ESSAYS IN APPLIED POLITICAL ECONOMY

by

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Essays in Applied Political Economy

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Dedication

To my mother and father, to whom I owe everything.

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I am indebted to my advisor, Peter Leeson, personally, professionally and intellectually. A model economist and teacher, he taught me, among many other things, how to think, argue, and, most importantly, love economics. His dedication to his craft and boundless curiosity continue to inspire me to this day, and I will be forever grateful for his guidance, support, and good humor.

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Abstract

ESSAYS IN APPLIED POLITICAL ECONOMY

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The first chapter uses economic reasoning to analyze the traditions and institutions of one of the most successful criminal organizations in modern American history: La Cosa Nostra (LCN). Drawing on recently declassified FBI reports, I argue that LCN's core institutions helped protect its low-profile status, an asset vulnerable to free riding by its own members. Individual members did not bear the full costs of profile-raising police investigations and thus had a perverse incentive to resolve disputes violently. LCN preserved its low profile by incentivizing peaceful reconciliation. La Cosa Nostra rules, and, more importantly, its surprisingly formal court system, kept disputes from escalating into violence, thereby helping LCN avoid profile-threatening investigations. LCN's longevity and success are, in part, a testament to these institutions' efficacy.

The second chapter examines how increases in the salience of identity and government discretion can undermine democratic institutions and values.[1] Building on the work of James M. Buchanan, the chapter identifies a novel channel through which a constitution's rules concerning discrimination can impact democratic longevity: slowing the natural turnover of political coalitions. We argue that (1) identitarian coalition-building raises costs

[1]Chapter two was coauthored with Peter Boettke and was accepted for publication at *Public Choice*: https://doi.org/10.1007/s11127-019-00683-7.

to political cooperation and coalition churn, (2) identitarian political phenomena flows from the larger rents associated with the identity group formation and, (3) the rent race can have deleterious consequences, i.e., the subversion of democratic governance. The incentives of coalitions to define themselves along identity-related lines can threaten democratic governance by enabling the formation of permanent winning coalitions. Thus increasing government discretion may not achieve the economic or ethical ends sought.

The third chapter shows that public choice scholars have attended only modestly to issues in public health.[2] Given the Covid-19 pandemic, we therefore take stock of public-choice relevant scholarship that addresses issues in public health. Our stock-taking highlights four themes: (1) public health regulations are often driven by private interests, not public ones. (2) The allocation of public health resources often reflects private interests, not public ones. (3) Public health policies may have perverse effects, undermining instead of promoting health-consumer welfare. (4) Health-related market failures used to justify public health interventions do not always exist. We conclude by surveying public-choice analyses of public health policies that deal specifically with contagious diseases.

[2]Chapter three was coauthored with Peter Leeson and was accepted for publication at *Public Choice*: https://doi.org/10.1007/s11127-021-00900-2.

Chapter 1: Cosa Nostra Courts

"Why can't we solve our problems peacefully among ourselves?"

–Joseph Bonanno, *A Man of Honor*, 2013

1.1 Introduction

Criminals have a reputation for violence and impulsiveness. Naturally, then, one might expect organizations comprised of criminals to have institutions that reflect the violent and capricious impulses of their dictatorial leaders. La Cosa Nostra (LCN), one of the most successful and long-lived criminal organizations in modern U.S. history, defies this characterization. Thanks to a trove of recently declassified FBI reports, I have identified previously unstudied Cosa Nostra institutions from the mid-to-late 20^{th} century and will elucidate the economic rationale behind their existence and design. I find that LCN's institutions do not reflect criminal impulses, but instead reflect the same economizing logic that shapes non-criminal organizations.

There is a paucity of scholarship analyzing LCN's practices and institutions.[1] Past work on Cosa Nostra has examined, for example, its legal and illegal businesses (Anderson 1979) and its contribution to illicit markets (Reuter 1983, 1987). And, while work on the mafia phenomenon (Italian or otherwise) applies to America's own mafia, there remains no economic work investigating its particular institutions.[2] This is due, in part, to the difficulty

[1] Catino (2015, 2019) offers some analysis, but only within the broader context of mafias from Sicily and Japan, for example.

[2] For work on mafias and criminal organizations in general, see Gambetta (1993), Bandiera (2003), Varese (2001, 2011), Leeson and Rogers (2012), Catino (2015, 2019), Candela (2020), and Schelling (1984), Reuter (1983), Dick (1995), Baccara and Bar-Isaac (2008) and Garoupa (2000, 2007).

in acquiring information about the organization's institutions due to its code of silence and injunctions against written agreements. This is no longer a binding constraint, however, thanks to the JFK Assassination Records Collection Act of 1992 that began declassifying FBI documents related to La Cosa Nostra in 1998.

The value of LCN's low profile, I contend, is key for an economic understanding of its core institutions. The value of a low profile to criminals is obvious: it reduces the costs of coordinating criminal activity. Cosa Nostra's low profile, however, possessed an important property: its value was shared amongst all LCN members. That gave members an incentive to free ride on its maintenance.

The incentive to free ride became most significant in the context of violent, extra- and intramural disputes amongst fellow gangsters. Because individual members did not bear the full costs of profile-raising police investigations (costs born by the entire organization), they had a perverse incentive to resolve disputes violently. Uncontrolled violent disputes were, therefore, particularly costly to LCN. To solve this problem, LCN incentivized peaceful reconciliation. This was accomplished through a court system of surprising formality that, according to former member Salvatore Bonanno, had its "own methods of settling disputes" unique to LCN (Abromowitz and Bonanno 2011, ch. 19). La Cosa Nostra's rules and its uniquely designed court system kept disputes from escalating into violence, thereby helping LCN avoid profile-threatening investigations.

La Cosa Nostra's tradition of *omertà* (code of silence) was a straightforward means of maintaining the organization's covert status: it discouraged members from becoming informants to state authorities. The code, taken as a blood oath, prevented the revelation of LCN secrets through deterrence: members who broke the oath were usually murdered. Deterrence alone, however, could not protect LCN's low profile from violent disputes due to contract incompleteness. Something else was needed.

La Cosa Nostra's solution was a surprisingly formal court system to complement its unwritten rules against internal fighting. Cosa Nostra courts offered members a means of resolving disputes amicably rather than violently. To ensure that members considered

them fair (i.e., not arbitrary) in disputes within families, Cosa Nostra judges were given a pecuniary interest in the affairs of their family members. LCN further established its own Supreme Court, known as "the Commission," to act as an appellate court and to resolve disputes between families. Court rulings were backed with the threat of violence and they were resolved promptly.

LCN institutions were, by all accounts, a success. Despite its members having a reputation for constantly "beefing" with one another, Cosa Nostra courts kept these "beefs" from being resolved violently. As the boss of LCN's Bonanno family for over thirty years Joseph Bonanno observed, "Contrary to popular belief, business disputes [in his family] rarely rose to the level of violence" (Bonanno 2013, ch. 12).

This paper's contributions are threefold. First, the paper adds to a growing body of theoretical work in industrial organization that examines how a low profile matters for a firm's structure and institutions (Liebeskind 1997; Baccara 2007; Baccara and Bar-Isaac 2008; Lindelauf et al. 2009). Akerlof and Yellen (1994) and Berman et al. (2011) also recognize that uncontrolled violence can be quite costly to organizations such as urban gangs and insurgencies. They do not, however, explain how such organizations bring violence under control. My paper links the two themes by showing that investment in effective and formal peace-keeping institutions is one margin along which a criminal organization may respond to an increase in the value of its low profile.

Second, as this paper analyzes the juridical institutions of a criminal organization, it links the economics of crime with the economics of non-conventional jurisprudence.[3] While scholars have unraveled the economic rationales behind the peculiar judicial practices of medieval Iceland (Friedman 1979), sixteenth-century Anglo-Scottish borderland law (Leeson 2009a), trials by battle in medieval England (Leeson 2011b), medieval-era ordeals of fire

[3]The economics of crime began with Becker (1968), but other significant works not yet mentioned include Levitt and Venkatesh (2000), Fiorentini and Peltzman (1996), Konrad and Skaperdas (1995). An important subset of the economics of crime investigates the rules and organization of particular criminal groups, including pirates (Leeson 2007, 2009b, 2010, 2011a), prison gangs (Skarbek 2010, 2011, 2012, 2016, 2020; Roth and Skarbek 2014), drug trafficking organizations (Golz and D'Amico 2018; Kostelnik and Skarbek 2013), the Chinese-based Green Gang (Skarbek and Wang 2015), Danish gangs (Sløk-Madsen et al. 2021), and motorcycle gangs (Piano 2017, 2018).

and water (Leeson 2012), Liberian trials by poison (Leeson and Coyne 2012), and African oracles (Leeson 2014), few have investigated a judicial system comprised of criminals that rules on behalf of criminals.[4] This paper shows that, surprisingly, such institutions can improve the welfare of high- and low-ranking members alike by preserving resources that are otherwise vulnerable to free riding.

Third, my original archival work fills in previously unknown details of American Cosa Nostra institutions. I draw heavily on recently declassified Federal Bureau of Investigation (FBI) files, a corpus spanning the years 1959 to 1977, that document La Cosa Nostra and its operations.[5] The reports represent some of the most reliable and granular primary source material on the American Mafia available to the public because confidential informants who were either LCN members or close associates furnish their details. The reports contain fine-grained data on the structure, identities, day-to-day operations, meetings, rules, customs, and procedures of LCN, as well as transcripts of taped conversations between LCN members. Notably, the reports contain a great deal of information about LCN's formal method of dispute resolution: the *arguinamenda* and the organization's highest judicial body, the Commission.

I supplement the FBI reports with other government reports, court testimony by former members, and autobiographies of former LCN members and associates. As such, the paper builds on some of the most detailed and reliable information yet available about the rules, structure, and operations of the American Mafia. When discussing other mafias in Italy, I utilize mafia histories that are themselves informed by government documents or the testimonies of former *mafioso*.

In the next section, I will introduce the better-known aspects of the American Cosa Nostra: its structure and means of earning revenue. Then, in section three, I use economic reasoning to show that it was imperative for LCN to develop institutions that protected its low profile from violent disputes. In section four, I explain how LCN rules incentivized

[4]The exceptions are Varese (2001) and Lessing and Willis (2019).

[5]The files were part of larger body of documents relating to the assassination of President John F. Kennedy partly declassified in 1998 due to the JFK Assassination Records Collection Act of 1992. Many of those documents were rereleased with yet fewer redactions in 2017 and again in 2018.

peaceful dispute resolution before then explaining how its courts operated and were designed to be trustworthy and effective. In section five I consider the efficiency of Cosa Nostra courts by studying the history of the American LCN and mafias like it. I conclude in section six.

1.2 La Cosa Nostra

La Cosa Nostra was and is an Italian-American criminal organization divided into "families."[6] Cosa Nostra families appeared most often in cities with a high concentration of Italian immigrants or descendants. Apart from the American northeast (such as New York, Philadelphia, Boston, Providence) most cities had only one recognized family. As many as 26 separate families existed simultaneously in the middle of the 20th century. The largest and most powerful families resided in the northeastern part of the US.

The first families arrived in New York at the turn of the 20th century (FBI 1977). Many of the earliest members in the New York families were originally Sicilian mafia members before emigrating to the US. While the American mafias did become "Americanized" with time, they retained many of the original rules and regulations from Sicily, rules that continue to shape today's LCN. The American Cosa Nostra's hierarchy of authority and its honor code were, for instance, inspired by Italian mafias (Paoli 2003; Varese 2011; Catino 2019).

While the earliest American mafia families had connections and coordinated with one another, interfamilial cooperation did not become routine until after a brief but bloody war amongst the New York families in 1931. At the end of the war there was a constitutional moment during which the families agreed to not to infringe upon one another's territory and they established an independent mediating body called "the Commission."

LCN families shared a similar organizational structure. Each organized hierarchically with a boss at the top. Beneath the boss was his right-hand, the underboss. Sometimes a family also had a *consigliere*, someone who served as the family's advisor. Below the underboss were the captains, each of whom was responsible for a crew of soldiers. The

[6]The term "family" did not mean that all LCN members were related to one another by blood. It was common for members to be only loosely related by blood or marriage, if at all.

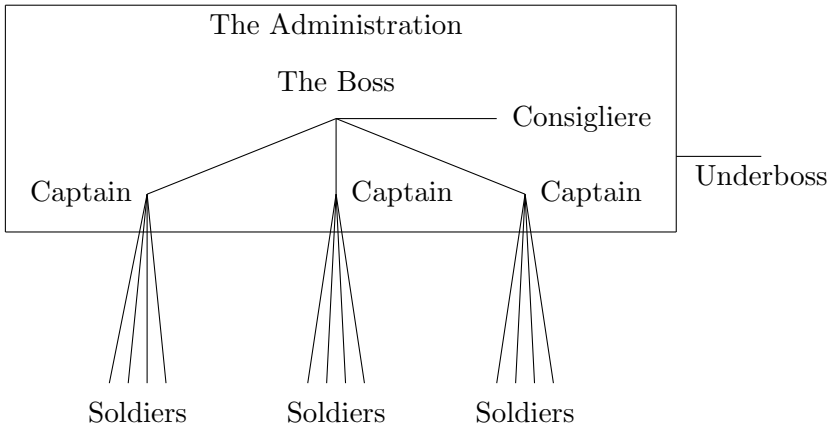

Figure 1.1: Structure of Bonanno Family

Note. Reproduced from Bonanno and Abromovitz (2011, ch. 16).

number of captains and the size of crews in each family were at the discretion of the boss, so crew size could range from 8 to 20 men.

The boss was elected by the family as a whole (Bonanno 2013). Once elected, the boss appointed his underboss, and captains (FBI 1963e, 24). The boss nominated his *consigliere* whose nomination was confirmed via vote by the rest of the family (Bonanno 2013; Pistone 1989, 314).

The boss was the "ultimate authority in the family" and his orders had to be obeyed without question or dissent. According to FBI reports, a refusal "to carry out an order or failure to carry out the order exactly are considered offenses against the family, and the penalty in such cases could be death" (FBI 1964a, 10).

The underboss was the second-in-command. The position came with few formal powers and was typically "a figurehead" within a family who represented "the [boss] on various Family matters" and who had "no independent power of his own" (Bonanno 2013, ch. 12). Most importantly the underboss "would act for the boss in his absence" (FBI 1963c, 4).

The *consigliere* was a specialist who acted "as a neutral counsel for anyone in the family who needs his advice or services in settling disputes and who is available to represent any member of the family who has been accused of a violation of the rules" (FBI 1963c, 4). The

consigliere had no formal powers apart from acting as an advisor and arbitrator. While the role of the *consigliere* was clear, the position's significance for LCN family's was not uniform. For instance, not every family had a *consigliere* (FBI 1963c, 59). Even when the position was filled, a *consigliere*'s significance depended "upon the personalities involved, and the position itself, in different families, would vary from a minor position to a very important one" (FBI 1964a, 6).

Captains were "directly responsible" for the activities and actions of their crew members, and they oversaw the enforcement of LCN rules and relayed orders from the boss to the crew (FBI 1963c, 4). Soldiers held the lowest rank in LCN. Assigned to a crew upon initiation, soldiers nevertheless enjoyed a great deal of criminal autonomy. In his testimony before a federal court, former Gambino captain Michael DiLeonardo remarked that as a newly made soldier he "had latitude now" and "just about free reins of anything I wanted to do" (U.S.A. vs. Gotti 2006). Former boss Bonanno stated that "each Family member is free to make his own living" (Bonanno 2013, ch. 12).

Two other informal positions are worth mentioning: associates and "the proposed." LCN associates were non-members who worked closely with or for "made" (i.e., initiated) LCN members in criminal rackets. Soldiers, for example, often worked with crews of their own comprised of such associates. An associate might, for instance, partner with a made member in an illicit gambling den or be responsible for collecting loansharking debts owed to the made member. The "proposed" were associates who had been proposed by a current member for LCN membership but who had not yet been initiated. Proposed status occurred often because LCN only "made" new members every few years.

A LCN family did not earn revenue like a typical licit firm; it was a cartel. Thus soldiers did not make money through a salary paid by the boss. Instead, members were encouraged to pursue criminal profits independently and in any manner they chose. Mafia criminologist Letizia Paoli described made members as enjoying "a very high degree of autonomy. Though some profit-making activities—most notably, extortion and business cartels—are centrally managed by the family leaders, even low-ranking 'soldiers' are free to set up any lawful or

unlawful venture they want. They are in no way obliged to select their partners from within the mafia community" (Paoli 2003, 5).

As a result, LCN members were involved in a wide range of ventures, both legitimate and illegitimate. FBI records indicate that members participated in submitting fraudulent insurance claims, selling adulterated cooking oil, bootlegging, labor racketeering, fencing, operating vending machine routes, truck hijacking, organizing burglaries, or smuggling cigarettes to name just a few sources of revenue. Similarly, members also frequently were part owners (formally or informally) of restaurants, bars, hotels, casinos, and even real estate. In places such as New Jersey, LCN imposed a street tax on all operators of illicit establishments. Few areas of criminal activity were off-limits to members: they were only forbidden from entering narcotics trafficking, counterfeiting, or financial markets.

By and large, however, LCN members earned the most revenue from gambling and loansharking (FBI 1963c, 147).[7] Here, too, members could earn revenue in numerous ways. Among other things, members could be partners with an associate who runs a gambling business, or they could run it themselves; they could operate or run a layoff operation themselves; they could sponsor high-stakes card and dice games; or they could distribute illegal gambling machines (Pennsylvania Crime Commission 1990). Alternatively, members could simply collect a street tax from otherwise independent gambling operators (Pennsylvania Crime Commission 1990). In loansharking, members either ran their own loansharking operation or they lent their illicit revenue to associates who were themselves loansharks.

To ensure the efficacy of the multi-market cartel, members were forbidden from directly competing with one another or impeding the profits of a fellow member in any way. This non-compete mandate extended to a member's unmade criminal associates or business partners as well. Soldier Joseph Valachi described the practice as follows: "if a man is in any kind of business and he goes partner with a [LCN] member no one can touch that man[,] he must have the same respect as a member as long as he is partner with a member"

[7]Loansharking is the practice of loaning money at an interest rate above the legal limit where the loan is not legally recorded, both the borrower and lender consider the transaction illegal, and the creditor can use violence if payment is not forthcoming (Reuter 1983).

(Valachi 1964; FBI 1963c, 10). LCN members had exclusive rights to the illicit profits of such associates and other members were not allowed to either "steal" from the associate or otherwise harm him or his profits.[8] However, an associate's protected status was not formally recognized until his soldier "recorded" the relationship with his own captain (see, for example, New Jersey Commission of Investigation 1973). In places like Chicago, the non-compete mandate was enforced territorially rather than on a case-by-case basis: captains were assigned to different sections of the city that were their exclusive domains (see FBI 1961, 242).

Members were obliged to pass on a portion of their criminal revenue to their superior: "if any crimes were committed, they were expected to pay ten percent of any take to the organization" (FBI 1963c, 43). Thus soldiers paid their captains who, in turn, paid the boss (FBI 1963c, 9, 30; U.S.A. vs. Gotti 2006). The amount transferred could vary with the needs of the captain and the earning capacity of the soldier. As former captain James Fratianno testified, "It all depends how you make the money or if it's - what the amount is. You are more or less on your own. If you only make a few thousand dollars, they don't bother you. If you make three-four hundred thousand, that is another story. You would have to go to the boss and he would take - you know, split it up the way he saw fit" (President's Commission on Organized Crime 1984, 32). Even though the amounts could vary, non-compliance was strongly discouraged because, as former Gambino Captain DiLeonardo testified in federal court, "That is the way the machine works. That is how they eat; associates, the soldiers, the captains, right on up. That's how we got to eat" (U.S.A vs. Gotti 2006).

[8]For a detailed discussion of such an arrangement, see New Jersey Commission of Investigation (1973, 86-89).

1.3 The value and vulnerability of a low profile

A low profile was La Cosa Nostra's most valuable asset: it helped its members coordinate criminal activity without going to prison. Outsiders would not recognize a soldier's repeated visits to a particular bar for what they were: meetings with fellow LCN members to coordinate a truck hold-up, for instance. Instead, outsiders would simply see a routine meeting amongst friends. Stealth allowed members to coordinate criminal activity without arousing the suspicions of law-abiding citizens who might otherwise call the police.[9]

Therefore, *ceteris paribus*, the lower La Cosa Nostra's profile, the higher its criminal profits, and vise vera. This is so because performing crimes covertly avoids public attention that might otherwise compel law enforcement to investigate LCN crimes. Less attention implies fewer investigations, arrests, life sentences, and so higher profits. Alternatively, less attention implies that larger, more profitable criminal ventures can be coordinated safely, ventures that would otherwise be too risky. Therefore, norms such as *omertà* that prohibited members from even admitting the existence of Cosa Nostra improved the criminal profits of Cosa Nostra members. The organization's low profile reduced the costs of safe criminal coordination, making it Cosa Nostra's most valuable asset.

But LCN's low profile possessed another important feature: its value was shared amongst all the Family members. Keeping a low profile did not exclusively benefit bosses or soldiers. All members benefited from its covert status because they all engaged in criminal activities. Ergo, the less attention the organization attracted, the greater the welfare of its members: all members could more safely coordinate with one another.

Shared assets are vulnerable to free riding. La Cosa Nostra's low profile was no different. Consider, for instance, a soldier facing a 45-year prison term for racketeering charges. He bears only a fraction of the costs and gains all of the subsequent benefits by drawing

[9]Some criminal organizations, like pirates, operate beyond the boundaries of the state. They ostensibly operate outside of broader society. In an environment beyond the scope of the state, they do not need to hide from the government in the same way. Stealth is less important for criminal profits. Insofar as stealth makes criminal coordination safe, such groups do not need to use it. The mafia, by contrast, is surrounded by nosey neighbors and law enforcement. In order to reach the same level of coordination and productivity as other criminal organizations operating outside civil society like pirates, the mafia must increase the stealth of its operations and existence.

attention to previously unidentified members or criminal activities of the secret society. Thus, the shared quality of La Cosa Nostra's low profile meant that members did not bear the full costs of behaving in ways that increased legal or public scrutiny.

That had important ramifications for how members resolved disputes: it incentivized violent dispute resolution. Given a dispute, LCN members had two ways with which to resolve it: one violent, and one not. Unfortunately, choosing violence was much more likely to attract a law enforcement investigation than not. And, since the costs of said investigation were shared by all members, LCN members had a perverse incentive to "oversupply" violent dispute resolution, threatening LCN's overall profitability and probability of survival.[10]

Among the many ways members could jeopardize LCN's surreptitious status, violent disputes were the most serious threat for two reasons: first, disputes occurred with great regularity, and, second, they were likely to escalate and thereby attract attention.

Disputes occurred often because contracts between members were necessarily underspecified. To avoid self-incrimination, LCN members were forbidden from writing anything down, meaning that members had to use verbal contracts instead of written ones for conducting business (FBI 1963g; Bonanno 2013).[11] The costs of memorization and misinterpretation, however, made creating complex, highly specified verbal contracts uneconomic. Therefore, agreements between members had to be relatively incomplete.

When contracts are underspecified, as most verbal contracts are, disputes will be frequent because traders cannot specify in advance how to divide the value of their trade when unexpected events occur. They must therefore determine who owes whom what after the fact, which invariably leads to a dispute. A drug dealer and his customer may want, for example, to specify in advance that the drug dealer is not at fault for any police raids that interrupt the delivery of his drugs. But in a world where it is prohibitively costly to create complete contracts, the criminals cannot incorporate that stipulation into their agreements ahead of time. They must instead settle for an underspecified, incomplete verbal agreement

[10]The issue can also be put in terms of the shared benefits of peace: because the benefits of a peaceful outcome were shared with all other members, beefing members had little incentive exert the effort necessary to reach a mutually acceptable resolution.

[11]See Valachi (1964) for examples.

that contains a tacit promise to "sort it out later" in the event of a police raid. Thus, when a raid does occur, the criminals cannot turn to the contract to determine who is to blame. Instead they must meet after the fact and try to determine amongst themselves who is at fault and who owes whom.

The incomplete and imprecise nature of verbal contracts ensured that disputes occurred regularly amongst LCN members. FBI reports stated that "there is considerable strife within families" and described LCN families as constantly coping with "dissension" and "territorial disputes, as well as disagreements as to the apportionment of [gambling] profits" (FBI 1963c, 49, 147). Joseph Valachi's (1964) autobiography (Valachi was a soldier in the Genovese family), is replete with examples of disputes with fellow members.[12]

The incomplete and imprecise nature of criminal contracts also meant that private solutions were not feasible. LCN members could not simply "contract around" such problems in advance, thereby raising the demand for arbitration services that were 1) provided by a third party and 2) fair (i.e. neither arbitrary nor capricious).

Disputes between LCN members were likely to escalate into violence because members were often recruited for their willingness and ability to use violence (FBI 1963c, 1963). Violence was, after all, one of the LCN's most important methods of enforcing contracts, collecting debts, and protecting cartel arrangements against non-members. So central was violence to LCN that a gun was always present during initiation ceremonies because "the gun signifies the inductee will live by the gun and that he is willing to die by the gun" (FBI 1965b, 8; see also Abromovitz and Bonanno 2011, ch. 18). Moreover, having participated in a murder was a necessary condition for membership up until the 1950s (FBI 1963c, 23). While not a necessary condition for membership after the 1950s, a member still had to be prepared to perform a murder: "Commission of a murder is no longer a prerequisite for acceptance, however, a member is obligated to do whatever is demanded of him by the organization, including murder if necessary" (FBI 1963g, 37). As LCN members had a

[12]Biographies and autobiographies of LCN associates such as Pileggi (1985) and Coen (2009) paint a similar picture.

comparative advantage in settling disputes violently, they had an incentive to produce too much violence too often.

