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Beating Plowshares into Swords: The Impact of the Metropolitan-Military Complex

A dissertation submitted in partial satisfaction of the requirements for the degree of Doctor of Philosophy

in

Political Science

by

Rumman Chowdhury

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2017

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LIST OF ABBREVIATIONS

BEA   Bureau of Economic Analysis

BRAC   Base Realignment and Closures

CCSD   Clark County School District

DoD   Department of Defense

GSS   General Social Survey

ISSP   General Social Survey's International Social Survey Programme

LA   Los Angeles

MRP   Multilevel Regression and Post-Stratification

MSA   Metropolitan Statistical Area

MWD   Metropolitan Water District

NRCRD   Northeast Regional Center for Rural Development

OLS   Ordinary Least Squares

RF   Random Forests

RMSE   Root Means Squared Error

VA   Veterans Association

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ABSTRACT OF THE DISSERTATION

Beating Plowshares into Swords:
The Impact of the Metropolitan-Military Complex

by

Rumman Chowdhury

Doctor of Philosophy in Political Science

University of California, San Diego, 2017

Professor Steven Erie, Chair
Professor Thad Kousser, Co-Chair

Does economic dominance by the military affect local political and

social outcomes? This study is an extensive examination of the metropolitan-

military complex through empirical and case-study analyses. I establish an

empirical link between public spending, social capital, and military economic

involvement. A natural experiment of base realignments tests causal hypotheses, determining that political capture occurs when the military is a dominant industry. Path-dependence is examined both empirically and qualitatively by introducing predictive modeling to bolster case-study comparisons of San Diego and Las Vegas. San Diego and Las Vegas are uniquely suited for this analysis as they are demographically, economically, historically, and geographically similar. They share an early history intertwined with the railroad and the military, but while San Diego stayed economically reliant on the military, Las Vegas switched allegiances to the gaming industry. As a result, we are able to see an alternative scenario to San Diego's military-influenced history. The analyses and case study culminate in a multi-dimensional understanding of economic dominance. This work contributes to the literature on political capture, invites discussion on how industry affects the democratic process, and raises salient questions for policy-makers interested in attracting major industries to their region.

Summary of the Dissertation

The nature of the military-industrial complex has changed over time. During World Wars I and II, it manifested itself as military installations or dedicated industrial zones; the more modern face of military influence on localities began with the nuclear age, as warfare shifted to more expensive technologies. In this newer era, the military has adopted the possibly more palatable form of job-creating industrial giants, such as Boeing, Honeywell, and Pratt and Whitney. In many cases, local governments have regarded this industry as holding potential for vast amounts of fixed income, with significant positive externalities. As a result, they have often conceded to industry demands in the form of tax breaks, land use, and other perks, to compete. In doing so, do they concede political power in a way that is harmful to the democratic process and their social fabric? This study will test theories of the political power structure, culture, and economic decision-making in the metropolitan-military complex. Metropolitan-military regions are those in which the economic, cultural, and political past and likely future are heavily shaped by military involvement and investment (Lotchin 1984).

This study of the metropolitan-military complex provides more than just information on this particular type of region. Theoretically, it addresses questions in the community power literature, adds findings to studies of social

capital, has implications for democratic governance at the local level, and identifies nuances in the single-industry and economic power literature. Empirically, I explore whether the reliance of these regions on the military has an effect on the democratic process and local political climate. In doing so, I provide a level of empirical depth and generalizability to a field that is largely based on case studies, and therefore difficult to generalize. I also introduce a method of unbiased validation for traditional fixed-effects models using a tree-based ensemble method. This model is also the empirical groundwork for exploring path dependence, that is, whether past actions guide future decisions and outcomes. Finally, I provide a case study analysis of cultural and institutional 'stickiness' by applying theories of path dependence to a comparison of San Diego and Las Vegas. San Diego and Las Vegas are uniquely suited for this analysis as they are demographically, economically, historically, and geographically similar. They share an early history intertwined with the railroad and the military, but while San Diego stayed economically reliant on the military, Las Vegas switched allegiances to the gaming industry. As a result, we are able to see an alternative scenario to San Diego's military-influenced history.

The contributions of this work are as follows:

- Providing more conclusive findings of whether economic dominance affects local politics by focusing on a particular industry type. Specifically, I examine changes in public expenditure and local capital due to military economic influence, as well as how federal mandates to shift funding priorities impact these changes.

- Establishing whether the metropolitan-military complex is an industry worth understanding as a separate entity from other single-industry regions, due to its ties to the federal government.

- Providing empirical depth to iron triangles/sub-government research, which is comprised mostly of case studies and has a unit of analysis at the federal level. I establish an empirical explanation by changing the unit of analysis to a more granular level—the Metropolitan Statistical Area (MSA).

- Determining whether economic dominance leads to a failure of democracy, or simply an influx of like-minded voters, by testing two difference causal theories. That is, do iron triangles behave as expected, stifling the democratic process, or are any changes a function of an industry-supportive constituency?

- Establishing path-dependence by comparing two cities with similar early histories that became dominated by different industries. This comparison also provides an understanding of how a military-dominated city may differentiate from a region dominated by another industry.

The first chapter provides background and context for the dissertation question. First, I establish that there is precedence for tax breaks and other incentives to draw militaries to cities, resulting in the metropolitan-military complex. Then, I explore the nature of military influence, presenting the literature on 'iron triangles'—i.e., top-down government control which can subvert the democratic process. Next, I discuss the path-dependence of military control, as outlined by Markusen et al. (1991). The military had influence over local architecture, land use, transit, and other infrastructure development, as well as secondary influence over the local industries that flourished to supplement it. As a result, there are still tangible ties to the military remaining, even post-Base Realignment and Closure (BRAC).

Base Realignment and Closure was a systematic, post-Cold War decline and reallocation of military spending. What makes BRAC an excellent tool in this assessment is that it is exogenous in nature to local politics. The committee operated at the Congressional level, and local players had little impact on the outcomes. As a result, it was less influenced by local sentiments, demographic shifts, or political allegiances at the level of analysis, and can act as a true 'treatment.' Base Realignment and Closure provides a quantifiable examination of a path-dependence argument of military culture in local politics.

The major players involved in establishing a strong military presence exist in all levels of government, divided into a 'supply side' and 'demand side.' The supply side includes business leaders, Congress members, local government, and others who have the resources that could be of use to the military. The demand side includes military officials and the federal government, who are responsible for distributing funding and developing projects. Congress members can play a dual role in both the supply and the demand sides—especially if they are on allocation committees—thus, creating space for pork-barreling, that is, the use of government funds for projects designed to please voters or legislators and win votes.

The current literature on the military and government policy centers on the federal level, with a few examinations of how federal-level spending extends to state institutions. One of the primary fields of study is that of sub-governments, the study of inter-related groups within our government's structure. These groups reinforce each other's policy preferences in return for similar preferential treatment. Scholars in this field find that there are reinforcing links between Congress, the military/Department of Defense, and private organizations. Military contracts tend to be 'lumpy' (Mayer and Khademian 1996)—thus, these funds are cyclical and localized. This localization is what spurs my research. Funding is usually provided to installations, not distributed evenly among all residents of a state.

Understanding these connections at a more granular level is likely to provide a more realistic picture of what the metropolitan-military complex is. Also, because federal-level data is limited, many of these studies are case studies. By moving the unit of analysis to the Metropolitan Statistical Area, I allow for more data points and thus, a data-driven approach.

The existing body of political science literature regarding the metropolitan-military complex is mostly not generalizable at the local level and relatively restricted to a narrow set of tested hypotheses at the federal level. The federal-level literature has ample discussion of the military and politics but is limited to illustrating a small set of theories. In contrast, the local-level literature is a rich resource for much-discussed and well-tested hypotheses that have yet to be applied to the metropolitan-military complex. One goal of this research is to synthesize qualitative concepts with empirically tested theories to generate a broader set of testable hypotheses.

Specifically, I assess the impact of military economic dominance on social capital and public expenditures. Public expenditure is a very direct way of understanding whether there is government dominance by a particular industry. It is in any industry's best interest to utilize spending to serve their needs—possibly by developing roads or controlling land use. In the case of the military, redistributive spending would likely be at the bottom of that list— first, because social welfare programs do not help this industry's bottom line,

and second because the military already provides many of these services to their members.

Observing social capital allows a glimpse of the constituent psyche. Understanding whether or not the democratic process is broken is equivalent to an understanding of power structures. Does the citizen feel connected to his or her community? Do they feel like they have a voice? Do they bother to participate or be informed of political processes? It is valuable to understand if the presence and influence of the military drives social capital.

After establishing the perspective of the current literature and basis for this exploration, the first step of this project is to establish whether military spending (divided into personnel and procurement) influences the variables of interest. Influence is divided into two parts: same-year influence (i.e., does the level of military funding today affect public expenditures and social capital currently), and future-year influence (i.e., does the level of military funding today affect public expenditures and social capital in the future).

Same-year influence is examined using panel data in a fixed-effects model, where it is assumed that time and place are fixed, i.e., non-random. Future-year influence is a predictive model, using a Random Forest (RF) model to observe if prior year funding can be used to predict future social capital and public expenditures. These models use data from 1990, 1997, and 2006, which encompasses a period that is both pre- and post-BRAC.

The same-year fixed-effects model finds that for every $1,000 increase in per-capita income due to military personnel spending, there is a decrease in public spending of $1,194 per person. However, there does not seem to be a clear impact on same-year public spending due to procurement. The predictive model echoes this finding—personnel spending impacts future public expenditures.

The social capital models are more difficult to decipher. First, the fixed-effects model has an adjusted R-squared value of about 22 percent. It also shows a statistically significant, but very small, impact of personnel income, but no impact from procurement. This may be because the range of values for social capital is small. It could also be that the index value itself is a derived value, that is, a linear weighted combination of other values. As such, a coefficient value is less interpretable.

In this case, the predictive models have valuable findings. As Random Forests simply focus on the ability to predict, and not as much on the impact of a variable, it answers a more simple question—does the inclusion of a military spending variable affect the model's ability to predict future social capital? It appears that prior-year military economic influence has an impact on future social capital.

Establishing the impact of military funds on public spending and social capital does not immediately mean that there is a subversion of democracy in

place. Understanding the causal pathway establishes the root of this influence.

I set the groundwork for two causal hypotheses: top-down, which echoes the

elite or economic theory of power, and bottom-up, which hypothesizes that the

higher the economic impact, the more like-minded constituents there are in the

region (i.e., pluralist). Therefore, they adhere to the policy that benefits the

industry they work for, and the democratic process is not subverted (at the

least, we may have a 'tyranny of the majority').

I use General Social Survey (GSS) data, specifically the Role of

Government module, to establish public sentiment for public expenditures and

their feelings on social capital. I examine five measures to arrive at two broad

conceptual areas: how influential citizens feel they are in the democratic

process (i.e., do they feel the process is broken), and whether or not they

support public spending.

The unit of analysis is the Metropolitan Statistical Area (MSA), an

economically-interdependent group of counties. To create a sample

representative at the MSA-level, I use multilevel regression and post-

stratification on the GSS findings. These measures are taken pre- and post-

BRAC closures, so I can perform a difference-in-differences model.

I find support for the economic or elite theory of power. Specifically, an

increase in military income to an MSA leads to lower levels of faith in the

democratic process. This chapter tests two causal models to explain this

finding and concludes that there is support for the political capture argument, that is, when the military is the dominant economic contributor, the democratic process is stifled. This is reflected in the outcomes of public expenditure allocations, which is in conflict with public sentiment—in other words, military-dominated regions do not systematically want less spending, even though they systematically receive less spending. This is also reflected in how the citizens feel they are represented in government. When the military's impact is increased, a higher percentage of citizens feel they are alienated from the democratic process. Similarly, when the military's impact is reduced, the percent of alienated citizens drops. An added nuance to the social capital findings is that these alienated citizens are no less interested in politics than they were previously, which bodes well for community interconnectedness.

At this point, we have established empirical foundations for both the impact of military funding (particularly personnel) on public expenditures and social capital, both for the present time as well as future impact. Also, an empirical investigation of a causal pathway suggests that there is a subversion of democracy in place—people feel they are alienated from the democratic process when there is a military economic force. This next section allows a deeper understanding of this alienation, in particular, whether it has path-dependence. It also provides an understanding of how unique the military is as

an economic entity. To do so, I compare two similar cities that branched off onto different paths—San Diego and Las Vegas.

San Diego and Las Vegas are currently demographically, regionally and historically similar. Both regions are also economically similar, in that they are single-industry towns and their second strongest industry is tourism. However, the major difference between the two is that, in Las Vegas, the military has a much lower impact on the local economy relative to the gaming industry, while in San Diego, the military has historically been the single largest economic contributor. Crucial for the purposes of this analysis is that both cities have parallel early histories, but diverged at a critical juncture when San Diego fully embraced its military and Las Vegas moved towards the gaming industry while still maintaining ties to the military.

There are four elements to a methodologically sound path dependence study: causal possibility, contingency, closure, and constraint. Causal possibility suggests that more than one path might have been taken—that is, for path-dependence to be relevant, it has to have been possible for other outcomes to have occurred. Inevitability cannot create a salient path-dependent model. Contingency, sometimes called a critical juncture, states that some exogenous or unpredicted factor influenced the outcome. Closure describes the narrowing down of potential pathways as time progresses and as events occur. Constraint suggests that the opportunity cost of moving off a

particular path is high once it is established. Each successive step down the path increases the importance and durability of the path.

Using this framework, I establish the early parallels between both cities. To establish causal possibility, I explore the early attempts at profiting off of the railroad, and for Las Vegas, their early success with the Air Force. In San Diego, the city's investment in the railroad was dashed when Los Angeles was successful in becoming a railroad terminus, establishing contingency. Finally, constraint and closure occurred over time, as local governments in both cities invested land and money to literally and fiscally establish the foundations of each industry.

Significant to each city's history was a change agent, or individual in a position of power, who was able to draw in and influence the rise of an industry. For San Diego, it was William Kettner, and in Las Vegas, it was Patrick McCarran. These individuals created political precedents for preferential treatment of each dominant industry and facilitated structural lock-in and economic dependence. Economic diversification and growth politics struggled in both cities. Las Vegas directly exhibited the impact of casino moguls, while San Diego saw local boosters supporting the Navy, instead of direct naval involvement. In San Diego, the post-Cold War era has coincided with the growth of tourism and biotech industries.

After establishing the historical grounding to support path-dependence, I discuss more modern examples of how these historical pathways guide current outcomes. This chapter provides in-depth examples from recent history of how outcomes are influenced directly and indirectly by industry. In doing so, I find evidence to support the top-down hypothesis findings from previous chapters.

In Las Vegas, there is a very direct impact on public infrastructure and allocation for public services due to casino involvement. Direct influence by the gaming industry keeps state and local taxes low, including gaming taxes. Clark County school districts cannot support the level of growth expected by the blue-collar boom brought in by casinos. Yet, a billion-dollar expansion for McCarran International Airport was approved and is currently proceeding on schedule.

In San Diego, there is a less direct impact from industry, as they are prohibited from directly investing in local government due to their federal government status. However, in the early 1980s, Balboa Park Hospital was federally approved at the Navy's demand, allowing federal intervention to supersede the local government's vote to the contrary. In recent years, military impact has not been so direct, but still present. Strong 'rally around the flag' sentiment at City Council meetings for a disputed Veterans center reflect the strong residual impact of the military. Finally, San Diego's struggles with

airport expansion directly contrast with Las Vegas and its success. While Las Vegas had industry support aligned with infrastructure goals, San Diego does not, and the region has largely been unsuccessful in finding a solution to their air traffic needs. The airport debates also show the influence of private corporations and procurement dollars that still exist in the region.

Overall, the objective of this study is to provide a deep exploration of the potential for military economic dominance to intertwine itself with the local political and social fabric of a region. In doing so, I also contribute to the existing body of literature in other related aspects of political science.

First, I establish that the metropolitan-military complex is an industry worth understanding as a separate entity from other single-industry regions due to its ties to the federal government. The airport debates in San Diego illustrate an interesting relationship between the military and local government decision-making. On one end, the military's hands are tied, as they are not permitted to directly contribute to politicians, the same way other industry leaders can (such as in Las Vegas). Yet, they take advantage of their influence in major procurement organizations to influence local politics.

This work adds empirical depth to iron triangles/sub-government research, which is largely case studies (and difficult to generalize) and or the federal level. Instead, I establish an industry-specific example that is empirically supported at the local government level, and provide an exploration

of a causal pathway to determine the direction of influence. In doing so, I determine that there is a subversion of the democratic process due to strong military economic involvement.

This process is two-fold: first, I empirically illustrate an impact on public expenditures based on economic dominance, something that was not possible in previous research. Second, in the case studies of Las Vegas and San Diego, I show that economic dominance can manifest itself in many ways. While the hypothesis behind the outcome is the same—that local economic interests dominate policy-making when it benefits them—the manifestation of this outcome can vary.

What we learn from this research is that the economic influence of industry is far-reaching and quite complex. It is evident that the political decisions to involve industry come with long-term considerations for local politicians, specifically regarding their constituency. At the same time, the research does not say that all industry is negative; instead, I conclude that all industry brings with it a substantial change and impact. It is up to the constituency and local government to understand if that change is beneficial to their needs.

Chapter 1: Introduction

The pursuit of military funding can be a preferred recourse for local government in challenging economic circumstances.   Even in a healthy economy, military dollars are often met with open arms and the belief that this funding will create jobs, develop industry, attract educated workers, and provide a stable income for years to come. During the military spending booms of World War I and subsequent wars, regions sought lucrative contracts to build military bases and related industries in return for cheap (or free) land and other preferential treatment. In recent years, base closures have largely ended this practice, but it has simply been replaced with even more lucrative military procurement dollars, drawn in by tax incentives for businesses.

For example, a publicized battle ensued in 2000 between Chicago, Detroit and Dallas to be the location of Boeing headquarters. Boeing is on track to become the world's largest producer of aircraft (surpassing Airbus). As of July 2012, over thirty percent of its revenue came from military contracts ($8.2 billion); Boeing Military Aircraft is a separate division of the corporation that employs approximately 25,000 individuals (Drew 2012). Chicago ultimately won the battle, but at the cost of $63 million in tax breaks and other incentives. This type of concession is the industry norm.

There are multiple mechanisms by which military entities become intertwined with local politics. Personnel, or the placement of troops in military

facilities, is determined at the federal level by the Department of Defense. Local politicians do not have a voice in these decisions; however, their economy can rely on these individuals. More troops means more local taxes and halo effects of purchasing houses, cars, and other necessities. Removing these individuals can have a secondary effect of reducing income and unemployment. This soft power can be exerted by the military to influence local political outcomes regarding development, taxation, and land use.

More directly, if there is a push for personnel expansion at a locality that is at odds with the preferences of local politicians, federal mandates may override local decisions. In the San Diego case study, I explore the expansion of the military hospital in Balboa Park, which exemplifies this mechanism.

Procurement funds are received from government contracts from private companies. As warfare relies more heavily on sophisticated technology, the government outsources development to private firms. Localities, realizing the significant financial benefit of attracting companies that receive multi-year, multi-billion dollar contracts, enter a bidding process to attract these firms. The potential political outcomes of the resulting negotiations and concessions are at the core of my dissertation.

This study tests theories of the political power structure, culture, and economic decision-making in the metropolitan-military complex. Metropolitan-military regions are those in which the economic, cultural, and political past

and likely future are heavily shaped by military involvement and investment (Lotchin 1992).

The Nature of Military Influence

The nature of the military-industrial complex has changed over time. During World Wars I and II, they manifested themselves as military installations or dedicated industrial zones; the more modern face of military influence on localities began with the nuclear age, as warfare shifted to expensive technologies. In this newer era, the military has adopted the possibly more palatable form of job-creating industrial giants, such as Boeing, Honeywell, and Pratt and Whitney. I test whether these faces of military power are a form of 'iron triangle,' linking, shaping, and reinforcing behaviors of local government, private enterprise, and the federal military in a manner that affects the local democratic process.

Path Dependence

Markusen et al. (1991) outline the historical economic pathway by which some of these regions became military-dependent. In order to do so, she states, we have to first understand the economic history of the military and geography's key role. During the past century, the role of the military in

shaping the United States went through multiple phases. Markusen et al.

(1991, 27) mention isolationism, active involvement in global conflict during the

World Wars, a brief disarmament period of the fifties, the rise of the Cold War

(which is overlapped by the Vietnam War), the post-Vietnam dismantling of

defense systems, and finally, the Strategic Defense Initiative of the 1980s. The

role of the military has changed significantly in the post-Cold War era since the

book by Markusen et al. (1991) was published. After the end of the Cold War,

personnel and installations were significantly reduced via BRAC. However,

much of this capability was simply shifted to other installations; these cities

saw an increase in per-capita military expenditure as a result of BRAC.

National military priorities shifted again after September 11th, 2001 to focus on

surveillance in order to fight new types of war that involved tracking groups of

individuals, not battling nations.

Parallel and crucial to this development is the changing technologies of

warfare. During the isolationism era, the goal of the military was to defend

America's borders, namely, its coasts. At this time, coastal cities battled for

naval shipyards. In the global conflict era of the World Wars, air warfare

became a possibility, and aircraft manufacturers created a massive wartime

production from what started out as a cottage industry. For this development,

the temperate climate, flat terrain, and clear skies of the west and southwest,

particularly Southern California, were ideal. Finally, the atomic age ushered in

an era of nearly borderless warfare, where research and development into innovative missiles and surveillance, communications, and radar systems became the priority. For these priorities, cities with strong technological hubs were best-equipped (Markusen et al. 1991, 56).

The third part of the pathway to military dependence is economic history. Many of these heavily defense-reliant companies are former industrial providers. As industrial manufacturing declined in the United States, the military became the only way to salvage many companies. In general, the technological requirements of modern warfare require highly specialized and top-secret capabilities. As Markusen et al. (1991, 33) note, the defense market has "two unusual features: a high degree of concentrated market power and extraordinary dependence on one buyer, the federal government."

In a post-BRAC era, it appears that the military's influence on localities has declined. Since 1988, the Base Realignment and Closure commission has closed over 350 military installations nationwide. The most recent round of closures was announced in 2005, and the next planned commission, which was scheduled for 2015, is in Congressional gridlock (Office of the Under Secretary of Defense).

However, this appearance of decreased influence is deceiving. The services provided in these installations were generally shifted to other installations, thus increasing the capabilities of the other installations. Also,

while domestic military personnel funding declined, procurement funding has not. After the initial post-Cold War period hit, funding for domestic military procurement increased at a fairly steady rate, reaching a high of over $175 billion in 2008. As of 2016, the budget is slightly below $120 billion (DoD Budget Request).

Major Players

In order to participate in this highly-financed club, each region needs a champion for the cause. Markusen et al. (1991) name the following: founders, generals, congressmen, and boosters. Due to the features of the market described above, both private and public sector actors can greatly influence the establishment of these relationships. They divide them into the 'supply side,' consisting of founders, congressmen, and boosters, and the 'demand side,' which includes military officials and "the complicated institution of the state" (38). The machinations of the state are complex since no single actor plays a dominant role. Military generals, members of Congress, the president, and his advisors all have different priorities and different degrees of influence. The role of the federal government is discussed in the literature review.

