Blind tigers and red-tape cocktails:
Liquor control and homicide in late-nineteenth-century South Carolina

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March 2016

Abstract: In 1893 South Carolina prohibited the private manufacture, transportation, and sale of alcohol and established an unpopular and corrupt state monopoly in wholesale and retail alcohol distribution. The combination of a marked decline in the number of licensed liquor retailers from more than 600 in 1892 to just 56 in 1893, which included just one outlet per county in all but two of South Carolina's counties, limited variety and monopoly prices, encouraged moonshining and bootlegging. Because black markets tend to resort to extra-legal mechanisms for dispute resolution, including violence, one result of South Carolina's alcohol restriction was to increase the use of lethal force. A difference-in-difference identification approach reveals that homicide rates increased by about 50 percent after the change in the law in counties that more vigorously enforced the law.

Acknowledgements: I thank Clemson University's Creative Inquiry program for undergraduate research and the John E. Walker Department of Economics for financial support. I thank Gary Clary (SC Circuit Court Judge (ret.)), who offered valuable information on criminal procedure in South Carolina, for taking time to talk with students. Mark Balon, James Cox, Michael Alan Diehl, Robert Doherty, William Galvin, and Camille Swanson provided valuable research assistance and discussions on the connection between prohibition and violence.

Nineteenth-century Americans imbibed freely. Contemporary temperance organizations, such as the Anti-Saloon League, highlighted its extent and excesses. In 1890 63 million Americans consumed 87 million gallons of distilled liquor, 29 million gallons of wine, and 856 million gallons of malt beverages, or the equivalent of 1.4 gallons of pure alcohol per person (Copeland 1892).[1] Consumption in 1890 represented an increase over the 1.1 gallons per capita reported for 1840, but what troubled temperance advocates most was the increasingly ready availability of alcohol, especially at beer saloons, where drinking, gambling, whoring and brawling were virtually *de rigueur*. Nationally, there were 2.2 saloons per thousand people and a total of 3.3 per thousand licensed sellers, which included saloons, liquor stores, and apothecaries. Temperance proponents contended that the ready availability of alcohol produced "not only pauperism, crime and insanity, but also death, divorces and bad government" (Sheen 1910, 129). Government was complicit in the drinking problem because of the revenues raised at all levels of government through excise taxes and license fees (Sheen 129). Prohibitionists argued that government would be better served by cutting its cord to alcohol because it spent more in prosecuting and punishing alcohol-based crime than it took in through alcohol taxes and fees.

There is little doubt that crime and alcohol were related. Carroll D. Wright, director of the Massachusetts Bureau of Labor Statistics, found for Boston in 1880 that 72 percent of all magistrate court convictions were for public drunkenness and illegal or unlicensed vending. Of the other crimes, which ranged in seriousness from adultery up to aggravated assault, Wright's survey found that 45.5% were committed under the influence and 28.6% were committed by known drunkards and others with a history of drinking problems. Prohibition and strict regulations on alcohol found broad public support because people believed that alcohol fueled violence and other bad behaviors.

[1] U.S. consumption in 2014 was 1.94 gals pure alcohol per capita (World Health Organization 2014).

But Miron (1999, 2004) and O'Flaherty and Sethi (2010) argue that prohibitions can have a countervailing effect on violence. Prohibition or any binding restriction on highly desired goods encourages the emergence of black markets. Black markets, like other markets, tend to create commercial disputes that give rise to a mechanism for resolution. Absent the usual dispute resolution mechanisms available to participants in legal markets (negotiation, lawsuits, and arbitration) and the usual dispute resolution system (courts and government agencies), participants in underground markets resolve disputes through violence. Courts will not enforce agreements involving the manufacture, transportation and distribution of prohibited or tightly regulated goods, and participants cannot access these institutions without incriminating themselves. Black market participants then rely on guns rather than lawyers to resolve commercial and contractual disputes. In the extreme, a combination of drug prohibition and ineffective law enforcement can generate "war zones," in which violence feeds preemptive violence (O'Flaherty and Sethi 2010).

This paper exploits a unique liquor control experiment adopted in South Carolina in the 1890s to further disentangle the countervailing effects of alcohol control. Because the South Carolina regulation of 1892/93, which did not amount to prohibition, was contested and differentially enforced across counties, it is possible to invoke a continuous difference-in-differences estimator in the spirit of Acemoglu, Autor and Lyle (2004) to sort out the hypothesized deleterious enforcement effect (more market-based violence) from the salutary regulatory effect (less alcohol-induced violence).

