

Should Alternatives to Publicly Funded Policing be Considered?: Evidence from the  
Development and Consolidation of Cattlemen's Associations in Texas

by

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The most basic question is not what is best but *who shall decide* what is best.

—Thomas Sowell, *Knowledge and Decisions*

## **Chapter I**

### **Introduction**

#### General Problem

Economists view property rights as crucial for the establishment and growth of a capitalist economy (Alchian 2008). Many also view the state as necessary for the definition, interpretation, and enforcement of these rights (Alston and Mueller 2005, 573). The view that the state creates and maintains property rights is prevalent because these rights cannot exist without exclusion mechanisms. As Umbeck (1981, 39) states: “ownership rights are based on the abilities of individuals, or groups of individuals, to forcefully maintain exclusivity.” Therefore, when coupled with the notion that the state is a “community that claims the monopoly of the legitimate use of physical force within a given territory” (Weber 1946, 78), a government’s responsibility to provide protection of life and property through the use of coercion seems to follow.<sup>1</sup>

While the preceding definition of the state is standard, governments across the world differ in their ability to impose this monopoly on force (Acemoglu, Robinson, and Santos, 2013, 6). State capacity literature seeks to understand why differences like these exist. Formally, state capacity is defined as “the institutional capability of the state to carry out various policies that deliver benefits and services to households and firms” (Besley and Perrson 2011, 6). As such, research on state capacity focuses on more than simply the extent of a government’s monopoly on force. It also aims to evaluate the state’s ability to provide public goods and services in general.

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<sup>1</sup> See Miles and Stringham, “Eliminating the Perceived Legitimacy of the State” in *Austrian Theory and Economic Organization*, for a discussion about the shortcomings of this argument.



The importance of this research hinges on the notion that a strong state is needed for economic growth to occur. For example, Dinecco and Katz (2014) argue that a state's capacity to tax and provide public goods results in positive effects on economic performance. Speaking specifically to the importance of a state's monopoly on force, North, Wallis, and Weingast (2009, 153) point out that consolidated control of the military under a political system is a common characteristic of developed countries. While these are only two examples, they are representative of the views of most scholars within the field.

Given that government provision of public goods is said to contribute to economic prosperity, it is logical to ask why individuals are incapable of understanding this on their own and organizing to provide goods with collective benefits without help from the state. Olson's work (1965; 1993) on collective action and state capacity attempts to show why voluntary provision of public goods does not occur. He explains that collective action problems persist in large groups and cannot be surmounted without the imposition of force. Further, he explains why the establishment of a government results in increases in production, as individuals are more likely to invest in longer-term projects when they believe they will be protected from external violence. This logic underlies the theory behind much of the state capacity literature and emphasizes that government should be the one to provide law enforcement, among other public goods.

However, much of the literature fails to acknowledge that compelling individuals to contribute to the production of public goods through taxation has costs that may sometimes outweigh the benefits. Broadly speaking, government provision of public goods can suffer from several sources of inefficiency because central planners have less

access to knowledge than individuals operating in markets (Hayek 1945). This knowledge limitation exists because the state has a monopoly on many of the public goods it produces. In policing for example, local, state, and federal officials possess a monopoly on force within their respective jurisdictions. In this absence of competition, government law enforcement lacks a feedback mechanism comparable to prices within a market (Stringham and Zywicki 2011). Without a feedback mechanism other than showing dissatisfaction through the political process or exiting from a government's jurisdiction altogether (an unlikely possibility given the ubiquity of governments across the world today), citizens have little choice but to endure many of the inefficiencies that come with this arrangement. In addition to inefficiency, government provision of policing may also foster corruption as a result of commons problems because individuals have little incentive to economize on their demand for policing services (Benson 1988).

Isolated instances of corruption and other inefficiencies sometimes characteristic of government policing may be seen as minor problems in the developed world where institutions have largely succeeded at keeping these tendencies at bay, but in the developing world where corruption is more common, these problems cannot be swept aside as easily. In some cases, police may begin to prey on citizens so much so that the existence of government, and government police, is actually less desirable than no government at all. Places such as Somalia, where the state was exceedingly predatory before it collapsed, speak to this possibility (Leeson 2007). This example illustrates the difficulty inherent in restraining the power of government-backed police who act as the state's primary enforcers of property rights. Furthermore, research shows that there are

few alternatives available to prevent the state from predatory behavior when the state itself is the primary enforcer of contracts (Acemoglu and Johnson 2005, 951).

As such, examples of voluntary provision of public goods, including policing, warrant more attention. Some of the early work in analytical anarchy (Rothbard 1973 and Friedman 1973) lays the foundation for this approach by asking if law enforcement should be provided solely by the state (Boettke 2005, 208). The economic reasoning behind this argument relies on the fact that few goods are purely public in nature; as a case in point, experience shows that individuals routinely form clubs to provide collective goods (Buchanan 1965).

In addition to this theoretical literature, there is a growing body of research describing instances where private law and order has emerged in the absence of the state. Private law enforcement and courts were used in Iceland from the tenth to thirteenth centuries (Friedman 1979). Primitive legal systems also functioned without a formal state (Benson 1989a). Evidence from the middle ages indicates that merchant law and related enforcement mechanisms emerged in the absence of government (Benson 1989b). In the 19<sup>th</sup> century, claim clubs, cattlemen's associations, mining camps, and wagon trains all administered some level of law enforcement on the U.S. frontier (Anderson and Hill 1979; 2004).

Similar examples lend credence to the possibility of law and order without state-sponsored enforcement mechanisms, but, as Olson's theory predicts, they imply that these institutions will only be successful in small group settings. Greif (1989) notes this problem in his analysis of Maghribi traders in the eleventh century. He explains that the traders relied on reputation and trust, not state-backed law, to ensure cooperation in trade.

However, these mechanisms did not exist outside the group's "religious-ethnic" boundaries, limiting the group's size. (Ibid., 882). A similar, more contemporary example shows how farmers and ranchers in California rely on norms rather than formal laws to settle disputes (Ellickson 1991), but this too is a small group setting in that it only deals with "neighbors." Ultimately, North (1990, 58) summarizes these perspectives when he concludes that private, third-party enforcement mechanisms are not feasible in larger groups because "transaction costs...in such an environment [are] prohibitive."

The previous examples deal with law and order as a whole, but historical examples of private policing, a single aspect of law and order, also exist. Evidence from medieval England shows that community policing occurred before kings gained political control (Benson 1994). The San Francisco Patrol Special Police is one example of a city wide, privately funded policing agency that began during the mid-19<sup>th</sup> century (Stringham 2015, 113-126). During the mid to late 1880s various private detective and protective agencies, such as the Pinkertons, also sprang up in response to ineffective public policing (Benson 1998, 225; Smyrski 2016). Similarly, private railroad police began to grow during this era before becoming permanent within the U.S. after World War I (Benson 1998, 86, 150-151).

While some vestiges of these arrangements endure today, as railroad police in the U.S. have retained their policing powers and the number of private security personnel across the world appears to be growing (Sparrow 2014, 3), the state has tended to coopt or ban private law enforcement over time. Some, such as North, suggest this is a desirable outcome because private, third party enforcement mechanisms are untenable in large groups. Others take a decidedly more pessimistic view by positing public choice reasons

for the dominance of government policing. For example, Benson (1994, 256) notes that the Anglo-Saxon system was coopted by kings who used their power to effectively undermine incentives for community policing by forcing citizens to pay fines as a way to raise revenue. Regardless of the reasons why private policing on the whole has tended to disappear, examining another instance when policing emerged without government provision may provide noteworthy insights.

### Specific Problem

Like the railroad police that emerged in the mid-19<sup>th</sup> century U.S., many cattlemen's associations emerged in the mid to late 19<sup>th</sup> century and remain in existence today. The Texas and Southwestern Cattle Raisers Association (TSCRA) is the largest of such organizations. It differs from similar organizations created in Wyoming and Montana around the same time in that its members chose to fund their own inspectors rather than relying on the government to provide similar services.

As the forerunner to the TSCRA, the Stock Raisers Association of Northwestern Texas functioned much like other cattlemen's associations. This association was among the first to organize in Texas and others like it soon emerged. These organizations were created as a way to internalize externalities stemming from open access to grass and water (Sanchez and Nugent 1994). Furthermore, the cattlemen's associations protected common property rights by providing collective provision of security and regulating the way roundups were conducted (Ibid., 50-54). Rights to water and grazing were often held in common and regulated by the respective association until the introduction of barbed wire and other changes made private property arrangements more efficient (Ibid., 52).

Later on, these organizations engaged in other activities that were complementary to their original purposes, such as disease prevention (*Ibid.*, 50).

Today, Texas is the largest beef producing state in the United States, so it may not come as a surprise that the TSCRA is also the largest state-level cattlemen's association. However, when Texas cattlemen's associations first began to appear in the nineteenth century, they were dispersed throughout the state. Over time, the TSCRA took in non-affiliated members and those from competing organizations, oftentimes admitting other cattlemen's association altogether (TSCRA 2016a). While doing so, the group continued to fund inspectors and expanded its jurisdiction geographically.

TSCRA inspectors serve as a rare example of a group that has retained policing powers in the midst of increasing government control of law enforcement. Today, market inspectors stationed at 115 livestock exchanges across Texas verify ownership and report possible instances of theft, and 30 special rangers (formerly known as field inspectors), who are commissioned through either the Texas Department of Public Safety or the Oklahoma State Bureau of Investigation, investigate these thefts. Rangers perform investigations concerning cattle, horse, and other thefts related to agricultural property along with performing the duties of market inspectors such as verifying ownership through the examination of brands (TSCRA 2016b). Over time, the jurisdiction of these inspectors has grown along with the TSCRA to encompass all of Texas and parts of Oklahoma. This poses problems for those who suggest law enforcement across large groups is untenable without taxation. Further examination of this arrangement is warranted because it appears to be a case in which an organization that was originally

designed to solve small-scale collective action problems has maintained its ability to efficiently solve these problems as its membership has grown.

### Objectives

The objective of the study is threefold. First, building off the work of Anderson, Hill, and Morriss, among others, the narrative will describe a setting where demand for policing exceeded that provided by the state. Next, utilizing insights from the Bloomington school of political economy, the narrative will show how an organization grew in response to economics of scale to efficiently address this deficiency. Finally, adding to the growing literature on non-state solutions to collective action problems, the narrative will provide further evidence that voluntarily funding policing is viable across larger areas and groups than previously thought.

## Chapter II

### Literature Review

#### Inefficiency of Government-Funded Police

The main rationale behind the existence of government, and government funded policing, stems from the existence of collective action problems (Ostrom 1998). Since the benefits of policing are deemed to be non-rivalrous and non-excludable across a community, the economic justification behind government-funded policing lies in the notion that public safety will be underprovided when left up to the market (Boettke, Lemke, and Palagashvili 2012, 3). In other words, the state is said to be responsible for providing public goods, including “peace and security,” financed through taxation, because otherwise individuals are likely to free ride on the contributions of others (V. Ostrom and E. Ostrom 1999 [1977]).