Military leaders are primarily concerned with their strategic goals, namely, the safety and efficiency of their defense-industrial base. Aspects of economic capture come into play. Defense leaders may favor duplicate or

redundant facilities to ensure quick supply. They may also prefer certain sites due to their benefit to the military. These desires translate into inefficiencies for the locality but are generally absorbed by the region and compensated in the contract. At the scale of industries such as aerospace, this may mean situating major infrastructure—such as highways, bridges, and airports—in locations that are strategically optimal for the military, but not for the locality.

Similarly, military personnel are savvy to the political processes required to maintain a secretive and expensive industry. It is much easier to help create a community than to fight the local politics and labor practices that typify the industrial heartland states or well-established cities, which is why many installations are in 'pioneer' states. According to Fallows (1981), collective bargaining, responsiveness to financial incentives, and job-hopping are inimical to the military, with its rigid internal structure, narrowly restricted labor mobility, and emphasis on loyalty to the organization.

The next set of players are local political officials and members of Congress. These players act mostly as boosters. Common theories of pork-barreling are disputed by the literature (discussed in the federal-level literature review section). Instead, Congressional influence is limited to voting on increases or decreases in overall funding but rarely does Congress as a whole have any influence on specific project allocations. On the local level, boosters include city officials, real estate developers, locally-tied business interests

(such as banks, newspapers, and sports teams), and universities. They offer land, infrastructure, financing, and tax breaks, and possibly most importantly, the promise of an amenable local culture (Lotchin 1992; Shragge 1998).

Current Literature

The existing body of political science literature regarding the metropolitan-military complex is largely comprised of case studies at the local level and fairly restricted to a narrow set of tested hypotheses at the federal level. The goal of this research is to synthesize qualitatively drawn concepts with empirically tested theories to generate a broader set of testable hypotheses. The section below draws from federal-level literature on interest group influence, pork-barrel politics and government capture. Specifically, the federal-level literature has ample discussion of the military and politics but is limited to illustrating a small set of theories. In contrast, the local-level literature is a rich resource for much-discussed and well-tested hypotheses that have yet to be applied to the metropolitan-military complex.

The study of the military-industrial complex and its impact on the federal government is fairly limited (with little exception) to interest group influence, pork-barrel politics and congressional committee assignments. Within the committee assignments literature, there is also a sub-field on the role of institutions in facilitating repeated interactions. In short, the work has been uni-

directional in understanding how institutions affect the military's influence, but not vice versa, since (a) federal-level institutions are less malleable than those of localities and (b) a federal-level study does not allow variance across institutions. However, there are valuable contributions from both this literature and the international relations study of civil-military relations. Scholars agree that there may be an overemphasis on the international arena, at the expense of valuable national-level information (Mayer and Khademian 1996; Walt 1991). Looking at the field as a whole, Mayer and Khademian (1996) identify the gap in studies of domestic politics and the military, propose an explanation for this missing literature, and suggest methods of bridging this gap. However, their work is published as more modern academics turn their gaze to the nature of defense contracting, and how iron triangles are formed by the collusion of private contractors, interested members of Congress, and the Department of Defense (Mayer 1991; Rundquist, Lee, and Rhee 1996).

Defense scholarship grew as a field of academic interest in the 1960s when the concept of a permanent military industry became a part of the United States political and economic landscape. It is during this time books, such as Samuel Huntington's *The Soldier and the State: The Theory and Politics of Civil-Military Relations* established the tone for the new body of political science literature. According to Mayer and Khademian (1996), these books divided the realm of defense policy apart from 'political' policy; they argue that

scholars treat national defense as a realm that is (or should be) 'above' the usual tools of logrolling, pork-barreling and vote-trading. The authors state that political scientists often consider defense policymaking to be at odds with democratic processes—the former assumed to be hierarchical and centralized, and the latter to be more democratic, accountable and transparent. Notably, Snyder (1962) states that defense policy should be a function of rationally-determined, logical and objective policy; this view is supported by Evangelista (1989), Chittick (1988), and Higgs (1989), who consider Congress to be unnecessarily involved in defense budgeting and administration.

The study of the military and distributive politics extends to the state level and informs the institutional effect on defense procurement (e.g., rewarding contracts). Rundquist, Lee, and Rhee (1996) examine a pooled cross-section time series of data from 1965 to 1983. Contrary to some of the literature, such as the findings of Gross (1972), they find that representation on standing defense committees does bring more defense dollars to a state.

Defense spending has also been illustrated as a principal-agent game, with difficulties arising from multiple principals. That is, there are multiple parties—Congress members and the Department of Defense at the federal level, and citizen boosters and representatives at the outsider or local level, who are pushing to delegate the allocation as they see it best suiting their

needs. Reforming the procurement process is a subject of discussion within the federal government, as well as in the academic literature, but is often viewed, as Mayer and Khademian (1996, 184) state, "with a wholly unrealistic picture of how the defense regulatory structure fits into the broader institutional framework of American politics ." Instead, they suggest an alternative view of defense spending as a classic principal-agent process, as is the view in Hill (1985) and Hammond and Knott (1996). They frame the private defense contractors (who are, in essence, interest groups), the bureaucrats of the Department of Defense (DoD) and the members of Congress as both principals *or* agents, depending on the context. Given the situation, the different principals can control the goals of the endeavor. By framing the issue as a principal-agent problem, the problems with inefficiencies become more evident. In short, the problem is an issue of oversight, accountability and consistency across colluding parties (Mayer and Khademian 1996).

One of the primary fields within the study of interest groups at the federal level is that of policy sub-governments, or 'iron triangles.' The sub-government model states that insulated groups, usually comprised of a few key interest groups, congressional committees (or interested members of Congress), and bureaucratic agencies control the outcomes of certain policy areas (Maass 1951). This was refuted by Heclo (1978), who argued that iron triangles were supplanted by issue networks of interested individuals.

Illustrated in Figure 1, an iron triangle is a self-reinforcing group, whereby interest groups provide electoral support for Congress, in exchange for beneficial legislation. Congress also provides funding and bureaucratic support for groups (such as the Department of Defense) in as they receive policy choices in alignment with expressed preferences. The bureaucracy provides special favors and support for interest groups—for example by relaxing restrictions or limiting regulation. These interest groups lobby for bureaucratic support in Congress on behalf of these government groups.
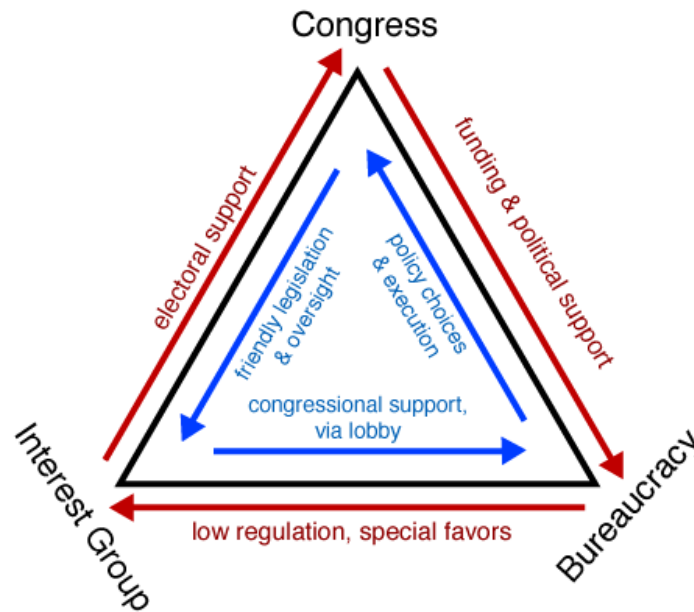
Figure 1. Iron Triangle[1]

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[1] Source:
https://upload.wikimedia.org/wikipedia/commons/thumb/5/5b/Irontriangle.PNG/400px-Irontriangle.PNG

Sub-governments are the subject of Kenneth Mayer's (1991) book, *The Political Economy of Defense Contracting*. He addresses the strategies adopted by the military to obtain federal funding and award defense contracts, but also how their vast resources can be appealing to members of Congress. Mayer (1991) observes a true sub-government of private defense contracting firms (such as Boeing, General Dynamics, Raytheon, etc.), interested members of Congress, and the bureaucracy of the Department of Defense operating in tandem to expand their budgets, obtain projects, and distribute them in a politically advantageous manner.[2] He also systematically analyzes the budget process of allocating funds to the DoD, the weapons acquisitions process (i.e., how the DoD allocates its funds among private contractors), and how the re-election motives of members of Congress drive the defense contracting process.

Most notably relevant to the topic of this research is that Mayer (1991) clearly defines the co-dependency of each party (defense contractors and the government) on the other, and identifies the bargaining tools that each has at its disposal. Congress holds the purse-strings, thus holding the key political role in defense contracting. Identifying the player as just 'Congress' is, of course, an oversimplification—there are many gatekeepers, including committee members, and essential coalition members among the hundreds of

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[2] Quite literally, the nature of defense funding is the representative example of sub-governments, as exemplified by (Adams 1981)

members of the House and Senate. However, the Department of Defense and defense contractors are not without their bargaining chips. The military has a near-monopoly on classified information regarding costs and capabilities. Most importantly, the defense industry is acutely aware of the economic benefits of their projects to members of Congress. Proper collusion between the DoD (a bureaucratic body) and defense contractors (who maintain lobbyists) mean that many limitations on the bargaining abilities of one body are bypassed by the other.

The nature of the defense industry, as Mayer and Khademian (1996) argue, renders it different from other forms of politically distributed resources. The items produced by the industry (i.e., the weapons, aircraft, etc.), are 'lumpy'—that is, they "emerge in small and discrete units only after a large investment of time and money" (184). Also, given the experimental nature of some of this equipment, it is often difficult to determine whether the project will be a success or a failure until millions, or even billions of dollars are spent (Mayer and Khademian 1996).

To this, I would add that the two-to-four-year electoral cycle does not coincide well with the multi-year contracts necessary for designing, testing, and creating complex defense equipment. Mayer (1991) recognizes this interplay, discussing the nature of 'defense-electoral cycles.' Mayer discusses the importance of the timing of awarding contracts in a manner that benefits all

parties–the DoD creates goodwill in Congress, and MCs can boast to their constituencies. By observing monthly allocations of prime contract awards by members of Congress, he finds that there is a boost in contract awards in September and October of election years that is not mirrored in non-election years. He notes that previous scholars have missed this connection since the macroeconomic effects of such increases are generally small. He finds an average of $2.9 billion in contract increases, which is barely a drop in the bucket in terms of job creation having a significant impact on unemployment rates. However, since these results are localized, the corresponding MCs can claim significant credit for their district's economic improvement.

It is worth noting that most of this higher level discussion rarely travels its way down the political totem pole. Rundquist, Lee, and Rhee (1996) and Rundquist et al. (1997) visit the state-level impact of federal allocation policies. In Rundquist's (1978) earlier work, he also explores theories of the existence of the military-industrial complex. Similarly, economic impact studies exist for states particularly reliant on defense dollars (Clayton 1970). In each case, and in the literature as a whole, the author assumes a top-down approach to the politics of defense spending; that is, defense allocations are decided by Congress and the federal government and doled out to the corresponding contractors. State and local governments have no role in this matter, and simply serve as reactionary bodies of government.

By framing the discussion from a top-down viewpoint, we miss many necessary players and vital interactions that occur in the lower levels of government, particularly in the local level. Mayer (1991) briefly addresses this point in his critique of the pork-barrel literature. As he notes, the amount that is produced by the defense-electoral cyclical boom (i.e., the boost in defense subcontract allocations that occur during September and October of election years) is barely enough to make a national impact. Even if it did, the defense industry is so highly localized that a national impact would manifest itself in only a handful of localities, thus not substantively dealing with any sort of national unemployment or economic problem.

Social Capital

Observing the metropolitan-military complex at the local level opens up the possibility for the study of local democratic processes and citizen behavior. In this study, I investigate the impact of military economic dominance on social capital and public expenditures.

The study of social capital and its impact on democracy has a long history in social science. Putnam, Leonardi, and Nanetti (1993) trace the histories of northern and southern Italy, where community linkages led to higher civic engagement and lower corruption in the northern regions. Empirical studies of social capital have linked one or more aspects of social

capital to a range of political, social, and economic outcomes, including confidence in government (Brehm and Rahn 1997), voter participation (Knack 1992), health (Kawachi et al. 1997), happiness (Helliwell 2001), and investment and growth (Knack and Keefer 1997).

The channels by which social capital can lead to better governmental performance can be grouped into two broad categories. First, social capital can broaden governmental accountability, so that government must be responsive to citizens at large, rather than to narrow interests. Second, social capital may facilitate agreement where political preferences are polarized, which can be particularly important where policy innovation in the face of new challenges or crises is required (Boix and Posner 1998). Making the government more accountable to the broader public interest (i.e., preventing 'state capture' by narrow interests), Knack (2002) argues, is the most important means by which social capital influences government performance.

One limitation of the social capital concept is the lack of consensus on its meaning. Coleman (1988, 598) defines social capital as "a variety of different entities, with two elements in common: they all consist of some aspect of social structure, and they facilitate certain actions of actors–whether personal or corporate actors–within the structure." According to Putnam (1995, 19) , ". . . social capital refers to connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from

them." Fukuyama (1995) defines social capital in terms of cultural values, such as degrees of compassion, altruism and tolerance. Although an exact meaning remains elusive, these definitions have common elements that point to a solid base for a formal definition. Woolcock (2001) creates a cohesive definition of social capital as norms and networks that facilitate collective action. This definition provides a method of measuring social capital as the formation of groups and other forms of civic activity or collective action.

Another thread of social capital literature investigates the applicability of the measure at different levels of governance. While many studies of social capital apply the measure at a state or even national level, Rupasingha, Goetz, and Freshwater (2006) argue that a locally-based model is theoretically sound. According to the authors, the underlying premise of social capital is that it facilitates collective action, and collective action is more often found at the subnational level of organization than at the national level.

As such, a major obstacle in developing the concept of social capital is the lack of reliable data, both cross-sectional and time-series. Previous empirical investigations of the determinants of social capital are based on surveys such as the National Opinion Research Center's General Social Survey (GSS), which measures trust, civic engagement, and association memberships of individuals (for example, Alesina and La Ferrara [2000], Brehm and Rahn [1997], Glaeser, Laibson, and Sacerdote [2002], and Putnam

[1995]). The GSS is a nationally-representative survey which samples 1500 individuals each year.

At the local level, two data sources exist: Harvard's Saguaro Center, which has county-level measurements of social capital for the years 2000 and 2006, and the Northeast Regional Center for Rural Development (NERCRD), which has measurements for 1990, 1997, and 2005. For the purposes of this study, where my measurements require pre and post-BRAC measurements, I use the 1990 and 1997 measurements of NERCRD. These measurements are based on a combination of involvement in religious, civic, business, political, professional, labor, and sports clubs and organizations, as well as voter turnout. The index is created using principal component analysis, which is a weighted linear combination of the above variables (Rupasingha, Goetz, and Freshwater 2006).

Their methodology is:

- Survey the number of individuals who are involved in organizations or groups that are religious, civic, business, political, professional, labor, physical fitness, sport, golf, or bowling. Aggregate this number, divide into count per 10,000 citizens, and divide by 10.This is the 'association' variable.

- Determine voter turnout.

- Determine the census response rate.

- Count the number of non-profit organizations, excluding international organizations.

- Perform a principal component analysis using these four factors. The first component is used as the index for social capital (Rupasingha, Goetz, and Freshwater 2006).

Public Expenditure

To understand whether economic dominance subverts citizen preferences in local public policies, we must first understand whether local officials are responsive to citizens at all. Scholars of urban politics have focused on the economic, political, and legal constraints facing local policymakers (such as Gerber and Hopkins [2011], Leigh [2008], Nivola [2002], Peterson [1981]). Due to the multitude of constraints on local governments, most past work has found that political factors have little influence on local policy outputs (as concluded in Craw [2006], Gerber and Hopkins [2011], Morgan and Watson [1995], Peterson [1981], Ruhil [2003], and Wolman, Strate, and Melchior [1996]). However, newer literature refutes that finding—Tausanovich and Warshaw (2014) find that city governments are responsive to the views of their citizens across a wide range of policy areas. Moreover, the substantive impact of citizens' preferences on policy outcomes is quite large. After controlling for a number of factors that influence city

policies, the most liberal cities spend over twice as much per capita as the most conservative cities. They also have higher taxes per capita and less regressive tax systems than conservative cities.

Other empirical analyses have traced factors beyond citizen 'liberalness' that motivate differentiation in local public expenditures. Academics have explored the potential of institutional, historical, demographic, economic and other factors. Rugh and Trounstine (2011) find that increased diversity does potentially lead to lower local expenditures due to mistrust, but that politicians can play a role in cultivating cooperation. Berry (2008) finds that neighbors matter—intra-regional competition can lead to overfishing from common pools, reducing the ability for localities to spend. Einstein and Kogan (2015) use a time-variant model to show that as the number of Democrats in a city increases, so do public expenditures. Lubell, Feiock, and De La Cruz (2009), using panel data from 406 Florida cities from 1998 to 2003, find that institutional structure helps determine which interest groups have their preferences reflected in local land-use changes and development patterns.

Specifically, the question of 'Who governs?' is dominated by the pluralist, elite, and institutionalist theories. Pluralists—such as Browning, Marshall, and Tabb (1984), Clark & Ferguson (1983), Dahl (1957), Donovan & Neiman (1992), and Goetz (1994)—contend that local government is open to a wide variety of interests and influences. Either through the vote or other types

of pressure tactics, residents not only control the outcome of elections, but they can also determine the direction of policy. From this perspective, political imperatives largely determine outcomes at the local level.

In contrast, academics, from Tiebout (1956) to Peterson (1981), maintain that economic constraints largely determine policies at the local level. According to this view, competition across cities for mobile capital means that no one city can afford to levy heavy taxes or to provide generous social welfare benefits to the poor (Minkoff 2009). Any city that tries to shift policy in favor of more disadvantaged segments of the population risks losing businesses and wealthy residents—an outcome that would ultimately lead to financial ruin. For this reason, these scholars argue, most cities are ruled by growth machines that enact policies that try to ensure greater development (Elkin 1987).

Stone's (1989) regime theory combines these two approaches, arguing that political power is conditioned by economic interest. In policymaking, Stone suggests, the preferences of corporate elites will be prominent, but attenuated by the preferences of elected officials who must attend to their voters' demands if they are to maintain power. Similarly, new institutionalists—such as Pelissero and Krebs (1997), Sass (2000), and Sharp (1991)—argue that electoral and governmental structures play a central role in shaping outcomes, while others counter that local government is essentially a bureaucracy that

distributes goods and services in a relatively efficient and fair manner

(Mladenka 1980).

To date, the most comprehensive study of this type has been Hajnal

and Trounstine (2010), who combine economic, institutional, political, and

bureaucratic theories of local democracy. The authors use local government

spending and census data to quantify the theories behind pluralist, elite and

institutionalist models of power structure. Their findings are complicated, as

each of the existing one-sided stories is incomplete. Political forces, both in

the form of public opinion and political leadership, are critical in determining

spending patterns in America's cities, but the overall balance between re-

distributional and developmental spending is also strongly influenced by

economic imperatives, institutional constraints, and bureaucratic needs.

Contributions of this Work

Broadly speaking, the goal of this study is to explore whether the

metropolitan-military complex is a species that is note-worthy to political

scientists, apart from other urban regions and other single-industry regions.

More specifically, I will explore whether the reliance of these regions on the

military has an effect on the democratic process and local political climate. In

doing so, I provide a level of empirical depth and generalizability to a field that

is comprised largely of case studies, and therefore difficult to draw broader

conclusions from . I also introduce a method of unbiased validation for traditional fixed-effects models using a tree-based ensemble method. Finally, I provide a case study analysis of cultural and institutional 'stickiness' by applying theories of path dependence in comparing Las Vegas and San Diego.

The analysis of public spending contributes, theoretically, to the existing literature on urban economic growth in two main ways. First, an understanding of economically-dominated regions, rather than a broad-based study of all regions with varying levels of economic diversity, creates a sample set that has reduced the variation of the potential for industry influence. This is particularly important in testing economically-based theories of governance. Second, by focusing on a particular industry type, I am better able to craft globally applicable conclusions for all units of analysis (in this case, metropolitan statistical areas) that fit this profile. By separating the types of spending into personnel and procurement, we can observe variation within this industry type. Similarly, the social capital literature is limited in its discussion of economic factors. I hypothesize that economic dominance by the military may have an impact on social capital. This contributes an additional piece of information in not only understanding social capital but the subsequent tests of causal hypotheses.

Methodologically, I take advantage of development in machine learning models and apply Random Forest (RF) to model the impact of military economic dominance on social capital and public expenditures. The model is useful for two reasons. First, with limited measures of social capital and many correlated predictor variables, a typical fixed-effects OLS is less able to show unbiased causality. Random Forest is ideal for precisely this kind of 'small n, large p' model—where there are few observations but a high number of predictor variables. However, these tree-based methods do not show directionality, so I rely on the traditional fixed-effects model to provide the degree and direction of impact while using the ensemble method to validate the findings.

When there is indeed an impact of military economic dominance on social capital and public expenditures, I apply a natural experiment to test different theories of causality. For this analysis, I utilize multilevel regression and poststratification (MRP) to understand national-level data at the county-level. The 'top-down' theory tests the traditional political capture argument—that industry controls public officials, and the public is left out of the decision-making process. In this case, democracy fails. The second causal hypothesis I test is the 'bottom-up' theory—that industries hire a particular type of person with preferences that are different from employees of other industries. The military has a strong culture that is impressed on both soldiers and staff, so I

test if this is reflected in voter preferences. What is particularly interesting is that in the top-down theory, the democratic process is broken, whereas in the bottom-up theory, democracy is functioning.

Data

I observe different levels of military funding, social capital, and local, public expenditures across 361 metropolitan statistical areas (MSAs). The general concept of an MSA is a region containing a large population nucleus and adjacent communities that have a high degree of economic reliance and integration with that nucleus. Metropolitan statistical areas can be comprised of one or more counties. I choose the MSA, rather than the county, as my level of analysis to understand regional effects. County-level analysis is insufficient in understanding economic spillover effects. Many individuals who work in one county reside in (and spend their income in) another.

My dependent variables are the aggregates of local public expenditures from the Bureau of Economic Analysis (BEA) and a measure of social capital calculated by the Penn State Northeast Regional Center for Rural Development. My independent variables are a calculated measure of the per capita expenditure that arises from military personnel and procurement-based income, also readily available from the BEA.

My models include multiple control variables with a strong foundation in existing literature. I include per capita income, as Musgrave and Peacock (1958) establish that demand for government services increases with income. I control for population characteristics that may influence tastes for public goods—the proportion of families with children, as these families may push for greater public spending in education, as well as the proportion of the population over 65, as these individuals may prefer lower spending on education (Poterba 1997). To control for ideological orientation, I use the Republican vote share in the 2012 presidential election. In order to understand ideology controlled for national ideology, I subtract the percent who voted Republican from the national popular vote share. Alesina, Baqir, and Easterly (1999) show a positive association between ethnic heterogeneity and total expenditures. Thus, I include the percent of the population that is black or hispanic. In consideration of the economy of scale, I control for land mass. My data sources are the United States Census, for population and land data, CQ Press for election outcomes, and the Bureau of Economic Analysis for all income and expenditure-related variables.