A 1968 FBI report furnished details on precisely the kind of violent territorial disputes LCN wanted to avoid: in 1967, Gambino soldier Tommy Altamura threatened to kill associate Tony Esperti if he did not stay away from the 79th Street Causeway in Miami Beach. Altamura even requested permission from his superiors to have Esperti murdered, but his request was denied because there had been too many recent murders in Miami (FBI 1968b). Then, a few days later, Gambino soldier Joseph Indelicato "told Altamura that he had no authority to order Esperti away from Miami Beach" (FBI 1968a, 250). Shortly thereafter, Tommy Altamura was shot to death in front of six witnesses and Tony Esperti was charged with and ultimately found guilty of Altamura's murder. Esperti spent the rest of his life in prison.[13]

High-ranking members recognized and displayed genuine concern with the damage such murders could do to LCN's profile. After Altamura's murder, Joseph Indelicato and LCN member Joseph Silesi were subsequently "ordered to New York to explain their actions regarding the Altamura killing and to prove that they did not tell Esperti that Altamura was going to kill him" (FBI 1968a, 250). Indeed, in 1963 the head of the Central Investigation Bureau of the New York City Police Department testified before the Senate's Permanent Subcommittee on Investigations that, more than ever,

> public opinion is a concern of the [high-ranking LCN members]. All strong action must be cleared with higher authorities. So compelling is this concern that failure to control bad situations is a serious reflection on the boss. A recent assault on a Federal agent in Brooklyn caused a considerable decrease in the prestige of the head of the faction concerned. Many felt that the absence of discipline within his unit could cause his disappearance, although he personally was not involved (United States Department of Justice Records 1963, 70).

[13]For additional examples of LCN disputes that escalated into violence and then attracted a police investigation, see FBI (1968a, 260), FBI (1965b, 25-26), and Bonanno (2013, ch. 6).

Consider also that a confidential FBI informant relayed that he was instructed that "Fights within the family would not be tolerated" (FBI 1969, 7). Another informant reported that he was told that "any dispute which arose between him and a member of his own family or of another family should not be settled with violence" (FBI 1969, 7; 1967a, 28). Emotions like anger and frustration could cloud a member's judgement during a dispute and so "the object of many of our rules is to help a man contain his emotions while striving to do the right thing for the Family, himself, his personal family, and his friends" (Abromowitz and Bonanno 2011, ch. 19). Thus "[a]n aspect of manly behavior, according to my Tradition, is strict control over one's emotions" (Bonanno 2013, ch. 14). The express goal was to ensure that members took great care in how they behaved and especially when they chose to use violence (Abromowitz and Bonanno 2011).

1.4 Institutions solve incentive problems

La Cosa Nostra occupied a unique position within the world of organized crime. Whereas pirates or motorcycle gangs operate at the fringes of society, LCN operated within it.[14] LCN was thus the model "secret society" (Paoli 2003) and had institutions that both explicitly and implicitly protected its low profile against free riding.

1.4.1 Cosa Nostra commandments

The famous mafia code, *omertà*, the code of silence, was the primary (and explicit) means through which La Cosa Nostra kept its low profile. The norm deterred would-be informants by tying their honor and their life to their secret-keeping capacities. Members who violated the code and revealed the workings of Cosa Nostra to non-members were considered dishonorable because, according to Joseph Bonanno, the former boss of the Bonanno family, "*Omertà* in my Tradition is a noble principle. It praises silence and scorns the informer"

[14]For work on pirates see, for instance, Leeson (2007, 2010, 2011) and for motorcycle gangs, see Piano (2017, 2018).

(Bonanno 2013, ch. 38). Indeed, members who leaked LCN secrets were considered "unmanly" (Bonanno 2013, ch. 38). More importantly, however, informants were typically murdered (FBI 1963c, 17, 41).[15] Thus the *omertà* norm preserved LCN's low profile by performing a straightforward deterrence function.

LCN had other rules to ensure that its activities, and, in particular, its violent ones, did not attract unnecessary attention. For example, LCN forbade the murder of politicians, journalists, police, and other public servants because "any visible move against a public servant would turn politicians, law enforcement officers, and the public against us and we were sure to expect fierce retaliation against our Families and businesses" (Abromovitz and Bonanno 2011, ch. 7).[16] Using bombs was also prohibited because it specifically risked killing or injuring children, wives, or bystanders, and so when bombs were used "for a 'hit' at Youngstown during which other innocent people were killed," it "so infuriated 'us' that it has been necessary 'to get rid of a lot of young guys"' (FBI 1967a, 30).

The desire to avoid detection was apparent in its other rules as well.[17] Members had to be formally introduced to another member by a third member who knew the status of both people; no member could approach another without first being introduced as such. Members could not write down anything related to Cosa Nostra. Members could not behave in ways that might attract heightened attention from the federal government. Members could not engage in "narcotics, counterfeiting, smuggling, gun running, or any other activity which fell within the primary jurisdiction of the federal government" (FBI 1969, 7). Here too violators were punished harshly, often with death (FBI 1963c, 40-41). Even Cosa Nostra recruitment reflected the concern for silence. Any recruits known to have "ratted" on other criminals prior to being "made" were disqualified from joining Cosa Nostra (FBI 1963c, 40-41).

Violent disputes posed a serious threat to LCN's low profile as they attracted unwanted

[15]See FBI (1963d, 31) for an example of an underboss murdered for "talking too much."

[16]Renowned bootlegger Dutch Schultz was killed in 1935 because he was planning an unsanctioned "hit" on future Governor of New York, John E. Dewey, then chief assistant U.S. Attorney in the Southern District of New York (Abromovitz and Bonanno 2011, ch. 7).

[17]The rules that follow are from FBI (1963c).

police attention. Cosa Nostra thus implicitly protected its profile by discouraging members from using violence against one another. Two rules were meant to secure this outcome.

First, LCN simply forbade members from using violence of any kind against another member (FBI 1963c, 37-8). Even slapping was considered deeply offensive and prohibited (Bonanno 2013). LCN members took this rule very seriously. A member who raised his hands against another member could be punished with death (FBI 1963c, 42). The purpose of the "no-hands" rule was straightforward. It prevented physical confrontations between made members that might otherwise escalate by increasing the cost of such behavior.

Mafias supplemented the "no hands" rule by giving the family boss the exclusive right to order a murder. No member could commit a murder without first securing the boss' permission:

> Only a boss could give approval for a killing, and a [captain] did not have this authority. [An FBI informant] has advised that the method used by the boss today is to give the contract for a killing to one man (member) whom he holds responsible. This member is also held responsible for anyone he enlists to carry out the killing, as well as for the successful completion of the contract (quoted in FBI 1963c, 47).

Whether the intended victim was a member or not did not matter (see, for example, FBI 1965a, 107). All murders had to be sanctioned by the boss. For example, Gambino member Michael DiLeonardo testified that an associate was blackballed by LCN for almost killing a radio show host without permission: "it wasn't supposed to go that way. [The radio show host] wasn't supposed to be shot, to be killed . . . He was not shot in the leg, he was shot in the torso" (U.S.A. vs. Gotti 2006).

The monopolization of murder carried *de facto* force. FBI informants and testimony by former underbosses furnish numerous examples in which members proactively sought boss permission to murder members and non-members alike.[18]

[18]See, for example, FBI (1965a, 113, 107) and U.S.A. vs. Gotti (2006).

The boss's monopoly on murder was important because LCN did not forbid members from using violence against non-members, people with whom members often worked and interacted (Bonanno 2013; Abromowitz and Bonanno 2011). Members had an incentive to resolve disputes with associates violently. Indeed using violence against non-members was essential for LCN profits. Without the threat of violence LCN would be an ineffectual cartel and protection firm. Murders, however, are particularly likely to attract public and police attention. To discourage members from committing unnecessary murders that raised LCN's profile, LCN gave bosses the sole authority to order a murder.

1.4.2 Cosa Nostra courts

The aforementioned rules are straightforward examples of a criminal organization incentivizing its members to avoid escalated disputes. But organizational rules that deter bad behavior cannot entirely remove the threat of escalation, especially when disputes and the thoroughness of police investigations are difficult to predict. As such, LCN supplemented its deterrence rules with a dispute resolution mechanism called the *arguinamenda* or "sit-down" (other names include *arrujemento* or carpet). The *arguinamenda* was the institutional gap-filler where incentive alignment proved unable to deter cheating, disagreements, and violence.[19]

FBI informants explicitly and repeatedly emphasize that *arguinamenda* were provided to keep disputes low-grade. An LCN member-turned-FBI informant reported that "any dispute which arose between him and a member of his own family or of another family should not be settled with violence, but that before this point were reached, he should immediately notify his [captain]" to initiate an *arguinamenda* (FBI 1967a, 28). Another member-turned-informant from New York's Lucchese family relayed that "fights within the family would not be tolerated" and that "differences should be brought to the attention of the [captain] of the participants in the disagreement" to initiate an *arguinamenda* (FBI 1969, 7). Yet another member-turned-informant advised that "Violence to the person of

[19]For a detailed description of an *arguinamenda*, see for instance FBI (1962e, 29).

another member is forbidden, but may be mitigated by circumstances if an [*arguinamenda*] is possible before retaliation" (FBI 1963c, 37-8). *Arguinamenda* existed "for the purpose of settling differences" (FBI 1963c, 45-6). Another was "told something to the effect . . . 'if you have a disagreement with another individual who is 'made,' do not try to settle it yourself, but come to us and we will reach the right settlement"' (FBI 1967a, 29).[20]

All Cosa Nostra families, including the remote and smaller families in Michigan, Wisconsin, and California, used *arguinamenda* to keep disputes low-grade. Because any dispute had the potential to escalate and thereby jeopardize LCN's low profile, *arguinamenda* were used to settle a wide variety of issues including those related to honor, the division of criminal proceeds, territorial issues, and violations of Cosa Nostra rules among other things. Sometimes *arguinamenda* resolved disputes between "mobbed-up" associates or associates and "made" members.[21]

Three distinct groups participated in an *arguinamenda*: the judiciary panel, the plaintiff's party, and the defendant's party. Few others could attend.

The judiciary panel presided over the trial and consisted of "the most authoritative and knowledgeable people in the area", usually the family's boss, underboss, *consigliere*, and captains (FBI 1963a, 2, 3; 1964b, 15; 1962a, 481; Bonanno 2013). Since *consigliere* and captains could not always attend, the boss and underboss were often the only high-ranking members present. Formally the judicial panel selected the winner through a vote (FBI 1967a, 33; 1964b, 15). More often than not, however, the boss would make the ruling himself (see, for example, FBI 1964b, 15).

Since members had the right to select someone from the family to represent them, both the plaintiff and defendant attended the trial with representation (FBI 1967a, 33). It was the responsibility of the plaintiff's and defendant's representation to present oral arguments on behalf of their LCN "clients." Typically soldiers had to have their own captains speak on their behalf although the *consigliere* could perform the same function (Valachi 1964).

[20]See also FBI (1967a, 29) or FBI (1963h, 18), in which Philadelphia boss Joseph Ida had to be called to settle a dispute because "friction was increasing and it could lead to eventual violence."

[21]See, for example, New Jersey Commission of Investigation (1973).

Captains were not compensated for this service; it was their obligation (FBI 1967a, 33).

Disgruntled members could not demand a formal *arguinamenda* immediately. They first had to notify their superior within the family: "when an accusation is made by an [LCN soldier] against another [LCN soldier], both parties relate their side of the story to their [captain]" (FBI 1962c, 6-7). Captains with their own grievance would notify the boss. Frog leaping one's way up the hierarchy was strongly discouraged (FBI 1962c, 6-7; 1963c, 40-41).[22]

That formal procedure ensured that the disputing parties reached an intermediate stage prior to the formal *arguinamenda*. Here the disputing parties had an opportunity to reach an out-of-court settlement through the intercession of their superiors. For soldiers from the same crew hopefully their "[captain] settles the dispute" after hearing both sides (FBI 1962c, 6-7). If the soldiers were from different crews, the soldiers must both "bring it to the attention of his [captain] who will then arbitrate the dispute on his behalf" (FBI 1963c, 40-41). A captain with his own grievance "must bring his problem to the [boss] whether the problem is with the [boss] or another [captain]" (FBI 1963c, 40-41). It was considered dishonorable to request an *arguinamenda* without first trying to reconcile with the offending party.

During his attempt to settle, the superior usually contacted witnesses to verify the facts of the dispute. Genovese soldier Valachi, for example, was called by his captain after a fight between two mob associates to verify whether or not he saw a knife pulled. After stating he saw no knife, Valachi reports that his captain "told me that he was not going to use me as a witness" in the upcoming trial (Valachi 1964).

If settlement was impossible, as was often the case, the captain "brings it to the attention of the Family Boss for a hearing in order that the dispute may be resolved" (FBI 1962c, 6-7). The boss then decided whether or not to hear the case. Sometimes bosses considered the disputes insufficiently serious to hear and gave permission to the captains to resolve the

[22]One informant stated that this rule had changed, but it is not clear the how widely this practice was adopted (FBI 1963c, 39). Soldiers could not, for example, appeal directly to the boss without first notifying their captain (Valachi 1964; FBI 1969, 7; 1967a, 28).

disputes (FBI 1963c, 65; Bonanno 2013). When the boss did consider the dispute sufficiently important, the stage was set for a formal *arguinamenda*.

The trials were straightforward. On a set date, the judicial panel, plaintiff, defendant, and their respective representation gather at a prearranged location. There, the judicial panel would hear oral arguments from both the plaintiff and defendant's representatives. The boss was free to interject at any time with probing and pointed questions to measure the veracity and standing of the conflicting parties. Once the judge was close to reaching a decision, he might briefly consult his underboss or *consigliere*. Such deliberations rarely lasted long and the trial ended with "a mutually agreed upon compromise or an authoritative decision" (FBI 1963c, 45-6) made by the boss. The whole trial would likely last less than a few hours and was often completed in one sitting. No one could leave the room during the trial.

Deviations from that general pattern described above did occur. All of the family's high-ranking members were not always present at the trial. For instance, the future boss of the Bonanno family, Joe Bonanno, was a defendant at a trial where the underboss acted as judge (Bonanno 2013).[23] Occasionally, defendants and plaintiffs represented themselves (FBI, 1963d, 11-12) and sometimes oral arguments were given prior to the trial rather than during the trial (Valachi 1964).

Court jurisdiction was determined by the location of the grievance rather than familial membership (FBI 1963c, 149-150). For example, one Magliocco family associate petitioned a Magliocco soldier who, as per proper procedure, notified his captain who in turn notified Joseph Magliocco, the family boss. But rather than resolving the dispute, Magliocco deferred the resolution to Angelo Bruno, boss of the Philadelphia family.

Bosses were expected to use the alleged intent of the litigants to inform his ruling. Thus over the course of the trial bosses had to determine whether "the accused acted with malice" or if instead "[the accused] acted out of emotional strain and not intentionally" (FBI 1967a, 33). Even ignorance was a reasonable defense: "if it can be shown that the member had

[23]Bonanno wasn't even a member at the time but was granted the right to a trial given that he was very close to being made. For an example in which the underboss is not present for a trial, see FBI (1962a, 100).

no way of knowing the person he stole from was also a member, he may be excused" (FBI 1963c, 41).

Despite operating in an anarchic context, LCN courts produced enforceable rulings. *Arguinamenda* rulings, whether handed down by the boss or the Commission, were enforced with the threat of violence. Bosses had the formal authority to compel dispute resolution through a variety of punishments ranging "from censure to death" (FBI 1962d, 88). Indeed "If the violation was one which draws the death penalty, the boss will assign the necessary men to carry out the execution of the accused" (FBI 1962e, 29). Therefore, a soldier who disobeyed a court's ruling to compensate his partner for theft risked execution, for example.

As disputes could escalate within hours if left unresolved, speedy trials were essential. Thus *arguinamenda* were resolved remarkably quickly. Former Bonanno family member Salvatore Bonanno emphasizes speed as one of the defining features of LCN courts in contrast to the legal court system:

> In your world, a trial court is the tribunal where either a jury or a judge makes a factual determination as to who is right and who is wrong . . . The system does not provide swift resolution. In fact, it favors the alleged wrongdoer over the victim, in order to protect the innocent from wrongful punishment. Civil cases can take years to be decided and even longer to go through the appeal process. Meanwhile, the accused goes about his business, exhausting every avenue of defense—while the victim continues to suffer without having closure. In our world, this never happens (Abromowitz and Bonanno 2011, ch. 19).

Thus it was common for a decision to be handed down within a week of a dispute occurring. The Rizzo-Brocato brother dispute was typical. Carl Rizzo and Sam and Joseph Brocato were all soldiers of the Magaddino family in Buffalo. All were partners together in a loansharking operation. After some period of time, Rizzo accused the Brocato brothers of not paying back money owed to him. Their boss, Steve Magaddino, held trial and ruled on the dispute within two days of first hearing of it (FBI 1962b, 11-12). To facilitate the

speed with which disputes could be resolved Cosa Nostra families even required that "The whereabouts of a 'soldier' should always be known to his 'capo regime' in order that he can be contacted almost immediately" (FBI 1964a, 10). For perspective, consider the speed with which licit courts operated: for all non-jury cases, both criminal and civil, heard in state trial courts of general jurisdiction across the US in 1956, the average time between when a "first filing" occurred and when the case came to trial was 6.5 months (Bartiloni and Picciotti 1957, 529, ft. 1). As this does not include the time it takes to conduct the trial, this is an underestimate of the full length of time until resolution.

1.4.3 Resolving disputes within families

Fairness was a serious issue for Cosa Nostra courts. How could members trust bosses to be fair and impartial in their rulings? If disputants could not trust their judge to be just, then members would either avoid going to court or they may dispute the ruling itself. Either decision left a dispute unresolved and therefore likely to escalate into violence.

Indeed, bosses had considerable latitude for self-dealing because they did not face the same formal constraints and informal norms that guarantee a fair trial in licit courts. Cosa Nostra bosses were not bound by precedent; they had no formal legal training; they did not produce written opinions that could be publicly critiqued by a body of well-educated legal specialists; they were often related by blood or marriage to one of the disputants; they held a jurisdictional monopoly; they held their positions for life; and they held absolute authority within the family. An FBI report relays, for example that "Jimmy was a member of the Philadelphia family, but did not approach Angelo Bruno directly in regards to this dispute, but had, however, used an intermediary, Ignatius Denaro . . . [because] Jimmy was not a close friend of Angelo Bruno and was concerned that Bruno would not act impartially because he was a close friend of Sam, even though Sam is a member of another family" (FBI 1962a, 478-481).

Cosa Nostra members solved the problem of fairness and thereby helped to maintain LCN's low profile by giving bosses an "encompassing interest" in their family (Olson 1993).

Recall that family members had to pay the boss a percentage of their illicit profits. One member-turned-informant stated that, for example, "if any crimes were committed, they were expected to pay ten percent of any take to the organization" (FBI 1963c, 43). Soldiers usually passed a cut to their captains, who would then pass it on to the boss. Indeed, a soldier "is required to tell his 'captain' before he enters any new business, legal or illegal" (FBI 1963c, 30). According to the FBI, one "Informant stated this is required so the 'captain' will be aware of all his men's business and he can place a higher assessment on them if they make a lot of money or he can take a piece of their operation or business if he so desires" (FBI 1963c, 30).[24]

Giving bosses a percentage of all illicit profits gave them a monetary incentive to protect LCN's low profile by resolving violent disputes in a mutually agreeable manner. This is true because a boss who was paid a share of all illicit profits would be disproportionately hurt by any disputes that turned violent. While each individual soldier would be made slightly poorer, the fact that the boss was paid a share of all criminal profits ensured that the boss suffered the most monetarily. For example, a police investigation that causes an LCN family with 100 members to lose \$10 per member would reduce the boss's tributary revenue by $100 * \$10 * x$, where $\boldsymbol{x}$ is the percentage cut each member pays to the boss. As long as $x > 0.01$, the boss will suffer more than any other member from the violent dispute. Indeed, if the boss did not resolve the dispute in a manner that was acceptable to both parties, the dispute went unresolved and, once again, risked escalating into violence. By concentrating the costs of unwanted attention on the boss, the encompassing interest gave bosses a monetary incentive to arbitrate disputes in a manner that was mutually acceptable to all parties involved.

Deep ethnographies, autobiographies, and FBI reports describe LCN bosses as having an "encompassing interest" (Olson 1993) as it pertains to disputes. Bosses had a preoccupation

[24]Moreover, an FBI informant advised that "when the bosses need money 'the books will be opened'. Informant stated the act of making individuals is a business proposition. If the bosses need more money, they make more members and therefore have more individuals bringing in money" (FBI 1963c, 32). Another advised that "a good money maker could be proposed and 'made', but would not be invited to all the meetings. Actually he would be 'made' so the 'boss', or 'captain' or some member could get some of his money" (FBI 1963c, 21).

with and a strong aversion to disputes amongst members. For instance, the anthropologist Francis A.J. Ianni who was invited to shadow a New York LCN family for two years observed that the family boss was furious at a family member because "his own interests in New Jersey would be jeopardized by any dispute involving a member of the family" (Ianni and Reuss-Ianni 1972, 142). During a Cosa Nostra trial caused by a violent fight between two soldiers, Gambino family underboss Albert Anastasia excoriated the aggressor for risking a war with his violent behavior (Valachi 1964). In a conversation recorded by the FBI between the boss of the New England family Raymond Patriarca and one of his soldiers, Patriarca displayed concern at the prospect of a mafia war. Patriarca said that Lawrence Gallo, a particularly erratic and violent member of the Profaci family, had to "go." According to Patriarca, Gallo "is gonna be a trouble maker he's gonna jeopardize everybody else's (obscene) life around here. Eventually...he's gotta go" (FBI 1963e, 22). Indeed it was "stressed" to one LCN member during his initiation that "they wanted no wars" (FBI 1969, 7).

Qualitative descriptions of bosses' encompassing interest are strongly supported by their behavior. The daily activities of bosses revolved around preventing violent disputes: Philadelphia informants "have repeatedly advised that [the Philadelphia boss] is constantly arbitrating disputes between members of the Philadelphia Family of La Causa Nostra" (FBI 1962b, 70-71). The informants' description of the Philadelphia boss is representative of the chief business of the boss because, as the New York boss Joseph Bonanno stated, "peace-keeping, I reiterate, was the [bosses'] main responsibility" (Bonanno 2013, ch. 12).[25] Indeed Bonanno's insight is echoed by an FBI report on the Pittsburgh family. Pittsburgh's family boss, La Rocca,

> established the axiom that negotiation would be utilized in place of assassination and he commenced a policy of endeavoring to patch up disputes and grievances by discussion and conciliation. If a member was in violation of any of the definitely forbidden acts of the group or was intractable in relation to a lesser

[25] Additionally, an FBI informant relayed that "the boss of a family is responsible for the entire family" (FBI 1962c, 28). See also FBI (1962b, 6).

> matter, La Rocca would not hesitate to authorize a hit. The idea held by La Rocca that greater mutual benefit and profit could result by peaceful arbitration gradually proved its soundness to other racketeers in the Pittsburgh area and the result is that there have been fewer mob killings in the Pittsburgh district than in any other city of comparable population (quoted in FBI 1967b, p. 3-4).

In their conversation and behavior LCN bosses displayed a real concern with resolving disputes amicably. That concern was a direct product of a boss's encompassing interest in the wealth of the family.

A LCN boss's encompassing interest did have limits, however, and for economic reasons. Not all disputes were likely to escalate into violence. Trades between legitimate businessmen, for example, typically do not escalate because they have access to government protection services and the courts system. In the context of LCN, giving bosses an encompassing interest ensures that resolving disputes amicably maximizes his personal wealth. But if members had entirely legitimate businesses, not only are disputes less likely to occur there, but such disputes are also less likely to become violent because the members can use government courts. Such disputes are not, therefore, a threat to LCN's low profile and giving bosses an encompassing interest in such businesses would be superfluous. Access to a cheap substitute like the public court system reduces member demand for fair arbitration from their boss and the benefits of giving the boss an encompassing interest.

The limits of the boss's encompassing interest reflected the presence of cheap substitutes for arbitration in legitimate markets: members were usually not required to "kick up" money earned through a licit operation to their superiors. To the contrary, "Members, whether 'soldiers' or 'capos,' can go into and manage their own legitimate businesses; and what they earn in this manner belongs to them and not to the mob . . . However, the syndicate does get its 'take' in whatever illegitimate activities the individual is involved" (New York State Legislature 1986). A former LCN captain admitted that "a lot of people in the family had their own legitimate businesses and what they made was their business. The only thing we were involved in was the illegal activities" (President's Commission on Organized Crime

1984).[26]

Economizing logic predicts that the encompassing interest will extend until the marginal benefits of boss fairness equals the marginal costs of producing it. The limits of a LCN boss's encompassing interest reflected that principle. In licit markets the demand for boss fairness was lower and therefore there was little gained by giving bosses an encompassing interest in legitimate operations. The benefits of extending the encompassing interest further did not exceed its costs. Thus LCN families preserved their low profile by giving bosses a monetary incentive to be fair.

1.4.4 Resolving disputes between families

LCN's low profile was as vulnerable to disputes between families as it was to disputes within families. Because it was a norm that "no Family and no Father should interfere with the affairs of another Family," there was no easy way to resolve disputes involving two separate families (Bonanno 2013, ch. 13).[27] The Gambino boss, for instance, could dispute the authority of the Lucchese boss to enforce a ruling that harms a Gambino soldier. As each LCN boss was considered the final authority in all issues pertaining to his family, there would be a stalemate. This bilateral enforcement problem leaves the dispute unresolved and at risk of escalation. The value and protection of the organization's low profile made imperative the development of a mechanism for resolving disputes between families in a mutually acceptable, (i.e., fair) way.

