, and administrators. In particular, the sense of community, commitment to quality of life, building military member personal wealth, and sense of purpose is important to them as they made choices to reside in, and manage and operate AF privatized housing.

As a retired AF colonel and the son of an AF officer, the researcher lived in Wherry Housing, Capehart Housing, and historical AF housing. Throughout his career, he often exercised options to live in local communities as well. As an AF officer, he commanded a variety of military organizations and negotiated single- and multiple-location privatized housing agreements to leverage federal appropriations for housing privatization while assigned at installation, intermediate headquarters, and Air Staff organizational levels.

Chapter 4 shifts to the basis for the theoretical research and introduces the theoretical lens and framework that guided the research. Organization theory provides the foundation for the theoretical lens and, specifically, organizational routine helps explain how people in the AF housing privatization program generated change by performing their day-to-day activities (Feldman & Pentland, 2003). Also introduced in this chapter are reciprocal relationships and emergent strategy as well as how organizational strategies resulting from individual behavior and action evolve over time (Jarzabkowski, 2008; Mintzberg & Waters, 1985). Jarzabkowski's (2008) reciprocal relationships and emergent strategy and Mintzberg's and Waters' (1985) evolving organizational strategies are complementary to Feldman's and Pentland's (2003) organizational routine theory.

By adapting Feldman's (2003) theoretical framework on organizational interaction of performance and understanding, the researcher develops an AF framework for housing privatization. The framework conceptualizes how organizations allow agents, through their day-to-day activity, to change performance of organizational routines (Feldman, 2003). The research considers a theoretical framework capturing how organizations establish structures, processes, and strategies for program implementation and how conditions might change throughout a program's lifetime.

Since this dissertation investigates a single-case study for the outcome of the AF implementation of military family housing privatization, process tracing was used as an outcome-oriented methods approach. Chapter 5 centers on how process tracing, as an investigative, outcome-oriented method, provides an adequate and minimally sufficient accounting of the most important aspects of how the AF implemented housing

privatization (Beach & Pedersen, 2013). The investigative, outcome-oriented approach uncovered five causal mechanisms that contributed to AF housing privatization implementation and directly links to the five organizational routines that influenced the outcome.

The causal mechanisms uncovered by using an outcome-oriented process tracing methodology are:

- Structuring governance processes.
- Collaborating and developing competency.
- Structuring real estate leases.
- Validating and managing business processes.
- Financing.

The one-to-one mapping analysis of these five causal mechanisms guided data collection and led to discovering how the five organizational routines changed during housing privatization implementation. These five organizational routines are discussed in Chapter 7 and are presented in Table 7.1.

In the data analysis in Chapter 6, the theoretical framework and methodology guide the AF housing privatization initiative research. This dissertation indicates, within the AF housing privatization program, that organizational routines allow the day-to-day activities to act as incubators of change that influence overall program change (Feldman, 2000; Feldman & Pentland, 2003). At the same time, AF organizational dynamics allowed interaction between higher and lower levels in the organization where opportunities for change in organizational routines resulted in improvements to the overall housing program implementation (Feldman, 2000; Feldman & Pentland, 2003).

This analysis strengthens the organizational routine approach as a framework and provides insight into how organizational routine processes, strategy, and structure evolved during the first 15 years of AF housing privatization implementation.

Chapter 7 maps the causal mechanisms and organizational routines across the theoretical lens and framework. Process tracing as an outcome-oriented investigative methods approach helped identify the most significant, dominant and legitimate housing privatization organizational routines (Pentland & Feldman, 2005). The outcome-oriented investigative approach and the resulting organizational routines explore and define the minimally sufficient explanations of how AF military family housing privatization evolved over the first 15-years of implementation (Beach & Pedersen, 2013).

The five organizational routines reflect the most relevant AF organizational learning during housing privatization implementation (Pentland & Feldman, 2005).

These AF housing privatization organizational routines are:

- Establishing one authority for developer selection.
- Establishing an AF housing privatization center of expertise.
- Combining multiple locations into a single lease.
- Centralizing operational oversight.
- Bundling leases across geographical regions.

Understanding these organizational routines led directly to the characteristic features that most affected AF learning. This analysis revealed the domination, signification, and legitimization of the five organizational routine characteristics (Feldman, 2003). Based on this analysis, the most meaningful organizational routine that led to organizational

learning was establishing one authority for privatization developer selection. This organizational routine proved to be the most dominant routine that cut across the lines of communication, origins of power, and program sanctioning internal to the AF and externally to the Office of the Secretary of Defense (OSD) and Congress (Pentland & Feldman, 2005). Largely, the developer selection routine allowed the remaining four organizational routines to evolve and advance at a faster pace than they would have otherwise. Uncovering underlying processes, resolving conflict, discovering sources of organizational power, overlapping organizational routines, standardizing procedures, idealizing organizational routines, and contesting the nature of organizational routines all have a place in the domination, signification and legitimization analysis of the AF housing privatization organizational routine structure (Pentland & Feldman, 2005).

This research reflects organizational change theory and suggests ways to advance the theory incrementally because of the insights this case study offers. While this research captures the theoretical implications of how the AF revised processes, strategy, and structure during the delivery and management of privatized military family housing, it also introduces an approach that others who provide and manage publicly funded housing programs might consider. Most significantly, this dissertation advances the research on military family housing, especially research on operating, managing, and funding military family housing privatization as a public housing concern. There is limited scholarly research on military family housing, and this research investigates the internal processes, strategies, and structure of a DOD program that, according to one senior official, is “one of the largest, if not the largest, quality-of-life programs the Department has ever initiated.” While this research is significant to the body of literature

on military family housing privatization, it also adds a unique perspective for all programs engaged in providing public housing. This research shows how organizational power shifts as organizational routines change and organizations learn through the dynamic interaction of people, processes, strategy and structure (Feldman & Pentland, 2003; Jarzabkowski, 2008; Mintzberg & Waters, 1985). The five fundamental organizational routines experienced by the AF might also apply at state, regional, county, municipal, academic, institutional, or public housing authority levels.

Of secondary significance is the theoretical contribution organizational routine might add to housing policy research. This, coupled with process tracing and the resulting causal mechanisms, demonstrates how organizational theory benefits from discovering the minimally sufficient basis for building a plausible explanation of how organizational routines evolve through the day-to-day activities of an organization. While this research investigated a single-case historical study, AF family housing privatization implementation, the five organizational routines might be applicable in a broader context or in theoretical research. The centralization of dominant organizational routines might also contribute to theory-building research where theories formulated as a causal mechanism might work within a bounded context (Beach & Pedersen, 2013). In this context, it might be possible to separate the centralization of organizational routines from this housing privatization case study and consider other spatially or temporally oriented case study research where understanding the outcome of a complex case study is the research goal (Beach & Pedersen, 2013).

The latest AF approach to providing housing for military members significantly changed the delivery mechanism, quality, quantity, and timeliness of family housing.

The results directly affect the military family's quality of life and the management and leadership of family housing programs on military installations.

Chapter 2

Military Family Housing as an Institutional Value

From early in their history the Armed Services accepted a commitment to provide government-owned housing for their members. Where government housing was not available, eligible service members received monetary compensation, called a housing allowance, to obtain housing in the private market.⁴ “After World War II, the Services had only a small stock of adequate military family housing units in the United States. During World War II, there had been little permanent construction, and upkeep of existing facilities had been a low priority” (Baldwin, 1996, p 4). Beginning in the early 1950s, the shortage of housing units grew larger during the Korean War and Cold War eras. To help solve the housing crisis, DOD acquired a number of units built by the Federal Public Housing Administration during World War II (Baldwin, 1996). These public housing units provided temporary housing for World War II workers and military family members. These housing units, originally built using temporary construction measures, quickly deteriorated and became unsuitable for military families to live in (Baldwin, 1996).

As an additional measure, to help alleviate the military family housing crunch, DOD constructed trailer parks and provided leftover wartime trailers to military members who could not afford to buy their own (Baldwin, 1996). In this post-World War II era, the DOD search for adequate, affordable housing for the military paralleled the civilian housing market where millions of veterans sought homes in a housing market

⁴ The military family housing allowance is based primarily on military rank and the rental cost of local housing. Allowance rates are updated annually and are paid directly to the military member. There are two rates: a single rate for military members without dependents and a with-dependent rate for military members with dependents. The number of dependents does not influence the with-dependent housing allowance rate.

constricted by almost 2 decades of depression and war (Baldwin, 1996). Concerned about morale and reenlistment and resigned that Congress would not appropriate sufficient funds to solve the problem, DOD sought new ways to address the Services' housing crisis (Baldwin, 1996).

In 1948, the Secretary of the Army met with representatives from insurance companies and encouraged installation commanders to meet with businesses in their local communities to see if private industry could help solve the housing problem. While the business communities were sympathetic, they considered building housing near installations too risky because the number of soldiers at the base could fluctuate or installations could close. Army local post commanders approached federal public housing officials and encountered the same response. The Federal Housing Administration could provide mortgage insurance to private developers who constructed rental housing, but in most cases, the agency could not certify that a housing project geared toward a military installation was an acceptable risk. By 1949, a long overdue program to address these issues and the military's housing crisis took shape. (Baldwin, 1998, p 5)

Early Attempts at Military Family Housing Privatization

Although there have been a variety of attempts to leverage private financing for military housing there were three key private sector housing construction initiatives, the first beginning in 1949 (Baldwin, 1996). Housing privatization efforts are generally grouped into mortgagee guarantees and leasing and rental guarantees (Baldwin, 1998).

The earlier privatization programs were primarily Wherry Housing, Capehart Housing, and Section 801 Lease Housing and Section 802 Rental Housing. All of these programs were plagued with problems ranging from technical and resource issues to political and diplomatic problems, and they ultimately were terminated (Baldwin, 1998; Else, 2001).

Wherry housing.

In 1949, under the Wherry program, named after Senator Kenneth Wherry, a developer arranged private financing and constructed homes on government-controlled land in return for rental to military personnel (Baldwin, 1996). Using standard housing floor plans, the Services applied to the Federal Housing Administration for an appraisal and eligibility statement to establish a maximum insurable mortgage, thereby creating the high-end value for an individual housing unit (Else, 2001). Bids were solicited and the lowest bidder was awarded a certificate of need which allowed the bidder to apply to the FHA for mortgage insurance (Else, 2001). The developer built the housing, retained the real property title, and rented to individual service members. A total 264 Wherry projects were built providing 83,742 housing units for the DOD (Baldwin, 1996; Killinger, 2010).

Problems with the Wherry program occurred immediately. The most immediate Congressional oversight problem was that developers built the housing on government land that transferred to developer ownership at the end of a 50-year lease period (Baldwin, 1996, 1998).⁵ In the beginning, construction costs were capped at no more than \$9,000 per unit with \$8,100 covered by the mortgage guarantee and \$900 covered

⁵ This oversight was corrected by legislation in 1950 where the real property and any improvements transferred back to the federal government at the end of the 50-year lease performance period.

by the developer (Baldwin, 1998; Else, 2001). As a business strategy, developers constructed housing units that cost, on average, \$8,100, an amount that was up to the mortgage guarantee amount but not the intended \$9,000 cap (Baldwin, 1998; Else, 2001). This approach resulted in windfall profits for developers and low quality housing for residents (Baldwin, 1996, 1998; Else, 2001). In addition, the developers did not properly maintain the units (Baldwin, 1998; Else, 2001). Since Wherry housing rentals were constructed primarily for the enlisted population, these problems resulted in housing standards and conditions that varied between locations and created inequities for residents (Baldwin, 1996, 1998). The rents, collected directly from the military members, were intended to service the mortgage debt, maintain the property, and provide a profit for the developer (Baldwin, 1998; Else, 2001). To cover these obligations, the rent usually exceeded the service member's housing allowance resulting in out-of-pocket expenses for service members (Baldwin, 1998; Else, 2001).

After a 5-year program life, between developers' windfall profits, rents exceeding military member housing allowances, and attempts to raise rents even further as expenses increased, Congress terminated the program in 1954, purchased the Wherry units, and turned the private rental housing into a government-owned and managed program (Baldwin, 1996, 1998) . The Wherry Housing units were sub-standard from the outset, so once the Services purchased the units, the Services needed to combine housing units to provide additional occupancy space and upgrade most of the units to improve quality (Baldwin, 1996).

As a whole, the Wherry program was a failure and even the combined and upgraded units continued to be energy inefficient, sub-standard, and under-sized

resource hogs (Baldwin, 1996, 1998). Even after the federal government took over ownership of the housing units, because of insufficient appropriated funds for replacement housing, most of the Wherry houses remained as sub-standard housing inventory (Baldwin, 1996). It wasn't until the early 1980s when increases in construction funds finally allowed demolition of the worst of the Wherry units and replacement with new, more modern (but too few) family housing units (Baldwin, 1996).

Capehart housing.

Wherry's successor, Capehart Housing, named after Senator Homer Capehart, was constructed similar to the Wherry program; however, DOD purchased the housing from the developer once construction was completed (Baldwin, 1996; Else, 2001). The Capehart Housing Act, passed in 1955, insured the mortgages on behalf of the private developers who, like Wherry housing, built the homes on government-controlled land (Baldwin, 1996; Else, 2001). The major difference was that once constructed, the federal government purchased the housing units to own, operate, and maintain (Baldwin, 1996, 1998; Else, 2001). Unlike Wherry housing, Capehart occupants forfeited their entire housing allowance to the government and then DOD paid single-mortgage installments to the developers (Baldwin, 1996; Else, 2001). The ceiling for Capehart construction increased to \$16,500 per unit; the larger units were more desirable than Wherry housing, and operation and management of the Capehart program ran much better than the Wherry program (Baldwin, 1996, 1998). The Capehart program had constructed more than 115,000 housing units for DOD by the time the program ended in 1962 (Baldwin, 1996).

There were two primary detractors to the Capehart program. Most significantly, the program created jurisdictional issues between competing Congressional committees and ultimately lacked the bi-partisan Congressional support it needed to survive (Baldwin, 1998). There were politically motivated accusations of mismanagement and fraud, but mostly it was the perception of backdoor spending and the drain on future budgets due to lack of program oversight and long-term budget obligations that effectively killed the program (Baldwin, 1996, 1998). Even after cancellation, by the early 1970s with continuing pressure on the defense budget, more than 25% of the housing budget was spent on Capehart housing mortgage debt (Baldwin, 1998). This drain on the housing account severely restricted funds needed to operate, maintain, sustain, and repair existing housing and stifled any meaningful replacement housing construction (Else, 2001).

Sections 801 leased and 802 rental housing.

Authorized by Congress in 1984, Sections 801 and 802 housing programs attempted to encourage the Service secretaries to enter into contracts with private developers to meet military housing needs (Baldwin, 1996). The Services used these programs sparingly. The Section 801 program provided build-to-lease guarantees and the Section 802 program provided build-to-rent guarantees (Baldwin, 1996). Due to the impact of the Office of Management and Budget (OMB) budget scoring of guarantees, both programs were costly to Service budgets and had nowhere near the impact of Wherry or Capehart programs in terms of the overall number of housing units provided

(Baldwin, 1996; Else, 2001).⁶ The OMB budget scoring would eventually affect the 1996 housing privatization program as well and will be discussed later (Else, 2001).

Conclusion

Since the beginning of the 1900s, DOD's commitment has been to provide adequate, safe, affordable housing for military members and their families (Baldwin, 1996). Due to constant budget pressures since the early 1930s, DOD could not find adequate funds to provide military family housing so they turned to the private sector to help finance, construct, and operate family housing (Baldwin, 1996, 1998; Else, 2001). Two earlier programs, Wherry and Capehart housing, provided significant housing units but proved inadequate over the long-term for budget and operating concerns so Congress terminated both programs (Baldwin, 1996, 1998; Else, 2001). In 1996, DOD turned to the private sector once again for help with financing, constructing, operating, and maintaining family housing units located in the United States and U.S. Territories (Marsh, 1995; National Defense Authorization Act for Fiscal Year 1996).⁷

Wherry and Capehart construction programs and Sections 801 and 802 lease and rental housing programs had relatively short life spans (Baldwin, 1996, 1998; Else, 2001). Each program employed a different approach for providing housing by leveraging appropriated funding with private developers (Baldwin, 1996, 1998; Else, 2001). Eventually DOD would need to provide for maintenance and repair of existing units, replace those that were substandard or had exceeded their service-life

⁶ Under Section 801 leasing projects, lease performance periods were generally restricted to 5 years. Five-year performance periods were too short to make lease agreements financially viable for the developers.

⁷ For enabling legislation purposes, Congress could only provide the expanded privatization authorities within the United States and U.S. Territories. The military housing privatization initiative did not extend privatization authorities to overseas locations.

expectancy, and provide housing where the local community could not meet the military housing need with adequate private housing stock.

Wherry failed because of service-debt problems, windfall profit gouging, and resident inequities (Baldwin, 1996, 1998; Else, 2001). Capehart failed because of political bickering, conflicting budget priorities, and mounting Vietnam-era and Great Society budget pressures (Baldwin, 1996, 1998; Else, 2001).⁸ The number of units constructed under Capehart and Wherry programs was 198,742 (Killinger, 2010). Combined, these two housing programs were the largest in DOD history; however, they created severe housing budget demands to service the debt, and the overall quality and size of the housing stock did not keep pace with evolving housing needs for the 21st century (Baldwin, 1996; Killinger, 2010; Marsh, 1995). Overall, Congress and the Services eventually recognized the preferred way to provide affordable, well-built, and well-maintained housing, while keeping developer profits under control, was to use traditional military construction funds (Baldwin, 1996, 1998). However, this approach had its budget challenges as well. The traditional appropriated military construction programs provided updated construction standards and improved operations, but insufficient long-term funds for DOD housing proved inadequate to properly upkeep and improve the housing units over time (Baldwin, 1996, 1998; Marsh, 1995).

⁸ For Wherry and Capehart housing programs, the AF lacked the central mechanisms to properly enforce the desired housing end state.

Chapter 3

Air Force Military Family Housing Privatization Program

Chapter 2 established the context of the research setting by briefly identifying the state of military family housing before the 1996 housing privatization initiative. Previous programs such as Wherry housing and Capehart housing privatization, build-lease and rent-lease guarantees, and traditional military construction highlight DOD's previous attempts to provide housing for military members and their families (Baldwin, 1996; Else, 2001; Marsh, 1995). This chapter defines the broad elements of housing privatization and explains why defining housing standards and understanding the local housing market dynamics and availability of adequate, affordable housing is essential in determining military family housing needs (Holman, 2006; Lepore, 2009; Marsh, 1995; Schuster, 2002).

Financing, revenue streams, motivated developers and affordability are the core component in making the 50-year real estate lease agreements work (HQ U.S. Air Force Office of of the Air Force Civil Engineer (HQ USAF A7C), 2012; Schuster, 2002). Yet, as this research identifies, housing privatization goes beyond brick and mortar. In particular, the sense of community, commitment to quality of life, building service member personal wealth, sense of purpose, and managing for excellence are important to residents as they make choices to reside in AF privatized housing. These attributes also figure into the planning, construction, and maintenance of privatized housing by developers and administrators.

By the time of the Defense Science Board report (1995), Congressional and Service interest in military housing had gone through numerous funding peaks and

valleys (Baldwin, 1996, 1998; Else, 2001). The Wherry and Capehart programs injected a significant quantity of housing units into the DOD inventory, yet funding for maintenance, repair, and replacement was still insufficient (Baldwin, 1996; Else, 2001). Housing units constructed under these programs lacked the size and amenities common in civilian communities, and the funds in the DOD investment accounts were insufficient to bring the housing up to adequate and modern standards (Baldwin, 1996, 1998). At the time of the Defense Science Board report (1995), DOD controlled 387,000 housing units with an average age of 33 years; the estimated cost to bring the units up to reasonable standards exceeded \$20 billion. The Services were already spending, on average, more than \$4.5 billion per year on housing and had little expectation of finding the additional \$20 billion needed (Else, 2001; Marsh, 1995). Even if funds were available, the 30-year timeline to complete the required upgrades was unacceptable (Else, 2001; Marsh, 1995).⁹

The Defense Science Board report (1995) established an initial benchmark to have the housing upgraded or replaced at a much more rapid rate than the \$20 billion, 30-year cycle. As a result and at the request of DOD, in 1996 Congress enacted legislation in response to the Defense Science Board recommendations (1995). This legislation included new authorizations for DOD to work with the private sector to build and renovate, sustain, and divest military family housing ownership from DOD to private sector developers (National Defense Authorization Act for Fiscal Year 1996). As part of the original 1996 privatization legislation, a 5-year pilot program was proposed (National

⁹ Due to a variety of issues, driven primarily by a reduction in housing units needed because of base closures and installation realignments, the \$20 billion and 30-year timeline fluctuates based on different housing investment strategies and calculations. Calculations range between \$16 and \$20 billion in investment and a 20- to 30-year timeline. Since the Defense Science Board report settled on a \$20 billion investment and a 30-year timeline, these are the program estimates referenced in this research.

Defense Authorization Act for Fiscal Year 1996). Along with this legislation, the Office of the Secretary of Defense established a 10-year goal to eliminate housing inadequacies by 2006 (Else, 2001).¹⁰ All parties involved in providing DOD housing immediately recognized that reaching this goal was impossible given the current funding stream, existing real estate legislation, lack of standards, and lack of understanding the magnitude of the housing requirement at each installation (Else, 2001; Schuster, 2002).

Military Housing Privatization Initiative

The Defense Science Board report (1995) identified numerous improvements needed for providing and taking care of military family housing. These improvements ranged from changes to the policy governing how personnel were assigned to housing units to how housing requirements were calculated as well as revisions to architectural and construction standards (Marsh, 1995). After more than a century of providing military housing, DOD needed to completely overhaul its housing policies and programs (Else, 2001).

At the time of the enabling legislation, DOD had declared 180,000 of the U.S. housing units inadequate and recognized there was a significant deficit in housing to meet the remaining undetermined demand (Else, 2001; Marsh, 1995). The undetermined housing demand deficit was impacted by a variety of events between 1990 and 2010. During this timeframe, the Services reduced troop strength after the fall of the Soviet Union, restructured as a result of the Base Realignment and Closure legislation, re-stationed troops returning from Europe, transformed the Army into combat-brigade teams, and, in 2006, increased Army and Marine Forces by more than

¹⁰ Based on initial slow progress by the Services, Office of the Secretary of Defense (OSD) adjusted the 2006 program timeline goal to 2010 (Else, 2001).

100,000 troops to relieve pressure resulting from the number of deployments in Iraq and Afghanistan (Holman, 2006; Lepore, 2009; Mansoor, 2013).

The Defense Science Board report (1995) recommended a housing renewal strategy that was divided into three stages for a 21st century approach to providing military family housing:

- Foundation of change.
- Review and revision of key pillars of change.
- Planning, organization, and establishment of an overall DOD military housing authority.

The first stage created the new housing privatization legislative authority as a test case; then, Congress made the authority permanent in 2006 (National Defense Authorization Act for Fiscal Year 2006). The second stage focused on key pillars that allowed privatization to proceed: policies (general and assignment), design standards (suitability and construction), procurement (laws and regulations), funding (availability, consistency, and member allowances), and a variety of miscellaneous items such as infrastructure, security, and local management (Marsh, 1995). The third stage, intended to establish a separate housing authority for DOD military family housing, has not occurred, and it remains unlikely considering Service peculiarities and nuances in the variety of missions (Else, 2001).¹¹ However, oversight by the Office of the Secretary of Defense was strengthened to include formal responsibilities and comprehensive

¹¹ Each military service (Army, Air Force, Navy, and Marines) is tasked with providing different combat arms missions. These different military missions require significantly different numbers of military members. OSD was not prepared to account for the difference in missions and left those details to the individual services to administer.

housing privatization performance reviews (Else, 2001; Holman, 2006; Lepore, 2009; Marsh, 1995; Schuster, 2002).

The foundations of change and some of the key pillars became the source of authority and eventually provided the ability to fund and manage the revamped DOD housing programs (Marsh, 1995). The housing privatization legislation allowed DOD to make direct loans and infuse limited amounts of appropriated funds to close financing gaps so developers could construct and renovate housing units (National Defense Authorization Act for Fiscal Year 1996). The developer agreements did not use traditional construction contract law but took on the less-used form of real property transfer and lease agreements. The Services generally conveyed existing homes along with the land lease for the duration of the 50-year lease agreements. At the end of the 50-year lease, the land and capital improvements return to the Services for a yet-to-be-determined follow-on housing replacement strategy. This research and the review of related archival documents consistently identified the elements needed in structuring housing privatization lease agreements (HQ USAF A7C, 2005, 2012; Schuster, 2002):

- Having well-defined housing standards to meet expectations.
- Understanding the need for housing at a specific installation.
- Creating a consistent revenue stream.
- Finding motivated and willing developers and partners.
- Properly financing housing privatization projects.

Housing standards and understanding the need.

The Wherry and Capehart Housing programs highlighted a severe shortfall in the overall DOD housing program strategy at the time; the size and function of DOD

housing units were inconsistent and created inequalities in housing provided for military families (Baldwin, 1996, 1998; Else, 2001). In the 1990s, the Office of the Secretary of Defense (OSD) declared itself a reluctant landlord and only wanted to provide housing for personnel required to live on the installations because they were in key leadership positions, and to meet the need for housing the local community could not provide (Else, 2001; Marsh, 1995). This meant the majority of service families would live in local communities.

For those living on installations, most were families of enlisted personnel whose salaries and housing allowance were at the lower end of the military pay scale making it difficult for them to find affordable housing in the local community within a reasonable commuting distance (Marsh, 1995). Furthermore, some communities were located in extremely rural or high-cost metropolitan areas where there was insufficient affordable, quality housing to accommodate service members and their families. In order to assess the condition of DOD-owned housing and how military housing compared to available housing in local communities, DOD had to establish a consistent set of housing standards and, within reason, adjust for local conditions (Marsh, 1995; NAHB Research Center Inc., 2001).

In 2001, Congress declared that construction or renovation of military family housing must be consistent with local community housing floor plans and square footage (National Association of Home Builders (NAHB) Research Center Inc, 2001). In other words, in Alaska, DOD could provide additional indoor living/play space to compensate for the extreme weather conditions that require children to spend more time indoors. Conversely, in Hawaii DOD would construct less indoor living space and

provide outdoor lanais to compensate for Hawaiian weather conditions and allowing families to spend more time outdoors year-round.

DOD contracted with the National Association of Home Builders Research (NAHB) Center to establish DOD-wide standards for military family housing (NAHB Research Center Inc., 2001). Consistent with expectations, the study confirmed that the hodgepodge of existing housing standards were outdated and did not allow the Services to assess housing needs accurately on a location-by-location basis. The NAHB standards (2001) became the revised basis used by all Services to assess family housing requirements. These new standards reflected the new construction size and features standards along with recommendations for measuring unit size, use of apartments and multi-family units, as well as additional categories of users (NAHB Research Center Inc., 2001).¹²

As part of military family housing privatization, each Service was required to conduct their own local housing requirement and market-analysis studies (HQ USAF A7C, 2005). The studies establish the minimum housing requirements necessary to maintain a viable military community, such as providing key-leadership housing, preserving historic housing, and providing suitable housing for lower-income military families (HQ USAF A7C, 2005; Lepore, 2009). Just as important, the studies determine if there is sufficient, suitable, private sector housing for the military households not accommodated by on-base housing. The market analysis defines the competitive markets, housing supply and demand, adjusts for market share to military households,

¹² As of 1972, junior enlisted personnel were not allowed to live in military family housing except under special considerations. After 1972, junior enlisted personnel were allowed to live in military family housing but only on a space available basis. Not until the 1990s did DOD recognize the need and begin planning for the military housing demands of junior enlisted troops.

and provides a basis for assessing a wide variety of local housing markets (HQ USAF A7C, 2005).

This assessing-a-wide-variety clause is extremely important to local installation commanders; it allows them flexibility to exclude certain housing areas or tracts based on local conditions that might otherwise appear appealing. As an example, sections of private sector housing that may have otherwise affordable housing units but also have a high concentration of convicted child molesters might be excluded.¹³ Finally, the housing market analysis determines the total military family housing requirement necessary to compensate for any private sector shortfall according to the NAHB revised DOD housing standards (HQ USAF A7C, 2005).

Establishing DOD housing standards and a process for the Services to use to conduct local housing-requirement and market-analysis studies created the basis for consistent assessment of government and local housing supplies. At the same time, the analysis defined the overall military family housing needs and shortfalls at specific locations. The military family requirement for local housing became the starting point for housing privatization efforts. This requirement directly links the available revenue stream to the Service member since an individual member's housing allowance pays the rent collected by the privatization project. However, in the first 5 years, the market analysis and requirements determination were somewhat flawed though not intentionally.

Since housing allowances had not caught up with local community housing expenses, most Service members still could not afford local community housing (Eise,

¹³ This was actually the case at one AF installation. Adjacent to the installation were apartment complexes and housing units where junior enlisted military members otherwise would have been eligible to reside.

2001). The market surveys typically identified an insufficient inventory of affordable housing in local communities based on housing allowance amounts. As a result, the local market analyses overstated the amount of DOD privatized housing needed. As housing allowances eventually caught up with the prevailing housing markets, more service members chose to live in locally provided housing. DOD, because of overstated housing requirements in early privatization agreements, ended up with lower than expected occupancy rates in privatized housing (Lepore, 2009).

As discussed in the next section, maintaining the occupancy rate is crucial to financial success. In essence, the 50-year success or failure of housing privatization relies heavily on dependable and consistent housing requirement and market analyses coupled with a consistent revenue stream to developers. The fallback position for DOD and the military services was that the privatized housing units would be attractive to non-DOD renters if DOD occupancy rates dropped.

A consistent revenue stream for privatization developers.

Each year, DOD sets the monthly basic housing allowance for military members based primarily on Service member rank (ODUSD (I&E), 2010). DOD determines this allowance mostly on the local median monthly housing costs including current market rents, utility expenses, and renter's insurance. The allowance fluctuates (typically only marginally) from year to year as demand within housing markets varies (Else, 2001). As is the case with most long-term housing rental projects, to fund housing improvements, home maintenance and property management expenses, and related costs such as utilities and developer management fees, a developer needs a consistent revenue stream. For housing privatization, the consistent revenue stream comes from

service members paying their housing allowances in the form of rent directly to the local privatization developer (Else, 2001; Holman, 2006; Lepore, 2009; Schuster, 2002).

Rents paid directly to the developer by Service members are an important difference from Capehart Housing where DOD withheld service member housing allowances and paid the developer centrally. Under housing privatization, the renter and developer base their relationship on quality, condition, location, and cost of the privatized housing units. The difference is that the renter can now choose, based on market demand, to live in privatized housing or go elsewhere in the local housing market (Holman, 2006; Lepore, 2009; Schuster, 2002). Therefore, in order to maintain high levels of occupancy, a developer must operate and maintain the privatized units at least as well as the local market or risk losing market share. As housing allowances increase (or decrease) from year to year, by the terms of the privatization-lease agreement between the developer and the AF, service members' rent paid to developers fluctuates in accordance with their housing allowance and military rank (National Defense Authorization Act for Fiscal Year 1996).¹⁴

For privatized military family housing, a member uses his or her housing allowance to pay for rent and utilities. Since the government establishes housing allowances based on local rental rates, members now consider the cost (primarily rent and utilities) and quality (housing conditions, schools, commutes, and crime) of living off the installation with the cost and quality of residing on the installation. Historically, if members chose to live off the installation, the housing allowance covered between 80%

¹⁴ It is probable that a military member will be promoted while living in privatized family housing. Once promoted, the member's housing allowance reflects the housing allowance rate of their new military rank. This means the member's rent increases in concert with the new housing allowance rate even if the military member stays in the same housing unit.

and 85% of out-of-pocket expenses (Else, 2001; Holman, 2006). Because of the Defense Science Board report, OSD began an initiative to reduce the out-of-pocket expense to less than 15% and eventually to 0%. As expected, through the mid-1990s and until 2006, housing allowances continually increased to meet the no-out-of-pocket expense mandate (Else, 2001; Lepore, 2009; ODUSD (I&E), 2010; Schuster, 2002).