The limitation of this project is based on the availability of my variables for social capital and public expenditures. Each of those is available for only three years, so the number of observations for the pooled fixed-effects model is 1,083.

Models

The intersection of 'big data' models and classical empirical models is currently debated in political science. As computational abilities and the volume of data exponentially increase, models that were standard in other fields are now utilized in an applied manner. Although machine learning methods have been used in the political methodology literature (for example, Beck and Jackman [1998], Beck, King, and Zeng [2000], Hainmueller and Hazlett [2013], Imai and Ratkovic [2013]), they are not yet very prominent in applied political science research (Grimmer and Stewart 2013; Hill and Jones 2014; D'Orazio et al. 2014). Since these tools were initially developed for their excellent predictive performance, they are often considered to be 'black box' methods that deliver good predictions but are not very useful for theory-driven work and insights (Breiman 2001).

This need not be the case for Random Forest models. Jones and Linder (2016) summarize a compelling case for the applicability of RF models as the starting point for substantive Political Science research. The benefits are that they are useful for all forms of data, can approximate non-linear functional forms, detect interactions between predictors, and provide the measures of importance of any variable by their impact on the accuracy of prediction, providing insight into the importance of explanatory variables. They are also able to operate well in 'small n, large p' situations.

In this research, utilizing the tried and true method of fixed-effects OLS models for determining the impact of military income on public expenditures and social capital suffers from the exact problems that tree-based methods can account for, such as non-linear functional forms, variable collinearity and 'small n, large p'. Specifically, some of my variables (for example, race and income) are highly correlated. My social capital data is only measured in two time periods, making the data more sparse. In this research, I provide the findings from the fixed-effects models but validate them using an RF algorithm.

At its core, the Random Forest algorithm, first proposed by Breiman (2001), takes advantage of the law of large numbers—that is, with a large enough sample of measurements, the difference between the expected value of the measurement and the actual value of the measurement approaches zero. Random Forests is an ensemble method, which is a model consisting of many simpler sub-models whose outputs are combined. A Random Forest model is simply an aggregation of classification and regression trees (CART).

Classification and regression trees are a repeated partitioning method that estimates the conditional distribution of a response, given a set of variables. The goal of the algorithm is to partition y conditional on the values of x, such that each partition of y is as homogenous as possible. The algorithm works by considering every unique value in each predictor as a possibility for a binary split and estimating the homogeneity of the subgroups of the dependent

variable that would result by grouping based on that split. After all potential

variables have been exhausted, the model has reached its terminal nodes,

which shows the most homogenous splits possible for that tree.
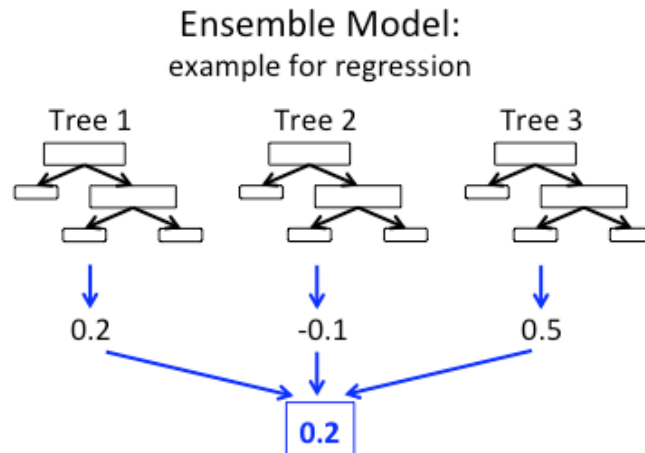
Figure 2. Random Forest Ensemble Illustration[3]

Figure 2 illustrates how a Random Forest ensemble can be used for

regression. In this simplified example, there are three trees which produce

three different outcomes for our y-variable. These values are averaged to

produce one prediction value (although other methods of combining can be

specified).

Theoretically, the algorithm could continue splitting until the node

impurity reached zero. In early models of RF, this was a significant drawback,

as it overcomplicates and overfits the model. Overfitting a model creates an

ideally predictive model, but only for the specific dataset the model was trained

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[3] Source: https://databricks.com/blog/2015/01/21/random-forests-and-boosting-in-mllib.html

on. Using the model on a similarly defined dataset would have low predictive

power and high error rates. As a result, a stopping criterion, or tuning

parameter, is used to strike a balance between a tree that is too complex and

overfits the data and a tree that is too simple and misses important details.

This is the bias-variance tradeoff, which is relevant to all statistical models

(Hastie et al. 2009; Fariss and Jones 2015). Stopping criteria that are

commonly used include the depth of the tree (how many levels of splits the

tree has), the number of observations in the terminal nodes, or the

homogeneity of the distributions in the terminal nodes.

Classification and regression trees as a single tree is a suboptimal

model—for a given tree, there is a high variance of fitted values, as the model

is locally optimal (i.e., seeks to optimize the individual node over the full

model). To address this issue, Breiman (1996) introduced bootstrap

aggregating ('bagging') to decrease the variance of fitted values from CART.

The basic idea is to decrease the variance of predictions for one model by

fitting several models (or, several thousand models) and averaging over their

predictions. Each model is run withholding a sample of a third of the data (the

out-of-bag, or OOB data). The predicted values for each observation are

combined to produce an ensemble estimate which has a lower variance than a

prediction made by a single CART grown on the original data. For continuous

outcomes, the predictions made by each tree are averaged, and for discrete

outcomes, the majority class is used (or, the predicted probabilities are averaged). Relying on the OOB data for predictions also reduces the risk of overfitting since each tree's prediction is validated with out-of-sample data.

Early versions of CART relied on biased splitting criteria. Variables with many unique values were artificially preferred to variables with fewer categories (Hothorn, Hornik, and Zeileis 2006; Strobl et al. 2007). These biases can also affect the measures of variable importance. Recent developments have resulted in unbiased recursive partitioning algorithms that separate the variable selection and split selection parts of the CART algorithm, and utilize subsampling rather than bootstrapping (Hothorn, Hornik, and Zeileis 2006). The analyses in this study use this unbiased algorithm.

A final methodological challenge in bootstrapping is applying an appropriate resampling method. By only exchanging statistically independent observations we reduce correlation between trees in the forest, making them more diverse, and consequentially reducing variance (Breiman 2001). A Random Forest with trees grown on data that are bootstrapped in a way that does not take into account the dependence structure will produce an overfit model.

Classification and regression trees provide a useful exploratory tool for variable selection, but unlike an OLS model, do not provide a measure or direction of variable impact. That is, CART can start with a large volume of

variables and determine which of them impact the dependent variable. They cannot, however, provide a specific measurement of the effect of the variables in the model. What they provide is an absolute impact, determined by (a) the increase in node purity due to the variable, and (b) the decrease in the model's predictive power if the variable were replaced with random noise.

CART and Ensemble Methods in Political Science

Although machine learning techniques have only recently become a topic of debate and discussion in our field, the earliest applications of these models date back to 1997, with validations as early as 2000. Gleditsch and Ward (1997) explore the component variables of Polity III data. They use CART to determine which variables are the best predictors of regime classification. The authors argue that tree-based models are easy to interpret and able to capture non-additive behavior by discovering important interactions among data categories.

Beck, King, and Zeng (2000) published the first work to use a neural network prediction model in international conflict studies, where variable importance and effect can vary significantly, depending on model specifications. The relationships in international conflict are expected to be nonlinear, massively interactive, and heavily context dependent or contingent, which is well suited to using these prediction models. Contrary to existing logit

models that predict 0 percent of international conflict, they were able to predict about 17 percent of conflict from data on the years prior to the conflict.

In general, for highly correlated and nonlinear data, RF provides a clear way to determine variable importance. Other papers in IR successfully use Random Forest models, cross-validating them with other model types (Hill and Jones 2014; Suzuki 2015,). In the study of American Politics, Barrilleaux and Rainey (2014) have utilized RF models as a cross-validation of their prediction of gubernatorial support for Medicare expansions under the Affordable Care Act. The article's main empirical analysis uses a Bayesian logit model, but they use a Random Forest model to evaluate the robustness of their analysis.

In this analysis, I will be using Random Forest models for variable selection and model validation purposes. For each variable, RF models provide a measure of 'variable importance'—that is, what the difference is in the r-squared value if a particular variable were replaced with random noise. Using the RF model, I am able to determine which variables are contributing to the model, and am able to methodologically select which ones should continue to the regression analysis. Random Forest is also primarily used in a predictive, rather than explanatory, aspect, as variable importance provides a magnitude, but not direction, of impact. For the second set of hypotheses, determining path dependence, I will be using RF to evaluate whether a viable

predictive model can be built using prior-year funding to determine future-year outcomes.

Table 1. Descriptive Statistics

Variable	Source	Range	Years
Social Capital Index	NECRD	-3.27, 1.98	1990, 1997, 2005
Per Capita Revenue from Military Personnel	BEA	.005, 0.621	1990-2006
Per Capita Revenue from Military Procurement	BEA/DoD	0.0, 0.31	1990-2006
% Black or Hispanic	Census	1.2, 95.57	1990, 2000, 2006
% Elderly Population	Census	5.46, 33.71	1990, 2000, 2006
% Children	Census	12.41, 31.93	1990, 2000, 2006

Table 1. Descriptive Statistics continued

Variable	Source	Range	Years
% voting Republican - national Republican vote	Census	-6.13, 7.95	1988, 1996, 2004
Land Area	Census	226, 27259	1990, 2000, 2006
Local Government Tax Revenue Per Capita ($1,000)	Census	3.45, 27.39	1990, 2000, 2006
Local Government Direct General Expenditures Per Capita ($1,000)	Census	1.35, 5.89	1990, 2000, 2006

Chapter 2: Public Expenditures and Social Capital

Research Design and Models

The first set of models I use are explanatory. They determine whether military spending (split into personnel and procurement) has an impact on public spending and social capital. I utilize a fixed-effects regression model to determine the direction and magnitude of impact. I combine three years of data as panel data and utilize the PLM package in R. My model assumes fixed effects of year and MSA.

The second set of models I use are predictive. I use the prior-year military spending and determine the fit of the model in predicting future-year independent variable outcomes. For this set of hypotheses, I use a Random Forest model to determine how good the predictive value of the model is, and how important the prior-year military income variables are to that fit.

Public Expenditures Hypotheses

H1: *Increased military personnel spending will lead to lower public expenditures.*

H2: *Increased military procurement spending will lead to lower public expenditures*

Local politicians of these regions are keenly aware of their reliance on military funding and will use their abilities within government to nurture this relationship. Furthermore, the military is unique from other industries in that it provides significant services for its personnel, including housing allowances, free childcare and schooling options, and transportation, as well as a commissary for purchasing supplies, from food to furniture, at a discount. These individuals may not want to pay taxes towards services they will not use.

There is also a possibility that increasing military spending may not have an effect on expenditures and may actually lead to an increase. Procurement leads to an increase in white-collar, educated jobs. These individuals are able to contribute more to the tax base and are less likely to require public assistance, adding to local coffers. In addition, they demand better schools and public services, which may lead to greater spending. Also, benefits enjoyed by military personnel are not always extended to civilian contractors. Similarly, a steady military personnel income may improve tax income, freeing up funds to provide more public services.

Chapter two explores different causal pathways if we are able to dismiss the null hypothesis—whether this lower level of public expenditures is

a manifestation of voter preference, or whether it is a function of political

capture.

H3: *Given H1, Military spending on personnel in the past leads to lower future*

public expenditures.

H4: *Given H2, Military spending on procurement in the past leads to lower*

future public expenditures.

Subsequent chapters of my dissertation explore the potential for path

dependence. That is, if these hypotheses hold true, I explore whether simply

removing the military immediately mitigates the impact the military has on

public spending. I explore the potential for long-lasting impacts on fiscal policy.

This chapter establishes empirical roots for path dependence.

On the contrary, there may be an increase in public spending if the iron

triangle hypothesis is valid. That is, while the military is in power, they may

impose fiscal restraint that is contrary to public preference. When that block is

removed, democracy resumes normally. In this case, the findings would show

no relationship between spending in the past and future.

To test H3 and H4, I use a Random Forest model to determine whether

a model that uses prior-year funding can predict future year spending. That is,

determining if values of military expenditures in 1990 help predict values of

public spending in 1997 and 2006, and if military expenditures in 1997 predict

2006 public spending.

Findings

I find evidence to support a link between personnel expenditures and public

spending (H1), but no link between procurement spending and public

expenditures (H2). Based on Table 2, a $1,000 increase in per-capita military

personnel spending results in a decrease in a per capita public spending of

$1,194. This aligns with alternative hypotheses presented above—

procurement income is often white-collar, and military employee benefits do

not always include civilians.

Table 2. Effects of Military Revenue on Public Expenditure

	Coefficient	Standard Error
Procurement	-0.278	0.256
Personnel	-1.194**	0.414
Total Land Area	-2.850	3.970
Local Tax Revenue Per Capita	0.989***	0.017
Republican	1.190	2.180
Percent Children	10.68*	5.190
Percent Elderly	-5.670	4.970
Percent Black or Hispanic	-0.207	0.989
Average Per Capita Income	-0.047***	0.004
R-squared	0.84	
Adj. R-Squared	0.54	
N	1061	
*p<0.05, ** p<0.01, *** p<0.001		

Path-dependent Predictive Models

The path-dependent Random Forest models illustrate a small, but extant, impact of military spending on future public expenditures. The variable importance estimates the reduction in Mean Squared Error and the improvement in node purity due to each of the variables. Table 3 shows the MSE increase if the variable is completely randomized (i.e., how noise performs against the actual values). A higher value implies greater importance. Node purity is measured as the improvement in node homogeneity due to the introduction of that variable (Breiman 2001). Again, RF models do not show the directionality of impact, but simply provide an understanding of whether the variable is valuable to prediction. However, based on the fixed-effects model, it can be assumed that military spending will maintain its negative impact on public expenditures.

To interpret the findings, Breiman (2001) suggests a case-specific cutoff for node purity and MSE improvement. Generally, researchers use any value greater than zero to illustrate variable importance. As random forest models tend to be used more for prediction, less emphasis is placed on 'coefficients' of variables. In other words, these models are predictive, but not very explanatory. Since each model is structured identically, I can use relative values of MSE improvement as a proxy for a change in the impact of the variable. There are three models in total. First, I test how well a model which

includes 1990 procurement and personnel spending amounts predicts 1997 public spending. Second, I test how well 1990 spending predicts 2006 spending. Finally, I test a model which includes 1997 spending to predict 2006 spending. For each model, I use 500 trees and three variables per tree split.

Interestingly, while the variable impact is higher for the models predicting 2006 public expenditure, the r-squared is much lower than for the 1997 model. Also interesting is that the impact of personnel expenditure seems to hold steady at an MSE improvement of about four percent, while procurement spending has less of an impact in 1997 than in 1990 (Tables 3 to 5). As the fixed-effects model saw no within-year effect of procurement, it is expected that the predictive model will carry over that effect.

Predictive value aside, there is evidence supporting the hypotheses above, with regard to personnel spending. While a percent change in MSE does not necessarily translate to coefficient values, it does illustrate an empirical defense of path-dependence, which will be explored in upcoming chapters.

Conclusions

This section establishes a link between an economic reliance on the military and public expenditure. That is, the greater the reliance on military dollars, the lower the level of public expenditures. We observe that there is a

same-year impact of personnel expenditures on public spending, but this is not reflected in procurement spending.

In the predictive models, we see a similar effect of 1990 and 1997 military revenue on 2006 and 1990 revenue on 1997 spending. Interestingly, the 2006 models were not as good a fit as the 1997 model; this may be because BRAC takes years to execute, and 1997 may not have seen the full impact of the resource shift and change. Therefore, while spending amounts may have changed, the demographic makeup of the MSAs may not have reflected that change yet. This would be reflected in public expenditures. It is also possible that the state of local economies changed more drastically in the nine years from 1997 to 2006 than in the seven years from 1990 to 1997. There may be other factors unaccounted for, stemming from other global changes in local economies, such as the growing housing bubble.

Table 3. Predicting 2006 Expenditure using 1990 Spending

	% MSE Improvement	Node Purity Improvement
Procurement in 1990	0.89	7.67
Personnel in 1990	4.34	7.69
Total Land Area	1.28	8.63
Local Tax Revenue Per Capita	6.54	15.97
Republican	5.52	14.19
Percent Children	4.42	11.01
Percent Elderly	2.17	9.44
Percent Black or Hispanic	4.85	15.55
Average Per Capita Income	7.09	16.24
R-squared	0.2122	

Table 4. Predicting 2006 Expenditure Using 1997 Spending

	% MSE Improvement	Node Purity Improvement
Procurement in 1997	0.22	7.52
Personnel in 1997	4.27	10.16
Total Land Area	0.17	7.48
Local Tax Revenue Per Capita	7.07	16.68
Republican	5.53	13.61
Percent Children	4.23	11.27
Percent Elderly	2.20	9.90
Percent Black or Hispanic	8.55	13.81
Average Per Capita Income	5.76	14.08
R-squared	0.2211	

Table 5. Predicting 1997 Expenditures using 1990 Revenue

	% MSE Improvement	Node Purity Improvement
Procurement in 1990	0.04	4.83
Personnel in 1990	2.00	5.34
Total Land Area	0.65	7.04
Local Tax Revenue Per Capita	16.51	24.4
Republican	2.00	3.97
Percent Children	2.22	7.88
Percent Elderly	4.50	3.12
Percent Black or Hispanic	1.63	5.05
Average Per Capita Income	3.47	2.40
R-squared	0.7173	

The next section of this chapter explores the impact of military expenditure on social capital. I choose social capital as a nearly intangible quality of life measure to round out the easily quantifiable fiscal spending measurement. Low fiscal spending is not inherently bad or good—what matters is that the local population is satisfied with their current situation (however satisfaction is measured), and are democratically represented in the government.

The introduction of social capital will segue into the causal pathway discussion in Chapter 2, where I explore two potential avenues by which military economic reliance can impact public expenditures and (possibly) social capital. These pathways explore voter sentiment and satisfaction with government.

Social Capital Hypotheses

The hypotheses remain similar to the public expenditure model:

H5: *Increased military personnel spending will lead to lower social capital.*

H6: *Increased military procurement spending will lead to lower social capital.*

Following the findings of the previous models (H1 and H2), military personnel spending leads to lower public expenditures, even when controlling for known influences. I extend this finding to social capital—lower public spending leads to fewer community services and groups, and alienates voters. One possibility is that public officials are not meeting voters' needs in terms of public goods. This, in turn, reduces the community's desire for engagement, as they feel they have no voice in government.

Alternatively, strong interpersonal ties established in the military may improve social capital, particularly for personnel. Military personnel form a brotherhood that is shared with their wives and children. These individuals not only share a common profession, but they also live in work-funded communities. This bond may form a greater sense of responsibility towards the local community.

H7: *Given H5, Military spending on personnel in the past leads to lower future social capital.*

H8: Given H6, Military spending on procurement in the past leads to lower future social capital.

What is the 'stickiness' of military spending, in terms of long-term social impact? In the previous explanatory models, we observed an impact of personnel, but not procurement. This may translate to social capital as well.

We may observe a strong military culture that pervades even citizen employment; on the other hand, we may find that this lack of common connection removes the citizen military worker from strong social bonds with other military personnel. Alternatively, there may be no connection between military culture and procurement-related military employees, as much of this spending goes to third-party private companies.

Findings

As we see in Table 6, similar to the public expenditures findings, there is support for personnel spending impact on social capital, but not procurement. However, the findings have much lower coefficients than the models for public expenditures. This is anticipated, as it is difficult to determine an impact value, as the social capital indicator is on a scale with a small range. A per-capita increase in personnel expenditure per capita by $1,000 results in a decrease in the social capital scale of about 0.003. Also, as noted in the

literature review, social capital is notoriously difficult to operationalize, let alone

model.

Table 6. Effect of Military Revenue on Social Capital

	Coefficient	Standard Error
Procurement	-0.000038	0.000338
Personnel	-0.002827*	0.000542
Total Land Area	-0.000716	0.005258
Local Tax Revenue Per Capita	.0000252**	0.000004
Republican	-0.009213***	0.002469
Percent Children	0.003742**	0.001303
Percent Elderly	0.02038***	0.000526
Percent Black or Hispanic	0.002687*	0.001797
Average Per Capita Income	0.00002517***	0.000004
R-squared	0.336	
Adj. R-Squared	0.219	
N	1061	
*$p<0.05$, ** $p<0.01$, *** $p<0.001$		

Interpreting this value is difficult for a few reasons. First, the nature of

constructing a social capital scale requires some degree of subjectivity,

however academically supported. Rupasingha, Goetz, and Freshwater (2006)

focused on civic traditions and group membership, in part because these

factors are easy to measure—hours of involvement per year, or whether or not

an individual participated or voted. It is less realistic to measure whether

people are close to their neighbors or chip in when a co-worker is ill.

Second, the scale is developed using dimensionality reduction. As a result, this measurement is actually a linear combination of vectors, where each variable is multiplied by an eigenvalue. This eigenvalue is representative of the 'level' of impact the variable has on the factor at hand, social capital.

This is not, however, intended to discount the value of this method but to illustrate the difficulty in using explanatory models for variables that are not direct measurements, but instead a derived value. The value of this finding is to illustrate that there is a small, but significant, impact of personnel expenditure on social capital.

Path-dependent predictive models

As in the previous section, there are three predictive models: 1990 to predict 1997 and 2006 social capital, and 1997 to predict 2006 social capital. The Random Forest models explain more variance than the fixed-effects models (approximately 60 to 65 percent of variance) and are overall fairly well-fit predictive models. Each model was run with 500 trees and three variables per split.

Tables 7 to 9, our path-dependent models for social capital, show similar results as with the expenditures model. In all cases, prior-year revenue, particularly in personnel, had an impact on future-year social capital. As with the expenditures model, there was less added predictive power for the 2006

models than there was for the 1997 model. Again, this may be due to a

revenue change on the ledgers not yet reflected in demographics or public

sentiment, or global shifts in public expenditures due to variables unaccounted

for in this model.

Table 7. Predicting 2006 Social Capital using 1990 Revenue

	% MSE Improvement	Node Purity Improvement
Procurement in 1990	0.15	6.95
Personnel in 1990	3.61	7.73
Total Land Area	2.73	7.00
Local Tax Revenue Per Capita	6.37	6.37
Republican	2.81	8.40
Percent Children	12.40	34.14
Percent Elderly	6.56	16.23
Percent Black or Hispanic	24.11	61.66
Average Per Capita Income	7.35	11.62
R-squared	0.617	

Table 8. Predicting 2006 Social Capital using 1997 Revenue

	% MSE Improvement	Node Purity Improvement
Procurement in 1997	0.30	5.90
Personnel in 1997	2.19	7.10
Total Land Area	2.38	8.11
Local Tax Revenue Per Capita	7.45	13.81
Republican	5.77	8.29
Percent Children	12.43	35.56
Percent Elderly	7.40	19.88
Percent Black or Hispanic	23.70	56.29
Average Per Capita Income	6.88	10.78
R-squared	0.607	

Table 9. Predicting 1997 Social Capital using 1990 Revenue

	% MSE Improvement	Node Purity Improvement
Procurement in 1990	1.09	5.76
Personnel in 1990	4.98	10.88
Total Land Area	3.23	8.91
Local Tax Revenue Per Capita	4.30	8.47
Republican	4.36	12.15
Percent Children	10.59	22.34
Percent Elderly	7.64	15.43
Percent Black or Hispanic	22.69	62.97
Average Per Capita Income	15.51	39.57
R-squared	0.6425	

Conclusion

This chapter asked the questions 'Who governs?' through a focused lens of military economic dominance. By doing so, I hope to reduce the noisiness of data and elaborate on the current literature. Pairing the traditional fixed-effects model with a Random Forest model, I uncover a causal link in both same-year and path-dependent models for both social capital and public expenditures.