The South Carolina results, which are robust to alternative specifications and control variables, reveal that in the four years prior to the state's establishment of it monopoly in wholesale and retail alcohol sales there were, on average, 122 homicide prosecutions. In the subsequent decade, the number jumped to an average of 212 statewide. When county-level homicide rates are regressed on county-level liquor-law enforcements rates in a difference-in-difference approach, the results imply that a standard deviation increase in enforcement increased the homicide prosecution rate by nearly 8 per hundred thousand people; this is more than one-half the pre-dispensary era homicide prosecution rate of 13 per hundred thousand people. Liquor law prosecutions, however, had a trivial effect on the assault rate. Although the

evidence does not directly address O'Flaherty and Sethi's (2010) war-zone hypothesis, it is consistent with their finding that modern drug prohibitions lead to more lethal violence.

The South Carolina experience adds to a handful of studies that attempt to sort out the countervailing effects on violence of Prohibition-era (1920-1933) policies in the United States. Miron (1999) and Jensen (2000) employ naïve time-series models that regress murder rates on enforcement expenditures and find that greater enforcement is associated with higher murder rates. These studies find a positive net increase in murder due to prohibition enforcement, but the results cannot be viewed as causal even though Miron contends that federal prohibition expenditures were independent of or exogenous to local murder rates. Owens (2011), Owens (2014) and Livingston (2016) exploit differences in the timing of state-level prohibitions, which predated federal prohibitions, to estimate difference-in-differences models and estimate more plausibly causal relationships, if any. Owens (2011) finds that the net effect of prohibitions was to slightly reduce the murder rate. Livingston (2016), too, finds that murder rates declined in the first and second year after prohibition, and he finds no statistically significant effect at year four and beyond. Owens (2014), however, argues that aggregate murder rates may not reveal the true effect if the effect of prohibition is to increase black market violence in certain age groups and decrease alcohol-induced violence in others. Using age-disaggregated data she finds that murder rates increased for men in their twenties and declined for other age groups during prohibitions. Because black-market based violence is more likely among young men, Owens argues that the evidence is consistent with both the alcohol-induced and market-based violence hypotheses.

South Carolina's dispensary system

Prior to the creation of the state dispensary in 1893, South Carolina operated under a local-option law in which counties and incorporated municipalities determined by referendum whether saloons or taverns, separate from restaurants and hotels, would be licensed. No license could be granted outside an incorporated city,

town or village and saloon owners were made civilly liable for any injury to person or property by any minor, alcoholic or insane person served at a licensed saloon. Saloons were required to close at 6:00 PM. Despite these and other restrictions placed on saloons, 6 counties and 60 towns and villages were no-license towns (Henricks 1945a). Still, an estimated 700 to 800 saloons and taverns – independent of a restaurant or hotel – operated across South Carolina in the late 1880s (Eubanks 1950, 57). An unknown number of restaurants and hotel bars, exempted from the license laws, served alcohol, as well.

Eubanks (1950) claims that, despite the ready availability of alcohol through liquor stores, restaurants and hotels, bootlegging was so rampant and "blind tigers" (Carolinian slang for illegal taverns) so common that liquor dealers themselves urged more rigorous enforcement to rid them of the competition. But the available evidence suggests that enforcement was lax, at best. The state attorney general reported only 4 convictions and 2 mistrials statewide for selling liquor without a license in 1888, fewer than the 10 cases discontinued by state solicitors for liquor violations (SC Attorney General 1888).

Temperance societies and prohibitionists alike were dissatisfied with existing law and lax enforcement and a series of prohibition laws and amendments to the license system were proposed. Governor Benjamin Tillman opposed prohibition, in part, because he considered it unenforceable and, in part, because he wanted to capture the profits of the alcohol trade for the state. Tillman skillfully out-maneuvered the prohibitionists when he convinced his rural voting base that cities and towns took in license revenues but the costs of alcohol-related crime were paid by all taxpayers, including those in rural areas without (legal) saloons (Eubanks 1950). Instead of either a so-called high-license system, which priced licenses beyond the reach of small taverns, or outright prohibition, Tillman offered an alternative Dispensary System in which the state itself would be the monopoly wholesaler and retailer of alcohol.

The principal features of the Dispensary included a state board of control that appointed county control boards that, in turn, appointed a single dispenser for each county, except Charleston (10 dispensaries) and Richland (3) counties (Hendricks 1945a). The original act placed each county's dispensary at the county

seat, though subsequent amendments allowed for additional dispensaries in some counties. The state commissioner purchased from distillers and importers all liquor to be sold in the state, which was to be delivered in bulk to the central dispensary located in Columbia. The central dispensary then packaged the liquor into specially designed bottles in quantities not less than one-half pint and not greater than five gallons. The central dispensary would then sell the sealed containers to local dispensaries at a markup no greater than 50% of net cost. County dispensers were appointed by the county dispensary board and paid a salary. Any profits generated at local dispensaries were divided equally between the county and the municipality in which the dispensaries were located.