Based on the OSD no-out-of-pocket expense mandate, increased housing allowances became the financial fuel for privatization project financing. However, once set and because they now reflect local rental market rates, housing allowances tend to fluctuate modestly and mostly in concert with cost-of-living indices. Since OSD sets the housing allowance based on annual surveys, a privatization developer has almost no control over the rental rates they can charge. Because the developer cannot adjust rental rates upward, the most significant influence the developer has over project income results from maintaining a high level of resident occupancy.¹⁵ Since the housing allowance can fluctuate, even moderately, from year to year as local housing market demand increases or decreases, this fluctuation creates risk in financing privatization projects (Lepore, 2009).

Finding motivated and willing housing privatization partners.

The housing privatization program gave the Services the tools to provide safe, affordable, quality housing for military members within the United States; however, the Services cannot accomplish this without motivated and willing partners from the private sector. Structuring privatization efforts requires a partnership between the military Services, financiers, property managers, design and construction teams, and residents.

¹⁵ Housing privatization developers can charge rents below military member housing allowance rates for inadequate family housing units. Until developers can upgrade all housing units as part of their capital upgrades, some developers use this approach to attract renters into inadequate housing units.

Privatization lease agreements formally structure this partnership as a management review committee (MRC) (HQ USAF A7C, 2012). The MRC is comprised of the installation leadership, local property managers, developers, the Service portfolio manager, and appropriate high-level military Service oversight authorities (HQ USAF A7C, 2012). These committee members are required to work together in the best interests of military residents and to keep a project financially healthy. Since local senior installation leaders are also residents of privatized housing, a positive working relationship between local factions is an indicator of success. Committee members are responsible for balancing their local housing investments across renovation, new construction, maintenance, and operations.

As the housing privatization program matured during implementation, the MRC structure gradually shifted from an installation level activity to an intermediate headquarters level and eventually to the centralized portfolio manager.¹⁶ Eventually program managers and military leadership recognized the MRC as a fundamental component in housing privatization oversight and guidance for developers and vice versa. Over the 50-year lease agreement, a meaningful, productive, working MRC relationship between developers, portfolio managers, residents, and military leadership will likely be a testimony to project success.

A properly financed project and OMB financial scoring.

The focus of military family housing privatization and oversight continues to ensure quality construction is completed on time and within budget, projects remain financially viable, emerging changes in requirements are incorporated, and members have access to affordable, well-maintained, and safe housing (Lepore, 2009). Since

¹⁶ See Chapter 6 for details on the organizational structure of the AF housing privatization program.

there is no occupancy or long-term military presence guarantee, developers need to build their business case around local community housing market demands and available financing (Lepore, 2009). Within this context, the federal government has two primary financial goals: leverage government funds and lower project life-cycle costs (ODUSD (I&E), 2010).

Privatization project financing comes from three primary revenue streams: government, private sector, and financial institutions (Lepore, 2009). Government financing varies but is usually in direct-cash contributions or loan guarantees along with land and housing unit conveyance to the developer (Lepore, 2009). Private sector financing provides direct financing from private entities. The majority of financing comes through construction loans or housing bonds (Lepore, 2009). When issuing housing construction bonds a developer uses the service members' housing allowance as the primary security for bonds. Additionally, because financial markets issue bonds, other financial institutions are involved, i.e. bond insurer, bank/underwriter, investor/bondholder, and rating agencies. All of these institutions help determine the quality and risk of the construction bonds (Lepore, 2009).

Typically, privatization developers create a limited liability corporation (LLC) or partnership to acquire debt, lease land, and construct and manage projects (Schuster, 2002). The LLC or partnership uses professionals with the variety of skills needed to execute the housing privatization transaction over a 50-year performance period. Real estate developers, construction and project managers, property managers, and financial and real estate portfolio managers make up the team (Schuster, 2002). When the government provides direct funding, it is also included as an active member of the

team.¹⁷ A military Service with an active interest in the LLC possesses decision-making authority for the number of houses, renovation versus new construction, and project financing (Schuster, 2002).

The Services also lease land to a developer for 50 years along with any existing real property that includes housing, utilities, and roads. In all cases, the federal government conveys existing housing units to the developer (Else, 2001). The conveyed houses are in a variety of conditions, ranging from units not requiring any upgrades to those that need immediate demolition, replacement, or major upgrade.

Because of the Credit Reform Act of 1990, the Budget Enforcement Act of 1990, and for federal accounting purposes, privatization projects have a budget score associated with the amount and type of federal contribution (Else, 2001). Budget scoring allocates the federal contribution for a project to the Services' annual budget. For example, a cash contribution in any form is a 100% scored allocation. Depending on the risk or degree of exposure, loans are scored between 30% and 70%. Land and housing units conveyed to the developer contribute 0% to a Service's annual budget. The land and housing unit conveyance 0%-scoring seems counterintuitive; however, because the land and housing units produce no direct revenue stream, they are determined to be budget neutral, that is, having no impact on federal budget surpluses or deficits (Else, 2001).

The budget neutrality for federal land and housing conveyance is foundational in a developer's housing privatization business-case analysis. Since developers do not need to purchase land and most existing housing units are at least functional, even if

¹⁷ The 1996 privatization legislation authority restricted government funding to no more than 33% cash of the overall project value (National Defense Authorization Act for Fiscal Year 1996) .

inadequate, there is an immediate revenue flow from existing residents. This helps a developer avoid the single largest cost of housing project development, purchasing land already zoned for housing while maintaining a positive cash flow for the project.

Selecting the type and amount of the federal contribution is a significant consideration in the privatization strategy. The federal government's goal is to minimize the overall federal contribution and budget score in order to leverage funds for the maximum number of projects that need additional financing to ensure project viability (ODUSD (I&E), 2010).

By using private sector investments, the federal government expects to obtain a minimum \$3:1 return on investment; that is, the federal government expects three dollars of private sector funded improvements for every federal dollar invested. During the initial rounds of privatization, DOD obtained a \$6.4:1 return on investment of federal funds. Although there were discrepancies in calculating the initial investment ratios, the overall DOD rate of return remained favorable and accuracy improved as the program matured. Overall, the OSD return on investment rate is now consistently more than \$10:1 (ODUSD (I&E), 2010).

Perspectives on AF Military Family Housing Privatization

While organizations responsible for providing family housing plan, design, construct, operate, and maintain housing projects, housing is not only about the physical structure but about the people who occupy the buildings as well. Housing in the literal sense is concrete, brick, and mortar that are inanimate and lifeless. The housing residents bring the housing to life. They transform their desires, perspectives, and opinions into a tangible, enlivened community.

Understanding how the Defense Science Board report (1995) defined quality of life with respect to family housing is important. According to the report, the Defense Science Board found that:

... the Department of Defense has practical as well as equity reasons for providing all Service members with *suitable housing* (well-repaired, meeting statutory size standards, complying with technical codes, and equipped with commercially comparable amenities). Comfortable housing improves morale and encourages individuals and their families to make careers of military service, thus promoting *retention* and readiness, now and in the future. (Marsh, 1995, p. 18)

The outcomes of the Defense Science Board report (1995) helped shape housing privatization perspectives into four broad categories: sense of community, commitment to quality of life, building service-member wealth, and sense of purpose.

Sense of community.

Military communities, as a whole, reflect the leadership emphasis and program initiatives deemed important over the many years of installation development. The AF requires each military installation to have an updated installation master plan that reflects mission demands, population changes, and compatibility with local communities (HQ USAF A7C, 2013). Typically, these comprehensive general plans adequately capture the mission, installation leadership's vision, comprehensive planning goals, and strategic planning guiding principles. Comprehensive plans also reflect natural and cultural resources, environmental quality, and operational and safety constraints. These plans identify significant infrastructure requirements, land-use planning, and capital improvements (HQ USAF A7C, 2013).

Part of the capital improvement program includes the installation's plans, needs, and desires for a sense of community. While the installation master planning process includes comprehensive planning goals, strategic planning vision and principles, the planning process does not provide the funding necessary to implement the plan nor is it intended as a funding mechanism (HQ USAF A7C, 2013). Appropriated funds are the usual funding source for implementing general plans, and, historically, there was never enough funding to meet the needs of military family housing and quality-of-life programs for military members and their families. Military family housing privatization changed this dynamic and directly influenced the sense of community on military installations.

AF military installations date back to 1917 and even farther back for facilities inherited from former Army cavalry installations that, in some cases, date back to the late 1800s. These early installations did not reflect the needs or the demands of an AF military installation requiring contiguous yet separated operational airfields, maintenance complexes, and administrative, living, and recreational areas. While the Army invested in master planning for installations, the Army Air Corps did not start to design purpose-built military installations for airfield operations until the mid-1920s (Garner, 2003; National Park Service, 2010). Even though the Army Air Corps started planning aviation airfields as early as the 1920s, over time, WWII, Korea, Vietnam, and the Great Society funding demands left little for the military family housing and quality-of-life programs needed to attract and retain military members, especially once the all-volunteer force was established in the 1970s.

Available funding was too little, housing and quality-of-life program needs were too great, and the Defense Science Board report (1995) too clear: something had to

change if the Services wanted to create the sense of community needed for a 21st century military force. Thus, military family housing privatization provided the needed private sector resources to alter this dynamic. While the installations had master plans, they had limited funds to implement the plans to bring about needed change.

Privatization developers had access to the resources required to provide quality, affordable housing in a reasonable amount of time, and they brought the added dimension of additional amenities such as community centers, fitness centers, pools, parks, athletic fields, playgrounds, elementary schools, and, in some instances, entire communities where none previously existed. Where housing was seldom desirable before housing privatization, if available at all, during the first 15 years of the AF housing privatization program, housing was improved and communities built to create modern, safe, neighborhoods with attractive amenities that provide a sense of community for the residents.

Quality of life and lifestyle.

The Defense Science Board report (1995) was extremely critical of many quality-of-life factors involving military life, childcare, housing, compensation, workplace environment, youth activities, playgrounds, fitness centers, and child education. Housing, along with pay and workplace, were the top three factors that needed improvement (Marsh, 1995). The manner the AF used to structure the housing privatization agreements and negotiations helped resolve quality-of-life challenges beyond just housing. The Defense Science Board report (1995) frames this quality-of-life perspective:

Housing can and should play a pivotal role in mitigating some of the extraordinary stresses of military life, *the Task Force finds*. . . . Armed Services members and their families live every day with the possibility of frequent relocation, abrupt departures, lengthy deployments—and always—possible death in the line of duty in peace or war. Military personnel therefore consider good housing an essential linchpin in their daily lives, basic to their quality of life and to that of their families. (Marsh, 1995, p. 18)

Part of the military-developer negotiations identifies amenities beyond housing that the developer is willing to provide as project enhancements and that contribute to the overall quality of life and lifestyle on the military installation. At one location, the developer provided playgrounds, basketball courts, a community center, tennis courts, walking trails, and gathering pavilions. At another location, the developer provided similar amenities and was able to provide a fitness center and outdoor swimming pool. By working with the local state department of education, the developer at one installation constructed an elementary school building and the state now operates the school mostly for children living on the installation. This effort resolved one of the longest standing quality-of-life issues that the installation leadership had been unable to resolve during the previous 40 years. The privatization developer referred to the school facility as “their crowning amenity achievement.”

At another location, one of the interview subjects mentioned they had moved into military housing when they first arrived in 2006, but within a couple years they decided to purchase a house in a community 23 miles away from the installation. It did not take long, though, before the needs of three children, demands of a swing/graveyard shift,

and a 1½-hour commute each way changed their perspective. Five times a week one of the parents drove 23 miles to drop off their three children at the military childcare center, then traveled to yet a different installation for work, and then reversed the trip at the end of the day. Eventually, the family decided to move back into privatized housing on the installation. By then, the military member had changed jobs and was working on the same installation where they now lived. Her round trip commute became

. . . a walk across the sports field from privatized housing to my office and since our house is directly across the street from the childcare center, I now get to walk the kids to childcare on my way to work.

Another family had previously lived in privatized housing at three separate locations and considered the quality of their current housing the least desirable so far; however, they admitted they made a conscious choice to settle for sub-standard housing in favor of location, convenience, and availability. They had also made tradeoffs on family housing while at their previous assignment. Even though the quality of the privatized housing was very nice at their previous location, they decided not to live in privatized housing. At the previous location, the privatized housing was located an hour from the installation and they wanted to live closer to reduce commute times. Because of the poor quality schools near the previous base, they also decided to homeschool their kids. In spite of making a quick decision to live on the installation at the current location for school purposes, once they discovered the poor performance of the local schools, having homeschooled at their previous assignment made the choice to continue homeschooling easier. One of the parents was completing her PhD in education and mentioned:

Living on the installation while home schooling was an easy choice because of the overall quality of life. Both our parents were military, so we grew up on military bases and prefer living in military communities; we enjoy the safety, security, and positive sense of community.

Building military service member wealth.

The Defense Science Board report (1995) focused on providing improved housing for military family members. However, as a guiding principle, DOD is a reluctant landlord, which means if there is adequate housing in the local community DOD will only provide housing to meet the shortfall (Else, 2001). The housing allowance DOD provides reflects local fair market rental rates. However, military members are not restricted to the rental market; they can use their housing allowance toward purchasing housing as well. Because DOD encourages military members to use the local market as a first option for housing, the privatization process creates an opportunity for military families to purchase housing instead of renting if local market conditions permit. The Defense Science Board report (1995) recognized that home ownership provided a positive impact on service members.

The Task Force finds that home ownership is fully consistent with departmental policy to look to the private sector as a primary source of housing and that home ownership is still a goal of most American families. Further, *the Task Force* finds that the Defense Department should actively seek to eliminate hurdles to home ownership. (Marsh, 1995, p. 21)

At several military installations, family housing was not available and the members' only option was to consider renting or purchasing housing in the local

community. Depending on local housing conditions, some military members chose to purchase property and others to rent. After housing privatization and the OSD mandate for no-out-of-pocket living expenses, 60% to 75% of military members now reside off the installation (Else, 2001; ODUSD (I&E), 2012). After privatization, as housing allowances began to reflect the local market, more military members were able to consider entering the local rental market or purchasing housing (ODUSD (I&E), 2012).

In one instance, a military family decided to buy their house because they wanted to live in a single-family home—“With the increased housing allowance, we could afford the payments, so we purchased a house and began to enjoy the benefits of home ownership.” Both liked living in their own house, but the quality of life, cost of living on the installation, and reduction in related transportation costs and travel time seemed more important to them, so they moved back into privatized housing. Since the rent they collect on their home is enough to cover the mortgage costs, they feel lucky to have privatized housing as a realistic alternative. They remain in the housing market but also have the opportunity to live on an installation in privatized housing; for them it is a good financial and quality-of-life tradeoff.

Sense of purpose—managing for excellence.

The housing privatization initiative included new authorities for DOD to privatize military family housing by creating new policies, developing suitability and construction standards, revising procurement laws and regulations, and establishing mechanisms to transfer DOD funding to private developers (Marsh, 1995; National Defense Authorization Act for Fiscal Year 1996). The legislation that resulted from the Defense Science Board report (1995) also required increased oversight to structure and required

OSD to conduct corporate-level performance reviews (National Defense Authorization Act for Fiscal Year 1996). While 50% to 60% of military members lived in military housing prior to privatization, DOD was concerned about getting rid of inadequate housing and satisfying unmet inventory needs (ODUSD (I&E), 2010). At the same time, budget pressures resulting from weapons systems modernization and the lack of a direct link to military readiness prevented adequate DOD investment in family housing projects.

The 1996 DOD housing privatization initiative enabled private capital investment in housing and long-term land leases that resulted in an alternative delivery mechanism for military housing. Because of increased housing allowances, more service members could afford to live in community housing (Else, 2001). As a result, the need for privatized housing decreased considerably, and as of 2012, between 25% and 40% of military members lived in privatized housing; the rest either purchased or rented in the local housing markets (ODUSD (I&E), 2012)

Since each privatization project took several years to award, there was almost no chance of having all projects awarded to meet the original 10-year target (AFCEC, 2013). Initially housing privatization leases started as one-project, one-installation, one-developer efforts, but they eventually evolved into multiple-location, multiple-project, and single-developer efforts (AFCEC, 2013). Additionally, project oversight matured from one-project, managed by one-installation to all projects managed by a single center of expertise. These changes reflect a sense of purpose and commitment to excellence as the AF transitioned to central oversight and multiple locations managed as one project. These improvements resulted from compressed timeline mandates for

housing improvements, limited housing funds, and the desire of installation commanders to maximize housing development amenities (AFCEE, 2006; HQ USAF ILE, 2002).¹⁸

Monitoring and measuring financial performance and resident satisfaction were two main areas of program oversight. Financial performance of a project provides an indication of the level of customer satisfaction. Because of the housing privatization program, military members now have a reasonable choice of housing. If members find privatized housing more desirable than local housing, they will choose privatized housing; if not, they will live elsewhere and privatization project financial indicators will suffer. This dynamic is the underlying motivation for developers to maintain desirable privatized housing stock. Only by maintaining attractive housing units that are competitive with local market housing will developers continue to attract viable renters.

Decoupling rent from utility payments is a significant concern of military residents and developers. Residents view introduction of a utility payment scheme as something different from the normal process of living on installations. One of the developers provided insight: At a minimum, any accounting for utility consumption separate from rents would be a concern for the residents, especially if some units had upgraded energy efficient appliances and construction standards and others did not. As of 2012, 46% of DOD privatized housing residents were being provided with mock utility bills to prepare them for when the utility bill becomes their responsibility to pay (ODUSD (I&E), 2012).

From an overall program perspective, the utility payment concern is the reason developers invest so heavily in energy efficient appliances and utilities. The utility

¹⁸ For detail on how these changes occurred, see Chapter 7.

consumption baseline helps determine the percentage of the housing allowance used by residents to pay their utilities. The smaller the utility baseline, the more housing allowance is available for the developer to use for operating expenses and profits. In order to keep the rent component of the housing allowance high, a developer needs to reduce the utility baseline. As one of the senior program managers mentioned,

By installing energy efficient appliances and utilities, the developer can direct a greater percentage of the housing allowance toward rent. In essence, the energy conservation effort by a developer is a business-based decision to increase the percentage of the housing allowance going toward rent.

Once centralized housing oversight and operations occurred, the intermediate headquarters still had direct involvement with housing privatization and improved quality of life and community (AFCEE, 2006; HQ USAF ILE, 2002). However, the intermediate headquarters no longer conducted day-to-day housing privatization activities, managed financial performance, or interacted directly with installation oversight of privatized housing. In fact, centralized oversight of the privatized housing portfolio effectively eliminated the intermediate headquarters from direct oversight of most aspects of military family housing programs.

Yet, there are areas where the intermediate headquarters needs to engage in housing privatization matters. The intermediate headquarters and installation leadership remain responsible for ensuring the housing privatization program has the type of housing that satisfies the needs of the military community and that military members have first priority for the housing. The intermediate headquarters is also

responsible for ensuring that the enhanced amenities proposed by the housing privatization developer result from a careful calculation between the installation and developer. Understanding the demands and needs of military members on an installation helps determine the amenities provided by the developer and helps achieve the goal of attracting and retaining residents in privatized housing.

Since developers, bankers, bondholders, financial investment securities, DOD, and resident stakeholders are involved in housing privatization projects, striking the right balance between the number of units, upgrades, replacements, demolition, and amenities was important, and since the privatization leases are for 50 years, had a long-term impact. As mentioned earlier, at one location, the most important amenity to the installation and developer was an elementary school. Before privatization, the quality of school performance in the local community was substandard and families that could afford the cost enrolled their children in a private school that was a daily 30-mile round trip commute. Travel time and tuition costs negatively affected military members' quality of life, sense of community, and disposable income, yet for those families there was no reasonable alternative. The calculus changed with the addition of the developer-constructed school. This is where the intermediate headquarters leadership asserted their knowledge of the installation dynamics. One of the intermediate headquarters senior managers mentioned:

Failure to provide the right balance of amenities and ensure the right housing for the most underserved military members are two of the greatest threats to a successful housing privatization program. So far, I think we have struck a nice balance on our installations.

At one installation, the private developer and senior project manager had an over-performing project because:

We have taken a 50-year perspective on housing privatization. Rather than upgrading, replacing, or modifying all housing units at the outset, the installation was willing to consider alternatives that might enhance the types of amenities and future improvements. The tradeoff for delaying investments on some properties was the positive cash flow that was funding the enhanced amenities.

This example clearly illustrates the benefits to privatized housing residents of a 50-year perspective. This approach also retained some inadequate housing units for members who wanted to save some of their housing allowance for other financial considerations. While some military members choose to live in substandard privatized housing for expedience and cost factors, most are not satisfied with the quality of the substandard housing but consider the tradeoff acceptable. Usually the installation allows members in inadequate housing to add their name to a waiting list for better housing if it becomes available.

At another installation, the developer constructed the newest privatized housing specifically for junior enlisted troops. In two separate areas, the developer demolished original duplex-style housing then replaced them with modern, attractive townhouses designed on local architectural standards. Additionally, numerous single-story, handicapped accessible units were intermingled with the other units. In at least two separate locations, privatization developers provided military family housing and

community amenities at AF installations where none had previously existed (AFCEC, 2013).

One of the uncertainties of housing privatization is the potential of legislation to decouple housing allowances from the rents. Right now, as part of the housing privatization lease agreements, rents are the same as individual housing allowances. When housing allowances fluctuate, rents fluctuate accordingly. If the rents are decoupled, a developer will set the rental rates and members will decide if the rent is appropriate. Whether this shifts more risk onto the resident or developer will be market and location dependent, but it will likely influence military members' decision to rent or purchase their housing.

Fluctuating housing allowances are a challenge for developers. One developer confided there are unknown challenges that could create risk in the housing privatization process, particularly if housing allowance fluctuations migrate too far from the projected 3% annual growth. With fluctuations much greater than 3%, privatized housing residents begin to look off the installation for better housing they can afford, which decreases the overall occupancy rates. With fluctuations much less than a 3% growth in the housing allowance, the project begins to underperform financially because of reduced rents even if the developer maintains high occupancy rates.

One of the primary concerns expressed in the Defense Science Board report (1995) focused on housing occupancy rates and whether junior enlisted members are satisfied with the improvements and expense. Last and most likely, the greatest threat to the housing privatization process would be elimination of a housing allowance altogether. The military would offset members' basic pay to compensate for eliminating

the housing allowance. This scenario would affect junior enlisted troops the most since they have less disposable income. This possibility conflicts directly with the findings of the Defense Science Board report (1995):

Overall housing allowances are about 22% below costs in the civilian community. The Task Force finds that some of the most junior service people experience exceptional hardships because of their inadequate housing allowances and limited access to military housing. . . . Of the 25% of families in grades E1-E3 with dependents, 19 percent live in military housing, and about 12 percent are unsuitably housed in the civilian community, because of cost, size, condition, or location (Marsh, 1995, p 24).

Conclusion

Initially, military family housing privatization projects were 50-year, single-installation and single-developer real estate lease proposals. These projects carried substantial developer risk; as a result, private equity financial risks were high and, in several instances, would require substantial government subsidy. At numerous military installations, because of the overall poor housing conditions that required substantial investment coupled with inadequate local market conditions, developers could not create a business case to secure financing. At the time, substantial government subsidies provided the only realistic mechanism to offset these detrimental conditions. Thus, these projects were not good initial candidates for privatization (Else, 2001).

Even for the proposals that did materialize, since they were single-installation ventures, they reflected each installation's unique desires and conditions and were negotiated from that perspective. Because of these single-developer, single-location

proposals, even the lower risk locations were more costly than they needed to be since they still involved high, risk-mitigating guarantees for private equity (Schuster, 2002).

For locations where financial risks were lower, developers provided housing with upgraded appliances, increased overall square footage, additional bedrooms, and new or improved playgrounds, fitness centers, athletic courts and fields, and recreation centers. At higher risk locations, developer demand for increased risk guarantees resulted in limited housing features and fewer amenities. Since there are multiple stakeholders involved in housing privatization projects, striking the right balance between number of units, upgrades, replacements, demolition, and amenities, was complex and had a long-term impact. In addition, initial learning curves were steep because each installation negotiated its housing privatization projects only once over the course of the 50-year project agreements. As a result, projects in the initial privatization implementation period were more expensive, provided varying amenities, and took excessive time to consummate because each project was a unique lease negotiation (Schuster, 2002).

While privatization offered a promising option for providing military family housing, because of the high risk factors, not every location could use privatization as a delivery mechanism. However, Congressional legislation still required accelerated housing investment, regardless of delivery mechanism, in order to meet the 2006 upgrade mandate (Else, 2001). For every location where DOD chose not to privatize, DOD needed to invest directly to comply with revised housing standards and to meet the timeline mandate. However, traditional appropriated funds for housing improvement remained inadequate and delivery mechanisms were too slow. In order to meet the

deadline to eliminate housing inadequacies, private equity investment risks had to be reduced, real estate lease negotiations accelerated, and quality of housing and amenities balanced across locations.

Historically, the military family housing program has been unable to maintain funding levels necessary to provide the quality, quantity, and timeliness of housing for military family members (Baldwin, 1996; Else, 2001). Because of the pressure to retain military members in an all-volunteer force, DOD implemented recommendations from the Defense Science Board report (1995) that linked military readiness to the quality of military housing. The DOD housing privatization initiative evolved into the policy that guides use of private equity to fund, accelerate, and improve housing stock. The housing privatization program reflects savvy investment strategies plus a philosophy that supports providing military families with a sense of community, quality of life and lifestyle, and a sense of purpose and excellence. These attributes are fulfilling the promise of the Defense Science Board report (1995) and the housing privatization initiative.

Military members and their families choose to live in privatized housing because of the quality of life, sense of community, and financial factors. These factors have led to overall occupancy and satisfaction rates that indicate positive traction for the goals of housing privatization, at least during the first 15 years of a 50-year program. Senior leadership, program oversight, and developer interest appear aligned to provide the best housing for the right people. However, there are concerns moving forward voiced by all persons interviewed. The change in utility charges, fluctuating housing allowances, potential elimination of housing allowances tied directly to local housing

conditions, and maintaining occupancy rates were high on the list of concerns identified by those responsible for providing safe, affordable housing. The residents' concerns reflect the more traditional concerns of households and are tied to commuting, budgets, balancing demands of children, schools, and the uncertainty created by change.

Chapter 4

Organizational Routine and the Air Force Military Family Housing Privatization Process

Previous chapters established the context of the research setting by briefly identifying the state of military family housing before the 1995 housing privatization initiative. Earlier housing programs highlight DOD's previous attempts to provide housing for military members and their families. This research presents broad elements of housing privatization, defines housing standards, deciphers local housing-market dynamics, and explains how affordable housing is essential in understanding military family housing needs. Quality of life, the importance of community, and the need for affordability reflect intangible aspects of privatization. The people who manage the day-to-day activities of privatized housing include residents, developers, and administrators. The sense of community, commitment to quality of life, building personal wealth, and sense of purpose is often as important as the lease agreement for the people who choose to reside in, manage, and operate AF privatized housing.

Organization theory provides the foundation for the theoretical lens, and organizational routine helps explain how people in the AF housing privatization program generated change and learning by performing their day-to-day activities (Feldman & Pentland, 2003). Introduced in this chapter are reciprocal relationships and emergent strategy as well as how organizational strategies resulting from individual behavior and action evolve over time (Jarzabkowski, 2008; Mintzberg & Waters, 1985).

Jarzabkowski's (2008) reciprocal relationships and emergent strategy and Mintzberg's and Waters' (1985) evolving organizational strategies are complementary to Feldman's and Pentland's (2003) organizational routine theory. Also, March's and Simon's

Organizations (1993) and Ansell's Pragmatist Democracy (2011) are introduced to frame the boundaries of institutional learning as it relates to this research.

Organizational routine theory can mean many things to many people within academic and scholarly literature. This research considers organizational routine theory and how it enables bureaucracies to organize talent and expertise and perform the essential duties required of managers, supervisors, and workers (Barnard, 1938; Feldman & Pentland, 2003; March & Simon, 1993). According to Feldman (2003, p. 94),

Organizational routines are a central feature of human organizations and an explanatory mechanism in many of our most widely accepted theories. Since the concept was introduced by Stene (1940), organizational routines have been regarded as the primary means by which organizations accomplish much of what they do.

While it is significant that bureaucracies organize themselves and create routines to perform tasks and accomplish goals, these structures can often stifle creativity and create inflexible environments where continuous improvement is impeded (Feldman & Pentland, 2003). However, routines are important because "they minimize cost and increase managerial control, while maximizing the legitimacy of the organization" (Feldman & Pentland, 2003, p. 97). It is curious how people performing organizational routines sometimes generate change within bureaucracies by not changing how they perform the routines or how they sometimes create stability by changing how they perform the routines. Within this curiosity exists "the inherent capability of every organizational routine to generate change, merely by its ongoing performance"

(Feldman & Pentland, 2003, p. 94). This is the aspect of organizational routine theory investigated in this research study of the AF military housing privatization program implementation. The study examines how the AF learned and changed the process, structure, and strategy of housing privatization through people performing day-to-day organizational routines.

By adapting Feldman's (2003) theoretical framework on organizational interaction of performance and understanding, this research develops a framework for AF housing privatization. The framework conceptualizes how organizations allow agents, through their day-to-day activity, to change performance of organizational routines. The research considers a theoretical framework capturing how organizations establish structures, processes, and strategies for program implementation and how conditions might change throughout a program's lifetime.

Here, organizational routine theory helps explain how organizations generate change by performing their day-to-day activities (Feldman & Pentland, 2003). These routines help explain the organizational strategy adaptation, implementation of process improvement, and organizational structure modifications that emerged during housing privatization implementation. These modifications to the routines addressed the quality, quantity, affordability, and timeliness of military family housing, especially for junior enlisted service members.

The theoretical research framework recognizes that agency is an important element of routines, and people engaging in performing routines helps explain why routines change (Feldman, 2000). Routines rely on practices, organizational needs, norms, and innovation that evolve based on dynamic change in strategy, institutional

values, knowledge, and internal and external interaction. Through this dynamic interaction, processes, structure, and strategy transform.

Theoretical Lens

Organizational routine theory.

Organizations purposefully engage in different ways of understanding the continuous process of problem solving and improving how they perform day-to-day activities (Feldman, Khademian, Ingram, & Schneider, 2006). Three organizational learning theories frame this researcher's theoretical lens: Ansell's (2011) pragmatist institutionalism; March's and Simon's (1993) automation; and Feldman's (2000) organizational routines. All three theoretical approaches incorporate organizational routine to promote efficiency, create organizational legitimacy, and solve problems (Feldman & Pentland, 2003).

Even though March's and Simon's (1993) automation predates Ansell and Feldman, these three perspectives each reflect boundaries for organizational learning identified in theory and the influence of learning on organizational structure and process. Since March and Simon (1993), there has been a great deal of change in the social and technological context of organizations. Yet, modern organizational theories still "describe the delicate conversion of conflict into cooperation, the mobilization of resources, and the coordination of effort that facilitate the joint survival of an organization and its members" (March & Simon, 1993, p. 2). March's and Simon's (1993) automation transitions from repetitive and simple problem solving of repetitive well defined problems to development of routines for more complex programs and new activities in the day-to-day performance of organizational goals and responsibilities. In

these more complex programs, routine has the characteristics of a strategy rather than a fixed program, and activities are conditional and not necessarily fixed in advance. This approach also promotes standardization, avoidance of failure, and reduced variability (March & Simon, 1993).