In *The Logic of Collective Action*, Olson (1965, 35) formalizes this notion, stating that voluntary groups are likely to produce suboptimal amounts of a collective good because individuals within the group have limited incentives to pay for a good they cannot be excluded from consuming. In general, he contends that “the larger the group, the farther it will fall short of providing an optimal amount of a collective good” (Ibid.). However, he offers exceptions to this rule. Under ideal conditions, he says that collective goods may be provided efficiently when the marginal cost of producing a good is shared exactly in proportion to the benefits (Ibid., 30). Moreover, he notes that that collective action may result in benefits for all group members when group size remains small or when there is some type of coercion involved (Ibid., 6). According to this theory,



government’s monopoly on force is thus necessary for the provision of collective goods in large groups.<sup>2</sup>

Olson’s theory of collective action relies on Samuelson’s (1954) description of public goods as goods that are not subject to rivalry and not easily excludable (Hardin 2013). Many scholars view policing as a public good because of these characteristics.

Table 2.1 provides examples of different classifications of goods based on their subtractability and excludability.

Table 2.1. Classification of Goods<sup>3</sup>

	<b>Subtractability of use</b>		
		<i>Low</i>	<i>High</i>
<b>Difficulty of excluding potential beneficiaries</b>	<i>Low</i>	Toll goods	Private goods
	<i>High</i>	Public goods	Common-pool resources

Olson (1965, 14) is one such scholar who describes policing, among other components of law enforcement, as a public good that can only be provided by the government and funded through taxation. He states:

The basic and most elementary goods or services provided by government, like defense and police protection, and the system of law and order generally, are such that they go to everyone or practically everyone in the nation. It would obviously

<sup>2</sup> See McCaleb and Wagner, 1985, “The experimental search for free riders: Some reflections and observations,” on why the theoretical plausibility of free riding behavior in the absence of empirical support is not sufficient to justify costs imposed by government intervention to rectify the problem.

<sup>3</sup> Source: Ostrom 2005, *Understanding Institutional Diversity*, 24. Adapted from V. Ostrom and E. Ostrom. 1999 [1977], “Public Goods and Public Choices,” 78.

not be feasible, if indeed it were possible, to deny the protection provided by the military services, the police, and the courts to those who did not voluntarily pay their share of the costs of government, and taxation is accordingly necessary.

Put simply, excluding non-payers is deemed infeasible in the provision of policing precisely because it is too costly across a large group. From this description, it is not clear if policing, an input to law and order, is non-excludable, non-rival (or non-subtractable), or both. According to Table 2.1, which is representative of the general economic literature, a good would need to retain both characteristics in order to be deemed a public good. Woolley (2006, 5) notes that law and order may qualify as a public good when viewed as an abstract concept, but the goods and services that go into producing it are rarely, if ever, pure public goods. In short, it seems that policing, courts, and other components of law enforcement are called public goods because government provides them, not because they actually fit the formal definition.

While much has been written about why the provision of public goods is necessary for development and how collective action problems in the provision of these goods can be overcome through taxation, much of the literature ignores the likelihood that the state's production of public goods may be inefficient, especially when it is the monopoly supplier of a good or service, as is often the case with policing.<sup>4</sup> Though it is doubtful that perfect competition would exist in a policing industry given the positive externalities and network effects present, in all likelihood individuals would have more choices in this setting compared to the government-dominated alternative. Abstractly, if there are non-coercive ways to overcome collective action problems, then these

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<sup>4</sup> Though there are many examples of private police forces at the city level, many of these examples are not truly private because they still receive tax dollars, rather than being contracted out by individuals or groups on a voluntary basis.

alternatives should be considered more efficient, as they do not prevent individuals from joining or paying dues to a citywide police department or national defense agency if these are indeed the most efficient options. Fortunately, optimism exists about the possibility of overcoming collective action problems voluntarily; findings suggest “individuals in diverse circumstances have realized the capability to solve collective action problems through the creative design of rules and the strategic use of social sanctions” (Boettke, Lemke, and Palagashvili 2012, 3).

There are few ways to empirically compare government policing to private alternatives (because so few exist with comparable responsibility), but some manifestations of this inefficiency can still be seen. Benson (1994, 260) stresses that when a service, such as policing, is publically provided it is prone to overuse because individuals do not bear the full cost of using the service. He also indicates that public policing is not a pure public good because the demands of one individual for policing services at any given time inevitably crowd out the demands of others at the same time (Ibid). When these pressures mount, inefficiency becomes apparent, as police must use their own discretion to determine which laws to enforce. This process means that the enforcement of “some crimes are crowded out, receiving very little consideration or none at all, while others consume all the police resources” (Ibid.).

Benson (1988) also describes how corruption, a form of inefficiency that can lead to predation, may arise as a result of the common pool nature of public policing. In this setting, the wide discretion granted to police for which laws they choose to enforce incentivizes corruption (Ibid., 74). In addition, for a variety of reasons, the probability that corruption will be detected is relatively low (Ibid., 75). Incentives for corruption also

grow when entire goods or services are prohibited because police are then presented with the opportunity to allow a black market in exchange for payments (Ibid., 79).

Barnett (1986) offers similar critiques in his description of why government policing will be inefficient and potentially predatory. In his view, the need for public policing stems from ambiguous property rights arrangements, such as public parks and streets, which are said to be owned in common (Ibid., 32). Since these areas are not privately owned, citizens have few incentives to pay for security (Ibid.). In this scenario, the state is then tasked with providing policing services, but funding these services through taxation leaves the state unable to understand or respond to consumer preferences (Ibid.). That is, in the absence of prices, government has no way of knowing exactly what the demand for policing over a given area is.

Building on the work of Hayek (1945), Stringham and Zywicki (2011) share similar concerns. They contend that government law enforcement, including policing, lacks an appropriate feedback mechanism to know if the level of enforcement being provided is in accordance with what people want (Ibid., 5). The absence of prices is the underlying reason why any government will be inefficient in providing public goods. Furthermore, there is little reason to believe the level of inefficiency will diminish over time. Thus, the lack of competition in law enforcement means the optimal level is not discoverable at all (Stringham and Zywicki 2011, 6). This reality has led to further research on how the efficiency of government policing might be improved.

### Polycentric Systems

Study of polycentric systems is relevant to this study because it deals with efficiency considerations in collective action situations associated with the provision of public goods and management of CPRs (E. Ostrom 2008). Much of the research within this field has been focused on the provision of goods and management of systems that exist somewhere in between the strict dichotomy of “the market” and “the state” (E. Ostrom 2010). The cattle inspector-detectives that are the focus of this study fit squarely within this field of research because they first emerged as agents of a private cattlemen’s association, which was created as a voluntary, market-based response to cattle theft. Later on however, the same association was able to have some of their inspectors deputized by the state. Therefore, as the policing service was voluntarily funded by members of the association but also backed by the state, a thorough look at the foundational work within the Ostromian research paradigm is needed.

In one of the first works on polycentric order, V. Ostrom, Tiebout, and Warren (1961) show that in the absence of an overarching metropolitan government, municipalities and other entities are able to coordinate the provision of some public goods more efficiently than a single government. Their analysis indicates that the level of government that can most efficiently provide a single public good differs because efficient production depends on economies of scale and the size of the relevant externality (Ibid., 833). Furthermore, they state that “no a priori judgment can be made about the adequacy of a polycentric system of government as against the single jurisdiction” (Ibid., 838). That is, no judgments can be made beforehand about which configuration of governments will produce a public good most efficiently.

Similar lessons appear in Elinor Ostrom's work focusing specifically on the effectiveness and efficiency of government policing. E. Ostrom, Parks, and Whitaker (1973) question whether metropolitan police forces should be consolidated. Their first study compares the city of Indianapolis, where policing was centralized, to smaller, adjacent jurisdictions that were not consolidated (Ibid., 424). They find that "smaller police departments can provide higher levels of service than larger departments and high degrees of specialization and professionalization are not required for effective police services." However, they note that large police departments seem to be necessary for providing technical services, such as crime labs (Ibid., 430). They conclude that neither strict centralization nor complete decentralization are likely to be the most efficient way to organize police departments in a metropolitan area.

Further work by E. Ostrom (1976) examines whether policing is subject to economies of scale like other public goods, such as supplying water and electricity. As North (1990, 58) claims, such economies of scale are one reason why the use of coercion should be centralized in government's hands. Ostrom's inquiry casts doubt on this assertion based on the fact that there are many different functions performed within police departments themselves. Echoing sentiments from Ostrom, Tiebout, and Warren (1961), she also makes clear that simply because a local government has jurisdiction over a particular area does not mean a single police force is inherently the most efficient way to police the area (E. Ostrom 1976, 9).

Though the notion that efficiency may increase when more governments are involved in the provision of a public good may seem counterintuitive, polycentricity shows that "market-like mechanisms can develop competitive pressures which tend to

generate higher efficiency than can be gained by enterprises organized as exclusive monopolies” (V. Ostrom and E. Ostrom 1999 [1977], 90). That is, governments may be incentivized to provide public goods with some level of efficiency if these governments know citizens have the option of moving and taking the government’s tax base with them. Nonetheless, polycentric governance structures may still be inefficient in the provision of public goods compared to market mechanisms because government remains the monopoly provider of force and is insulated from private competition.

Recognizing this reality, Boettke, Coyne, and Leeson (2013) aim to move the debate from questions about the efficiency of government centralization compared to decentralization to a discussion on whether local governments should provide so called “public” goods at all. They contend that many locally provided public goods share more characteristics with private goods than goods exhibiting wide degrees of publicness, such as national defense. They substantiate their claim by pointing out that homeowners associations and gated communities are examples of organizations that provide collective goods voluntarily (Ibid., 25).

The recognition that law enforcement will be inefficient in nonmarket settings does not go wholly unnoticed within the Ostromian research program. As E. Ostrom and V. Ostrom (1999 [1977], 84) note, compulsory payment of taxes reveals little information about preferences for public goods other than signifying that an individual does not want to go to jail. However, the Ostroms and others within this research program do not investigate this cause of inefficiency with respect to policing to any significant extent. In other work, E. Ostrom et al. (1999) emphasize that in addressing any resource management dilemma, an emphasis should be placed on avoiding the dichotomy between

state and private ownership. However, somewhat contradictorily, similar claims about the provision of policing are not made.

On one hand, the lack of research on market-provided policing within the Bloomington school may simply be the result of a belief that government is the only legitimate and effective provider of policing, since it is viewed within this research program as a public good (V. Ostrom and E. Ostrom 1999 [1977], 78). On the other hand, it seems curious that alternatives to government provision have not been explored given that individuals have demonstrated an ability to solve collective action problems in CPR situations through community-based rules and norms (E. Ostrom 1990, 45; Boettke, Lemke, and Palagashvili 328). Another possible reason voluntarily-funded policing has not been explored within this research program may be because examples of CPR governance are far more accessible and numerous than examples of market-based policing, which does not exist to the same extent, especially over large groups. Nonetheless, insights from examples of successful CPR self-governance are relevant for understanding voluntary solutions to any collective action problems, including the provision of policing services.

Overall, the fieldwork E. Ostrom conducted on CPR governance has broad implications for where decision-making power in collective action situations should be concentrated if efficient outcomes are to be achieved. Similar to Hayek's (1945) expression of the knowledge problem facing government planners tasked with allocating private goods, her work demonstrates how imperfect information in the hands of central regulators can lead to costly errors (E. Ostrom 1990, 10). These conditions may similarly apply to government policing, making it difficult (if not impossible) to determine what



amount of policing citizens desire in the absence of prices. To confront these problems, Ostrom posits that resource users themselves should be allowed sufficient scope to create and enforce their own rules (Pennington 2013, 457). Boettke, Lemke, and Palagashvili (2015, 319) summarize the perspective in this way:

Leaving decisions about resource use up to individual actors allows people to utilize knowledge that is only locally available, resulting in a more efficient allocation of resources than could be achieved through central direction of the same resources. This process reveals information about the value of employing resources in alternative capacities that would otherwise remain hidden. Further, nobody needs to understand any other person's valuation of a resource; they need only observe their willingness to pay.