The purpose of the fixed effects model was to uncover if there is any empirical evidence of military impact for both expenditures and social capital. In both cases, we see an impact of personnel expenditures, but not procurement. This is aligned with the literature on military culture in personnel,

which may not extend to contractors and third-party organizations. For example, if the military extends a contract to Raytheon, the funding goes to a private organization with its own professionalized culture. While there is much overlap between military contract work and prior military service (mostly due to security clearance requirements), these cultures are quite different from the rank-and-file soldiers we imagine as the representatives of true 'military culture.'

The RF models had varying predictive power but successfully illustrated the path-dependent hypothesis. In all cases, there appears to be some predictive value of including prior-year military personnel spending in estimating social capital and public expenditure for a future year. Reinforcing the fixed-effects model, there was little impact of the procurement variable.

The next chapter explores the causal pathway that creates this relationship. Low public expenditures and social capital are not necessarily inherently bad, but they may be symptoms of a larger democratic problem. If low expenditures are a reflection of community preferences, the democratic process is fully functioning and well. However, if an industry is able to dominate and control local political outcomes, alienating the citizen voter, this raises red flags. Similarly, if a sense of political alienation leads individuals to not involve themselves in their community (i.e., low social capital), the

relationship between military economic dominance and social capital is

problematic.

Chapter 3: Establishing Causal Pathways

A functioning democratic process can be measured by how representative policy outcomes are to the desires of the constituents in the locality. Previous chapters illustrate that MSAs with increased military economic dominance have lower levels of public expenditures and lower social capital. However, these models do not explain the causal relationship between these factors. What is the pathway by which military economic dominance affects public expenditures and social capital? More importantly, is this pathway an indicator of a failure of democracy, or does it reflect a change in constituent preferences?

I continue my discussion of one of the most debated questions of political science—who governs? Specifically, who governs when the military is a dominant economic force? Another contribution of this work to the existing literature is an empirical causal examination of current theories of governance, applied to a focused region-type of economically military-dominated regions.

After the Cold War had ended, Congress pursued an aggressive measure to change the domestic military presence to reflect new priorities and the changing face of warfare. Base Realignment and Closures (BRACs) were funding shifts for personnel and procurement that were decided by a closed-door commission. Base Realignment and Closures were a federal mandate

over which localities had no jurisdiction. As a result, some regions lost funding for personnel, but others saw an increase as these capabilities were consolidated. Cold War era closures occurred in 1988, 1990, 1991, 1993, and 1995, with the majority of closures between 1990 and 1995. I utilize this natural experiment to see how externally imposed variation in military spending can affect public spending. I take advantage of this spending-type diversity and change in spending over time to test my hypotheses.

I estimate a causal mechanism to test two dominant theories of local political power—the elite theory and the pluralist theory—for regions that are economically dominated by the military. In order to approach this method of causal inference, I employ a difference-in-differences model of the General Social Survey's International Social Survey Programme (GSS ISSP) module on the Role of Government. This module, administered across multiple years, allows a glimpse into the evolution of citizen sentiment on their level of interest in local political issues and whether they feel the local government represents their needs, as well as their sentiments on public expenditures for healthcare, schools, and military. Module II, administered in 1990, measures these sentiments at the height of Cold War military funding. Module III, administered in 1996, measures these sentiments after the first round of BRACs reduced or shifted military funding. This gap provides an excellent natural experiment.

Data and Methodology

Data on social change in the United States is collected as part of the General

Social Survey (GSS). The GSS has been conducted almost annually since

1972. It is the only full-probability, personal-interview survey designed to

monitor changes in both social characteristics and attitudes currently being

conducted in the United States. The ISSP Role of Government module series

comprises four surveys conducted in 1985, 1990, 1996 and 2006. Successive

surveys are always partial replications of earlier surveys. ISSP Role of

Government modules explore attitudes towards government responsibilities

and government spending, state intervention in the economy, civil liberties,

political interest, trust, and efficacy.

I examine five measures to arrive at two broad conceptual areas: how

influential citizens feel they are in the democratic process (i.e., do they feel the

process is broken), and whether or not they support public spending. The

first—influence on politics—is measured using the following sentiment scores:

"The average citizen has considerable influence on politics,"

"How interested would you say you personally are in politics?"

Each point was measured on a scale of 1-5 with 1 meaning 'strongly

agree' and 5 meaning 'strongly disagree'. For the case of interest in politics, 1

represented 'very interested' and 5 represented 'not at all interested.'

Alternative results of 'Can't choose,' 'No answer' and 'Not Applicable' were

dropped. In some cases, the 1985 answer value was a binary, in which case the value was maintained as is. Since the statistical method used to create data at the unit of analysis requires a binary output variable, the scaled answers were converted to a 1 for strongly agree and agree, and 0 for neutral, disagree, and strongly disagree. Neutral was grouped with 0 to make a conservative estimate of support for funding increases.

The second set of metrics attempts to gauge support for public expenditures. Specifically, the GSS has a series of questions that ask, "Listed below are various areas of government spending. Please indicate whether you would like to see more or less government spending in each area. Remember that if you say 'much more,' it might require a tax increase to pay for it." Respondents can answer 1 for 'spend much more' to 5 for 'spend much less.' Similar to the political involvement questions, they are converted to binary values and the alternative results dropped. I select metrics for spending on healthcare and schools to gauge support. As an additional measurement, I include spending support for the military. Spending on arms should be a direct reflection of a military-driven popular sentiment. Military personnel and associated individuals have a livelihood that depends on keeping government funding for the military. Therefore, if the population sentiment is dominated by military preferences, we should see a change in these values when military either gains or loses influence.

To determine spending changes, I take advantage of the BRACs that occurred in the 1990s. Since 1988, the BRAC commission has closed over 350 military installations nationwide. However, some of this capability was simply shifted to other installations; some cities saw an *increase* in per-capita military expenditure as a result of BRACs. Each year's by-MSA value for both procurement and personnel spending are publicly available.

The impact of a change in military funding is understood using a difference in differences model. Ashenfelter and Card (1985) introduce the difference-in-differences method to test the average treatment effect on the treated (ATT). In its simplest form, outcomes are observed for two groups across two time periods. One group is exposed to a treatment in the second period, but not the first period. The other group is not exposed to the treatment. The average change in the second (control) group is subtracted from the average gain in the first (treatment) group, removing biases in second-period comparisons between test and control groups that might result from inherent sample differences or time trends. This has been elaborated on and refined by Athey and Imbens (2006), and Imai et al. (2011). The model in this study accounts for control variables, and for a continuous (not binary) treatment.

Multilevel Regression and Post-Stratification (MRP)

Empirical work at the MSA level is limited by the availability of data; national surveys often have only a handful of respondents at the county-level. More importantly, public sentiment surveys administered broadly are representative at the national level, and their results cannot be decomposed for sub-units. Simply put, an understanding of what it is the constituency wants is the most difficult part in measuring the responsiveness of elected officials. This is true of the GSS ISSP module I employ in this study—it is designed to be nationally, not locally, representative.

To date, scholars have approached this problem with a variety of strategies. Canes-Wrone, Brady, and Cogan (2002), among others, adopt the district-level presidential vote as a catch-all proxy for district public opinion. Some, such as Erikson, Wright, and McIver (1993) and Clinton, Jackman, and Rivers (2004),have disaggregated national surveys to the district level and others like Levendusky, Pope, and Jackman (2008) have employed simulation techniques or Bayesian models based, in part, on district-level election data . While these efforts are adequate for broad sentiment measurement, they cannot approach the level of granularity required to understand the issue-specific sentiment. Knowing what percent of a district voted Democrat in the last election does not directly tell us what that district's sentiment on gay marriage would be.

Multilevel regression and post-stratification (MRP), developed in Park, Gelman, and Bafumi (2004), incorporates demographic and geographic information to stratify an aggregate of national-level survey estimators. This process was successfully used by Lax and Phillips (2009) to determine state-level sentiment on gay marriage and later applied by Warshaw and Rodden (2012) to determine district-level sentiment on a variety of issues. In both cases, MRP was cross-validated with disaggregation and presidential vote share methods, and found to be more robust and a better predictor of both state and district-level sentiment on issues ranging from gay marriage to federal funding for stem cell research. Tausanovich and Warshaw (2014) acknowledge the difficulty of acquiring and utilizing locally representative data. Similar to this chapter, they utilize multilevel regression and post-stratification, as well as item-response theory to measure constituent policy preferences at the city level.

In order to estimate the policy preferences of each MSA, I use an MRP model similar to Tausanovich and Warshaw (2014). Stage 1 of the model estimates each individual's policy preferences in relation to their demographics. I assume that geographic effects are a function of a vector of demographic factors that previous studies have found to be influential on constituency preferences. Specifically, the percent of residents who are minority, the percent who are elderly, the percent who have children, the

percent who classify as low income, and the difference in the percent who

voted Republican in the previous presidential election versus national vote.

In the post-stratification stage, I use the multilevel regression to make a

prediction of public opinion in each demographic-geographic sub-type. The

estimates for each respondent demographic geographic type are then

weighted by the percentages of each type in the actual district populations.

Finally, these predictions are summed to produce an estimate of public opinion

in each district.

Hypotheses

Using the methods put forth in Pearl (2000), I present a structural

causal model that tests the two major pathways to power (elite and pluralist).

An additional benefit to utilizing the military (other than reducing inter-regional

variation) is that there is potential for estimating a clear causal pathway to

distinguish between elite and pluralist power structures.

If the pluralist theory holds, we will see a marked difference in the

constituency's sentiments between military and non-military regions. As stated

previously, the military provides significant services for its personnel, including

housing allowances and free housing, childcare and schooling options,

transportation, and a commissary for purchasing supplies from food to

furniture at a discount. Also, many military employees are in a location

temporarily—service members are often relocated to other bases or installations depending on need, and military contractors who work with industry are consultants, hired on a project-to-project basis.

This has two results: first, a large part of the population is provided services that would generally be the responsibility of the local government. Second, these individuals do not lay down roots in the community, since they are there temporarily. Therefore, the greater the economic reliance on the military (and presumably, the greater the number of individuals who are employed by the military), the larger the constituent base that has no need or desire for public goods. These individuals would prioritize short-term over long-term public projects and would not want to increase taxes to provide public services. This results in a lack of investment in public works projects, infrastructure, public services, public spaces, and also may manifest itself as a significant voter population that is not interested enough in the local community to be politically engaged.

The model is as follows—the y-variable is the percent of the population that would (a) agree that people do not have a say in what government does, or (b) support increased spending for health, schools, or the military. The treatment is the change in the proportion of military economic impact—instead of forcing this change to a traditional binary measure, I use the difference in the index from 1990 to 1996.

The *y*-variable is one of five indicators to arrive at two broad conceptual areas: how influential citizens feel they are in the democratic process (i.e., do they feel the process is broken), and whether or not they support public spending. Influence on politics—is measured using the following sentiment scores:

"The average citizen has considerable influence on politics."

"How interested would you say you personally are in politics?"

The second set of indicators estimates support for public expenditures. Metrics for spending on healthcare and schools are measurements of support for broad-based public spending. As validation, a measure of spending support for military is added. If there is a demographic shift due to military influence, there would be a noticeable shift in the support for military spending accordingly.

H9:*The economic or elite model of power determines policy outcomes in regions with higher income from the military.*

The economic/elite model posits that public expenditures are artificially imposed by industry, and this has the result of alienating voters. If this hypothesis holds true, a decline in military funding will lead to an increase in the perceptions of individual political impact, but no change in the measurements of public expenditure sentiments—that is, the constituency has not changed from the pre to the post period in their desires, but what has

changed is whether they think elites are listening. In this case, we potentially have a failure of the democratic process.

H10: The pluralist model of power determines policy outcomes in regions with higher income from the military.

This hypothesis assumes voters determine outcomes. For industry-dominated regions, this means that bringing an industry to a location brings with it like-minded constituents. If this hypothesis is true, a decline in military funding will lead to no change in the measurement of political impact. A higher percentage of constituents will want public spending on health and schools to increase, but there will be a decline in the percent of constituents who want increased spending on arms. Military spending change acts as a counterfactual to illustrate whether this shift in sentiment is due to a military presence. If this shift is not due to the change in spending, and instead by some variable that is not captured in the model, military spending will have the same directionality as the other expenditure variables.

Prior findings in the social capital literature back this hypothesis. Migration reduces social capital levels in a community (Glaeser, Laibson, and Sacerdote 2002; Schiff 1992) by affecting the strength of interpersonal relations and trust among community members. Movement tends to weaken local networks and associations, as members depart and critical mass is lost. Putnam (1995, 669) writes, "Mobility, like frequent repotting of plants, tends to

disrupt root systems, and it takes time for an uprooted individual to put down new roots."

If these findings hold true, then industry dominance does not appear to violate democratic principles in the case of the military. Instead, individuals truly vote with their feet, and any differences between military-dominated MSAs and other MSAs are a function of their different constituencies.

Findings and Implications

The findings of the difference in difference model support the elite or economic theory of power. Broadly speaking, an increase in military income to an MSA leads to lower levels of faith in the democratic process. People are more likely to believe that they have no impact on the local government in regions with higher military expenditures. At the same time, there is no significant change in public spending sentiments for defense spending, healthcare or schools due to a change in military-related economic influence. In other words, the preferences of the citizens do not change with regard to spending even though empirical evidence shows that actual spending does change. With this shift, constituents feel less involved in the democratic process.

Table 10 outlines the average treatment effect on the treated for the public expenditures measurements. Multilevel regression and post-

stratification results provide a percent of the population that would be in agreement with the statement. For spending, the value was a measure of what percent of the population would agree with an increase in spending. For influence, it would be a measure of agreement with the statement. The table illustrates no systematic effect of military spending when comparing control groups to test groups with spending increases and decreases. That is, sentiment on what spending levels should be do not change with military economic influence.

In contrast to sentiments on spending, Table 11 shows a clear relationship between spending changes for both personnel and procurement with regard to how the average citizen feels about their ability to influence politics. However, there is a nuance to these findings.

First, in contrast to the fixed effects regression models, there appears to be a sentiment change in the social capital measures for both personnel and procurement spending changes. While the fixed effects model saw no impact, and the predictive random forest model saw a small impact, the difference-in-differences model shows a treatment effect for procurement funding and public sentiment on an individual's ability to affect government. Also, in contrast to the random forest model, which showed a personnel funding to have a higher predictive capability for social capital than procurement, the treatment effect

for both are approximately equal, although procurement funding has a higher error than personnel.

Particularly intriguing is that sentiment regarding interest in local politics did not change as funding shifted. In other words, although citizens understand and acknowledge that they feel less able to influence government, they are still interested in politics. This is a rather optimistic finding and may be worth further investigation. Alienated citizens from military-funded regions do not give up on their interest in government because they are excluded. Further study might examine whether there is an intensification of extra-governmental oversight, in the form of citizen watch groups.

Finally, it is worth noting that while the public expenditures measurement is a direct link to the GSS measurements of support for public spending, the social capital index and the measures of political involvement are not directly related. That is, the social capital index is an amalgamation of various measurable metrics of community and political involvement. It could be that constituents who are left out of the political process may not be involved in political endeavors, but keep a close eye on what is going on. It would be worth examining the social capital indices of the regions where funding increases to see if measures of communaty (i.e., extra-governmental) groups increases. In a sense, the measure of social capital may be inadequate in these cases. While political involvement may decrease, community

involvement via government watch groups might increase. In that case, social capital measurements may net zero, as these two changes would negate each other.

In summary, this chapter tests two causal models to explain this finding and concludes that there is support for the political capture argument. When the military is the dominant economic contributor, the democratic process is stifled. This is reflected in the outcomes of public expenditure allocations, which is in conflict with public sentiment—in other words, military-dominated regions do not systematically want less spending, even though they systematically receive less spending. This is also reflected in how the citizens feel they are represented in government. When the military's impact is increased, a higher percentage of citizens feel they are alienated from the democratic process. However, while citizens feel alienated, this does not mean they are removing themselves entirely from all political matters, as their interest in local politics remains the same.

The next section of this dissertation examines this causal pathway from a guided case study perspective, in order to show how this alienation might occur. The purpose of the case study is to illustrate the path-dependent nature of the relationship between government and industry, and also to compare the differences between a military single-industry region and a non-military single-industry region. Comparing San Diego and Las Vegas will examine whether

there is merit to differentiating industry when examining the political impact,

establish whether the metropolitan-military complex is a species worth singular

examination, and describe how historical decisions can impact future

leadership.

Table 10. Treatment Effect, Public Expenditures

HEALTH	Personnel		Procurement	
	Coefficient	S.E.	Coefficient	S.E.
Change in Military Income Index	-0.01	0.05	0.01	0.03
Change in % Black/Hispanic population	3.12	23.17	4.43	22.97
Change in % of families with children	34.71**	8.24	40.02**	7.49
Change in % of elderly population	83.14*	24.02	82.90*	23.54
Change in % Republican	0.15	0.09	0.14	0.09
Intercept	-17.37***	1.39	-17.33***	1.39
R-Squared	0.16		0.16	

Table 10. Treatment Effect, Public Expenditures continued

SCHOOLS	Personnel		Procurement	
	Coefficient	S.E.	Coefficient	S.E.
Change in Military Income Index	0.00	0.05	0.01	0.02
Change in % Black/Hispanic population	14.19	21.09	14.96	20.82
Change in % of families with children	50.77***	3.00	54.66***	2.12
Change in % of elderly population	-17.81*	4.15	-21.58*	8.54
Change in % Republican	0.03	0.08	0.03	0.08
Intercept	-4.83**	1.27	-4.82***	1.25
R-Squared	0.04		0.04	
DEFENSE	Personnel		Procurement	
	Coefficient	S.E.	Coefficient	S.E.
Change in Military Income Index	0.05	0.14	-0.02	0.07
Change in % Black/Hispanic population	-51.36	65.27	-55.96	64.72
Change in % of families with children	18.42	164.07	36.71	162.01
Change in % of elderly population	26.80	152.17	24.16	150.88
Change in % Republican	0.31	0.25	0.32	0.25
Intercept	-20.59***	3.92	-20.74***	3.90
R-Squared	0.054		0.053	

Table 11. Treatment Effect, Social Capital

AVERAGE CITIZEN DOESN'T HAVE A SAY IN GOVERNMENT	Personnel		Procurement	
	Coefficient	S.E.	Coefficient	S.E.
Change in Military Income Index	0.15*	0.04	0.14*	0.07
Change in % Black/Hispanic population	24.92	63.94	24.33	61.05
Change in % of families with children	-195.27	160.71	-185.20	152.81
Change in % of elderly population	-308.89	149.06	-245.43	142.32
Change in % Republican	-0.21	0.25	-0.24	0.24
Intercept	7.47*	3.84	7.75*	3.68
R-Squared	0.11		0.18	
INTEREST IN LOCAL POLITICS	Personnel		Procurement	
	Coefficient	S.E.	Coefficient	S.E.
Change in Military Income Index	-0.07	0.08	-0.01	0.04
Change in % Black/Hispanic population	-46.67	37.46	-42.49	37.44
Change in % of families with children	116.33	94.17	102.43	93.73

Table 11. Treatment Effect, Social Capital continued

INTEREST IN LOCAL POLITICS	Personnel		Procurement	
	Coefficient	S.E.	Coefficient	S.E.
Change in % of elderly population	130.48	87.34	146.68	87.29
Change in % Republican	0.07	0.14	0.059	0.14
Intercept	3.26	2.25	3.46	2.25
R-Squared	0.04		0.03	

Chapter 4: Case Study Overview

While quantitative methodological analyses allow for greater external validity, they often cannot accommodate for a deeper understanding of the role of history in determining outcomes. The concept of path dependence has been used with great success in describing how a particular outcome in a region is a function of long-term behavior. Similarly, studies also show how regions that appear alike have different responses to the same stimuli as a function of their culture of place.

Relying on this literature, I conduct a comparative case study of San Diego and Las Vegas, in order compare and contrast San Diego with another region with a dominant industry to establish external validity for the findings of the previous chapters. Do non-military industries involve themselves in local politics and policy-making? If so, how do the outcomes manifest themselves compared to military regions? I draw on the path-dependence literature for an explanation.

Why San Diego and Las Vegas?

Las Vegas is historically, regionally, and demographically similar to San Diego. Both regions are also economically similar in that they are single-industry towns, and their second strongest industry is tourism. However, the major difference between the two is that, in Las Vegas, the military has a

much lower impact on the local economy relative to other industries (particularly gaming), while in San Diego, it has historically been the single largest economic contributor. Crucial for the purposes of this analysis is that both cities have parallel early histories, but diverged at a critical juncture where San Diego fully embraced its military and Las Vegas moved towards the gaming industry, while still maintaining ties to the military.

Estimating from a 2011 military economic impact study for Las Vegas and published defense procurement reports, Las Vegas had a per-capita direct military expenditure (both personnel and procurement) of approximately $1,037. In comparison, San Diego's per-capita amount (again, based on a 2011 military impact study as well as defense procurement data), is approximately $8,534. This estimate includes the amount of direct spending and does not include the halo effects of defense-related industry. In this case, halo effects are positive externalities on businesses not directly related to military spending. For example, moving a population to the area increases housing development or the number of people frequenting local establishments. Defense impact studies also utilize economic multipliers to estimate indirect and induced effects of defense spending, however, from case-to-case the multipliers may vary.

Established literature on Sunbelt cities, particularly those of the west and southwest, elaborate on the similarities of the regions. The term 'Sunbelt

region' refers to the strongly oil, military, aerospace, and retirement-based communities in the southern one-third of the nation, stretching from Florida to California. It is no surprise that the military funding distribution illustrated above nearly mirrors the boundaries of this area. These industries were drawn to Sunbelt regions by low levels of unionization, weak party influences of reform movements, cheap land, good weather, and amenable government policies (Weinstein and Firestine 1978).

Both Las Vegas and San Diego are demographically comparable Sunbelt cities. As of 2010 Census, Las Vegas has a racial composition of 47.1 percent White (non-Hispanic), 11.1 percent Black, 31.5 percent Hispanic, 6.1 percent Asian, with the remaining identifying as 'Other' or representing a small percentage of the population. Similarly, San Diego city has 45.1 percent White (non-Hispanic), 6.7 percent Black, 28.8 percent Hispanic, 15.9 percent Asian (United States Census). Particularly significant, considering politics and policy, are that both cities have a dominant white population, with a second-largest proportion of the population being Hispanic. No other minority group is large enough to be independently politically influential.