LCN overcame this problem through the creation of its own supreme court, the Commission. Considered "the highest governing body of 'La Cosa Nostra'" (FBI 1962a), the Commission was a judiciary panel comprised of the bosses from the nine most powerful LCN families, five of which were in New York. The Commissions was primarily responsible for 1) resolving interfamilial disputes, and 2) acting as an appellate court (FBI 1965b, 4; 1963f,

[26]Sicilian Mafias have similar rules. See, for example, Paoli (2003, 147).

[27]That norm was a binding one. In Philadelphia, "Bruno explained to Sam that because Sam was not a member of the Philadelphia family, he Bruno, could not offer him any final solution to the problem but merely offer advice" (FBI 1962a, 479).

10). A former boss-turned-informant described the Commission's work as follows: "if there is a problem between one family to another, they more or less, you go to [the Commission] and they settle the dispute, but they have nothing to do with what we do, who we kill, who we do business with. They don't participate in that" (President's Commission on Organized Crime 1984, 33-34).

Resolving interfamilial disputes was the Commission's primary responsibility (FBI 1963c, 45-6; President's Commission on Organized Crime 1984, 33-34.).[28] FBI reports make clear the division of labor between bosses and the Commission: "in the event of troubles within the family the boss will adjudicate them as between members of the family, but should the trouble be between two families he must report it directly to the Commission" (FBI 1962c, 28). The Commission solved the bilateral enforcement problem in disputes between families by adding one higher body of authority above LCN bosses. Just as two "beefing" soldiers could reduce negotiation and enforcement costs by petitioning to a stronger mediator, so too could bosses reduce negotiation and enforcement costs through the Commission, a body whose judicial authority superseded that of any individual boss. This criminal supreme court allowed LCN families to economize on resources that would otherwise be used to produce bilateral enforcement mechanisms like reputation or ostracism.

As in the case of the encompassing interest of bosses, mafioso autobiographies and FBI material show that the Commission was expressly intent on avoiding bloodshed between disputing members (FBI 1977; 1964c, 12). Former Commission member Joseph Bonanno emphasized the avoidance of escalation as the chief responsibility of the Commission during an interfamilial conflict: "Well, after Albert was shot, Tommy Lucchese came to me and said several boys in Anastasia's Family were out for revenge. We had to do something, he said, or there would be fighting. It was up to us on the Commission to keep the peace" (Bonanno 2013, ch. 19). Joseph Bonanno described the Commission as "an agent of harmony" and his son, himself a member of the Bonanno family, confirmed that "The purpose of the

[28]For an exception to the rule, see Valachi (1964) where Valachi details one arguinamenda in which a boss from a different family acted as judge. However this exception only occurred because Valachi asked that his own boss not be involved in the *arguinamenda*.

Commission was to maintain peace among the Families, not to promote war" (Bonanno 2013, ch. 13; Abromowitz and Bonanno 2011, ch. 5).

The Commission also helped to produce fair trials in disputes within families by acting as an appellate court. *Arguinamenda* rulings were not final. If a family member found an *arguinamenda*'s ruling unfair, he could appeal his case to the Commission via his boss whose subsequent decision was final (FBI 1962a).[29] In a secret FBI recording a Philadelphia family captain described this process as follows:

> If there is a beef in the family . . . . The commission gets together and tries to straighten it out otherwise, who the [obscenity] kill them all each other. So they get together and try to straighten it out. You know, somebody intervenes, and then the Commission gets together . . . Say, for instance, Ange, some of us and there is friction, there is fights, some guys disappear. The commission hears about it, you know...they give you a hearing and try to iron the thing out somewhere else. Take a vote (quoted in FBI 1964c, 11-12).

Reversal via the Commission was costly for bosses. Not only did they have to appear before the Commission to explain the dispute and their decision, but the threat of reversal was embarrassing. Bosses were meant to be the final authority in their family, people of strength and deserving of respect (Bonanno 2013). Frequent overruling undermined that reputation. Thus bosses had an aversion to being overruled by the Commission. The Philadelphia Boss Angelo Bruno, for example, is described in FBI reports as hesitant to take a dispute to the Commission. Bruno was instead "anxious to settle the dispute between Jimmy and Sam" and that he "strongly desired that Sam and Jimmy should get together and work out their problem" because having the Commission oversee the trial would make the parties involved look "ridiculous" (FBI 1962a, 478, 479; 1962f, 1).

However, for the threat of overruling to be credible, Commission members had to face incentives that differed from the bosses. If Commission members did not face incentives

[29]See also, FBI (1962a, 481; 1962d, 88; 1963c, 45-6).

different from a typical boss, then the boss would not expect the appellate court's decision to differ from his own and therefore he had no incentive to change his behavior.

The Commission was designed to do just that. The Commission was comprised of nine people, all of whom were bosses of LCN families. Having bosses from separate families on the Commission ensured that they had no direct pecuniary or familial interest in the disputants, unlike a typical boss. Furthermore, whereas bosses had complete control over an *arguinamenda* ruling, Commission decisions were determined by majority vote. That way final decisions were the result of navigating the preferences of many separate individuals rather than a single person.[30] Thus the composition and structure of the Commission gave its members a set of incentives that differed enough from any individual boss to make the threat of overruling credible.

Thus the ability to appeal a decision to the Commission performed an error-correcting function. The existence of an appeals process compelled the lower-court judge, in this case the family's boss, to "take the possibility of review by a decision-maker with different incentives into account when making his or her initial decision, thereby constraining the trial judge's decision making" (Drahozal 1998, 471). The threat of review by the Commission and the associated reputational damage helped to incentivize bosses to resolve disputes in a mutually agreeable manner and thereby preserve LCN's low profile.

1.5 Efficiency of Cosa Nostra courts

Cosa Nostra courts were potentially valuable not only for their stealth-preserving function, but also because they reduced violence, itself a costly activity. After all, the less money members spend fighting one another, the more they can devote to pursuing additional profit opportunities. Perhaps Cosa Nostra's peace-keeping institutions existed to reduce the costs of violent activity *per se* rather than to protect the organization's low profile from free riding. The history of LCN and other mafias like it suggest otherwise.

[30]Indeed the Commission often divided into so-called "conservative" and "liberal" coalitions (Bonanno 2013; Abromowitz and Bonanno 2011).

1.5.1 American Cosa Nostra Courts were effective

For Cosa Nostra courts to be a solution to the problem of a low profile held in common, they had to be effective. If *arguinamenda* never settled disputes, then Cosa Nostra courts could not be the institutional solution I argue they are. If, however, *arguinamenda* successfully settled disputes, then we can be more confident of their stealth-protecting function.

One measure for evaluating Cosa Nostra court effectiveness is the behavior and assessments of its own members. By that measure, they were a resounding success: the courts were used on a regular basis and they often resolved disputes in an amicable way.

Recall that Philadelphia boss Angelo Bruno was described by FBI reports as "constantly arbitrating disputes between members of the Philadelphia Family of La Causa Nostra" and that Joseph Bonanno, former Bonanno family boss, said that "peace-keeping, I reiterate, was the [bosses'] main responsibility" (FBI 1962b, 70-71; Bonanno 2013, ch. 12). This is no coincidence. Much of a boss's time was devoted to such disputes because the demand for his services was so high. Indeed a Genovese soldier observed that

> these [courts] are held every day . . . To show you how many there are day after day there are about four to five thousand members in New York City alone that includes young and old one can imagine how things go smooth without killing themselves every day but they manage to keep peace until one of the bosses goes crazy and he wants to rule all the families . . . . I wanted to tell the readers as to make them understand how the mob handles carpets almost every day if it ain't one thing its another and they are always having tables (Valachi 1964, 876, 882).

The demand for arbitration services was a product of the quality of judicial rulings: they typically resolved disputes amicably. In Chicago, for example, an informant described a typical *arguinamenda* outcome where the ruling allowed disputants to "again enjoy a friendly relationship" (FBI 1961, 234).

Even associates sought, and occasionally secured, access to Cosa Nostra's courts (FBI 1964d, 3-5; FBI 1962a, 505-506). That associates pursued the services is further evidence of the institutions' efficacy.

Descriptions of former members further confirms the success of La Cosa Nostra's system of justice.[31] Even the captain-led settlements that preceded formal *arguinamenda* were successful at keeping disputes low-grade. Former boss Joe Bonanno praised them in the following way: "business disputes rarely rose to the level of violence. If two Family members disagreed over a business arrangement between them, the matter was usually resolved at a hearing by their group leaders, whose decisions were binding" (Bonanno 2013, ch. 12).

Thanks to the effectiveness of its stealth-economizing institutions, and, in particular its courts, LCN operated without harassment or public recognition in the U.S. for over half a century. Francis Ianni, an anthropologist who spent two years conducting field work within a New York Cosa Nostra family, observed how LCN evaded public attention:

> Not until 1951, when Senator Estes Kefauver's Senate Crime Committee concluded that 'there is a nationwide crime syndicate known as the Mafia' . . . did the specter of a Mafia reappear. Even after the Kefauver Committee's investigations, the existence of a national organization of Italian-American criminals—whether Mafia or something else—remained a plausible but unproved contention of some law-enforcement agencies and federal investigative bodies. In the early 1950's, even the Federal bureau of Investigation doubted the existence of a Mafia or any other national crime syndicate in the United States (quoted in Ianni and Reuss-Ianni 1972, 3).

Indeed, the very existence of the organization was not confirmed publicly until the McClellan hearings in 1963. Further, as late as 1977 confidential FBI reports included sections devoted to evidence confirming the organization's existence, implying uncertainty

[31] See also former member Salvatore Bonanno's discussion of LCN customs that "encouraged our members to exhaust all avenues of resolution and accommodation before breaking the peace" (Abromowitz and Bonanno 2011, ch. 19).

surrounding whether or not LCN did in fact exist.[32]

Thus LCN managed to preserve its low profile over decades despite the asset's vulnerability to free riding. LCN's longevity and its enduring legacy is a testament to the efficacy of its institutions in incentivizing members to avoid violent disputes altogether.

1.5.2 The 'Ndrangheta's were not effective

The success of LCN's courts does not necessarily rule out violence *per se* as a factor behind their existence. Ideally, to evaluate the significance of a low profile for the American LCN's peace-keeping institutions, we would like to see how the institutions of an identical mafia that doesn't value a low profile differs from the American LCN. Because maintaining effective and formal dispute resolution institutions is costly, we can expect such a mafia to lack such institutions. Were we to identify such a mafia, we could more confidently conclude that the value of a low profile, not the costs of violence of *per se*, drives the existence of Cosa Nostra courts.

Consider the 'Ndrangheta, a contemporaneous mafia-type organization from Calabria, Italy. Historically, the 'Ndrangheta and its clans shared many important similarities with the American LCN.[33] As it originates from Southern Italy, the organization shared with the American LCN traditional mafia customs, including *omertà*. The 'Ndrangheta and American Cosa Nostra were also similar in size (Catino 2020) and, like the American Cosa Nostra, the 'Ndrangheta membership had autonomy to enter a highly diverse array of criminal activities (Sergi and Lavorgna 2016; Paoli 2003). The 'Ndrangheta, however, differed in an important respect from its American counterparts: the 'Ndrangheta did not value a low profile as much as the American LCN.

The 'Ndrangheta was renowned for its relatively casual concern with secrecy and maintaining a low profile. Mafia scholar Letizia Paoli describes the 'Ndrangheta as "more generally . . . much less rigorous than the [Sicilian] Cosa Nostra in enforcing secrecy" (2003, 112) and the former Sicilian Cosa Nostra member Tomasso Buscetta dismissed the 'Ndrangheta

[32]See, for example, FBI (1977).

[33]The 'Ndrangheta is today one of the most powerful mafia-type organizations in Italy.

as "an entity *sui generis*, from our point of view, because of the lack of seriousness in recruitment and its very low level of secrecy–almost non-existent, really" (Arlacchi 1994, 53 in Catino 2019; see also Paoli 2003).

So unconcerned were 'Ndrangheta clans with maintaining a low profile that, unlike other mafias, they were able to exclusively recruit those related by blood or marriage (Sergi and Lavorgna 2016; Catino 2020; Catino et al. 2022). Sons of 'ndranghetista often follow in their father's footsteps and 'ndrina bosses are usually replaced by their sons (Paoli 2003; Gozzoli et al. 2014). The result, mafia scholar Letizia Paoli declares, is that "for outsiders it is therefore in most cases virtually impossible to distinguish the mafia family from the blood family of the most prestigious members" (Paoli 2003, 31). As a result, locals, law enforcement, and even scholars can identify members with a high degree of accuracy from surname alone (Gozzoli et al. 2014).[34] The same is not true of the American LCN, where recruits needed only to have Italian heritage and associates could come from any background.

The 'Ndrangheta's relative unconcern with maintaining low profile was a natural product of its economic context, one that differed sharply from its American compatriots. Historically, bribery and intimidation have been cheaper in Italy than in the US.[35] Low costs of bribery and intimidation reduces the value of a low profile because bribery and a low profile are substitutes: they both help to avoid imprisonment. If violence erupted amongst 'Ndrangheta members, members could, and often did, simply bribe or intimidate key witnesses or government officials to avoid arrest or lengthy prison sentences.[36] A low profile and

[34]Catino et al. (2022), for example, identifies the membership of major 'Ndrangheta clans using just family trees. Similar work concerning the American and Sicilian mafias cannot reasonably be produced as those mafias not only allow those unrelated by blood or marriage to join, but also because some explicitly cap the number of direct family members in the organization (Catino 2014).

[35]There are many reasons for the lower costs of bribery and intimidation in Italy. Relative to America, Italian politicians do not face severe electoral sanctions for corruption; Italy's government officials have considerable discretion in the enforcement of its complex legal system, the Italian public has little confidence in political and state officials; there is less cultural concern with civic virtuosity within Italy, among many other factors. Vannucci (2009) identifies 15 separate factors considered "traditional" explanations for the high level and persistence of corruption in Italy. See Gambetta (2018) for yet another explanation for the puzzling persistence of Italy's corruption.

[36]According to a Calabrian public prosecutor, the 'Ndrangheta pays witnesses to "retract whatever they have stated or prevent their confessions" (Siebert 2007, 27) and according to criminologist Letizia Paoli, "regional and national politicians continue to accept, and even seek, mafia electoral support in exchange for various favors" (Paoli 2015, 764).

the institutions designed to preserve it were, therefore, not as valuable to the 'Ndrangheta given its access to cheap substitutes like bribery or intimidation.

Thus we can expect the 'Ndrangheta not to develop effective or formal institutions that keep disputes low-grade. And indeed, it did not. Instead, violent blood feuding was the 'Ndrangheta's primary dispute-resolution mechanism. Rather than trying to keep disputes low-grade, 'Ndrangheta custom encouraged precisely the opposite: clans encouraged escalation instead of peace, "both the single mafia families and members were entitled—and to a certain extent obliged if they did not want to lose their honor—to react directly against all the violations which affected them directly, even if they were committed by associated individuals or units" (Paoli 2003, 128).

The 'Ndrangheta's three principle values of revenge, honor, and respect defined the rules of feuding practices (Sergi 2018). A common cultural phenomenon in southern Italy, vendettas follow a simple procedure: infractions against a member's honor can only be rectified through violence. All family members were expected to participate in the feud and it is common for subsequent acts of revenge to follow the first (Ingrasì 2021). So important were the values of revenge and honor that, unlike the American LCN, female relatives were not "off limits." Adulterous sisters could be murdered to protect the honor of the family and, when a 'Ndrangheta member was found cooperating with law enforcement, his whole family could be killed, the so-called practice of *vendetta trasversale* (Sergi 2018; Ingrasì 2021). This contrasts sharply with the American LCN, where direct family members could not be held responsible for the misdeeds of their made relatives.

The custom of vendetta permeated the 'Ndrangheta's culture and the families of its members. Whereas American LCN members could not tell their wives of LCN's existence, 'Ndrangheta wives and female relatives were instrumental in maintaining the vendetta practice: women often encouraged their 'Ndrangheta relatives to perform acts of revenge so as to protect their family's honor (Ingrascì 2021). Female relatives would, for instance, ritually keep the belongings of victims to remind sons of the necessity for revenge (Ingrascì 2021). Thus a public prosecutor from Calabria described women not as "passive subjects in feuds;

women are active subjects, subjects who also, and with great power, call for a vendetta and are heard out of respect, even though they are not part of the organization" (in Siebert 2007, 30).

Consider the following description of a 'Ndrangheta member's sister who,

> after the attempted murder of her brother, protested against her relatives who were hypothesizing a possible reconciliation, stating that the bloody feud should not end and last until the seventh generation. The female relatives of the feud's victims not only did not report the killings or injuries to the police, but even offered conflicting and unreliable statements in order to set investigations on the wrong track. Justice for them was a private matter, which could compensated only by an act of revenge" (Ingrascì 2021, 77).

Recall also that, in America, LCN captains, bosses, and the Commission all had the formal authority to intervene and settle disputes amongst LCN members. 'Ndrangheta custom, by contrast, expressly prohibited interventions that would otherwise keep disputes low-grade: "The mafia consortium as a whole was not entitled to intervene and had no means of stopping the lasting conflicts deriving from this procedure of adjudication . . . and even the most charismatic mafia members had no authority to intervene to settle them" (Paoli 2003, 128).

Because of the blood feuding, Calabria was one of the most violent areas in Italy for "Men of Honor." Mafia scholar Letizia Paoli points out that "the Reggio Calabria province has traditionally been characterized by an extremely high rate of violence and murder, much higher than any other Italian area" (Paoli 2003, 60). Between 1970 and 2003 the rate of mafia-related murders in New York City averaged 0.43 per 100k (Raab 2005), while between 1983 and 2012 rate of mafia-related murders in Calabria averaged 2.6 per 100k (Catino 2014). A Calabrian public prosecutor also described the environment as one in which "there was this endless series of continuous homicides that lasted over time, feuds that would start, seem to quiet down, and then explode again even five or six years later"

(in Siebert 2007, 30).

Unlike their American compatriots, the 'Ndrangheta did not develop effective and formal dispute resolution institutions until 1991, when the value of 'Ndrangheta's low profile rose due to a particularly violent blood feud amongst the clans.[37] Called "The Second 'Ndrangheta War," the feud accumulated around 700 deaths (Catino 2014), far more than that of the "The First 'Ndrangheta War," during which 233 murders occurred (Dickie 2014, ch. 50). That war and other feuds like it "were attracting the attention of magistrates and law enforcement agencies," causing the value of a low profile to rise (Catino 2019, 289). That prompted the organization to create a Commission-like body called *La Provincia* that would help to protect the low profile against free riders.

La Provincia was an innovation for the 'Ndrangheta because feuds had traditionally been a local affair into which no one could intervene. *La Provincia* broke from tradition as it had both the authority to and responsibility of intervening into disputes. Former 'Ndrangheta member Giacomo Lauro said that *La Provincia*

> established the principle that if disputes arise, of any kind and for whatever reason, between the different *locali*, there would be no recourse to arms before the disputes had come before the Commission for evaluation. This explains why, as of September 1991, all the wars in the province of Reggio Calabria ended. The 'Ndrangheta had managed to find a unifying moment, a centralization of the power of command that was able to function and to enforce the rules and the decisions taken (Ciconte 1996, 151 in Catino 2019, 211).

Like the American Commission, *La Provincia* was "endowed with well-defined powers in the settlement of disputes and empowered to make peace agreements between two or more contending units" (Paoli 2003, 61). Just as in the American LCN, the institution relieved *cosche* (families or clans) of the responsibility to resolve conflict amongst themselves: "any controversy between the *cosche* must be submitted to the attention of the collegial body

[37]For a history of 'Ndrangheta's highly ineffective institutions, see Truzzolillo (2013).

before violence can be used" (Paoli 2003, 62). *La Provincia* replaced customary vendetta with a new standard of peaceful reconciliation so as to maintain a lower profile. It is no surprise, then, that since *La Provincia*'s creation, 'Ndrangheta feuds have greatly declined (Paoli 2003; Catino 2014).

1.5.3 The American and Sicilian Commissions

The 'Ndrangheta did not develop effective and formal dispute-resolution institutions until the value of the organization's low profile rose. The experience of the American LCN is quite similar and so should further increase our confidence in the value of low profile driving the efficacy and formality of Cosa Nostra courts. The American LCN too created its Commission-like body when a conflict increased the value of the organization's low profile. Recall that producing and maintaining peace-keeping institutions like the Commission is costly. Bosses must redirect their own resources to gather evidence, negotiate with litigants, and attend Commission meetings. As in the case of the 'Ndrangheta, we shouldn't expect LCN to create the Commission until the value of a low profile rises enough to exceed its cost. And indeed it did not.

Since their arrival at the beginning of the 20th century, each LCN family "was autonomous and operated independently without consulting their counterparts" (Bonanno 2013). Small-scale "wars" amongst families periodically occurred during this period, but they remained quite minor (Dash 2009). This equilibrium changed with the Castellamarese War.

According to Salvatore Bonanno, Bonanno Family *consigliere* and son of boss Joseph Bonanno, hundreds of mafia murders occurred between 1930 and 1931, likely an exaggerated number (Abromowitz and Bonanno 2011, ch. 4). However, there were enough murders and gunfights in a short time span to increase the value of LCN's low profile sharply. An FBI report states that

> Newspaper publicity, according to [confidential informant] NY T-2, caused public uproar and the result was an order from the police of New York to Masseria

> to end the strife or all would be arrested. This caused Masseria to consider peace, and he did not give any more orders to his men to use arms (FBI 1963g, 13).

Salvatore Bonanno states that Charles "Lucky" Luciano, a high-ranking member of Masseria's family at the time, complained that the Castellamarese War "had to end" because Masseria "was ruining things for everyone" with the murders he ordered (Abromowitz and Bonanno 2011, ch. 4). Masseria wasn't "ruining things for everyone" because war is costly, but because "murdering Castellammarese demanded reprisals that would attract the attention of the police. That in turn affected our other businesses, which police had conveniently overlooked in the past" (Abromowitz and Bonanno 2011, ch. 4).

The increase in the value of LCN's low profile not only made deescalation paramount, but it also made economical the creation of a new peace-keeping institution, the Commission. One of the primary reasons for the Commission's creation, according to former member Salvatore Bonanno, was "to preserve our standing arrangement with politicians. If the Families continued to fight, and dead bodies kept showing up on the streets of New York City, public outrage would force the politicians to crack down and our political power would be lost" (Abromowitz and Bonanno 2011, ch. 5).

The Commission was successful in keeping disputes low-grade and LCN out of the public eye. Salvatore Bonanno states that in "the years that followed [the Commission's creation], there would be far fewer disturbances on the streets of New York, less friction among the Families, and less police involvement with members of our world" (Abromowitz and Bonanno 2011, ch. 4). Bonanno considered the Commission "a successful idea" because "as time went on, people in our world were able to interact with each other because now there was a stabilizing force to keep everyone honest" (Abromowitz and Bonanno 2011, ch. 4).

The evidence above indicates that a rise in the value of a low profile explains the timing of the creation of the American Commission. The timing of the Sicilian Mafia's Commission offers additional robustness to that explanation.

The formality and effectiveness of the Commission of the American LCN was an innovation relative to the Sicilians. Joseph Bonanno, boss of the Bonanno Family and someone who participated in the Commission's creation, described the institution as one that "was not an integral part of my Tradition. No such agency existed in Sicily. The Commission was an American adaptation" (Bonanno 2013, ch. 13).[38] Until 1957, disputes were usually resolved in an ad hoc manner by "informal meetings involving the most important and influential men of honor from the principal families" (Catino 2019, 155). As Letizia Paoli notes

> The power asserted by these assemblies of mafia chiefs can thus be described as 'sporadic' [. . .] In fact, they met rarely, were allowed to take decisions exclusively as delegates of the single cosche, and were completely dependent upon the latter to enforce their decisions, because they did not have an independent administrative staff (2003, 52).

In 1957 the Sicilians "formalized these occasional meetings into a permanent, collegial body—the provincial commission—to which specific competencies were entrusted" (Paoli 2003, 53).

That Sicilian Mafias did not value a low profile as much as their American compatriots explains the relative absence of a Sicilian Commission. Sicilian mafias did not value a low profile because they did not need to. They had cheap substitutes for avoiding investigations and imprisonment: bribery and intimidation (Paoli 2003). Consequently, Sicilian mafias could afford to maintain somewhat higher levels of publicity and, as a result, have been responsible for assassinating at least 231 high-profile people and government officials since the second half of the 19th century (Catino 2014). The American LCN, by contrast, strictly forbade the murder of law enforcement, journalists or politicians because "even the weekly envelopes of cash they received in exchange for looking the other way would not be enough to neutralize the effect of the public outcry we could expect if we killed such people"

[38] Dickie (2004) suggests that the Sicilians may have had a similar, obviously short-lived institution operating at the end of the 20th century.

(Abromowitz and Bonanno 2011, ch. 7).[39] The benefits of a Sicilian Commission did not exceed their costs.

That equilibrium changed with the United States Boggs-Daniel Narcotic Control Act of 1956, the consequences of which caused the value of a low profile to rise for many Sicilian Mafias. The Narcotic Control Act dramatically increased the punishment and prison sentences for Americans convicted of trafficking in narcotics (Drug Enforcement Administration n.d., 22). Around the beginning of the 1950s, the average prison sentence for a narcotics offense in America was two years. Meant to reduce narcotics trafficking, the Act

> provided a mandatory minimum sentence of five years in prison for a first offense of illegally selling narcotic drugs or marijuana, and from 10 to 40 years for subsequent offenses with no possibility of probation, parole, or suspension of sentence. The act further broadened the authority of both the FBN and Customs to execute search warrants at any time of the day or night (Drug Enforcement Administration n.d., 22).