Any person wanting to purchase liquor, wine or beer had to file an application at the local dispensary. Dispensers were not allowed to sell to minors or known drunkards, or to people whose legal guardian or spouse requested that they be denied. Bottles could not be opened on the premises of the dispensary; dispensaries would not be open on Sundays. Monday through Saturday, dispensaries could be open only between 8:00 AM and 6:00 PM. Tillman's purpose was not prohibition, but to reduce the quantity of adulterated liquor consumed, to increase state revenues, to rationalize sales by eliminating the private profit motive, and to reduce crime by separating the point of sale of alcohol from saloons, gambling dens and bawdy houses. Opponents argued that the dispensary would probably do little to reduce consumption, raise little revenue for the state and municipalities, and encourage smuggling and bootlegging (Hendricks 1945a, Eubanks 1950).

The law went into effect on July 1, 1893 and the control board scrambled to get the system up and running. The state control board contracted with several distillers and breweries for product, and leased a warehouse in Columbia where the product would be delivered by rail, repackaged, and distributed to county dispensaries. The control board also adopted some regulations not included in the original act. Sales were cash only, buyers could make only one purchase per day, and dispensary store fronts had to be open and well-lit so that anyone standing on the street could see the goings-on inside (Eubanks 1950, 71).

Resistance to the law took many forms. Some state, county and local officials refused to enforce the law. Charleston's mayor publicly announced that he would

not. City officials continued to sell licenses and previously legal saloons went underground and operated as blind tigers, or private drinking clubs. Upscale blind tigers charged an entry fee, served drinks and provided entertainment (Smith 2005). Downscale tigers were simple barrooms with entrances on alleys. One local newspaper editorialist wrote that the only real consequence of the law was that Charlestonians were now forced to imbibe the "red tape cocktail" (quoted in Smith 2005, 204).

Two of the more controversial features of the dispensary act was that it gave the governor the authority to appoint a state constabulary, which reported only him, to enforce the law (Christensen 1908), and the constabulary could engage in warrantless searches of homes and businesses if suspected violators might flee or dispose of contraband liquor. In the first few years, the governor appointed 75 constables at an annual cost of $66,000 (Hendricks 1945b). Tillman responded to Charleston's refusal to enforce the law by dispatching several constables to do so. Charleston's mayor and its police chief instructed the police not to assist the constables, but not to interfere either. The constables' enforcement efforts were further frustrated by grand juries that failed to indict, state attorneys that refused to prosecute and juries that refused to convict. Table 1 shows the disposition of liquor cases following arrests in Charleston and Spartanburg (two comparably-populated counties that differed in public support of the law).

In the decade following enactment of the dispensary law, grand juries in Charleston chose not to indict more than 432 defendants arrested and held over for arraignment by a county magistrate. In more than 413 cases, the prosecutor entered a *nolle prosequi* (loosely, "I will not prosecute"), after which the case was discontinued. In South Carolina the *nolle* determination was entirely at the discretion of the prosecutor; the judge played no part in the choice and typically accepted the plea without question (Clary 2016). Nolled cases might be revived, but rarely were. Compared to Spartanburg, Charleston's juries and prosecutors were less likely to pursue violations of the dispensary law. Of the cases actually prosecuted, Charlestonians were much less likely to convict and secured convictions only in 1896/97 when the governor deployed several additional constables to the city with the express purpose of closing the city's blind tigers.

Table 1

Charges, indictments and prosecutions for dispensary violations

	Charleston				Spartanburg			
	No bill	Nolle prosequi	Not guilty	Guilty	No bill	Nolle prosequi	Not guilty	Guilty
1893	11	1	0	0	0	0	0	5
1894	4	77	0	0	4	2	0	3
1895	21	3	1	0	3	1	5	17
1896	74	229	1	31	19	5	0	24
1897	104	75	4	4	16	8	2	17
1898	No data							
1899	60	25	2	0	0	0	4	11
1900	118	3	0	0	0	1		30
1901	59	0	0	0	21	9	4	24
1902	2	0	0	0	12	7	5	20
Total	432	413	8	35	75	33	20	151

Notes: No bill = grand jury chose not to indict defendant arrested for violation. Nolle prosequi is loosely interpreted as "I will not prosecute," and occurs when state solicitor informs the court at trial that he is unwilling to try the case. Population in Charleston County in 1900 was 88,000; Spartanburg population was 65,000. Attorney general did not report prosecution data in 1898 report.
Sources: author's calculations from South Carolina. Attorney General (1893-1902).