Economically, both cities' second largest industry is tourism. For Las Vegas, the first largest is the gaming industry, and tourism is a logical extension of that industry. While they are related, both gaming and tourism are distinct in the clientele they seek to attract. In recent decades, Las Vegas has

reshaped itself into a more family friendly region, focusing on entertainment to supplement gambling. The city is now just as well-known for its magic shows, concerts, and performances as it is for its casinos. Similarly, San Diego has drawn in millions with Sea World, the San Diego Zoo, Coronado Island and other attractions.

Moehring (2000) emphasizes that Las Vegas is often incorrectly considered an urban anomaly. He argues that past assumptions about the region's exceptionalism are unfounded; Las Vegas exhibits the political and economic tendencies of areas in the Sunbelt region as well as characteristics of casino cities and a tourist infrastructure that parallels that of Miami Beach. Similarly, Gladstone (1998) compares Las Vegas to other tourist urban destinations and finds it similar in nature to other highly capital-intensive tourism metropolises, like Orlando, Florida.

As a result of their parallel early histories and a critical divergent choice regarding the military, San Diego and Las Vegas are excellent candidates for a comparative case study that relies on theories of path dependence to illustrate the influence of industry on present-day outcomes, provide a rationale for the differentiation of outcomes across industries, and frame the durability of institutions.

The Path-Dependent Model

Studies of the urban political economy often suffer from problems of determinism and an inability to explain variation, leading to a lack of external validity. While a rich literature exists of geographically and temporally-limited case studies, it is difficult to establish a set of general rules or trends that are more widely applicable to investigations of power structure and influence at the level of urban regimes. Path dependence has emerged as a method of explaining current equilibria as a function of early random shocks in the decision process that led to the present outcome (Arthur 1988; Arthur 1994; David 1985; Katz and Shapiro 1986). Specifically, it is useful to explain why cities often stick with suboptimal policies and institutions.

Bennett and Elman (2006) provide a clear and concise groundwork for developing a methodologically sound path dependence study. Their meta-analysis consolidates previous studies in political science and establishes a norm from the dissimilarities in approaches that exist in our field. Each of the studies that they feature successfully utilize a path-dependence model to illustrate a causal relationship that may otherwise have been overlooked via traditional quantitative methods.

According to the authors, the four elements that are common to most accounts are causal possibility, contingency, closure, and constraint. Causal possibility suggests that more than one path might have been taken—that is,

for path-dependence to be relevant, it has to have been possible for other outcomes to have occurred. Inevitability cannot create a salient path-dependent model.

Contingency, sometimes called a critical juncture, states that some exogenous or unpredicted factor influenced the outcome. In some cases, this contingent element leads to a less likely or more inefficient outcome compared to potential alternative paths, thus reinforcing the relevance of history and circumstance. In comparative case studies, this can be a pivot point after which the two cases diverge.

Third, closure describes the narrowing down of potential pathways as time progresses and as events occur. As a result, some causal pathways become less and less likely, sometimes independent of actions taken by players. This is closely tied to the fourth factor, constraint, which suggests that the opportunity cost of moving off a particular path is high once it is established. Each successive step down the path increases the importance and durability of the path. There can be positive reinforcement leading to a tipping point, after which the causal pathway becomes fixed. This 'domino effect' argument has been used in international relations in studies of exponential growth in state power (Jervis 1991).

Similar to Bennett and Elman (2006), Molotch, Freudenburg, and Paulsen (2000) illustrate how places achieve and reproduce distinctiveness by

illustrating how two similar actors (Santa Barbara and Ventura Counties) respond differently to the same exogenous forces as a result of their 'character of place.' Their comparative case study spans a century to illustrate how an early decision to accept or limit the oil industry in the 1800s generated drastically different county cultures, thus influencing how the 101 Freeway was expanded decades later. The authors provide an empirical context by which we can begin to describe culture and tradition and pinpoint how these concepts influence later outcomes. They explain how disparate elements conjoin and reinforce each other to create continuity. An array of physical and social elements can combine in a 'lash-up' of co-occurrences. That is, rather than one major force overpowering all others to establish its dominance, a series of events and actors cooperate to create place identities.

The authors then turn to 'structuration theory' to determine how an established identity gains longevity. In short, structuration theory posits that "…as people take action, they make structures, and every action is both enabled and constrained by prior structures" (Molotch, Freudenburg, and Paulsen 2000, 793). Every actor and action draw upon what came before, thus establishing continuity and path-dependence, as the current configuration is a non-predetermined function of a myriad of influences. 'Place character,' then, is a form of enduring, ingrained multi-actor behavior.

Path-dependence has been applied to models of institutional power and legitimacy. Mahoney (2000) notes that the mechanisms behind the creation of institutions may be different from the mechanisms of its expansion or reproduction. When an institution becomes locked in, it can be less vulnerable or even impervious to the particular kinds of shocks that can undermine a fledgling institution. Specifically, he notes that an established power structure can rely on a particular constituency or industry, but even if the core group loses legitimacy, the institution can still exist.

Woodlief (1998) applies this concept to New York and Chicago in the years following the Great Depression to illustrate how New York exhibited policy lock-in, while Chicago did not. His research focuses on the difficulty of externally validating works such as Fuchs (1992) using general predictive models. He promotes the use of path dependence to explain variation in outcomes given similar exogenous shocks or decisions. According to the author, in path-dependent processes, events that occur in the early history of selection couple with the self-reinforcing nature of these selections to cement the subsequent outcomes. The key to this concept is the randomness of the early events—this is what leads to variation. As a result, two similar city governments, for example, can have vastly different end points from a similar policy-selection process.

Path dependence, in sum, can resolve three theoretical problems: determinism, variation, and inadequate conceptualization of history as a constraining force. The confluence of limited-information, decision-making, and self-reinforcing policies explain why cities with similar social, political, and economic resources and constraints can end up on drastically divergent paths. In doing so, it bridges a gap between generalists and contextualists—that is, it allows for a general representative model while respecting the historical influences on the outcomes to account for variation.

Woodlief (1998) revisits the concepts of institutional 'stickiness' from this perspective. Using the principles of path-dependence, he hypothesizes that the characteristics of the urban policy-making environment not only produce stability but also render policies resistant to change. History acts as a constraint because potential change agents face short-term costs or institutional barriers to change that are the product of the policies. His analysis utilizes Fuchs' (1992) comparison of New York and Chicago's budget histories to illustrate how New York was locked into a cycle of suboptimal policy-making in the post-Depression Period.

Is there room, then, in path dependence for change? Woodlief (1998) argues in the affirmative. A path-dependent policy lock-in can take on one of two forms: structural or political. Political lock-in consists of suboptimal policies that are protected by interest groups, industry, or bureaucracy coupled with

the complexity of the policy-making environment. In the case of political lock-in, a policy-change entrepreneur can motivate change by garnering enough support to convince key players that a policy shift reduces negative externalities by an amount that surpasses any institutional or opportunity cost to status quo.

A structural lock-in is imposed by policy decisions that are suboptimal but cannot be undone, for example, the placement of a freeway, skyscraper or airport. In a structural lock-in, the results of a city's poor decision do not disappear after the policy is changed. If an overly narrow freeway is built and leads to congestion, policy can be changed to mandate traffic studies prior to building future freeways, but it does nothing to improve the current freeway. While significantly more difficult, it is not impossible to get out of structural lock-in; with enough resources and motivation, buildings can be torn down, and roads can be widened or narrowed.

Whether or not a city is able to break out of lock-in (structural or political) is addressed by Schneider, Teske, and Mintrom (1995) who draw on the work of Tversky and Kahneman (1981) and Riker (1986). Schneider, Teske, and Mintrom (1995) argue that public entrepreneurs, or 'change agents,' emerge to reframe issues and build a coalition of support to pull a city out of political lock-in. Public entrepreneurs can build a coalition for change when they can offer a clear vision of the problem and its alternative.

Objective of This Section

Using San Diego and Las Vegas as my case studies, I present a path-dependence model that incorporates all four major criteria: causal possibility, contingency, closure, and constraint. As both cities travel down their respective economic paths, I showcase specific examples of institutional self-reinforcement that motivate future policy outcomes. I then outline the local regional political development, considering both local growth politics and the relationship of both cities with the local hegemon, Los Angeles. With historical economic and political development as context, I present current examples of industry effects on local political outcomes. Finally, I provide a direct comparison of San Diego and Las Vegas, using airport development as an example.

Early Histories of San Diego and Las Vegas

San Diego has existed continuously since the era of the Spanish settlement of California. Las Vegas has origins going back to its sporadic days as a Mormon fort, founded in 1855, but was not officially incorporated as an American city until 1911. Both regions shared some problematic characteristics. When San Diego first emerged, California was a Northern outpost of colonial Mexico, isolated from the rest of the nation. Similarly, when

Las Vegas developed, Nevada was also isolated—separated from the

emerging California market by mountains, deserts, and tenuous transportation

links.

Both places also had to overcome parallel obstacles. San Diego's

climate was salubrious, unlike the blistering, pre-air conditioned summer in

Vegas, but it was semi-arid and without a water supply compatible with urban

growth. Like arid Las Vegas—which has modest artesian springs—it lacked

natural resources, a rich agricultural hinterland or clear industrial potential.

San Diego lacked Los Angeles' natural passes through the surrounding

mountains. It had a magnificent harbor, but one that required artificial dredging

to become a significant commercial link to the world.

How did these two improbable places develop into major cities? And

how did early choices shape later outcomes, as well as future possibilities?

San Diego

San Diego and the Railroad

The metropolitan-military complex of San Diego established roots over

a half-century prior to the establishment of the first military outpost. Since its

inception, the local government had struggled to create an economic foothold

for the region in an attempt to make the city more than a sleepy Pueblo town

between Los Angeles and the Mexican border. San Diego had a strong

possibility of becoming a major railroad, but exogenous factors or the actions

of third-party players thwarted those plans, narrowing down the field of

possibilities.

Talk of railroad expansion on the 32nd parallel began as early as 1854

when the San Diego and Gila, Southern Pacific and Atlantic Railroad

Company was organized. The purpose of the organization was to build a

railroad to Yuma, to meet the line that might reach that point from the East.

Late in March 1872, a committee of forty locals was appointed and members

went to Washington to obtain a charter for building the railroad. There was a

powerful lobby against the bill, both before and after amendment, much of

which came from northern California, but the bill was ultimately approved.

Soon after, bonds were issued to fund the project and European financiers

were located. Unfortunately, the Black Friday panic of 1869 caused the

financiers to back out, dashing hopes of the railroad. Over the previous years,

talk of a railroad had improved the prospects of the city, attracting new

residents and improving its economy; within two short years of the railroad's

failure, the population drastically fell from 3,000 to 1,500 people (Lowell 1986).

A last-ditch attempt at obtaining Congressional railroad subsidies was

launched by a regional representative of San Diego, David Felsenheld. Finally,

in February 1876, a bill was passed by the House for the 32nd parallel railroad,

but the terminus was changed to San Francisco, the company changed to

Southern Pacific (SP) (from Texas and Pacific), and the route would miss San

Diego by 100 miles, instead, stopping along the way in Los Angeles. San

Diego had planned for nearly twenty years for a railroad terminus, expecting to

be the natural stop on a transcontinental railroad. As one resident observed,

"This is the most critical period in the history of San Diego. A few days will

decide whether we are to be one of the great cities of the United States within

the next ten years or whether that time is still in the distant future" (Fogelson

1993, 50). Ultimately, the city failed in its lack of commitment to the railroad.

City fathers were willing to offers empty public Pueblo lands, but not to indebt

themselves the way Los Angeles taxpayers did to give the Southern Pacific a

huge downpayment. The failure to commit financially to acquire a

transcontinental rail link was a fateful decision. (Erie 2015, 29-31)

San Diego had to settle for local entrepreneur John D. Spreckels—a

San Francisco transplant who built the San Diego and Eastern Railroad to

Arizona, not opened until 1919, developed with E. H. Harriman of the Southern

Pacific. Ultimately, SP acquired the line, but it never developed into a

transcontinental link. (Erie 2015, 31)

San Diego's Nautical Gamble

After the critical failure of San Diego politicians to secure railroad funding, the city was able to rebound and have some success, but not to the extent experienced by Los Angeles and San Francisco. By 1910, San Diego county's population was 61,665, meager compared to Los Angeles' 319,198 and San Francisco' 416,912 inhabitants. This did not deter the local elected officials from attempting to spur the economy yet again by hosting a Panama-California Exposition to mark the 1915 completion of the Panama Canal (Amero 1990).

The purpose of the exposition was to showcase the city and boost the economy, which was still reeling from the Wall Street panic of 1907. The city was a logical choice since it was the first port in the United States after exiting the canal. The San Diego Chamber of Commerce approved this idea, only to find that, two months later, the San Francisco Chamber of Commerce declared the same plan. At a meeting in Los Angeles in January 1910, delegates from San Francisco directed San Diego to abandon its exposition plans. The situation escalated until New Orleans expressed a desire to host the expo; at that time, San Diego and San Francisco brokered a deal to allow San Francisco to host a larger exposition, as long as San Diego was allowed to later host a smaller expo (Amero 1990).

Although an agreement was made, it was soon clear that San Francisco was the priority city. The president had notably invited foreign

delegates to the Panama-California Expo in San Francisco, making no mention of the San Diego expo. A resolution was introduced in the House to ask the President to invite foreign dignitaries to the San Diego expo, but it failed in Senate committee. Influential individuals in San Francisco, it turns out, promised their support to then-president Taft in the upcoming national election in return for these favors. San Diego had yet again been set aside due to the political clout of the larger west coast cities. Although San Diego hosted a grand expo, it was not the nationally publicized showcase the original planners had hoped it would be (Amero 1990).

It is in light of this turn of events that the 1912 election takes place. Taft loses the election to Woodrow Wilson—in San Diego, Taft's name does not even appear on the ballot. Most importantly, bipartisan support elects Democrat William Kettner to Congress. Kettner is the pivotal politician in the creation of the metropolitan-military complex of San Diego.

With the elimination of these two possible economic pathways (a railroad terminus or as a shipping hub), San Diego leadership searched for another industry to build their city upon. San Diego did not have the economic or political means to best its regional competitors. Both Los Angeles and San Francisco were better established, with a greater number of residents and more resources. These cities could use its population to create political clout, as exemplified by San Francisco's promise to President Taft for support in the

upcoming presidential election in return for exclusive publicity for its Panama

Canal Expo (Amero 1990).

Kettner was elected on a wave of bipartisan support for his platform,

which promised to bring federal funding to San Diego, thus appealing to the

sentiments of the most influential townspeople. The principal actors who drove

the political and economic decisions of the town were the middle-class

businessmen of the Chamber of Commerce. They aspired to make San Diego

the commercial center of the West Coast, taking advantage of its protected

harbor, proximity to Mexico, Central, and South America, and its year-round

pleasant weather. However, this plan could not be put into place without first

dredging the harbor to enable large ships to enter (Shragge 1998).

Once in Washington, Kettner began a career that would shape the

political and economic future of San Diego. Within a short time, he obtained

$249,000 to dredge the harbor and installed himself on the rivers and harbors

committee. This was no easy task—there were only three seats and 23

applicants. Kettner was the only 'first-timer' in Congress to obtain this seat.

Within his first term, he obtained $1 million (later slimmed to $280,000) in

funding for developing Point Loma—besting the Army Corps of Engineers,

who had suggested Los Angeles instead. He also obtained funding for the

Naval Coaling Station, the Chollas Heights Naval Radio Station, coastal

defenses at Fort Rosecrans, and was able to have the Armored Cruiser No. 6,

also known as USS California, renamed to the USS San Diego (Shragge 1998).

As Erie states, smokestacks ultimately came to San Diego in the form of Navy ship boiler rooms. San Diego won both the Navy's aviation and submarine bases in a competition with Los Angeles that gave up its home status for the Pacific Squadron. Though the Pacific Fleet was ultimately based in Honolulu, San Diego emerged with cutting edge technologies, including long distance radio, carrier aviation, and undersea and amphibious warfare. San Diego voters willingly ceded the Navy 500 acres of submerged land for a Marine Corps base. The United States Navy, by 1939, was San Diego's leading employer (Erie 2011).

Understanding Kettner as a Change Agent

Kettner acted as an entrepreneur of change that created the metropolitan-military complex of San Diego. Prior to the Navy's arrival, San Diego's elected and business leadership were unable to strongly rally behind a single growth strategy. The military provided both a strong economic base and an agenda of national security, which, coupled with the next few decades of intense global warfare and nationalism, provided the groundwork for strong community support (Duvall 1979).

Kettner was successful as an entrepreneur of change as he realized

that there was an untapped potential for significant support from the local

population. When the initial plans for a railroad were announced, the

population of the city of San Diego grew from 731 (in 1860) to 2,300 (in 1870)

in anticipation of the economic boom to come. The citizens were engaged and

involved in the politics of the town. After the railroad boom of 1887, the city

caught the attention of affluent businessmen who saw opportunities for growth.

During the early days of the Panama-California Exposition talks, Spreckels

gave $100,000 of his own money to improve San Diego's competitiveness with

San Francisco. Motivated by this donation, others began to contribute as well.

Within two weeks, $1 million was raised. In addition, voters approved a $1

million park improvement bond for the Exposition board to use towards

beautification of City Park (which, during this project, was renamed Balboa

Park). The population wanted to mobilize—they just needed to find a cause.

Kettner became the public entrepreneur to reframe San Diego as a Navy town

by aligning local and federal needs (Duvall 1979).

Culture of Place – Establishing Military-Civilian Relationships

Equally important about Kettner's relationship with the Navy and San

Diego was that it set into motion a series of self-reinforcing policy choices that

created a culture of acquiescence to the military's needs. As the military

demanded more land and breaks, and San Diego acquiesced, the city was pulled into structural and political lock-in via physical installations, as well as military-linked players. San Diego was also rewarded, particularly during World War II and the Cold War era, with lucrative military contracts that spurred unprecedented growth.

The culture of military-civilian interaction trickled down from the most affluent and influential officials to the average citizen. According to Hennessey (1993, 132), "Kettner secured his colleague's support by emphasizing the city's gifts of land, the military's support, and Congress' previous expenditures for harbor improvement and large and small military installations. Locally, voters were told that they had to reciprocate for the expected benefits each new facility would bring and that favorable votes would ensure future naval commitments on a gigantic scale." Indeed, the electorate responded with affirmative votes in the ninetieth percentile. As San Diego responded in the affirmative, the Navy rewarded accordingly. After an allocation of $27.79 million for shore installations was approved by a Naval commission, a *Union* editorial expressed the opinion of most San Diegans—that a large naval presence in San Diego would make "the foundations of our future development more firm and assured…[and] bring us more speedily to a place of metropolitanism…" rendering the city "…certain to achieve its highest aspirations" (Hennessey 1993, 135).

This editorial was an accurate depiction of what was to come. The combination of military appropriations and the expanding population (driven by the military) created strong real estate, construction and service industries. From 1910 to 1920, the town's population increased by 89 percent and from 1920 to 1930, by 50 percent. San Diego's growth from 1900 to 1930 outpaced both the state and the nation. Local businesses thrived in accordance with this growth. The number of new business incorporations grew more than 140 percent from 1919 to 1920. However other industry grew, it was always ancillary to, and greatly overshadowed by, the military appropriations that were the backbone of the San Diego economy.

A second cultural norm was now set—growth and expansion of the region as it benefited the military. As the population grew, public works projects multiplied in the areas the military occupied. San Diegans exponentially increased the city's bonded indebtedness by more than 50 percent and the city doubled its municipal budget from 1920 to 1930 (Hennessey 1993). As military personnel and civilian staff migrated into the city and installations grew in number and scope, county voters approved nearly $3 million in highway paving. The purpose of this increased spending was clear. In 1927, Kettner reminded San Diegans that current naval construction contracts for that fiscal year exceeded the total annual value of building permits. During the boom of the 1920s, the estimated local annual

military payroll was $15 million and more than 1,800 Navy families had purchased or rented homes in San Diego. Considering an estimated multiplier effect of four civilian dollars spent for every military dollar spent, the annual amount is significant (Hennessey 1993).

Navy command was also quite aware of the strong reliance San Diego had to federal military spending and used the relationship to their advantage. Nationally, military figureheads used San Diego as part of a self-promotion campaign to offset rising anti-Naval sentiments that arose due to a perceived overreach of power. Within San Diego, command kept the region's leadership on a short leash. Most notably, Rear Admiral Luke McNamee, in a 1927 article, reminded San Diegans that the 6,000 men in his command spend their money in the local community. In a thinly veiled threat, he added that losing this crucial source of income would be felt immediately. He admonished the leadership of the city to ensure the 'balance of interest is maintained' between the Navy and the region (Hennessey 1993).

The Navy as a Constraining Force

Joining itself to the Navy was a critical choice that constrained San Diego's longer term options. First, along with guaranteed income, San Diego acquired a 'Naval Mayor' whose power rivaled that of its elected mayor and ceded to the Admirals a veto power over harbor matters. The Navy's influence

on airport location is felt today as relocation debates still cause much contention.

The Navy also shaped water infrastructure in San Diego. Compared to Los Angeles, San Diego was slow to acquire control of the city's privately owned water companies, notably Ed Fletcher's Cuyamaca Water Company. Fletcher worked with an irrigation district to delay completion of the El Capitan Dam, and helped delay San Diego's use of annexation to incorporate surrounding water-hungry municipalities (Erie 2006).

Kettner's successor, Congressman Phil Swing of San Diego and Imperial County, was a prime architect of the League of the Southwest lobbying group and Colorado River Compact that gave San Diego the option of over 100,000 annual acre-feet of Colorado water. Yet, San Diego later refused to join the Metropolitan Water District (MWD), choosing instead to explore a quixotic project for its own pipeline to the Imperial Valley, while in 1924 and 1939, voters rejected bonds to develop its own Colorado River Aqueduct. The United States Navy forced San Diego's hand in joining the MWD, as they constructed the San Diego Aqueduct, allowing Colorado River water to flow into the San Vincente Reservoir, ending San Diego's total dependence on local sources for water (Erie 2006).

A crucial confluence of events built the culture of San Diego and the reputation of the military within the county lines. First, the Navy had an influx of

federal spending for facilities as the nation expanded its capabilities. Second, the Navy was looking for a new home base more suited to its growing needs. Third, San Diego was ready for expansion and simply needed the proper impetus. Fourth, this impetus came in the form of Congressman William Kettner, who skillfully achieved short-term goals of establishing and expanding the region around the military.

These events, coupled with the self-reinforcing policies and the institutional and structural lock-in that occurred in this decade created a unique regional culture. Even after the heyday of military expansion, many servicemen chose to live in the area after retirement or discharge. Former officers serve the community as elected or appointed officials, or influence city development in other ways. A pathway of subservience was established by the early civic generosity of the region as citizens freely gave away their harbor, park, and Pueblo lands, amounting to nearly seven thousand acres and reinforced by the millions of dollars that flowed into the economy.

Las Vegas: The Improbable Metropolis

Las Vegas and the Railroad

In contrast with San Diego, Las Vegas was, from its twentieth-century emergence, a railroad town. Since the nineteenth century, Las Vegas' one

advantage had been as a transportation transit point and watering hole, first on the old Spanish Trail and then on the more direct route mapped by California Pathfinder John Charles Fremont (McCracken 1997, 8).