This principle for successful CPR management shares a strong commonality to ideas found in the study of robust political economy. Both perspectives emphasize benefits that come from bottom-up governance, where those closest to collective action problems are allowed the freedom to solve the problems first, rather than resorting to coercion imposed from outside a community (Pennington 2013). While Pennington (Ibid., 453) makes clear that analysis in either framework does not necessarily lead to the normative conclusion that private ordering is superior, both perspectives share the view that "it is only in observing the voluntary choices of human actors that the efficiency (or lack thereof) of a transition to a particular institutional arrangement or the production of a particular public good can be evaluated" (Boettke, Lemke, and Palagashvili 2015, 325). This subjective foundation for evaluating efficiency must remain at the forefront when evaluating the possibility of scaling-up local solutions to confront larger collective action problems. On this note, McGinnis and E. Ostrom (2008, 207) conclude that any solutions to collective action problems must be looked at from a creative institutional perspective that is not reliant on a one-size-fits-all approach.

While emphasizing that the successful provision of many collective goods falls between the strictly private or public dichotomy, V. Ostrom and E. Ostrom (1999 [1977], 82) share the sentiments of North, Olson, and others who stress the idea that law enforcement cannot be supplied voluntarily outside of small groups and must be financed through taxation as a result. While they undoubtedly seem to consider “peace and security” a public good, V. Ostrom and E. Ostrom also note that when “jointness of consumption is accompanied by partial subtractability,” problems uncharacteristic of pure public goods arise (Ibid., 17). Previously mentioned work by Benson (1994) shows how this characteristic of government funded policing makes it more like a CPR than a public good. Building on this notion, alternatives to government-only provision of policing must be looked to as a way to minimize inefficiency.

In response to this problem, Stringham (2015) asserts that market alternatives may be able to provide collective goods traditionally thought of as pure public goods, including policing. This idea contradicts much of the economic literature that claims collective goods must be provided by the state because excluding free riders is infeasible outside of small groups. Stringham provides more support for voluntarily provided law and order when he argues that clubs can offer members more choices than an ordinary governance structure. In addition, he notes that competition between clubs encourages clubs to find new ways to solve problems while receiving feedback about their success based on their ability to attract new members (Ibid., 22). Stringham also underscores the notion that reliance on clubs is not meant to imply that the optimal level of governance should be completely decentralized or only provided at the local level. Instead, the size of

any governance system should be determined voluntarily by members who validate a club's ability to efficiently cope with externalities through exit and entry (Ibid., 25).

### Examples from the American West

The theoretical viability of private policing mentioned above is backed by practical examples. Some of these examples come from the American frontier during the mid-to-late 19<sup>th</sup> century when government-provided policing was relatively sparse and largely ineffective. As this historical setting is also the focus of the narrative that follows, it is necessary to explore some of these examples in greater detail.

One of the best examples of voluntarily provided policing during this era is the San Francisco Patrol Special Police. In this case, Stringham (Ibid., 114) says that the private provision of police occurred around 1850 because no suitable local government police force had emerged. While some theorists predict “that policing is nonexcludable and impossible to charge for (Landsburg 2010, 467, Lipsey and Chrystal 2007, 278), policing is often bundled with real estate” and provided privately (Stringham 2015, 114). The evidence from San Francisco corroborates this notion. Apparently, businesses that hired private police internalized the cost of policing by pricing it into the goods they sold (Ibid., 114-115). Unlike most examples from this era, this force is still in operation today even though it has been subject to considerable regulation (Ibid., 120).

Claim clubs are another example of groups that provided law and order in the American West. While they are a more general example of private law enforcement and did not provide policing in every instance, they remain essential to note. Anderson and Hill (1979; 2004) provide evidence that these organizations may be some of the best

examples of private governance over a large geographic area. They emerged because local and state governments were very limited in their capacity at the time. Anderson and Hill's research shows that different claim clubs in mining, ranching, forestry, and land settlement emerged to provide and protect property rights in the relative absence of formal government. Not only did these organizations provide rules and regulations for making claims on property and using resources in a commons, they also served as arbitrators for disputes among members. Murtazashvili (2013) sheds further light on these claims by explaining that these clubs operated somewhere between a full-fledged government and a strictly private system. The clubs' use of coercion to restrict membership and, in some instances, to collude, may serve to undermine arguments in favor of strictly voluntary law enforcement (Ibid., 218).

Within the realm of claim clubs, a more specific focus on cattlemen's associations shows that they are some of the longest-lasting, private-law-providing institutions to come out of the era. Anderson and Hill (1979, 17) signify that these market-based governance systems differ from present day private police in that they oftentimes created their own rules and enforced them, rather than simply enforcing rules that were already in place. Most of the research on how these organizations enforced property rights correctly portrays them as voluntary institutions, but in instances where they gained near complete control of government, they acted much more coercively.

Morriss (1998) gives evidence of this coercion in his comparison of the development of cattlemen's associations in Wyoming and Montana. In Montana, individuals who owned large amounts of cattle did not have many conflicts with those who conducted smaller operations (Ibid., 663). However, cattle and horse theft was still a

major problem just as it was elsewhere on the frontier. To solve this problem, a group led by Granville Stuart hung fifteen to eighteen suspected rustlers during July and August 1884 (Ibid., 664). Little public outcry occurred as a result, indicating that their efforts were supported by many within the community (Ibid., 665). Thus, the rules-in-use prohibiting rustling in this instance were well known throughout the community, whether formal government agents enforced them or not. Later in the year, legislation was adopted to explicitly protect the cattle industry from thieves by levying a tax on cattle, horses, and mules in order to provide funds for a livestock board which employed stock inspectors (Ibid. 666).

Compared to Montana, cattlemen in Wyoming did not exhibit the same level of voluntary cooperation when combating rustling, though they too established cattlemen's associations. Whereas in Montana ranching, mining, and farming were all prominent activities, Wyoming was primarily a ranching and railroad-based economy (Ibid., 667). This meant that Wyoming cattle kings had the most political clout of any group within the territory. They used their clout to lobby the legislature to make their organization, the Wyoming Stock Growers' Association, the controller of roundups. In doing so, they effectively excluded smaller producers from participating in roundups which meant any mavericks (or unbranded cattle) found on the range went directly to the members of the organization (Ibid., 668). In 1888, after it was discovered that stock detectives employed by the Association were being paid out of county taxes, a livestock commission was created, though the Association still maintained significant influence over inspectors under this structure (Ibid., 668-669). Evidently, the association and its now quasi-employed inspectors were not viewed as credible by the public, because large ranchers

were unable to obtain many convictions for cattle rustling (Ibid., 671). As tensions boiled over between cattle kings and so-called rustlers in 1892, the Johnson County War occurred. Rather than targeting a relatively small group of confirmed rustlers as was the case in Montana, this outbreak involved sporadic killings that did not receive much public support at all (Ibid., 672). Overall, the violence in this instance should be attributed more to the association's possession of a monopoly on force obtained through the state rather than any deficiency in private ordering (Anderson and Hill 2004, 152).

### Summary

The state's monopoly on violence is seen as necessary because of collective action problems. However, this monopoly on violence also renders government policing inefficient. Polycentricity shows how competition between different levels of government can mitigate this inefficiency but not eliminate it altogether. Similarly, insights from CPR management suggest that efficient solutions to collective action problems emerge when local actors closest to the resource retain the ability to decide on the optimal management regime.

The ability of individuals to solve collective action problems in CPR settings serves to highlight the possibility that other collective goods may be provided without coercion. In such a scenario, some argue that market-based alternatives to government policing might emerge. This method of provision would minimize inefficiency because individuals would be able to articulate their preferences in a market for protection services rather than relying solely on government. Historical examples confirm that

private policing is economically viable under the right conditions and indicates that more research on similar arrangements across larger groups is needed.

### **Chapter III**

#### **Conceptual Framework**

As the narrative that follows deals primarily with a collective action situation, a conceptual framework designed for analyzing this type of situation is needed. One such framework, the institutional analysis and development (IAD) framework, created by Elinor and Vincent Ostrom, serves as the building block for the framework developed within this paper. The IAD framework is used to show “how rules, physical and material conditions, and attributes of community affect the structure of action arenas, the incentives that individuals face, and resulting outcomes” (V. Ostrom and E. Ostrom 2014 [2004], 81). Originally conceived of as a way to evaluate the efficiency of public administration and metropolitan governance, the IAD framework has also been used to understand how individuals cope with CPR dilemmas (Ibid.). In addition, scholars have used the IAD framework to study collective action problems across a wide variety of settings (Ibid., 85). As such, I will rely on an altered IAD framework to assess club-level collective action that resulted in the voluntary provision of policing.



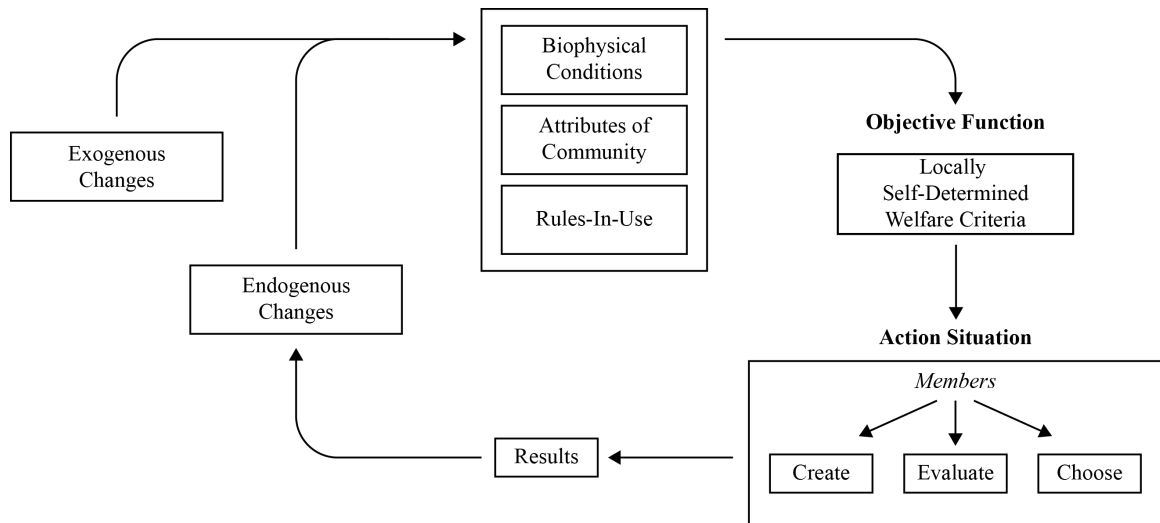


Figure 3.1. Modified IAD Framework<sup>5</sup>

The framework for the analytic narrative that follows appears above in Figure 3.1. First, within this framework, it is important to make assumptions that are consistent with the real world. Rather than adopting assumptions of *homo economicus* where individuals have well-ordered preferences, possess complete information, and always act to maximize monetary returns, actors in this framework are conceived of as facing limitations associated with bounded rationality. This means that finding information is costly and the ability of an individual to process this information is limited (Ibid., 71). These assumptions imply that individuals may make mistakes when choosing strategies designed to achieve specific goals (V. Ostrom 1986). Individual actors are not restricted to making these mistakes however, because over time they can learn more about the situation they face and adopt different strategies accordingly (V. Ostrom and E. Ostrom 2014 [2004], 71).