Ansell's (2011) pragmatist institutionalism portrays organizations as agents of evolutionary learning. He theorizes that organizational rules constantly change to align with action; this results in fewer rules than in more traditional bureaucracies. As Ansell (2011) observes, this model of hierarchy equates to the higher organizational levels setting broad strategies, guiding principles, and organizational values while granting extensive discretion at lower organizational levels.

For the pragmatist, habit (routine) is a foundational human behavior. Habit links the memory of the past with observation of the present and an outlook for the future (Ansell, 2011). This is similar to what Feldman (2000) calls dynamics of routine where participants in routines are often the source of the reflective learning process. Or as Feldman (2000, p. 620) states, "When actions do not produce the intended outcome, or produce an unintended and undesirable outcome, participants can respond by repairing the routine so that it will produce the intended and desired outcome."

Like Ansell (2011), March's and Simon's (1993) concept of routine centers on economizing organizational and individual energy. However, March and Simon (1993) view routine as an automatic response; here, routine mimics automation. This automation is what March and Simon (1993) call programs; these programs (also referred to as processes) can be highly complex sets of responses, but they restrain problem-solving power because the details of behavior and response remain relatively

well defined and ordered. To modify these programs, March and Simon (1993) contend higher levels of the organizational hierarchy retain the power to approve changes that lower levels of the organization then implement. Feldman's (2000) dynamics of routine and reflective learning are minimized within March's and Simon's (1993) concept of programs, at least within the lower levels of the organization.

Feldman (2000) takes a theoretical approach that has similarities to Ansell (2011) and March and Simon (1993). Feldman (2000) attempts to understand how change occurs within organizational routines and whether the change is episodic or continuous. In the case of March and Simon (1993), upper levels of management have the power to affect change; this is the case for Feldman and Pentland (2003) as well. However, like Ansell (2011), Feldman and Pentland (2003) also recognizes there is opportunity for continuous change within routine. Feldman (2000) capture this cycle of learning, noting that "organizational routines involve people doing things, reflecting on what they are doing, and doing different things (or doing the same things differently) as a result of the reflection" (Feldman, 2000, p. 625). Somewhat paradoxically, routine provides a needed source of change as well as stability within the organization (Feldman & Orlikowski, 2011).

March and Simon (1993), Feldman and Pentland (2003), and Ansell (2011) each argue that organizations rely on routine to simplify and economize activity within an organization. However, unlike March and Simon (1993), Feldman and Pentland (2003) recognize the social group that exists within the routine can accept power and make changes. In their approach to organizational routine, individuals are more than subjects, they are engaged in continuous learning, yet they are still constrained by

management in the power structure of the organization (Feldman & Pentland, 2003). The practical side of Feldman's and Pentland's (2003) approach is that management and labor still actively engage in performing their core organizational functions. Management has a more pronounced role in March's and Simon's (1993) automation while at the other extreme Ansell (2011) considers management much less pronounced in terms of process change. In all three cases, management still has to establish goals, create vision, and provide boundaries to operations. It is Feldman and Pentland (2000; 2003) who provide the middle ground for a theory and framework that will be built upon and developed in this research.

According to Feldman (2000), there are many reasons why routines change and not all the reasons create positive outcomes. Some of the outcomes do not produce the intended results, and other outcomes result in new problems that need to be solved. While these outcomes might be considered negative, if recognized properly, they create opportunities for further changes to routines. Sometimes new resources are created that generate opportunities, and often routine changes fall short of the intended outcomes and still need further improvement (Feldman, 2000; Pentland & Feldman, 2005).

Within the context of AF military family housing privatization, the processes, strategies, and structure used to implement housing privatization were falling short of the military family housing improvement goals set forth by the Defense Science Board (AFCEC, 2013; Marsh, 1995). These processes, strategies, and structures needed positive change in order to improve upon the previous attempts at privatization. Within the AF, an organizational routine mindset that recognized these shortfalls as inhibitors

to privatization implementation was needed. This was not easy since defining success in housing privatization was a difficult proposition.

Success in providing military family housing improvements was not about privatization but rather about improving the quality, quantity, and timeliness of military family housing programs. Housing privatization became the preferred mechanism because it provided quality housing in a timely manner while leveraging housing funds by using private investment. The duration of housing privatization lease agreements is over a 50-year performance period; so, defining housing privatization success as a means to improving military family housing is a long-term proposition. However, reflecting on privatization as a tool to improve military family housing during the 15-year implementation period is appropriate since the implementation period is complete. Considering the AF approach to housing privatization and how changes and improvements to the organizational routines directly affected processes, strategies, and structure helps determine whether the changes were virtuous or derogatory in meeting the Defense Science Board goals (1995) during the implementation period. The changes the AF implemented to organizational routines and the continuous improvements made in response to the intended and unintended outcomes are discussed in Chapter 7.

Strategy as a structuration process.

While most of the focus of how the AF implemented military family housing privatization will be on the impact of continuous change and organizational learning, consideration will also be given to strategy theory as it applies to organizational change and learning. Strategy development is an important aspect in the dynamics of

organizational routine. Jarzabkowski (2008), in her research on shaping strategy, recognizes organizational strategies can evolve over time as a result of individual behavior and action. Her theory proposes that for strong institutional strategies, more success results from the simultaneous shaping of strategy through routine action (Jarzabkowski, 2008). This approach is similar to Feldman's and Pentland's (2003) reflective routine approach in that "structures guide actions that reproduce structures" and influence strategy change (Jarzabkowski, 2008, p. 639). In this approach to strategy making, there is a reciprocal relationship between institutional structure, strategy, and the day-to-day activities of people.

Deliberate-emergent strategy.

This notion of a reciprocal relationship shaped in part by structure influences strategy development (Feldman & Pentland, 2003; Jarzabkowski, 2008). Mintzenberg and Waters (1985) capture this in their patterns of strategy development as two ends of a continuum ranging from what the strategy should be to what the strategy is. In Figure 4.1, their deliberate-emergent theory approach conceptualizes strategy in various forms: intended, unrealized, deliberate, emergent, or realized (Mintzberg & Waters, 1985). In some situations, the intended strategy is abandoned as unrealized, and in other situations, the realized strategy is the product of emerging strategies that develop synergistically. While no pure form of deliberate or emergent strategy is likely, deliberate strategy focuses on direction and control to accomplish specific tasks and priorities while emergent strategy leans more toward an organization's ability to learn while the process of strategy development is ongoing (Mintzberg & Waters, 1985). For example, March's and Simon's (1993) organizational rules are more constrained and

less flexible and creative; their view of routine within an hierarchical organization would not encourage an emergent strategy. In contrast, Ansell's (2011) institutional pragmatism is more congruent with emergent strategies since they result from the interaction of participants continuously adapting to change.

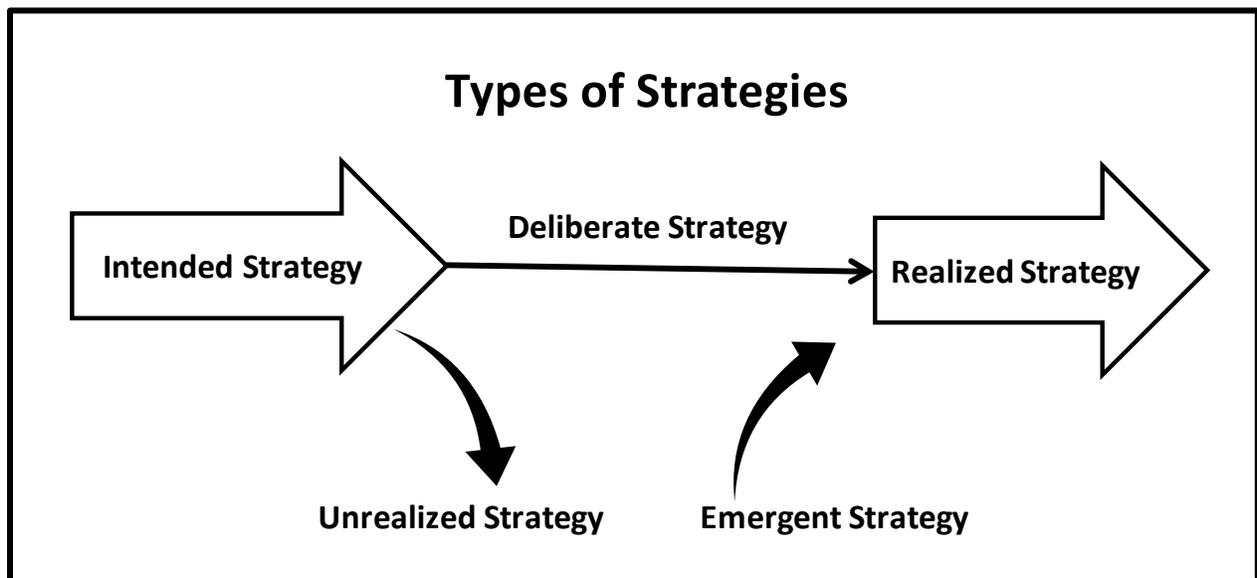


Figure 4.1. Deliberate-emergent strategies. Adapted from "Of strategies, deliberate and emergent," by H. Mintzberg and J. Waters, 1985, *Strategic Management Journal*, 6/3, p. 257-272. Copyright 1985 by John Wiley & Sons, Ltd. Adapted by Amy Winter.

As Mintzberg and Waters (1985) observe, "Emergent strategy itself implies learning what works—taking one action at a time in search for that viable pattern or consistency" (Mintzberg & Waters, 1985, p. 271). While deliberate strategy reflects the theoretical underpinnings of March and Simon (1993) and their approach to automation, Ansell's (2011) evolutionary learning creates a greater opportunity for change. Emergent strategy reflects strategic learning whereas deliberate strategy, once established, is less flexible and less creative; therefore, emergent strategy is less likely to adapt to routine generated by continuous change (Mintzberg & Waters, 1985).

Theoretical Framework

To consider whether the AF is meeting the Defense Science Board goal (1995) to provide adequate military family housing, this research investigates institutional and organizational learning during the first 15 years of the AF housing privatization program. Specifically, this research considers the organizational routines the AF developed, deployed, and revised over the course of implementing the DOD family housing transformation. Throughout implementation, the AF housing privatization organizational routines changed process, strategy, structure, and altered the way the AF implemented the housing privatization program. The focus is on why institutional learning occurred within the organization during this latest attempt at housing privatization implementation. In particular, this theoretical framework considers how, during housing privatization implementation, the many actors initiated a learning process that incorporated internal and external factors leading to organizational, structural, and strategic change which differed from previous military housing privatization outcomes (Feldman, 2003; Jarzabkowski, 2008; Mintzberg & Waters, 1985).

Any strategy- and structure-based theoretical framework must recognize that habit and routine simplify and economize on processes within the implementation and execution of any program. “One can think of routines as flows of connected ideas, actions, and outcomes. Ideas produce actions, actions produce outcomes, and outcomes produce new ideas. It is the relationship between these elements that generates change” (Feldman, 2000, p 613). In continuous change theory, process, structure, and strategy respond and adapt to internal and external pressures throughout program implementation (Feldman & Pentland, 2003).

In the performance of organizational routines, Feldman and Pentland (2003) recognize that agency is an important element of routines, and people engaged in performing routines helps explain why routines change. As illustrated in Figure 4.2, organizations settle on relevant routines that consistently evolve as people in the organization perform the routine. It is this constant learning and understanding of how the organization operates that allows the agents to change performance of the routine. As a result, this internal and external interaction during program implementation reflects Feldman’s theory on organizational dynamic (Feldman, 2000). “Outcomes can open up new possibilities by, for instance, creating new resources. New ideas may be required to deal with these outcomes” (Feldman, 2000, p 613). As the internal processes interact with the pressures and demands of external inputs, the processes, structure, and strategy transform. This transformation occurs as initial strategies, knowledge, and institutional values evolve. As the processes mature, the learning cycle continues throughout program completion (Feldman, 2003).

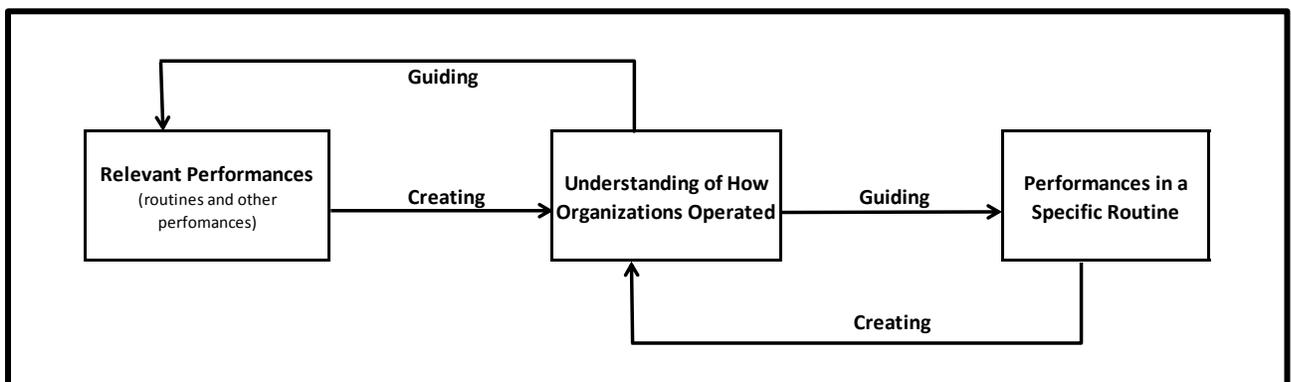


Figure 4.2. Interactions of performances and understandings. Adapted from “A performative perspective on stability and change in organizational routines,” by M. Feldman, 2003, *Industrial and Corporate Change*, 12/4, p. 727-752. Copyright 2003 by ICC Association. Adapted by Amy Winter.

This approach to a theoretical framework illustrates how organizations establish structures, processes, and strategies for program implementation based on pre-existing conditions. These conditions then evolve into routines that change, mature, and repair over the program life cycle. As organizations learn, conditions do not remain static but deliberately capture the adjustments, improvements, successes, and failures of day-to-day activities and routines (Feldman & Pentland, 2003). Additionally, internal or external stimuli create changing conditions that cause on-going adjustments to process, structure, and strategy. During the AF housing privatization, these adjustments, improvements, and reactions continued over the implementation period. Each dynamic adjustment during implementation created a different possibility or opportunity. Because of the dynamic interaction, the organization then instituted the adjustments as part of the evolving conditions (Figure 4.3).

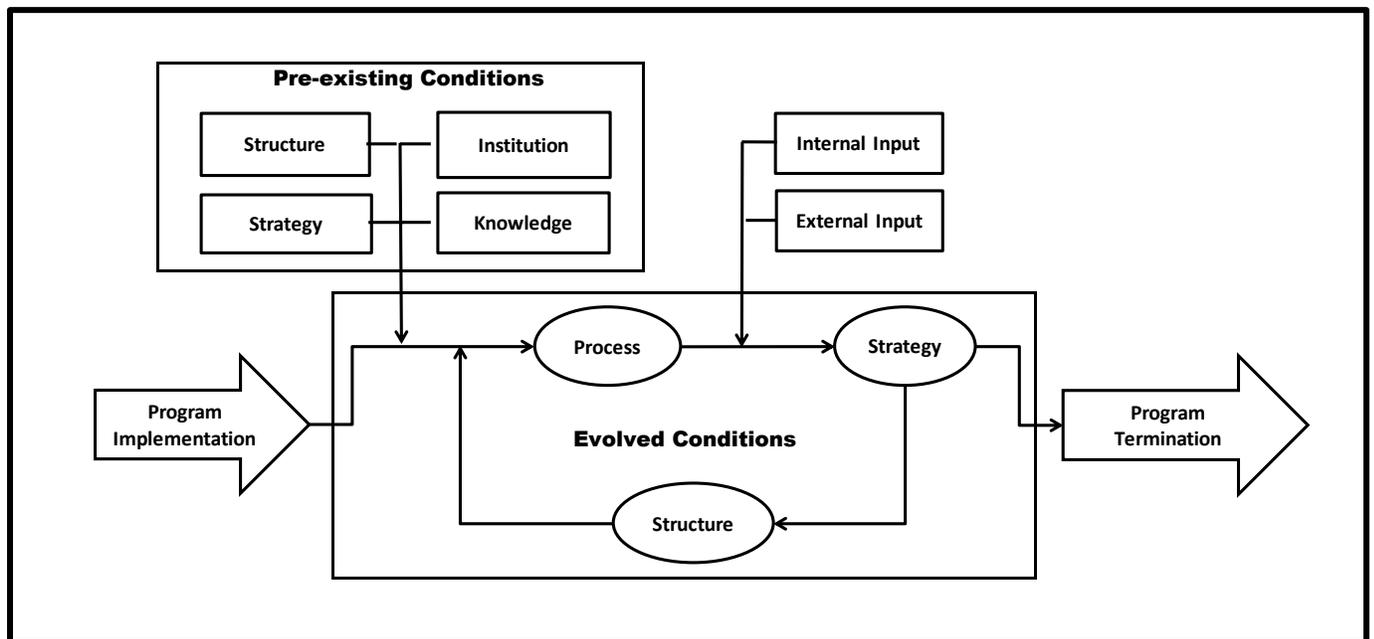


Figure 4.3. Theoretical process, strategy, and structure-based organizational change for AF housing privatization implementation. Adapted by Amy Winter.

Conclusion

This theoretical approach highlights opposite poles of organizational dynamics evident in theory. March's and Simon's (1993) automation and Mintzberg's and Waters' (1985) deliberate strategy reflect the less dynamic, more structured perspective on change. Conversely, Ansell's (2011) pragmatism and Mintzberg's and Water's (1985) emergent strategies reflect the opposite end of the creative spectrum. Likely, most organizations will settle somewhere in between the extremes of the continuous change spectrum. Feldman's and Pentland's (2000; 2003) theoretical approach to organizational routine and continuous change aims toward the middle ground that encourages stability while allowing continuous change and the reciprocal approach reflected in realized strategy building.

Not all organizational routine change is constructive, and not all outcomes provide the intended or desirable results. Sometimes organizational routine change creates stability and other times change (Feldman, 2000). Sometimes the change is virtuous, other times the change is derogatory to the intended outcomes. Understanding that organizational routines can have these divergent impacts is beneficial when considering routines in an organization's performance and potential for positive outcome.

Feldman's (2003) adapted theoretical framework (Figure 4.3) proposes how organizations with institutionalized processes, strategy, and structure might adapt in order to accommodate new and evolving programs. Institutions, by the nature of their organization and culture, harbor pre-existing conditions (Selznick, 1984). If these pre-existing conditions include the people interacting in their day-to-day activities, then this

proposed framework might be relevant. Testing this framework might also reveal how the various levels within an institution influence change in organizational routine that transcends the immediate work environment. This framework also takes advantage of continuous change that creates or maintains legitimacy for the organization (Pentland & Feldman, 2005).

Chapter 5

Process Tracing as an Approach to Making Sense Out of Collecting Data for a Single-Case Study

The outcome of the AF housing privatization implementation during the first 15 years provides a clear indication of initial privatization program efforts. However, how the strategy, processes, and structure changed during the course of the 15-year implementation period is not so clear and since the case study is historical, requires an investigative approach to data collection. Since the implementation period for the AF housing privatization program is complete, explaining the outcome requires looking back at how the program evolved. This dissertation examines a single-case study of how the AF implemented the DOD military family housing transformation. Specifically, it examines how an outcome-oriented process tracing methodology provides an adequate and minimally sufficient accounting of how the AF implemented military family housing privatization.

The AF housing privatization program provides an opportunity to study the implementation of housing privatization across the AF from 1996 until 2011. This timeframe encompasses the period during which the AF negotiated and signed most of the housing privatization lease agreements (AFCEC, 2013). This 15-year implementation timeline provides a suitable single case for investigating the recommendations and continuing adjustments made by organizations responsible for AF housing privatization implementation.

While this recent attempt to leverage private capital for military family housing began in 1996, the privatization program is ongoing and is a long way from completing the expected 50-year performance period for the leasing agreements. However, within

these first 15 years, the implementation period was completed and sufficient data in the form of interviews, historical evidence, textual evidence, and process tracing exists to observe the organizational structure, processes, and strategy during the implementation of AF housing privatization.

Process tracing lends itself of three variants of study: theory testing, theory building, and explaining outcome (Beach & Pedersen, 2013). Theory testing deduces theory from existing literature then tests to see if the theory is validated by the data. Theory building builds upon a generalizable theoretical explanation from empirical evidence. And, explaining outcome provides a minimally sufficient explanation of a puzzling outcome in a specific historical case. Theory testing and theory building are theory centric and explaining outcome is case specific.

There is a clear bifurcation overall between theory-centric and case-centric process tracing, reflecting a choice between building/testing (relatively) parsimonious causal mechanisms that can be generalized across a bounded context of cases and focusing on explaining particular outcomes through the pragmatic use of mechanistic explanations to account for the important aspects of the case. (Beach & Pedersen, 2013, p. 11)

The AF approach to military family housing privatization is complex, involves many different organizational levels and institutional biases and, perhaps most significantly, is very context specific (Beach & Pedersen, 2013). For this single-case study of AF housing privatization implementation, outcome process tracing provides the tools to investigate the workings that contribute to the outcome by tracing the causal

mechanisms that most likely enabled significant organizational change to occur (Beach & Pedersen, 2013).

The complex and context-specific nature of AF family housing privatization as a single-case study does not lend itself to generalizing across multiple cases. Rather the puzzle is how the AF achieved the specific outcome over the 15-year implementation period (Beach & Pedersen, 2013). The causal mechanism links might provide critical insight into the policy processes the AF used during housing privatization implementation. If this is true, then the approach the AF used and the lessons learned might lead to future public-policy recommendations (Yin, 2009). However, this non-generalizing approach of explaining outcome does not mean others cannot learn from the outcome-oriented case study approach (Beach & Pedersen, 2013).

An outcome-oriented approach for the AF housing privatization single-case study relies on multiple sources of evidence to identify the most probable causal mechanisms. Documentation and archival records review, direct interviews, and direct observation were used in investigating AF housing privatization and are important in ensuring there are multiple sources of collaborating and complementary evidence (Yin, 2009). For this dissertation, using multiple sources of evidence started with documentation and archival review. The archival and documentary data shaped the questions used during the interviews. The interviews helped triangulate the researcher's direct observation and experience with AF military family housing privatization. Triangulation of all data is both the purpose and result of using multiple sources of evidence (Yin, 2009).

Reviewing Congressional Research Office reports, General Accountability Office reports, historical, and archival documents confirmed the magnitude of implementing

the housing privatization program within the AF. The initial data collection uncovered multiple, complex data that revealed a variety of internal and external dynamics in the implementation of the Defense Science Board report (1995) recommendations during the first 15 years of program initiation. It became apparent that finding the processes, structure, and strategies that drove this complex program required investigating the significant causal mechanisms that influenced changing processes, evolving strategies, and organizational dynamics (Beach & Pedersen, 2013; Feldman, 2000).

The AF housing privatization program provides a single-case, in-depth study, and identifying the changing processes, evolving strategies, and organization dynamics required a compatible methodology approach. Since the outcome of the initial housing privatization implementation is factual, process tracing helps look backward to investigate how the changing environment influenced the outcome. Following the evolution of AF housing privatization identified the following five causal mechanisms:

- Structuring governance process.
- Collaborating and developing competency.
- Structuring real-estate leases.
- Validating and managing business processes.
- Financing.

Reflecting on Beach and Pedersen (2013), the five primary AF housing privatization causal mechanisms represent complex systems. These complex systems produced outcomes that resulted from the interaction of multiple layers in the AF organizational structure (Feldman & Pentland, 2003). These outcomes, in turn, revealed the results of organizational routines learned from a variety of different

perspectives. The outcome-oriented approach attempts to validate a theoretical framework that proposes how the AF, with institutional processes, strategy and structure, adapted routines to accommodate new and evolving program strategies, structures, and processes (Beach & Pedersen, 2013; Feldman, 2000; Feldman & Pentland, 2003; Jarzabkowski, 2008; Mintzberg & Waters, 1985).

Congress, the AF as an institution, leadership at more than 70 installations, private developers, financial institutions, housing residents, and a 50-year performance period of privatization leases have had a direct and enduring influence on the AF housing privatization program. The AF housing privatization implementation presents a complex, multi-factored, and context-specific case study. This complexity makes generalizing knowledge across many cases difficult, if not impossible. Here, the goal is not to validate organizational routine learning as a theory, but instead to identify the best possible outcome and to build an explanation about the case by analyzing the case study data (Beach & Pedersen, 2013; Yin, 2009).

Using process tracing helped uncover the significant causal mechanisms that trace the five primary AF organizational routines. These primary organizational routines provide the best explanation for how the AF housing privatization processes, structure, and strategy evolved during the first 15 years of the housing privatization program. Chapter 7 presents the AF organizational routines, how they relate to the process tracing casual mechanisms, and how they became the catalyst for the organizational dynamics while the AF implemented the military family housing privatization initiative.

Conclusion

For explaining outcomes in a complex, single-case study, existing theories cannot provide a sufficient explanation for rarely studied programs such as AF housing privatization. Process tracing is an historical method whereby working backward from the end of the AF privatization implementation period and tracing the five AF causal mechanisms validated the outcome. This bottom-up analysis used empirical evidence as the basis for building a plausible explanation of how evolving processes eventually altered the way the AF implemented military family housing privatization beginning in 1996 (Beach & Pedersen, 2013; National Defense Authorization Act for Fiscal Year 1996). Process tracing as a methodology and the five causal mechanisms sufficiently explains the AF housing privatization implementation outcome.

By using an outcome-oriented approach to process tracing, Beach and Pedersen (2013) help us determine when there is a minimally sufficient explanation for an historical accounting. For this dissertation, the five primary causal mechanisms best explain the AF privatization outcome. Process tracing and outcome explanation as a methodology is not expected to confirm the changing processes, evolving strategies, and organizational dynamics; instead, the causal explanations account for the most important aspects of the outcome (Beach & Pedersen, 2013).

Chapter 6

AF Family Housing Privatization Data Analysis

Previous chapters established the context of the research setting by briefly identifying the state of military family housing before the 1995 housing privatization initiative. Earlier housing programs highlight DOD's previous attempts to provide housing for military members and their families. Quality of life, the importance of community, and the need for affordability reflect intangible aspects of privatization. In particular, the sense of community, commitment to quality of life, building personal wealth by military members, and sense of purpose are as important as the lease agreement for the people who choose to reside in, manage, or operate AF privatized housing.

Chapter 4 discussed the basis for the theoretical research and introduced organizational science as the foundation for the theoretical lens. Organizational routine helps explain how people in the AF housing privatization program generated change by performing their day-to-day activities (Feldman & Pentland, 2003). Reciprocal relationships and emergent strategy as well as organizational strategies resulting from individual behavior and action were introduced as complementary strategies supporting Feldman's and Pentland's (2003) organizational routine theory.

By adapting Feldman's (2003) theoretical framework on organizational interaction of performance and understanding, the researcher identified an AF framework for housing privatization that considers how the AF establishes structures, processes, and strategies for program implementation and how conditions might change throughout the program's lifetime.

Since this dissertation investigates a single-case study of the outcome of the AF implementation of military family housing privatization, process tracing was used as an outcome-oriented methods approach. Chapter 5 looked at how process tracing, as an investigative, outcome-oriented method, provides an adequate and minimally sufficient accounting of the most important aspects of the AF housing privatization implementation (Beach & Pedersen, 2013). The investigative, outcome-oriented approach uncovered five causal mechanisms that contributed to AF housing privatization implementation and directly link to the five organizational routines that influenced the outcome.

This chapter analyzes the AF military family housing privatization data. The organization selected for this research was the AF which offered 34 lease agreements in order to examine the housing privatization program implementation and results (AFCEC, 2013) By using the AF housing privatization organizational routines as the unit of analysis, the data collected provides an institutional-level organizational learning and change perspective.¹⁹ Figure 6.1 depicts the Air Force organizational structure at the beginning of the AF military family housing privatization implementation in 1996. The figure establishes the organizational relationships between the installations, intermediate commands, the Air Force Civil Engineer Center (AFCEC), DOD, and Congress.

¹⁹ See Appendix A for a detailed discussion of data collection and unit of analysis.

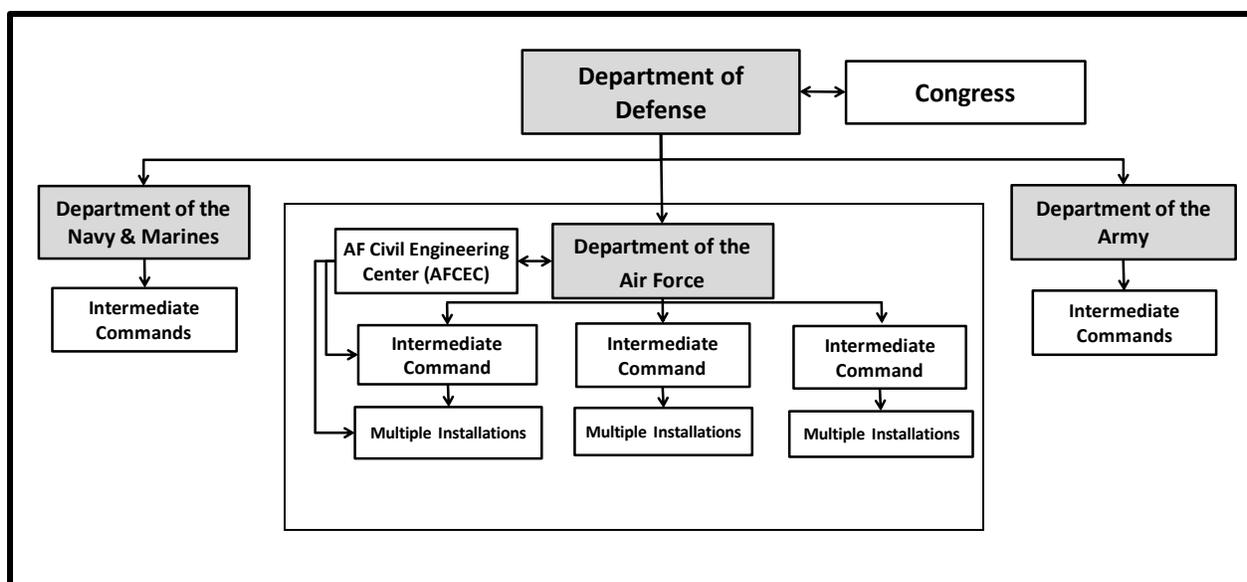


Figure 6.1. Traditional Air Force organizational relationships. This figure depicts the typical AF organizational structure and only shows three intermediate commands; there are a total of nine intermediate commands and 70 installations involved in the AF housing privatization program.^{20, 21} Adapted by Amy Winter.

By the end of the AF military family housing privatization implementation period, the organizational structure for privatization had altered significantly. At the outset, the traditional military lines of bureaucracy prevailed, and this hierarchal structure shaped the structure, knowledge, institutional norms, and strategies (Barnard, 1938; March & Simon, 1993; Wilson, 1989). By the end of implementation, AF learning had evolved from AFCEC as a supporting agency to AFCEC as the AF central housing authority (AFCEE, 2006). This learning was influenced by the day-to-day tasks performed by individuals within the AF and the organizational goals and structure established by the

²⁰ There is one installation-level organization, the United States Air Force Academy (USAFA), reporting directly to the Department of the Air Force. For purposes of this research, HQ USAF considers USAFA an intermediate headquarters.