Though the Union Pacific began buying Utah rail properties as far back as the 1880s, they did not move to link with Las Vegas (and through to San Bernardino and Los Angeles) before Montana copper baron and Senator William A. Clark invested in 1900. He purchased two lines—the Los Angeles Terminal Railroad and the Utah Railroad—and linked them with his San Pedro, Los Angeles, and Salt Lake Railroads that defeated the Union Pacific in a competition to connect what became the new town of Las Vegas (Moehring 2000).

Eventually, Clark and the Union Pacific compromised, becoming partners until after World War I when the UP became the sole owner. In 1905, Clark began selling lots in Las Vegas to visitors on subsidized excursion trains from both Salt Lake City and Los Angeles, marking Las Vegas' debut as a city. The city officially incorporated in 1911, also becoming Nevada's first city to experiment with a progressive, commission-mayor government. Las Vegas enjoyed a very modest growth spurt carrying war-related freight after 1917, but its fortunes as a railroad town took a decisive turn for the worse in the early 1920s (Moehring 2000).

A union-friendly town, Vegas sided with the workers during the 1922 national railroad strike. The Union Pacific, which employed 15 percent of the city's workforce, retaliated by closing down the repair facility and moving it to Caliente. In its place, the UP left stockyards manned by strikebreakers. When the Las Vegas locals retaliated against the scabs, the UP—whose subsidiary, the Las Vegas Land and Water Company, owned the Vegas water pipes— tightened its vise on the town. Las Vegas survived, but its relatively untroubled interval as a favored railroad town had ended (Moehring and Green 2005).

During this time, the interstate highway system was in its infancy, and the nation became obsessed with automobiles. Las Vegas lobbied for funds to pave Highway 91 from Los Angeles to Las Vegas in order to boost tourism. As a railroad hub, but not a terminus, the region had become accustomed to short-term residents and stopover tourism. As the railroad industry flagged, attempts to fan the flames of tourism increased. In 1931, Route 91 was largely completed, and casino gambling was legalized, two pivotal events that would set the stage for the region to become a major gambling destination (Moehring 2014).

While San Diego used its harbor to draw in the Navy, Las Vegas made its bets on a man-made aquatic wonder—the Hoover Dam. Las Vegas emerged from the 1920s a poor relation of its northern rival, Reno, which pioneered the easy divorce, gambling, and recreation formula that Las Vegas

copied in its 'Helldorado' and 'Lot 16' vice district. With the construction of the

Boulder (then Hoover) Dam from 1931 to 1935, came an influx of 5,000

workers at a time when Las Vegas' population was not much more. This was

the largest federal construction project since the Panama Canal (Paher 1971).

During this time, a moral struggle ensued, which began to establish the

culture of place in Las Vegas. Las Vegas city fathers contemplated closing

down 'Lot 16' to appease the moralistic streak of the Bureau of Reclamation

Commissioner, Elwood Mead. However, another exogenous shock set the city

on its trajectory. In 1931, two years before the end of Prohibition, Nevada

legalized local gambling. As tourists flocked to see the Dam—a new world

wonder—they also visited Las Vegas to enjoy the fun. Thus, forced to give up

its self-image as a bustling railroad town, Vegas avoided becoming a ghost

town by beginning to experiment with its new reputation as 'Sin City.' This

choice came at a price, as the new reputation also ultimately became a

stigma, constraining conservative investment (Moehring 2004).

Las Vegas and its Parallel Industries

It is during the infancy of the gaming industry, a second, and seemingly

more profitable and viable industry emerged—defense. Federal projects and

federal dollars were no strangers to Las Vegas. During this time, there was a

strong causal possibility that Las Vegas could develop into a military-dominant

city. As Markusen et al. (1991) note, the ideal conditions for testing aircraft are dry climates with few to no clouds and flat lands; essentially desert climates, like in Las Vegas. In 1929, the Nellis Army Air Force Base was opened on over 800,000 acres. Nellis, dubbed the 'home of the fighter pilot,' graduated 600 gunners and 215 copilots every five weeks at its peak (Markusen et al. 1991).

The base and surrounding facilities expanded with the cooperation of the Las Vegas citizens and politicians. In 1940, the city purchased and improved a nearby field for use in training civilian pilots for the war effort, spending over $340,000. To draw the Air Force to the city, public officials 'rented' land to the Air Force to build their air training school for a dollar a year. In 1950, public officials donated over 2,000 acres of municipal land to build housing for airmen (Markusen et al. 1991).

The benefits of retaining the military were significant prior to the dominance of the gaming industry and are still important today. Nellis' annual payroll in the 1950s was over $1.76 billion, two-thirds of which went directly into the Las Vegas economy. By 1988, 14 percent of Clark County's employment was directly or indirectly tied to Nellis, making it the largest single employer in Southern Nevada. Approximately six percent of Clark County's gross regional product comes from military and civilian personnel employed by Nellis and the surrounding facilities (Parker and Feagin 1992).

Gambling and the military grew hand in hand. The support of the servicemen in the surrounding region was essential for local industry. In the early years, the economic value of the military was prioritized; in 1943, the Federal Security Agency pressured local authorities to close down red light districts in Las Vegas, due to the high volume of servicemembers who frequented them. Although they were not pleased about it, politicians ultimately complied, since the economic benefits of military spending were so great (Elliott 1983).

It is at this time the citizens and local policymakers began to constrain themselves to an entertainment-based economy. In 1931, the city commissioned authorized $315,000 worth of bonds to improve the streets and extend sewage lines. Over $300,000 was spent on a new post office. Local investors speculated on the land as well, with $1.2 million worth of new structures built by developers in 1930 alone. These actions had a lash-up effect, whereby other related industries became drawn to the area. Coca-Cola's decision in 1934 to build a bottling plant in the area grew out of strong demand from local food distributors and hotels. The expansion of the resort industry then drew conventions, the first of which was a California Shriners convention in 1935. The first luxury hotel and casino, the Apache, opened during this time. This hotel was infamous for establishing Las Vegas' reputation as the divorce capital after the media bonanza surrounding the

divorce of Clark Gable and Ria Langham focused on Hollywood's elites spending their time gambling at these establishments (Fischer 2005).

It would have been possible, had federal public works projects continued to be funded, that Las Vegas would have remained beholden to government jobs in a combination of public works and military. However, in the late 1930s, federal dollars dried up and the town recovered by investing further in tourism, the military and gaming to keep the economy afloat. Ultimately the strongest push towards Las Vegas' economic reliance on gaming was cemented with the structural lock-in of hotel expansion that came hand-in-hand with the expansion of tourism, as well as the strong influence casino moguls had on local politics (Fischer 2005).

Gaming as a Constraining Force: From Mobification to Corporatization

Influential local actors were crucial for gaming growth and development. The list of early investors reads like a *Who's Who* of organized crime history: Benjamin 'Bugsy' Siegel, Meyer Lansky, and Moe Sedway, among others. According to Moehring, Siegel's purchase and lavish reconstruction of the Flamingo Hotel was a turning point in liberating Las Vegas from its frontier image and pushing it forward to a more sophisticated, luxurious kind of resort city. Prior to Siegel, municipal leaders and town boosters had tried, and failed, to do the same (Gottdiener 2000).

After the lax years of the World Wars, the state and county intensified regulation, but further entrenched themselves in reliance on the industry by levying more taxes. As the federal government became involved with cracking down on organized crime, local and state political economic interests to preserve gaming sometimes surpassed legal priorities. In the 1950s, Tennessee Senator Estes Kefauver began an in-depth investigation and an on-site fact-finding mission in Las Vegas, finding what he believed to be sufficient evidence to link organized crime and gaming. The Kefauver bill, introduced in 1951, would have levied a 10 percent federal tax on all gaming, effectively destroying the industry in Nevada. Senator Patrick McCarran, who had been critical in drawing both the military and gaming to Las Vegas, killed the bill in committee. Similarly, in 1955, Congressman Kenneth Keating of New York introduced a sweeping antigambling bill, and the Nevada congressional delegation (Senators George Malone, Alan Bible, and Congressman Cliff Young) was able to stop the measure (Denton and Morris 2001).

Ironically, the publicity surrounding the attempts to crack the strong link between organized crime and politics strengthened Las Vegas' gambling industry as other states that had been considering legalizing gaming shied away. In 1950, California voters overwhelmingly shot down Proposition 6 to legalize gambling after a scathing editorial in the *San Francisco Chronicle*

which predicted that casino moguls would "turn this state lock, stock and barrel over to gamblers of their kind," putting these moguls and crime bosses "in a position to smash the economy of this state." Similar measures failed in Arizona and Montana (Denton and Morris 2001).

The current Las Vegas no longer sells itself as a sin city of gambling, but as a family-friendly 'gaming' city, with a wink and a nudge. Although mob influence dwindled and 'legitimate' businessmen took over, mob vestiges remained, including the strong reliance on the Teamsters, Culinary Workers, and later the SEIU. Newer innovators like Steve Wynn carried over the old attitude. One reason was the unique service configuration of the Vegas economy that makes it 'the last Detroit' in terms of good, low-skill jobs. It is heavily dependent on low skill but relatively high pay service workers who could not be replaced by job exports to developing nations (Rothman 2003).

Las Vegas became structurally, economically, and perceptually 'locked-in' by its fame. The multi-million dollar opulent casinos and hotels pushed out unrelated industries. Similarly, secondary industries arose that supported and were supported by the casinos. Also, the local population became comprised of mostly blue-collar workers who held minimum-wage jobs at casinos. The image of Las Vegas has become so intertwined with casinos and gaming that the city is nearly indistinguishable from its industry.

Understanding McCarran as a Change Agent

While Patrick McCarran is best remembered as the Senator who brought Mafia money to Las Vegas, his political and economic influence on the region spans over a half a century. In contrast to Congressman Kettner of San Diego, who was a transplant to San Diego, McCarran was a second-generation Las Vegas native. Throughout his career, he retained an emphasis on improving Las Vegas by any economic means, and was not shy to switch his industry loyalties if it meant the region's interest would be served (Hopkins and Evans 2000).

In the early 1900s, when he began his political career, he saw mining as the up and coming major industry, and aligned himself as a defense attorney in support of mining interests, earning himself an elected district attorney role. His political career then came to a 15-year halt, as his pro-labor stance caused the existing political machine to shun him. When he was finally able to gain a position as Senator in 1938, he quickly built a local political machine by offering key positions in return for favors. At that time, Nevada had no law school. McCarran's boys, as they were called, were fully funded by the Senator to attend law school in Washington, D.C., in return for political loyalty, should they return and enter the public sector (Hopkins and Evans 2000).

Similar to Kettner, McCarran jumped at the opportunity for federal dollars—however, in contrast, this money had to be on his terms. He was

closely involved in bringing federal military funds to bring the Civilian Pilot

Training Act to Las Vegas, leading to the Las Vegas Army Airfield (Nellis Air

Force Base). McCarran wrote the Civil Aeronautics Act of 1938 and the

National Aircraft Theft Act. He was the first to introduce a bill for a separate air

force in 1933. In 1945, he sponsored the Federal Airport Act, which helped

fund McCarran Field (which was later renamed McCarran International

Airport in 1968) . In all of these instances, however, Nevada local government

retained autonomy and ownership of their properties and their use (Hopkins

and Evans 2000).

As gaming became a more viable economy, McCarran imagined it as

an additional method of bringing funding into Nevada, while consolidating his

political machine. He helped cultivate the Mafia-driven gaming economy,

turning a blind eye to corruption as long as the income came into the region.

He provided a legitimate government face and was instrumental in deterring

increases in gaming taxes and the Kefauver committee's investigations

(Jensen 1965).

In contrast to Kettner, who had federal ambitions for San Diego that

was intertwined with the Navy, McCarran was a local boy with local ambitions.

His allegiance was to Las Vegas, not to industry. His extensive political career

and his carefully cultivated political machine meant that he was not willing to

sacrifice local political autonomy for economic gain.

Enduring Comparisons: San Diego and Las Vegas

San Diego and Las Vegas can be compared based on their individual

characteristics and parallel development, similar to most case studies. A

benefit of their geographic and developmental proximity is that they can also

be compared in their relationships over time—first, in relation to the nearest

largest neighbor, Las Vegas, and in their growth machine politics. In contrast

to San Diego, which unsuccessfully competed with Los Angeles, Las Vegas

was better able to capitalize on the resources the city could bring in.

Triangular Relations: San Diego and Las Vegas in Relation to the Los Angeles Regional Hegemon

Erie dissects San Diego's unending obsession and generally

unsuccessful competition with its Big Brother to the North, Los Angeles. Yet,

Las Vegas also had a relationship—generally, a more positive one—with the

West's emerging metropolitan hegemon. While San Diego in the 1920s and

1930s prided itself on its national highway link to the East, Las Vegas put

more stock in Highway 91—'the Los Angeles Highway' paved partly with

California State funds—which remained vital until the completion of I-15, which

cut the drive time to Los Angeles in half, to three hours. Las Vegas began

trying to attract Los Angeles auto tourism as early as 1913. Mail flights

between Salt Lake City and Los Angeles started landing at Las Vegas' airstrip

in 1926. Passenger service followed in 1928. In other words, auto traffic

replaced the railroad's rumble (McCracken 1997; Rothman 2003).

Before and during World War II, Vegas did not spurn ties with 'noir' Los

Angeles; it embraced them. In the 1930s, Los Angeles experienced a neo-

progressive movement under Fletcher Bowron that sought to purge Los

Angeles of its more unseemly vice connections by exporting them to Nevada.

These individuals headed East, to Las Vegas. Notably, Los Angeles vice cop,

Guy McAfee, who operated the brothels he was supposed to close down and

married a madam. McAfee left Los Angeles to found the Golden Nugget (much

later acquired by Steve Wynn) and also named Vegas 'The Strip', after the

Sunset Strip (Moehring 2000).

The transition of the gambling and vice industries from the City of

Angels to Sin City continued during World War II, as California Attorney

General Earl Warren joined Mayor Bowron in upping the pressure on Los

Angeles mobsters. Yet, Los Angeles and San Diego became regional brothers

in arms during World War II. Bugsy Siegel was actually driving on a well-worn

highway from Los Angeles to Las Vegas when he first showed up in Las

Vegas in 1946 to pursue his fatal attraction to Virginia Hill and the Flamingo

Hotel, which he opened with his partner Billy Wilkerson, a publicist from

Hollywood. Within hours of Siegel's assassination in Beverly Hills in 1947,

three Los Angeles Jewish mobsters showed up to take over the Flamingo. In

1941, a builder of Southern California resort hotels, Thomas Hull, recruited by the Las Vegas Chamber of Commerce, had already laid the groundwork by designing El Rancho Vegas, the first of the new luxury gambling spas just south of the Las Vegas city line on the new Strip (Rothman 2003).

Contrasting Growth Machine Politics

San Diego's Growing Procrastinations

San Diego's history as a pro-business, anti-labor Sunbelt 'growth machine' parallels that of most other Sunbelt cities. As Bridges (1997) observed, what distinguished the Sunbelt from the rustbelt political machines was, among other things, that they were the handmaids, not so much of downtown development and redevelopment, but as of suburbanization.

San Diego's progressive movement was stillborn for lack of political muscle to go with its aesthetic vision. Businessman George Marsden brought in a New York landscape architect, Samuel Parson Jr., in 1902 to design what became Balboa Park, and Boston's John Nolen to author the 'City Beautiful' blueprint that helped inspire the building of the city's 1915 Panama-California Exposition. Marsden ran unsuccessfully for mayor twice as a progressive. In 1917, in what became known as the 'Geraniums vs. Smokestacks' campaign, he lost to transplanted Los Angles businessman-banker Louis J. Wilde whose

'smokestack vision' of an industrialized city emulated Los Angeles. John D.
Spreckels also foiled Marsden's plans to turn Balboa Park into Central Park
West, preferring to exploit it to further his trolley line and real estate interests
(Sies and Silver 1996).

Ultimately, San Diego chose not to make a clear choice between
competing visions of its future. It opted instead with for a long-term assignation
with the United States Navy, brokered during World War I by local
Congressman Kettner and the San Diego Chamber of Commerce.

In the case of San Diego, the traditional 'smokestacks vs. geraniums'
theme was reprised postwar as a business-labor coalition, wanting to copy Los
Angeles' broad-based industrialization at San Diego Harbor and elsewhere. It
initially fought with local amenity types who wanted to beautify and sanitize
Mission Bay, as well as beautify downtown. Though Horton Plaza was indeed
eventually built downtown under Pete Wilson—also 'revitalized' after 2000—
initially, there was something of a draw between industrializers and beautifiers
that created an opening for developer Charles H. Brown, who led the rush to
suburbanize San Diego through the opening of Mission Valley and the Town
and County Mall (Davis, Mayhew, and Miller 2005).

Like much of the Sunbelt, San Diego's growth machine was having
superficial second thoughts by the 1970s. In addition to Wilson's invocation of
slow or managed growth, San Diego's growth machine's history features only

a supporting role for labor. The relatively high-skilled construction unions were initially loyal lackeys of the growth warriors, but as their influence declined, the public employee unions rose in power. This union power was complicit in the city fathers (and mothers) pension scandals, post-1990.

The murky results of the five-referendum anti-growth initiatives at the ballot box in the late 1980s also coincided with an attempt to provide visibility to San Diego's minorities as the charter was amended to allow the district election of city councilpersons. The centripetal effect of this on metropolitan development was one reason for the ultimate, twenty-first-century adoption of 'strong mayor' charter reform.

As post-Cold War defense spending declines impacted San Diego, the city tried varied approaches to economic diversification. As Erie shows, these included downtown commercial revitalization on the Horton Plaza model, an expanded Convention Center, new sports stadium, putting money in old neighborhoods in need of renovation, advertising old and new tourist attractions like Sea World, binational economic cooperation with Tijuana, and shifting the high-tech emphasis from aerospace to biotech and electronics (Erie 2011).

Currently, San Diego's increasing investments in tourism have manifested in a desire to retain the local football team, the Chargers. Discussion dates back to the early 2000s about the obsolescence of

Qualcomm Stadium (the current home of the Chargers). The team and the city

have both attempted to fund an $800 million renovation project, but the city

has consistently failed to pass initiatives to fund their portion of the renovations

(Associated Press 2006). As a result, the team has threatened to leave the

city, showing interest in other nearby regions (Garrick 2009).

Most recently, community-backed ballot measures that would have

used hundreds of millions of taxpayer dollars towards the stadium failed in the

2016 election. As a result, the Chargers are forced to decide whether to foot

the bill for the stadium renovations entirely themselves, or to move to Los

Angeles (Belson 2016).

Las Vegas Growth Politics

Politically, Las Vegas in 1930 was reputed to be 'a one man town,' run

by banker Ed Clark who controlled the electricity, water and power (though the

Union Pacific still owned some pipes). The city, with limited success, rose up

against Mayor Ernie Cragin, accused of being 'a machine politician,' despite

his support for New Deal measures. (Cragin served again during and after

World War II.) He was challenged by a reform movement, not so much on the

basis of corruption, but because 'the power company ran only at night, and the

telephone company in the daytime,' despite the benefits that were promised to

flow from being near the new Dam with its power generating capacity. Leonard

Arnett, an insurgent candidate, ran on a platform of municipalizing the power

company and the airport. The voter-approved bond issue for public power

carried, but the local establishment rallied around Southern Nevada Power to

stymie implementation. Mayor Arnett was convinced to retire to a California

chicken ranch. Even so, this insurgency was another example of how Las

Vegas grassroots politics have tended to be more populist or left-of-center

than San Diego's (Moehring 2000).

The Senate Kefauver Committee investigations in the early 1950s,

coupled with the threat to increase the surcharge on sports betting from 25

percent to 10 percent, mobilized the casinos to action. This was when Moe

Dalitz, representing Cleveland's Mayfield Road Gang and operating the Desert

Inn and then the Stardust, became 'a driving force' behind Senator Pat

McCarran who blocked the federal tax threat (Hopkins and Evans 2000).

Casino owners have been quite unified at the State level since the

1950s. Even earlier, the entire Legislature was flown from Carson City to Las

Vegas in 1947 to lobby them to create the Las Vegas Valley Water District.

The owners had to be unified at the State level because this was when

Republican Governor Charles Russell, together with several court decisions,

transferred control of gaming licensing and taxing from Las Vegas and Reno

to the Nevada Tax Commission. Democrat Grant Sawyer continued the new

arrangement, and the casino owners were bipartisan in their campaign

contributions. In 1981, Governor Bob List, at the behest of casino owners, reduced property taxes while increasing the state sales tax from 3.5 to 5.75 percent. In 1991, the state gambling tax was raised to 6.25 percent—still the lowest in any state. The property tax cap created infrastructure investment problems in Nevada, paralleling in some ways California's Prop 13 (Rothman 2003).

The Las Vegas city government has repeatedly failed to annex the Strip casinos and their tax revenues. Casino owners have also successfully blocked attempts at a downtown sports stadium, preferring that visitors stay inside rather than regularly frequent (non-gaming) sporting venues. In the 1950s and 1960s, Las Vegas mayors like C. D. Baker and Owen Gragson did their best to fulfill prescriptions for Sunbelt good government, but they were no match for the forces of political fragmentation and the power of the county commissioners. The Strip enjoyed explosive growth southward, while the military spurred northward growth. Indianapolis, Nashville, and Jacksonville— and even San Diego—were more successful at annexing or consolidating (Chung 2012).

On the other hand, Las Vegas county commission government remains robust. They created two Potemkin-like towns in unincorporated areas to frustrate city annexation attempts. When the city announced in 1959 that it would no longer help the county fight Strip fires, the county commissioners

expanded their own fire department. There were serious problems—for example, the failure of Southern Nevada Power to build enough electrical generators, causing Mayor C. D. Baker to seek help from California Edison. However, special improvement districts successfully handled most metropolitan challenges, from water to schools (Bowers 2013).

The state legislature created the Las Vegas Valley Water District in 1947. It took over the private Las Vegas Land and Water Company's system in 1954. The water situation—particularly the failure to install large diameter pipes to tap Lake Mead—was serious enough by the 1960s that Nevada's political elite united to lobby the Johnson administration to build the Southern Nevada Water Project. In contrast to San Diego, Las Vegas water authorities have a track record as successful water lobbyists. Most recently, this includes Patricia Mulroy of the LVWD, who proposed two new pipelines that would run directly from Boulder Dam to Las Vegas, as well as innovative interstate transfers of Colorado River water (Bowers 2013).

The county commissioners—not an autonomous bureaucracy as in Los Angeles—control the strategically located McCarran International Airport, upgraded to handle jets in 1963 and further upgraded through bond votes by the 'McCarran 2000' project improvements, including new terminals and runways. A creative mix of a sales tax increase, auto licensing, jet fuel fees and airport funding paid for these improvements without directly affecting

casinos. In contrast to San Diego, Las Vegas voters have usually been amenable to tax increases; however, it is worth noting that these taxes largely affect visitors, not natives. Nevada has no income taxes—only sales taxes and gaming taxes (Hulse 2012).