<sup>5</sup> Adapted from E. Ostrom 1999, 42.

One element of the modified IAD framework is the set of biophysical conditions. This is essentially the degree of excludability and subtractability of a good or service dictated by physical and material conditions within the world. The way goods are defined based on these characteristics is mentioned above in Figure 2.1. The size of a resource or the size of a collective good, is also an important aspect of this variable which impacts the incentives facing individuals (Ibid., 79). In the narrative, the introduction of barbed wire is an example of an exogenous change that altered the biophysical conditions facing the members of the association. The vast amount of rangeland required for cattle ranching is another important biophysical condition. This condition is one reason cattle rustling remains a problem today, as it is difficult to constantly monitor cattle across a large area.

Attributes of the community are another crucial element within the framework. This element may have some overlap with rules-in-use, but it also has its own distinctive features. Attributes of the community relevant to this analysis include norms of behavior, similarity of preferences, social capital, and the size of the organization. The number of members within the association is an especially important part of this element because it is useful for showing how the association voluntarily scaled-up to meet the needs of members as time went on.

Rules constitute the final element within the framework and can be defined as the “shared understandings among those involved that refer to enforced prescriptions about what actions are *required, prohibited, or permitted* (emphasis original)” (Ibid., 74). In the narrative that follows, rules-in-use consist of norms and laws that existed prior to the creation of the association, rules that were created by the association, and legislation that

was passed throughout the life of the association. The most prominent rule-in-use were the prohibitions against horse and cattle theft.

An additional feature of this IAD framework, compared to those it is modeled after, is the introduction of an objective function in the form of locally self-determined welfare criteria. The addition of this element to the framework helps emphasize the importance of the preferences held by those closest to the collective action problem, a theme that is common throughout much of the CPR literature. In this situation in particular, the criteria refers primarily to the choices individuals made through a vote at the county level to opt out of paying taxes to fund state-backed livestock inspectors. This element helps show how the TSCRA inspectors were more efficient based on demonstrated preference.

In this situation overall, the primary avenue for solving collective action problems amongst cattlemen was annual or biannual meetings of the association. The action situation within the framework details how policies were created, evaluated, and chosen at these meetings. This is undoubtedly a simplified way to look at the process of collective decision-making, but it helps clarify that at meetings and within other interactions, members constantly sought to improve the extent to which their cattle were protected. As Anderson and Hill (2004, 5) claim, this creative process of devising and revising schemes to thwart cattle rustlers is what made members of cattlemen's associations institutional entrepreneurs.

## **Chapter IV**

### **Methods and Procedures**

The IAD framework outlined above and similar variations are commonly used in much of the recent scholarship on collective action dilemmas. This framework is specifically intended to address a wide range of institutional settings where quantitative data is rarely available, so typical analysis is presented in the form of a qualitative-based, analytic narrative. This structure allows researchers to answer questions that would remain unexplored otherwise (Boettke, Lemke, and Palagashvili 2013, 411). Of particular relevance for this study is the way analytic narratives allows researchers the flexibility to explore the efficiency of publicly provided goods and services that are not priced on the market, such as policing (Ibid., 419). The approach allows institutional efficiency to be evaluated by “using locally self-determined welfare criteria rather than the more common apparatus of technical efficiency” (Ibid., 408), which is reflected in the conceptual framework above.

Further, the analytic narrative method is preferred to formal theory and statistical modeling for evaluating complex social dilemmas, such as understanding how individuals combated theft on the frontier, because it is more likely to communicate the depth and detail needed to comprehend how these problems are resolved (Ibid., 422). This method stands in contrast to theory that views individuals attempting to achieve benefits from collective action “as being trapped in a static situation, unable to change the rules affecting their incentives” (Ostrom 1990, 182). The emphasis on individual choice and the environment in which these choices take place is more representative of the real world where solutions to collective action problems sometimes occur apart from

government intervention. Table 4.1 provides a simplified look at the distinction between typical economic methods and the methods used in this paper. In total, it describes four distinct methodologies used within social science research.

Table 4.1. Methodological Landscape of the Social Sciences<sup>6</sup>

	Clean Empirical Analysis	Dirty Empirical Analysis
Thin Description	Mainstream Textbook Economics	Institutional Analysis of Development and ‘Analytic Narratives’
Thick Description	Statistical Sociology	Anthropology

As noted above, the analytic narrative approach stands in contrast to mainstream textbook economic analysis because of its combination of dirty empirical analysis and thin description. Traditionally, economists have opted for clean empirical analysis, which usually means relying on tests of statistical significance to produce clean results (Boettke, Lemke, and Palagashvili 2013, 414). However, this attempt at clean analysis may sometimes neglect the more nuanced insights that can come from dirty analysis, which emphasizes the importance of context and processes. Further, the dirty approach to analysis emphasizes the notion that simple textbook economic models do not encompass all of the variables in play in real-world situations (Ibid., 415). Research in areas such as history and anthropology rely on this dirty analysis and thick description. However, the analytic narrative approach is different from these because it remains true to the

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<sup>6</sup> Source: Boettke, Lemke, and Palagashvili 2013, 414

economist's usual penchant for thin description. This means that the rational choice framework remains the main tool of explaining why individuals make the decisions they do within the analytic narrative.

In the analytic narrative that follows, reliance is placed upon primary and secondary historical sources to evaluate the incentives faced by individual ranchers within Texas to contribute to the provision of inspection and detective services prior to, during, and after the creation of the TSCRA. In addition, the narrative focuses on how members of the TSCRA changed rules to effectively combat theft and other problems that emerged over time. The importance of social capital in the creation and maintenance of these rules is also acknowledged.

The primary sources are documents from the TSCRA itself such as the proceedings of annual conventions, which includes bylaws, resolutions passed, and a list of members. In addition, two newspapers are cited. Among other works concerning the cattle industry in Texas and the Southwest, three books serve as secondary sources. These books are: *A Century of Cow Business: A History of the Texas and Southwestern Cattle Raisers Association* by Clarke, *Great Roundup: the Story of Texas and Southwestern Cowmen* by Nordyke, and *Historical and Biographical Record of the Cattle Industry and the Cattlemen of Texas and Adjacent Territory* by Cox.

## **Chapter V**

### **Analytic Narrative**

#### Initial Biophysical Conditions

The biophysical conditions for cattle ranching were essentially the same across Texas prior to the time the cattle raisers organized in 1877. In fact, across much of the American West after the Civil War, the cattle industry faced similar condition. Along with the growth of the industry that occurred during this time, the practice of cattle rustling also became widespread. Being home to millions of cattle in the 1870s, Texas was at the center of this phenomenon. In order to market the many cattle roaming the Texas plains, ranchers established herds and drovers moved the cattle north to shipping points. Nordyke (1955, 43) recounts how this method made cattle rustling easy: “Stealing on an ambitious commercial scale could be accomplished successfully because of the wide, unpeopled expanse of the cattelands and also because long, strung-out herds of cattle were moved over winding trails to market.”

More specifically, rustlers achieved success by a few different methods. One way was to drive entire herds off the trail. They could then take control of the herd and proceed north to market with their new cattle or retreat to the ranges of New Mexico. In addition, one of the surest ways to profit was to sell cattle to other big outfits away from the area where the cattle were first stolen (Ibid., 44). Aside from the more overt rustling mentioned above, the practice of mavericking, branding and driving previously unbranded cattle (oftentimes calves) off the range and claiming them as one’s own (Dary 2010), could also be accomplished with relative ease (Ibid. 42). In other words, to begin a

ranching operation in Texas, “one needed only to buy a few cows, register a brand, and begin branding strays” (Gard 2010).

Rustlers were difficult to stop at this time because of the high costs associated with monitoring thieves across vast amounts of land. In addition, while cattle were in transit, it was sometimes difficult to identify lawful owners because rustlers frequently altered brands (Ibid.). Even in cases where individual ranchers discovered who the thieves were, there was little guarantee that they would be prosecuted, as juries were hesitant to convict (Ibid.). The extent of rustling in Texas by the mid-1870s is best illustrated by an instance when a few cattlemen commissioned a fellow cowman to travel to New Mexico to retrieve their stolen cattle in 1873. The expedition lasted a year and recovered over ten thousand cattle (Nordyke 1955, 44-45). Overall though, this operation and other instances where ranchers engaged in vigilante justice did little to discourage rustlers (Ibid., 45).

#### Initial Attributes of Community

Norms within Texas during the 1870s were changing much like the cattle industry. Mavericking, mentioned above, is one example of a norm that evolved with time. Before the 1870s, many ranchers in Texas turned a blind eye to this sort of theft because they had so many cattle that losing a few was not much of a problem. In some cases, ranchers even looked upon this activity somewhat favorably, as it allowed others to establish their own herds and provide for themselves (Ibid., 42). This norm quickly eroded as rustling became more of a commercial operation than an occasional necessity. A group from Fort Griffin was the first to engage in widespread rustling, driving entire



herds from the pasture of a nearby rancher (Ibid., 41). Soon thereafter, ranchers lobbied the state legislator to make stealing cattle a felony (Ibid., 42). The desire among established ranchers to eliminate the uncertainty that came from periodic rustling illustrates one of the shared preferences of the community. In addition, as the cattle industry grew, ranchers began to invest more in herd management and breeding, meaning their cattle were worth more than free-roaming stock.

Another attribute of the community that is relevant to this study is the amount of social capital that existed between ranchers in northwestern Texas. By the 1870s, many of the founders of the Stock Raisers Association of Northwestern Texas had lived in Texas at least ten years and in some cases, twenty years or more. W.S. Ikard lived in the state since 1852 (Cox 1895, 510). J.B. Matthews moved to Shackelford County in 1859 from Tennessee (Ibid., 327). Col. C.C. Slaughter, born in 1837, resided in Texas for the duration of his life (Ibid., 331). C.L. Carter moved to Texas from Missouri in 1855 (Ibid., 317). George Reynolds moved to Texas from Alabama in 1860 (Ibid., 339). J.C. Loving also arrived in Texas, along with his parents, in 1845 (Ibid., 346). Since these men had been living in Texas for quite some time and ranched near one another, it is reasonable to believe they would have had enough repeated interactions to develop trust with each other. Later when the organization itself was established, there were around 25 members from the area. While it is unlikely that they had all met each other prior to the meeting, at the very least, each rancher was likely to have heard of the others through networks with other ranchers. Therefore, it is reasonable to assume a significant amount of social capital had been built up by each of the men prior to their organizing the cattle raisers association.

### Initial Rules-In-Use

Throughout history, one of the oldest rules-in-use in the livestock industry is the use of brands to identify ownership; in the southwest United States, branding became essential for establishing ownership because cattle roamed freely across the vast plains (Wagoner 1952, 187). Before cattlemen's associations became widespread in Texas, the main rules-in-use can be seen in laws that were passed at the state level. Horse theft has long been considered a crime and was formally codified as one in Texas in 1858.<sup>7</sup> However, cattle theft did not become illegal in Texas until 1873.<sup>8</sup> The abundance of cattle in Texas after the Civil War was one reason cattle theft was not addressed at the same time as horse theft.