²¹ The nine intermediate headquarters involved in the AF housing privatization program are the AF District of Washington, AF Special Operations Command, Pacific Air Forces, Air Combat Command, Air Mobility Command, Air Education and Training Command, AF Material Command, AF Space Command, and the Air Force Academy. The United States Air Forces in Europe is the only intermediate command wholly outside the housing privatization program and does not have any privatized housing resulting from the 1996 legislative authority.

AF Housing Executive Steering Group (ESG) (Feldman & Pentland, 2003; March & Simon, 1993). This institutional learning resulted in alterations to the AF housing privatization governance structure, a push toward collaborating and developing housing privatization competency, re-structuring real-estate leases as a means to streamline and accelerate privatization projects, centralizing and consolidating program validation and managing activities, and enhancing financing options for the AF and developers. The causal mechanisms uncovered with the help of an outcome-oriented process tracing approach were the foundation for each of these changes to the AF housing privatization process, strategy, and structure. Figure 6.2 depicts the AF organizational structure after the institutional learning and change that occurred during housing privatization implementation.

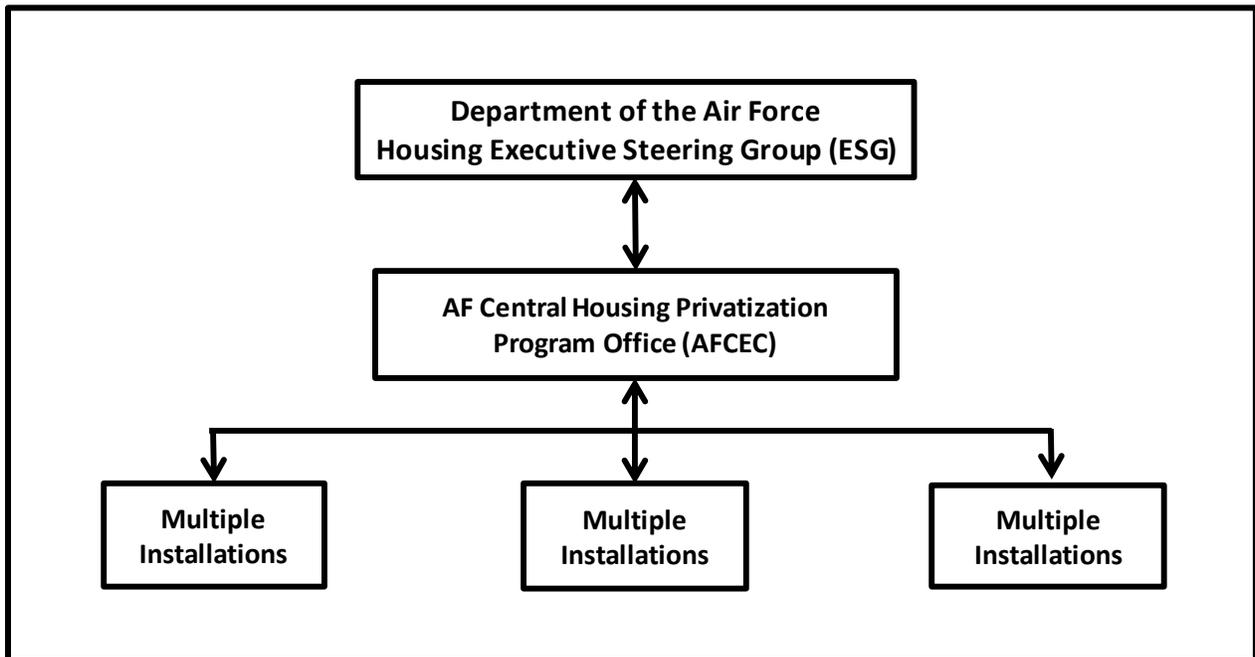


Figure 6.2. The AF housing privatization organizational structure at the end of implementation. This is a simplified depiction of the organizational chart. While the intermediate commands are not represented, they still have functional input into the housing privatization processes, strategy, and structure. However, their role shifted from a primary responsibility to an advisory role. At the end of the implementation

period, AFCEC was the responsible agency for the AF privatization program and had direct access to the installations for program responsibilities. Adapted by Amy Winter.

Numerous external drivers created opportunities for a new approach to AF housing privatization implementation. However, AF budget pressures and the Defense Science Board report (1995) highlighting the negative impact of substandard housing were the primary reasons for change (True, Jones, & Baumgartner, 2007; Walker, 2013). As an example, the Energy Policy Act of 2005, and Executive Order 13327, Federal Real Property Asset Management (2004), are external drivers supporting housing privatization, encouraging transfer of military family housing units to the developers, and contributing to an overall reduction in the AF infrastructure inventory. From an infrastructure perspective, housing privatization reduced the AF facility square footage, the housing operations and maintenance budget, and energy consumption (Energy Policy Act of 2005; Executive Order 13327 (EO 13327), 2004). In terms of asset management and energy conservation, privatizing housing optimized appropriated and private funds for infrastructure activities and reduced physical plant and related facility energy consumption (Culver, 2007; Eulberg, 2008). All of these events contributed to bringing about policy change for the way the AF provided military family housing (Kingdon, 1995; Sabatier & Weible, 2007; True et al., 2007).

The historical perspective, discussed in Chapter 2, was instrumental in identifying how previous DOD housing programs failed to provide adequate family housing. The two earlier privatization programs, Wherry and Capehart housing, started in the late 1940s and ended in the early 1960s. DOD-wide, these two privatization efforts provided 198,742 privately funded housing units (Killinger, 2010). However, both programs were halted due, primarily, to inadequate quality, poor management and oversight, declining

budgets, and partisan political bickering (Baldwin, 1996, 1998; Else, 2001). The 1995 Defense Science Board report (1995) provided renewed interest in alternative approaches to housing and several recommendations to leverage appropriated funds from private sector financing to fast-track housing construction and improvements.

Across DOD, the privatization program leveraged \$2.2 billion in federal funding and \$22 billion in private funds to provide 213,000 privatized family housing units (ODUSD (I&E), 2010). The AF leveraged \$619 million in federal funds and obtained \$8.3 billion in private funds to provide 53,323 family housing units (AFCEC, 2013). In addition, as part of the lease agreements, housing units transferred immediately to the private developers further reducing the housing labor, operations, maintenance, and utility burden on the military budget (EO 13327, 2004; Lepore, 2009; National Defense Authorization Act for Fiscal Year 1996).

Table 6.1 presents the results of the AF housing privatization program as of November 2013 (AFCEC, 2013). This table captures how the transformed AF requirements determination process reduced the need for housing units by 6,781 units AF-wide. In addition, the privatization lease agreements provided 53,323 upgraded, new, and existing adequate units over the 50-year performance period. Since some of the inadequate housing units still require upgrades and others require demolition, Table 6.1 is not additive but depicts the ongoing dynamics of housing privatization at a particular point in time. As of 2013, housing privatization and execution by the developers is ongoing.

Table 6.1

AF Privatization Program Overview. Adapted by Amy Winter.

Military Family Housing Units	Number of Units
Transferred at award (Aug 98 - Sep 13)	60,104
Status as of Nov 2013	
Inadequate units eliminated	41,982
New construction	18,237
Renovation of existing units	10,759
Retained as-is	17,765
Demolition completed	23,022
End-state inventory	53,323

Beginning in 1996 and during the first 5 years of implementation, housing privatization made limited progress (AFCEC, 2013; Else, 2001). Within these first few years, DOD recognized the OSD was not suited to manage a program with new acquisition rules, a variety of evolving installation demands, and complex financial and budget issues. As a result, in October 1998, DOD transitioned housing privatization operational responsibilities to each of the military services while retaining oversight and final privatization lease approval authority (Else, 2001).

Even after transition of operational responsibilities to the military services, progress was still slow as each military service developed its own privatization approaches to fit the service's unique needs. In some cases, the services developed a wait-and-see approach until the lead privatization agreements were consummated and results validated (Else, 2001). During the first 5 years of privatization, as discussed in Chapter 3, several concerns arose that eventually led to significant program-wide changes in strategy, process, and structure (Schuster, 2002):

- Some projects earned rent at higher rates than anticipated due to rising housing allowances that resulted in higher than expected profits for developers.
- Lack of DOD and military services oversight of project improvement decisions resulted in unnecessary or inappropriate project improvements and amenities.
- Assumptions and fees for military services were not standardized and it was unclear if DOD was minimizing overall cost.
- Reports to monitor and evaluate project financial and management data to assess project performance were not timely.

For the AF, these problems eventually led to consolidation of housing privatization into a centralized program office known as the AF Civil Engineer Center (AFCEC).²² Centralization of housing privatization operations into AFCEC facilitated massing of specialized privatization skills and capturing the lessons learned with each project and improving the processes as housing privatization progressed (AFCEE, 1999). These specialized skills became the core housing privatization skill sets and expertise needed to evaluate project awards, manage portfolios, review adjustments or modifications to on-going agreements based on financial stress, and assess new housing requirements (HQ USAF ILE, 2001).²³ Financial stress could be caused by lower-than-expected occupancy rates and the need to modify agreements due to unforeseen increases or decreases in troop strength at specific project locations (Lepore, 2009). According to DOD housing privatization governance, OSD still approves final lease approvals, but the AF centralized approach provides a single

²² In 1991, the AF created the AF Center for Environment Excellence (AFCEE); in 2012 AFCEE was renamed the AF Civil Engineer Center (AFCEC). Starting in 1994, one of AFCEE's primary functions was to provide design and construction assistance for the AF. It soon became the center of expertise for traditional military family housing design and construction.

²³ See Figure 6.2 for the empowered AFCEC organizational structure with respect to the rest of the AF.

conduit for operational program oversight and creates a level playing field across project locations in terms of housing features, amenities, and quality (AFCEE, 2006; Else, 2001; HQ USAF A7C, 2012; ODUSD (I&E), 2010).

Within the centralized AF housing activity, AFCEC created a single privatization office responsible for executing all AF housing privatization efforts. The centralized activity now conducts industry-wide forums to evaluate private sector interest, capacity, and capability to perform housing privatization projects. As part of the industry forums, private sector developers and financial institutions provide feedback about how they can best execute privatization projects. These industry forums address trends and best practices in developing financial packages before project approval and operations and management of projects once capital development is completed (AFCEE, 2010; HQ USAF A7C, 2012).²⁴

Because of private developer and financial sector feedback and a centralized program management perspective, the AF began grouping privatization projects across multiple locations. Using this approach, the AF grouped projects that were initially not viable with other more financially robust projects. The AF originally planned on 50 privatization projects to satisfy housing needs. Transitioning to a grouping strategy reduced the number of privatization lease agreements from the initial 50 proposals to 34 projects that resulted in a \$13.7:1 private sector to AF return on investment. This \$13.7:1 return on investment greatly exceeded the original DOD \$3:1 targeted rate of return for private equity to federal investment (Holman, 2006). Without this bundling

²⁴ Privatization projects typically have an initial five-year capital improvement period, and then day-to-day activities take over for the long-term operations and maintenance of the projects. Throughout the 50-year life of the project lease agreements, there are additional capital improvements scheduled by the developer to keep the housing units up to local housing standards and provide additional features and amenities.

approach, the AF would only be 65% privatized whereas, as of 2014, the AF has privatized 100% of eligible military family housing located in the United States and U.S. Territories (AFCEC, 2013).

A core organizational component in the AF housing hierarchy is the AF Executive Steering Group (ESG). This organization of senior AF members, located mostly at AF headquarters, includes primary stakeholder functions from across the AF, e.g. legal, engineering, security, budget analysis, and installation management. Initially, the ESG served as an corporate advisory body for the various decision-making bodies on privatization strategies, acquisition, and compliance (Deputy Assistant Secretary of the Air Force (DASAF) (Installations), 2004). During the first 15 years of housing privatization implementation, the ESG became more directive and consolidated significant developer-selection and lease-approval milestone decision points from more than 80 entities into three primary activities. By bringing the major milestone decisions into the ESG, the ESG put themselves in a better organizational position to influence privatization at other AF organizational levels (Feldman, 2000; Ostrom, 2007). The shift in housing privatization authority to the ESG effectively brought the installation commanders and intermediate command headquarters into a more participative and less antagonistic decision-making structure (Selznick, 1949).

In the first round of projects, each of the local installation program offices, with assistance from the intermediate commands, executed their own privatization deals. For the AF, several initial program stipulations created execution problems, such as the need to have severable housing. Severable housing required an installation to consider only the housing units that, if the project failed, could be severed from the installation

without mission or security impact (Chief of Staff of the Air Force (CSAF), 2001). More significantly, the severability stipulation created an inequity at installations where personnel living in privatized housing enjoyed upgraded housing with modern amenities while those in non-severable housing remained mostly in inadequate, substandard federally owned family housing. Junior enlisted or non-commissioned officers occupied most of the inadequate federal housing. This meant the intent of the Defense Science Board recommendations (1995) to provide adequate housing for junior enlisted members remained unfulfilled.

Early attempts at privatization considered only single installations and usually only a portion of the existing housing inventory. Early in privatization implementation, the ESG and intermediate command headquarters identified several locations where the market analysis and condition of existing inventory would generate significant revenue and provide housing units in excess of the DOD housing standards, features and amenities (AFCEC, 2013). At other locations, the market analysis and condition of existing units allowed for only minimally profitable projects or, in several cases, a developer could not develop a business case or arrange financing at all. As a result, based on ESG direction, AFCEC started grouping their under-performing projects with their over-performing projects to minimize the financial risk and achieve overall program goals (AFCEC, 2013; HQ USAF ILE, 2002).

The distinctions between previous attempts to privatize military family housing under Wherry, Capehart, and 801 and 802 leasing authorities, and this latest attempt are considerable. Yet, the full impact of the latest attempt to privatize military family housing is difficult to assess since the current approach is only 15 years into a 50-year

project life. However, clear distinctions do exist. As discussed in Chapter 2, previous privatization efforts were terminated early because of inadequate quality, poor management and oversight, declining budgets, and partisan political bickering (Baldwin, 1996, 1998; Else, 2001). In these previous efforts, the Wherry and Capehart programs averaged a 5- to 6-year timespan before DOD and Congress were compelled to purchase existing housing units from the developers or halt further construction. If program life can be used as a measure of success, the current DOD military family housing privatization program has already more than tripled the average program life of previous DOD privatization attempts.

The problems uncovered during the initial implementation period of the latest attempt at privatizing family housing eventually strengthened the overall AF program (Schuster, 2002). Transitioning program execution oversight from DOD to the AF created an opportunity for a centralized privatization management activity at the service level that eventually streamlined decisions and allowed rapid assimilation of creative housing privatization solutions from one project to another (Else, 2001).²⁵ This allowed rule making at a higher organizational level in the AF and had greater influence on subordinate levels in terms of responsiveness to the AF Secretariat for housing privatization policy and execution (DASAF (Installations), 2004; Feldman, 2000; Ostrom, 2007). Most importantly, the centralized program management approach facilitated grouping projects across geographic regions and multiple intermediate commands to capitalize on financial strengths and mitigate weaknesses (AFCEC, 2013).

²⁵ While DOD and Congress chose not to establish a single DOD housing authority, the AF program eventually took on the role of functioning as a single housing authority within that service (DASAF (Installations), 2004; Marsh, 1995).

The affordability, reliability, and predictability of military family housing have increased significantly since Congress enacted the bipartisan housing privatization legislation in 1996. Based on the 2009 program evaluation compiled by DOD, depending on the type of unit (new, renovated, or un-renovated), occupant satisfaction ranges from 89% to 92% across all housing privatization within DOD and occupancy rates were 95% program wide. Even with these positive indicators, high levels of occupancy might be the greatest indicator of customer satisfaction given the primary reason military members choose privatized housing is quality, safety, and affordability (ODUSD (I&E), 2012).

Most military members are not required to live in privatized housing; they have a choice (Else, 2001; Marsh, 1995). This is especially relevant since continuous combat operations beginning in the early 1990s placed great stress on the all-volunteer military forces. To help offset this stress, quality housing creates a sense of community and reduces stress on families while military members deploy (Marsh, 1995). Based on the high occupancy and satisfaction rates, members choose to live in privatized housing for a variety of reasons that include quality, cost, safety, amenities, convenience, and availability (ODUSD (I&E), 2012). In previous attempts at privatization, because residents and the military were not satisfied with the results of the program, the programs failed and DOD or Congress terminated them (Baldwin, 1996, 1998; Else, 2001). With junior enlisted and non-commissioned officers making up almost 70% of privatized residents, DOD housing privatization addresses, at least in the first 15 years, Defense Science Board (1995) concerns about adequate, quality, timely, and affordable housing for junior enlisted members (LMI Government Consulting, 2010).

The first 15 years of the AF housing privatization program created three distinct phases (see Table 6.2). Evolving strategy, structure, and processes distinguish each of these phases. The first phase reflected the initial strategy, structure, and routine as defined by the legislation and as previously conducted for programs like Wherry, Capehart, and the 801 and 802 leasing- and rental-guarantee programs. This first phase marked tepid engagement, experimentation with previous approaches, and, in some cases, a willingness to wait and see the results from pilot projects to gauge how well they worked (AFCEC, 2013; Else, 2001).

The second phase characterized foundational changes in structure and strategy. Here, the ESG became more actively involved in shaping the environment for housing privatization once DOD shifted program execution responsibility to the military services (Else, 2001; Feldman, 2000; Ostrom, 2007; Selznick, 1984). Realigning the developer-selection authorities, centralizing program management, combining multiple projects into single-lease proposals, creating a center of expertise with effective real estate leasing tools and qualified contractor support staff, and reducing financial risk across projects are all examples of significant shifts driven, in large part, by continuous learning and change in organizational routines (AFCEC, 2013; AFCEE, 1999; Feldman, 2000; HQ USAF A7C, 2012; HQ USAF ILE, 2000, 2001, 2002; Ostrom, 2007).

By the third phase, AF leadership and housing privatization residents could see firsthand the changes housing privatization brought to the quality of life for military families (AFCEC, 2013). Adjustments to organizational approaches increased the speed of delivery mechanisms, reduced financial risk, and expanded the variety and quantity of local project amenities. Most importantly, these adjustments enabled the AF

to balance developer risk at locations previously determined too risky for privatization (AFCEC, 2013).

Table 6.2

AF Privatization Program Phases. Adapted by Amy Winter.

Project Award Years	Program Phases	Number of Installations	Total Privatization Projects	Single Installation Projects	Multiple Installation Projects	Equity Investment Ratio	End-State Housing Units
1998 - 2006	Phase I	15	15	15	0	12.3	16,328
2007 - 2008	Phase II	32	13	5	8	19.1	21,062
2011 - 2013	Phase III	23	6	1	5	8.8	15,933
Program Totals		70	34	21	13	13.7	53,323

The organizational structure adjustment the ESG made to establish a single developer-approval authority was transformational and defined new institutional directions and boundaries for housing privatization structure and process strategy (DASAF (Installations), 2004; Feldman, 2000; Ostrom, 2007; Selznick, 1984). These adjustments accelerated the implementation schedule, led to consolidated management in a central program structure, combined multiple projects into single-lease proposals, and enhanced financial performance (AFCEC, 2013; HQ USAF A7C, 2012; HQ USAF ILE, 2000, 2001, 2002). This level of organizational learning highlights how changes to structure, strategy, and process enhanced the ability of the AF and the AF housing privatization program to learn and perform (Feldman, 1989; Jarzabkowski, 2008; Mintzberg & Waters, 1985).

To reduce the time needed to approve privatization leases, the AF began negotiating with existing developers to combine follow-on privatization proposals with earlier lease agreements (AFCEC, 2013; HQ USAF ILE, 2000, 2001, 2002). This approach accelerated construction schedules to comply with the housing improvement mandates, created incentives for privatizing locations that would otherwise carry

excessive financial risk, and began to level amenities and construction quality across multiple projects (AFCEC, 2013).

After the initial implementation phase, the need for a transformed approach to housing privatization established a centralized AF support activity for housing privatization (AFCEE, 1999; HQ USAF ILE, 2000, 2001, 2002). Within a short time, this support agency became the center of expertise for all housing privatization projects and began to function as the central program office for the AF on housing privatization issues (AFCEE, 2006; Else, 2001; HQ USAF A7C, 2012).

The central program support office, combining multiple projects into single lease proposals, and a single developer-selection authority created the environment for significant change in the execution strategy, organizational structure, and processes for family housing privatization. Just as significantly, once long-term privatization portfolio oversight shifted to AFCEC, that office no longer supported just housing privatization but now provided primary execution of the entire housing privatization portfolio (AFCEE, 2006). Phase II (Table 6.2) clearly depicts the overall impact of a central program office, consolidated developer-selection authority, and combining projects into single lease proposals (AFCEC, 2013). With fewer total projects than in phase I, the second phase was able to provide an increased number of housing units at a much higher equity investment ratio (AFCEC, 2013).

Delegation of program operations from OSD to the military services, and in the case of the AF, establishing the ESG and consolidating program execution and portfolio management into a centralized activity, created the conditions for the third phase of program implementation. The first phase was associated with pilot programs, initial

program strategies, and distributed authority. The second phase streamlined business processes, consolidated program support, and reduced developer financial risk. The third phase of implementation made full use of the consolidated program activities and centers of expertise. The projects in phase III represented high-risk projects that were not financially viable in earlier stages, so this phase presented new challenges.

Advances in the strategy for combining projects, incorporating lessons from earlier projects through the central program office, and a single-developer and lease-approval authority resulted in an approach to privatizing the remaining difficult housing locations.

After phase 1, the subsequent two phases are marked by significant improvements in the number of housing units completed, amenities provided, implementation of common housing standards, and reduced financial risk (AFCEC, 2013; AFCEE, 2010). Only within the third phase did the organizational dynamics of housing privatization become noticeably visible and associated with response to change (Feldman, 2000). In essence, as Feldman (2000) explains, the actions that were expected based on established structure and process did not always produce the intended outcomes; so, the day-to-day activities of the privatization participants led to routines that achieved a desired outcome. Probably the most visible results came in two areas. The AF privatized all 70 locations with 34 lease agreements (AFCEC, 2013). Locations that were not financially viable initially are now bundled with over-performing locations that reduced financial risk and created the business case for overall program improvement (AFCEC, 2013). At the same time, from a resident perspective, the overall quality-of-life improvements represent tangible improvements to military family

housing all within the constraints of the individual service member's housing allowance as the cash stream (AFCEC, 2013; ODUSD (I&E), 2010).

Conclusion

The data and analysis support the theoretical framework (Figure 4.3) as applied to the AF housing privatization initiative. This research shows that, within the AF housing privatization program, organizational routines allow day-to-day activities to act as incubators of change and influence overall program change. These organizational routines are discussed in Chapter 7. At the same time, the AF organizational dynamics allowed the ESG to interact with lower organizational levels, in this case the central program management activity and installations, when opportunities for improvement to the overall program occurred (Feldman, 2000, 2003). AF implementation of housing privatization strengthens the organizational routine approach as a framework and helps provide insight into how its processes, strategy, and structure evolved during the first 15 years of AF housing privatization implementation.

Chapter 7

The Five Organizational Routines in Implementing the AF Military Family Housing Privatization Initiative

Previous chapters established the research setting by briefly identifying the state of military family housing before the 1996 housing privatization initiative (Baldwin, 1996, 1998; Else, 2001). Quality of life, the importance of community, sense of community, commitment to quality of life, service members building personal wealth, and sense of purpose are important for the people who choose to reside in and those who manage and operate AF privatized housing (Else, 2001; Marsh, 1995).

The organizational routine theoretical discussion in Chapter 4 introduced organizational theory as the foundation for the theoretical lens and organizational routine to help explain how people in the AF housing privatization program generated change by performing their day-to-day activities (AFCEE, 1999; DASAF (Installations), 2004; Feldman & Pentland, 2003; HQ USAF ILE, 2000, 2002). Reciprocal relationships, emergent strategy, and organizational strategies resulting from individual behavior were introduced as complementary strategies supporting Feldman's and Pentland's (2003) organizational routine theory (Jarzabkowski, 2008; Mintzberg & Waters, 1985). By adapting Feldman's (2003) theoretical framework for organizational interaction of performance and understanding, the research developed an AF framework (Figure 4.3) for housing privatization that considers how the AF established structures, processes, and strategies for program implementation and how conditions change throughout a program's lifetime (Feldman, 2000; Feldman & Pentland, 2003).

Since this dissertation investigates an historical single-case study of the AF implementation of military family housing privatization, process tracing was used as an

outcome-oriented methods approach. Process tracing, as an investigative, outcome-oriented method, provides an adequate and minimally sufficient accounting of the most important aspects of how the AF implemented housing privatization (Beach & Pedersen, 2013). The investigative, outcome-oriented approach uncovered five causal mechanisms that contributed to AF housing privatization implementation and link directly to the five organizational routines that influenced the outcome.

This research indicates, within the AF housing privatization program, that organizational routines allow day-to-day activities to act as incubators of change and influence overall program evolution. At the same time, the AF organizational dynamics allowed the ESG to interact with lower levels within the organization, in this case the central program management activity and installations, when opportunities for improvement to the overall program occurred. How the AF implemented housing privatization supports the organizational routine approach as a theoretical framework and provides insight into the processes, strategy, and structure that evolved during the first 15 years of AF housing privatization.

To investigate implementation of the 1996 military family housing privatization program and how this most recent approach changed the way the AF provides housing for military families, the researcher examined the process changes, organizational structure modifications, and strategy adjustments implemented by the AF. To understand how the changes, modifications, and adjustments occurred, the researcher used organizational routine theory to explain how the AF generated change by people performing their day-to-day activities (Feldman & Pentland, 2003). The five routines discussed in this chapter help explain the organizational strategy adaptation,

improvement to the implementation process, and organizational structure modifications that emerged to address the quality, quantity, affordability, and timeliness of AF military family housing (Feldman & Pentland, 2003; Jarzabkowski, 2008; Mintzberg & Waters, 1985).

First, the researcher viewed the entire AF organization as the unit of analysis. Since the research and data collection centered on AF-wide implementation of housing privatization, it appeared natural to consider the various shifts in strategy, changes in organizational structure, and modifications to processes at a macro level using the AF as a unit of analysis. Data collection and interviews occurred across a variety of organizational levels that included several AF installations, multiple intermediate headquarters, headquarters AF, the AF Secretariat, and private developers.²⁶

As data collection and analysis continued simultaneously, conceptualizing the meaning of the data in terms of organizational dynamics from an AF-wide perspective became easier, as expected, but more complex. Based on ongoing research and feedback from the dissertation committee, it became apparent that it was necessary to understand the internal structure of the organizational routines in order to better analyze and understand the organizational theory of the AF military family housing privatization implementation.

The five causal mechanisms for housing privatization, identified by using an outcome-oriented approach within process tracing, clarified privatization implementation from an organizational routine perspective. Since organizational routines are the primary means bureaucracies use to perform work, it was necessary to shift the unit of

²⁶ Organizational levels refer to the AF organizational structure as presented in Figures 6.1 and 6.2. Details of data collection are included in Appendix A, Data Collection Approach.

analysis from the AF-wide level to the organizational routine level (Pentland & Feldman, 2005). Shifting the unit of analysis to organizational routines altered the research especially as individual sources for shared organizational power, emerging participants, and the resulting interconnected actions surfaced during interviews that occurred during the second stage of data gathering (Feldman, 2000).

The shift to an organizational routine as a unit of analysis allowed a better understanding of how the multiple levels within AF housing privatization implementation influenced the outcome during the first 15 years of privatization. This shift also confirmed how the organizational routines continuously evolved due to changes to their internal structures and dynamic interactions (Pentland & Feldman, 2005). None of the five organizational routines was performed in isolation. They all changed continuously, developing their own momentum, influenced by multiple levels within the AF structure, and reflected the many streams of routines constantly intersecting in organizational dynamics (Pentland & Feldman, 2005).

Individuals were selected for a variety of reasons but mostly for their responsibilities and experience with military family housing privatization (see Table A1.1 for a listing of the 21 individuals who were interviewed and their involvement in military family housing privatization implementation). Several senior DOD and AF program interview subjects included Congressional, OSD, and AF staff members who authored the original 1996 housing privatization enabling legislation and the 2006 permanent legislation. Other interviewees were in the Office of the Principal Assistant Deputy Undersecretary of Defense (Installations and Environment) and the OSD privatization offices. AF senior executive service and staff members from the AF Housing

Privatization Executive Steering Group and from the AF central program office were also interviewed. Private developer interviews included persons located on military installations with housing privatization projects as well as persons identified during previously conducted interviews. Housing resident interviews included military members and their families who currently or previously lived in government, privatized, or local community housing.

Because of the nature of process tracing and the investigative perspective for an outcome-oriented analysis, witnessing the performance of the routines by the various activities was not possible. As a result, an idealized and documentary approach dominated data collection. Since the idealized, documentary activity of the routines overlapped, autonomous or discrete aspects of an organizational routine were difficult to distinguish empirically. While institutional data tends to reflect artifacts more than an idealized general pattern of organizational routines, interviewing senior DOD and AF program officials, reviewing program guidance correspondence, GAO audits, CRS reports, and the Defense Science Board report (1995) reflected a more dominant idealized strain of research data.

Routines are important to the organizations in which they evolve, and they reflect a variety of personal and institutional features. Finding the relevant features that guide the work organizations accomplish is meaningful work. According to Feldman (2003, p. 727), "Routines are a principal engine for work that firms, organizations, and even markets accomplish. From an evolutionary perspective, routines are important to the reproduction of the firms." The relevant features are signification, domination, and legitimization (Feldman, 2003). The five routines presented in this chapter reflect the

relevant features; they are linked directly to the five causal mechanisms. These causal mechanisms and the organizational routines they reflect sufficiently explain the outcome of the AF housing privatization program implementation (Beach & Pedersen, 2013).

To be sure, numerous other causal mechanisms and organizational routines influenced the AF housing privatization implementation outcome. However, each of the organizational routines presented in this research are complex and transcend multiple levels of the organizational structure (Pentland & Feldman, 2005). These attributes make the five organizational routines identified the most dominant and significant routines that influenced the outcome and legitimized AF housing privatization implementation (Feldman, 2003; Feldman & Pentland, 2003). The following analysis (Table 7.1) maps the causal mechanisms and five organizational routines presented in this chapter to the organizational dynamics, structural modifications, and evolving strategy used as the theoretical lens and framework.

Table 7.1

Mapping of Causal Mechanism, Organizational Routine, Organizational Dynamic, Structural Modification, and Evolving Strategy. Adapted by Amy Winter.

Mapping Analysis				
Method and Unit of Analysis		Theoretical Lens and Framework		
Causal Mechanism	Routine Learning	Organizational Dynamic (Feldman)	Structural Modification (Mintzberg & Waters)	Evolving Strategy (Jarzabkowski)
Structuring governance processes	Establishing one authority for developer selection	X	X	X
Collaborating and developing competency	Establishing an AF housing privatization center of expertise	X	X	
Structuring real-estate leases	Combining multiple locations into single leases	X		X
Validating and managing business processes	Centralizing operational oversight	X	X	
Financing	Bundling leases across geographical regions	X		X

By using process tracing to identify the minimally sufficient causal mechanisms, an outcome-oriented investigative approach captured how the AF adapted and created new and evolving routines during the housing privatization implementation (Beach & Pedersen, 2013). These organizational routines account for how the five primary AF causal mechanisms best explain the outcome and provide explanations for the changes in financial risk, quality, quantity, and timeliness of AF privatized family housing implementation. The details of each organizational routine follow.