As a result, many American LCN bosses outlawed drug trafficking activities within their Families. According to a declassified FBI report, the express purpose of the prohibition was to "remove the organization from the notorious publicity that inherently follows arrests of members in connection with narcotics violations" (FBI 1963g, 42). Thus in 1957, the American Bonanno Family encouraged Sicilian Families to instead enter heroine trafficking at a larger scale (Dickie 2004; Catino 2020; United States Senate 1988).

That expansion increased the value of a low profile for Sicilian mafias. Success in international drug trafficking markets required covert navigation of international jurisdictions that were less corrupt. Violent disputes and other sources of supply-chain disruptions were therefore much more costly and the value of peace-keeping institutions finally exceeded their

[39] Consider also the case of powerful mobster Schultz who was preemptively murdered by LCN because he was plotting an unsanctioned hit on the U.S. Attorney in the Southern District of New York, Thomas E. Dewey (Abromowitz and Bonanno 2011, ch. 7).

cost.[40] Like its American predecessor, the Sicilian Commission had two "specific competencies" according to mafia scholar Letizia Paoli. First, it was granted the responsibility "to settle conflicts among the [Sicilian] families and single members" and second, "the commission was entrusted with the regulation of the use of violence" (Paoli 2003, 53). Thus the 1957 creation of the Sicilian Commission is best explained by an increase in the value of the organization's low profile.

1.6 Conclusion

I argue that La Cosa Nostra's central "legal" institutions are best understood as attempts to protect its low profile from free riding by its own members. Since individual members did not bear the full costs of secret-revealing police investigations, they had a perverse incentive to resolve disputes violently. Indeed, that incentive was compounded by the LCN members' comparative advantage in producing violence and their inability to create written and complete contracts with one another.

LCN preserved its low profile by incentivizing peaceful reconciliation. First, its system deterred violent behavior by forbidding the use of violence between members and by giving bosses the exclusive authority to order a murder. Second, its court system avoided disputes altogether by encouraging reconciliation and incentivizing Cosa Nostra judges to produce resolutions mutually acceptable to the litigants. In particular, the LCN boss's encompassing interest as well as Cosa Nostra's own Supreme Court, the Commission, protected the organization's low profile by ensuring that if the boss did not resolve the dispute in a mutually agreeable manner, his wealth and reputation suffered. Those institutions kept disputes from escalating into violence, thereby helping LCN to avoid secrecy-threatening investigations and to become one of the most long-lived modern criminal organizations in the United States.

Other factors may have contributed to the existence and formality of Cosa Nostra courts.

[40] This theory complements Catino (2020, 76) who suggests that "opportunities provided by international drug trafficking favored the creation of [Commission-like bodies], in order to coordinate complex activities on an international scale and contain and regulate conflicts resulting from these new business opportunities."

For instance, besides jeopardizing LCN's low profile, violence is also itself a costly activity. Resources spent fighting have an opportunity cost. Minimizing the costs of routine violence, therefore, may explain the existence of Cosa Nostra's courts.

This "violence *per se*" explanation for the preponderance of LCN courts faces at least one problem: the 'Ndrangheta. The violence *per se* hypothesis predicts that 'Ndrangheta clans, for whom violent blood feuding is common, should have the strongest and most formal peace-keeping institutions of all the mafias. But they did not, maintaining weak and quite informal peace-keeping institutions for many decades. The costs of violence *per se* did not become particularly problematic until a particularly violent war made a lower profile more valuable. The same is true of the American Cosa Nostra. Thus violence *per se* is an insufficient explanation for the existence and formality of such peace-keeping institutions.

Chapter 2: Identity and Off-Diagonals: How Permanent Winning Coalitions Destroy Democratic Governance

2.1 Introduction

Over the past decade, preoccupation with and discussion of political polarization has been on the rise (Gentzkow 2016; Gentzkow et al. 2019; Pew Research Center 2016; Pew Research 2018) and, in the broader audiences of popular discourse, identity politics (Lilla 2016; Senior 2016; Dionne 2018; Editorial Board of the Wall Street Journal 2017; Anonymous 2018; Edsall 2018; Fukuyama 2018). The personal has become the political (Gentzkow 2016), fomenting sharp cleavages and extreme partisan behavior within the American electorate. Given that, as James Madison says in *Federalist* No. 10, "the latent causes of faction are thus sown in the nature of man" (Hamilton et al. [1788] 1983, 58), does the phenomenon of identity politics buttress or subvert democratic governance?

Building primarily on the work of James M. Buchanan, we show that (1) the logic of identity politics raises the costs of political cooperation, (2) the phenomenon of identity politics flows from the larger rents associated with the identity group formation and (3) that the ensuing rent race has deleterious consequences, i.e., the subversion of democratic governance. Such conclusions point to a certain set of rules that, at the constitutional stage, are crucial to the working of a democracy: nondiscriminatory and general rules.

Key to our argument is Buchanan's ([1978] 1999) notion of artifactual man, a concept that raises the stakes of democratic governance. The character of an individual, for Buchanan, is the product of his/her *own* choices through time. That self-defined and fluid understanding of identity is threatened by broader government discretion: an inverse relationship exists between government discretion and individual discretion. The wider is governmental discretion, the more credible are political promises made to members of a

majority coalition defined along ascriptive, categorical and difficult-to-change-lines. In a system that does not impose constitutional constraints on the state's authority to discriminate, one can expect majority coalitions to cleave along lines of identity, neither because of some ancient or primordial antagonism nor because of some subliminal psychological bias, but because, relative to other coalitions, they have a greater probability of being stable. In other words, they offer a potential solution to Arrow's impossibility theorem. The prohibitively high costs of moving between groups defined by identity not only smothers Buchanan's notion of artifactual man, but also increases the likelihood of group conflict breaking out (Caselli and Coleman 2013). When coalitions are defined by certain ascriptive categories that are impossible to change, there is no individual uncertainty, there is no collective or individual choice, and there is no individual responsibility. Groups are permanent, policy is predetermined, and democratic tyranny emerges.

Our argument will demonstrate the continued relevance of Buchanan's contributions to economics, political economy and social philosophy (see Wagner 2017). Buchanan's work, as Vincent Ostrom explains (Ostrom 1997, 89, 99, 102, 114, 115), belongs to the diverse thrust of work at the peripheries of public choice that moves beyond the core of applying economic reasoning to nonmarket decision-making. Such steps are required in order to address institutional weaknesses and failures as well as to make progress in addressing the fragility of democratic governance and the intellectual challenges of tackling uncertainty, social dilemmas, anomalies and puzzles in political economy. Rather than a mere exercise of applying contractual microeconomics to politics, the political economy of Buchanan, by extending the analysis to anomalies, dilemmas and paradoxes, offers a path to a more innovative research program in public choice.

The structure of the paper is as follows: Section 2 places our contribution within the area overlapping behavioral and rational choice political economy. Section 3 walks through the logic of a post-constitutional model in order to show the role that identity can play in resolving the inherent instability of coalitions and, by the same logic, subvert democratic stability. Section 4 applies similar logic to the pre-constitutional stage. Building on the

preceding sections, Section 5 shows the incompatibility of Buchanan's "artifactual man" and permanent winning coalitions. Section 6 concludes.

2.2 Identity economics and behavioral political economy

At the broadest level, our paper offers a behavioral approach to the rational choice theory of coalitional politics. It will be useful to summarize briefly the two literatures (and the third middle-of-the-road literature) to which we are contributing, chiefly, behavioral and rational choice political economy. Behavioral political economy is defined by the growing literature on how psychological biases affect economic and political decision-making, a branch of economics whose discoveries augment the typical rational choice paradigm by integrating work from psychology. Such contributions emphasize the limiting nature of many of the rational choice assumptions; notable examples include Kahneman (2011), Thaler (1994) and Thaler and Sunstein (2003), with extensions into political behavior, particularly voting (Hamlin and Jennings 2004, 2011; Kliemt 1986; Schuessler 2000; Hillman 2010; Hillman et al. 2015a, b; Shayo and Harel 2012; Caplan 2001). Schnellenbach and Schubert (2014) and Berggren (2012) provide an excellent review of the behavioral political economy literature. The literature on rational choice theory is immense, forcing us to focus on the rational choice approach to coalitional politics, which is itself large and defined by seminal contributions made by thinkers such as Arrow and Maskin ([1951] 2012), Riker (1962) and Buchanan and Tullock ([1962] 1999). The object of such study primarily is collective decision-making, a topic that itself can be divided and further subdivided into their own areas of political economy, including logrolling and vote trading (Bernholz 1974, 1976, 1977, 1978; Shepsle and Weingast 1981), coalition-building (Wagner 1966), the durability of legislation (Tullock and Brennan 1981), side-payments (Butterworth 1971; Shepsle 1974a) and the impact of institutions on all of the above (Boettke and Coyne 2009; Shepsle and Weingast 2012). A central theme runs throughout the aforementioned literature (and our paper): majoritarian and coalitional politics inherently are unstable, a feature that famously was formulated

mathematically by Arrow and Maskin ([1951] 2012) and therefore called "Arrow's impossibility theorem." That theorem suggests that no consistent social welfare function exists in majoritarian politics in the face of multiple and potentially overlapping interests: stable coalitions are highly unlikely. Often regarded as one of the paradigmatic and provocative puzzles facing rational choice theory, much ink has been spilled responding to it (for a review from two of its chief contributors, see Shepsle and Weingast 2012). Our paper follows in the footsteps of Buchanan (1954) in showing why such alleged instability of coalitional politics is not only institutionally contingent, but is itself a feature that preserves the overall system's stability. Instability in majoritarian politics is a feature, not a bug.

Our contribution falls within a middle ground between those two paradigms, a literature that can be thought of as stretching the fundamental assumptions of rational choice to include behavioral biases or heterogeneous agents. The growing literature on heterodox assumptions includes examining how identity impacts economic and political decisionmaking. More recent work operationalizes self-image in a more technical manner, primarily the consequence of pioneering work by Akerlof and Kranton (2000). Their work has sparked further study of identity and local politics (Glaeser and Shleifer 2002), how individual rationality of identity choice can lead to suboptimal collective outcomes (Fang and Loury 2005), the relationship between group identity and conflict (Kranton et al. 2013), endogenous group identification and redistribution (Shayo 2009), identity as a club good (Carvalho 2016) and how endogenous identities can lead to underrepresentation (Pradelski and Carvalho 2018). A slightly older literature examines the relationship between ethnic or religious identity and conflict (Rabushka and Shepsle 1972; Horowitz 1985; Hardin 1995; Birnir 2006; Leeson 2005). Sowell (1981) examines the various causal reasons for income disparities amongst ethnic groups in the United States. That literature in general shows how "socialized" agents (agents whose self or social identity matter) engaged in collective action and in competition over scarce economic and political resources can lead to lessthan-optimal outcomes.

Both the behavioral and middle-of-the-road literatures have the stated goal of creating more "realistic" models of humans and their subsequent behavior. Some scholars argue for

the incorporation of self-image, social identity and character as a determinant of individual preferences. Others argue for an integration of psychologically based human biases that also shape individual preferences. The general consensus, however, is that preferences are not, as the rational choice model assumes (Becker 1976), always consistent and that political economy will be enriched by exploring the consequences of relaxing that assumption.

James Buchanan's "artifactual man" offers a fruitful a link between such behavioral assumptions and the rational choice approach. Such a concept allows us to contribute to the middle-of-the-road literature between behavioral and rational political economy by taking a behavioral approach to the rational choice theory of political coalitions. Buchanan's preoccupation with identity and willingness to engage in economic analysis using non-standard assumptions uncovers not only a standard, but a guiding methodological approach as well (Boettke 2014; Munger 2018).

Given that identity is defined in the process of its emergence (a standard established in his essay "Natural and Artifactual Man", Buchanan ([1978] 1999) focuses primarily on the institutions that facilitate the artifactual nature of man.[1] That is his methodological approach, one emphasized by Boettke (2018), who suggests that loosening the homogenous agent assumption in political economy necessarily directs the scholar's gaze to the institutions that are most robust in the face of difference, institutions that turn difference from an obstacle to be overcome into an productive asset. Difference in zero-sum games becomes an asset in positive-sum games and eliminating the discriminatory off-diagonals by imposing constitutional restraints facilitates positive-sum games and elevates and protects difference. Rules embody freedom, and we will argue that as the discretion of the state increases, artifactuality and heterogeneity have less scope because politicians will have an incentive to build natural, stable and therefore tyrannical majority coalitions. It is important to note that the simple theory of tyrannical majorities we develop contrasts with recent work on totalitarianism. Bernholz (2017) relies on an assumption of a lexicographic preference for an

[1] Elinor Ostrom (2010, 664–665) makes a similar argument in which she states that rather than "nudging", she is concerned with enhancing the individual capabilities of agents and asking whether institutions are helping or hindering individuals in their innovativeness, learning, adapting, trustworthiness and cooperation within and between groups.

ideology, a "supreme value" that is a preference that inevitably leads "the real believers of such ideologies ... to try to convert all people to the true creed" by force (Bernholz 2017, 3) and, if groups remain inconvertible, leads to political suppression, expulsion or some combination of both. Our paper attains similar purchase and conclusions, without the need for the assumption of lexicographic preferences, simply by loosening the usual rational choice assumption of homogenous agents within a democratic system.

Behavioral political economy can range from works that reject the rational choice project in its entirety to the more modest—and we believe more productive approach—that retains the argumentative structure of rational choice theory, but opens the analysis to uncertainty, to anomalies, to dilemmas and to paradoxes. In that way, as can be seen in works such as Vanberg (1994), Elinor Ostrom (1998), and Timur Kuran (1995), one can approach (1) rational choice as if the choosers are human (Boettke and Candela 2017) and (2) institutional analysis as if history matters. The analyst, as Elinor Ostrom (1990, 25) argues, is disciplined by rational choice theory, but is not trapped by it, so she can move the argument from simple environments to complex decision environments and therefore explore issues of institutional weakness and institutional failure as well as institutional resilience and robustness.

2.3 The problem of permanent winning coalitions

In this section, we will outline our behavioral approach to the rational choice theory of coalitional politics by modifying a very simple model outlined by Buchanan and Congleton (1998, 146).[2] Our approach entails lifting the assumption of homogenous agents and the one-period emphasis to demonstrate the institutionally contingent aspect of identity. Without a constitutional rule constraining the state from passing discriminatory policies, the greater is the possibility that an identity-oriented permanent winning coalition emerges.

The model is set within the context of majority rule in the post-constitutional stage; the

[2]It is important to note that the analysis is not game-theoretic, the competing coalitions are not making decisions simultaneously. Rather, the framework concerns the decision calculus when either coalition A has the majority or coalition B has the majority regarding policy decisions.

Table 2.1: Post Constitutional Cycling Majorities

	Receives services generally	Receives services differentially
Receives services generally	I 1,1	II -1,2
Receives services differentially	III 2,-1	IV 0,0

Note. The roman numerals in each quadrant of Table 2.1 simply identify them. The value of the public services, net of costs, to coalitions A and B are the numbers below the roman numerals, separated by commas. Each quadrant represents a separate and distinct policy. Quadrant I is associated with the generality norm wherein the public services are provided broadly; neither coalition is excluded. Quadrants II and III are the "off-diagonals" wherein public services are provided to the majority coalition but not the minority coalition. Quadrant IV is associated with no provision of the public service

question of the optimal decision-making rule is irrelevant. The government provides excludable public services financed by general taxation to whichever coalition is in the majority, coalition A or coalition B (Table 2.1). Examples of excludable public services the authors provide include highways, higher education, parks, medical care and legal advice, but can be expanded to include services such as policing, racial quotas and industry-specific subsidies. The list is not at all limited to those examples since it can encompass all government services, as Coyne (2015) argues.

As either coalition is assumed to be decisive in any given period, the winning coalition is free to choose any one of the four quadrants (read: policies) and is not restricted to simple choices along columns or rows. For the sake of clarity, it is useful to quote Buchanan and Congleton (1998, 32): "In the political-choice setting analyzed here, it is as if one of the two players should be allowed, unilaterally, to choose among the standard set of four cells in each period, with the choice authority being somehow randomly rotated between the two players, period by period, over a whole sequence of periods."

When the generality norm[3] is added as a binding constraint, either coalition, given the

[3]The generality principle is defined by Buchanan and Congleton (1998, xi) as a rule that ensures that "political actions apply to all persons independently of membership in a dominant coalition or an effective

choice, will opt to receive the services generally, implying that the coalitions choose quadrant I. *The off-diagonals are prohibited.* When that constraint is lifted, the government can provide excludable services and so both coalitions, given the choice, prefer to receive the services that are provided differentially (quadrants II and III). When the payoffs in the quadrants are viewed as dollar valuations, Buchanan and Congleton (1998, 108) suggest that with "the vagaries of voter turnout, coalition stability problems, and ideological innovation", a rotating cyclical majority will emerge wherein every subsequent period the opposite coalition will step into power and receive the differential services. The cycle is a consequence of the fact that any coalition in the losing position (being excluded from the provision of public services) would be willing to pay up to $2 to move to quadrant I, while any coalition in the winning position would only be willing to pay $1 in order to maintain their privileged position. Majority cycles are the result (as is predicted by Arrow's theorem!). The average payoff for each coalition, in this case, is 50 cents. However, when the generality norm is a binding constraint, precluding the possibility of off-diagonal choices, the average payoff for each coalition is $1.

Buchanan and Congleton's assumptions, however, are extremely limiting. For example, they do not account for the fact that, without the generality norm as a binding constraint, coalitions and their members may invest scarce resources in order to reduce the majoritarian cycling in their favor (Olson 1965; Congleton and Tollison 1999). That is, if one coalition can find a way to stay in power over more periods than the competing coalition, it can change the symmetrical average payoff of 50 cents (assuming two periods per cycle) into an asymmetrical average payoff of $1.50 for the winners and $0 for the losers (assuming three periods per cycle).[4] That represents a powerful incentive and can lead groups increasingly to invest in the creation of more-stable (i.e., permanent) winning coalitions. Winning coalitions don't just want period-one benefits. If one takes into account dynamic decisions over time

interest group. The generality principle is violated to the extent that political action is overtly discriminatory in the sense that the effects, positive or negative, depend on personalized identification."

[4]It is important to remember that the relative valuations to each coalition of the excludable government services remain symmetrical.

in the face of uncertainty, coalitions can choose to invest resources in maintaining their privileged position over subsequent periods (Olson 1965; Congleton and Tollison 1999). In short, forward-looking coalitions and their members do not simply seek to capture the majority position 50% of the time, but to capture that majority position the majority of the time.

It may be helpful to think of the argument in this section as a foil to Barzel (2000) and Olson (1993), who show how a permanent winning coalition (i.e., a dictator) might have an incentive to cede absolute authority and create cyclical politics in order to maintain a privileged position within a system. This paper, on the other hand, is attempting to explain the reverse: how a cycling coalition might better increase its probability of becoming a permanent winning coalition (dictator).

This investment in stability can take the form of more generous provision of excludable public services and kickbacks to coalition members, a process that Rabushka and Shepsle (1972) call "outbidding", in which coalitions can invest in defining themselves and their memberships on the basis of some widely held characteristic that is relatively stable in the long run. But that is possible only for "social" coalitions, coalitions that choose amongst a variety of identities that can define their values, goals and what is most important, their membership criteria. As we proceed, then, refrain from thinking of coalitions as homogeneous conglomerates of faceless and identity-less agents (Boettke 2018). Rather, they are composed of individuals with both "social" and "personal" identities (Fang and Loury 2005).

Contra Rabushka and Shepsle (1972), outbidding is credible only up to a point because a potential majority cannot promise to extract more than the minority's endowment.[5] If chosen appropriately, one can expect the returns to investment in defining the membership

[5]Pie-in-the-sky promises are not credible. Rabushka and Shepsle (1972, 82) quote Sartori (1966, 158), who asserts that "Somebody is always prepared to offer more for less, and the bluff cannot be seen", which clearly is not the case. Competing coalitions may engage in outbidding, but the more comprehensive and extreme the promises become, the less credible they are to coalition members.

Table 2.2: Post Constitutional Permanent Winning Coalitions

	Receives services generally	Receives services differentially
Receives services generally	I 1,1	II -1,2
Receives services differentially	III e,-e	IV 0,0

Note. Table 2.2 is the same as Table 2.1 except for a change in the payoffs of quadrant III (one of the off-diagonals). Rather than (2, 1), the payoff of quadrant III is now (e, e), where e signifies coalition B's entire endowment, the result of a permanent winning coalition's emergence

of a coalition to fall less rapidly than investments made in promises over government services. Consequently, coalitions in a discriminatory democracy may invest relatively more in defining and identifying its current and potential members than otherwise might be the case. The desire not simply to win a majority, but to win a majority the majority of the time spurs coalitions and their members to invest resources in the creation and maintenance of durable and stable coalitions. That is a rational response to the inherently unstable nature of coalitions, as pointed out by Arrow and Maskin ([1951] 2012), Buchanan and Tullock ([1962] 1999), Riker (1962), Butterworth (1971), Frohlich (1975) and Shepsle (1974a, b). But the ability of the coalition to choose the conditions of its membership allow it to reduce the potential instability arising from side payments or infiltration, for "if the scope of the decision body is restricted to one issue, so that all matters which come before it are likely to be strongly interdependent, then vote-trading can play only a small role in decision-making" (Haefele 1970, 86).

In equilibrium, the coalitions attaining the majority position the majority of the time will be those groups that can reduce "the vagaries of voter turnout, coalition stability problems, and ideological innovation" at least cost (Buchanan and Congleton 1998, 108). It is not difficult to imagine the coalitions that can maintain group stability, reduce defection, infiltration, or bribery at least cost and thereby provide the impetus for the resolution of collective action problems. It is those groups that cleave along lines that often are regarded

as constraints within economic analyses, given how costly they are to change at short notice: gender, race, ethnicity, language, ancestry, or religion (Birnir 2006; Rabushka and Shepsle 1972; Caselli and Coleman 2013).[6] Within any population (and in the short term), a fixed proportion of individuals can be identified who fall into various categories and so a coalition designed in order to capture privileges for Catholics or individuals who can speak Gaelic or women can expect to be more durable and stable than if groups were to form on some other basis. Any coalition whose basis for membership guarantees it a majority or a plurality independent of choice (assuming gender, racial, ethnic or religious affiliation are costly to change) threatens to become a permanent winning coalition.

Coalitions that successfully form on the basis of such characteristics cannot only hope to determine policy in the first period, but in most (or all!) subsequent periods. Glaeser and Shleifer (2002) show how American entrepreneurial political hopefuls are able to extend their political reigns by appealing to and creating identity coalitions, but at the cost of slowing economic growth in their city. Over time, the rents awarded to a permanent winning coalition, independent of size, may outweigh the tendency towards the creation of a minimum winning coalition (contra Riker 1962). The establishment of a permanent winning coalition fundamentally changes the valuations in the Buchanan and Congleton (1998) matrix.[7] A tyranny of the majority is established, and one can expect a more frequent incidence of taxation and redistribution than might otherwise exist. Not only does a permanent winning coalition capture differential rents in any given period (2 vs 1), but, because it need not fear reprisal, may in fact increase the incidence of general taxation, leading to the establishment of a truly extractive state (Buchanan and Tullock [1962] 1999,

[6]Stable ideological or religious coalitions certainly are possible because they might include more individuals with similar policy interests. However, in order for our theory to apply, the winning ideological or religious coalition must be sufficiently "different" (socially distant or polarized) from the losers so as to reduce defection or infiltration between the groups. In other words, the costs of a Protestant becoming a Catholic (as in the case of Ireland) or the costs of switching membership from the Whites to the Bolshevik Reds (as in the case of the Red terror in Russia) must be high enough so as to inhibit switching sides and subsequent rent dissipation.

[7]This analysis is somewhat similar to that of Hardin (1995, 50–52) in which a Prisoner's Dilemma game, after the effective mobilization of large political coalitions, can tip into a coordination game. While Buchanan and Congleton simply utilize a payoff matrix rather than a 2×2 game, the notion of tipping into a "new" scenario is helpful here.

169). As posited above, the new matrix may look like something similar to the matrix in Table 2.2.

Because coalition A is assumed to be permanent, quadrants I, II and IV never are chosen. If that same coalition can use its stability to change the absolute level of public service provision, it could extract coalition B's entire endowment (signified as e) every period, forever. As stated above, Table 2.2 is a new setup altogether, one in which the lack of rotation can cause a change in the payoffs themselves.

Buchanan's conception of permanent winning coalitions contains three conditions: (1) members have identical preferences, (2) the majority of the population shares those preferences and (3) political exit by relocating is not possible. While the likelihood of such a coalition appearing in reality is vanishingly small, the model above draws attention to the ability of coalitions to choose the conditions of their membership in the pursuit of greater permanency (or stability). A more realistic coalition cannot guarantee an identical preference ordering within its ranks, but it can choose conditions of membership so as to elicit a more homogenous and stable ordering. If a coalition can define its membership such that membership within the majority is prohibitively costly for some subset of the population to acquire, then the coalition has discovered a less costly substitute for an identical preference ordering. In that case, a stable (more permanent) coalition is the result, one that is willing and able to extract high rents from the minority for some extended period of time. In a discriminatory democracy that allows for the capture of excludable government services, it seems to follow from the elementary situational logic that the coalitions that form will not be arbitrary or random. They will divide along cleavages of identity neither because of some ancient or primordial antagonism nor because of some psychological bias, but because, relative to other coalitions, they have a larger probability of being stable. Because the costs of moving between groups is prohibitively high and the possibility for side payments is minimal, group conflict is likely to break out (Caselli and Coleman 2013).

The preceding analysis shows the necessity of the generality norm in the post- constitutional stage if one hopes to reduce the possibility of a permanent winning coalition

emerging. The generality norm ensures that collective choices are not made on the basis of "either genetic endowments or social environment" (Buchanan [1978] 1999, 257). Instead, it elevates political competition and incentivizes the redirection of political investments away from the formation of inherently stable identity coalitions and into relatively less stable coalitions formed on the basis of persuasion and exchange.