Apart from branding, on the open range there were few ways to tell cattle apart because they intermingled. While slightly different from laws forbidding outright cattle theft, another relevant law was passed by the Eleventh Texas Legislature in 1866. This was known as the law of accustomed range and made driving cattle from its owner's range illegal (Osgood 1929, 33). This law was designed to stop the practice of mavericking (Dary 2010). In addition, in an effort to thwart rustlers driving unbranded cattle to market, the legislature passed another law in 1871 that required any cattle being driven to be given a road brand prior to being taken from the range (Osgood 1929, 33).

In addition to these laws explicitly prohibiting theft, there were other rules put in place by the state to benefit stock raisers and make stealing cattle more difficult. In 1876, the state legislature added a new chapter to the civil statutes. It was entitled "An Act to encourage stock-raising and for the protection of stock-raisers," and it required each

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<sup>7</sup> Vernon's Criminal Statutes of Texas to 1916, Title 17, Chapter 11, Article 1353

<sup>8</sup> Vernon's Criminal Statutes of Texas to 1916, Title 17, Chapter 11, Article 1354

county to appoint livestock and hide inspectors to examine any animal or hide that was to leave the county.<sup>9</sup> However, many counties opted out and were exempt from the law.<sup>10</sup> According to evidence codified later, the opt out occurred as the result of a countywide vote. When the bill was passed in 1876, 62 counties were exempt from its requirements. By 1921, 181 counties were exempt.<sup>11</sup> Still, the state reserved the right to overrule the exemption in border counties that opted out, granting the governor the right to appoint inspectors of his own choosing.

### Creating, Evaluating, and Choosing Rules

If there is one goal that the TSCRA has always aimed to achieve, it is eliminating cattle theft. In the early 1870s before the organization was formed, some areas within northwestern Texas were patrolled primarily by local vigilantes ready to hang thieves on site rather than wait for state-sanctioned law enforcement to arrest the rustlers and send them to trial. This remedy was a vestige of the old frontier style of justice that had prevailed during the half-century prior as Texas was being settled; one that had worked when the population was sparse, but one that would be challenged as settlers continued to pour in and thieves became more difficult to distinguish from neighbors. As Clarke notes (1976, 2), some vigilante committees were able to catch and hang a few cattle rustlers, but, unfortunately, the thieves would simply continue to steal by moving to other sections of the state. Thus, this system proved ineffective as rustlers spread to locations away from vigilantes, and inefficient, since any monitoring required near constant vigilance from

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<sup>9</sup> General Laws of Texas, Ch. 165 (1876)

<sup>10</sup> Revised Civil Statutes of Texas (1909)

<sup>11</sup> Revised Civil Statutes of Texas, Title 121, Chapter 7 (1921)

individual cattle owners. Therefore, a new system was needed if the cattle industry in Texas was to become prosperous.

The problem with building a new industry on the frontier was evident. Cattle ranchers could tell that taking the law into their own hands to combat theft was problematic. For one, due to the mob-like mentality that resulted from vigilante justice, due process was abandoned all too frequently, but the justice administered by the state was similarly unreliable. Frankly, there were not enough sheriffs or Texas Rangers to monitor the growing number of horse and cattle thieves across the scarcely populated area. Resolving this dilemma would require cooperation at both the state level and at the community level, between individual ranchers. For the state government's part, before the cattle raisers organized, cattle theft was made a felony in 1873 (Nordyke 1955, 42). While this was certainly beneficial in the long run, it did not amount to much for cattle raisers in the short run, since there was limited manpower to enforce the law. As such, it is not surprising that cattle raisers turned to each other to sure up their own property rights. In some sense, they had no choice.

There are a few specific events that took place before the cattlemen organized that are instructive in understanding why they ultimately decided to come together. First of all, stock growers associations were not new to the Americas. According to Dusenberry (1950, 256), a *mesta* (the Spanish term for a stock growers association) was first established in Mexico in 1537. Much later, in the western US, the Stock Raisers Association of Northwestern Texas (which later became the TSCRA) was not the first to organize. One organization, the Colorado Stock Growers, organized in 1867, and another, the Wyoming Stock Growers Association, was established in 1873 (Jackson 1948, 260).

Therefore, Texas cattle owners did not lack precedent or example in how their own organization should be structured.

After meeting privately over the course of the early 1870s, a few Texas cattle owners finally decided that something had to be done if they wished to continue their way of life. A group of men who ranched near what is now Graham, Texas were among the first to agree on a course of action. The men decided that they should establish a “mutual protection group of some kind” (Clarke 1976, 9). To begin the process, a notice was written and distributed to the newspapers within the area. A meeting was to take place in February of 1877 to determine the best course of action for protecting cattle and returning lost (or stolen) cattle (Ibid.).

At the first meeting of the Stock Raisers Association of Northwestern Texas in Graham, two resolutions were passed. First, as Nordyke (1955, 51) recounts, the members committed to working together for their common interest. Second, the area represented by those in attendance was divided up into six districts so the cattle could be periodically rounded up and returned to their owners. The map below (Figure 5.1) shows how the six districts were divided (Kielman 1967, 94). The area depicted stretches from what is today Abilene in the southwest corner to Ft. Worth on the eastern edge.

The two resolutions made at the first meeting essentially amounted to a pledge among the cattlemen that they would not steal one another’s property. With the frequency of Native American attacks becoming less common at this time and those at the meeting promising to uphold the agreement, this meant that the thieves being targeted were now mainly rustlers. These rustlers operated by stealing part of a herd and quickly driving the cattle to market before anyone could notice that they were missing. While sometimes

accidental, it was not uncommon for drovers (those driving cattle north to St. Louis, Chicago and later, Kansas City) to accumulate cattle on their way to market. The main difference between the two was that drovers were paid by cattlemen to get their stock to market over a relatively long period of time while rustlers simply took cattle and tried to sell it quickly to avoid any adverse consequences.

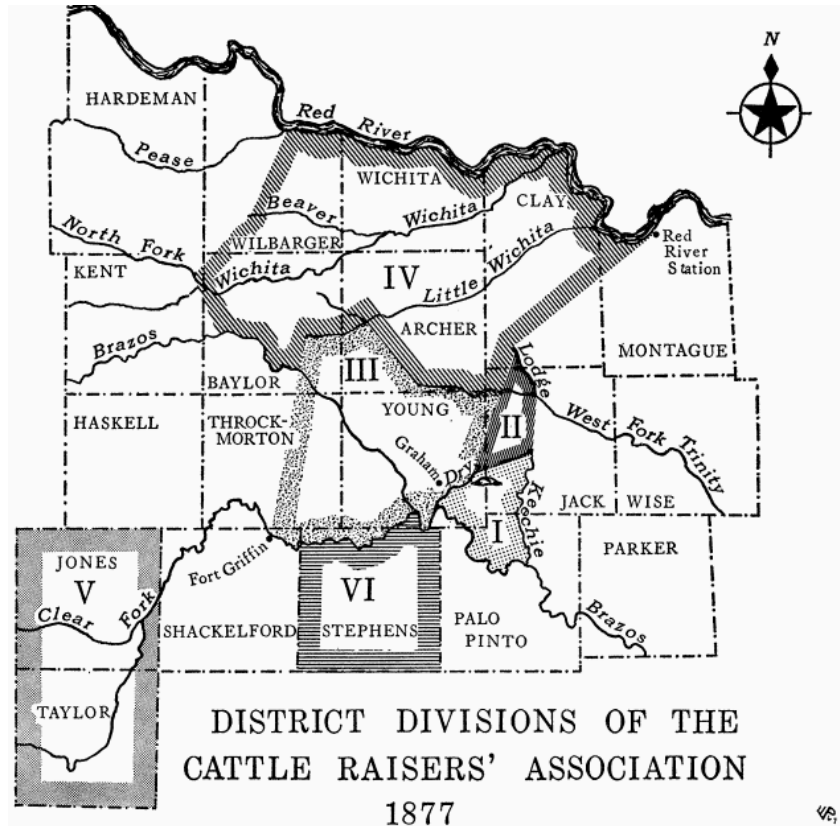


Figure 5.1. Map of District Divisions<sup>12</sup>

To combat this phenomenon, roundups were commenced in order to identify and return any stolen cattle. Early on, there was no way of knowing whom the cattle belonged to, so there was limited recourse when someone claimed their cattle were stolen. After the

<sup>12</sup> Source: Kielman 1967, 94

members established some parameters, brands were recorded and used as the primary means of identification among members (Nordyke 1955, 53). There is limited data on how many of the cattlemen in Texas were a part of the organization, but Nordyke notes that the association possessed “sufficient membership in each district to boss the roundup” in northwestern Texas (1955, 52). This served to limit the number of cattle who were inadvertently driven to market or those that would have otherwise been stolen had no policy been in place.

Once misplaced or stolen cattle were identified, the stock raiser was instructed to hold the cattle until the owner could be notified. In addition, Clarke (1976, 18) says the first meeting concluded with a final resolution. Not only should roundups take place, but the members present should also be required to supply information so that the stock owner could be properly identified upon retrieval of any missing cattle. At some point between the first meeting and before the one that occurred a year later in Fort Griffin, more regulations were agreed upon. Notably, the members agreed to levy fines on any members who killed cattle or calves that were not their own. The price would not be insignificant, as it would cost an offending stockman twice the going price for killing a grown cow and \$25 for a calf (Clarke 1976, 24). The association enforced these and other bylaws thoroughly, and members soon learned that being a part of the organization came with consequences if one did not follow the rules.

The first meeting held outside of Graham took place a year later in Fort Griffin, near present day Albany, Texas, and was characterized by an insistence on obeying the law and making changes to what was already known to be ineffective from the year before. Fort Griffin was where one of the more prominent rustling gangs was located and

a vigilante group had organized to combat it. In one instance, this group even went to the extreme of pulling the former sheriff, who had been accused of killing numerous cows, out of jail in order to execute him before he could escape (Nordyke 1955, 71). The president of the stock raiser's association, Kit Carter, set out to make clear that Texas cattle raisers were on the side of the law, specifically because of cases like this. He further insisted that the cowmen should be willing to investigate matters instead of resorting to quick decisions like the vigilante group (Nordyke 1955, 71). Along with matters of the law, the association also expanded the area under its control at the meeting as it accepted new members and divided up existing districts to make roundups easier (Clarke 1976, 26). Again, additional steps were taken to protect property as well. The bounty for information leading to the apprehension of a horse thief was raised to \$200 to be funded by the members whenever necessary (Nordyke 1955, 74).

In 1883, the prevalence of barbed wire cutting prompted the association to make more changes (Clarke, 1976, 35). The association passed a new resolution, hiring five inspectors to be stationed at various shipping points and other areas along the borders of the association's jurisdiction (Clarke, 1976, 55). A year later, at the meeting in Dallas in 1884, inspectors gave an update on the success of the association's efforts. They claimed that thieves preferred cattle belonging to non-members so much so that in one instance a quarter of the cattle on a range were stolen while the other three-fourths, belonging to association members, were left alone. In addition, they stated that they had seen hundreds of cattle stolen from non-members but had no authority to stop the rustlers because the individuals were not members of the association (Stock Raisers 1925). Around the same time, the association lobbied the state legislature to convene an emergency session, and,



in 1884, fence cutting was made a felony crime (Clarke, 1976, 37). While passing the law came nowhere close to stopping the trend, the association now had a better legal footing to stand on when searching for fence cutters and rustlers.