Organizational Routine 1: Establishing a Single Authority for Developer Selection

- Causal mechanism: Structuring governance processes
- Theoretical lens: Organizational dynamic, structural modification, evolving strategy

The change to the AF housing privatization governance process for selecting the housing privatization developer is probably the single most influential change that created continuous improvement in the AF housing privatization effort. Each housing privatization effort had two significant approval milestones: developer selection and lease approval. At the outset of housing privatization in 1996, the AF developer selection rested with nine different offices, and the lease-approval process resided in yet another office. Each of the housing privatization developer-selection authorities was located at one of nine different AF intermediate headquarters located across the United States. The AF Secretariat, located in the Pentagon, was already the single lease-approval authority.^{27, 28, 29} Since the AF had more than 70 housing privatization locations to consider and nine developer-selection authorities, the AF organizational structure, implementation strategy, developer-selection, and lease-approval processes for the 70 installation-level housing privatization efforts were subject to 12 different interpretations and a variety of implementation strategies.³⁰ Ultimately, this cumbersome administrative routine for housing developer selection and lease approval

²⁷ Intermediate headquarters are those military command activities located in the organizational structure between HQ Air Force and the installations in the AF military chain of command. Intermediate headquarters are aligned traditionally by their military missions and across geographical regions. In the AF, these military commands are Space, Air Combat, Airlift Mobility, Education and Training, Logistics and Maintenance, and Special Operations. There are three geographical commands and one direct reporting unit: HQ U.S. Air Forces in Europe, HQ U.S. Pacific Air Forces, HQ AF District of Washington, and the Air Force Academy. For housing privatization, HQ U.S. Air Forces Europe was not involved since all of their installations are located overseas, and 1996 housing privatization legislation only applied to installations located within the United States and its territories.

²⁸ The AF activated Global Strike Command in 2009 from two existing intermediate headquarters (Space and Air Combat) and multiple installations. Global Strike Command is the benefactor of earlier Space and Air Combat Command housing privatization and did not implement any privatization projects of their own.

²⁹ By statute, the AF Secretariat is the civilian authority responsible for all real estate transactions and recommendations to OSD and Congress, including real estate lease agreements. The office responsible for real estate oversight reports to the Secretary of the Air Force.

³⁰ The 12 activities interpreting housing privatization policy, governance, and implementation were the nine intermediate headquarters, Air Force Civil Engineer Center (AFCEC), the Air Staff, and the AF Secretariat.

was non-responsive in terms of providing needed improvements to family housing for military members.

Military culture traditionally places responsibility for unit mission and organizational quality of life at the lowest level of responsibility within the hierarchical structure, usually referred to as the military chain of command. Individual unit commanders at the installation level are responsible for their troops and the aspects of military life that affect the well-being of military members and their families. If the unit commanders do not have the authority to exercise control over a specific issue, the issue advances up the chain of command through increasing levels of authority until a level is found that can effect change (Figure 6.1). For housing privatization, these command levels vary depending on a variety of complex interactions and organizational levels of responsibility and accountability.

During early implementation of housing privatization, local installation commanders were responsible for initiation and execution of the overall housing privatization effort given their traditional role as base housing landlords and the absence of AF directives providing alternatives. However, depending on dollar amounts, nature of the agreement, and duration of the lease agreement, senior levels of command often accrued authority because of experience, impartiality, or fiscal and legal accountability. For housing privatization, the authority to select the real estate partner to develop a final lease proposal rested within the intermediate command headquarters, usually with a senior general officer or civilian equivalent. The AF refers to this action as the developer-selection authority.

During housing privatization implementation from 1996 through 2001, the developer-selection process was lengthy, cumbersome, and inconsistent. Developer selection involved the activities of 12 different agencies. These activities and agencies occurred at multiple levels within the organizational structure and included installations, intermediate headquarters, AF headquarters, the AF Secretariat, and AFCEC. Each function had varying responsibilities that involved initial project proposal scoping, local housing market analysis, housing requirement determination, financial analysis, and legal sufficiency. All these responsibilities required significant action, interaction, and coordination between multiple organizations. These activities culminated in selecting the best available real estate candidate from proposals submitted by numerous developers, and the installation then negotiates the best proposal with the developer for final review, eventually culminating in a final lease approval by the AF Secretariat.^{31, 32}

During developer selection, AFCEC was a technical advisor to multiple levels within the AF chain of command. AFCEC, as a technical advisor, typically had representatives on the installation housing privatization team providing installation commanders with recommendations and advice. The intermediate headquarters staffs also hired AFCEC as a technical advisor. Often, because of differing intermediate headquarters responsibilities, experience, or perspectives, AFCEC consultant advice to the intermediate headquarters was not always the same as recommendations provided at the installation level.

³¹ For the purpose of this research, lease approval occurred when the AF recommended a final project to OSD for approval. OSD then submitted all housing privatization lease agreements to Congress for a specific notification period (usually 21 days). If Congress offered no objections within the specified period, OSD approved the proposal.

³² The Secretary of the AF is not the actual real estate lease-approving official. The Secretary of the AF delegates real estate lease approvals to the Deputy Assistant Secretary for Installations. Lease approvals are vested in a single position, and that position is one of the co-chairs of the Housing Privatization Executive Steering Group.

Ultimately, all of the entities had to come together with a formal recommendation for developer selection to the intermediate headquarters based on the best developer proposal. After developer selection, the installation leadership further negotiated with the developer and provided recommendations to the AF Secretariat for approval of the final privatization real estate lease. The coordination between installations and intermediate commands for developer selection was time consuming and cumbersome, gave significant opportunity for traditional AF culture to influence the progress of developer selection and lease approval, and this already extensive coordination was made even more complex with the AF Secretariat as the final lease-approval authority. To minimize conflict during final lease approval, ESG members participated as stakeholders during developer-selection presentations to the intermediate headquarters because they would eventually review the developer's proposal and make recommendations to the AF Secretariat on real estate lease approval.

In preparation for developer selection, the AF Secretariat required pre-coordination and often used the Air Staff and Secretariat functional offices, e.g. engineering, financial, legal, and real estate, for review and recommendations on housing privatization proposals. Similar to the conflicting views that occurred between intermediate headquarters and their installation leadership, the Secretariat and Air Staff offices also had differing perspectives, experiences, and responsibilities. As a result, the circle of coordination expanded, and the interaction and divergent privatization proposal transactions increased significantly.

As a complicating factor, the Air Staff and AF Secretariat also turned to AFCEC for recommendations and advice on the privatization proposals in an attempt to simplify

the process. As an organizational dynamic, this meant AFCEC had technical advice and recommendation responsibilities to four different organizational levels (installation, intermediate headquarters, Air Staff, and AF Secretariat) in the developer-selection process, all with unique perspectives and differing responsibilities. As a technical advisor, AFCEC began developing a set of institutional values for housing privatization implementation. This AFCEC center of knowledge added yet another divergent organizational dynamic.

Cumbersome is a polite term for this lengthy and convoluted level of interaction and dynamics. Since increasing levels of authority were involved in each decision, the subordinate levels and functional staffs required prior coordination as well. Also, remember that developer selection was only the first of two major milestones requiring this level of review. After the installations finalized lease negotiations with the developer, another round of approvals was required. The AF Secretariat needed to approve the lease proposal as well as the coordination cycle of related timelines, perspectives, and responsibilities. Any re-negotiations between the interested stakeholders were repeated.

Not all was lost. Often the ESG combined multiple lease approvals into single decision meetings to conserve time and improve interaction; but these multiple-project sessions had risks as well. Because multiple installations and intermediate headquarters attended the ESG sessions, a variety of differing perspectives occurred across functional and operational entities highlighting a wide range of developer proposals and conditions. These conditions created concerns about equity in housing

size, amenities provided, reinvestment and financial arrangements, timelines for development, and the ever-present special interests.

Program emphasis and command structure influence varied depending on level of engagement and functional responsibilities. Installations wanted to maximize the housing unit size, amenities, and the overall number of units. Intermediate headquarters wanted consistent housing across their commands and rapid implementation to offset reduced housing operation, maintenance, and construction budgets. Last, the Air Staff and Secretariat tracked overall housing status and quality of life, so they focused on implementing the Defense Science Board report (1995) recommendations and meeting Congressional timeline mandates. At the same time, all organizational levels recognized the need to reduce the percentage of the AF budget consumed by housing operations and to re-direct housing funds to other AF operational priorities.

As a center of expertise, AFCEC, along with the ESG, wanted to simplify the process and create a standard approach to implementation that ensured consistency throughout the technical and advisory responsibilities at all levels of program implementation. To create this level of consistency, the ESG altered the developer-selection process they inherited from earlier attempts to execute military family housing at the lowest possible level in the organizational chain of command. To streamline developer-selection and lease-approval processes, the ESG removed developer selection from the intermediate headquarters and consolidated it into the AF Secretariat with execution and management responsibilities centralized at AFCEC. This meant the housing privatization developer selection and real estate lease approval were vested in

the same person on the AF Secretariat staff. In terms of organizational dynamics, this action consolidated housing privatization into a single office on the AF Secretariat staff (DASAF (Installations), 2004; Feldman, 2003).

Even though the ESG consolidated developer selection in the AF Secretariat, installation and intermediate headquarters remained responsible for each housing privatization project. Installation responsibilities included developing project proposals, conducting local housing market analysis, determining and validating housing requirements, recommending between competing real estate developers, negotiating financial considerations, and ensuring legal sufficiency (HQ USAF A7C, 2012). However, by consolidating developer selection and lease approval, the ESG now had more control over timing, content, and consistency across the entire AF housing privatization program.

The ESG changed the organizational structure and eventually changed the privatization strategy by consolidating developer selection for all AF housing privatization proposals into a single office (DASAF (Installations), 2004). The ESG recognized that the interdependent actions of 70 different installations and nine intermediate headquarters had a negative impact on privatization performance. This negative impact resulted in increased uncertainty, ambiguity, and complexity in program interpretation and implementation and caused delays in achieving privatization lease approvals. By consolidating developer selection at the ESG level, the ESG not only improved the housing privatization process and problem-solving ability but also created new opportunities for execution strategy and organizational structure not previously envisioned (Feldman & Pentland, 2003).

This shift by the ESG in designating the AF Secretariat as the developer-selection authority influenced further organizational dynamics. These dynamics included establishing an AF housing privatization center of expertise, combining multiple housing privatization locations into a single-lease agreement, centralizing operational oversight, and bundling leases across geographic regions. These dynamics ensured access to the expertise necessary to produce privatization leases that were good deals for both the AF and privatization developers. The next four organizational routines discussed provided opportunities for improvement in housing privatization implementation.

Organizational Routine 2: Establishing a Housing Privatization Center of Expertise

- Causal mechanism: Collaborating and developing core competence
- Theoretical lens: Organizational dynamic, structural modification

Establishing AFCEC as the center of expertise for housing privatization contributed many changes in organizational dynamics and shifts in structure. Initially, AFCEC was a relatively neutral and impartial agency in the housing privatization process. While installation commanders desired partiality as they focused on taking care of their troops, having AFCEC as a center of expertise proved complimentary. AFCEC performed the arduous task of technical review and sufficiency while freeing the installation programs to concentrate on proposal content, timing and sequencing of housing improvements, quality of housing market analysis, and housing features and community amenities. At the same time, AFCEC invested in the administrative aspects of a developing program and brought banker-developer expertise to the AF side of developer negotiations. They standardized operating procedures, developed training

programs, and began negotiating between the conflicting organizational power structures and overlapping organizational routines (Feldman, 2003; HQ USAF A7C, 2005, 2012). Negotiating between the power structures and across organizational routines became increasingly important because of the 12 different developer-approval authorities, the differing leadership influence from 70 installation commanders, and the developer relationships that came negotiating 34 housing privatization lease agreements.

For more than a century, AF installation commanders had the responsibility for planning, programming, designing, constructing, and operating military family housing using prescribed design, construction, and contracting methods funded with Congressional appropriations.³³ While different levels of command or activities might be involved in executing military housing construction projects, overall responsibility for military family housing rested with the local installations and their commanders. For military housing privatization, the initial strategy, structure, and processes were no different from previous attempts to leverage private funds for military housing projects. As already discussed, Wherry and Capehart Housing were the two most significant programs in earlier attempts at privatizing military family housing (Baldwin, 1996, 1998; Else, 2001). While these two previous privatization efforts provided 198,742 privately funded housing units across all services, both programs ultimately failed for a variety of reasons including inadequate quality, poor management, insufficient quantities, limited administrative and operational oversight, and lack of bi-partisan Congressional support (Baldwin, 1996, 1998; Else, 2001).

³³ Until 1948, the AF was a component of the Army and called the Army-Air Corps. After 1948, the AF was designated a separate service and responsible for their own military housing programs.

When drafting the 1996 military family housing privatization enabling legislation, the Congressional committees considered previous privatization programs and attempted to include provisions that mitigated against the same types of failure (National Defense Authorization Act for Fiscal Year 1996). Whether Congress was successful will be decided over the 50-year life of the lease agreements. So far, through initial implementation, the AF housing privatization program has achieved the Defense Science Board's (1995) recommendations and fulfilled Congressional intent as expressed in the enabling legislation (National Defense Authorization Act for Fiscal Year 1996). DOD's housing privatization program has improved access to family housing for junior enlisted members, improved housing quality, reduced construction timelines, minimized operating and investment costs, updated housing design and construction standards, and improved housing market analysis procedures to define the needed quantity of privatized housing units (AFCEC, 2013; ODUSD (I&E), 2010).

Housing design and construction programs lend themselves to repetition and centrally managed expertise. While the military culture was reluctant to centralize the entire housing program, the AF did create the capability to provide technical expertise to assist installations in their housing construction responsibilities (AFCEE, 1999). Beginning in the early 1990s, AFCEC started providing housing design and construction assistance and expertise to the installations while local commanders retained overall responsibility for day-to-day planning, programming, and operation and maintenance of housing (AFCEE, 1999).³⁴ This was the status of AFCEC housing support to the installations when the housing privatization legislation passed in 1996. The installation

³⁴ The AF Center for Environment and Engineering (AFCEE) was formed in 1991, and after several mission realignments it was renamed the Air Force Civil Engineer Center for Engineering (AFCEC) in 2012.

was the primary focal point when implementation of housing privatization began following passage of the 1996 legislation. This was challenging since the time span of housing privatization real estate leases covers 50 years. This meant the installation housing privatization program manager would research and develop an execution strategy, then implement, execute, and manage a 50-year lease agreement. The installation leadership and their staffs were prepared to execute the traditional military housing construction programs, but they lacked the institutional knowledge, organizational structure, and stamina for managing a 50-year lease period when implementing the new housing privatization legislation. In fact, according to one senior AF official, as the program proceeded, the entire AF structure struggled with the banker-developer mindset demanded by privatization.

During initial development of housing privatization projects, installation program managers needed to assess the current condition of military housing on the installation, define the overall housing requirement, develop the housing design and configuration, and analyze the local housing market (HQ USAF A7C, 2005, 2012). The next series of tasks included soliciting interested developers, evaluating initial proposals, and recommending a preferred developer. After the intermediate headquarters approved the developer, the installation then began negotiating best and final developer proposals (HQ USAF A7C, 2005). As part of this negotiation, installation program managers deciphered the complexities of financial structuring and coordinated and interacted with a variety of stakeholders internal and external to the AF on final approval and Congressional notification (HQ USAF A7C, 2005). Until this point, not a single action to construct housing units had actually occurred. After Congressional notification, the

work on capital improvements began. Usually after a 5-year construction and capital improvement period, the development phase changed over to the operation and management phase of the privatized housing project for the balance of the 50-year lease agreement.

In reality, no single person at the installation performed all these functions. However, it was still overwhelming, especially for a nascent program that provided no specialized training for this one-of-a-kind project of such huge scope, duration, and financial value. At the same time, the depth of support and housing privatization experience at the intermediate headquarters was even less than at the installation level.

Even though AFCEC provided technical support and advice to the installations and intermediate headquarters, AFCEC was not experienced in evaluating housing privatization proposals nor could they compete with the expertise of private developers or financiers in evaluating fair and reasonable offers during negotiations. Since 1994, AFCEC had actively engaged in providing design and construction management expertise and capability to AF installations on an as-requested basis. While this expertise was invaluable for the design and construction of military family housing worldwide, AFCEC, like the installations and intermediate headquarters, had no previous experience in housing privatization and was ill prepared to provide the necessary level of support and guidance to the installations on the intricacies and complexities of the housing privatization process.

As a result, AF housing program oversight and performance evaluation suffered, and private developers earned higher than expected profits and added unnecessary or inappropriate project improvements and amenities (Schuster, 2002). Overall AF and

developer costs were not minimized (Schuster, 2002). During interviews, ESG members identified the magnitude of differences and discrepancies in the individual installation and overall housing privatization portfolio performance and execution; they knew something had to change to improve program performance if housing privatization was to succeed as an alternative delivery method for military family housing.

In addition to the AFCEC support provided to the AF for design and construction of traditional housing, AFCEC was embedded in all levels of housing privatization implementation. The ESG members recognized AFCEC was representing multiple organizational levels on housing privatization matters. In an attempt to remedy the oversight and program evaluation concerns and to streamline program execution, the ESG designated AFCEC as the center of expertise for AF family housing privatization (AFCEE, 1999). This new authority and responsibility required AFCEC to increase staff and develop the new housing privatization functions and expertise to perform the new charter.³⁵

This need to develop a transformed approach to housing privatization resulted in establishing a centralized AF support activity for housing privatization and set the stage for further organizational and strategy improvements during the housing privatization implementation period (HQ USAF A7C, 2012; HQ USAF ILE, 2000, 2001, 2002). Over the next few years, AFCEC developed the core skills to provide better advice to the AF installations on housing privatization matters. Improvements to functional advice centered on enhancing AFCEC's capability and capacity to conduct housing market analyses; make developer-selection recommendations; monitor financial performance;

³⁵ AFCEC was unique in the AF structure since it was a self-sufficient execution center staffed with its own legal staff, contracting capability, public affairs, financial management, and information technology expertise, along with the more traditional installation planning, design, and construction functions.

and conduct negotiations, long-term operations, and portfolio management (HQ USAF A7C, 2012). It is important to note, however, that ESG did not charter AFCEC as the primary agency responsible for housing privatization; rather, AFCEC became the centralized support activity to provide real estate, financial, industry forum, and advisory support to the installations. Installation commanders and their program managers remained responsible and accountable for negotiating the variety of complexities in the housing privatization dealings, albeit with AFCEC as a knowledgeable and informed consultant (AFCEE, 1999).

Organizational Routine 3: Combining Multiple Locations into Single Leases

- Causal mechanism: Structuring real estate leases
- Theoretical lens: Organizational dynamic, evolving strategy

The ability to combine multiple housing privatization proposals into a single privatization lease negotiation allowed the AF the flexibility to accelerate program implementation and provide upgraded housing units at a faster rate than in previous privatization attempts (AFCEC, 2013; HQ USAF ILE, 2000, 2002). Additionally, it was much faster than using traditional housing construction authorities (AFCEC, 2013). Based on the 1996 enabling legislation, the AF approach to housing privatization considered most military family housing units eligible for privatization. However, the Air Force Chief of Staff (CSAF) imposed three stipulations that restricted significant military housing stock from privatization consideration (CSAF, 2001). First, because of strict financial and management oversight from Congress, none of the AF general officer housing units was included in privatization proposals.³⁶ Second, troop force-protection

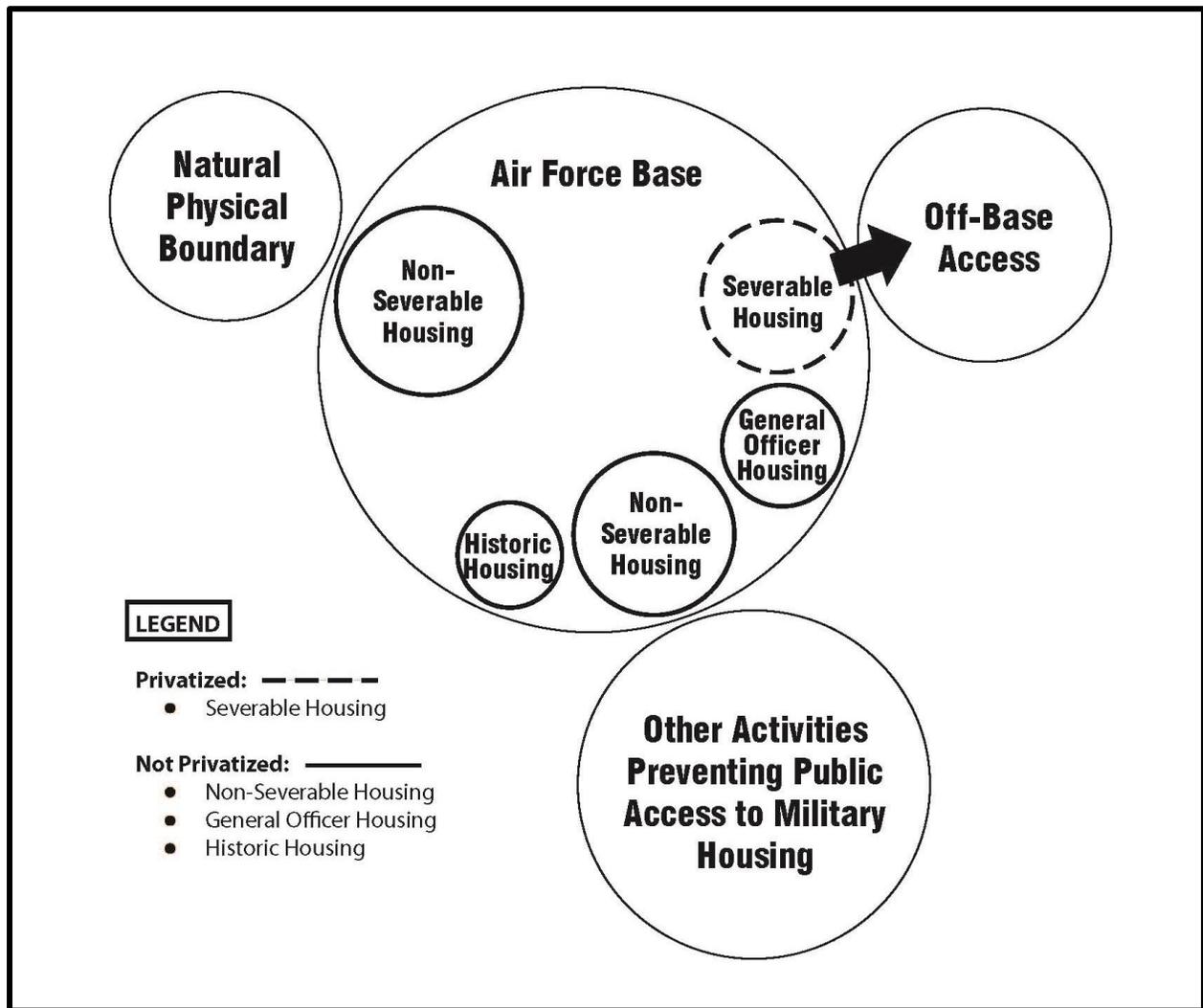
³⁶ Public law establishes the amount of appropriated funding that can be used annually on general officer military family housing by unit. General officer housing is defined by the military rank of the person living in the housing

concerns excluded certain family housing that could not be severed from the installation (force-protection severability). Last, based on relationships and management oversight agreements with state historical preservation offices, none of the AF historical military family housing units was considered eligible for privatization.

Early in the privatization program implementation, these three CSAF stipulations created significant challenges for the installation programs. Each stipulation, in its own way, created a patchwork of existing housing that was not eligible for privatization. Sometimes natural or physical boundaries (e.g. rivers, oceans, highways and other military or federal installations) adjacent to the installations prevented severability. For example, where there was direct access to the housing from off the installation, the severability for force-protection constraints was accommodated and privatization allowed. To adhere to the stipulations, each installation had to carve out from each proposal the stipulated housing that was ineligible for privatization consideration. In most cases, this resulted in removing significant swaths of housing or, in some cases, only a couple housing units, if any, from the privatization proposals. Accommodating these CSAF stipulations resulted in privatization proposals that often included only portions of military housing on an installation and a housing privatization eligibility map that gerrymandered around stipulated enclaves and, in several cases, entire sections of housing (Figure 7.2).

unit (one-star to four-star general officers). While most general officer housing units are designated for general officer occupancy, only units with general officers actually living in them require Congressional oversight and annual reporting.

Figure 7.1.
Housing Privatization Schematic for Military Family Housing Unit Privatization Eligibility.
 Created by Amy Winter.



Because of these CSAF stipulations, several initial privatization projects created inequity between residents living in privatized housing and those remaining in AF-owned housing.³⁷ Privatized housing provided all the amenities, square footage, and features of modern, planned middle-class residential communities. Meanwhile,

³⁷ Privatization developers are limited to charging rents equal to military member housing allowances. Initially, when it was likely that installations had both privatized and AF-owned housing, developers preferred to rent to more senior military members because their housing allowances were higher and translated to more rental income for the developer. Since enlisted members occupy more than 65% of privatized housing, this meant mostly junior enlisted members lived in the inadequate AF-owned housing units.

residents on the same installation living in AF-retained housing settled for units constructed over the previous 100 years that fell far short of the upscale housing units provided by privatization.

By 2003, the AF had completed several housing privatization agreements, yet Congress and OSD continued pressuring the AF to complete upgrades to the entire AF housing inventory by 2006 (Else, 2001). Using housing privatization as a delivery mechanism to improve housing was working for the AF; however, the portion of the military housing program using traditional construction mechanisms to improve AF-retained housing units did not keep pace with the 2006 mandate to upgrade housing (AFCEC, 2013; Else, 2001). As of 2006, the AF privatization program only accounted for 16,328 of the 53,323 military family housing units needed to meet the quality, quantity, affordability, and timeliness requirements defined by the Defense Science Board report (1995) (Table 6.2). Because of the inability of the AF to meet the 2006 mandate using traditional construction mechanisms and the inequities between upgraded privatized and substandard AF-owned housing, something had to change (AFCEC, 2013). By 2006, because the ability to execute privatized housing projects had improved, the ESG chose to improve all AF family housing using privatization as the primary delivery mechanism in order to bring housing modernization in line with the standards envisioned by the Defense Science Board recommendations (Marsh, 1995).

Even before the 2006 decision by the ESG to use housing privatization as the primary housing delivery mechanism, the AF had adjusted the privatization process. The first adjustment the CSAF made to accelerate housing upgrades was to remove the self-imposed general officer, historic housing, and force-protection stipulations (CSAF,

2003). Under housing privatization with these stipulations removed, a developer could now consider privatizing all the family housing units. Once general officer units were included in the privatization lease agreements, the AF no longer had responsibility for these units. As a result, the developer was now accountable to residents for adequate upkeep. Direct Congressional oversight was no longer applicable since appropriated funds were no longer involved in directly improving, operating, or maintaining the units.

A similar situation existed for the historic properties where the developer became accountable to the state historic offices to ensure historic preservation and compliance with historic preservation mandates. Last, administrative protocols remedied the force-protection severability conditions and established a process for non-military residents to live in AF privatized housing. The process helps installation leadership determine non-military resident eligibility based on installation security access agreements and comprehensive background security checks of prospective local community renters.

When the CSAF removed the three constraining stipulations, this meant the entire AF housing stock became eligible for privatization (CSAF, 2003).³⁸ It is important to understand, however, that just because the housing units were now eligible for privatization this did not automatically determine that the units would be privatized. These units still had to meet all conditions for privatization notwithstanding the removal of the CSAF stipulations.

Example 1.

The following example typifies what accelerating program execution meant to the installations, intermediate commands, AFCEC, the Air Staff, and the AF Secretariat.

³⁸ As a reminder, the 1996 Congressional legislation restricted the AF housing stock eligibility for privatization to housing located in the United States and U.S. Territories.

The first AF installation to implement housing privatization signed their lease agreement in 1998 (AFCEC, 2013). At the time of the initial award, the three stipulating constraints were in effect: no general officer quarters, force-protection severability, and no historical units in the privatization agreement (CSAF, 2001). This initial agreement excluded general officer housing units and several hundred other housing units for force-protection severability as part of the agreement. Since the installation had no historical units, there was none to consider. This first lease agreement had 420 privatized units in the end-state agreement.³⁹ This left another 465 housing units as AF-owned and retained because they were non-severable for force-protection concerns or had general officers living in them. Once the CSAF lifted the stipulations, these 465 units became eligible for privatization (CSAF, 2003).

After removing the CSAF stipulations, the installation privatization program manager began the process to privatize the second increment of housing. However, because of the cumbersome developer-selection procedures and lease-approval process, the timeline for the installation to develop a proposal, solicit, select, negotiate, and sign a lease agreement with a new developer did not guarantee a similar level of amenities or quality of housing comparable to the initial privatization lease agreement. To accelerate the approval timeline, the installation requested authority to negotiate with the initial project developer to combine the second privatization proposal with their first project. From an ESG perspective, this proposal accelerated the negotiation period, created an equitable approach to providing housing, and introduced the notion of a

³⁹ The end state was often different from the initial number of units in the agreement and was determined by the local housing market analysis. Some units were immediately demolished because of poor condition, others were retained and upgraded. The AF retained some units and planned to demolish them over time and replace them with improved units. For other units, the AF never planned to replace them based on the housing market analysis and end-state requirements.

single developer combining multiple projects into a single proposal, albeit in this instance, two projects at a single installation.

This attempt to combine two projects into a single-lease agreement created an opportunity for the ESG and AFCEC to reconsider how they looked at privatization proposals. Initially, the ESG encouraged all intermediate headquarters to look across their installations to see if multiple housing privatization proposals could be combined into single-lease agreements. Combining multiple projects into a single-lease agreement became a means to accelerate upgrading the entire eligible housing stock. Combining multiple proposals also minimized the complexity of implementing the housing privatization program. By having fewer developers, the program provided consistency in housing size and condition, amenities, services, and maintenance across multiple project locations.

However, this approach to accelerating privatization by combining projects could only go so far since the installation commanders still controlled their housing privatization proposals. Congress, OSD, and the Air Staff continued pressuring the intermediate headquarters to accelerate the housing upgrades, and the intermediate commands soon asserted direct control over their installations and combined multiple installation proposals into single proposals where it made sense. While the first 15 housing privatization lease agreements were approved over an 8-year period, all were for single installations and provided 16,328 end-state privatized housing units (AFCEC, 2013). The AF shifted to combining multiple projects into single-lease agreements during the second phase of housing privatization. During the second phase of housing privatization lease agreements, the AF approved 13 leases at 31 installations for a total

of 21,062 privatized units over a 2-year period (see Table 6.2) (AFCEC, 2013).

Combining multiple proposals into single privatization leases accelerated program implementation and provided upgraded housing units to meet Congressional, OSD, AF leadership, and resident expectations (AFCEC, 2013).

Example 2.

Another intermediate headquarters took full advantage of combining multiple projects into a single-lease agreement. This command had three separate installation privatization projects eligible to be combined into a single lease proposal. At two of the installations, there were existing family housing units. One of the installations was located on the West Coast and had 613 military family housing units; the other two installations were located in Colorado and had 669 housing units. The West Coast location was in a high cost living area with high housing allowances. The Colorado locations were in a moderate to low cost area with medium range housing allowances.⁴⁰ The developer's business case for the Colorado projects was moderate at one location and not financially viable at the other location.