Las Vegas also has a well-supported push to attract a professional sports team. In stark contrast to San Diego's struggles to attract business or public backing, multiple casino moguls have expressed their fiscal support. In 2016, the $350 million T-Mobile Arena opened to a sold-out crowd of 20,000 people. The venue was built with no taxpayer dollars spent and full financial backing of MGM Resorts and Los Angeles-based AEG Entertainment. MGM provided the 12 acres required for the venue by demolishing two old office buildings on their property (Snel 2013). MGM anticipates that the arena will generate a yearly revenue of over $900 million. Currently, the National Hockey League is considering Las Vegas' bid to host an expansion team (Heitner 2016). As of 2017, the San Diego Chargers are leaving for Las Vegas, and the Oakland Raiders have agreed to move to Las Vegas.

Conclusion

The varied, yet parallel histories of both San Diego and Las Vegas do much to explain their modern-day political, social and economic climates. Both regions began as railroad towns and became involved with the military.

However, for Las Vegas, casino dollars proved more lucrative. Behind the economic and political machinations were two influential men, Congressman William Kettner and Senator Patrick McCarran, who left their mark with their different visions and ambitions for their city. Throughout their histories, the enduring relationships with Los Angeles, as well as their approach to growth politics illustrate how their histories impact current outcomes and decisions. Both cities have unique cultures of place – San Diego as a Navy town, evolving into a tourist town, and Las Vegas as a city of sin evolving into a family-friendly entertainment palace. Both regions serve to show how an industry is capable of directly and (more importantly, indirectly) shaping leadership and decision-making.

Chapter 5: How Does Industry Affect Policy?

In both San Diego and Las Vegas, industry's role in early development became intertwined with politics and policy. Industry leaders worked with local politicians, who often championed their causes in Washington or provided protection. Furthermore, the cities became locked in, structurally and politically. Structurally, Las Vegas invested in impressive and luxurious casino resorts and hotels; similarly, San Diego provided land for further military installations and land concessions. In this section, I discuss the political influence industry has held in recent history, and how this influence exhibits itself differently in both cities due to the priorities of the local industry and historical precedence. In doing so, I find evidence to validate the top-down hypothesis from Chapter 2. That is, I find evidence that the industry influences policy independent of constituent sentiment, and that industry economic reliance, when that industry is the military, can circumvent the democratic process. Finally, I compare the two cities on their airport expansion policies in order to illustrate how industry needs can differentially affect policy outcomes.

Las Vegas suffers from severely underfunded public services, such as schools, non-casino related infrastructure, and non-gaming related recreation zones, while allowing for an elaborate monorail system to take gamblers from casino to casino. This is due, in part, to electoral dominance by political

donations and favors. Similarly, San Diego politicians and citizens alike have felt the power of the military. In the early 1980s, the Navy simply appropriated land it wanted to expand the Naval Hospital in Balboa Park. More recently, over the protests of locals, a VA-funded halfway home was erected in a tourist-heavy part of town, across the street from an elementary school.

Hypothesis Testing

A content analysis of the arguments posed for the pro-military measures provides an understanding of the causal theory. The bottom-up theory states that the individuals who live in San Diego are uninterested in long-term public expenditures, such as a move to a new airport. Instead, they would support a short-term fix, or no fix at all. Public anti-airport sentiment would revolve around arguments about increased taxes or other expenses related to developing an airport in Miramar, which would be more costly than keeping the current airport. Other anti-airport arguments may point out the long timeline in switching over to Miramar versus improving Lindbergh. Similarly, if bottom-up theory prevails in Las Vegas, there would be little, if any, citizen pushback to low school funding and low public expenditures.

In contrast, the top-down theory would see strong pro-military language in San Diego politics. Instead of a focus on the costs or logistical feasibility, statements against military-preferred outcomes would emphasize patriotism

and the necessity of the military base for national security. These statements

are simultaneously nebulous and polarizing. Rally around the flag efforts are

rife with buzzwords often used by public officials to garner local-level

support—evidence for the top-down causal theory. In Las Vegas, top-down

theories are easier to see—they take the form of political donations and public

statements. Top-down dominance will show casino moguls using their money

to exert political clout.

Las Vegas

True to its heritage, Las Vegas remains a city where most of the money

is shared with a few powerful individuals. Instead of Bugsy Siegel and Myron

Lansky, we now have Steve and Elaine Wynn, Kirk Kerkorian and Sheldon

Adelson, among others. A second wave of casino development hit in the

1980s and early 1990s as the Strip expanded and modernized into mega-

resorts. This massive growth brought with it a need for employees, mostly for

low-skilled jobs. The population skyrocketed from 270,000 in 1973 to 1.2

million by 1998, often making the city the fastest-growing in the United States

(Rothman 2003).

Electoral Dominance

Examples of more direct industry influence on politics arose in the 1990s in the second wave of casino growth, coupled with industry-supported fiscal conservatism in the legislature. Nevada's governor at that time, Bob Miller, came from a well-connected gaming family and enjoyed the fiscal support of all the major casino moguls. Thirteen of the top 15 contributors to Miller's 1994 re-election campaign were Las Vegas-based casinos or casino executives. Wynn exploited a loophole in the state laws limiting corporation funds to $20,000 by spreading his funds across four subsidiaries, enabling him to contribute $70,000 to Miller's campaign (Binkley 2009).

This support manifested itself in more than just funds. In Miller's 1994 bid for governor, Wynn encouraged voter registration among his thousands of employees, openly pushed and indoctrinated them with his political views, and poured hundreds of thousands of dollars into pro-gaming lobbying groups. Wynn's Mirage Resorts Inc., the largest country taxpayer, has its own polling operation and get-out-the-phone bank, as well as 20,000, employees encouraged how to vote for candidates who give speeches on company property and time (Gottdiener 2000). Local political consultant Don Williams observed, "When Steve Wynn picks up the telephone, most politicians jump" (Rothman 2003, 82).

Not to be outdone, Sheldon Adelson almost single-handedly financed the successful campaign of later scandal-scarred Lance Malone to unseat longtime county commissioner Paul Christensen in 1996 during a $1.44 million campaign for a $54,000 a year job. In 1998, he spent $2 million in an unsuccessful attempt to replace three other county commissioners, using a television ad blitz denounced by Governor Bob Miller. Adelson's purpose for this support was to derail the three county commissioners who favored the Culinary Worker's Union, which he refused to recognize at the Venetian (Gottdiener 2000).

Public Service and Infrastructure Crisis

Establishing preferential treatment is necessary, but not sufficient, in illustrating evidence of the top-down hypothesis. The second aspect is the stifling of the democratic process or the chronic underrepresentation of the local population. Clear evidence exists of this as well. Overwhelmingly, local Las Vegas residents live in suburban communities, and consist of seniors and low to middle-income families (generally Hispanic), occasionally interrupted with mega-mansions of the casino elite. What most of the residents have in common is a lower or fixed income status due to the high propensity of low-skilled service jobs. The long-time resident senior population largely consists of those who have retired from the local service sector—minimum-wage

employees who did not have substantial pension packages. All of these residents would likely benefit from expanded public services (Rothman 2003).

As industry grew, so did the state's coffers—gaming was responsible for $1.26 billion in tax revenue, nearly 46 percent of the state's general fund in 2010. Not surprisingly, the tax policy climate is quite amenable to the industry: Nevada has no franchise tax, personal or corporate income taxes, or estate taxes. Property taxes are limited to $3.64 per $100, and no more than 35 percent of the land's assessed value (Rothman 2003).

These perks are a result of an understanding between casino moguls and politicians of the value of industry to the local political climate. While today's environment is nothing like the back-room dealings of the Mafia and politicians in the 1950s, industry leaders play a direct and significant role in creating policies amenable to their goals. Specifically, casino leaders are strongly influential in controlling the state's tax structure (Rothman 2003).

Nevada's gaming tax is among the lowest in the nation—7.75 percent, compared to a national average of over 20 percent—directly due to the influence of casinos, most notably on Republican Governor Bob List in 1981. Governor List persuaded the state legislature to curb the gaming tax, reduce property tax and raise the sales tax. Overall, property taxes fell by an average of 50 percent in one year, and pushed the state's fiscal structure towards the more volatile sales tax. A brilliant move for consolidating power and growing

revenue for gaming—by pushing the revenue burden to other industries, casinos maintain monopoly power by stifling economic diversification while also paying less to the local and state government (Moehring and Green 2005).

Selectively-funded Public Sector

This shift has been named as the direct cause of Las Vegas' infrastructure crisis and chronic underfunding of certain public services and programs. Evidenced in recessions in the 1980s and 1990s, the state's form of recourse, instead of the seemingly obvious tactic of increasing gaming taxes, was to institute wage and hiring freezes, force public servants to sacrifice cost of living increases, cut insurance provisions, and reduce funding for local welfare programs. While Las Vegas casinos earned record profits and saw no increase in gaming taxes from 1993 to 1997, public workers—many of whom earn less than $25,000 per year—saw a cost of living increase of only 1.5 percent per year, while the cost of living rose 16.6 percent during that time. Similarly, underfunding of Medicare and Medicaid has adversely affected these populations. Nevada remains one of eleven states that do not fund adult heart or liver transplants, prompting some physicians to call the state's medical guidelines "draconian" (Rothman 2003, 85).

Schools are similarly chronically underfunded. As the casinos grew, populations skyrocketed. Brian Cram, a former Superintendent of the Clark County School district, estimated an influx of 12,000 to 14,000 new students per year in the late 1990s, warranting a new school every month for the next five years. Not only did Cram not meet this minimum necessity, but also he struggled to find the funding to provide salaries for teachers by 1999. Part of this problem lies in Nevada's school funding structure. School districts have difficulty committing to long-term investments as they are mostly funded by bonds, which require public approval every few years. Sales and property taxes play a small role in funding, and casinos balk at any slight increase in taxes that would benefit schools. A one percent room tax increase in 1998, of which only a portion of the $30 million raised annually would go to schools, was met with significant resistance (Gottdeiner 2000).

Clark County School District (CCSD) is so chronically underfunded that local administrators have made their budgeting fully transparent, publishing an interactive website that lists where every dollar goes in an effort to raise awareness. Their website lists the following facts: CCSD spends half what districts similar in size and demographics spend. The district spends less per student than the other top five districts in the country, and is 78th lowest in per-pupil expenditures of the top 100 districts. Compared to other counties in the

state, CCSD has the second highest student to administrator ratio—316 students per administrator (Clark County School District 2016).

In contrast, casino-related transit and services remain robust. Clark County built four elevated pedestrian walkways at the Tropicana Avenue intersection in 1994 (Miller 2000b). By 1998, a similar system of walkways was half-completed at the southwest corner of Flamingo Avenue and Las Vegas Boulevard, making it possible to easily walk from Caesar's Place to the new Bellagio or Bally's (Miller 2000b). A mile-long monorail connecting Bally's and MGM Grand, and the Strip to Fremont Street downtown, had been completed in 1995—although it was funded by tax-exempt, state government-backed bonds, after significant opposition from locals against a railway that would only be used by tourists.

There were plans to expand the monorail to connect all the major Strip resorts to McCarran International and the Vegas Convention Center. In 2001, Governor Kenny Guinn announced a new $650 million monorail project 'to get Las Vegans out of their cars' and improve air quality. The Federal Transit Administration gave its approval in 2003. All the big casinos pitched in to fund four miles of the monorail. The Regional Transportation Commission considered funding a two-mile extension to the airport (Land and Land 2004).

In an interesting turn of events, which illustrates both top-down political capture as well as an extra-legal method of exerting this power, Adelson

strongly opposed the monorail, because it bypassed his hotel, the Venetian, while also facilitating travel to the Las Vegas Convention Center, his major competitor for the Sands Convention Center. His novel gambit was to use a small front group, the Nevada Environmental Coalition, to retain 'independently' his law firm of Patton Boggs to sue for a potential violation of the Clean Air Act (Binkley 2009).

A strong theme in much of the development of casino-related transit is privatization—allowing casinos to bypass the public completely. Clark County gives broad leeway to casinos to build and develop the land as they deem beneficial for business. A three-year contest ensued over the construction of a second system of walkways at the southwest corner of Flamingo Avenue and Las Vegas Boulevard, making it possible to easily walk from Caesar's Place to the new Bellagio or Bally's. Wynn petitioned the county to give him air rights so that he could build his own monorail linking the Mirage to the Bellagio, but bypassing Caesar's Palace (Gottdiener 2011).

McCarran International Airport

Although the industry's historical tight-fisted control over policy and spending has come at the expense of certain public services, others have flourished. Not surprisingly, McCarran International Airport is strongly supported by the gaming industry, and as a result, is one of the best-

developed airports in the world. McCarran has the longest airstrip in the United States, boasts four runways, and is the eighth busiest airport in the world. The gaming industry has left its mark, installing 1,200 slot machines in the airport. Efforts to expand the airport over the decades have had overwhelming support (Earley 2001).

Similar to San Diego, Las Vegas' airport was initially developed by the Air Force in tandem with local government. In 1942, the airport was first established in proximity to Nellis in order to facilitate the military, while also allowing joint use with commercial and cargo planes to serve civilians. In 1948, as the power of the military waned and ushered in casino dominance, the airport was moved closer to Las Vegas Boulevard. The airport was renamed for Senator Patrick McCarran in 1949 after his successful lobbying for federal funds for expansion (Parker and Feagin 1992).

In the 1970s, with the deregulation of airlines, and the approval of McCarran International Airport for international flights, the volume of tourists increased exponentially. In 1980, a $1 billion, twenty-year expansion project was announced. This required only $300 million in bonds, as the rest was allocated from public funds, airport fees, and taxing the gaming industry—a tax the industry did not fight against. While the billion-dollar expansion was important to the industry, it did not necessarily directly benefit locals. Only 10 percent of all airport traffic was from locals. While McCarran had passenger

traffic by the 1980s similar to Houston or Boston, the city, with only 600,000

residents, disproportionately drew from its residents to support airport growth

to meet the volume of tourists entering each year (Schumacher 2012).

Airport expansion grew, mainly unfettered, well into the 2000s, allowing

for cargo traffic, small private planes, jumbo jets, and flights from all over the

world. In order to accommodate airport traffic, Interstate 15 was expanded to

facilitate travel into Las Vegas. In general, the airport's decades-long

expansion serves as an ideal case for public projects expansion. The

cooperation of industry and politicians facilitated nearly seamless growth.

McCarran International Airport is an example of how aligned interests between

industry and government can create exemplary public works.

San Diego

The military is a unique industry, as it is an entity of the federal

government. As a result, there are limitations to the degree of direct top-down

involvement the military can have in local politics. One major distinction

between the military and other industries is that the military cannot donate

money to political campaigns in order to influence local politics. However, as

an entity of the federal government, the military can exert power in a way that

no other industry can. The military has, at times, simply taken what it wants by

overstepping its reach as a federal entity. In the 1980s, the Navy appropriated

land in Balboa Park for Naval Hospital expansions, ignoring public officials and voters, exemplifying path-dependence and lash-up theory. Similarly, the battle over the Aspire Center, and the rally around the flag language used to garner support, illustrates an appeal to emotion and loyalty.

Balboa Naval Hospital

Balboa Park was one of the earliest concessions made to the Navy. Provided by Kettner in the original land provisions to the Navy, it was key in moving the western Naval Headquarters from San Francisco to San Diego, and had an overwhelming 99 percent of the public's support. As it was too far from the ocean for naval exercises, the land was instead used first, in 1917, as basic training grounds. In 1922, the first of the hospital buildings were erected (Bennett 2012).

As the World Wars continued, Navy support was at a fever pitch, and voters supported land concessions in 1925, 1928 and 1937. At that time, the federal government spent millions on building out the hospital in support of military efforts. In 1938, anticipating possible voter resentment of additional land concessions, the hospital's commander, Captain Fred Porter, warned citizens that Los Angeles and San Pedro were offering to build Naval Hospitals as well—feeding into the city's fears of again being beaten out by their larger and more established sister city to the north, as they were for the railroad

(Bennett 2012). Almost in tandem, Rear Admiral Sinclair Gannon provided the carrot for Captain Porter's stick, stating that "Every million or two dollars spent by the Navy here is good insurance that the Navy will stay in San Diego" (Amero 1990). Voters summarily approved concessions in 1939 and 1940—although by smaller margins. It was also at this time that the Navy began paying to lease the land, and that clauses were included to revert the lands in Balboa Park to the city if the Navy did not use them for hospital purposes (Bennett 2012).

The controversy over the Naval Hospital had its beginnings in 1972, when San Diego's congressmen, Bob Wilson and Lionel Van Deerlin, suggested moving the Naval Hospital out of Balboa Park. Navy officials had indicated that the existing compound did not meet patient care and current earthquake-proofing standards. The hospital was overcrowded, with an estimated 1,800 to 2,000 actual patients in a compound allocated for 1,000. City officials jumped at the idea of reappropriating park lands for public use. In 1973, an architectural firm hired by the city recommended three sites: one near an existing Veterans Hospital in La Jolla, one near the Scripps Clinic in Torrey Pines, and a 103-acre parcel in Murphy Canyon Heights (Amero 1990).

Initially, the Navy approved the Murphy Canyon site. Naval Engineers and local architects ran a comparative analysis of Murphy Canyon and Balboa

Park, finding that building a 1,200-bed hospital in Murphy Canyon would cost

$221.9 million, and $259.9 million in Balboa Park. Also, the Murphy Canyon

land allocation had 64 more acres, allowing for expansion. Finally, the Murphy

Canyon facility would take three years to build, while the Balboa Park hospital

was estimated at nearly five years. However, after meeting with Congressional

resistance, the Navy scrapped plans for the Murphy Canyon facility and

instead, thought it easier to push for Balboa Park expansion, as there was

already a facility that could be repurposed on-site. Part of this parcel was the

Florida Canyon Nature Preserve and similarly protected park lands (Amero

1990).

The City Council debated the new plan heatedly, voting multiple times,

but failing to pass the motion each time. In September 1977, the Navy

threatened to seek authorization to seize the land it wanted by Congressional

order. During this time, the Murphy Canyon land became unusable, as parcels

were sold for housing developments. It is also at this time that the debate

found its way to the people. In 1979, the citizens of San Diego had their say,

and the measure fell short of the two-thirds required to pass—only 61 percent

of voters approved the hospital expansion. While this was still a majority, it

was a far cry from the 99 percent support the Navy was accustomed to

(Amero 1990).

At this time, Representatives Wilson and Van Deerlin, who had proposed the original move, stated that these votes were meaningless, as "the federal government could just take the land anyway" (Amero 1990, 7). True to their words, Secretary of the Navy Edward Hidalgo asked for, and received, federal approval of a condemnation of the lands in Florida Canyon and the awarding of possession of said lands to the Navy. While this condemnation listed which lands would be taken by the Navy, it provided no guidelines on how the city was to be compensated. In a last-ditch effort, the City Council approved a proposition for 56 acres in Helix Heights, but this was turned down by Secretary Hidalgo in 1980. As they had little recourse, the City Council did what it could, and approved, six to three, a resolution calling on the President of the United States and Congress to reverse the decision (Amero 1990).

On July 15, 1981, Secretary of Defense Caspar Weinberger reaffirmed former Secretary of the Navy Hidalgo's decision. In exchange for 35.9 acres of Florida Canyon, the Navy agreed to give the City 39 acres of Balboa Park to reimburse the City for the costs of moving a city-owned nursery from the canyon, to remove any buildings on the old site requested by the City, and to landscape the vacated land. The Navy would retain 35.6 acres of the old site and surgical building number 26, built in 1957. Superior Judge Edwin Butler, on March 25, 1982, decided the Balboa Park land exchange between the

federal government and the City of San Diego was proper and need not be approved by the voters of the city (Amero 1999; Lindsey 1981).

While a valuable illustration, the Balboa Park example takes place over 30 years ago. Since that time, the military's clout, both locally and federally, has changed. Although not yet outpacing the military, San Diego's economy has diversified, with tourism and tech sectors growing. According to the theory of path-dependence, we would find that the political and structural lock-in would make it difficult to break the region of military dominance, even in light of regional economic diversification and the decline of military clout over domestic matters.

As the domestic economic power of the military begins to wane, the industry exercises its power in what appears to be a bottom-up method. That is, if something is undesirable to the industry as a whole, soldiers, veterans and their families rally to provide industry support. However, this does not occur in a natural, democratic fashion. These individuals are carefully indoctrinated by their industry in a way that no economic entity is able to. In essence, barring direct top-down control, the industry capitalizes on its ability to rally supporters.

Cultural isomorphism is an overt act in training military personnel. DiMaggio and Powell (1983) lay the groundwork for understanding and empirically testing concepts of isomorphism. Isomorphism is the

homogenization of organizational and political culture and institutions by the entities within an industry—in this case, the defense industry. Hawley (1968) defines it as a process of overt or covert constraints that forces one unit in an organizational field to resemble other units that face the same environment. This institutional indoctrination is precisely what military boot camp and top-down structure are built to instill.

Aspire Center

This form of coordinated bottom-up mobilization, based on institutional indoctrination, was demonstrated in the early 2010s regarding a debate over building a VA transition home for soldiers suffering from post-traumatic stress disorder (PTSD). The Aspire Center is a new approach to treating veterans, meant to be a transition home for 40 young veterans of the Iraq and Afghanistan wars. The $33 million to build the facility would come from federal Veterans Administration funding, and the center would be the first of its kind.

The facility would be located in Old Town, near heavy tourist areas and Old Town Academy, a charter school for 300 children ranging from five to 14 years old. Opponents, including the Mission Hills Town Council, Five Points/Middletown Business Association, and Old Town Chamber of Commerce believed that it violated city zoning laws and is too close to residential neighborhoods and to schoolchildren who may be put in harm's

way if any violence were to spill over from the center. In 2012, 196 parents at the school signed petitions stating that they would withdraw their children from the academy if the Aspire Center opened. As charter schools are funded on a per-pupil basis, losing nearly two-thirds of its students would cause the school to close (Uptown Planners 2013)

At the June 26, 2012 City Council meeting, both parties met to discuss the conditional permit prior to a City Council vote. At this time, both parties outlined their cases. The opponents, represented by Cynthia Morgan, hired legal council, stated multiple reasons for opposing the Aspire Center. Beyond the fear that potentially violent veterans could pose a threat to the community, the locals were concerned about the effect on traffic and whether such a facility was even zoned for in the area. Local business organization Uptown Planners also sent a representative to discuss the difficulty in placing a care facility in what is mainly a tourist and residential area. Prior to this meeting, opponents had suggested three alternative locations within a half-mile of the proposed facility, but all of these suggestions were turned down and none of them were discussed at the City Council meeting.

What is worth noting is the nature of the arguments presented by both parties and the level of support for the Center by individuals who would never directly benefit from it. As the opponents discussed city ordinances, pushed for site analyses and presented alternative plans, the Center proponents used a

tactic of patriotism to shame any dissenters. Pro-Center speakers dismissed

or did not address the questions about zoning violations, traffic or resident

concerns. Their speakers were mainly a parade of individuals in no way

connected to the Center, including decorated WWII Hispanic war veteran

Robert Cardenas. An indicative example, from veteran Jeff Stinchcomb, "You

may nix this because of some code violation, some detail in the law but don't

nix this out of fear. The men that served with me would give their lives for

every child in this place …" (Hargrove 2012, paragraph 10). A contentious

issue in an election year, the City Council voted to table the issue for 30 days,

in the hopes that the parties would resolve it themselves.