With the law changed to offer a greater amount of protection to cattle ranchers, association members continued to seek ways of enforcement amongst themselves. Since barbed wire now dominated the range, roundups became obsolete (1886 is the last year a roundup is mentioned in association records (Stock Raisers 1925)). Previously the roundup had served to bring cattle back to rightful owners. Now, inspectors were hired to patrol the fence lines and inspect shipments at various markets. At the annual meeting in Fort Worth in 1887, a resolution was passed stating that association inspectors were not to handle the cattle of non-members. In addition, members sought to have the state establish a centralized brand-recording agency to prevent duplication of brands between counties (Stock Raisers 1925). This was something the association already did itself by centrally recording brands at the association headquarters, but it wanted this policy to be implemented across the state. There is no evidence that the legislature made any changes to the law based on this recommendation.

Later, in 1892, some inspectors were given special commissions by the Texas Rangers to enforce property rights even further (Hegar 2005). Until 1933, the association had ten inspectors with this special commission, and after that, the state allowed thirty inspectors to carry the special designation (Clarke, 1976, 56). Today, these commissioned rangers work together with market inspectors who are also employees of the TSCRA. (TSCRA 2016b). Just as in days past, members continue to deem the hiring of rangers

necessary to the point of raising dues in order to support these permanent employees (Clarke, 1976, 57).

### Changes Over Time

Though the Stock Raisers Association of Northwestern Texas was a prominent group within the state of Texas in the 1880s, it was by no means the only livestock association. According to the records of the National Cattlemen's Convention meeting in St. Louis in 1884, there were 15 other livestock associations from Texas at the convention (Cox 1895, 106). Of these, the largest was the Live Stock Association of Texas ("The Stock-Raisers: A National Convention" 1884). However, this organization was primarily a lobbying group and did not offer any of the inspection or detective services that the Stock Raisers Association of Texas was known for. Another important organization with members in attendance was the Southern Texas Live Stock Association. Together, members of both groups owned nearly 1,500,000 head of cattle (Ibid.)

Within the next decade, many of the members of the Southern Texas Live Stock Association would become members of the newly minted Texas Cattle Raisers Association (TCRA) (Skaggs 1967-1968, 59). The new name was a result of a merger between the Stock Raisers Association of Northwestern Texas and the Southern Texas Live Stock Association and allowed the association's jurisdiction to expand over much of Texas. At the annual meeting in 1893 when the merger occurred, a notice was also issued to cattlemen in Indian Territory, Oklahoma, and New Mexico, imploring them to become members of the newly named association. Notable members who joined during this

merger were “Robert J. Kleberg of the King Ranch, John Kenedy, Ike Pryor, the Blockers, Kokernots, and hundreds of other South Texas cowmen” (Clarke 197, 93). Another important occurrence at this meeting was the appointment of an attorney for the association. He was be responsible for prosecuting rustlers stopped by association inspectors (Ibid.). Below, Figure 5.2 provides an approximation of the jurisdiction within the state of Texas covered by the TCRA as of 1893 (members outside of Texas and inspectors stationed at the major shipping points in the Midwest are obviously omitted from this depiction).



Figure 5.2. Map of Texas Showing First Tick Quarantine Line<sup>13</sup>

At a later meeting in 1903, the association continued making requests for new members. During the course of the meeting, S.H. Cowan, the attorney for the TCRA

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<sup>13</sup> Source: Nordyke 1955, 213

presented his case for why non-members should join and pondered why individuals viewed free riding acceptable in cattle inspection but not in other areas of life:

How does this Association affect cattlemen generally—those who are not members of the Association? They receive a proportionate benefit without paying for it. A man who sits down and permits his neighbor to subscribe for the building of churches and school houses, subscribe to charitable purposes, pay bonuses to bring railroads into his city, and yet pays not a cent for it, is regarded as a miser. If the men engaged in the cattle industry of this country will but think of the benefits they are receiving by the protection this Association affords them, then every man, it seems to me, would feel it his duty to help the cause along by becoming a member (TCRA 1903, 24).

In another instance, a message presented at the 36<sup>th</sup> Annual TCRA Convention in 1912 hailed the benefits that came with membership:

Needless to say the larger our membership the greater will be our influence for good, and for this reason, if for no other, every producer of meat should be a member. The facts recited prove conclusively that the cost of membership in the Association is insignificant when compared with the actual service rendered through our inspection department alone (TCRA 1912, 27).

Overall, both statements show that the cattlemen within the organization had an incentive to monitor and adjust rules in order to ensure they were providing the most cost effective service possible.

The last major Texas cattlemen's association not a part of the TCRA was the Panhandle and Southwestern Stockmen's Association. In 1915, an article published in the *El Paso Herald* called for the two groups to merge. Within the article, A.M. James, a member of the TCRA, claimed one major advantage of merging the two groups would be the elimination of one inspector within a county where two were usually required because members from both organizations resided within the county. Further, he stated that there were approximately 400 members in Texas who belonged to both organizations ("Consolidation" 1915, 1). Detractors of the plan to consolidate cited the geographic

distance and the older age of the TCRA as obstacles (Ibid., 6). Figure 5.2 approximates the separation between the two groups based on the different policy aims during the heyday of Texas fever, when Panhandle ranchers sought to keep infected stock off their range.

In 1921, the two organizations made the decision to merge. Clarke (1976, 131) states that “the depression of the early twenties proved the logical time to unite since dues and assessments could be paid to one organization and inspectors could police the entire territory.” Apparently deciding on the name of the new organization caused some contention, but after some deliberation, the new name, Texas and Southwestern Cattle Raisers Association, was agreed to. This name encompassed the Texas roots of the group but also acknowledged that its membership spanned parts of Arizona, New Mexico, and Oklahoma (Ibid.).

### Efficiency Considerations

The claim that the TSCRA provided efficient alternatives to government-funded inspection and detective services for cattle is difficult to evaluate when looking only at Texas. However, before moving on to a comparison with other states where cattle inspection was more centralized, it is important to remember that many counties within Texas chose to remain exempt from the state’s brand inspection laws. This either means that no inspection occurred in these counties when cattle were moved, or that private alternatives such as the TSCRA inspectors were relied upon and preferred. Given that the TSCRA continues to privately fund inspectors and special rangers today (TSCRA 2016a), it is reasonable to assume that brand inspection services were rendered within many, if

not most, of the counties that opted out of the government run method. This reality is evidence of the efficiency of the private TSCRA inspectors because it shows that people nearest to the collective action problem chose this system of inspection based on their own, self-determined welfare criteria.

Another source provides anecdotal evidence of the superiority of TSCRA inspectors compared to government inspectors in Texas who were stationed in counties that did not opt out. A resolution passed at the 1903 TCRA Convention claims that state inspection laws and government inspectors were causing problems for the cattle industry as a whole. It states:

Whereas, The inspection laws of the State of Texas, as they are now administered and enforced by the various county inspectors of this State, have become largely farcical, inefficient and of much annual expense to the cattle industry of the State, which expense is unnecessary; and the actual work of inspection during the height of the shipping season being performed by boys and other inexperienced persons, to whom this authority is given by the regular inspector as a matter of convenience; and,

Whereas, Shipments of cattle are very often delayed by the railway companies on account of the absence of such county inspectors, entailing loss and inconvenience to the shipper, such action on the part of the railway companies being predicated upon the State law, which forbids the moving of cattle without inspection; and,

Whereas, The Cattle Raisers Association of Texas maintains at its own expense a large and competent force of inspectors, and all cattle raisers can obtain the services of such inspectors without cost to themselves by becoming members of the Association, and cattle inspected by said Association inspectors, having the benefit of careful scrutiny both at place of origin and upon arrival at destination; and,

Whereas, The office of county inspector having already been abolished in many counties of the State, and is in reality only maintained at the principal shipping points.

Be it Resolved, By the Cattle Raisers Association of Texas now in convention assembled, that the office of county inspector be abolished in all counties of the State, and that a strong memorial to that effect be drafted by our Executive

Committee for presentation to our present State legislature before adjournment of that honorable body (TCRA 1903, 57-58).

The resolution to notify the legislature of the TCRA's position passed at the convention but did not result in any changes to state law, as there is no record of the stock inspection law being abolished. It was not until 1943 when the state of Texas declared the TSCRA the official brand inspection agency of Texas that any major changes to the law occurred (Clarke 1976, 57). Nonetheless, this example shows that the inefficiency of government inspectors was more than simply an annoyance; the lack of attentiveness and attention to detail on the part of government inspectors appears to have resulted in material losses to cattle raisers and shippers alike.

Shifting the comparison to other states, the TSCRA inspection system seems vastly superior on efficiency and equity grounds to the one that was created in Wyoming around roughly the same time. As Morriss (1997, 666-676), citing Smith (1966), notes, the dominance the Wyoming Stock Growers Association had over the legislature allowed cattle kings to prosper at the expense of smaller ranchers. A law written concerning the ownership of mavericks ensured that association members received the vast majority of them. Funding for association inspector detectives, who primarily served to enrich the cattle kings, was also being paid out of county taxes. Finally, the situation culminated in what has become known as the Johnson County War. While smaller ranchers had reason to be upset over the apparent stealing of mavericks that the association was supporting, association members were actually the ones who incited the war, claiming they were the ones suffering the most from cattle rustling.

Similar examples do not exist in the history of the TSCRA. On the contrary, equity concerns for cattlemen across Texas seemed to be at the forefront of even the most

powerful members of the organization. For example, in an association meeting while addressing a potential policy change, C.C. Slaughter, a one time president of the association, is quoted as saying that a new member with only two head of cattle had the same right to express his feelings as another, more powerful member (Nordyke 1955, 191). While an anecdote like this is no proof that the association treated all cattlemen fairly, based on the record of the TSCRA in recruiting non-members and striving to maintain a positive public image to that end, it is reasonable to believe they did.

Comparing the cattle inspection system in Montana to that of Texas may be the most relevant comparison because of the similarity of the two systems. Montana's system was basically the same as the one that had been proposed in Texas at the county level. A state-run Board of Stock Commissioners was established to appoint inspectors and counties were allowed to opt in to the service and fund the inspectors through taxation. There was some element of choice allotted individuals within this system of brand inspection in that counties could opt out, but there is no record of an alternative, private organization similar to the TSCRA in Montana that could have filled this void. As the narrative has shown, building the social capital necessary to construct such a system takes time.

Another factor that may have played a role in the development of the private system in Texas in contrast to the development of the public system in Montana may have been the differences in land ownership between the states. Texas was admitted to the United States as an independent state, which meant that it was not governed by homestead laws; this is likely part of the reason ranchers in Texas adopted barbed wire in greater quantities than ranchers elsewhere (Anderson and Hill 2004, 168). The



obsolescence of roundups provides a good proxy for proving that this was the case. In Texas, the TSCRA roundups were not a focus of TSCRA policy after the mid-1880s, whereas in Montana, the open range system of managing cattle did not end until around 1900 (Ibid., 157). Therefore, the time it took to establish and expand the TSCRA in Texas may have been accelerated compared to Montana because of the way barbed wire was used to privatize property.