Since the West Coast location had high housing allowances, from a developer's perspective, the financial viability was highly favorable. So much so that the features and amenities offered by the developer exceeded the features and amenities offered at the Colorado locations. At the Colorado location that had existing housing, the developer offered many features and moderate amenities; at the other location, since housing was not available, there were no amenities and only limited community support

⁴⁰ One of the Colorado locations had no existing military family housing units, limited community support activities, and no sense of community. At this location, a housing market analysis showed demand for 242 privatized housing units.

activities. At this location, the developer needed to provide all new housing construction and amenities.

Understanding these financial considerations and the difference in housing features and community amenities, the intermediate headquarters for all three locations combined the locations into a single-lease agreement that standardized (as much as possible) the housing features and amenities across the three locations. This meant the cash rich West Coast privatization project subsidized the Colorado projects in order to provide standard features and amenities for those projects. Combining the three projects into a single lease proposal provided housing units at all three locations and ensured the quality, timeliness, and quantity were adequate for the military families residing at these locations.

Combining the three installations into a single lease proposal leveraged private sector contributions for all three privatization projects. Ultimately, the private sector to government investment ratio was \$17.2:1 and provided 1,524 privatized family housing units at the three locations. The organization dynamic of restructuring the real estate lease causal mechanism and combining multiple locations into a single lease organization routine significantly altered the AF strategy for implementation of family housing privatization (Feldman, 2000; Feldman & Pentland, 2003; Jarzabkowski, 2008; Mintzberg & Waters, 1985).

Organizational Routine 4: Centralizing Operational Oversight

- Causal mechanism: Validating and managing
- Theoretical lens: Organizational dynamic, structural modification

In 2006, the ESG designated AFCEC as the central agency responsible for housing privatization oversight (AFCEE, 2006). Centralizing operational oversight at AFCEC shifted responsibility from the installation commanders to AFCEC for all AF housing design, construction, and privatization programs (AFCEE, 2006). From the beginning of the AF housing privatization program, AFCEC performed an advisory and technical support role for the installations, intermediate commands, the Air Staff, and the AF Secretariat. The flow of resources (primarily funds) was from AF headquarters to the intermediate command headquarters and then to the installations. The technical and advisory support AFCEC provided came at the request of the installations; if AFCEC needed funds to perform the work, the installations funded the technical and advisory services on an as-requested basis. Installations became the primary providers of housing privatization once they began receiving funding for housing privatization. With the installations as primary providers, AFCEC was placed in a support role. In this support role, AFCEC provided program management capacity, economy of scale, and advisory assistance or technical support when requested (AFCEE, 1999; HQ USAF A7C, 2012; HQ USAF ILE, 2000, 2001, 2002).

As discussed earlier in routine 2, the center of expertise routine, because of AFCEC's technical capability, program management capacity, ability to leverage resources, and overall expertise, the ESG designated AFCEC as the primary housing privatization support activity to assist the installations with housing privatization

programs (AFCEE, 1999). As installations moved forward with their housing privatization efforts, they soon recognized AFCEC was developing specialized housing privatization expertise. AFCEC could conduct multiple industry forums where potential developers and financiers attended technical privatization conferences and where the developers and financiers could gauge interest and ask questions about proposed projects (AFCEE, 1999). Grouping multiple housing privatization proposals into single industry forums streamlined timelines to solicit interest and provided information to potential developers about future privatization initiatives. Developers could then begin assembling teams to seek future work and develop more insightful proposals to meet the approach and timelines expected by the AF (HQ USAF A7C, 2012).

The number and national scope of potential developers expanded under the industry forum concept and allowed developers the opportunity to engage with other developers and the AF on potential improvements and structuring of current and future housing privatization projects. AFCEC assembled central support contracts to help installations conduct local housing market analysis, determine housing requirements and the number of units developers needed to provide, and designate housing unit configuration and type as well as the minimally acceptable amenities as part of the lease proposal (HQ USAF A7C, 2012). When the installations determined these aspects independently, because of lack of experience or capability, each project was vulnerable to developer profit gouging, inadequate oversight, inconsistent financing, and lack of program performance reports to evaluate financial and management data (Schuster, 2002). As the center of expertise, AFCEC took on an active role but

remained constrained by the charter restricting the agency to an advisory capacity without overall program responsibility.

Designating AFCEC as a center of expertise, combining projects into single lease proposals, and using a single authority for developer selection and lease approval created significant change in the execution strategy, organizational structure, and processes for family housing privatization. After the first 5 years of housing privatization, ESG was now the central authority for AF housing privatization. In this role, ESG changed the structure of housing privatization accountability by shifting primary execution authority to AFCEC as the central agency accountable for all housing privatization.⁴¹ Central program funding to execute the AF housing program now flowed directly to AFCEC. Ultimately, this meant long-term privatization portfolio oversight shifted to the central program office and AFCEC no longer supported just housing privatization but provided primary execution (AFCEE, 2006).

Just as significantly, the lessons learned by AFCEC from early privatization efforts had profound strategic implications for the manner in which housing privatization was structured and executed. Some of the central improvements included developing a real estate leasing transaction template, using SMART scoping at 80% of the housing requirement determination, project-tracking using overall and individual program scorecards and status dashboards, reinvestment and flow of funds, providing guaranteed occupancy considerations, conducting portfolio management and oversight, training, and providing housing management compliance (HQ USAF A7C, 2012).

⁴¹ Centralizing program authority at AFCEC meant the agency was now responsible for the housing privatization program as well as for design and construction of traditional military construction programs. Since the privatization legislation did not apply overseas, AFCEC retained functional responsibility for executing military family housing construction in overseas locations.

Instead of AFCEC assembling central mechanisms to help installations provide housing privatization, the roles reversed and AFCEC had responsibility for the entire program and the installations supported AFCEC on overall program execution (AFCEE, 2006).

Organizational Routine 5: Bundling Leases Across Geographical Regions

- Causal mechanism: Financing
- Theoretical lens: Organizational dynamic, evolving strategy

Having AFCEC as the centralized operational oversight activity responsible for providing AF housing allowed for bundling housing privatization projects across geographical regions and intermediate command installations. This bundling allowed privatization developers to spread investment risk across housing projects located in urban, suburban, and rural housing markets in order to minimize the effect of market turbulence and to create stability within the 50-year lease agreements. Bundling meant the AF could accelerate housing privatization projects by combining multiple locations into single lease proposals (AFCEC, 2013). These bundled projects used the entire revenue stream from all projects to provide a consistent level of support, housing features, and amenities. AFCEC achieved this by bundling over-performing project locations with under-performing project locations. This bundling approach also allowed ESG to direct AFCEC to use housing privatization as the only delivery mechanism for housing at all AF locations in the United States and U.S. Territories.

When the housing privatization program began in 1996, Congress intended the housing privatization enabling legislation to augment traditional construction of military family housing programs (National Defense Authorization Act for Fiscal Year 1996). Congressional members understood that housing privatization was not a viable option

for all locations, but where financial, developer, and local market conditions allowed, pursuing privatization provided an alternative delivery mechanism for family housing (Baldwin, 1998). For many locations, privatization worked, but for many other locations, privatization was not an option (AFCEC, 2013). Early in the program, pursuing housing privatization did not make sense at several locations for a variety of reasons. In some cases, housing standards were not well defined, need at specific locations was not understood, the revenue stream was inadequate, and a motivated and properly financed developer and willing partners were missing (HQ USAF A7C, 2005, 2012; Schuster, 2002). In some cases, Congressional delegations did not exercise the political will to privatize family housing units at installations where they had recently appropriated funding for housing upgrades. These reasons were in addition to the CSAF stipulations for general officer housing, force-protection severability, and historic unit exclusions from privatization consideration.

Mostly, however, housing privatization was not pursued because the financial or local housing market conditions were inadequate. These factors lead to unacceptably high developer and financial risks or required federal subsidies that were too large to make privatization work. For most of the 23 installations that progressed to the third phase of the program, during the first phase, privatization was not a favorable alternative delivery mechanism primarily because the AF was initially constrained by having to evaluate each project as a single installation effort (Table 6.2) (AFCEC, 2013).

Originally, the AF had more than 70 locations to consider for housing privatization (AFCEC, 2013). This volume created a significant challenge to approve the real estate transactions needed for privatization in a timely manner. By the terms of

the enabling legislation, these sophisticated 50-year transactions required multiple levels of approval and eventually required Congressional notification (National Defense Authorization Act for Fiscal Year 1996). Addressing the financial challenges, real estate dealings, local community engagement, police, fire, and medical services, housing standards, resident expectations, community housing assessments, and utilities negotiations were all part of the complex transactions required (HQ USAF A7C, 2012). The installations did their best to perform these negotiations within a reasonable amount of time, yet they lacked previous experience and negotiations occurred only once during a 50-year performance period.

As a means to accelerate program implementation, using a single developer for multiple locations established a proof-of-concept where developers could combine multiple proposals for multiple locations into single-lease agreements. From an industry perspective, this made a great deal of sense. The developers could spread risk across multiple locations and decrease the time needed for lease-agreement approvals. For the AF, this approach accelerated construction schedules to comply with housing improvement mandates, created incentives for privatizing locations that would otherwise carry excessive financial risk, and began to standardize amenities and construction quality across multiple installations. The ESG recognized the value of this approach and, through the steering group's advocacy, this revised strategy of combining projects into single lease proposals began to get traction (AFCEC, 2013).

Delegation of program operations from DOD to the Services and, in the case of the AF, establishing the ESG and consolidating program execution and portfolio management into a centralized activity reduced financial and developer risk. As

identified in the theoretical framework (Figure 4.3), the initial housing privatization program organizational structures, acquisition processes, and implementation strategies were associated with pilot programs, inherited program strategies, and distributed authority. Once ESG took control as the primary housing privatization authority, they streamlined business processes, consolidated program support, and created a central program office. Finally, ESG made full use of the consolidated program activities and centers of expertise when considering installation needs by directing AFCEC to use the grouping-projects strategy and to review the entire AF housing portfolio to group under-performing projects with over-performing projects.

Because of the ESG grouping decision, high-risk projects that were less financially viable in earlier privatization phases were grouped across geographic boundaries (HQ USAF ILE, 2002). Project grouping across intermediate command boundaries reduced financial risk, increased the speed of the delivery, expanded the variety and quantity of amenities, and standardized the quality of housing across the AF (AFCEC, 2013). Given advancements in strategy for grouping projects, incorporating lessons from earlier projects, and consolidated developer selection using increased program experience, an approach to privatizing the remaining difficult-to-privatize housing locations emerged. Each of the subsequent advancements in AF organizational structure, implementation strategy, and routine modification resulted in significant improvements in housing units completed, amenities provided, implementation of common housing standards, and financial risk reduction (AFCEC, 2013; AFCEE, 2010). Grouping under-performing projects with over-performing projects allowed the AF to privatize the remaining stock of AF housing units over a 4-

year period (AFCEC, 2013). Using six lease agreements across 23 locations, the AF privatized 15,933 additional housing units and still maintained an equity investment ratio of almost \$9:1, an investment ratio far exceeding the targeted private sector investment to government investment ratio of \$3:1 (Table 6.1) (AFCEC, 2013).⁴²

Example 3.

During the initial phase of AF housing privatization implementation, there were four installations with 3,494 end-state housing units located in northern states where housing privatization was not financially feasible. The local housing market analysis, the substandard condition of existing housing units, and the financial analysis for developers did not allow privatization without substantial AF direct investment. Congress did not expect to privatize all military housing when the privatization legislation was passed, so the AF pursued traditional construction programs using appropriated funds to improve the housing units at these locations. While the 1996 legislation enabled housing privatization as an alternative delivery mechanism, Congress also supported improving all housing quality regardless of the delivery mechanism (National Defense Authorization Act for Fiscal Year 1996). This meant Congress, in concert with the Services' budget requests, committed to meeting the appropriated funding needs for housing units where privatization was not feasible. As a result, for installations where housing privatization was not feasible, Congress and the AF invested the funds required to bring the housing units up to the standards established by the Defense Science Board recommendations (Marsh, 1995). The AF submitted budget requests and Congress funded the construction programs in an

⁴² The last 30 AF units privatized were located at one installation. The AF excluded these units during the early implementation period under the CSAF exclusion stipulations for historical unit and general officer quarters.

attempt to meet the 2006 mandate (Else, 2001). In fact, local Congressional delegations frequently accelerated the housing improvement program with supplemental funding. However, even with AF and Congressional support for funding, the magnitude of the construction and the need to provide housing for military families during construction did not allow for completion of housing improvements by the 2006 mandate (Else, 2001). However, the AF invested in these locations, and construction continued despite the inability to improve the 3,494 housing units in a timely manner.

As traditional housing construction improvements continued, a strategy evolved at installations where privatization was not initially feasible. Once the AF invested in the capital improvements, the four installations, from a developer perspective, became more financially viable for privatization. The shift in financial viability for developers also occurred at numerous other installations where privatization as a delivery mechanism was not initially viable. Where once there were more than 20 installations financially not viable for privatization, these installations were now worth re-evaluating, especially given the ESG decision to use privatization as the primary delivery mechanism wherever financially viable (AFCEC, 2013).

By the time the projects that were not initially viable for privatization were re-evaluated, the ESG had altered the privatization strategy to combine multiple projects into single leases and to bundle projects across geographic regions (HQ USAF ILE, 2002). Since AFCEC was now responsible for all family housing privatization, 3,494 housing units from the four northern state installations plus 1,052 housing units from two additional installations were bundled into a single-lease proposal (AFCEC, 2013). This single-lease proposal included six installations from three separate intermediate

headquarters and spanned geographic locations in the northern, western, and southwestern states (AFCEC, 2013). By combining multiple projects into a single lease, grouping projects across geographic boundaries, using the knowledge gained by having a center of expertise, and executing program control through a centralized operational support agency, the AF duplicated this strategy at 20 installations with just four privatization agreements (AFCEC, 2013). In the third phase of AF housing privatization, these four lease proposals included 10,935 housing units at an overall \$9:1 private sector to federal investment ratio (AFCEC, 2013).

Organizational Routine Analysis

The following analysis indicates the findings of this AF housing privatization implementation case study are consistent with an organizational routine analysis approach. The AF privatization organizational routines reflect the signification, domination, and legitimization characteristics that constantly interact through institutional communication, power exchanges, and sanctions (Feldman, 2003). These characteristics may interact through the internal and external dynamics of the organization (Feldman, 2003). “Relevant performances are actions that are signified in that they are known to others in the organization. People have picked them out from the stream of ongoing actions and communicated about them” (Feldman, 2003, p 729). Selecting organizational routines as the unit of measure helped considerably in unpacking the underlying relevant performances within the AF housing privatization program (Pentland & Feldman, 2005).

Signification.

As discussed in Chapter 2, the Services have a history of and commitment to providing family housing for military members. Along with this commitment came institutional processes and a military culture that encouraged the lowest level in the military chain of command to provide for the morale and welfare of military members and their families. However, with this commitment also came established strategies and processes for managing and delivering housing that existed prior to the introduction of this latest attempt at housing privatization (Figure 4.3). While previous strategies and processes allowed installation commanders to provide family housing for their troops using traditional construction approaches, the previous approaches were inadequate when using housing privatization as an alternative delivery mechanism (Else, 2001; Marsh, 1995).

During the most recent housing privatization implementation period, changes evolved in governance processes, collaborating and developing competency, structuring real estate leases, program validation and management, and financing. Establishing an AF housing privatization center of expertise and centralizing operational oversight brought credibility and legitimized how the multiple organizational levels standardized their approach to and strategy for housing privatization (Pentland & Feldman, 2005). Once AFCEC became the center of expertise for operational oversight, the AF had a central activity responsible for a common purpose, policy development, and program expertise specific to housing privatization (AFCEE, 2006; HQ USAF A7C, 2012). As a result, combining multiple projects into single leases and

bundling leases across geographic regions evolved into the housing privatization strategy, structure, and process.

Organizational routine as a unit of analysis provided a simplifying and clarifying perspective. Each of the causal mechanisms and organizational routines crossed multiple levels of the AF organizational structure. During the initial stages of housing privatization implementation, this meant installation leadership, intermediate headquarters oversight, headquarters AF guidance, and AFCEC consulting services each provided conflicting and confusing interpretations of policy and displayed differing program advocacy.

The multiple levels of organizational interaction during the AF housing privatization implementation created opportunities for significant conflict in program implementation. This conflict manifested in differing organizational interpretations of policy, guidance, strategy, and purpose. At the installation level, leadership concerns at some locations centered on force-protection and maximizing housing features and amenities while at other locations installation leadership was reluctant to implement housing privatization because of cultural and control issues. Some of the conflict and organizational dynamics resulted from early program policies such as the general officer, force-protection severability, and historical home stipulations. Other conflicts originated from the way OSD determined adequacy and availability of local housing. At one installation, the housing requirements and market analysis deemed high-density local housing enclaves where convicted child molesters lived as adequate housing for military families. It took local installation leadership's concerted effort to convince the AF and OSD to exclude these tracts of local housing from potential housing for military

families, which, in turn, created demand for additional privatized housing on the installation.

At some locations, installation leadership was overt in overstating their demand for the number of privatized housing units. At these locations, installation leadership excluded as much off-base housing as possible so privatization requirements increased and, therefore, resulted in more housing on the military installation and fewer military members living off the installation. Part of this calculus resulted from the military culture of providing for military members and encouraging them to live and recreate where they worked as a component of military custom and sense of community. This sense of military culture was driven by having the military member easily accessible during times of work surge demands, rapid response requirements during alert conditions, and ready access to families when the military member deployed.

Intermediate headquarters privatization strategy focused on providing consistent housing standards, features, and amenities across all installations under their command and resulted in conflict and dynamics of resistance and dominance. Intermediate headquarters leadership was also concerned about the Defense Science Board recommendations (1995) to provide more affordable housing in a timely manner for junior enlisted members. As highlighted in organizational routine 5, bundling projects, installation commanders wanted to maximize amenities based on lucrative local financial conditions, and the intermediate headquarters leadership wanted to shift resources from the cash rich installations to the cash poor installations in order to provide the same level of amenities across all installations.

The constant learning and revision of organizational routines by the ESG, AFCEC, intermediate headquarters, and installations gradually molded the conflicting perspectives of the various actors and organizations into a mutually reinforcing dynamic. Each of the causal mechanisms helped ground the AF housing privatization implementation in a more consistent, less ambiguous strategy, structure, and process (Feldman, 2000). As organizational power over housing privatization in all five organizational routines began coalescing in the ESG and AFCEC, less conflict and complexity surfaced (Selznick, 1949). As a result, program conflict and divergent strategies were constrained, simplified, and reduced by the shift in organizational power (Pentland & Feldman, 2005). The benefit was an AF privatization program that provided higher quality housing in a more timely and consistent manner.

Domination.

When the AF housing privatization program started in 1996, the organizational dynamics and traditional military chain of command established the installation and intermediate commands as the source of organizational power (Wilson, 1989). The installation commanders were responsible and held accountable for the execution of housing privatization. During the first phase of privatization implementation, the source of organizational power gradually shifted. This shift in power occurred when ESG moved developer selection from the nine intermediate headquarters to the AF Secretariat. By moving developer selection to the AF Secretariat where lease-signing authority was already assigned, the ESG acted as an agent of change and consolidated organizational power into a single office. This single office already had lease-approval

authority, so by placing developer-selection authority at the same organizational level, the organizational power was vested in the same office.

The move toward a centralized developer-selection process for housing privatization formally shifted housing privatization organizational power from the intermediate headquarters to the ESG. Through the investigative approach of process tracing, this research identified the most promising causal mechanisms, in this case restructuring the AF housing privatization governing process. Looking back at organizational routine 1, the shift of developer selection to the AF Secretariat clearly highlights the transfer of organizational power to the ESG. This seminal shift proved significant for future power transformation as program responsibility and funding was transferred from the installations to the AFCEC as the central program office (Barnard, 1938; Ostrom, 2007). While the installations were originally the source of housing privatization decision making, once the ESG designated AFCEC as the central office responsible for housing privatization strategy and execution, organizational power shifted from the installations to AFCEC while daily operations remained at the installations.

These two particular shifts in organizational power clearly marked the advancement of AF thinking and strategy on how to better execute housing privatization implementation. As housing privatization organizational power was consolidated within the ESG and AFCEC, follow-on evolutions of organizational dynamics, strategy, and structure occurred. Changes in grouping multiple housing privatization locations into single leases and operational oversight and bundling of projects reflected how AFCEC, in concert with the ESG, exercised AFCEC's housing privatization organizational power

and responsibilities. These changes in organizational routines revealed the internal structure of housing privatization. These changes also revealed the importance and nature of organizational power and the necessity to influence the actions people take as agents of change (Ostrom, 2007; Pentland & Feldman, 2005).

Organizational learning and change in the AF housing privatization program was messy, complex, and highly contested between various organizational levels (Pentland & Feldman, 2005). The ESG's shifting of developer selection from the intermediate headquarters to the AF Secretariat severely breached the traditional military culture of chain of command and the unit commanders' inherent responsibility to take care of their troops and families. Shifting responsibility for program execution, and eventually program resources, from the installation to AFCEC was another breach of chain of command that required organizational power to accomplish. Had the ESG not shifted developer selection to the AF Secretariat, the steering group would not have accrued the necessary organizational power to create the housing privatization center of expertise or to centralize operational oversight in AFCEC (Pentland & Feldman, 2005).

These shifts in organizational power began when the installations challenged ESG to find a faster, more consistent and predictable way to finalize housing privatization leasing proposals. Once the ESG allowed projects to be combined into single-lease proposals, the dynamics of organizational power solidified at the ESG level. From that point on, the ESG became the responsible organizational element (Ostrom, 2007). With this newfound authority, the ESG shifted the structure of and strategy for providing privatized housing beyond the conditions inherited from the Wherry and Capehart era attempts at housing privatization. This is learning related to organizational

routines and behavior of the people who enact these routines. This learning is enabled by people reflecting on what they are doing and altering what they are doing in future routine execution (Feldman, 2000).

Legitimization.

Investigating the structuring of real-estate leases as a causal mechanism led to discovery of the underlying processes that permitted combining multiple locations into single-lease agreements. Specifically, at one installation, the leadership recognized the opportunity to privatize their remaining housing units after the CSAF removed the general-officer unit, historic unit, and force-protection severability stipulations. They recognized a need for an innovative leasing approach.

Organizational routine 3, combining multiple privatization projects into a single-lease agreement, was innovative in several ways. The intermediate headquarters activity took a multi-level organizational routine and altered the structure of the leasing process. Leadership at the intermediate headquarters convinced the ESG to approve the installation's request to combine their first privatization lease with their second leasing proposal. The institutional culture and organizational chain of command did not facilitate combining multiple housing privatization projects into a single-lease agreement. However, the behavior of the individuals involved in the day-to-day privatization process created a possibility where combining multiple locations into a single-lease proposal occurred. The intermediate command headquarters performance of an organizational routine influenced change that transcended the installation and ESG levels of housing privatization governance, supporting the theoretical framework of this research.

It is not happenstance that the five causal mechanisms helped identify the significant privatization organizational routines; nor is it surprising that the causal mechanisms and organizational routines were complex, overlapping, and constitutive (Pentland & Feldman, 2005). Without the transfer of developer selection to the ESG, combining multiple housing privatization projects into single-lease proposals and bundling projects across geographic regions to reduce financial risk would probably not have occurred.⁴³ If changes to combining projects and reducing financial risk did not occur, then it is likely housing privatization implementation efficiencies and effectiveness would have been significantly limited. Likewise, the AF would not have established an AF housing privatization center of expertise and designated the AFCEC as the central program office for operational oversight

The assumption of power by the ESG was not a unilateral event conducted for the steering group's benefit. Had OSD not transferred operational control to the individual Services, ESG's power to consolidate developer selection in the AF Secretariat would be suspect (True et al., 2007). Once the ESG assumed more organizational power, the steering group then consolidated developer selection from nine separate intermediate headquarters into the AF Secretariat. By ceding the operational control to the Services, OSD altered the path of AF housing privatization implementation in an unexpected and unforeseen manner (Feldman, 2000). The strategy that emerged changed the organizational structure of AF housing privatization governance and created an organizational dynamic that altered how the AF

⁴³ AFCEE provided the full range of privatization evaluations and structured recommendations for the ESG so the ESG could be a more deliberative body in exercising authority.

implemented housing privatization (Figure 4.1) (Feldman & Pentland, 2003; Mintzberg & Waters, 1985).

Over the course of AF housing privatization implementation, certain individuals had direct input and responsibility for multiple organizational routines while others had only input or activity in one routine. However, overlapping organizational routines and opportunities for individuals to exercise power as a mechanism promoted change in strategy, structure, and encouraged organizational dynamics in housing privatization (Jarzabkowski, 2008; Mintzberg & Waters, 1985; Pentland & Feldman, 2005). While it might be expected that all organizational routines would affect the organizational dynamic, it is also consistent that not all organizational routines would have had significant impact on the processes, structure, and strategy.

Conclusion

Using organizational routines as a theoretical lens provides a great opportunity for organizational research. From an outcome-oriented perspective, as in this research where the privatization implementation period was completed and not ongoing, using process tracing allowed investigation of an historical single-case study (Beach & Pedersen, 2013). Reflecting on an historical single-case study also validated an idealized routine structure as the best way to collect data for an outcome-oriented approach. While on-going performative and artifact routine structures provided some research data, the idealized routine structure dominated as the source of data and perspective. For this research, where organizational routine was used as the theoretical lens and a single-case study was the source of research data, an idealized, or ostensive, routine structure dominated (Feldman, 2003). The ESG shaped, revised,

and restructured several organizational routines largely on an idealized perspective. The reflection on lessons learned, sluggish performance during the first few years of the implementation period, along with using organizational routine as a unit of measure largely drove this idealized perspective.

The mapping of causal mechanisms and organizational routines across the theoretical lens and framework reinforced process tracing as a methods approach and organizational routines as a unit of measure. Process tracing as an outcome-oriented investigative methods approach helped identify the most significant and dominant housing privatization organizational routines as discussed in this chapter. The causal mechanism guided the research protocols along the most promising organizational routines. The organizational routines revealed by the outcome-oriented approach sufficiently explore the minimally sufficient explanations of how the AF military family housing privatization evolved over the first 15 years.

The five organizational routines reflect the most relevant AF organizational learning during housing privatization implementation. Understanding each of the organizational routines led directly to the discovery of characteristic features that most influenced AF learning. As discussed in the analysis, the legitimization domination, and signification characteristics of organizational routines all have a place in the AF organizational routine structure. Establishing a single authority for developer selection and lease approvals proved to be the most dominant routine and cut across lines of communication, origins of power, and program sanctioning internal to the AF and externally to OSD and Congress. The characteristic attributes of the AF organizational routines affirm that the routines represent what the causal mechanisms promised. The

promise was to identify the most probable and sufficient organizational routines the AF learned from during implementation of the military family housing privatization program.

Over the course of this research, centralization of the dominant organizational routines streamlined and simplified the complex and sophisticated aspects of the housing privatization processes. While the Defense Science Board (1995) in their 21st century approaches to military family housing recommended creating an overall DOD military family housing authority, this was the one Defense Science Board recommendation (1995) OSD did not implement. By centralizing execution and operational control of AF military family housing privatization, the ESG, even if not by name, comes close to creating an overall housing authority for the AF.

While identifying centralization of activities was important in recognizing dominant organizational routines, it might also advance the theoretical contributions from a theory-building approach. For an outcome or theory-building process tracing methodology, AF housing privatization was historical. A theory-building approach compared to an outcome-oriented approach identifies the possibility of “a systematic or relatively simple mechanism that contributes to producing an outcome across a bounded context of cases” (Beach & Pedersen, 2013, pg 60). As part of a future research effort, or as a secondary contribution of this research, it is possible to consider centralization of dominant organizational routines as a means to theory building and advancing organizational routine theory.

Chapter 8

Conclusion

Using the AF as a case study, this research looked at how the AF institutionalized privatization of its family housing stock. The analysis specifically examined how the AF upgraded, repaired, or replaced 53,323 housing units at 70 locations on AF installations (AFCEC, 2013). Starting in 1996, DOD transformed its military family housing program (National Defense Authorization Act for Fiscal Year 1996). Applying organizational learning and change theories, this study reveals how the AF used \$617 million in federal funds and \$8.3 billion of matching private investments to significantly upgrade or construct and manage 53,323 AF family housing units (AFCEC, 2013). Using an outcome-oriented process tracing methodology, this research examined the process changes, organizational structure modifications, and strategy adjustments the AF instituted to implement this latest attempt at military family housing privatization.

To understand how these adjustments occurred, the researcher used organizational routine theory to explain how organizations generate change by performing their day-to-day activities. Since this is a single-case historical study of AF family housing privatization, using process tracing as a methodology was critical in identifying the five causal mechanisms that helped determine the minimally sufficient explanation of how the AF privatized the existing military family housing stock. These causal mechanisms led to the organizational routines that helped clarify the organizational strategy, implementation process, and structure changes that emerged to

address the quality, quantity, affordability, and timeliness of AF military family housing privatization.

In 1995, the Defense Science Board Task Force report (1995) on military personnel quality of life linked the readiness of the armed forces to service member quality of life. This report identified the poor condition of military family housing across DOD and emphasized the shortage of quality, affordable family housing. In addition, the Defense Science Board report (1995) identified junior enlisted personnel as the largest and most vulnerable and underserved segment. The report highlighted the need for a transformed process that would reduce the time required to improve the quality of family housing for all eligible service members (Marsh, 1995; Twiss & Martin, 1999). Because of the Defense Science Board report (1995), a revised DOD approach to providing housing for military members significantly changed the delivery mechanism, quality, quantity, and timeliness of providing military family housing.

In Chapter 2, this dissertation established the context of the research setting by identifying the state of military family housing before the 1996 housing privatization initiative and previous attempts to provide family housing. Since the beginning of the 1900s, DOD's commitment has been to provide adequate, safe, affordable housing for military members and their families (Baldwin, 1996, 1998; Else, 2001). However, since the early 1930s, DOD has been unable to find funds to provide adequate military family housing, and they turned repeatedly to the private sector to help finance, construct, and operate family housing (Baldwin, 1996). Beginning in the late 1940s with build-to-rent programs, then build-to-own programs in the 1950s, and eventually housing-lease programs in the 1980s, DOD experienced limited success that was hindered by budget

deficits, Congressional partisanship, and a lack of mechanisms to provide adequate oversight (Baldwin, 1996, 1998). Two earlier programs, the Wherry and Capehart Housing programs, provided 198,742 military housing units but proved inadequate over the long-term because of budget and operational concerns so Congress terminated both programs (Baldwin, 1996, 1998). An attempt to remedy these problems and to provide adequate housing to all service members began in 1995 when the Defense Science Board (1995) assessed the impact of housing on troop retention in an all-volunteer military. In 1996, DOD turned to the private sector once again to help finance, construct, operate, and maintain family housing units located in the United States and the U.S. Territories (National Defense Authorization Act for Fiscal Year 1996).

While implementing the Defense Science Board recommendations (1995), DOD set a goal to eliminate military family housing inadequacies by 2006 (Else, 2001). All parties involved in providing DOD housing recognized that reaching this goal was unattainable given the lack of available funding, inadequate existing legislation, out-of-date housing size and amenity standards, and a limited understanding of the housing deficit DOD-wide (HQ USAF A7C, 2005, 2012; Schuster, 2002). In 1996, prompted by an under-resourced, inefficient, and outdated delivery system for military family housing, Congress established the bipartisan Military Housing Privatization Initiative (National Defense Authorization Act for Fiscal Year 1996)).