The media that followed saw the issue evolve from a concern about

student safety, environmental zoning laws and traffic analyses, to a pro-

America frenzy fueled by military supporters. Larry Blumberg, Executive

Director of the San Diego Military Advisory Council, went on the air on a

military-oriented radio program to proclaim that the Center opponents were

painting the veterans as a "threat to themselves, children…[calling them]

pedophiles, sexual predators…Children of this school should be baking

cookies for these heroes" (Schlosberg 2012). Similarly, an op-ed piece in the

nationally-distributed Huffington Post, entitled "San Diego's War on Veterans:

A PTSD Controversy," called the opposition 'myopic' and "a slap in the face to

veterans who put their lives in danger to preserve the freedom of that

community" (Nagorny and Pick 2012). None of these articles mention three viable alternative sites for the facility, the potential for traffic problems, or the zoning and environmental code violations.

Other outlets resorted to the now 100-year-old fear that the military would simply pack up and leave San Diego. Los Angeles Times reporter Tony Perry wrote, "Proponents of the center worry that if the City Council turns down the conditional use permit, the VA will transfer the $30 million to a project somewhere else in the country. When a project slated for Miami encountered neighborhood opposition, the funding was transferred to a project in West Palm Beach" (Perry 2012).

The Council reconvened in July and approved the permit for use unanimously (with one member absent). In concessions to the opposition, the Center agreed to black out windows, provide 24-hour security, and to create a council composed one member each from Uptown Planners, the Old Town Chamber of Commerce, the Western Slopes Community Organization, a staff member from the Aspire Center, two parents and one administrator from the school, one representative from the San Diego Police Department, and one representative from a mental health agency.

The largely pro-Center audience applauded the vote at the end of the two-hour hearing in which 44 individuals spoke—a ratio of four pro-Center to each opposition speaker. The second hearing had a drastically different tone

and feel from the first hearing, which was more balanced in representation

from both parties. At one point, Councilwoman Marty Emerald broke down in

tears over the discussion, dedicating the victory to her father's post-WWII

battle with PTSD (City of San Diego 2012).

Even as the power of the military wanes in San Diego, the organization

is still better able to mobilize and exert political power. The city's institutions—

such as the City Council, and currently the Mayoral office—are filled with

individuals who are directly or indirectly related to the military. These

institutions were built with the military in mind, and the momentum of the

choices in the early history of San Diego still shape policy. At play in the

Aspire Center controversy are both cultural and institutional isomorphisms,

exhibited by the public, the media, and politicians.

San Diego International Airport (Lindbergh Field)

San Diego's struggle with its airport illustrates how a conflict of interests

between dominant industry and the public good can lead to outcomes that are

not in the long-term public interest. The deficiencies of San Diego's Lindbergh

Field has been a topic of discussion for over 40 years, yet few advances have

been made, barring temporary patches to create short-term improvements.

The region's long history is studded with failed overhaul attempts, culminating

in the 2006 Proposition A, which was intended to solve the airport crisis once

and for all. Historically, these attempts have been blocked by politicians, homeowners, and the military. In particular, the military plays a strong role in influencing politicians and mobilizing their voter base.

Starting in the 1950s, as commercial jet traffic became more commonplace, discussion concerning the location and limited capacity of Lindbergh Field began to take place. First, there was concern regarding Lindbergh's proximity to downtown and heavily populated areas. Air quality and noise levels depressed real estate markets in parts of the city that experienced heavy flyover rates. Citizens also feared the worst if an accident were to occur, which was realized in 1979 when two planes collided and crashed in a densely populated area.

The limitations of the airport are more than just structural. A developed airport is key for a globalized trade infrastructure. San Diego is situated in a prime location for creating a unique trading hub with Mexico, via Tijuana. In the early 1990s, a bi-national trade conversation developed between the two cities to link the maquiladoras of Mexico with a developed transport infrastructure in San Diego to create a portal to rival those of Seattle or Los Angeles (Erie 1999).

While nearly half of San Diego's trade moves to Mexico, it only comprises eight to ten percent of the regional economic activity, compared to Los Angeles' 15 percent. This is in part due to underfunded infrastructure—

while Los Angeles was anticipated to spend approximately $4.3 billion from 1996 to 2000 on its ports and airports, the San Diego/Tijuana region was anticipated to spend less than $400 million. The current airport lacks the necessary international, long haul and air cargo capacity, even considering the $238 million spent on a new terminal, parking, and access improvements. Ultimately, the airport's small size and single runway can only meet a quarter of current air passenger demand, and approximately two-thirds of air cargo needs. At the same time, projections for passenger demand estimates a 250 percent growth by 2020 for passengers, 400 percent for air cargo, and 244 percent for maritime cargo. If the infrastructure required to accommodate this growth were to be developed, the San Diego/Baja-California region would generate approximately $5 billion in revenue and add 87,000 new jobs to the economy by 2020 (Erie 1999).

Although a compelling argument can be made for developing airport infrastructure, the root of the controversy is that in order to meet these demands, the current airport would have to be relocated. The most viable option is the Miramar Air Field. As this represents a suboptimal outcome for the military, any proposals to move the airport to create a joint facility is met with strong opposition. However, the push for Miramar to act as a joint military-civilian-cargo air facility is not without precedent, as a similar facility exists at March Air Force Base in Riverside, the neighboring county.

Miramar Debates, 1994 vs. 2006

During the BRAC commissions, talks of moving the airport to Miramar culminated in a 1994 advisory vote led by San Diego hotelier Doug Manchester. The vote, which passed with 52 percent support, asked whether the airport should move to Miramar if the base ever became available. During that time, a brief window of opportunity opened as the Navy moved out of Miramar. During that time, the Marines had the option of moving to Miramar or Twentynine Palms. Then-mayor Susan Golding and former United States Representative Randy 'Duke' Cunningham led efforts to keep the commercial airport off the military base, cementing the Marine move to Miramar. After the Marines had moved in, the issue was dropped (Davis 2006).

In 2003, the Regional Airport Authority was created to implement a plan to accommodate anticipated growth of air passenger and cargo traffic to San Diego, which was expected to exceed Lindbergh's capacity. The goal was to have a final implementation plan. Three years later, they emerged with Proposition A. The measure met with lukewarm support, even from local businesses, due to its lack of decisiveness. Ultimately, Proposition A simply posed the question of whether or not Miramar could be *considered* for a potential airport move. Scathing op-eds by supporters called it 'doomed,' and

'indecisive' and called the RAA members 'weak and accommodating' (Davis 2006).

How did this happen? A politically sensitive BRAC year, Miramar had been short-listed to be either closed or to at least have funding reduced. According to Rob Davis of the Voice of San Diego, the potential political backlash from local elected officials, should the measure pass, led to the RAA being silenced by then-mayor Dick Murphy, State Senators Barbara Boxer and Dianne Feinstein, five congressmen, and 12 state legislators. The local military leaders of Miramar were concerned that if a viable measure of using the space were approved (i.e., by a joint-use airport), the base's fate would be sealed. By the time the measure reached voters, it would have been inconsequential even if it had passed (Davis 2006).

Even so, military opponents to the move were vocal and influential. The public face of the military-industrial lobbying interest is Gerry Nifontoff, who was named a finalist in The San Diego Daily Transcript's 'San Diego Top Influentials of 2009.' His role is as a mediator between government, industry, and military. During the Proposition A debates in 2006, he participated in a forum hosted by then-Councilman Kevin Faulconer for the opposition to the initiative. The forum, hosted by Point Loma People for Progress, was described by local news as 'heated,' as Nifontoff called certain statements by the Regional Airport Authority's representative William Lynch 'bogus

assumptions,' and Lynch said Nifontoff's assertion of the critical role of the Marines in Miramar was 'ridiculous' (Martinez 2006).

The measure's failure was a surprise to no one, and the RAA moved to support and develop a plan for expanding and updating Lindbergh. The military's behavior during this time further supports the top-down theory: politicians were influenced to change the policy's language by military interests. Even when the proposition was being discussed by the public, opposition voter rhetoric largely focused on ambiguous, pro-military language.

In the neighboring county, Riverside, an identical issue was met with open arms. The only difference was that it was more economically beneficial to the military to create a joint-use airport. March Air Force Base had been slated for realignment in 1993. In this case, the local military leadership could do nothing to stop the realignment, and instead pursued an opportunity to utilize the land by creating a joint cargo-military partnership. The military moved swiftly, receiving approval for development for joint-use by the California State Legislature by 1994. Although non-military locals initially opposed the idea, concerned about increased air traffic reducing property values, the plan proceeded. The airfield currently supports cargo and small planes. Overall, close to 1,300 acres have been developed into a business park and plans for a 236-acre medical complex are slowly moving forward (Hidalgo-Wohlleben 2015).

Conclusion

Las Vegas and San Diego have strong public figures from their respective industries who motivate political development. The case studies presented support the elite theory. However, the military adds an interesting facet, as strong community indoctrination is part of the military experience. As a result, there are strong industry ties within the community, and they are better able to mobilize.

In Las Vegas, we observe direct electoral influence via campaign funding, funding for lobbying groups, and direct influence over employees. There is also a heavy hand in affecting infrastructure; casino-related roads and transit are fully developed for the benefit of visitors, not locals. The public service crisis extends to schools, which are underfunded and cannot meet the needs to educate the booming population.

San Diego's military influence has exerted its power for decades. In the 1980s, the military directly exerted power by appealing to federal authorities to overturn decisions made by San Diego. As their economic influence has waned, we still see military interests, but this time under the guise of procurement and defense-related lobbying interests. Interestingly, the strong community built by the military has proven to be a lasting force for helping military interests. As illustrated in the Aspire Center example, military-related

locals are better able to mobilize and spread information, as they have pre-

existing channels of communication.

Chapter 6: Conclusion

A short explanation of the goal of this dissertation was to answer the question 'Who governs?' An extension of this statement that describes this research is, 'Who governs in a single-industry region?' and a still further extension is, 'Who governs in a single-industry region when that industry is the military?' In answering these questions, I explore empirical and qualitative evidence that trace a causal pathway from the turn of the previous century to today.

In order to do so, I first establish a background and understanding of this research in the context of existing literature. What we find is a disconnect between the studies of democracy and democratic outcomes at the local level, and the study of the military and its influence at the federal level. Particularly compelling is that our studies of political capture by the military have largely discussed the federal-level impact, even though spending is highly localized. That is, the level of analysis does not match the level of impact.

At the federal level, there is much empirical evidence and game theoretical discussion about the role of the military, industry, and Congress in allocating defense funds. Discussions of iron triangles abound, and the military is perceived as receiving special treatment, not only as a significant source of funds, but as a representative of a federal entity, rather than local. It appears

at this level, there seems to be no question of the impact of the military on decision-making or as a recipient of kickbacks and preferential treatment.

Also, this level of analysis assumes the direction of causal impact. By framing the discussion from a top-down viewpoint, we miss many necessary players and vital interactions that occur in the lower levels of government, particularly in the local level. We also assume that this implies a stifling of democracy, instead of a shift in the local population.

Case studies at the local-level provide a peek into the intricate spiderweb of relationships between local governments and the military. Empirical studies of the local democratic process, particularly those that investigate industry dominance, do not take the military into consideration as a special entity. In fact, these studies do not differentiate by industry at all.

First, I establish if there is a relationship between military economic dominance and political and social outcomes, specifically, public expenditures and social capital. In doing so, I also shed some light on the local-level literature that attempts to tease out this same relationship. By focusing on one industry, instead of assuming an identical impact of all industries, I find data-driven evidence of influence. In part, this analysis attempts to set the military-industrial complex as a separate creature from other industries. As a local manifestation of a federal body, and often exempt from the legal requirements of private industry, the military is a unique creature that can take liberties other

industries cannot. This hypothesis is fleshed out in the case studies, but its empirical roots lie in this first analysis.

I use a pooled fixed effects model to establish same-year effects. Public expenditure was systematically lower in strong personnel-dominated areas, but not procurement. Social capital was more difficult to determine from this model. The coefficient values in the model were not as informative as they were for public expenditures, as the social capital measurement was an algebraically reduced linear combination of coefficients. As such, there seemed to be some impact of personnel (still not procurement, however), but it was not easy to decipher.

Random forest models were used in a pure predictive fashion to estimate whether prior-year military spending predicted future-year social capital and public expenditures. This model balanced the fixed effects model, as it can show predictive capabilities but has little insight into variable impact, beyond a simple measure of an improvement in RMSE. These models showed support for the hypotheses that military personnel spending have a lasting impact on social capital and public expenditure.

Once established, we investigate why this happens. As mentioned above, the literature on iron triangles and economic control began by assuming the causal pathway—economic dominance leads to industry

controlling political outcomes. Instead, I introduce the possibility of a different outcome, which builds on the 'Who governs?' literature on pluralism.

My first causal hypothesis, that of elite dominance, assumes that there is political capture. Of importance to most social scientists is that in this scenario, the democratic process is stifled, as citizen preferences are not reflected in policy. This manifests itself in both citizen sentiment and actual spending outcomes. The second hypothesis is pluralism, or bottom-up. The outcomes established in the first part of this work may be a product of a shifting voter base. If a single industry dominates a region economically, its workers may dominate politically. In this case, we do not have a failure of democracy, but possibly a tyranny of the majority.

Establishing causality relies on the external shock of funding changes due to Base Realignment and Closure (BRAC). Congressional committees decided whether certain regions would have increased, decreased, or identical funding in the post-Cold War era. Citizen sentiment data from the General Social Survey (GSS), taken before and after these fiscal shocks, measures the treatment effect of these funding changes.

The GSS measures both citizen support for public spending (such as healthcare and schools) and faith in government. I find no treatment effect for sentiments on public spending, but a treatment effect for faith in government, which supports the elite theory. Citizen sentiments on public expenditures did

not change after the military left or if a region got more military funding, but their feelings on government improved in areas that lost funding. In military cities, policy is controlled by industry; moreover, citizens are aware of this alienation.

An interesting nuance worth future examination is that although citizens feel excluded from the democratic process, they are no less interested in government. This might shed some insight into the mixed findings for the social capital fixed effects model, as that index is an amalgamation of various measures considered to comprise 'social capital,' and is a mix of political as well as community involvement. Therefore, we see political capture and a failure of the democratic process, but it does not make citizens any less interested in politics.

How do we establish external validity of these findings, and, can the path-dependence implied in the predictive and causal models be better understood? Nearly identical in their early histories, both San Diego and Las Vegas present an excellent case study to apply path-dependence. The purpose of this analysis was threefold: (a) to provide evidence that single-economy military towns exhibit signs of industry influence in politics and policy, (b) establish how there is differentiation in how this influence manifests itself by industry and as a function of history, and (c) reinforce the concept of the durability of these established institutions by illustrating that, even as the

power of industry begins to erode, the regional culture and established institutions remain.

Evidence of the first goal is clear from the historical development and political outcomes of the two cities. Whether in local elections, infrastructure policy, or tax structure, both cities illustrate the long reach of industry. In Las Vegas, the influence is easier to follow as the ease of access from industry to politics can be followed by campaign donations and tax breaks. In San Diego, the military is often limited but is still able to find indirect ways to maintain power.

What is worth noting, and emphasizes the value of case study analyses to understand point (b), is that the manifestation of this power can be totally different, depending on the industry's goals. In Las Vegas, industry is incentivized to have a well-funded and developed airport. As a result, McCarran is one of the best airports in the world. In San Diego, the military has been less incentivized to help develop this infrastructure, as it may compete with their economic stronghold. This leads to Lindbergh remaining underdeveloped and its potential unmet.

In the same vein, although the military cannot intervene as directly as gaming moguls in Las Vegas, the coordination, organization, and funding of supportive political candidates are dispersed. Sites such as defensetracker.com act to rally support by the military for military efforts.

Veteran's organizations are a strong political force in San Diego elections—

veteran support of Kevin Faulconer for Mayor in the 2014 election was called

'pivotal' by the Union-Tribune. Part of their support was based on his former

military service, even though his career path was not military-related. The

efforts to rally Center supporters are similar in vein to Kevin Wynn's

proselytizing to his employees to get out the vote for his candidate. Many of

these military organizers, such as Blumberg, are not simply concerned

citizens—they are on military payrolls and are in leadership positions as

military-civilian liaisons. As such, they act as disaggregated conduits for

military interests.

How can we understand the durability of culture? Although the

military's clout has reduced substantially, the culture of military dominance

remains. It is interesting to create parallels between San Diego's relationship

with the military and Las Vegas' relationship to gaming to their respective

governance structures and relationship with Los Angeles, the regional

hegemonic power. Las Vegas has long benefited from a complementary

relationship with Los Angeles' elites, while San Diego has struggled to

differentiate.

What Have We Learned?

The objective of this study was to provide a deep exploration of the potential for military economic dominance to intertwine itself with the local political and social fabric of a region. In doing so, I also contribute to the existing literature in the following ways.

First, I establish that the metropolitan-military complex is an industry worth understanding as a separate entity from other single-industry regions due to its ties to the federal government. The airport debates in San Diego illustrate an interesting relationship between the military and local government decision-making. On one end, the military's hands are tied, as they are not permitted to directly contribute to politicians, the same way other industry leaders can (such as in Las Vegas). However, they can circumvent this limitation by creating strong federal-private industry ties with procurement-reliant private organizations. These organizations can in turn influence politicians. Balboa Park hospital, indicative of a time when the military had near-unlimited reach, illustrates a clear use of federal power to circumvent local politicians and citizens to achieve their desired outcome. This particular example shows the reader a use of power and influence that no other industry is capable of.

Second, I provide empirical depth to iron triangles/sub-government research, which is largely based on case studies (and therefore difficult to

generalize) and at the federal level. As discussed above, federal level literature uses defense spending as the example to illustrate collusion between industry and politicians. At the same time, local-level discussions of the military influence on development seem to center around case studies, and few empirical studies. What empirical studies exist are often inconclusive, as they treat all industries as having the same impact on local politics. The fixed-effects, random forest, and difference-in-difference models illustrate an industry-specific, local impact of military economic dominance that supports the elite theory of government power.

Third, I focus on a particular industry type to provide more conclusive findings of whether economic dominance affects local politics. First, I am able to utilize a fixed-effects model to show an impact on public expenditures based on economic dominance, something that was not possible in previous research. Second, the case studies of Las Vegas and San Diego demonstrate how economic dominance can manifest itself in many ways. While the hypothesis behind the outcome is the same - that local economic interests dominate policy-making when it benefits them, the manifestation of this outcome can vary.

To dive deeper—in San Diego, we see an underfunded, small airport, while in Las Vegas, the airport is one of the best in the nation. Both of these outcomes are influenced by industry's preferences. It is vital for gaming to

ease travel and transit for tourists, so they have as seamless and enjoyable experience as possible. On the other hand, San Diego's military history does not lend itself to decadence in public appearances. When aviation was necessary for military purposes, the airport was state-of-the-art. Today, this airport is woefully outmoded. There is evidence that the airport's size is unsustainable for future trade goals, the steep ascent required for takeoff is potentially dangerous (e.g., North Park plane crash), and the airport's proximity to prime real estate reduces property values. Yet, the option to move the airport to an area that is considered valuable by the military has met with significant opposition, and often the discussion is ended even before voters can add their input.

Fourth, I test two different causal theories to determine whether economic dominance is actually the result of a failure of democracy, or simply an influx of like-minded voters. One limitation of the top-down analysis implied by the federal literature—that is, the federal government makes decisions that then have a trickle-down impact on constituencies—is that it is assuming the causal pathway. Instead, I question this premise by examining two hypotheses using survey data that tests whether the relationship between military spending, public expenditure and social capital is a function of a stunted democratic process, or whether we are simply seeing demographic shifts systematically manifest themselves in policy outcomes.

Fifth, I provide external and generalizable validity to the empirical findings of path-dependence by comparing two cities with similar early histories that became dominated by different industries. While the random forest models illustrated that a prior year's military funding had some sort of impact on future-year political decision-making, I search the histories of two parallel cities to see if there is support. By comparing Las Vegas and San Diego, both regions with strong military histories, but different modern-day industry dependencies, we are able to see a path-dependent story unfold. This story is particularly interesting because of the oblique ties between the two cities, via Los Angeles. Both regions developed and differentiated in the shadow of industry, but Las Vegas tempered its reliance on the military with its ties (and eventual dominance by) the gaming industry.

Future Research

One of the main contributions of this work was to add to the empirical literature on industry dominance by illustrating that industry-specific impact was possible. An extension of this work would be to maintain the one-industry focus. This study concludes that there is economic capture happening in military regions, but does it translate to other industries? We see evidence paralleling these findings in Las Vegas, but we do not have the empirical analysis that predates the case study for this industry. Similarly, we see this

capture manifesting itself differently between San Diego and Las Vegas, depending on the industry's needs. That is, we can infer that industry is involved with some, but not all, political outcomes. In that case, there may be a significant variation on what part of the political process an industry is involved in (if it is involved), and how that manifests itself.

Another topic of further investigation might be to parse out the true impact of the metropolitan-military complex on social capital. The fixed-effects, random forest, and causal models imply a degree of nuance to how citizen alienation manifests itself. The social capital index assumes politically involved individuals to be also community-oriented. This is common across all measures of social capital. The causal effects model hints otherwise, when the military is involved. Although citizens in regions that saw an increase in military funding acknowledge a sense of exclusion from government, they are no more or less interested in it. In these regions, there might be a polarizing effect of alienation—that is, political involvement might decrease, but community involvement might stay the same or even increase. An aggregate measure such as social capital would not capture this variation.

Similarly, we see a difference in the impact of procurement spending and personnel spending. I speculate that this is the result of a civilian versus military audience. Personnel are indoctrinated into military culture more strictly and formally than individuals who are hired via procurement spending, who

may work at companies such as Lockheed Martin or Boeing. While these individuals are the recipients of federal money from military spending, they may not feel directly linked to military culture, and they may not have the strong network and ties we observe for military personnel. An in-depth analysis contrasting military personnel versus civilian procurement groups might explain why an empirical analysis has different results for each.

A fourth vein of future work is an understanding of local/federal tensions within this form of economic dominance. The military is particularly unique in that it is a branch of the federal government operating as an economic entity at the local level. As shown in the Balboa Park Navy Hospital example, it is possible for the industry to take liberties that other industries cannot. Is it its federal reach that gives it the power to dominate, or is it the nature of the industry itself? How might this differ in other industries that are regulated at the federal level, but manifest themselves locally?

For example, regulation of fossil fuel extraction is developed at the federal level and executed locally. The Keystone Pipeline, for example, has the potential for significant economic upheaval at the local level, but is largely the federal domain. What role, if any, do local politicians have in influencing this industry as it makes a mark on their local economies and social fabric?

Another example is environmental regulation. Based on federal requirements, land use at the local level can be restricted, or federally

protected lands can be deemed 'untouchable.' This impacts local politicians and industry. While industry may have a lobby at the federal level, local politicians and citizens are limited to the voice their member of Congress has. How might this industry, influence local level political outcomes to benefit themselves, given their pipeline to federal officials?

The potential for this work extends beyond the military. It has implications and contributions for applied empirical analysis, development of causal hypotheses of industry and local disenfranchisement, and opens the door for further investigation into other industries, how they influence local politics, and how their political influence at the federal might manifest itself locally.

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