The four tables below attempt to provide a quantitative look at the success of the cattle inspection system in Texas compared with that of Montana. Table 5.1 gives a detailed look at the number of cattle inspected in Montana through the state run system. In addition, the number of inspectors employed in a given year is shown. The comparable data for Texas, seen in Table 5.2, differs from that of Montana to some extent. The TSCRA publishes few records of brand inspection aside from those that were used to complete the table. One will notice that the column headings “cattle inspected” and “cattle rendered” in the two respective tables are different. These headings are not the same because there is some discrepancy surrounding the meaning of the number of “cattle rendered” for the TSCRA. Some sources show “cattle rendered” as the number of cattle that were counted for purposes of assessing a per head commission to fund the association activities. Other sources suggest “cattle rendered” is the same as “cattle inspected” in that it refers to the number of cattle inspected in any given year and would thus be identical to the meaning of “cattle inspected” in Table 5.1.

Another source of difficulty when comparing the numbers between the two states is that records from Montana do not contain any reference to stolen “cattle caught.” Rather, the closest approximation of this number within the Montana records is called

“strays recovered” by inspectors. Given that roundups were still occurring in Montana as late as 1903, this data has been omitted from Table 5.1 because it is unlikely to reflect cattle that were stolen, as the “cattle caught” heading in Table 5.2 does.

Due to the discrepancy between the data collected in Tables 5.1 and 5.2, it is difficult to draw strong conclusions about the efficiency of the respective inspection systems. However, some conclusions can still be made. On the whole, it appears that the number of inspectors in Texas was similar to the number of inspectors in Montana, and both states increased their number of inspectors over time as the cattle industry grew.

The accompanying Tables 5.3 and 5.4 are included to show that growth occurred within the cattle industry under both public and private inspection systems. In general, these tables show that the cattle industry grew in both states even though periodic declines also occurred. While the reasons for the growth and decline of the industry in both states are largely outside the scope of this study, it is necessary to comment on possible reasons why the decline in the industry was so pronounced in Texas from 1900 to 1910. First of all, there is no indication that the decline had anything to do with a deficiency or change in the inspection services offered by the TSCRA. Without data on a year-by-year basis, it is difficult to say exactly what contributed to the decline, but one possible explanation is the drought that began in 1908 and lasted until 1912 (Henry 2011). Based on the growth of the industry in both states, it is reasonable to argue that the TSCRA inspection system, which inspected more cattle, was as efficient as the state run system in Montana.

Table 5.1. Montana Cattle Inspection Records<sup>14</sup>

Year	Cattle Inspected	Number of Inspectors
1885	70,089	8
1886	119,620	8
1887	82,134	9
1888	167,602	5
1889	123,880	5
1890	174,035	9
1891	250,000	10
1892	203,000	13
1893	279,158	14
1894	302,655	12
1895	206,460	16
1896	254,864	16
1897	252,162	15
1898	232,225	15
1899	203,499	21
1900	160,055	21
1901	151,986	23
1902	230,000	23
1903	210,573	29
1904	228,775	33
1905	267,966	34
1906	276,722	26
1907	214,642	7
1908	241,320	7
1909	255,178	10

<sup>14</sup> Source: Annual Report of the Board of Stock Commissioners and the Recorder of Marks and Brands of the State of Montana For the Year 1909

Table 5.2. TSCRA Cattle Inspection Records<sup>15</sup>

Year	Cattle Rendered	Cattle Caught	Number of Inspectors	Members
1883	730,000	500	5	25
1884	766,000	500	3+	
1885	744,000	1,144		
1886	520,000	1,016		
1887	469,000	831		
1888	500,000	691		
1889	600,000	823		
1890	650,000	1,421		
1891	750,000	1,847		
1892	1,100,000	2,540	13	400+
1893	1,381,872	3,584	15	
1894	1,385,303	4,159		
1895	1,437,997	4,609		
1896	1,464,527	5,472		
1897	1,564,186	2,668		
1898	1,787,515	2,100		
1899	1,754,739	1,978		
1900	1,742,776	1,889		
1901	1,753,876	2,017		
1902	1,755,963	2,278	45	1330
1910		2,660	38	

<sup>15</sup> Data compiled from a combination of records including Stock Raisers Association of Northwestern Texas Minute Book, the 1903 By-laws, Rules, Regulations, and Names of Members of the Cattle Raisers Association of Texas, and the Cattle Raisers Association of Texas, 36<sup>th</sup> Annual Convention official souvenir magazine.

Table 5.3. Montana Cattle Inventory, 1880-1930<sup>16</sup>

Year	Number of Cattle On Range	Growth by Decade
1880	521,213	
1890	934,066	79%
1900	687,284	-26%
1910	767,427	12%
1920	875,433	14%
1930	824,039	-6%

Table 5.4. Texas Cattle Inventory, 1880-1930<sup>17</sup>

Year	Number of Cattle On Range	Growth by Decade
1880	4,894,698	
1890	8,543,635	75%
1900	9,428,196	10%
1910	6,934,586	-26%
1920	6,156,715	-11%
1930	6,602,702	7%

<sup>16</sup> Source: 1940 USDA Census of Agriculture

<sup>17</sup> Source: 1940 USDA Census of Agriculture

## **Chapter VI**

### **Conclusion**

The assertion that policing services must be publicly funded because free riding will cause the level of policing to be underprovided otherwise, fails to explain how the TSCRA was able fund cattle inspection and detective services. To begin with, the notion that policing will be underprovided as a result of free riding implies political authorities possess knowledge that allows them to determine exactly how much policing citizens demand. In the production of many goods, such knowledge is widely dispersed throughout a market and visible in prices, however similar knowledge does not exist when goods and services like policing are funded through coercive taxation, whether at the local, state, or national level. In theory and practice, there is little doubt that free riding on the production of security may occur, but that a collective good can be produced in the first place, even in a small group, is evidence that there are ways to surmount this obstacle.

In the case of funding the TSCRA inspectors, rather than being a problem in need of government intervention, the existence of free riders encouraged the organization to employ its inspectors at the lowest costs possible in order to keep membership dues at a minimum and encourage more members to join so that greater economies of scale in policing could be realized. In addition, while the reduction in cattle theft resulting from the presence of inspectors and detectives benefited non-members in general, the association's club structure served to internalize many of these benefits to members. For example, inspectors stationed at markets and shipping points were instructed to only

inspect the cattle of association members. Today, members also use distinctive blue signs posted on fences to let rustlers know they are part of the TSCRA.

The preceding narrative demonstrates that solutions to collective action problems can occur voluntarily and that such solutions may be as effective as those backed by the state. This assertion is corroborated by the reality that many ranchers in Texas opted to join the TSCRA, even when a comparable government alternative was available. Instead of beginning as a statewide organization, the association was able to scale-up from a small community to a group that had jurisdiction across much of the Southwest. This confirms E. Ostrom's (1990, 190) statement that "success in starting small-scale initial institutions enables a group of individuals to build on the social capital thus created to solve larger problems with larger and more complex institutional arrangements." Not only did starting small allow social capital and trust to increase between members, it also allowed the organization greater flexibility to experiment with new sets of rules over time, a process that was necessary given the technological changes (in the form of barbed wire and railroads) that occurred within the cattle industry during the first two decades of the association's existence.

Whether the state should ban private law enforcement or not, the existence of clubs, such as the TSCRA, shows that under some circumstances, there may be a demand for policing in excess of what the state provides. While this demand was obvious in the early days of the Texas cattle industry, the state of Texas was unable or unwilling to provide sufficient inspection services and allowed the TSCRA sufficient scope to enforce its own rules. In a setting where policing power is monopolized, it is doubtful that such an outcome would have transpired.

## Bibliography

- Acemoglu, D., and S. Johnson. 2005. "Unbundling Institutions." *Journal of Political Economy*. 113(5): 949-95.
- Acemoglu, D., J. A. Robinson, and R. J. Santos. 2013. "The Monopoly of Violence: Evidence from Colombia." *Journal of the European Economic Association* 11: 5-44.
- Alchian, A. A. 2008. "Property Rights." In D. R. Henderson, ed. *The Concise Encyclopedia of Economics*. Liberty Fund, Inc. Available at <http://www.econlib.org/library/Enc/PropertyRights.html> (Accessed April 19, 2016).
- Alston, L. J., and B. Mueller. 2005. "Property Rights and the State." In C. Ménard and M. M. Shirley, eds. *Handbook of New Institutional Economics*. Netherlands: Springer, pp. 573-90.
- Anderson, T. L., and P.J. Hill. 1979, "An American Experiment in Anarcho-Capitalism: The Not So Wild, Wild West." *Journal of Libertarian Studies* 3(1): 9-29.
- . 2004. *The Not so Wild, Wild West: Property Rights on the Frontier*. Stanford, CA: Stanford Economics and Finance.
- Barnett, R. E. 1986. "Pursuing Justice in a Free Society: Part Two—crime Prevention and the Legal Order." *Criminal Justice Ethics* 5(1): 30-53.
- Benson, B. L. "Are Public Goods Really Common Pools? Considerations Of The Evolution Of Policing And Highways In England." *Economic Inquiry* 32, no. 2 (1994): 249-71.
- . 1988. "Corruption in Law Enforcement: One Consequence of "The Tragedy of the Commons" Arising with Public Allocation Processes." *International Review of Law and Economics* 8(1): 73-84.
- . 1989. "Enforcement of Private Property Rights in Primitive Societies: Law without Government." *Journal of Libertarian Studies* 9(1): 1-26.
- . 1989. "The Spontaneous Evolution of Commercial Law." *Southern Economic Journal* 55(3): 644-61.
- . 1998. *To Serve and Protect: Privatization and Community in Criminal Justice*. New York: New York University Press.



- Besley, T., and T. Persson. 2011. *Pillars of Prosperity: The Political Economics of Development Clusters*. Princeton: Princeton University Press.
- Boettke, P. "Anarchism as a Progressive Research Program in Political Economy." 2005. In E. P. Stringham, ed. *Anarchy, State and Public Choice*. Northampton, MA: Edward Elgar Publishing, pp. 206-219.
- Boettke, P., C. Coyne, and P. Leeson. 2011 "Quasimarket failure." *Public Choice* 149: 209-224.
- Boettke, P., J. Lemke, and L. Palagashvili. 2013. "Riding in Cars with Boys: Elinor Ostrom's Adventures with the Police." 2013. *Journal of Institutional Economics* 9: 407-425.
- . 2012. "The Relevance of the Municipality Debate for the Solution of Collective Action Problems." Working paper, Dept. of Econ., George Mason University No. 12-58.
- . 2015. "Polycentricity, Self-governance, and the Art & Science of Association." *The Review of Austrian Economics* 28(3): 311-335.
- Buchanan, J. M. 1965. "An Economic Theory of Clubs." *Economica* 32(125): 1-14.
- Cattle Raisers Association of Texas. 1903. "By-Laws, Rules, Regulations and Names of Members of the Cattle Raisers Association of Texas." Fort Worth, TX: Secretary's Office. Available at [texashistory.unt.edu/ark:/67531/metaph41339/](http://texashistory.unt.edu/ark:/67531/metaph41339/) (Accessed June 27, 2016). University of North Texas Libraries, The Portal to Texas History, crediting Cattle Raisers Museum.
- . 1912. "The Cattle Raisers Association of Texas, 36th Annual Convention, Fort Worth, Texas, March, 1912: official souvenir magazine." San Antonio, TX: M.S. Mooney. Available at [texashistory.unt.edu/ark:/67531/metaph41768/](http://texashistory.unt.edu/ark:/67531/metaph41768/) (Accessed June 27, 2016). University of North Texas Libraries, The Portal to Texas History, crediting Cattle Raisers Museum.
- Clarke, M. W. 1976. *A Century of Cow Business: A History of the Texas and Southwestern Cattle Raisers Association*. Fort Worth, TX: Texas and Southwestern Cattle Raisers Association.
- "Consolidation of Cattlemen Urged by Texas Association." 1915, March 2. *El Paso Herald*, pp. 1-6. Available at <https://texashistory.unt.edu/ark:/67531/metaph137352/?q=march%202> (Accessed June 26, 2016).