Chapter 3 defines the broad elements of housing privatization. This chapter presents why defining housing standards and understanding the local housing market dynamics and availability of adequate, affordable housing is essential in defining military family housing needs. Financing, revenue streams, and motivated developers are a

core component in making the 50-year real estate lease agreements work. Yet, housing privatization goes beyond brick and mortar structures. Multiple interviews with residents living in privatized housing reflect aspects of privatization such as quality of life and the importance of community. Additionally, the interviews addressed the responsibilities and accountability of the people who manage the day-to-day activities of privatized housing. Chapter 3 frames the broad perspectives of residents, developers, and administrators. In particular, the sense of community, commitment to quality of life, building personal wealth, and sense of purpose is important to military members as they make choices about residing in AF privatized housing.

Chapter 4 shifted to the basis for the theoretical research and introduced the theoretical lens and framework that guided the research. Organization theory provides the foundation for the theoretical lens, and organizational routine helps explain how staff in the AF housing privatization program generated change by performing their day-to-day activities (Feldman & Pentland, 2003). Chapter 4 also introduced reciprocal relationships and emergent strategy as well as how organizational strategies resulting from individual behavior and action evolve over time (Jarzabkowski, 2008; Mintzberg & Waters, 1985). Jarzabkowski's reciprocal relationships and emergent strategy and Mintzberg's and Waters' evolving organizational strategies are complementary to Feldman's and Pentland's (2003) organizational routine theory.

By adapting Feldman's (2003) theoretical framework on organizational interaction of performance and understanding, the researcher developed an AF theoretical framework for housing privatization (Figure 4.3). The framework conceptualized how organizations allow agents, through their day-to-day activity, to change performance of

organizational routines. The research considered a theoretical framework capturing how organizations establish structures, processes, and strategies for program implementation and how these conditions change throughout a program's lifetime.

Since this dissertation investigated a single-case study of the outcome of the AF implementation of military family housing privatization, process tracing was used as an outcome-oriented methods approach. Chapter 5 focused on how process tracing, as an investigative, outcome-oriented method, provided an adequate and minimally sufficient accounting of the most important aspects of how the AF implemented housing privatization (Beach & Pedersen, 2013). The investigative, outcome-oriented approach uncovered five causal mechanisms that contributed to AF housing privatization implementation and linked them to the five organizational routines that influenced the outcome (Table 7.1).

In the analysis in Chapter 6, the theoretical framework and methodology framed the AF housing privatization initiative. This dissertation shows, within the AF housing privatization program, that organizational routines allow day-to-day activities to act as incubators of change that influence overall program change. At the same time, AF organizational dynamics were comprised of interaction between higher and lower levels in the organization where opportunities for change in organizational routines resulted in improvements to the overall housing privatization implementation. This analysis strengthens the organizational routine approach as a framework and provides insight into how organizational routine processes, strategy, and structure evolved during the first 15 years of AF housing privatization implementation.

Chapter 7 mapped the causal mechanisms and organizational routines across the theoretical lens and framework (Table 7.1). Process tracing as an outcome-oriented investigative methods approach helped identify the most significant and dominant housing privatization organizational routines. The causal mechanisms linked the research protocols to the most promising organizational routines. The outcome-oriented investigative approach and the resulting organizational routines explored and defined the minimally sufficient explanations of how AF military family housing privatization evolved over the first 15 years of implementation.

Summary

Initially, military family housing privatization projects were 50-year, single-installation and single-developer real estate leases. These projects carried substantial developer risk; as a result, private equity financial risks were high and, in several instances, required substantial government subsidies. At numerous military installations, because of overall poor housing conditions that required significant investment and inadequate local housing-market conditions, developers could not create a business case to secure financing for military family housing privatization projects. Substantial government subsidies provided the only realistic mechanism to offset these detrimental conditions. Because of inadequate local housing-market conditions and the inability of developers to secure financing for privatization projects, these locations were not good candidates for privatization (Else, 2001).

Since the proposals that did materialize were single installation ventures, they reflected each installation's unique desires and conditions and were negotiated from that perspective. Because of these single-developer, single-installation proposals, even

the low risk locations were more costly than normal since they still required high risk-mitigating guarantees for private equity (Schuster, 2002). At locations where financial risks were lower, developers provided housing with improved features that included upgraded appliances, increased housing square footage, and additional bedrooms. Developers also provided enhanced amenities such as playgrounds, fitness centers, athletic courts and fields, and recreation centers. At higher risk locations, because of developer demand for increased risk guarantees, housing features were limited and few amenities were provided.

Since developers, bankers, bondholders, investment securities, DOD, and local community and resident stakeholders are involved in housing privatization projects, striking the right balance between the number of units, upgrades, replacements, demolition, features, and amenities was complex, especially because of the 50-year impact. Initial learning curves were steep since each installation negotiated its housing privatization projects only once over the course of a 50-year lease agreement. As a result, projects early in the implementation timeframe were more expensive, provided varying amenities, and took excessive time to consummate because each project was a unique lease negotiation (Schuster, 2002).

While privatization was a promising option for providing military family housing, not every installation could use privatization as a delivery mechanism because of the high risk factors. However, implementing the Defense Science Board recommendations (1995) required DOD to accelerate housing investment, regardless of delivery mechanism, to meet the 2006 upgrade mandate (Else, 2001). At installations where DOD chose not to privatize because of the requirement for high government subsidies,

DOD invested appropriated funds to comply with the revised housing standards and to meet the mandated timeline. Yet, traditional appropriated housing improvement funds remained inadequate and delivery mechanisms too slow (AFCEC, 2013; Else, 2001). To meet the deadline to eliminate housing inadequacies, private equity investment risks had to be reduced, real estate lease negotiations accelerated, and the quality of housing and amenities balanced across AF privatization lease locations.

Historically, the military family housing program has been unable to maintain the funding levels necessary to provide the quality, quantity, and timeliness of housing for military family members (Baldwin, 1996; Else, 2001). Because of pressure to retain military members in an all-volunteer force, DOD implemented the recommendations of the Defense Science Board (Marsh, 1995). The DOD housing privatization initiative eventually became the preferred policy supporting use of private equity to fund, accelerate availability, and improve housing stock. The housing privatization approach implemented by the AF reflects an organization, strategy, and structure that improved financing and housing quality. This approach increased the quantity of adequate housing, accelerated achievement of goals for timeliness, and raised resident expectations for military provided family housing. These approaches were instrumental in achieving a sense of community, an improved quality of life and lifestyle, sense of purpose, and excellence in housing management that are beginning to fulfill the promise of the Defense Science Board report (1995) and the DOD housing privatization initiative (National Defense Authorization Act for Fiscal Year 1996)).

Military members and their families choose to live in privatized housing for quality of life, sense of community, and financial considerations. Based on these

considerations, the overall occupancy and satisfaction rates indicate positive traction for the goals of housing privatization, at least during the first 15 years of the 50-year program (ODUSD (I&E), 2010). The affordability, reliability, and predictability of military family housing increased significantly since Congress enacted the bipartisan housing privatization legislation in 1996. Based on the 2009 program evaluation compiled by DOD, depending on the type of unit (new, renovated, or un-renovated) occupant satisfaction ranges from 89% to 92% across all privatized housing within DOD, and occupancy rates are 95% program wide (ODUSD (I&E), 2012). Even with these positive indicators, high levels of occupancy might be the greatest indicator of customer satisfaction given the primary reason military members choose privatized housing is because of quality, safety, and affordability (ODUSD (I&E), 2012).

Most military members are not required to live in privatized housing; they have a choice (Else, 2001; Marsh, 1995). This is especially relevant since continuous combat operations beginning in the early 1990s placed great stress on the all-volunteer military forces. To offset this pressure, available quality housing creates a sense of community and reduces stress on families during the military member's deployment (Marsh, 1995). Based on the high occupancy and satisfaction rates, members are choosing to live in privatized housing for a variety of reasons that include quality, cost, amenities, convenience, and availability. In previous attempts at privatization, because residents and the military were not satisfied with program results, the programs ultimately failed and DOD or Congress terminated them (Baldwin, 1996, 1998; Else, 2001). Now, almost 70% of the privatized residents are junior enlisted and non-commissioned officers (ODUSD (I&E), 2012). DOD housing privatization addresses, at least in the first

15 years, the Defense Science Board concerns (1995) about adequate, quality, timely, and affordable housing for junior enlisted members (LMI Government Consulting, 2010).

Senior leadership, program oversight, and developer interests appear aligned to provide improved family housing for the right people. However, there are concerns as housing privatization moves forward. The potential change in utility charges, fluctuating housing allowances, potential elimination of housing allowances, and maintaining occupancy rates were high on the list of concerns identified by those responsible for providing safe, affordable housing. The residents' concerns reflected the more traditional concerns of households tied to commuting, budgets, balancing demands of children, schools, and the uncertainty created by change.

To understand housing privatization implementation and how this most recent approach changed the way the AF provides housing for military families, this research examined the process changes, organizational structure modifications, and strategy adjustments the AF instituted to implement family housing privatization. To understand how the adjustments occurred, organizational routine theory was used to help explain how organizations generate change by performing their day-to-day activities (Feldman & Pentland, 2003). These routines help explain the organizational strategy adaptation, implementation process improvement, and organizational structure modifications that emerged to address the quality, quantity, affordability, and timeliness of military housing, especially for junior enlisted service members.

A theoretical framework (Figure 4.3) from Feldman (2003) adapted for the AF proposed how organizations with institutionalized processes, strategy, and structure might adapt to accommodate new and evolving programs (Jarzabkowski, 2008;

Mintzberg & Waters, 1985). Institutions, by the nature of their organization and culture, harbor pre-existing conditions (Selznick, 1984). If these conditions include people within the institution interacting in their day-to-day activities, then this proposed framework might be relevant. Testing this framework also revealed how the levels within an institution influence change in organizational routine that transcends the immediate work environment.

After establishing the theoretical basis and framework, the researcher introduced a process tracing method to collect data. Using an outcome-oriented approach proved valuable in identifying the most probable causal mechanisms and underlying organizational routines. The causal mechanisms and organizational routines provided insight into the evolution of AF processes, strategies, and structure during housing privatization implementation.

The AF housing privatization program provides a single-case, in-depth study. Identifying the changing processes, evolving strategies and organization dynamics required a compatible methodology approach. Since the outcome of the initial housing privatization implementation is factual, process tracing helps look backward to investigate how the changing environment influenced the outcome. Following the evolution of AF housing privatization led to identification of the following five causal mechanisms:

- Structuring governance process.
- Collaborating and developing competency.
- Structuring real-estate leases.

- Validating and managing business processes.
- Financing.

Identifying these five causal mechanisms warranted an outcome-oriented, empirically driven methods approach. In this case, process tracing helped investigate the five causal mechanisms contributing to the outcome of AF housing privatization. As stated in Beach and Pedersen (2013), the five primary AF housing privatization causal mechanisms represent complex systems. These complex systems produced outcomes resulting from the interaction of multiple levels in the AF organizational structure (Feldman & Pentland, 2003). The outcome-oriented approach helped validate a theoretical framework that proposed how the AF, with institutional processes, strategy, and structure, adapted routines to accommodate new and evolving program strategies, structures, and processes (Beach & Pedersen, 2013).

The causal mechanisms and organizational routines studied here reflect a cycle of continuous learning and provide a useful framework for analyzing and understanding the DOD approach to housing privatization (Feldman, 2000). Using organizational routines as a unit of analysis highlighted how the AF strategy, structure, and processes reflected the dynamics in routine while optimizing organizational and individual efficiency. Most of the improvements to strategy, structure, and process overcame inertia from previous attempts at housing privatization (Pentland & Feldman, 2005).

Mapping causal mechanisms and organizational routines across the theoretical lens and framework reinforced process tracing as a methods approach and organizational routines as a unit of measure. Process tracing as an outcome-oriented investigative methods approach helped identify the most significant, dominant, and

legitimate housing privatization organizational routines. Causal mechanism shaped the research protocols along the most promising organizational routines. The outcome-oriented investigative approach and the resulting organizational routines sufficiently explored and defined the minimally sufficient explanations for how AF military family housing privatization evolved during the first 15 years of implementation.

The five organizational routines reflect the most relevant AF organizational learning during housing privatization implementation. These AF housing privatization organizational routines are:

- Establishing one authority for developer selection.
- Establishing an AF housing privatization center of expertise.
- Combining multiple locations into single lease proposals.
- Centralizing operational oversight.
- Bundling leases across geographical regions.

These organizational routines provide excellent clues about how the AF evolved internally over the course of housing privatization implementation. Meanwhile, DOD created external pressure when authority for the housing privatization program execution was transferred to the military services (True et al., 2007). At the same time, as the ESG brought the routines closer to the level of the AF Secretariat, the ESG increased its own ability to influence change (Feldman, 2000; Ostrom, 2007). During initial implementation, the installation commanders were in control of the routines, and major adjustments required significant coordination and went through multiple levels of organizational influence. As the ESG brought the routines closer to the AF Secretariat, the ESG's ability to influence change became more nimble and the rate of change

accelerated, especially as the privatization program execution matured during the 15-year implementation period.

Understanding these organizational routines led directly to the elements most affecting AF learning. The analysis consistently showed the five significant organizational routines dominated implementation and legitimized the AF housing privatization program (Feldman, 2003). While all five of the organizational routines provided depth and understanding of the AF housing privatization program, establishing a single developer-approval authority had the greatest impact as a catalyst for AF continuous learning and improvements in structure, process, and strategy. The decision of the ESG to create a single developer-approval authority set the conditions for the remaining organizational routines to evolve and continually improve.

The single developer-approval organizational routine proved to be the most dominant routine revealed by this research. The routine cut across lines of communication, origins of power, and program sanctioning internal to the AF and externally to OSD and Congress. However, all routines contributed to uncovering underlying processes, resolving conflict, discovering sources of organizational power, intersecting organizational routines, standardizing procedures, idealizing organizational routines, and contesting the nature of organizational routines. While all organizational routines provided a sufficient explanation for learning during the AF privatization implementation, each has a significant place in the AF military family housing privatization implementation process (Beach & Pedersen, 2013; Pentland & Feldman, 2005).

This research reflects on organizational change theory and suggests ways to advance the theory incrementally. While this research captures the theoretical implications of how the AF continually revised processes, strategy, and structure during the delivery and management of privatized housing, it also introduces an approach that others who provide and manage publicly funded housing programs might consider. Mostly, this dissertation advances the research on housing privatization and, especially, the research on military family housing privatization. There is little scholarly research on military family housing and this research investigates the internal processes, strategies, and structure of a DOD program that is one of the largest, if not the largest, quality-of-life program ever initiated by the DOD. This empirical research adds to the significantly neglected body of research on military family housing privatization and contributes a unique perspective for all programs engaged in providing public housing. The AF's five causal mechanisms and the fundamental organizational routines might also apply at the state, regional, county, municipal, academic, institutional, or public housing levels.

Of secondary significance is the theoretical contribution organizational routine might add to housing policy research. This, coupled with process tracing and the resulting causal mechanisms, reveals how strong relationships in organizational theory benefit from discovering the minimally sufficient basis for building a plausible explanation of how organizational routines evolve through the day-to-day activities of the organization. While this research investigated a single-case historical study, AF family housing privatization implementation, the five causal mechanisms and organizational routines might be applicable in a broader context or theoretical research. While there may be political, legal or jurisdictional limitations that need negotiating, it is

quite possible the lessons the AF learned during housing privatization implementation will also apply to other publicly funded housing programs. Additionally, the centralization of dominant organizational routines might also contribute to theory-building research where theories formulated as a causal mechanism might work within a bounded context (Beach & Pedersen, 2013). In this context, it might be possible to separate the centralization of organizational routines from this housing privatization case study and consider other spatially or temporally oriented case study research where understanding the outcome of a complex case study is the research goal (Beach & Pedersen, 2013).

The rate of change in routine as housing privatization goes beyond capital improvement and into the day-to-day management of housing projects creates potential for further change over the balance of the 50-year lease performance periods. How that rate of change increases, decreases, or preserves the integrity of housing privatization as intended by the Defense Science Board (1995) is a suitable subject for future research. Of course, the original intent of earlier privatization programs envisioned resolving intractable housing problems at the time (Baldwin, 1996, 1998; Else, 2001). What the endgame of this latest version of housing privatization looks like will be a testament to how rapidly DOD and the military services can react to or stimulate change that results in continuous improvement to their process for providing housing for military members and their families.

By the time of the Defense Science Board report (1995), Congressional and Service interest in military housing had gone through numerous funding peaks and valleys but mostly sustained valleys of underfunding. The Wherry and Capehart

programs brought significant housing units into the DOD inventory, yet funding for maintenance, repair, and replacement still lagged behind (Baldwin, 1996, 1998; Killinger, 2010; Marsh, 1995). Over the years, the housing units lacked the size and amenities more common in civilian communities, and DOD investment accounts were insufficient to bring the housing up to adequate and modern standards (Marsh, 1995). At the time of the Defense Science Board report (1995), DOD controlled 387,000 housing units that averaged 33 years in age. It was estimated that more than \$20 billion was needed to bring them up to reasonable standards (Else, 2001; Marsh, 1995). The Services were already averaging more than \$4.5 billion per year on housing expenditures and had little expectation of finding the additional \$20 billion needed (Else, 2001; Marsh, 1995). Even if the funds were available, the 30-year timeline to complete the required upgrades was unacceptable (Marsh, 1995).

The AF was able to change its housing delivery mechanism by creating and constantly revising core processes, strategy, and structure. These constant changes in organizational routines leveraged federal funds and increased AF privatization knowledge and approaches to providing military family housing. Across DOD, the privatization program leveraged \$2.2 billion in federal funding with \$22 billion in private funds and provided 213,000 privatized family housing units (ODUSD (I&E), 2010, 2012). The AF leveraged \$619 million in federal funds and obtained \$8.3 billion of private funds to provide 53,323 family housing units (AFCEC, 2013). This latest AF approach to providing housing for military members significantly changed the delivery mechanism, quality, quantity, and timeliness of family housing. The results directly affect the military

family's quality of life and the management and leadership of family housing programs on military installations.

Appendix A

Air Force Family Housing Privatization Data Collection

The organization selected for this research was the AF which offered access to 34 lease agreements in order to examine the housing privatization program implementation and results (AFCEC, 2013). By using the AF housing privatization organizational routines as the unit of analysis, the data collected provided relevant information for the AF housing privatization case study and related organizational routines (Yin, 2009).

Data gathering occurred in two stages. Documentary data was collected first from archival records, interviews, direct observation, program documents, and participant observation. These sources provided the insight needed to frame the historical DOD housing program and highlight previous attempts by DOD and the private sector to provide family housing for military members. Presidential executive orders, annual defense spending, and the Report of the Defense Science Board Task Force on Quality of Life were instrumental in determining the impact of family housing on military quality of life (Energy Policy Act of 2005; EO 13327, 2004; Marsh, 1995; Walker, 2013). By reviewing and analyzing these documents, the researcher discovered enabling legislation, financial status, execution strategies, milestones and implementation goals, and overarching policy guidance and directives.

This first phase of data gathering established the housing privatization perspective and background used to design questions for the one-on-one interviews conducted during the second phase of the research. The first phase was also instrumental in identifying Feldman's (2000) organizational routine theoretical lens as a

basis for the researcher's observations. Just as importantly, this first phase helped establish AF housing privatization organizational routines as the unit of analysis and helped the researcher select an outcome-oriented approach to process tracing as the research methodology.

In this initial phase of research, data collection focused on housing privatization performance, program management, and historical context perspectives. The most significant data aligned with the following areas:

- Financial and program performance.
- Previous housing privatization program organization.
- Structure, processes, and strategy.
- Adequacy of housing stock and programmatic issues.
- Determination of housing standards and amenities.
- Enabling legislation or Congressional oversight investigations.

The data enabled the researcher to establish the framework for questions in follow-on interviews with program oversight officials and administrators. Question topics included financial indicators, program assessment, quality-of-life objectives, and long-term viability of privatization. While interviewing residents who lived in AF-owned, privatized, and local housing, the researcher focused on the value residents placed on privatized housing compared to local market housing and the overall quality of privatized housing. Residents were also asked how they compared privatized housing to previously occupied DOD housing or private-market housing. Additionally, residents were asked about the considerations they used to choose where to live (See Appendix B for initial subject interview questions). Analyzing the research data collected in the

initial phase and from follow-on interviews led to discovery of the five theoretical causal mechanisms discussed in Chapter 5:

- Structuring governance process.
- Collaborating and developing competency.
- Structuring real-estate leases.
- Validating and managing business processes.
- Financing.

As a result, while conducting interviews, the researcher collected evidence related to these five causal mechanisms. Since interviews were conducted with housing privatization developers, DOD housing or senior managers directly involved in the privatization oversight, and current and former residents of privatized military family housing, the interview guide was broken into two primary types of questions: questions about management and oversight structure and questions about privatization residents' experiences. The interviews were structured in this manner based on the results of the literature search, findings of the Defense Science Board report on military personnel quality of life, and the Governmental Accountability Office (GAO) report on management improvements needed for DOD housing privatization (Marsh, 1995; Schuster, 2002).

The questions about management and oversight provided program management perspectives while the current and former resident questions addressed the sense of community and quality of life provided by privatized housing. In several cases, management and oversight personnel and residents were the same person. The nature of the interviews was similar but distinct. Interviews with management and oversight personnel focused on how they assessed whether they were meeting expectations for

safe, clean, affordable, adequate housing, and possibly their approach for attracting future residents. For the residents, the interviews asked about their personal assessments of the privatized housing and their decision process for choosing to live in privatized housing versus local market housing.

Since research interest for this study centered on the AF-wide implementation of housing privatization, it appeared natural to consider various shifts in strategy, changes in organizational structure, and modifications to the processes experienced by the AF during implementation of the housing privatization program. After selecting organizational routine as the unit of analysis, the researcher then considered how organizational routines acted as sources for shared power, identified emerging participants, and fostered interconnected actions (Feldman, 2000). Selecting organizational routines as the unit of analysis allowed a better understanding of how the multiple levels of personnel in the organization influenced the housing privatization outcome during the first 15-year period. As discussed in Chapter 7, this also confirmed how the organizational routines evolved as the internal structures changed (Feldman, 2000).

None of the five primary organizational routines occurred in isolation. As also discussed in Chapter 7, they constantly changed, developed their own momentum, were influenced by multiple levels within the AF structure, and reflected the many streams of routines that constantly collide in organizational dynamics (Pentland & Feldman, 2005).

Since this case study was historical, actually witnessing the performance of the routines by the various activities was not possible. As a result, individuals were

interviewed about their recollections of how the AF approached privatized housing. It became evident that the lessons the AF learned resulted from projecting idealized changes for future program improvements. The AF used the lessons learned to shape how it wanted the AF housing privatization program to change as the organization moved forward during implementation.

In a program as complex as housing privatization, the most significant organizational routines tend to overlap, and the likelihood of autonomous or discrete aspects of an organizational routine is difficult to distinguish empirically (Pentland & Feldman, 2005). However, in a reflective research effort, the idealized is more readily captured in the institutional data and the processes, procedures, and program management policies the organization retains. The AF housing privatization implementation program was consistent with this approach. While institutional artifacts reflect an idealized and historical pattern of organizational routines, interviewing senior DOD and AF program officials and reviewing program guidance, GAO audits, Congressional Research Service and Defense Science Board reports revealed more idealized organizational routines (Pentland & Feldman, 2005).

The second stage of gathering data involved interviewing twenty-one individuals directly involved in housing privatization and reviewing program source documents to validate data collected from the interviews. Data collected for this phase concentrated primarily on the AF from an organizational and process perspective. Interview subjects included housing residents, program oversight individuals, and housing developers involved in day-to-day operations of housing privatization projects. As part of the interview process, new archival, program management, and process documentation

provided validating as well as new discovery data that added clarity and depth to the previous data collected.

Since the DOD family housing program is a federal program, the researcher interviewed federal and Congressional staff members who helped shape or implement the housing privatization initiative. Several individuals or their offices were identified in the many CRS, GAO, or program reports on military family housing. Others were identified using social media such as LinkedIn. As is usual, numerous secondary interviews resulted from the initial interactions and interviews. Several senior DOD and AF program official interview subjects included Congressional, OSD, and AF staff members who authored the original 1996 housing privatization enabling legislation and the 2006 permanent legislation. Other interviewees were in the Office of the Principal Assistant Deputy Undersecretary of Defense (Installations and Environment) and the OSD privatization offices. There were numerous AF senior executive service and staff members from the AF Housing Privatization Executive Steering Group and from the AF central program office. Private developer interviews included persons located on military installations with housing privatization projects as well as persons identified during previously conducted interviews. Housing resident interviews included people who currently or previously lived in government, privatized, or local community housing.

Table A.1 identifies how the interview subjects were involved in the various housing privatization engagement areas. The 21 subjects participated in 13 different engagement areas. All of the interview subjects were interviewed based on their direct involvement implementing housing privatization or they were current or previous residents of privatized military family housing. While senior officials, program

managers, and action officers were selected based on the positions they were assigned, housing residents were selected because they currently lived in privatized housing or had previously lived in privatized or government-owned family housing.

Table A.1

Interview Subject Involvement in Military Family Housing Privatization Implementation Engagement Areas. Adapted by Amy Winter.

Interview Subject Identification Number	Involved in Legislation Development			Privatized Housing Program Managers (Air Staff, intermediate headquarters, AFCEC, and installation level)				Involved During Privatization Implementation	Military Family Housing Residents (current or former, privatized, and local community)			Former Military Member	Active Military Member
	Senior Staff												
1	X	X						X					
2	X	X	X		X			X	X		X	X	
3	X		X		X	X		X	X		X		
4	X			X	X			X					
5			X		X	X	X	X	X	X	X	X	
6				X	X	X		X					
7	X	X						X					
8			X		X	X	X	X	X	X	X	X	X
9	X				X			X	X		X	X	
10	X				X			X	X		X	X	
11							X	X					
12				X			X	X	X		X		X
13				X				X					
14				X				X					
15				X				X					
16				X			X	X					
17				X				X	X		X	X	
18				X				X					
19									X	X	X	X	X
20									X	X	X		X
21			X		X	X	X	X	X		X	X	X

The interviews and documentation provided insight on how projects evolved from decentralized execution into a centrally managed program. Data recounts how the AF processes, organizational structures, and strategies changed from disparate organizations and structures into consolidated project oversight and a centralized portfolio of management activity that could oversee and apply lessons learned across the entire program (HQ USAF ILE, 2001).

Appendix B

Institutional Review Board for Participants in Research Involving Human Subjects Approval

B1. IRB Approval

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

IRB Approval for Participants in Research Involving Human Subjects

IRB 14-993

Title of Project: *DOD Family Housing Privatization – Research and Dissertation*

Investigator: John S Medeiros

	Office of Research Compliance Institutional Review Board North End Center, Suite 4120, Virginia Tech 300 Turner Street NW Blacksburg, Virginia 24061 540/231-4606 Fax 540/231-0959 email irb@vt.edu website http://www.irb.vt.edu
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MEMORANDUM

DATE: October 13, 2014

TO: Matthew Martin Dull, John Stephen Medeiros, Matthew Martin Dull

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires April 25, 2018)

PROTOCOL TITLE: DOD Housing Privatization Dissertation

IRB NUMBER: 14-993

Effective October 13, 2014, the Virginia Tech Institutional Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<http://www.irb.vt.edu/pages/responsibilities.htm>

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As:	Expedited, under 45 CFR 46.110 category(ies) 5,7
Protocol Approval Date:	October 13, 2014
Protocol Expiration Date:	October 12, 2015
Continuing Review Due Date*:	September 28, 2015

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

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B2. IRB Research Protocols

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Research Protocols for Participants in Research Involving Human Subjects

IRB 14-993

Title of Project: *DOD Family Housing Privatization – Research and Dissertation*

Investigator: John S Medeiros

	Institutional Review Board Research Protocol
Once complete, upload this form as a Word document to the IRB Protocol Management System: https://secure.research.vt.edu/irb	
Section 1: General Information	
1.1 DO ANY OF THE INVESTIGATORS OF THIS PROJECT HAVE A REPORTABLE CONFLICT OF INTEREST? (http://www.irb.vt.edu/pages/researchers.htm#conflict)	
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, explain:	
1.2 WILL THIS RESEARCH INVOLVE COLLABORATION WITH ANOTHER INSTITUTION?	
<input checked="" type="checkbox"/> No, go to question 1.3 <input type="checkbox"/> Yes, answer questions within table	
IF YES	
Provide the name of the institution [for institutions located overseas, please also provide name of country]:	
Indicate the status of this research project with the other institution's IRB: <input type="checkbox"/> Pending approval <input type="checkbox"/> Approved <input type="checkbox"/> Other institution does not have a human subject protections review board <input type="checkbox"/> Other, explain:	
Will the collaborating institution(s) be engaged in the research? (http://www.hhs.gov/ohrp/policy/engage08.html) <input type="checkbox"/> No <input type="checkbox"/> Yes	
Will Virginia Tech's IRB review all human subject research activities involved with this project? <input type="checkbox"/> No, provide the name of the primary institution: <input type="checkbox"/> Yes <i>Note: primary institution = primary recipient of the grant or main coordinating center</i>	
1.3 IS THIS RESEARCH FUNDED?	
<input checked="" type="checkbox"/> No, go to question 1.4 <input type="checkbox"/> Yes, answer questions within table	
IF YES	
Provide the name of the sponsor [if NIH, specify department]:	
Is this project receiving federal funds? <input type="checkbox"/> No <input type="checkbox"/> Yes If yes,	

Does the grant application, OSP proposal, or “statement of work” related to this project include activities involving human subjects that are not covered within this IRB application?

- No, all human subject activities are covered in this IRB application
- Yes, however these activities will be covered in future VT IRB applications, these activities include:
 - Yes, however these activities have been covered in past VT IRB applications, the IRB number(s) are as follows:
 - Yes, however these activities have been or will be reviewed by another institution’s IRB, the name of this institution is as follows:
 - Other, explain:

Is Virginia Tech the primary awardee or the coordinating center of this grant?

- No, provide the name of the primary institution:
- Yes

1.4 DOES THIS STUDY INVOLVE CONFIDENTIAL OR PROPRIETARY INFORMATION (OTHER THAN HUMAN SUBJECT CONFIDENTIAL INFORMATION), OR INFORMATION RESTRICTED FOR NATIONAL SECURITY OR OTHER REASONS BY A U.S. GOVERNMENT AGENCY?

For example – government / industry proprietary or confidential trade secret information

- No
- Yes, describe:

1.5 DOES THIS STUDY INVOLVE SHIPPING ANY TANGIBLE ITEM, BIOLOGICAL OR SELECT AGENT OUTSIDE THE U.S.?

- No
- Yes

Section 2: Justification

2.1 DESCRIBE THE BACKGROUND, PURPOSE, AND ANTICIPATED FINDINGS OF THIS STUDY:

Starting in 1996, the Department of Defense (DOD) transformed its military family housing program. Applying organizational learning and change theories, this study of the Department of the Air Force (AF) reveals how the AF used \$617 million of federal funds and \$8.3 billion of matching private investment to significantly upgrade or construct and effectively manage 53,323 AF family housing units. In doing so, the AF changed its core processes, strategies, structure, and institutional values thereby improved how it provides housing for service member families, particularly for junior service member families.

To understand the implementation of housing privatization, and how this most recent approach changed the way DOD provides housing for military families, I examine the organizational changes, structure modifications, and strategy adjustments DOD instituted to implement family housing privatization. To understand how those adjustments occurred, I use organizational routine theory to help explain how organizations generate change by performing their day-to-day activities. These routines help to explain the organizational strategy adaptation, implementation process improvement, and organizational structure modifications that emerged to address the quality, quantity, affordability, and timeliness of military housing, especially for junior enlisted service members.