2.4 Constitutional bargains and functioning democracy

Having addressed the propensity for non-discriminatory democracies in the post- constitutional stage to dissolve into permanent winning coalitions, we will extend our behavioral approach to the rational choice theory of coalitional politics to the pre- constitutional stage. Again, using elementary logic, we will unpack Buchanan and Tullock's ([1962] 1999) suggestion that a society of heterogeneous individuals is unlikely to reach the generality norm without some "veil of uncertainty" assumption. The veil of uncertainty is the pre-constitutional analytical equivalent of the generality norm.

In Buchanan's work on constitutional bargains, his use of the "veil of uncertainty" is more than a simplifying assumption. Not only are men uncertain of what their choices might be or who they may want to become in the future, but they are unsure of their location in the post-constitutional society, what groups they may join, or what policies they may support. That assumption informs his analysis of contractarian processes, as it extends to "the presumption that the individual is uncertain as to what his own precise role will be in any one of the whole chain of later collective choices that will actually have to be made. For this reason, he is considered not to have a particular and distinguishable interest separate and apart from his fellows... he cannot predict with any degree of certainty whether he is more likely to be in a winning or a losing coalition on any specific issue" (Buchanan and Tullock [1962] 1999, 78). If one presumes man as natural, defined by certain ascriptive categories that are impossible to change, there is no uncertainty, there is no choice, and there is no individual responsibility. Groups are permanent, policy is predetermined, and democratic tyranny can emerge.

The veil allows individuals to engage in constitutional bargaining and therefore gather unanimous support for the generality norm at the pre-constitutional stage (Buchanan and Tullock [1962] 1999). Without it, however, the likelihood that any individual would support such a rule falls dramatically (Buchanan and Tullock [1962] 1999, 80–81, 108). We will attempt to show why that is the case in what follows.

The goal of the society in the pre-constitutional stage is to minimize the sum of the expected external costs (costs one can expect to bear as a consequence of being in the minority) and the expected decision-making costs (costs associated with reaching a minimum consensus) of agreeing on an optimal decision-making rule (i.e., minority rule, majority rule, or unanimity rule). By lifting the veil of uncertainty, we can allow for the establishment of permanent coalitions within the pre-constitutional period. In other words, the pre-constitutional stage is now composed of heterogeneous and socialized individuals who, as the previous section argued, will be drawn toward creating stable coalitions. That observation will cause the lowest point on the (vertically summed) expected costs curve to vary wildly with each individual: those individuals in the larger stable coalition will have a much lower optimal decision-making rule than those individuals in the smaller coalition.

In a situation in which movement between the two coalitions is not particularly costly, one can expect that, over time, side-payments and defection will cause the two opposite optimal decision-making rules to converge to the original optimal decision-making rule, as is the case in Buchanan and Tullock's analysis ([1962] 1999, 81). However, under the assumption that coalition cleavages are salient and binding constraints, there is no reason to expect such a convergence.

That is a consequence of the fact that those in the larger coalition will have far lower expected costs in the post-constitutional stage, while those in the smaller coalition can expect much higher costs. A gap between the optimal decision-making rules of each group will materialize. If the coalitions are perfectly stable, the distance is non-negotiable but irrelevant for the ultimate choice of the decision-making rule. The larger coalition will get its favored rule, which will instantiate a discriminatory democracy of the kind examined in

the previous section: "individual members of a dominant and superior group... would never rationally choose to adopt constitutional rules giving less fortunately situated individuals a position of equal participation in governmental processes" (Buchanan and Tullock [1962] 1999, 80). Constitutional bargaining is irrelevant, and no generality norm can be expected.

Not only is the generality norm unlikely to be established, but the same model suggests that while coalition stability is assured, overall system stability may crumble. That is, the minority may choose to defect altogether, the probability of which increases as the gap between the optimal decision-making rules of each group widens.

If the expected costs of A's preferred decision-making rule is higher than the costs of engaging in violent protest, revolution, or a coup, then the system cannot hope to last. It is true that that possibility may factor into the expected costs of coalition A and therefore increase its own expected costs of that rule, but the degree to which it is taken into account depends each group's comparative ability in engaging in warfare, which is beyond the scope of this paper. Suffice to say that at the pre-constitutional stage, the threat of permanent winning coalitions is a real one, and one that might lead to violence erupting.

As the distance between the optimal decision-making rules between the two groups is an indication of coalition distance or polarization, a natural question is to ask whether or not our prediction bears out empirically. While not explicitly pre-constitutional, convincing evidence exists that polarization rather than fractionalization is a better predictor of civil war as well as an important factor in determining the intensity of the violence (Esteban and Schneider 2008; Esteban and Ray 2008, 2011;[8] Montalvo and Reynal-Querol 2005).[9]

With no opportunity or incentive to bargain, the only solution that avoids violence requires independent autonomy for each group by adopting either a federalist system or entirely separate governments. In that case, the population is divided between the two

[8]Esteban and Ray (2011) do find that polarization is an important factor in a broad range of violent conflicts, but they argue that their finding is contingent on whether the goods over which conflict arises are relatively more or less public or private in nature. Public good conflict entails more polarization, and private good conflict implies more fractionalization. That observation is not necessarily in conflict with the analysis of this paper as their assumption that different groups prefer different combinations of public goods is not functionally distinct from excludable private goods.

[9]Collier and Hoeffler (2004) find that while polarization is insignificant with respect to predicting civil war, they do find that the existence of one dominant ethnic group doubles the risk of conflict.

coalitions whereupon each decides on its own internal decision-making rule without fear of permanent winning coalitions.

As the previous two sections show, permanent winning coalitions pose a serious threat to minority coalitions in both the pre-constitutional and post-constitutional stages. Institutional arrangements in both stages, such as federalism or the generality rule, provide the most assurance to such groups. The next section pushes that conclusion one step further by introducing Buchanan's "artifactual man," whose existence depends on the aforementioned institutional constraints for his existence, thereby raising the stakes for the rules of democratic governance. If the individual is a product of his own choices in the face of uncertainty, an identity-oriented permanent winning coalition precludes the possibility of collective and individual choice entirely. Consequently, constitutional reformers and policymakers stand on a narrow tightrope between the diagonals that is buffeted constantly by the winds of business cycles, public opinion, rent seekers and ideology. One false step off of the tight rope, off of the diagonal and away from the generality norm is a step into the open space of the rent-seeking society wherein all that matters is who you are rather than who you can become.

2.5 Artifactual man versus permanent winning coalitions

Buchanan's ([1978] 1999) essay "Natural and Artifactual Man" argues that man is different from animals because he can imagine himself as someone else and act in order to achieve his goals. That difference allows human beings to choose and to change their preferences. Individuals invest in becoming the person they want to become within a set of constraints and thereby acquire a new utility function,[10] allowing men to be the authors of their own identities and lives. As that is the case, the purpose of education becomes showing children the array of better persons the they may become. The character of a person is constructed by the irrevocable choices an individual has made through time. Trying to explain choices

[10]Buchanan's willingness to challenge the conventional manner in which economists model human decision-making is a consistent theme throughout his work, see his "What Should Economists Do" (Buchanan 1964) as well as his *Cost and Choice* (Buchanan [1969] 1999).

by either genetic endowments or by social environments precludes the possibility of actual choice and therefore moral responsibility, since choice necessarily implies uncertainty. Therefore, man is responsible for the person he becomes. Buchanan's ([1978] 1999, 259; emphasis in original) resounding conclusion to his essay encapsulates his approach to identity, character and self-image: "*Man wants liberty to become the man he wants to become.* He does so precisely because he does not know what man he will want to become in time." In short, identity is defined in the process of its emergence.[11]

Buchanan's unique behavioral approach to identity economics highlights the problematic character of permanent winning coalitions. Buchanan first articulates the threat of the permanent winning coalition to a democratic system in 1954 in his critique of Arrow's famous general possibility theorem. In the paper, Buchanan states that Arrow's formal proof of the inconsistency of social choice with a majority-decision rule is, in fact, a feature of a democratic polity rather than a bug. The purpose of a majority decision-making process is to ensure that the composition of the majority is not fixed and permanent: "one of the most important limitations placed upon the exercise of majority rule lies in the temporary or accidental nature of the majorities" (Buchanan 1954, 118–119). The instability of coalitions, their propensity to break down because of side payments, broken allegiances, exogenous shocks, political entrepreneurship, or changes in preferences suggests a process by which society gropes towards some sort of continually evolving consensus (Buchanan and Congleton 1998, 3, 4). Fixed and identical preference orderings held by a majority of the populace preclude that possibility, the very definition of tyranny. More fundamentally, such an alignment inhibits the artifactual man from participating in the collective decision-making process because in such a situation no choice is possible. The formation of the majority is automatic, the collective outcomes are predetermined, no uncertainty exists: "Choice requires the presence of uncertainty for its very meaning. But choice also

[11]This conception contrasts sharply with the politics of identity and attempts to build coalitions along fixed or fundamental aspects of identity. While Buchanan ([1978] 1999) does not specifically address the politics of identity in "Natural and Artifactual Man", he does express reservations about emphasizing the non-voluntary and natural characteristics of man, those same characteristics to which political entrepreneurs may turn in attempts to shore up coalition instability.

implies a moral responsibility for action. To rationalize or to explain choices in terms of either genetic endowments or social environment removes the elements of freedom and of responsibility" (Buchanan [1978] 1999, 257). Therefore, the permanent winning coalition is the very antithesis of artifactual man.

Buchanan's defense of the instability of social choice echoes warnings made by classical liberal thinkers such as James Madison (Hamilton et al. [1788] 1983, 56–57, 351–353), Mill ([1859] 2001, 9), Alexis De Tocqueville ([1835] 2010, 402–426) and John Adams (Thompson 1998, 184) about democracy's susceptibility to tyranny of the majority. Each stresses the need for limits on government discretion (De Tocqueville [1835] 2010, 412–413; Mill [1859] 2001, 9; Hamilton et al. [1788] 1983, 332–333; Thompson 1998, 185). Without some limit on the authority of the state, the majority is no less despotic and is in fact more demanding than any autocrat, for a tyrannical majority has the propensity to "to impose, by other means than civil penalties, its own ideas and practices as rules of conduct on those who dissent from them; to fetter the development, and, if possible, prevent the formation, of any individuality not in harmony with its ways, and compels all characters to fashion themselves upon the model of its own" (Mill [1859] 2001, 9). In democratic systems, "tyranny does not proceed in this way; it leaves the body alone and goes right to the soul. The master no longer says: You will think like me or die; he says: You are free not to think as I do; your life, your goods, everything remains with you; but from this day on you are a stranger among us" (De Tocqueville [1835] 2010, 418). The corrupting influence of unconstrained majoritarian politics "does not end in the realm of politics. The 'system of hopes and fears,' Adams lamented, would extend and spread its praetorian net from the political arena to society in general. No area of public life would remain safe from the corrupting influence of electioneering" (Thompson 1998, 182). Over a century before Buchanan articulated his argument defending the inconsistency of collective choice, classical thinkers pointed to the propensity for democracies, without some constitutional constraints, to succumb to tyrannical majorities that smother individuality and self-determination.

It is no surprise, that, as a consequence of his artifactual man standard, Buchanan

(and the aforementioned Enlightenment thinkers) emphasized the rules of the game, that is, the institutional and constitutional approach. In a democratic system, it is Buchanan's permanent winning coalition or the Enlightenment's "tyranny of the majority" which stands as the chief threat to artifactuality. How does a permanent winning coalition threaten the artifactual nature of man? As argued in Sects. 3 and 4, the more the discretion afforded to the state, the more likely coalitions will be built on natural rather than artifactual grounds and therefore (1) smother the artifactual aspect of the democratic decision-making process, (2) arbitrarily limit the opportunities of individuals to choose the people whom they want to become and (3) increase the probability that the system succumbs to violent conflict. By precluding the possibility of uncertainty, choice and responsibility in collective decisionmaking, the existence of such a coalition threatens man's existence, if he is by nature artifactual. Consequently, permanent winning coalitions pose a unique threat and, thus, we ought to design institutions that reduce the probability of a permanent winning coalition emerging in our political system.

Man qua man is artifactual, a product of his choices without which he ceases to exist. As Buchanan ([1978] 1999) wrote, man wants liberty to become the man he wants to become; but if permanent winning coalitions are formed, what we can become is predetermined in the initial conditions that assign identity. In that case, we have only Natural Man, not Artifactual Man, and once liberty is truncated and democratic governance ceases to operate in a manner that reinforces the democratic relations between dignified equals and fellow citizens, then such a system only exacerbates the vulnerabilities of democratic governance (as suggested in the previous two sections). The artifactual aspect of man forces policy-makers to engage with Hamilton's timeless challenge in *Federalist* No. 1 regarding "whether societies of men are really capable or not of establishing good government from reflection and choice, or whether they are forever destined to depend for their political constitutions on accident and force" (Hamilton et al. [1788] 1983, 3). The preservation of artifactuality and choice requires certain constitutional constraints, else majority coalitions have an incentive to define themselves along natural and accidental cleavages and establish

tyrannical majorities.

2.6 Conclusion

A number of alternative rule sets can be found by which one can ensure that permanent winning coalitions do not emerge.[12] First, one could establish a generality norm that constrains coalitions from choosing the off-diagonals. Second, one might constrain the government such that it can provide only pure public goods that are in no way excludable. Third, one could require that the financing of the provision of any public good or service be drawn from the coalition that supports it. The final option entails adherence to the unanimity rule. In the prevention of permanent winning coalitions, each of these rules is a reasonable substitute for the others; however, some rules are less costly than others to implement. It is no surprise that most wealthy nations converge to the first rule choice where general rules constrain coalitions from choosing discriminatory policies (the off-diagonals) that benefit some groups at the expense of others, particularly with respect to identity.

What then, are Buchanan's contributions to identity economics and behavioral political economy? He provides a standard against which policy prescriptions can be measured. In the same way that the standard informs Buchanan's understanding and examination of institutions, it ought to inform other political economists' approaches as well. When permanent winning coalitions are formed, the democratic process devolves from a forging of consensus to a race to control rents and exclude others. Those on the losing side will opt out and those on the winning side will govern over rather than govern *with* others. The liberal project of cosmopolitan society will be intractable.

The liberalism of F. A. Hayek and James Buchanan—and Frank Knight and Ludwig von Mises before them—sought an institutional configuration that exhibited neither discrimination nor dominion. And it envisions persons and their plans as fluid architects of

[12]Of course, any number of rules might limit the tyranny of a stable majority, including a constitutional takings clause similar to that in the US Constitution's Fifth Amendment, a system of civil law, a bill of rights, or even a diverse set of publicly funded educational institutions. Those are, however, merely stopgap solutions that do not address the root cause: broad government discretion that facilitates the threat of a stable majority.

their own lives and communities. As Appiah (2019, 2) states "The cosmopolitan task, in fact, is to be able to focus on both far and near. Cosmopolitanism is an expansive act of the moral imagination. It sees human beings as shaping their lives within nesting memberships: a family, a neighborhood, a plurality of overlapping identity groups, spiraling out to encompass all humanity." That vision of democratic life in a society of free and responsible individuals simply is unobtainable in a world of strong identity-induced social cleavages and permanent winning coalitions.

Chapter 3: Public Choice and Public Health

3.1 Introduction

Public health is "The health of the population as a whole, esp. as monitored, regulated, and promoted by the state" (Oxford English Dictionary 2020). Public choice is "the application of the principles of maximizing behavior...to institutions and behavior in the political world" (Tollison 2004, 191).[1] You might therefore think that public health has attracted major attention from public choice scholars. But then you would be wrong.

The Elgar Companion to Public Choice (Reksulak et al. 2014), an "authoritative and encyclopaedic reference work" of more than 600 pages that "provides a thorough account of the public choice approach", contains just six pages on which the term *health* (or a variant) appears. *The Encyclopedia of Public Choice* (Rowley and Schneider 2004), a two-volume reference work of more than a thousand pages that "provides a detailed and comprehensive account of the subject known as public choice", contains just a dozen pages on which the term appears. Not every discussion related to public health must or does include the word *health*. Still, the presence of but 6-12 index entries for the term in the major reference works on public choice suggests that public choice scholars have attended only modestly to issues in public health.[2]

We expect that to change rapidly given the Covid-19 pandemic, which is in full swing at the moment of writing. The time therefore is ripe for taking stock of public-choice relevant scholarship that addresses issues in public health. That is what we do. Our stock-taking highlights three themes: (1) Public health regulations often are driven by private interests, not public ones. (2) The allocation of public health resources often reflects private interests,

[1] And we would add, to institutions and behavior in nonmarket realms more generally.

[2] The situation is the same with *The Oxford Handbook of Public Choice* (Congleton et al. 2019). That two-volume reference work contains just five index entries that include the term *health*.

not public ones. (3) Public health policies may have perverse effects, undermining instead of promoting health-consumer welfare.

Those themes would be at the center of any survey of public choice and public health.[3] But they are not the only themes such a survey might consider. A different survey also might consider, for example, work that studies how differences in governmental institutions—democracies versus autocracies, presidential versus parliamentary systems, and federated states versus unitary ones— affect public health policies or outcomes. Our survey's focus on the themes enumerated above reflects our judgment of the primacy of rent seeking and government "failure" to analyses of the public sector in the public choice tradition. While that judgment is ours, it is not ours alone. Gordon Tullock titled his primer on public choice *Government Failure* (Tullock et al. 2002). James Buchanan described public choice as a "theory of government failure" (Buchanan 1984, 11). And together with Robert Tollison, Tullock and Buchanan produced *Toward at Theory of the Rent-Seeking Society* (Buchanan et al. 1980).[4]

Even still, our survey's approach to public-choice relevant scholarship is quite broad. A few studies we consider were published before a subject called public choice existed. Numerous studies considered by us do not conceive of their contributions in terms of the public choice tradition but are in our view relevant to that tradition nonetheless.[5] And less than 20% of the studies we consider were published in the journal *Public Choice*. Broad, however, is different from exhaustive and rather militates against it. Thus, while we endeavor to cover as much relevant scholarship as possible, we do not claim our coverage is complete.

[3] Or at least they should be.

[4] For a more ecumenical approach to public choice as applied to public health, see Costa-Font et al. (2020).

[5] Our summaries thus reflect *our* public-choice oriented interpretations of their analyses and findings. The interpretations or takeaways intended by their authors may differ.

3.2 Public interests, private interests and public health

The economic rationale for government health intervention is, like the rationale for other interventions, grounded in the theory of market failure fathered by Arthur Cecil Pigou (1920). That theory identifies departures of unhampered markets from the perfectly competitive model and describes policies for their correction. The approach to government most often married to the theory of market failure may be called the *public interest approach*. According to it, observed interventions are motivated by and corrective of market failures. The public interest approach to government implies that interventions increase social welfare and produce the particular results they ostensibly seek, by, for example, promoting the welfare of particular consumers.

Kenneth Arrow (1963) pioneered the application of that approach to health. The literature his application inspired reflects "four broad categories of government action in healthcare markets, linked to corresponding market failures: healthcare as a merit good; informational gaps; infrastructure as a public good; and externalities" (Tuohy and Glied 2011, 58). Healthcare as a merit good refers to the idea that people care about others' health in addition to their own. Government responds by, for example, providing health insurance. Information gaps refer to differences in healthcare buyers' and sellers' knowledge. Doctors, for instance, know more about healthcare than patients. Government responds by, for example, licensing doctors. Infrastructure as a public good refers to the idea that investments in, for instance, biomedical research yield nonexcludable benefits. Government responds by, for example, subsidizing such research. Finally, externalities refer to the effects that people's health choices have on the health of other people. Smokers, for example, expose people around them to smoke. Government responds by, for instance, banning smoking in public places.

The public interest approach to government has a competitor: the "the *public-choice, or interest-group approach*" (McCormick and Tollison 1981, 3; italics added). According to it, observed interventions are driven by private interests and redistribute wealth. George Stigler (1971, 1976), Sam Peltzman (1976), Robert McCormick and Robert Tollison (1981), and

Gary Becker (1983) pioneered the interest-group approach to government, whose principal building blocks—the logic of interest groups and rent seeking—were developed by Mancur Olson (1965) and Gordon Tullock (1967), respectively. The interest group approach to government conceives of politics as a market for wealth redistribution. That market's participants are self-interested politicians and citizens. Political influence requires costly political organization, and the cost of organizing politically varies over different combinations of citizens.[6]

The demand side of the market reflects combinations of citizens who can organize for less than a dollar to secure a dollar in transfers through favorable intervention. The supply side reflects combinations of citizens for whom it would cost more than a dollar to organize to prevent having it transferred from them through unfavorable intervention. Politicians are market middlemen whose "arbitrage" efforts are remunerated by votes and campaign contributions—the "price" that transfer-demanders pay politicians to redistribute wealth to them from transfer-suppliers. Politicians thus maximize their remuneration by transferring wealth from combinations of citizens who resist the least to those who value transfers the most. The interest group approach to government implies that interventions redistribute wealth to well-organized groups of citizens who anticipate large per capita gains from poorly organized groups of citizens who anticipate small per capita losses. A corollary is that interventions need not increase social welfare, may instead reduce it, and may produce particular results that are at odds with the outcomes the interventions ostensibly seek.

Thirty years ago, two papers beckoned public choice scholars to apply the interest group approach to government to issues in public health. The first, authored by public choice economist Gary Anderson (1990, 558), lamented that "public health has largely ignored the public choice revolution." The second paper, authored by public choice economists Robert Tollison and Richard Wagner (1991, 323), lamented that the public choice revolution largely has ignored public health: "While there is now an extensive body of scholarship. . . on the interest-group approach to political processes, public health is one significant area of

[6]That cost includes not only the expense of organizing per se but also of, for example, obtaining information and controlling organizational free riding.

governmental activity that... has not been brought under such analytical scrutiny." The following sections survey public-choice relevant scholarship that address issues in public health.

3.3 Private interests and public health regulation

The earliest inklings of public choice's relevance to health regulation were sensed before a subject called public choice existed. They belong to Milton Friedman and Simon Kuznets (1945), who found that American physicians earned supernormal returns. Friedman and Kuznets attributed those returns to physician licensing regulations that restrict occupational entry, lobbied for by the American Medical Association (AMA). In 1962—the same year that Buchanan and Tullock published their *Calculus of Consent*—Friedman expanded upon the suggestion in his *Capitalism and Freedom*. There he observed that while government regulation is couched in terms of protecting the public, regulation often benefits and is driven by well-organized producer groups such as the AMA.

The largest public-choice relevant literature that addresses issues in public health builds on Friedman's insight in various ways. We consider that literature below. We summarize but do not evaluate the validity of the arguments or findings in these studies or those we consider in later sections. Their arguments or findings could, however, be challenged, and some of them have been challenged in studies we do not consider. Furthermore, we summarize only the arguments or findings of each study that are in our view most relevant to the interest group approach to government. Readers who desire a complete picture should consult the studies referenced.

3.3.1 Food and drugs

Food and drugs are principal objects of public health regulation. Their quality is important for consumer health and, perhaps less obviously, the regulation of their quality furnishes opportunity for well-organized interest groups to redistribute wealth from competitors and

consumers to their members. Libecap (1992), for example, investigates the origins of America's first federal food-quality regulation: the Meat Inspection Act of 1891. That act required federal inspection and quality certification of cattle to be exported and of cattle to be slaughtered for interstate trade or export. Its stated purpose was to protect consumers from diseased cattle and low-quality meat. Libecap, however, contends that no significant diseased cattle or low-quality meat problem existed at the time the Meat Inspection Act was passed. Rather, the law was driven by rent-seeking local slaughterhouses, which in the late nineteenth century came under pressure from a new competitive threat.

That threat was posed by a handful of large Chicago-based meatpacking firms, the so-called "Beef trust." In contrast to local slaughterhouses, which slaughtered cattle for local sale, the Chicago packers slaughtered cattle and then shipped dressed meat to local markets across the country. This supply-chain innovation leveraged improvements in refrigeration and transportation, resulting in lower meat prices. Meat consumers thereby benefited. Local slaughterhouses thereby were harmed. In response, local slaughterhouses organized politically as the Butchers' National Protective Association. The Association charged Chicago packers with slaughtering diseased cattle and selling unwholesome (dressed) meat, putting consumers' health at risk. With that concern as rent-seeking camouflage, the Association lobbied successfully for federal inspection and certification of cattle to be slaughtered for interstate trade. The regulation was a device for hampering the interest group's competition. Its burden fell on the Chicago packers, whose cattle were slaughtered for sale across the country, but was avoided by local slaughterhouses, whose cattle were slaughtered for local sale.[7]

Stanziani (2007) examines food-quality regulations in late nineteenth-and early twentieth-century France. During that period technical progress in France resulted in innovations such as raisin wine, margarine, and skimmed milk. Hygienist groups protested the safety of those innovations. But according to Stanziani, the validity of their protests was doubtful.

[7] According to Libecap (1992), the Meat Inspection Act was lobbied for and passed alongside the Sherman Act of 1890. The latter's success was influenced by an interest group composed of midwestern cattle raisers, which charged the "Beef trust" with colluding to suppress cattle prices.

Food-quality regulations in historical France were instead the product of rent seeking by well-organized interest groups.

The invention of raisin wine, margarine, and skimmed milk threatened the incomes of France's traditional producers of wine, butter, and milk. The traditional producers thus sought to limit competition from the producers of innovative foods.[8] To do so, interest groups composed of traditional food producers allied politically with the hygienists, whose concerns about innovative-food safety they leveraged for rent-seeking cover. The joint lobbying efforts of the interest groups secured governmental designations of innovative food products as "adulterated". That designation subjected innovative foods to costly restrictions, rendering them less competitive.