- Cox, J. 1895. *Historical and Biographical Record of the Cattle Industry and the Cattlemen of Texas and Adjacent Territory*. St. Louis: Woodward & Tiernan Printing Co.
- Currott, N. A., and E. P. Stringham. 2010. "The Rise of Government Law Enforcement in England." In E. J. Lopez, ed. *The Pursuit of Justice: Law and Economics of Legal Institutions*. New York: Palgrave Macmillan.
- Dary, D. "Mavericks and Mavericking." *Handbook of Texas Online*. Available at <http://www.tshaonline.org/handbook/online/articles/pfm01> (Accessed June 27, 2016).
- Dincecco, M., and G. Katz. "State Capacity and Long-run Economic Performance." *The Economic Journal* 126, no. 590 (2014): 189-218.
- Dusenberry, W. 1950. "Constitutions of Early and Modern American Stock Growers' Associations." *The Southwestern Historical Quarterly* 53(3): 255-275.
- Ellickson, R. C. 1991. *Order without Law: How Neighbors Settle Disputes*. Cambridge, MA: Harvard University Press.
- Friedman, D. D. 1973. *The Machinery of Freedom*. New York: Harper & Row.
- . 1979. "Private Creation and Enforcement of Law: A Historical Case." *The Journal of Legal Studies* 8(2): 399-415.
- Gard, W. 2010. "Cattle Rustling." *Handbook of Texas Online*. Available at <http://www.tshaonline.org/handbook/online/articles/jbc01> (Accessed June 27, 2016).
- Greif, A. 1989. "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders." *The Journal of Economic History* 49(04): 857-882.
- Hardin, R. 2013. "The Free Rider Problem." In E. N. Zalta, ed. *The Stanford Encyclopedia of Philosophy*. Available at <http://plato.stanford.edu/archives/spr2013/entries/free-rider/> (Accessed May 10, 2016).
- Hayek, F. A. 1945. "The Use of Knowledge in Society." *American Economic Review* 35(4): 519-530. Available at <http://www.econlib.org/library/Essays/hykKnw1.html> (Accessed April 18, 2016).
- Henry, Terrence. 2011, November 29. "A History of Drought and Extreme Weather in Texas." Available at <https://stateimpact.npr.org/texas/2011/11/29/a-history-of-drought-and-extreme-weather-in-texas/> (Accessed July 8, 2016).

- Hegar, G. 2005. "Bill Analysis: H.B. 1695." Available at <http://www.capitol.state.tx.us/tlodocs/79R/analysis/pdf/HB01695H.pdf> (Accessed July 8, 2016).
- Jackson, W. 1948. "The Wyoming Stock Growers' Association: Its Years of Temporary Decline, 1886-1890." *Agricultural History* 22(4): 260-270.
- Kielman, C. 1967. "The Texas and Southwestern Cattle Raisers Association Minute Book." *The Southwestern Historical Quarterly* 71(1): 91-108. Retrieved from <http://www.jstor.org/stable/30237947>.
- Landsburg, S. 2010. *Price Theory & Applications*. Mason, OH: South-Western Cengage Learning.
- Leeson, P. T. 2007. "Better Off Stateless: Somalia Before and After Government Collapse." *Journal of Comparative Economics* 35(4): 689-710.
- Lipsey, R. G., and K. A. Chrystal. 2007. *Principles of Economics*. 11th ed. Oxford: Oxford University Press.
- McGinnis, M., and E. Ostrom. 2008. "Will Lessons from Small-Scale Social Dilemmas Scale Up?" In A. Biel, D. Eek, T. Garling, and M. Gustafsson eds. *New Issues and Paradigms in Research on Social Dilemmas*. New York: Springer, pp. 189-211
- Miles, C. J., and E. P. Stringham. 2014. "Eliminating the Perceived Legitimacy of the State." In G.L. Nell, ed. *Austrian Theory and Economic Organization*. New York: Palgrave Macmillan, pp. 147-174.
- Morriss, A. P. 1998. "Miners, Vigilantes & Cattlemen: Overcoming Free Rider Problems in the Private Provision of Law." *Land and Water Law Review* 581: 581-696.
- Murtazashvili, I. 2013. *The Political Economy of the American Frontier*. New York: Cambridge University Press.
- Nordyke, L. 1955. *Great Roundup: the Story of Texas and Southwestern Cowmen*. New York: Morrow.
- North, D. C. 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. C., J. Wallis, and B. Weingast. 2009. *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History*. Cambridge: Cambridge University Press.

- Olson, M. 1993. "Dictatorship, Democracy, and Development." *The American Political Science Review* 87(3): 567-76.
- . 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Osgood, E. S. 1929. *The Day of the Cattleman*. Minneapolis, MN: The University of Minnesota Press.
- Ostrom, E. 1998. "A Behavioral Approach to the Rational Choice Theory of Collective Action: Presidential Address." American Political Science Association, 1997. *The American Political Science Review* 92(1): 1-22.
- . 2010. Beyond Markets and States: Polycentric Governance of Complex Economic Systems. *American Economic Review* 100(3): 641-672.
- . 1990. *Governing the Commons: The evolution of institutions for collective action*. Cambridge, UK: Cambridge University Press.
- . 1976. "Police Consolidation and Economies-of-Scale: Do They Go Together?" Police Services Study Technical Report. Workshop in Political Theory and Policy Analysis, Indiana University.
- . 2008. "Polycentric Systems as One Approach for Solving Collective-Action Problems." Unpublished. Available at SSRN.com.
- . 2005. *Understanding Institutional Diversity*. Princeton: Princeton University Press.
- Ostrom, E., J. Burger, C. B. Field, R. B. Norgaard, and D. Policansky. 1999. "Revisiting the Commons: Local Lessons, Global Challenges." *Science* 284(5412): 278-82.
- Ostrom E., R. B. Parks, and G. P. Whitaker. 1973. "Do We Really Want to Consolidate Urban Police Forces? A reappraisal of Some Old Assertions." *Public Administration Review* 33: 423-432.
- Ostrom, V. 1986. "A Fallabilist's Approach to Norms and Criteria of Choice." In F.-X. Kaufmann, G. Jajone, and V. Ostrom, eds. *Guidance, Control, and Evaluation in the Public Sector*, Berlin: Walter de Gruyter, pp. 229-244.
- Ostrom, V. and E. Ostrom. 1999. "Public Goods and Public Choices." In M. McGinnis. *Polycentricity and Local Public Economies: Reading from the Workshop in Political Theory and Policy Analysis*. Ann Arbor MI: University of Michigan Press, pp. 75-103. Previously published in E. S. Savas, ed. 1977. *Alternatives for*

*Delivering Public Services: Toward Improved Performance*, Boulder, CO: Westview Press, pp. 7-49.

- . 2014. "The Quest for Meaning in Public Choice." In F. Sabetti, and P. D. Aligica, eds. *Choice, Rules and Collective Action*. Previously published in 2004. *American Journal of Economics and Sociology* 63(1): 105-147.
- Ostrom, V., Charles M. Tiebout and Robert Warren 1961. "The Organization of Government in Metropolitan Areas: A Theoretical Inquiry." *American Political Science Review* 55(4): 831-842.
- Pennington, M. 2013. "Elinor Ostrom and the robust political economy of common-pool resources." *Journal of Institutional Economics* 9: 449-468.
- Rothbard, M. N. 1973. *For a New Liberty*. New York: Macmillan.
- Sanchez, N., and J. B. Nugent. 1994 "When Common Property Rights Can Be Optimal: Nineteenth Century Cattle Grazing in the Semiarid American West." In T. L. Anderson, and P. J. Hill, eds. *The Political Economy of the American West*. Lanham, MD: Rowan and Littlefield Publishers, pp. 43-67.
- Samuelson, P. A. 1954. The Pure Theory of Public Expenditure. *The Review of Economics and Statistics* 36(4): 387-389.
- Skaggs, J. 1967. "John Thomas Lytle: Cattle Baron." *The Southwestern Historical Quarterly* 71(1): 46-60.
- Smith, H.H. 1966. *The War on Powder River*. Lincoln, NE: University of Nebraska Press.
- Smyrski, M. 2016. "The Development of Railroad Police in the Absence of Government." Unpublished, Working Paper.
- Sparrow, M. K. 2014. *New Perspectives in Policing: Managing the Boundary Between Public and Private Policing*. Harvard Kennedy School/National Institute of Justice.
- State Of Montana. 1909. *Annual Report of the Board of Stock Commissioners and the Recorder of Marks and Brands of the State of Montana For the Year 1909*. Available at <https://babel.hathitrust.org/cgi/pt?id=uiug.30112018460680;view=1up;seq=3> (Accessed June 25, 2016).
- Stock Raisers Association of Northwestern Texas. 1925. "Stock Raisers Association of Northwestern Texas Minute Book." Stock Raisers Association of Northwestern

Texas Records, 1877-1892, The Southwest Collection (digital archive), Texas Tech University.

Stringham, E. P., and T. J. Zywicki. 2011. "Hayekian Anarchism." George Mason University Law and Economics Research Paper Series 11-06.

Stringham, E. 2015. *Private Governance: Creating Order in Economic and Social Life*. New York, NY: Oxford University Press.

Texas and Southwestern Cattle Raisers Association. 2016a. "Mission and History." Available at <http://tscra.org/about-tscra/mission-history.html#.VvbBuBIrKqA> (Accessed March 26, 2016).

———. 2016b. "Theft and Law." Available at [http://www.tscra.org/theft-law/#.V3\\_STpMrKu4](http://www.tscra.org/theft-law/#.V3_STpMrKu4) (Accessed March 26, 2016).

"The Stock-Raisers: A National Convention of Cattlemen in Session at St. Louis." 1884, November 27. *The Bryan Democrat*, p. 1. Available at <https://news.google.com/newspapers?nid=799&dat=18841127&id=FcNNAAAI BAJ&sjid=MkgDAAAIAIAJ&pg=6606,4212408&hl=en> (Accessed June 26, 2016).

Umbeck, J. 1981. "Might Makes Rights: A Theory Of The Formation And Initial Distribution Of Property Rights." *Economic Inquiry* 19(1): 38-59.

U.S. Department of Agriculture, Bureau of the Census. 1940. *Sixteenth Census of the United States: 1940, Agriculture, General Report*. Washington, DC.

Wagoner, J. J. 1952. "A History of Cattle Branding in Arizona." *New Mexico Historical Review* 27(3): 187-199.

Weber, M. 1946. "Politics as a Vocation." In H. Gerth and C. W. Mills, eds. *From Max Weber: Essays in Sociology*. New York: Oxford University Press, pp. 77-128.

Woolley, F. 2006. "Why Public Goods are a Pedagogical Bad." Unpublished, Carleton University. Available at SSRN.com.