2.2 EXPLAIN WHAT THE RESEARCH TEAM PLANS TO DO WITH THE STUDY RESULTS:

For example - publish or use for dissertation

Data collected will be used as part of my PhD dissertation on the same subject

Section 3: Recruitment

3.1 DESCRIBE THE SUBJECT POOL, INCLUDING INCLUSION AND EXCLUSION CRITERIA AND NUMBER OF SUBJECTS:

Examples of inclusion/exclusion criteria - gender, age, health status, ethnicity

Current and former DOD members, housing privatization developers, and current and former residents of DOD family housing will be interview subjects. DOD members will be selected based on their primary involvement in initiating and implementing the DOD housing privatization program. Private developers will be selected from those currently engaged in DOD housing privatization projects and/or recommended by DOD personnel. Housing resident interviews will be based on recommendations from DOD members. Some subjects are expected to be recommended from previous subject interviews (cascading) conducted as part of this protocol.

3.2 WILL EXISTING RECORDS BE USED TO IDENTIFY AND CONTACT / RECRUIT SUBJECTS?

Examples of existing records - directories, class roster, university records, educational records

- No, go to question 3.3
 Yes, answer questions within table

IF YES	
Are these records private or public?	<input checked="" type="checkbox"/> Public <input type="checkbox"/> Private, describe the researcher's privilege to the records:
Will student, faculty, and/or staff records or contact information be requested from the University?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes, visit the following link for further information: http://www.policies.vt.edu/index.php (policy no. 2010)

3.3 DESCRIBE RECRUITMENT METHODS, INCLUDING HOW THE STUDY WILL BE ADVERTISED OR INTRODUCED TO SUBJECTS:

Recruitment will be based on subject matter experts currently working in positions of knowledge about DOD military family housing privatization. Subjects are expected to be congressional and DOD staff members, private housing privatization developers, and current and former housing privatization residents. Congressional and DOD staff members will be selected based on unique positions they are filling, private developers selected based on the companies they work for that currently have housing privatization projects with DOD, and current and former housing residents will be based on recommendations from subject matter experts.

The research will be advertised as part of my research and as data used in my PhD dissertation on the same topic.

3.4 PROVIDE AN EXPLANATION FOR CHOOSING THIS POPULATION:

Note: the IRB must ensure that the risks and benefits of participating in a study are distributed equitably among the general population and that a specific population is not targeted because of ease of recruitment.

This population provides the unique core knowledge for decisions, processes, and recommendations to the DOD family housing privatization program. There are no other subjects to interview that possess the knowledge of implementing, executing and residing in privatized military family housing.

Section 4: Consent Process

For more information about consent process and consent forms visit the following link: <http://www.irb.vt.edu/pages/consent.htm>

If feasible, researchers are advised and may be required to obtain signed consent from each participant unless obtaining signatures leads to an increase of risk (e.g., the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting in a breach of confidentiality). Signed consent is typically not required for low risk questionnaires (consent is implied) unless audio/video recording or an in-person interview is involved. If researchers will not be obtaining signed consent, participants must, in most cases, be supplied with consent information in a different format (e.g., in recruitment document, at the beginning of survey instrument, read to participant over the phone, information sheet physically or verbally provided to participant).

4.1 CHECK ALL OF THE FOLLOWING THAT APPLY TO THIS STUDY'S CONSENT PROCESS:

- Verbal consent will be obtained from participants
- Written/signed consent will be obtained from participants
- Consent will be implied from the return of completed questionnaire. Note: The IRB recommends providing consent information in a recruitment document or at the beginning of the questionnaire (if the study only involves implied consent, skip to Section 5 below)
- Other, describe:

4.2 PROVIDE A GENERAL DESCRIPTION OF THE PROCESS THE RESEARCH TEAM WILL USE TO OBTAIN AND MAINTAIN INFORMED CONSENT:

I will contact the subject interview by telephone or email to determine if they are willing to participate, and if so provide them a copy of the consent form at the beginning of the interview. If the subject is a "target opportunity", I will inform them verbally, and if I have a written consent form available I will provide, otherwise a verbal consent will be obtained. For verbal consent during telephone interviews, interviewees will be provided a full consent form to read and review before the data of the interview. Before the interview commences, I will review the consent form over the phone and ask the person if he/she provides their verbal consent to participate in the study.

4.3 WHO, FROM THE RESEARCH TEAM, WILL BE OVERSEEING THE PROCESS AND OBTAINING CONSENT FROM SUBJECTS?

Only one person will be conducting the interviews, and that person is myself.

4.4 WHERE WILL THE CONSENT PROCESS TAKE PLACE?

The consent will occur one-on-one for in-person interviews, and verbally via telephone if interviews are conducted telephonically.

4.5 DURING WHAT POINT IN THE STUDY PROCESS WILL CONSENTING OCCUR?

Note: unless waived by the IRB, participants must be consented before completing any study procedure, including screening questionnaires.

Consent will occur before subject interviews are conducted.

4.6 IF APPLICABLE, DESCRIBE HOW THE RESEARCHERS WILL GIVE SUBJECTS AMPLE TIME TO REVIEW THE CONSENT DOCUMENT BEFORE SIGNING:

Note: typically applicable for complex studies, studies involving more than one session, or studies involving more of a risk to subjects.

I will inform potential interviewees of the consent process and if requested, I will provide the consent form in advance.

- Not applicable

Section 5: Procedures

5.1 PROVIDE A STEP-BY-STEP THOROUGH EXPLANATION OF ALL STUDY PROCEDURES EXPECTED FROM STUDY PARTICIPANTS, INCLUDING TIME COMMITMENT & LOCATION:

Subject participation will involve answering interview questions based on their unique perspectives to the DoD family housing privatization initiative. There is no expectation or request to prepare in advance for the interview other than personal recollection of the events.

Time commitment will be variable, but is expected to be between 1-2 hours depending on the level of detail and available time the subjects have for the interview. There is possibility of follow-up interviews depending on the results of the primary interview. Any source material (data, reports, decisions) offered because of the primary interviews will require some processing time by the subjects or their staff.

In-person interview locations are expected to be at the location desired by the subject, but preferably at their business location.

Initial contact with the individuals is by email, then telephone depending on access to an email address or telephone number. Network social media (LinkedIn in particular) will provide access to initial subject interviews along with email access. I expect numerous secondary recommendations from the primary interviews and will contact them directly by e-mail or telephone as available.

5.2 DESCRIBE HOW DATA WILL BE COLLECTED AND RECORDED:

Data will be collected from a variety of sources in addition to the interview protocols.

Case-study evidence comes from several sources – documents, archival records, interviews, direct observation and participant observation. Considering the governmental nature of military housing, additional secondary research data includes the Congressional Research Service, Governmental Accountability Office, and congressional testimony. These sources provide critiques of DOD housing programs regarding financial status, execution strategies and milestones, implementation and execution goals, overarching policy guidance and directives, and enabling legislation.

Interview data will come from senior DOD officials responsible and accountable for housing privatization. While all three of the military services implemented housing privatization according to their unique service requirements, the data for this research primarily concentrates on the Department of the Air Force from an organization and process perspective, and considers the impact of the Office of the Secretary of Defense policy and mandates on program execution. As a result, individuals from the congressional oversight committee staffs, OSD, the Air Force Secretariat, the Air Staff, intermediate AF agencies and headquarters, and installation level are expected to be interviewed. Installation-level data will be obtained from interviewing individual residents living in housing, program oversight individuals and housing developers responsible for day-to-day monitoring and operations of housing privatization projects.

5.3 DOES THE PROJECT INVOLVE ONLINE RESEARCH ACTIVITIES (INCLUDES ENROLLMENT, RECRUITMENT, SURVEYS)?

View the "Policy for Online Research Data Collection Activities Involving Human Subjects" at <http://www.irb.vt.edu/documents/onlinepolicy.pdf>

- No, go to question 6.1
 Yes, answer questions within table

IF YES

Identify the service / program that will be used:

- www.survey.vt.edu, go to question 6.1
 Blackboard, go to question 6.1
 Center for Survey Research, go to question 6.1

5

Other

IF OTHER:
 Name of service / program:
 URL:
 This service is...

Included on the list found at: <http://www.irb.vt.edu/pages/validated.htm>
 Approved by VT IT Security
 An external service with proper SSL or similar encryption (https://) on the login (if applicable) and all other data collection pages.
 None of the above (note: only permissible if this is a collaborative project in which VT individuals are only responsible for data analysis, consulting, or recruitment)

Section 6: Risks and Benefits

6.1 WHAT ARE THE POTENTIAL RISKS (E.G., EMOTIONAL, PHYSICAL, SOCIAL, LEGAL, ECONOMIC, OR DIGNITY) TO STUDY PARTICIPANTS?

There are no known risks

6.2 EXPLAIN THE STUDY'S EFFORTS TO REDUCE POTENTIAL RISKS TO SUBJECTS:

There are no known risks. Data will be stored in one location with backup for security and retention, and be accessible to the researcher and provided to the course instructor upon request.

6.3 WHAT ARE THE DIRECT OR INDIRECT ANTICIPATED BENEFITS TO STUDY PARTICIPANTS AND/OR SOCIETY?

Better understand the process and theory behind the change in how DOD military family housing changed over the initial 15 years of implementation and consider other potential uses.

Section 7: Full Board Assessment

7.1 DOES THE RESEARCH INVOLVE MICROWAVES/X-RAYS, OR GENERAL ANESTHESIA OR SEDATION?

- No
- Yes

7.2 DO RESEARCH ACTIVITIES INVOLVE PRISONERS, PREGNANT WOMEN, FETUSES, HUMAN IN VITRO FERTILIZATION, OR MENTALLY DISABLED PERSONS?

- No, go to question 7.3
- Yes, answer questions within table

IF YES

This research involves:

Prisoners Pregnant women Fetuses Human in vitro fertilization
 Mentally disabled persons

7.3 DOES THIS STUDY INVOLVE MORE THAN MINIMAL RISK TO STUDY PARTICIPANTS?

Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily activities or during the performance of routine physical or psychological examinations or tests. Examples of research involving greater than minimal risk include collecting data about abuse or illegal activities. Note: if the project qualifies for Exempt review (<http://www.irb.vt.edu/pages/categories.htm>), it will not need to go to the Full Board.

- No
- Yes

IF YOU ANSWERED "YES" TO ANY ONE OF THE ABOVE QUESTIONS, 7.1, 7.2, OR 7.3, THE BOARD MAY REVIEW THE PROJECT'S APPLICATION MATERIALS AT ITS MONTHLY MEETING. VIEW THE FOLLOWING LINK FOR DEADLINES AND ADDITIONAL INFORMATION: <http://www.irb.vt.edu/pages/deadlines.htm>

Section 8: Confidentiality / Anonymity

For more information about confidentiality and anonymity visit the following link: <http://www.irb.vt.edu/pages/confidentiality.htm>

8.1 WILL PERSONALLY IDENTIFYING STUDY RESULTS OR DATA BE RELEASED TO ANYONE OUTSIDE OF THE RESEARCH TEAM?

For example – to the funding agency or outside data analyst, or participants identified in publications with individual consent

- No
- Yes, to whom will identifying data be released?

8.2 WILL ANY STUDY FILES CONTAIN PARTICIPANT IDENTIFYING INFORMATION (E.G., NAME, CONTACT INFORMATION, VIDEO/AUDIO RECORDINGS)?

Note: if collecting signatures on a consent form, select "Yes."

- No, go to question 8.3
- Yes, answer questions within table

IF YES

Describe if/how the study will utilize study codes: Each individual interview will be coded as a separate event and the code will be maintained separately from the electronic interview files
If applicable, where will the key [i.e., linked code and identifying information document (for instance, John Doe = study ID 001)] be stored and who will have access? I will be the only one with access to the study codes, and they will be kept in a separate non-electronic file for my use only.
<i>Note: the key should be stored separately from subjects' completed data documents and accessibility should be limited.</i>
<i>The IRB strongly suggests and may require that all data documents (e.g., questionnaire responses, interview responses, etc.) do not include or request identifying information (e.g., name, contact information, etc.) from participants. If you need to link subjects' identifying information to subjects' data documents, use a study ID/code on all data documents.</i>

8.3 WHERE WILL DATA BE STORED?

Examples of data - questionnaire, interview responses, downloaded online survey data, observation recordings, biological samples

All electronic data will be maintained in my personal data management system (laptop, desktop and backup files) and handwritten interview notes maintained in my personal file system. Handwritten interview notes

will only be maintained as long as needed and destroyed afterward.

8.4 WHO WILL HAVE ACCESS TO STUDY DATA?

Only I and my co-investigator plan to have access to the study data.

8.5 DESCRIBE THE PLANS FOR RETAINING OR DESTROYING THE STUDY DATA

Electronic and written files of interview data will be maintained as long as needed for study purposes and destroyed within five years when no longer needed.

8.6 DOES THIS STUDY REQUEST INFORMATION FROM PARTICIPANTS REGARDING ILLEGAL BEHAVIOR?

- No, go to question 9.1
- Yes, answer questions within table

IF YES

Does the study plan to obtain a Certificate of Confidentiality?

- No
- Yes (Note: participants must be fully informed of the conditions of the Certificate of Confidentiality within the consent process and form)

For more information about Certificates of Confidentiality, visit the following link:
<http://www.irb.vt.edu/pages/coc.htm>

Section 9: Compensation

For more information about compensating subjects, visit the following link: <http://www.irb.vt.edu/pages/compensation.htm>

9.1 WILL SUBJECTS BE COMPENSATED FOR THEIR PARTICIPATION?

- No, go to question 10.1
- Yes, answer questions within table

IF YES

What is the amount of compensation?

Will compensation be prorated?

- Yes, please describe:
- No, explain why and clarify whether subjects will receive full compensation if they withdraw from the study?

Unless justified by the researcher, compensation should be prorated based on duration of study participation. Payment must not be contingent upon completion of study procedures. In other words, even if the subject decides to withdraw from the study, he/she should be compensated, at least partially, based on what study procedures he/she has completed.

Section 10: Audio / Video Recording

For more information about audio/video recording participants, visit the following link: <http://www.irb.vt.edu/pages/recordings.htm>

10.1 WILL YOUR STUDY INVOLVE VIDEO AND/OR AUDIO RECORDING?

- No, go to question 11.1
 Yes, answer questions within table

IF YES
This project involves: <input type="checkbox"/> Audio recordings only <input type="checkbox"/> Video recordings only <input type="checkbox"/> Both video and audio recordings
Provide compelling justification for the use of audio/video recording:
How will data within the recordings be retrieved / transcribed?
How and where will recordings (e.g., tapes, digital data, data backups) be stored to ensure security?
Who will have access to the recordings?
Who will transcribe the recordings?
When will the recordings be erased / destroyed?

Section 11: Research Involving Students

11.1 DOES THIS PROJECT INCLUDE STUDENTS AS PARTICIPANTS?

- No, go to question 12.1
 Yes, answer questions within table

IF YES
Does this study involve conducting research with students of the researcher? <input type="checkbox"/> No <input type="checkbox"/> Yes, describe safeguards the study will implement to protect against coercion or undue influence for participation: <i>Note: if it is feasible to use students from a class of students not under the instruction of the researcher, the IRB recommends and may require doing so.</i>
Will the study need to access student records (e.g., SAT, GPA, or GRE scores)? <input type="checkbox"/> No <input type="checkbox"/> Yes

11.2 DOES THIS PROJECT INCLUDE ELEMENTARY, JUNIOR, OR HIGH SCHOOL STUDENTS?

- No, go to question 11.3
 Yes, answer questions within table

IF YES
<p>Will study procedures be completed during school hours?</p> <p><input type="checkbox"/> No <input type="checkbox"/> Yes</p> <p>If yes,</p> <p style="text-align: center;">Students not included in the study may view other students' involvement with the research during school time as unfair. Address this issue and how the study will reduce this outcome:</p> <p style="text-align: center;">Missing out on regular class time or seeing other students participate may influence a student's decision to participate. Address how the study will reduce this outcome:</p>
<p>Is the school's approval letter(s) attached to this submission?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No, project involves Montgomery County Public Schools (MCPS) <input type="checkbox"/> No, explain why:</p> <p><i>You will need to obtain school approval (if involving MCPS, click here: http://www.irb.vt.edu/pages/mcps.htm). Approval is typically granted by the superintendent, principal, and classroom teacher (in that order). Approval by an individual teacher is insufficient. School approval, in the form of a letter or a memorandum should accompany the approval request to the IRB.</i></p>

11.3 DOES THIS PROJECT INCLUDE COLLEGE STUDENTS?

- No, go to question 12.1
- Yes, answer questions within table

IF YES
<p>Some college students might be minors. Indicate whether these minors will be included in the research or actively excluded:</p> <p><input type="checkbox"/> Included <input type="checkbox"/> Actively excluded, describe how the study will ensure that minors will not be included:</p>
<p>Will extra credit be offered to subjects?</p> <p><input type="checkbox"/> No <input type="checkbox"/> Yes</p> <p>If yes,</p> <p style="text-align: center;">What will be offered to subjects as an equal alternative to receiving extra credit without participating in this study?</p> <p style="text-align: center;">Include a description of the extra credit (e.g., amount) to be provided within question 9.1 ("IF YES" table)</p>

Section 12: Research Involving Minors

12.1 DOES THIS PROJECT INVOLVE MINORS (UNDER THE AGE OF 18 IN VIRGINIA)?

Note: age constituting a minor may differ in other States.

- No, go to question 13.1

Yes, answer questions within table

IF YES
Does the project reasonably pose a risk of reports of current threats of abuse and/or suicide? <input type="checkbox"/> No <input type="checkbox"/> Yes, thoroughly explain how the study will react to such reports: <i>Note: subjects and parents must be fully informed of the fact that researchers must report threats of suicide or suspected/reported abuse to the appropriate authorities within the Confidentiality section of the Consent, Assent, and/or Permission documents.</i>
Are you requesting a waiver of parental permission (i.e., parent uninformed of child's involvement)? <input type="checkbox"/> No, both parents/guardians will provide their permission, if possible. <input type="checkbox"/> No, only one parent/guardian will provide permission. <input type="checkbox"/> Yes, describe below how your research meets all of the following criteria (A-D): Criteria A - The research involves no more than minimal risk to the subjects: Criteria B - The waiver will not adversely affect the rights and welfare of the subjects: Criteria C - The research could not practicably be carried out without the waiver: Criteria D - (Optional) Parents will be provided with additional pertinent information after participation:
Is it possible that minor research participants will reach the legal age of consent (18 in Virginia) while enrolled in this study? <input type="checkbox"/> No <input type="checkbox"/> Yes, will the investigators seek and obtain the legally effective informed consent (in place of the minors' previously provided assent and parents' permission) for the now-adult subjects for any ongoing interactions with the subjects, or analysis of subjects' data? If yes, explain how: <i>For more information about minors reaching legal age during enrollment, visit the following link: http://www.irb.vt.edu/pages/assent.htm</i>
<i>The procedure for obtaining assent from minors and permission from the minor's guardian(s) must be described in Section 4 (Consent Process) of this form.</i>

Section 13: Research Involving Deception

For more information about involving deception in research and for assistance with developing your debriefing form, visit our website at <http://www.irb.vt.edu/pages/deception.htm>

13.1 DOES THIS PROJECT INVOLVE DECEPTION?

No, go to question 14.1
 Yes, answer questions within table

IF YES
Describe the deception:
Why is the use of deception necessary for this project?
Describe the debriefing process:
Provide an explanation of how the study meets <u>all</u> the following criteria (A-D) for an alteration of consent: Criteria A - The research involves no more than minimal risk to the subjects:

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- Criteria B - The alteration will not adversely affect the rights and welfare of the subjects:
- Criteria C - The research could not practicably be carried out without the alteration:
- Criteria D - (Optional) Subjects will be provided with additional pertinent information after participation (i.e., debriefing for studies involving deception):

By nature, studies involving deception cannot provide subjects with a complete description of the study during the consent process; therefore, the IRB must allow (by granting an alteration of consent) a consent process which does not include, or which alters, some or all of the elements of informed consent.

The IRB requests that the researcher use the title "Information Sheet" instead of "Consent Form" on the document used to obtain subjects' signatures to participate in the research. This will adequately reflect the fact that the subject cannot fully consent to the research without the researcher fully disclosing the true intent of the research.

Section 14: Research Involving Existing Data

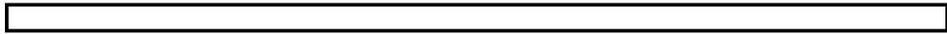
14.1 WILL THIS PROJECT INVOLVE THE COLLECTION OR STUDY/ANALYSIS OF EXISTING DATA DOCUMENTS, RECORDS, PATHOLOGICAL SPECIMENS, OR DIAGNOSTIC SPECIMENS?

Please note: it is not considered existing data if a researcher transfers to Virginia Tech from another institution and will be conducting data analysis of an on-going study.

- No, you are finished with the application
- Yes, answer questions within table

IF YES
From where does the existing data originate?
Provide a detailed description of the existing data that will be collected or studied/analyzed:
Is the source of the data public? <input type="checkbox"/> No, continue with the next question <input type="checkbox"/> Yes, you are finished with this application
Will any individual associated with this project (internal or external) have access to or be provided with existing data containing information which would enable the identification of subjects: <ul style="list-style-type: none"> ▪ Directly (e.g., by name, phone number, address, email address, social security number, student ID number), or ▪ Indirectly through study codes even if the researcher or research team does not have access to the master list linking study codes to identifiable information such as name, student ID number, etc or ▪ Indirectly through the use of information that could reasonably be used in combination to identify an individual (e.g., demographics) <input type="checkbox"/> No, collected/analyzed data will be completely de-identified <input type="checkbox"/> Yes,
If yes, <i>Research will not qualify for exempt review; therefore, if feasible, written consent must be obtained from individuals whose data will be collected / analyzed, unless this requirement is waived by the IRB.</i>
Will written/signed or verbal consent be obtained from participants prior to the analysis of collected data? -select one-

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This research protocol represents a contract between all research personnel associated with the project, the University, and federal government; therefore, must be followed accordingly and kept current.

Proposed modifications must be approved by the IRB prior to implementation except where necessary to eliminate apparent immediate hazards to the human subjects.

Do not begin human subjects activities until you receive an IRB approval letter via email.

It is the Principal Investigator's responsibility to ensure all members of the research team who interact with research subjects, or collect or handle human subjects data have completed human subjects protection training prior to interacting with subjects, or handling or collecting the data.

-----END-----

B3. Interview Questions

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Interview Questions for Participants in Research Involving Human Subjects

IRB 14-993

Title of Project: DOD Family Housing Privatization – Research and Dissertation

Investigator: John S Medeiros

The interviews involve housing privatization developers, DOD housing or senior managers directly involved in the privatization oversight, and current and former residents of privatized military family housing. My interview guide will be broken into two primary types of questions – those aimed at the management/oversight structure, and those directed toward privatization residents. The interviews were structured in this manner based on the results of the initial literature search and the findings of the Defense Science Board report on military personnel quality of life and the findings and Governmental Accountability Office report on management improvements needed to DOD housing privatization (Marsh, 1995; Schuster, 2002). The questions for management and oversight provide more program management perspectives, while the current and former resident questions addressed the sense of community, quality of life, and sense of community privatized housing provided. In several instances, the management, oversight, and residents could be the same person. The nature of the interviews will be similar, but distinct. For the oversight and management interviews, the focus will be on how they assess if they are meeting the expectations for safe, clean, affordable, adequate housing and possibly their approach for attracting future residents. For the residents, the interviews will reflect their personal assessments of the

privatized housing and their decision process for deciding to live in privatized housing versus local market housing.

Interview Guide

A. Management/Oversight Interview Guide:

- 1) Financial indicators
 - a. How do you assess financial success related to privatized military housing?
 - b. How do overall financial indicators reflect in business decisions for occupancy satisfaction in daily activities?
- 2) Program assessment
 - a. How do you know if housing privatization meets customer needs, and what are the parameters you consider in overall program assessment?
 - b. Are these overall program assessment factors shared with residents?
- 3) Meet Quality-of-Life Survey objectives
 - a. How do you assess whether the Defense Science Board Quality of Life Report objectives for safe, affordable, clean, and adequate housing are met and target under-served military personnel segments?
 - b. What factors assess resident satisfaction, how are they used?
- 4) Long-term viability of privatization
 - a. What influences your ability to retain existing and attract future residents?
 - b. How do outside factors influence housing privatization long-term viability?
- 5) Do you recommend anyone else I should interview?

B. Privatized Housing Resident Interview Guide:

- 1) Value of privatized housing compared to local market housing
 - a. How do you compare the cost of renting privatized housing to the cost of housing in the local market?
 - b. How did you consider the overall value in deciding to live in privatized housing?
- 2) Quality of privatized housing
 - a. Why did you choose to live in privatized housing?
 - b. What factors contributed to this decision?
 - c. Do you consider your living environment to be safe, affordable, clean, and adequate?
 - d. What else did you consider in deciding to live in Bolling Field privatized housing
- 3) Compared to previously occupied DOD housing or private-market housing

- a. How would you describe privatized military compared to former military housing?
 - b. Is privatized housing more or less desirable to live in compared to private-market housing and why?
- 4) Consideration processes
- a. Were there any unique factors you considered when deciding to live in privatized housing?
 - b. Are there inequities of privatized housing compared to private-market housing?
- 5) Do you recommend anyone else I should interview?

B4. IRB Written Informed Consent

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Written Informed Consent for Participants in Research Involving Human Subjects

IRB 14-993

Title of Project: DOD Family Housing Privatization – Research and Dissertation

Investigator: John S Medeiros

I. Purpose of this Research/Project

This interview is part of my PhD research to interview subject matter experts on the Department of Defense family housing privatization program. This is part of my PhD research and may be used in my dissertation on the same subject. My dissertation chair, Dr Matt Dull, sponsors this research and interview protocol. The purpose is to conduct PhD research, writing and the Department of Defense military family housing privatization program.

Over 15 years starting in 1996, the Department of Defense (DOD) transformed its military family housing program. Applying organizational learning and change theories, this study of the Department of the Air Force (AF) reveals how the AF used \$617 million of federal funds and \$8.3 billion of matching private investment to significantly upgrade or construct and effectively manage 53,323 AF family housing units. In doing so, the AF changed its core processes, strategies, structure, and institutional values thereby improved how it provides housing for service member families, particularly for junior service member families.

II. Procedures

A list of general questions will guide the interview but you may cover additional themes if you would like. The interview should take no more than 1-2 hours. The final product will be retained within Virginia Tech; however, some information from this interview may be used in my follow-on dissertation on the same subject.

III. Risks

There are no known risks to you for participating in this survey

IV. Benefits

No promise or guarantee of direct benefit is being made to encourage you to participate. You may contact the interviewer or instructor at a later time if you'd like the interview summary.

V. Extent of Anonymity and Confidentiality

Your identity will remain confidential and accessible only to the interviewer. Each individual interview will be coded as a separate event and the code will be maintained separately from the electronic interview files. I will be the only one with access to the study codes, and they will be kept in a separate non-electronic file for my use only.

VI. Compensation

You will not receive compensation for this interview.

VII. Freedom to Withdraw

Your participation is voluntary. You can decline to participate at the outset, stop the interview at any time, or refuse to answer any question without any negative consequences to you.

VIII. Subject's Responsibilities

You voluntarily agree to participate in this study.

IX. Subject's Permission

I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent:

_____ Date _____

Subject signature

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants in Research Involving Human Subjects

Should you have any pertinent questions about this research or its conduct, and research subjects' rights, and whom to contact in the event of a research-related injury to the subject, you may contact:

Investigator: **John S. Medeiros**
eagle4@vt.edu

Telephone/e-mail: **571-236-1246 /**

Dr. Matt Dull, (703) 706-8117, mdull@vt.edu
Committee Chair, Telephone/e-mail

David M. Moore, Chair 540-231-4991, moored@vt.edu
Institutional Review Board for the Protection of Human Subjects
Office of Research Compliance

B5. Verbal Informed Consent Script

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Verbal Informed Consent Script for Participants in Research Involving Human Subjects

IRB 14-993

Title of Project: DOD Family Housing Privatization – Research and Dissertation

Investigator: John S Medeiros

Title of Project: DOD Family Housing Privatization – Dissertation

Hi, my name is John Medeiros and I am involved in a PhD research and dissertation that requires I interview private and federal persons on the Department of Defense family housing privatization program. This is part of a PhD research and may be used in my follow-on dissertation on the same subject. My PhD committee chair, Dr Matt Dull who teaches at Virginia Tech University, sponsors this research and interview protocol.

Your participation is voluntary. You can decline to participate, and you can stop this interview at any time, if you wish to do so, without any negative consequences to you. I anticipate that the interview will take approximately between 1-2 hours. By answering my interview questions, this means you consent to participate in this research project. Do you have any questions?

B6. Email Informed Consent

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Email Informed Consent for Participants in Research Involving Human Subjects

IRB 14-993

Title of Project: DOD Family Housing Privatization – Research and Dissertation

Investigator: John S Medeiros

I am a doctoral student from Virginia Tech working with on my PhD research involving the DOD family housing privatization program. My research seeks to understand the processes, structure and strategy used by DOD to develop and implement the family housing privatization program. The results of this interview will be used as part of my PhD research and dissertation.

Because of your unique perspective and involvement in the DOD housing privatization program, I am hoping you will speak with me regarding your ideas on how the housing privatization program evolved over the first 15 years of implementation since 1996. Your experience supporting DOD's housing privatization initiative provides a unique perspective that is vital to my research.

The interview will be at you convenience, but is expected to last between 1-2 hours, depending upon your schedule, and preferably in person. You can choose to stop the interview at any point in the process. Your responses will be kept completely confidential. The benefit of participating in this research is being involved in scholarship with the aim of increasing our understanding of DODs housing privatization process.

Please let me know if you would be willing to participate in an interview by responding to this email. If you agree to participate, I will respond with the informed consent form and we will find a mutually agreeable time for the interview.

Please contact myself at eagle4@vt.edu or 571-236-1246 (mobile) with any concerns or questions regarding the interview.

Thank you in advance for your consideration and willingness to participate.

Sincerely,

John S. Medeiros

B7 Interview Subject Recruitment Materials

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Interview Subject Recruitment Materials

IRB 14-993

Title of Project: DOD Family Housing Privatization – Research and Dissertation

Investigator: John S Medeiros

There are no formal recruitment materials.

Current and former Department of Defense members, former congressional professional staff members, housing privatization developers, and current and former residents of DOD family housing will be the candidate interview subjects. Current and former DOD members will be selected based on their position within the federal government and their primary involvement in initiating and implementing the DOD housing privatization program. Private developers will be selected from those currently engaged in DOD housing privatization projects and/or recommended by DOD personnel. Housing resident interviews will be based on recommendations from DOD members and possibly randomly selected based on chance interviews. Some subjects are expected to be recommended from previous subject interviews (cascading) conducted as part of this protocol.

Recruitment will be based on subject matter experts currently working in positions of knowledge about DOD military family housing privatization. Subjects are expected to be congressional and DOD staff members, private housing privatization developers, and current and former housing privatization residents. Congressional and DOD staff members will be selected based on unique positions they are filling, private developers selected based on the companies they work for that currently have housing privatization projects with DOD, and current and former housing residents will be based on recommendations from subject matter experts.

This population provides the unique core knowledge for decisions, processes, and recommendations to the DOD family housing privatization program. There are no other subjects to interview that possess the knowledge of implementing, executing and residing in privatized military family housing. The research and data could be used in my PhD dissertation on the same topic.

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