The political alliance of groups with seemingly disparate interests—like traditional food producers and hygienists—is an important subtheme in other public-choice relevant analyses of public health regulation. Such alliance commonly is called the "bootleggers and Baptists" phenomenon, a term coined by Bruce Yandle (1983). We consider Yandle's bootleggers and Baptists model in Section 3.2, which addresses alcohol regulation.

Dupre (1999) studies margarine regulations in late nineteenth-and early twentieth-century North America. Between 1886 and 1949, Canada's federal government outlawed margarine. Most American state governments were content merely to outlaw the artificially yellow variety, while the US federal government subjected yellow margarine to discriminatory taxation. Governments in both countries justified margarine regulations in terms of public interest: to protect consumer health and prevent fraud. Dupre, however, provides evidence that margarine regulations were designed to protect well-organized dairy producers from the competition of politically weaker margarine manufacturers, whose butter substitute was less expensive (see also Gifford 1997).

In the United States local, state, and national dairy associations originated the idea of margarine regulation and saw to it that their idea became law. In Canada, margarine

[8]Thomas and Leeson (2012) study beer regulation in fourteenth-through sixteenth-century Bavaria, which culminated in the Bavarian Purity Law of 1516. They argue that the regulation was the result of rent seeking by interest groups in response to a critical beer innovation, namely hops.

regulation was the product of lobbying by provincial dairymen's associations. America's margarine regulations were repealed only after American margarine manufacturers switched from sourcing their inputs abroad to sourcing them domestically. That substitution earned American margarine manufacturers political support from American soybean, cotton, and cattle farmers—the domestic input suppliers (soybean oil, cottonseed oil, and beef fat)—who now benefited from margarine deregulation. The American Soybean Association and the National Cotton Council thus joined with the National Association of Margarine Manufacturers, whose collective interest-group influence proved sufficient to see deregulation through. Canada's federal margarine ban was repealed only after WWII ended and the price of butter skyrocketed, making the ban's continuation untenable. Canadian provinces, however, continued to regulate margarine until the 1970s, and well beyond in the case of Ontario. Dupre finds that in states or provinces with higher per capita butter output, margarine regulation was more severe. In states or provinces with higher per capita cattle and cotton output, margarine regulation was less severe.

Wood (1985) analyzes America's Food and Drug Act of 1906 (see also Anderson 1990). That act defined "adulterated" and "misbranded" food and drug products and prohibited their trade across states. Its stated aim was to protect consumers by promoting food and drug quality. And according to Wood, consumer information about product quality did improve after the Food and Drug Act passed. Yet critical support for the law came from a variety of producer interest groups whose members desired food and drug regulation to enforce industry cartels, to restrict entry into their industries, to reduce costs for producers of complementary inputs, or to increase costs for producers of substitutes. Among such interest groups were, for example, undercapitalized dairy farmers and creamery owners threatened by competition from margarine; bottled-in-bond whiskey distillers threatened by competition from rectified whiskey; established pharmaceutical manufacturers threatened by competition from patent medicines; and traditional cream of tartar baking powder manufacturers threatened by competition from inexpensive acid-based baking powders. The rent-seeking success of those producers owed to their better organization than that of the

producers (and consumers) from whom the Food and Drug Act's regulations transferred wealth.

Leeson et al. (2020) study England's Pharmacy Act of 1868. That act designated as "poisons" various substances then commonly used in medicine, such as opium and emetic tartar, and prohibited all but medical professionals from selling products containing those substances.[9] The act's stated purpose was to protect consumers from dangerous substances. But Leeson et al. argue that its actual purpose was to protect medical professionals from the competition of patent medicines and patent medicine vendors.

Patent medicines were medicaments manufactured by tradesmen that contained the same, often dangerous substances found in the medicines that medical professionals compounded and dispensed. Patent medicine vendors were shopkeepers who retailed such medicines but whose primary business was non-medicinal: grocers, stationers, and nearly every other kind of shopkeeper in between. Then as now, medical professionals were expensive. And because nineteenth-century medical knowledge was very crude, the diagnostic and therapeutic prowess of medical professionals did not differ much from that of most laymen. Patient self-treatment with patent medicines or other medicaments that used the same substances, which also were available from patent medicine vendors, therefore was routine.

A trip to the grocer was thus a close substitute for calling on a medical professional, and less expensive to boot. To address this competitive threat, the British Medical Association and the Pharmaceutical Society of Great Britain lobbied parliament for a monopoly on the sale of medicaments that contained popular albeit dangerous substances. And with the Pharmacy Act they succeeded—but initially, only in part. Counter-lobbying by patent medicine manufacturers managed to secure an exemption for their medicines from the Pharmacy Act's regulations. The grocer no longer could sell lumps of opium, now saleable only by medical professionals. But he could still sell patent medicines that contained opium, a large loophole that medical professionals could not afford to countenance. The British

[9]The act also required that such medicines be labeled "poison".

Medical Association and the Pharmaceutical Society of Great Britain thus took their rent-seeking efforts to England's courts. There they succeeded in securing an interpretation of the Pharmacy Act that brought patent medicines under its purview.

3.3.2 Alcohol

Alcohol is intoxicating. Its consumption therefore may affect not only the consumer's health but also the health of third parties, for example in the case of drunk driving. Furthermore, alcohol is an object of public health policy. Its regulation thus may be exploited by well-organized interest groups to secure rents for their members. Yandle (1983, 1999), for instance, considers US state and local regulations that govern when alcohol may be sold. These so-called "blue laws" typically prohibit or restrict alcohol sales on Sundays. To explain alcohol regulation's provenance, Yandle develops a "bootleggers and Baptists" model, which Yandle describes as an extension of the "Stigler-Peltzman special-interest theory of regulation" (Yandle 1999, 7).[10] The bootleggers and Baptists model arises from two observations. First, interest group support for regulation often comes from apparently disparate quarters: rent seeking makes strange bedfellows. Second, when it comes to securing political support for a regulation that an interest group desires, often "neither well-varnished moral prompting nor unvarnished campaign contributions can do the job alone. It takes both" (Yandle 1999, 7).

Bootleggers seek blue laws because those laws restrict competition from legal alcohol vendors. Baptists seek blue laws because Baptists object morally to alcohol consumption. Working together, the members of this curious coalition can secure the political support required for regulation that neither interest group could manage on its own: restrictions on alcohol sales or, once such restrictions are in place, preventing their repeal. Bootleggers grease the political wheels by promising to share profits with politicians. Baptists supply a credible moral foundation for alcohol regulation.[11]

[10]Smith and Yandle (2014) apply the bootlegger and Baptist model to a variety of regulations besides those affecting alcohol, e.g., tobacco, drugs, the environment, the US Troubled Asset Relief Program of 2008, and the US Affordable Care Act of 2010.

[11]Shogren (1990) points out that because bootleggers usually have an incentive to subsidize the lobbying

Horpedahl (2020) tests Yandle's model in contemporary Arkansas, where some counties are "wet" and other counties, operating under blue laws, are "dry". Horpedahl finds that (literal) Baptist organizations and liquor stores in wet counties that border dry ones have, by co-lobbying, succeeded in blocking numerous attempts to repeal blue laws in dry counties. When Baptist groups alone have attempted to block blue-law repeal, they have been less successful.

Smith (1982) studies US state regulations on the sale of alcoholic beverages, such as alcohol taxes, licensing, and advertising restrictions. The stated purpose of the regulations is to reduce alcohol externalities such as drunk driving, unwanted exposure to drinking, and unwanted exposure to messages that encourage alcohol consumption. Smith, however, argues that alcohol-sales regulations are adopted to redistribute wealth to the members of well-organized interest groups. Smith identifies four such groups with an interest in alcohol-sales regulation: licensees, temperance groups, regulators, and the tourism industry. The public interest approach to government predicts, for example, that in states with larger tourism industries, alcohol-sales regulations will be more stringent, for more tourism means larger alcohol externalities. The interest group approach to government, in contrast, predicts that alcohol-sales regulations in such states will be less stringent, for alcohol is a complement to tourism. Smith finds support for the interest group approach to government. A larger tourism industry, for instance, is associated with alcohol-sales regulations that are less strict, not more so.

Urban and Mancke (1972) investigate whiskey labeling regulations in early twentieth-century America. In the years just after national prohibition ended, America's market for domestic whiskey had two competing segments: heavy bodied whiskey, which after distillation was kept in new barrels, and light bodied whiskey, which after distillation was kept in less expensive, reused barrels. Domestic light bodied whiskey therefore was less expensive than domestic heavy bodied whisky.

In 1935 the US Federal Alcohol Administration (FAA) introduced a regulation according

activities of Baptists, whose motive is "non-economic", estimates of rent-seeking costs that focus on lobbying whose motive is "economic" may be too low.

to which a whiskey's "age" had to be printed on the labels of domestic whiskey traded across state lines. "Age", however, was defined not by the length of time whiskey had in fact been aged but by the length of time it had been kept in new barrels. Domestic distillers of light bodied, but not heavy bodied, whiskey thereby were compelled to label their products with the discouraging statement "less than one month old".

The alleged purpose of this regulation was consumer protection. The FAA averred that keeping whiskey in new barrels promoted uniformity in its quality. Hence, if whiskey were kept in reused barrels, it was crucial that consumers be made aware of the fact and that the whiskey's unreliable quality be implied. Urban and Mancke argue that consumer protection could not have been the actual aim of the labeling regulation, however, since *imported* light bodied whiskey, which likewise was kept in reused barrels, explicitly was exempted by the FAA from its labeling regulation.

Rather, the aim of the regulation was to protect American distillers of heavy bodied whiskey from the competition of American light bodied whiskey—the less expensive substitute. Imported light bodied whiskey, in contrast, posed no competitive threat. Given the cost of shipping it from overseas, imported light bodied whiskey was more expensive than American heavy bodied whiskey even though the former was, like American light bodied whiskey, kept in reused barrels. Hence, imported light bodied whiskey was exempted from the labeling regulation, which targeted domestic light bodied whiskey exclusively. American coopers (barrel manufacturers) joined heavy bodied whiskey distillers in securing the discriminatory labeling regulation. And their motivation, too, was redistributive. The demand for barrel manufacturers' output—new barrels—was threatened by domestic light whiskey distillers' reliance on reused barrels.

Whiskey labeling regulation also is the subject of High and Coppin's (1988) study, which examines whiskey's treatment under America's Pure Food and Drug Act of 1906. That law, considered above, required distillers of rectified whiskey to label their products "imitation whiskey", whereas distillers of straight (unrectified) whiskey enjoyed the label of "pure whiskey". The regulation's alleged aim was consumer protection. Yet according to High

and Coppin, the whiskeys were almost identical chemically, save for the fact that straight whiskey contained more poisonous fusel oil. Consumer protection, therefore, was not the actual goal of the Food and Drug Act's whiskey labeling regulation. Wealth redistribution was. High and Coppin rely on the personal letters of Harvey Washington Wiley—Chief Chemist of the Department of Agriculture's Bureau of Chemistry (predecessor agency of the FDA) and principal architect of the Food and Drug Act—to show that Wiley sought and received support for the act from straight-whiskey distillers eager to limit competition from rectified-whiskey distillers.

Munger and Schaller (1997) study the constitutional ratification and repeal of alcohol prohibition in the United States. They argue that the Eighteenth and Twenty-first Amendments reflected the shifting relative strengths of two interest group coalitions: "dry" and "wet". Dry interests included the Anti-Saloon League, Women's Christian Temperance Union, and industrial elites such as John D. Rockefeller, Jr.—each of whose members objected on moral grounds to legalized alcohol—and bootleggers, who objected financially. Wet interests included the United States Brewers' Association and the National Wholesale Liquor Dealers Association, both of which were more poorly organized than dry interests leading up to prohibition.

Dry interests thus prevailed in the initial contest over alcohol's legal status, resulting in the Eighteenth Amendment, which criminalized the manufacture, transport, and sale of alcohol.[12] Yet wet interests ultimately would prevail, resulting in the Eighteenth Amendment's repeal by the Twenty-first Amendment, which legalized alcohol.

Munger and Schaller show that three crucial differences accounted for the reversal. The first was time, which permitted wet interests to (re)organize more effectively—this time to include, for example, the Association Against the Prohibition Amendment, representing a

[12] Anderson (1997) argues that reliance on prohibitions versus sin taxation may be explained by the interest of enforcement bureaucrats in the former versus the latter. Sin taxes generate relatively modest demand for enforcement activities, and sin tax revenues typically are shared by different government agencies. Prohibitions, in contrast, generate maximal demand for enforcement activities, and governmental budgets for enforcement agencies are enjoyed by those agencies alone. Prohibitions therefore increase the budgets of enforcement agencies more than taxes do. Enforcement bureaucrats thus have an incentive to transform tax regimes into prohibition regimes.

range of economic interests, and the American Federation of Labor, representing brewer labor unions. The second difference was the passage of the Nineteenth Amendment, which in granting women the right to vote drained women's political organizations—important to dry interests—of much of their energy. The final difference was the Great Depression, which prompted government to find new sources of revenue, such as taxing alcohol.

Poelmans et al. (2018) consider America's Cullen-Harrison Act of 1933. That law, passed nine months before the ratification of the Twenty-first Amendment, legalized the production and sale of low-alcohol beverages (3.2% alcohol by weight) federally. States, however, remained free to continue to ban alcohol in their domains. Poelmans et al. find that the strength of historical brewing interests in a legislator's state is a strong positive predictor of his/her support for the Cullen-Harrison Act and also is a strong a positive predictor of the speed at which a state amended its alcohol laws to take advantage of the Cullen-Harrison Act after its passage. Poelmans et al. find no evidence that the preferences of voters mattered for their representatives' support for the law.

3.3.3 Tobacco

Like alcohol consumption, tobacco consumption may affect the health of third parties in addition to the health of the consumer, for example in the form of second-hand smoke. And like alcohol regulation, tobacco regulation is fertile ground for rent-seeking interest groups. Tollison and Wagner (1988, 1992), for instance, consider US "Clean Indoor Air Acts": state regulations that restrict or prohibit smoking in spaces such as restaurants and workplaces. The stated aim of the regulations is to protect consumer health from smoker-imposed external costs. Yet that cannot be the regulations' actual aim, Tollison and Wagner contend, since no such externalities exist in privately owned restaurants and workplaces—an argument we return to in Section 6.2.

Government indoor-smoking bans instead reflect the efforts of interest groups to redistribute wealth from smokers to their nonsmoking counterparts. One such interest group consists of nonsmoking workers (Shughart and Tollison 1986). To attract such workers away

from firms that do not permit workplace smoking, firms that permit workplace smoking must pay nonsmoking workers a wage premium. If government then bans workplace smoking, nonsmoking workers reap transitory rents. Current nonsmoking employees temporarily enjoy the wage premium plus the workplace environment they prefer, and potential nonsmoking employees enjoy a competitive advantage over potential smoking employees, who require a wage premium to induce them to work in the mandated workplace environment and thus are now relatively more expensive to hire. Faced with less competition from potential smoking employees, potential nonsmoking employees temporarily earn higher wages. The prospect of these short-run rents may motivate nonsmoking workers to support legislation that bans workplace smoking. A second interest group motivated to ban indoor smoking consists of nonsmoking bar-and restaurant-goers. Smoking bans increase the supply of nonsmoking bars and restaurants, resulting in lower prices for the group's members.[13]

Several studies consider tobacco excise taxes in the US states. Tollison and Wagner (1988, 1992), for example, argue that labor unions may benefit from such taxes and thus may have an interest in supporting them politically. Tobacco taxes fall disproportionately on the poor, who are overrepresented among smokers. Hence, when tobacco is taxed more heavily, those individuals find it more difficult to get the education and training required to enter the workforce as skilled laborers. As a result, they find it more difficult to enter the workforce as competitors to labor unions. Smokers, Tollison and Wagner argue, are poorly positioned to resist antitobacco interventions because unlike, for example, union laborers, "They face high organization costs" and, given their lower incomes, they have "relatively meager resources as a group to fight" the interventions (Tollison and Wagner 1988, 82).

Holcombe (1997) observes that the public interest account of tobacco taxes construes them as reflecting Pigouvian considerations and reasons that, if true, one would expect US states that rely more heavily on that excise tax also to rely on more heavily on other

[13]Prinz (2009) notes the possibility that some restrictions on tobacco may in fact be desired by the tobacco industry. He reasons that insofar as tobacco regulations are a response to tobacco externalities, restrictions that reduce unwanted tobacco-related exposure may weaken government's interest in imposing more costly regulations on the tobacco industry, such taxing tobacco. Provided that such restrictions do not reduce tobacco use, they therefore may be sought by the tobacco industry.

excise taxes, for example on gasoline. In contrast, if the interest group account of tobacco taxes is correct, one would expect no relationship across states between tobacco and gasoline taxes, but one would expect a negative relationship between the strength of tobacco interest groups and tobacco taxes. Holcombe reports support for the interest group account. While no relationship across states between per-pack cigarette taxes and per-gallon gasoline taxes is found, cigarette taxes are lower in states with more tobacco acres per capita.

DiLorenzo (1997) studies California's Proposition 99, a tobacco-related amendment to the state constitution passed in 1988. That proposition more than tripled the state's tax on cigarettes and was expected to raise more than half a billion dollars annually, much of it earmarked for tobacco research, antismoking education, and treating indigent hospital patients. DiLorenzo argues that Proposition 99 was driven by rent seeking on the part well-organized healthcare interest groups: the American Cancer Society, the California Medical Association, the American Lung Association, and the American Heart Association. These interest groups spent $400,000 lobbying for the proposition, which they advanced under the cause of protecting consumer health. By raising the tax on cigarettes, cigarette consumption would be discouraged. Yet DiLorenzo observes that if less smoking were the interest groups' actual motive for the tax increase, they would have pursued its adoption through the state legislature. A legislative cigarette tax increase would have reduced cigarette consumption just the same. It would not, however, have permitted healthcare interest groups to appropriate the additional cigarette tax revenue.

The reason for adopting a proposition tax strategy was an amendment to California's constitution that limited state spending. This amendment meant that if the state spending cap were reached, the state would have to return cigarette tax revenue to citizens instead of spending it on health research, education, and services—outputs supplied by members of the healthcare interest groups. The interest groups' solution was to seek the cigarette tax hike in a statewide referendum— as a further constitutional amendment—thereby circumventing the spending limit and ensuring that hundreds of millions of additional cigarette tax dollars would be spent on the goods and services supplied by their members.

Adler et al. (2016) examine US Food and Drug Administration (FDA) regulation of electronic cigarettes. In 2016 the FDA designated e-cigarettes as tobacco products, subjecting them to federal tobacco regulation that, among other things, requires premarket approval. The ostensible justification for regulating e-cigarettes in the manner of traditional cigarettes is their equivalent health risks. That, however, seems doubtful since e-cigarettes contain no tobacco and research suggests they are less dangerous than traditional cigarettes.

Rather, Adler et al. argue, the FDA's decision to treat e-cigarettes as tobacco products reflects rent seeking by four well-organized interest groups that joined in a de facto bootlegger-and-Baptist coalition to encourage the regulatory decision: producers of traditional cigarettes, drug manufacturers, legislators, and antismoking groups. E-cigarettes are substitutes for both traditional cigarettes and nicotine replacement therapies. Hence cigarette producers and drug manufacturers sought the FDA designation to increase their competitor's costs. Legislators, meanwhile, desired it to preserve the returns to state "tobacco bonds". Those bonds securitize state tobacco revenues, which are threatened by e-cigarettes if e-cigarettes are not defined as tobacco but may grow if e-cigarettes are defined as tobacco. Antismoking groups acted as the Baptists in this coalition, providing moral high ground with concern that e-cigarettes would normalize smoking, prolong nicotine addiction, and have as-of-yet-undiscovered adverse health consequences.

3.3.4 Fat taxes

Sugary food and beverages differ from alcohol and tobacco in that their consumption cannot affect the health of third parties. They are similar to alcohol and tobacco, however, in that they may pose health risks to those who consume them. Sugary food and beverages have been linked to, for example, obesity and type 2 diabetes. For that reason, such products may be subjected to "sin taxes", a term commonly applied to excise taxes that target alcohol, tobacco, and gambling.[14] In the case of sugary food and beverages, however, such

[14]Shughart (1997) critiques the coherence of the most common public-interest justifications for sin taxes. Lee (1997) argues that citizens tend to object less strongly to sin taxes than to general taxes because the former permit citizens to feel virtuous. Because tax revenues largely are fungible, governments therefore may rely on sin taxes, whose revenues are earmarked for "virtuous" purposes, to raise tax revenues when

taxes commonly are called "fat taxes".[15] Fat taxes threaten the interests of sugary food and beverage producers, who thus have an incentive to lobby against them.

Hoffer et al. (2014) consider federal excise taxes on sugar-sweetened beverages in the United States. In 2009 the US Senate proposed a federal tax on soft drinks, allegedly to promote public health by discouraging soft-drink consumption. The proposal ultimately was defeated. Hoffer et al. argue that the fat tax proposal and its defeat reflected what public choice scholar Fred McChesney (1987) dubbed "rent extraction". US Senators threatened to impose costs on the soft drink and fast-food industries to motivate campaign contributions and political support from those industries in exchange for not following through with the tax. The extraction was successful.

Lobbying by the soft drink and fast-food industries rose dramatically after the proposal, and the federal soft-drink tax was killed.[16]

3.3.5 Health-occupation licensing and commercial restrictions

The health of consumers is affected not only by the food, drugs, and other substances they consume but also by the quality of the health services they consume. Ostensibly to assure the quality of those services, regulation governing who may provide them—healthcare-related occupational licensing—is a prominent instrument of public health. Because occupational licensing empowers healthcare providers to restrict entry, it also is a prominent instrument for redistributing wealth from would-be occupational entrants, competitors, and consumers to the members of health-service providing interest groups.

Among the earliest scholars to emphasize this idea was Kessel (1958) who, echoing Friedman and Kuznetz (1945), argued that the American Medical Association is a profit-maximizing cartel that uses government licensing to secure rents for incumbent physicians. Subsequent public-choice relevant scholarship on healthcare-related occupational licensing

citizens would otherwise resist tax increases.

[15]For further discussion of such taxes, see Hoffer and Nesbit (2018).

[16]Soft drink taxes were, however, later imposed by some local governments. Shughart and Smith (2020) highlight the problem of using Pigouvian logic to justify such taxes and consider the disconnect between public expenditures and public revenues in the context of soft drink taxes.

extends and explores such thinking. Maurizi (1974), for example, considers the relationship between the demand for entry into a variety of healthcare occupations, running from osteopathy to optometry, and the difficulty of required occupational-entrance exams created by licensing boards dominated by incumbent practitioners. Maurizi finds that excess demand for entry is associated with lower exam pass rates. He interprets this finding as evidence that health-occupation licensing is used by incumbent healthcare-service providers to secure rents.

Paul (1982) examines the relationship between the method of selecting US state medical licensing boards and the incomes of physicians. In some states, the members of medical licensing boards are appointed by state medical associations. In other states, the governor appoints them. Paul finds that where licensing boards are appointed by medical associations, physicians' incomes are higher. He concludes from the evidence that "licensure restrictions are used to limit entry into medicine, and result in wealth being transferred from medical service consumers to producers of those services" (Paul 1982, 568). Paul contradicts Leffler (1978), who in a well-known paper argued that medical licensing requirements in the United States are demanded by consumers to, for example, address informational asymmetries.

In a similar vein, Broscheid and Teske (2003) consider the relationship between consumer and physician representation on US state medical boards and physician licensing requirements. Physician representatives dominate all state licensing boards. Some boards, however, require more consumer representatives than others. Broscheid and Teske find that the latter boards are associated with physician licensing requirements that have educational justification and thus are more likely to reflect concerns about assuring physician quality. In contrast, boards with stronger physician representation are associated with licensing requirements that are difficult to justify on quality assurance grounds and thus are more likely to reflect physician interest-group rent seeking. Broscheid and Teske's analysis builds on Svorny and Toma (1998), who find that state medical licensing board freedom from legislative budgetary oversight facilitates physicians' use of licensing to restrict occupational

entry in the service of rent creation.

Adams et al. (2003) study US state licensing regulations for nurse-midwives. In a supply and demand framework, licensing for midwifery has two effects. First, by restricting the number of service providers, it reduces the supply of midwife services. Second, by assuring minimum midwife quality, licensing increases the demand for such services. Both forces raise the price of midwife services, but they have opposing effects on service quantity. If licensing primarily reflects concern for addressing deficient consumer information about midwife service quality, it should increase the demand for midwife services more than it reduces the supply of those services, yielding a net increase in the quantity of midwife services consumed. If, however, licensing primarily reflects rent seeking by occupational incumbents, the reverse should be true, yielding a net reduction in the quantity of midwife services consumed. Adams et al. find that midwife licensing results on balance in fewer midwife services consumed. Svorny (1987) conducts an analogous test in the context of US state licensing regulations for physicians and finds similar results.

Peterson et al. (2014) study licensing regulations for migrant physicians in the US states. Those regulations establish criteria for the assessment and recognition of medical occupational qualifications earned in foreign countries. Their ostensible purpose is to assure physician quality. That purpose, however, is doubtful since international medical graduates seeking licensure in the United States must complete the same standardized tests as US medical graduates and compete for limited post-graduate residency positions. Rather, Peterson et al. argue, licensing regulations for migrant physicians are explained by rent-seeking native physicians, who seek more stringent licensing criteria for international medical graduates to limit competition. Peterson et al. find that states with greater physician control over licensing requirements impose more stringent requirements for migrant physician licensure and receive fewer new migrant physicians.

McMichael (2017) examines the political activity of healthcare provider interest groups directed at influencing occupational licensing in the US states. Nurse practitioners and physician assistants are close substitutes for physicians in terms of knowledge, training, and

service quality. Nurse practitioners and physician assistants also are less expensive. Physician interest groups thus have an incentive to restrict competition from nurse practitioners and physician assistants. In contrast, hospital interest groups, whose members seek to keep costs down by relying more heavily on nurse practitioners and physician assistants, have an incentive to resist regulation that would make doing so more difficult.

Political campaign contributions are a way that both sets of interest groups can improve their chances of securing favorable regulation. McMichael finds that more political spending by physician interest groups increases the probability that a state maintains licensing laws that restrict the scopes of practice of nurse practitioners and physician assistants. In parallel fashion, more spending by hospital interest groups increases the probability that a state allows nurse practitioners and physician assistants to practice with more autonomy.

Graddy (1991) also considers the influence of healthcare-service provider interest groups on occupational licensing regulations in the US states. She examines such regulations for a variety of healthcare occupations ranging from dieticians to physician assistants. Graddy reports evidence for the importance of both interest groups and public health concerns in driving such regulations. Smaller, more geographically concentrated healthcare occupations facing more intense pressure from competitors are more successful in acquiring more stringent licensing regulations. So, however, are healthcare occupations whose services involve greater risk, such as midwifery, where consumer safety is of greater concern.

Closely related to healthcare occupational licensing are "commercial practice regulations" for healthcare service providers. Such regulations are created by US state licensing boards and enforced by state governments. Optometry, for example, is subject to commercial practice regulations. Those regulations may prohibit optometrists from accepting jobs in unlicensed firms such as optometry chain stores, bar optometrists from sharing offices with unrelated healthcare-service providers, cap multi-office ownership by any single optometrist, and revoke licenses from optometrists practicing under a name other than their own, e.g., a tradename associated with an optometry chain store.

Haas-Wilson (1989) studies optometry commercial practice regulations in the US states.

She argues that self-employed optometrists exploit them as a device to secure rents. Optometry commercial practice regulations impose costs on optometry service providers asymmetrically. While those regulations make it more costly for self-employed ("professional") optometrists to work for ("nonprofessional") optometry chain stores, they make it more costly for optometry chain stores to exist at all. In an unregulated market, self-employed optometrists must compete with optometry chain stores, whose services are less expensive. But by raising chain stores' costs disproportionately, optometry commercial practice regulations disproportionately deter chain-store occupational entry. Haas-Wilson finds that such regulations are associated with lower rates of optometry chain store entry but have no effect on self-employed optometrist entry.

Benham (1972) considers US state regulations on advertising eyeglasses and eye examinations. The alleged aim of such regulations is to promote consumer welfare by preventing "deceptive" and "fraudulent" practices such as "price advertising". That goal is unlikely to be the regulations' actual aim, however, since price advertising per se is neither deceptive nor fraudulent. Bentham suggests that restrictions on advertising eyeglasses and eye examinations are instead driven by self-employed optometrists who seek them to limit competition from lower-priced competitors: optometry chain stores. Benham finds that states banning price advertising for eyeglasses and exams tend to have higher average prices but not services of higher quality. Furthermore, optometry chain stores tend to have smaller market shares in such states. Benham interprets those findings as evidence that restrictions on advertising eyeglasses and eye examinations reflect rent seeking by self-employed optometrists.

3.3.6 Mental health

Public health regulation addresses mental as well as physical health. Well-organized interest groups may therefore also take advantage of regulations that address mental health to redistribute wealth to their members. Geloso and March (2020) study the history of US state regulations governing the institutionalization of the mentally ill. Between 1870 and

1910, the share of

America's population committed to mental institutions nearly tripled. The public interest approach to government sees that increase as reflecting greater citizen demand for institutionalization of the mentally ill attendant to an increased prevalence of mental illness. According to Geloso and March, however, the increase reflected rent seeking by psychiatrists who seized an opportunity to organize and influence state governments after the Civil War, when state governments' regulatory powers expanded substantially.

Before the Civil War, local almshouses that cared for the poor and physically disabled also cared for persons considered mentally ill. The care they provided was not medical, for almshouse caretakers were not medical professionals. After the Civil War ended, mentally ill persons in almshouses increasingly were transferred to newly created public asylums administrated and serviced by professional psychiatrists. The state laws that compelled the transfer, Geloso and March argue, were lobbied for by psychiatrist interest groups, whose members sought to take the mental healthcare business out of the hands of almshouses and put it into their own. Psychiatrists also lobbied for the creation of new public asylums and for additional state public asylum funding. The culmination of their rent-seeking strategy, however, was successful lobbying for state laws that made it easier to commit individuals with mental illnesses without consent. Such laws not only ensured additional demand for care of the mentally ill but, specifically, additional demand for such care as provided by psychiatrists employed by public hospitals and asylums—the institutional recipients of individuals committed involuntarily for mental illness.

3.3.7 Human organs

The sale of human organs in the United States is prohibited by the National Organ Transplant Act of 1984. Advocates of that act, which historically have included the American Medical Association, the American Society of Transplantation, the American Society of Transplant Surgeons, and the National Kidney Foundation, contend that it promotes organ

access for the poor, protects the poor against "coerced" organ sales, and improves the quality of organs available for transplant. Infamously, however, by imposing a legal price ceiling of $0 on organs, the ban contributes to organ shortages. Kaserman and Barnett (1991) develop a model that explains interest group support for the National Organ Transplant Act (see also Barnett et al. 1993; Blair and Kaserman 1991). They explain that by creating an organ shortage, the organ-sales ban may create rents for the members of medical interest groups. The supply of available organs limits the supply of transplants. And a restricted supply of transplants raises the price of transplants, which, unlike the price of organs themselves, does not face a legal ceiling. Hence, the suppliers of (non-organ) transplant inputs, such as transplant surgeons and transplant centers, earn rents when the maximum legal price that may be paid for organs is zero.

The regulation-created organ shortage in effect enforces transplant-input supplier cartels by enforcing restrictions on the number of transplants that can be performed. The resulting rents, Kaserman and Barnett argue, may motivate medical interest groups, whose members consist of such suppliers, to encourage lawmakers to make and preserve laws that ban organ sales. The suppliers of inputs to organ transplants are not the only potential beneficiaries of the organ-sales ban. Suppliers of transplant substitutes may benefit from the ban, too, for example the providers of kidney dialysis treatments. A restricted supply of kidney transplants increases the demand for dialysis treatments. That creates rents for dialysis-treatment providers, who thus also have an incentive to encourage lawmakers to make and preserve legislation that bans organ sales.

3.3.8 AIDS

Forty years ago the United States recognized AIDS as an epidemic. AIDS thereby became a target of US public health policy, and that policy became a target of interest-group influence. Ohsfeldt and Gohmann (1992) study the regulation of AIDS insurance underwriting practices in the US states. In the 1980s, some states prohibited private insurance companies from asking applicants about past HIV tests, from requiring applicants to submit

an HIV antibody test, from questioning applicants about their sexual orientation, and/or required insurance companies to cover AIDS treatments. Insurance companies have an incentive to lobby against such regulations. Categorical risk indicators, for instance, facilitate identification of individuals actuarially likely to contract AIDS, and failure to identify such individuals prevents insurance companies from charging them actuarially fair premiums. Individuals at risk of AIDS, in contrast, have an incentive to lobby in favor of underwriting restrictions. If those individuals cannot be identified by insurance underwriters, for example, they cannot be charged higher premiums. Ohsfeldt and Gohmann find that AIDS insurance underwriting regulations were less likely to be adopted in states with politically stronger insurance industries and were more likely to be adopted in states where AIDS was more prevalent.

3.4 Private interests and public health resource allocation

Governments are major (re-)distributors of health resources, from providing health insurance to funding medical research to allocating vaccines. The public interest approach to government suggests that such resources are distributed optimally from the perspective of social welfare: political actors allocate public health resources where their social value (accounting for equity considerations) is maximized. The interest group approach to government, in contrast, suggests that public health resources are distributed optimally from the perspective of the distributors' private welfare: political actors allocate such resources where their value to political actors is maximized. Often the latter reflects the allocation of public health resources desired by well-organized interest groups. We survey public-choice relevant scholarship that addresses the allocation of public health resources below.

3.4.1 Public health insurance

Public health insurance programs are among the largest categories of government expenditure.[17] The healthcare services such programs cover, whom those programs cover, and other coverage details thus offer valuable sources of rents to healthcare interest groups. Healthcare interest groups correspondingly have powerful incentives to lobby for public health insurance arrangements that steer public health insurance program spending toward their members. Mendoza (2015), for instance, investigates the essential health benefits mandate of America's Affordable Care Act of 2010 (ACA). That law, known colloquially as Obamacare, required plans in the individual and small-group insurance markets to cover "essential health benefits". Which health benefits are "essential" is not obvious, and which benefits are deemed essential affects the demand for the services of different healthcare providers. Healthcare provider interest groups thus have a strong incentive to see that the services they provide are designated as essential. The result for the ACA, Mendoza argues, was an essential health benefits definition that reflected interest-group rent seeking. Lobbying by the American Chiropractic Association and the American Society of Plastic Surgeons, for example, resulted in chiropractic and prosthetic care being designated as essential.

Spithoven (2016) likewise studies the ACA. He argues that its spending provisions were driven by rent-seeking medical interest groups whose support was required to avoid scuttling healthcare reform. Hence the ACA, for example, increased Medicare payments to so-called "outlier" physicians who bill especially numerous services to Medicare, maintained Medicare reimbursement rates for other physicians that were planned for reduction, and did not include a "public option" that would have threatened those payments. The ACA's provisions were included at the behest of and consequent to lobbying by the American Medical Association.

Camobreco (1996) examines optional Medicaid spending in the US states.[18] Under

[17] Tullock (1983) considers the likely consequences of moving from a public health insurance system like that observed in the United States, where government provides health insurance to the elderly and poor, to a public health insurance system like that observed in Europe, where governments provides health insurance to all.

[18] Medicaid is financed jointly by the federal and state governments, with every dollar appropriated by the

Medicaid, the federal government requires states to cover certain health services for individuals who receive assistance from two programs: Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI). Physicians primarily serve AFDC recipients, although many physicians do not participate in Medicaid. Nursing homes primarily serve SSI recipients and depend heavily on Medicaid spending for income. Hospitals serve recipients of both programs. States, however, may cover additional health services beyond those required by federal law and may cover additional individuals.

To explore sources of variation in optional Medicaid spending across states, Camobreco considers a "pluralist model" according to which all groups interested in Medicaid spending— whether they are organized well or poorly—have equal potential influence over that spending, and a "plural elitist" model according to which only small or large but well-organized groups—such as those representing physicians, hospitals, and nursing homes—may influence Medicaid spending.[19] Camobreco finds support for the plural elitist model. Stronger hospital interest groups are associated with more optional SSI-category Medicaid spending. And stronger nursing home interest groups are associated with more optional SSI-and AFDC-category Medicaid spending.

Kousser (2002) also studies optional state Medicaid spending. He finds that the strength of physician, senior citizen, and medical industry interest groups is positively related to optional spending, as is Democrat control of the state legislature.[20] Public opinion, in contrast, is unrelated to optional state Medicaid spending. Similarly, Grogan (1994) investigates optional state Medicaid policies with respect to recipient eligibility and programs. She finds that the strength of healthcare interest groups is positively related to policies that more generously define categories of eligible recipients and offer more generous programs. Pracht and Moore (2003) consider state Medicaid drug reimbursements to pharmacies. Pharmacies benefit from more generous reimbursement rates in the form of lower ingredient and

latter matched by at least 50 cents from the former.

[19]Barrilleaux and Miller (1988) find that states with more interest group diversity spend more on Medicaid but that states with a larger supply of physicians spend less. They attribute this finding to the idea that when physicians are more numerous, their interests are more fragmented, and thus their organization is less unified.

[20]Sobel (2014) also finds that party control affects decisions to expand state Medicaid eligibilities.

dispensing costs. Pracht and Moore find that the share of state pharmacists who are members of the American Pharmaceutical Association is strongly and positively related to state reimbursement rates.

Cooper et al. (2020) study America's Medicare Modernization Act of 2003. That law, which expanded Medicare to cover prescription drugs for seniors, reflected the largest expansion of the program in Medicare's history. Its sweeping nature, however, made finding lawmaker support for enacting the law difficult. Reelection motives incentivize lawmakers to pass legislation that confers direct benefits on their constituents, for that is the kind of legislation for which lawmakers can claim credit. In general, lawmakers cannot plausibly claim credit for sweeping legislation like the Medicare Modernization Act. Few lawmakers therefore have a strong interest in supporting such legislation. If, however, sweeping legislation is modified to include pork that targets the constituents of otherwise disinterested lawmakers, the support of those lawmakers for sweeping legislation may be secured.

Cooper et al. argue that Olsonian "selective benefits" for lawmakers propelled the passage of the Medicare Modernization Act. The act secured requisite legislative support only after the addition of Section 508, a provision that permitted hospitals to apply for larger Medicare payments. Cooper et al. find that hospitals represented by Members of Congress who voted for the Medicare Modernization Act were more likely to receive more generous Medicare payments and tended to receive much larger payments than hospitals represented by their colleagues who voted against the act. The addition of Section 508 thus constituted provision of the healthcare pork necessary to motivate sufficient "yea" votes. That pork, moreover, took on a life of its own. The payment increases enabled by Section 508 were meant to expire three years after enactment. Before they could do so, however, the hospitals that received them formed the Section 508 Hospital Coalition. Through large campaign contributions to relevant congressmen, the newly created interest group successfully secured the extension of supernormal payments.

Tollison and Wagner (1991) suggest that physician support for Medicare and Medicaid may reflect physicians' concern for their pocketbooks rather than for the elderly and

poor. By subsidizing healthcare, those programs increase the demand for physicians' services. Hence, when physicians' services are produced under conditions of rising supply price, Medicare and Medicaid generate rents for physicians. More generally, the same logic suggests that physicians have a financial interest in any public health program that makes death more medically intensive. Consider, for example, a public health program that increases the population's longevity. Insofar as the demand for physicians' services increases with age, such a program increases that demand, generating rents for physicians. One implication of this line of reasoning is that successful rent seeking by the American Medical Association may result in "excess" longevity.

Mobarak et al. (2011) study political influence on the allocation of federal and state health resources to county governments in Brazil. Brazil's Unified and Decentralized Health Care System subsidizes healthcare for citizens. Under that system, most county-level health resources come from state and federal government transfers. Mobarak et al. do not consider the role of private interest groups in affecting the allocation of health resources to Brazilian counties. Rather, they consider how the popularity of county mayors and their political alignment with state governors may affect that allocation. Mobarak et al. (2011, 745) rely on mayoral popularity and political alignment as proxies for the influence of political "clientelism and patronage" on health resource allocation. Mobarak et al. find that counties with more popular mayors and counties whose mayors are from the same party as their states' governors receive larger health resource transfers.

3.4.2 National Institutes of Health

The National Institutes of Health (NIH) is the primary government agency responsible for biomedical and health-related research in the United States. The NIH funds research conducted by successful grant applicants such as universities, disease research centers, and businesses. Health-related interest groups may seek to channel these funds to their members and, for that purpose, may lobby legislators who have influence over the NIH's budget.

Hegde (2009), for example, observes that the NIH's budget is appropriated by the House

Appropriations Subcommittee for Labor, Health and Human Services, Education and Related Agencies. To protect NIH's independence, its budgetary appropriations are not earmarked for specific investigators. Hegde, however, argues that health-related interest groups shape NIH budget appropriations nonetheless. Unable to earmark NIH support explicitly for specific research performers in their constituencies, budget-appropriating legislators steer support to those performers in the form of "soft earmarks". Such earmarks encourage the NIH to use appropriations to fund the biomedical research fields and projects in which the researchers in budget-appropriating legislators' constituencies are engaged. Hegde finds that researchers in the states of appropriations' subcommittee members receive more NIH research funding than researchers at unrepresented institutions. In a related paper, Hegde and Sampat (2015) examine interest group lobbying for soft earmarks in NIH budget appropriations. They find that more active lobbying by disease-specific interest groups is associated with larger numbers of soft earmarks for the diseases with which those interest groups are concerned.

Ward and Dranove (1995) study NIH-and pharmaceutical company-funded drug research. Some categories of drug research consider diseases that are very debilitating but affect few people, such as Parkinson's. Other categories of research consider health conditions that are not debilitating but are quite prevalent, such as baldness. Ward and Dranove find that whereas pharmaceutical firms allocate more research funding to categories of illness that are more debilitating and, still more so, to those that are more prevalent, the NIH allocates more research funding in the opposite direction.

Ward and Dranove interpret their findings as suggestive of interest group influence on NIH research funding. Pharmaceutical firms allocate their research funding across disease categories to maximize profit, which, if the market is not distorted, corresponds to the allocation of research funding that is most valuable to consumers. Deviations from that allocation pattern in NIH research funding, which focuses on severe but relatively rare illnesses, may therefore indicate capture by organizations devoted to those illnesses. Even if market distortions make pharmaceutical companies' research allocations an inappropriate

allocative benchmark, insofar as NIH research funding seeks to serve the public interest, one would expect it to respond to both disease severity and prevalence. Yet Ward and Dranove's results suggest that it does not.

Batinti (2016) investigates the executive branch of government as a source of political influence on the allocation of NIH research funding. The president is involved in the design of the NIH's budget proposals and in defining the NIH's priorities before a proposed budget becomes a formal appropriations bill. The president also can affect the NIH's budget by exercising (or not exercising) his veto power over bills that would affect the NIH's budget. Those authorities, Batinti argues, enable the president to steer the allocation of NIH research funds, and the president's interest in his (or his party's) reelection incentivizes him to steer NIH research funds to politically important states. Batinti finds that recipients of NIH funding in presidential election swing states receive more funding than recipients of NIH funding in other states.

3.4.3 Social preference manipulation

Clark (1997) develops a model wherein competing interest groups vie for public health resources. His analysis is purely theoretical and departs sharply from the interest group approach to government in that it assumes a benevolent government. In Clark's model, a central planner allocates health resources across groups by maximizing a social welfare function weighted by citizens' attitudes toward those groups. What is of interest (to us, at least) in Clark's paper is the idea that interest groups can influence the allocation of public health resources even when government is benevolent. By investing in propaganda, health advocacy groups can improve citizens' attitudes towards the groups' favored health issues. In doing so, interest groups raise their odds of capturing larger shares of public health resources. Such investments may take the form of advertising awareness of a disease, advertising its prevalence or the severity of its consequences, or providing the public with information about the disease. Such information and advertising need not be accurate, and misinformation can be a valuable tool for shaping social preferences in an interest group's

favor. Tollison and Wagner (1991), for instance, suggest that cancer interest groups may exaggerate the risk and incidence of cancer for that purpose.

3.4.4 Tobacco funds

Governments in the United States spend money to address and combat tobacco use. The extent and allocation of that spending matters to both tobacco and healthcare provider interest groups, whose members the spending may harm or benefit. Tobacco and health-service provider interest groups therefore may lobby to influence the level and allocation of antitobacco spending. Stevenson and Shughart (2006), for example, study the allocation of funds to US states collected from major tobacco companies under the 1998 Master Settlement Agreement (MSA). That agreement resolved lawsuits with the attorneys general of 46 states seeking the recovery of public expenditures on treating smoking-related diseases.[21] Some states, however, received substantially larger settlement payments than would be suggested by their expenditures on treating such diseases while other states received substantially less.

Stevenson and Shughart argue that the pattern of MSA settlement allocations reflects rent seeking by health-related interest groups. Nonprofit health advocacy groups and healthcare providers such as doctors and nurses stand to benefit from larger settlement allocations, which finance smoking-related medical research, smoking-cessation clinics, and smoking-prevention programs that health advocacy groups and health-service providers supply. Stevenson and Shughart find that states where these interest groups are more prevalent received larger MSA allocations.

Hoffer and Pellillo (2012) consider US state tobacco-control funds, which finance antitobacco programs and education. Tobacco-producer interest groups have an incentive to lobby against such spending, whose purpose is to reduce the demand for their products. Hoffer and Pellillo find that spending on tobacco control is lower in states where more tobacco is produced and where tobacco interest groups contribute more to the campaigns of

[21] Wagner (1999, 2004) highlights the interest of lawyers in tobacco-related litigation.

state legislators.

3.4.5 Vaccines

Vaccines are of great value amidst an epidemic or pandemic. And when government controls vaccine distribution, legislators who can influence vaccine allocations have strong incentives to appropriate part of that value for themselves. One way they may do so is by allocating vaccines in a manner that privileges their constituents, something for which the legislators can claim credit. Ryan (2014) studies the US government's allocation of the H1N1-virus vaccine following the unexpected spread of the swine flu in 2009. Vaccine allocation was the responsibility of Department of Health and Human Services. Political oversight of the department's vaccine distribution fell to the Committee on Energy and Commerce (in the House) and to the Committee on Health, Education, Labor, and Pensions (in the Senate). Congressional dominance theory (Weingast and Moran 1983)—an extension of the interest group approach to government to encompass the control of bureaucrats—suggests that specialized congressional committees like those mentioned above will use their budgetary and oversight responsibilities to ensure that bureaucrats use their authorities in ways that congressional committee members desire: in a manner that serves the committee members' interests.

Ryan finds support for that theory in the allocation of the H1N1 vaccine. States with Democratic representatives on the Committee on Energy and Commerce received disproportionately large allocations of the vaccine relative to states without committee representatives. Initial distributions of the vaccine were not allocated to states with larger at-risk populations (pregnant women, young adults, and young children). Furthermore, once the weekly distribution of vaccines increased sharply, the influence of committee membership on vaccine allocation declined sharply. As the value of being allocated additional vaccine fell, committee members' interest in influencing its allocation did too.

Barrett (2006) studies the delayed—and nearly failed—global eradication of smallpox.

In 1959 the World Health Assembly endorsed a resolution to eliminate smallpox in developing countries where the disease remained endemic. The eradication program's principal financiers were governments in developed countries where the smallpox vaccine already had eliminated the disease. Not until 1979, however, was smallpox eradicated globally. Barrett attributes the 20-year delay to the absence of rent-seeking interest groups. His analysis thus highlights the importance of those groups to public health resource allocation in a rather different way than the other studies considered in this section.

Contributor countries, though free from smallpox, had to vaccinate their domestic populations against the disease continually, which could still spread to them from developing countries. The contribution required to eliminate smallpox in developing countries, Barrett points out, was dwarfed by the cost of continued vaccination in a contributor country. Hence, a contributor country would benefit on net by contributing appropriately to global eradication. Contributor countries, however, faced a free-rider problem: each wanted the others to make the required contribution so that it could enjoy the benefits of global eradication at no cost to its own taxpayers. The problem could have been overcome if in contributor countries interest groups had mobilized that would gain by and thus lobby for the smallpox policy. Yet that did not occur, according to Barrett, because the market for the smallpox vaccine was highly competitive: smallpox vaccine manufacturers therefore did not anticipate appreciable rents (or their loss) from smallpox eradication. As a result, no interest group lobbied for (or against) eradication in contributing countries, delaying global smallpox eradication for two decades.

3.4.6 AIDS

In fiscal year 2019, the US federal government allocated more than $28 billion to domestic AIDS services, research, and programs (HIV.gov 2020). Three-and-a half billion dollars of America's domestic AIDS budget is allocated to research and prevention alone. Well-organized AIDS interest groups may be responsible for the fact that AIDS receives such large

public health resource allocations. Philipson and Posner (1993) argue that government-funded AIDS research, subsidized HIV testing, and AIDS education programs in the United States reflect the efforts of AIDS interest groups to redistribute wealth from the mass of taxpayers to their members. The first part of Philipson and Posner's argument contends that the observed magnitude of AIDS interventions cannot be justified on efficiency grounds, an argument we return to in Section 6.4. Of interest here is the second part of their argument, according to which the two major populations that stand to benefit significantly from public spending on AIDS—homosexual males, along with medical professionals and drug producers—satisfy the conditions for influential interest groups: their members are concentrated geographically, modest in number, tend to be well educated, and tend to have above-average incomes. Homosexual males, according to Philipson and Posner, seek public spending for AIDS because they constitute the population at high risk of contracting AIDS. Medical professionals and drug producers seek such spending because it increases the demand for their services and subsidizes their inputs.

3.5 Perverse effects of public health policies

Insofar as public health policies are driven by interest-group rent seeking rather than by concern for the public's welfare, it should not be surprising that the results of those policies inure to the benefit of interest groups rather than to the public at large. What interest groups desire does not always diverge from what benefits society. Often, however, it does, and when that is the case, policies that redistribute wealth to interest groups may produce results that are not merely inferior from the standpoint of society but are in fact opposite of the goals ostensibly sought by the policies in question. Public health policies ostensibly seek to promote healthcare consumer welfare. Perverse effects therefore manifest in this context when such policies undermine healthcare consumers' welfare. We survey public-choice relevant scholarship that points to ineffective or perverse consequences of public

health policies below.[22]

3.5.1 Drugs

The stated goal of pharmaceutical regulations is to promote drug-consumer welfare. The effects of some pharmaceutical regulations, however, seem rather to have been the reverse. Peltzman (1987a, b), for instance, studies mandatory prescriptions that require consumers to obtain the permission of a physician before they can purchase and take certain drugs. He considers such regulations in the United States, where the FDA introduced mandatory prescriptions for certain nonnarcotic drugs following passage of the Food, Drug, and Cosmetics Act of 1938, and in a sample of middle-income countries whose mandatory prescription regulations are enforced to varying extents.[23]

The net effect of mandatory prescription regulations on drug-consumer welfare, Peltzman argues, is uncertain theoretically. On the one hand, some consumers who may errantly have self-treated with dangerous drugs if no prescription were required are prevented from doing so, reducing the risk to drug consumers' health. On the other hand, some consumers may now seek and obtain drugs from physicians that are more dangerous than the drugs that consumers would have been willing to take if they were self-treating, creating a moral hazard that increases the risk to drug consumers' health. Peltzman finds that in the United States mandatory prescription regulations imposed by the Food, Drug, and Cosmetics Act did not reduce poisoning deaths and may have increased them. In his international sample, Peltzman is able to examine deaths from infectious disease as well. There he finds that

[22]Effects of this nature commonly are called "unintended consequences" and sometimes that appellation may be correct. We prefer, however, to call them "perverse effects" since the interest group approach to government suggests that they often are intended—or, if not exactly intended, are at least expected. When, for instance, hospital and physician groups lobby against legalizing organ sales, their goal—according to interest group approach to government—is to preserve the rents they enjoy because of the organ shortages the ban creates. The rents these interest groups' members thereby earn certainly are intended, and the shortage, which is responsible for those rents, is intended too. The shortage, however, also is responsible for premature deaths. Those deaths are not "intended" in the sense of being sought as an end (like the rents) or as means necessary to the end (like the shortage). But it is hard to imagine that the deaths are not expected.

[23]Temin (1979) studies the origin of compulsory nonnarcotic drug prescriptions in the United States. His analysis casts doubt on the public-interest account, according to which drug-consumer safety required physician approval for various nonnarcotic drugs.

more strictly enforced mandatory prescription regulations are unrelated to infectious disease mortality and, as for the United States, are associated with elevated poisoning mortality.

In another paper, Peltzman (1973) studies the 1962 Kefauver-Harris Amendments to the Food, Drug, and Cosmetics Act. Those amendments required manufacturers to prove to the FDA the efficacy of new drugs before they could go on the market—so-called premarket review. Peltzman observes that premarket review has two effects. One is to prevent ineffective drugs from reaching the market, which benefits drug consumers. The other effect is to prevent unproven but effective drugs from reaching the market, which harms drug consumers. The latter effect occurs because the FDA does not approve all effective drugs (its review process is fallible), because FDA approval is a lengthy process, and because the cost of proving efficacy to the FDA discourages drug innovation and thus prevents some effective drugs from being introduced. Peltzman estimates the sizes of these effects and finds that the net result of the Kefauver-Harris Amendments was to reduce drug-consumer welfare.

Sobel (2002) considers the FDA's "beyond-a-placebo" regulation according to which manufacturers must prove new drugs to be more effective than a placebo to secure premarket approval. That standard ostensibly is applied to promote consumer health by preventing the sale of fraudulent, impotent medicaments. Sobel, however, argues that the FDA beyond-a-placebo test is in fact detrimental to consumer health. Placebo effects are real: "a placebo has a 30-40% probability of being effective for almost any disorder" (quoted in Sobel 2002, 474). Indeed, if placebo effects were not real, it would not make sense for the FDA to require that new drugs demonstrate their effectiveness *beyond* that of a placebo. There is, moreover, no fraud if a placebo treatment's ingredients and the therapeutic uses for which it has proven effective are indicated accurately. Placebos contain no harmful ingredients, produce no side effects, and are far cheaper than non-placebos. The FDA's regulation denies consumers the ability to buy proven placebo treatments when they sometimes are the only, or the only safe, treatments available. As such, Sobel contends, the beyond-a-placebo regulation undermines rather than promotes consumer health.

Schaumans and Verboven (2008) consider regulations that restrict the number of pharmacies on a geographic basis in Belgium. The alleged purpose of the regulations is to improve consumers' access to pharmacies in regions of the country where pharmaceutical sales are less profitable. Yet Schaumans and Verboven find that in the absence of entry regulations, the number of markets with no pharmacy would fall. This evidence suggests that Belgium's pharmacy entry regulations have an effect opposite to that ostensibly intended.

3.5.2 Alcohol

Gant and Ekelund (1997) study Title XI of America's Omnibus Budget Reconciliation Act of 1990. That title increased excise taxes on wine, liquor, and beer. One of its purported aims was to reduce alcohol-consumption externalities such as drunk driving. But Gant and Ekelund argue that its effect actually may be the reverse. The percentage increase in Title XI's excise tax on wine was much larger than it was on liquor and beer, with which wine is a substitute. The tax increase thus induced substitution away from wine and, as Gant and Ekelund show, mostly into beer. Research suggests that wine drinkers are more responsible alcohol consumers than beer drinkers, who are much more likely to drive drunk. That observation, Gant and Ekelund maintain, implies that the effect of the Title XI excise tax increase may be to increase alcohol-consumption externalities rather than to reduce them.

3.5.3 Tobacco

Among the avowed aims of tobacco regulation is the promotion of consumer health by reducing cigarette consumption. Schneider et al. (1981), however, contend that in the case of the US Public Health Cigarette Smoking Act of 1970, the effect was the opposite. That law prohibited cigarette advertising on television and radio. Schneider et al. observe that the advertising ban has two effects. One is to reduce the demand for cigarettes, which reduces the quantity of cigarettes consumed. But the other effect is to increase the supply of cigarettes by reducing the fixed cost (advertising) of supplying them, which induces new tobacco firms to enter the market and increases the quantity of cigarettes

consumed. Schneider et al. argue that the latter effect dominated the former following the 1970 advertising ban, resulting in more cigarette consumption rather than less.

3.5.4 Healthcare occupational licensing and commercial restrictions

The ostensible purpose of healthcare occupational licensing and commercial restrictions is to promote consumer welfare by assuring the quality of healthcare service provision. Some public health regulations of that kind, however, seem to have reduced healthcare consumers' welfare instead. Kleiner et al. (2016), for instance, examine scope-of-practice regulations for nurse practitioners in the US states. Nurse practitioners are registered nurses who have through a master's or doctoral degree program obtained additional training in diagnosing and treating illnesses and prescribing medication. Scope-of-practice regulations restrict nurse practitioner activities vis-à-vis physicians, for example by limiting the authority of nurse practitioners to prescribe medications. Kleiner et al. find that the price of well-child visits—a service that could be provided easily by a nurse practitioner or physician—increases when states adopt scope-of-practice regulations that limit nurse practitioners' prescription-writing authority. Furthermore, the regulations do not improve the quality or safety of the healthcare services. This evidence suggests that scope-of-practice regulations reduce healthcare consumers' welfare.

Haas-Wilson (1986) investigates the effect of optometry commercial practice regulations on eyeglass-exam prices and service quality in the US states. She finds that commercial practice regulations are associated with higher optometry service prices but not higher service quality. Similar results are found by Benham (1972) and Benham and Benham (1975), who additionally find that higher prices are associated with reduced frequency of consumer use of optometry services. Optometry consumers' welfare thus seems to be reduced by such regulations.

Several older studies that examine the effect of dentist licensing regulations in the US states suggest that such regulations reduce dental-consumer welfare (see, for example, Maurizi 1974; Shepard 1978; Carroll and Gaston 1981). Kleiner and Kudrle (2000) provide a

more recent study along those lines. They examine the effect of dentist licensing regulations on untreated dental deterioration. Kleiner and Kudrle observe that more stringent dentist licensing regulations have two effects, with different implications for untreated dental deterioration. On the one hand, more stringent licensing regulations assure higher dentist quality, which increases the demand for dental services. By itself, this effect would result in a higher quantity of dental services consumed and thus less untreated dental disease. On the other hand, such regulations reduce the supply of dentists, which increases the prices of dental services. By itself, that effect would result in a lower quantity of dental services consumed and thus more untreated dental deterioration. The net result of the two effects for untreated dental deterioration is an empirical question. Kleiner and Kudrle's empirical analysis finds that more stringent dental licensing regulations have no effect on untreated dental deterioration but are associated with higher dental service prices. One interpretation of these results is as follows. From the perspective of dental health outcomes, more stringent licensing is a wash. But for the privilege of that wash, dental consumers pay higher prices, which reduces dental-consumer welfare.

Gertler and Shah (2011) examine the consequences of licensing sex workers in Ecuador. There, sex workers require a license that certifies their freedom from sexually transmissible infections (STIs). Obtaining a license requires submitting to health checkups, submitting to frequent STI testing, and testing negative for STIs. As no cure for AIDS is available, individuals who test positive for that STI are barred permanently from obtaining a sex-work license. Licensed sex workers are permitted to ply their trade in brothels, but street solicitation is illegal. The regulations are enforced by surprise police raids in brothels—to identify and punish unlicensed sex workers—and on the street—to identify and punish any sex workers at all.

The stated purpose of licensing sex workers is to prevent the spread of STIs. But Gertler and Shah argue that the actual effect on STI spread depends on which aspect of the regulations are enforced. Brothel clients demand less unprotected sex than street clients. Hence, brothel sex work does less to spread STIs than street sex work. Tougher

street enforcement raises the relative cost of street sex work and thus leads some street sex workers to move to brothels, reducing the spread of STIs. More stringent brothel enforcement, however, raises the relative cost working in a brothel without a license and thus leads some unlicensed brothel workers to obtain licenses but leads others to move to the street, the latter of which increases the spread of STIs. Gertler and Shah find a perverse effect with respect to brothel enforcement: increased enforcement there is associated with higher STI infection rates.

3.5.5 Mental health

March and Geloso (2020) consider the consequences of government-funded mental healthcare in mid-century America. That funding was provided by state and federal governments to public hospitals and asylums, ostensibly for the care of the institutionalized mentally ill. Yet March and Geloso argue that the "care" public hospital and asylums often provided does not merit that appellation. Unlike private institutions for the mentally ill, whose incomes depended on payments from patients, their custodians, or philanthropic donations and which therefore had strong incentives to provide patients genuine care, public hospitals and asylums received funding from tax dollars appropriated in state budget formulas disconnected from care quality. Public hospitals and asylums therefore had strong incentives to minimize the cost of care regardless of what it meant for welfare of their mental health patients.

According to March and Geloso, the latter incentives were responsible for America's mid-century "lobotomy boom"—a common practice at public hospitals and asylums, but not at private ones, of lobotomizing mental health patients. Lobotomies are inexpensive procedures compared to genuine mental healthcare. Furthermore, by permanently rendering the patient vegetative, a lobotomy makes him much easier to manage, dramatically reducing the ongoing expense of his or her custody. Today the medical profession regards lobotomy as an ineffective and inhumane "treatment" for mental illness, obviously destructive to the patient's well-being. But March and Geloso contend that the medical profession also

regarded lobotomy that way in mid-century America. The perverse incentives created by government funding of mental healthcare, however, led public hospitals and asylums to rely on lobotomies anyway, to the detriment of mental patients' health.

3.5.6 Public health insurance

A primary alleged goal of public health insurance is to improve citizens' access to quality healthcare. The chief effect of some public health insurance regulations, however, may be to undermine citizens' access to quality healthcare. Ramseyer (2009), for example, studies public health insurance in Japan, where government provides universal health insurance and where medical care suppliers are private entities. Universal health insurance increases citizens' demand for healthcare. To prevent a dramatic increase in costs, Japan's government thus caps the prices it pays to private medical care suppliers. Ramseyer observes that medically "superfluous" services such as cosmetic surgery, which are not covered by universal care, are not subject to government price controls. The result is to draw Japan's most talented doctors away from more important areas of care into areas like cosmetic surgery, where talented doctors can earn competitive rates of return, undermining citizens' access to quality healthcare. Ramseyer finds that Tokyo's cosmetic surgeons are better trained, more talented, and earn higher incomes than other Tokyo physicians, including non-cosmetic plastic surgeons.

Propper and Van Reenen (2010) examine a related phenomenon in the context of the United Kingdom's National Health Service (NHS).[24] To keep the cost of England's public health insurance system down, nurses' pay at NHS hospitals is regulated at a level that is nearly the same across the country. Wages in the private sector, in contrast, vary regionally.

[24]In one of the earliest public-choice relevant studies to address issues in public health, Buchanan (1965) considers the "inconsistencies" of the NHS: the fact that under the system, health services demanded exceed health services supplied. Buchanan considered issues in public health in two other essays. In one, he considered the possibility that rapidly rising healthcare costs in the United States may reflect lexicographic consumer preferences for healthcare. There, Buchanan suggested that for the purpose of controlling healthcare costs it may be desirable to override consumer preferences through intervention (Buchanan 1994). The other essay, coauthored with C.M. Lindsay, is titled "The Organization and Financing of Medical Care in the United States" (Buchanan and Lindsay 1970). Unfortunately, we have been unable to locate a copy of that essay and thus cannot report its contents. On Buchanan as a health economist, see Pauly (2002).

The result is an exodus of higher-quality nurses out of NHS hospitals in regions where private sector wages exceed regulated NHS pay scales. Propper and Van Reenen find that the result of such exodus is a deterioration in public hospital quality manifested in an increase in public hospital deaths.[25]

Rosenman (2011) analyzes Medicaid-type programs that support healthcare for lower-income citizens financed by taxes on higher-income citizens. His analysis is purely theoretical but warrants brief mention here. Rosenman models wealthy people, who contribute to public healthcare subsidies but are not eligible for them if they become sick, and poor people, who do not contribute to the subsidies but collect them if they become sick. His model suggests that public health insurance programs with such features produce a moral hazard for both groups that leads to underinvestment in self-care: healthy lifestyles. The poor underinvest in healthy lifestyles because becoming sick imposes less of a cost on them given their collection of healthcare subsidies. The wealthy do so because the taxes they must pay to contribute to public healthcare subsidies for the poor reduce the marginal value of remaining healthy. Medicaid-type programs therefore may have the perverse effect of discouraging healthy living for both contributors and recipients.

3.5.7 Diabetes

Klick and Stratmann (2007) investigate US state laws that require private health insurance providers to cover diabetes treatments. The stated purpose of the laws is to improve the health of diabetics. But because insurer-provided care and self-care in the form of diet and exercise are substitutes, diabetes-care mandates create a moral hazard. Klick and Stratmann find that the body mass indexes (BMIs) of diabetics increase relative to nondiabetics after the adoption of diabetes-care mandates.

[25] Tullock (1995) suggests that the politically well-connected receive better treatment under the NHS than do ordinary citizens.

3.5.8 Human organs

The National Organ Transplant Act, recall, criminalizes the sale of human organs in the United States. One justification for the ban is that it helps to assure the quality of organs available for transplant and thereby improves the probability of organ transplant success (organ sellers may, like blood sellers of the past supposedly did, reflect a pool of lower-quality suppliers).[26] Barnett and Kaserman (1995), however, argue that the result of the organ-sales ban may be the reverse.

A mandatory zero price for organs, as discussed above, creates rents for transplant-input suppliers such as transplant centers. Those rents in turn attract entry by new transplant centers which, given a shortage-constrained supply of high-quality organs, merely spreads a fixed supply of high-quality organs more thinly across a larger number of transplant centers. Among the effects thereby produced are several that are likely to reduce organ transplant success rates. One such effect is reduced organ quality, since to accommodate the smaller number of high-quality organs available to each transplant center, centers must resort to using lower-quality organs (for instance from cadavers). A second effect is less effective organ donor-recipient matching, since a larger number of transplant centers means a smaller patient pool for each of them. A third effect is diminished post-transplant care quality, since such care is subject to learning and each transplant center now performs fewer transplants.

3.5.9 AIDS

The ostensible purpose of subsidized AIDS testing is to reduce the spread of the disease. Philipson and Posner (1993), however, argue that it may instead increase it. Subsidized testing leads to more testing, so more people learn their HIV status. People who test positive learn that they no longer face a risk of infection. Positive testers' cost of unprotected thus sex falls to zero, leading them to prefer unprotected sex to protected sex. People who test negative learn that they continue to face a risk of infection. If negative testers knew

[26]Thomas and Thomas (2018) provide a public-choice analysis of US regulation of the market for blood.

the identities of positive testers, they therefore would insist on protected sex with positive testers. Since, however, negative testers typically do not know the identities of positive testers, often they will not insist on protected sex with positive testers, who will encourage unprotected sex. Unprotected sex thus may rise in the population consequent to subsidized AIDS testing, increasing the spread of AIDS.[27]

3.6 Rebutting healthcare market failures

The foregoing sections considered studies that address issues in public health using the interest group approach to government or containing arguments or findings that are consistent with that approach. Our sections were organized around the three themes enumerated in this paper's introduction: (1) Public health regulations often are driven by private interests, not public ones. (2) The allocation of public health resources often reflects private interests, not public ones. (3) Public health policies may have perverse effects, undermining instead of promoting healthcare consumers' welfare. In this section we consider a smaller, "sister" strand of literature that, while not concerned directly with the interest group approach to government, reflects a complementary theme: the non-failure of healthcare-related markets that are alleged to fail. Whereas the work surveyed above highlights the importance of interest groups in shaping public health interventions purportedly necessitated by healthcare-market failures and considers the perverse effects those interventions may create, the work surveyed below challenges the market-failure premise that motivates public health interventions according to the public interest approach to government.

3.6.1 Drugs

Leeson (2022) challenges the conventional wisdom according to which the market for patent medicine in Industrial Revolution England was a failure rife with producer deception. That market, he argues, was in fact honest and well-functioning. The view that it was not results

[27]Philipson and Posner also argue that the public provision of free condoms may, by creating a moral hazard, increase rather than reduce the spread of AIDS—the provision's avowed aim.

from judging a historical medical market from the perspective of modern medical knowledge to which historical market participants did not have access. What looks to modern eyes like fraud thus was sincere dealing in a "normal" market where, medical science now informs us, the medical information that buyers and sellers had was inaccurate.

Consider, for example, the modern perception that Industrial Revolution English patent medicines did not contain actual medicine, only useless or dangerous ingredients. Leeson argues that the ingredients patent medicines contained, while useless or dangerous from the perspective of modern medical science, were medicinal from the perspective of Industrial Revolution English medical science and, thus, also were found in the medicines that medical professionals then dispensed. Or consider the modern perception that Industrial Revolution English patent medicines were marketed fraudulently as panaceas. Leeson argues that the vast majority of patent medicines were in fact marketed as treatments for only a few categories of disease, whose constituent health conditions, while unrelated from the perspective of modern medical science, were related from the perspective of Industrial Revolution English medical science, which considered them treatable by the same medicine.

March (2017) challenges the justification for FDA risk-management regulation of the drug isotretinoin (Accutane) according to which private regulation of that drug was ineffective. Isotretinoin is beneficial for treating acne. It is, however, dangerous to fetuses and therefore should not be used by pregnant women. Managing the drug's risk effectively thus requires enabling patient access when physicians believe the drug to be beneficial while at the same time preventing access by pregnant patients. Between 1987 and 1999, the task of managing isotretinoin risk was undertaken privately by the drug's manufacturer, which created and enforced regulations that physicians had to follow before prescribing the drug and that female patients had to follow to receive the drug to ensure that they were not and would not become pregnant. In 2001 the FDA assumed risk management regulation from the drug manufacturer on the grounds that FDA regulation—to be based on more stringent requirements—would be more effective. March finds that it was not. Under private

regulation, the average number of patient pregnancies was lower than under FDA regulation. And under private regulation, patient drug access (total prescriptions) increased, while under FDA regulation patient drug access declined.

3.6.2 Tobacco

Tollison and Wagner (1992) challenge the justification for tobacco regulations according to which tobacco consumption generates external costs (see also Shughart and Tollison 1986). The principal costs of smoking are of three kinds: foregone output owing to smoker sickness or death, medical care for smokers who may become sick or diseased more often than nonsmokers, and ambient pollution—the fact that many nonsmokers object to being around smoke. Tollison and Wagner argue that each of these costs is (or could readily be) internalized in markets.[28]

The cost of output foregone because of smoker sickness or death is internalized by smokers in the form of lower wages. The cost of medical care for smokers when health insurance is private is internalized by smokers in the form of higher premiums. The situation is different when health insurance is provided publicly. But since smokers tend to die younger than nonsmokers, their cost to public health insurance systems may in fact be lower than the cost of nonsmokers. [29]. The cost of pollution produced by smokers is internalized by private space owners, whose profit maximization calculus leads them to regulate smoking in their spaces in a manner that maximizes the space's value to consumers and employees. Hence the existence of separate smoking and nonsmoking sections in restaurants prior to government smoking bans, the existence of completely nonsmoking retail establishments, and the use of air filters in some workplaces that permitted smoking.[30]

[28]Wagner (1997) offers analogous arguments with respect to alcohol.

[29]Tullock (1997), too, suggests that smokers are less costly to public health insurance systems because they die younger and because smoking-related diseases are relatively cheap to treat

[30]Boyes and Marlow (1996) report evidence of internalizing behavior among restaurants in California.

3.6.3 Sewers and water

Anderson (1990) challenges the justification for government provision of sewer services according to which sewers, because they are capital intensive, enjoy enormous scale economies that would result in natural monopolies if provision were left to the market. Anderson observes that in late nineteenth-century America, private sewer companies were common and competed without problem. Competitive private sewer services were displaced by monopoly services only when municipal authorities asserted a monopoly.

Troesken (1999) challenges the justification for public waterworks according to which private water suppliers will underinvest in water quality (a "public good"). He observes that in late nineteenth-and early twentieth-century America, water commonly was supplied by private companies, which had incentives to attend to water quality.[31] Consumers could and did sue private water companies for damages arising from, for example, typhoid epidemics since a company's failure to filter the water it supplied could spread the disease. Troesken finds that private water companies in late nineteenth-and early twentieth-century America invested in water filters more often than public utilities did, not less.

3.6.4 Infectious disease

Anderson (1990) challenges the justification for interventions ostensibly aimed at reducing deaths from infectious disease. According to that justification, markets will not reduce deaths from infectious disease significantly because actions that would reduce such deaths entail positive externalities. Anderson suggests that the well-documented decline in Western mortality rates between the Industrial Revolution and the early part of the twentieth century—mostly the result of fewer deaths from infectious disease—may be attributable primarily not to public health interventions, which occurred over the same period, but to improving economic development under capitalism.

As incomes grew under capitalism, so did the quality of the food that people consumed,

[31] Anderson (1990) also touches on water supply by private companies in nineteenth-century America.

and better nutrition reduced mortality from infectious diseases. As coal, gas, and electricity prices fell, average home temperatures in the winter rose, reducing the prevalence of contagious diseases that spread more easily at cold temperatures. As the germ theory of disease became accepted, surgical instruments were sterilized reducing infection. And as cars replaced horses for transportation, horse manure in the streets—an attraction for disease-carrying flies—disappeared. The decline in mortality rates attendant to these developments, Anderson argues, reflected economic progress driven by markets.[32]

Philipson and Posner (1993) challenge the justification for substantial AIDS interventions according to which AIDS creates substantial external costs. The external costs of AIDS, they argue, are in fact modest. That is so for two reasons. First, barring rape or other coercion, one contracts AIDS only as the result of consensual sexual interaction, whose expected benefits must exceed the expected costs for both parties or there would be no interaction. The risk of contracting AIDS therefore is a risk borne voluntarily, with the result that its consequence—which in some cases will be to contract AIDS—is internalized.

Second, while the foregoing logic does not mean that AIDS generates no external costs, the cheapness of condoms suggests that those costs are modest. People who engage in unprotected sex increase not only their own risk of contracting AIDS, a cost that is internalized, but by doing so contribute probabilistically to the prevalence of the disease and therefore increase the risk that third parties may contract AIDS, a cost that is externalized. The latter cost, however, is limited by the cheapest means of avoiding AIDS, for that is the maximum burden that a person's risky sexual behavior can impose on third parties. The cheapest means of avoiding AIDS is a condom. Insofar as the magnitude of AIDS interventions is justified by the magnitude of the external costs of AIDS, the implication is that substantial AIDS interventions may not be justifiable.

[32]Troesken (1999) suggests that water consumers in late nineteenth-and early twentieth-century America may have been the least-cost avoiders of typhoid. Consumers prevented the spread of typhoid by boiling their water, washing their hands, and adopting other sanitation practices. These private actions contributed substantially to the eradication of typhoid.

3.7 Conclusion: The future of public choice and public health

In lieu of recounting what our survey contains, we conclude by way of highlighting what it (mostly) does not. Especially rare in public-choice relevant scholarship that addresses issues in public health are analyses of public health policies that deal specifically with *contagious* disease. Ryan's (2014) study of the H1N1 vaccine is one exception. Philipson and Posner's (1993) analysis of AIDS policies is another. And Barrett's (2006) examination of smallpox eradication is a third. Still, the dearth of such work is conspicuous—perhaps, however, only in hindsight. In their 1991 paper that sought to bring public health to the attention of public choice scholars, Tollison and Wagner (1991, 324) wrote the following about contagious disease: "the control and prevention of contagious diseases has long been the paradigmatic example of public health.... However, the battle against contagious diseases has largely been won, at least in the West." Before circa February 2020, it may therefore have seemed that governmental policy relating to contagious disease was not a particularly important or promising public health issue for public choice scholars to study. Now it is clear that it is.

Attention to the Covid-19 pandemic is at present nearly all-consuming. A flurry of economic research considers it already. And in the pandemic's aftermath an avalanche of economic studies is certain to follow. One silver lining of Covid—if there can be such a thing for a pandemic—is that public choice scholars now will focus their attention not only on issues of public health but on public policies in the context of contagious disease in particular. In March 2020, a $2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act became law in the United States—the largest economic stimulus bill in US history. In December 2020, an dditional $900 billion Covid-relief bill was passed as part of the US Consolidated Appropriations Act of 2021. FDA approval and handling of Covid vaccines remains contentious. Vaccine distribution—based on the federal government's Operation Warp Speed initiative—has just begun. And that is to note only the most significant federal Covid-related policies in the United States. State and local policies demand consideration—from lockdowns to masks to social distancing— not to mention market responses to Covid and Covid-related policies in the rest of the world. We hope

that this paper's stocktaking of public-choice relevant scholarship that addresses issues in public health serves as a useful reference for public choice scholars as they turn their attention to studying Covid-related interventions.

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Curriculum Vitae

Henry A. Thompson graduated *magna cum laude* in 2017 from Clemson University with two Bachelor of Arts, one in political science and the other in economics. He went on to George Mason University where he received an economics M.A. in 2018 and Ph.D. in economics in spring 2022. Thompson is an incoming Assistant Professor in the Department of Economics at the University of Mississippi.