In response to the difficulty of securing indictments and convictions in cities and counties in which a majority of the population opposed the dispensary system, the state amended the original act, so that it became incumbent on the state attorney general to prosecute cases when state and county solicitors refused to do so. The amendment also made it easier for prosecutors to secure a change of venue when grand juries refused to indict alleged violators of the dispensary act (Eubanks 1950).

Charleston was not alone in having the governor dispatch a large squad of constables to enforce the dispensary act, but such redeployments often ended in violence. The first reported instance of constabulary violence occurred in December 1893 when a man was shot and killed by dispensary constables in pursuit of a bootlegger (Eubanks 1950). A second deadly encounter occurred in February 1894 in Willington, when constables killed one man and wounded another.

A notable case of resistance occurred in Darlington County in March 1894. Darlington's residents followed Charleston's lead in openly flaunting the law. When a constable informed the governor of flagrant violations, Tillman dispatched three additional constables and the four men raided several illegal saloons. When rumors

circulated that the four constables intended to raid some private residences, a group of armed residents took to the streets and threatened to kill any constable who entered a private residence without a warrant. The local dispenser sent a telegram to Tillman warning of impending trouble. Tillman sent in the Sumter County militia and 18 additional constables to keep the peace.

Supported by the militia the large corps of constables conducted several raids over the following week. Darlington remained peaceful and the militia and the 18 extra constables were ordered home. As the constables waited for their train late on Friday afternoon, a group of angry young men gathered at the station and taunted and threatened the constables. When a brawl broke out between two of the young men, a constable shot and killed one of them when he thought he saw a pistol drawn. In the resulting melee, one constable and a second citizen were shot and killed. Outnumbered and outgunned, the constables retreated into the nearby marshes and woods. A riot ensued in which the Darlington dispensary was looted and set to the match. When word reached Columbia, Tillman ordered the Richland County militia to Darlington to rescue the constables and restore order. Nearly all the men refused. On Saturday afternoon, Tillman issued a second order to militia companies in the western half of the state. These men arrived in Darlington on Sunday but, in the interim, one wounded constable had taken refuge in a doctor's office and the others had fled on foot to safety. It was not until the following Thursday that the militia, its officers convinced that Darlington would remain peaceful, returned home.

While some Carolinians resisted the law through open defiance and others met its enforcement with violence (reports of violent constable-bootlegger interactions are readily found in the state's newspapers throughout the dispensary era), the real challenge to Tillman's dispensary law was constitutional. A majority of the state's three-member Supreme Court found the 1892 act unconstitutional within a few months of its passage. The legislature responded in the 1893 session by passing a new law with only modest changes. In the interim one of the justices who considered the law unconstitutional retired and the governor nominated a dispensary supporter to the bench. When the 1893 act was challenged, a majority of the

reconfigured court found it constitutional and the dispensaries reopened on August 1, 1894.

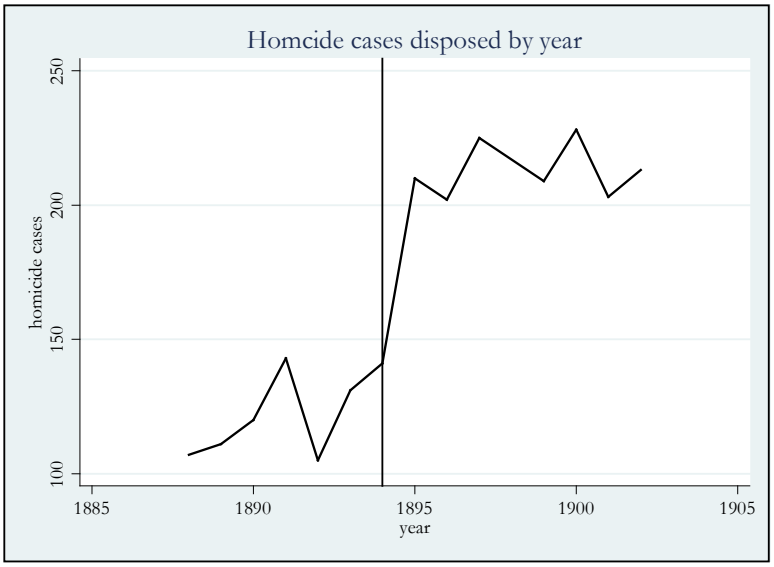
Unable to find relief in the state courts, opponents challenged the law in federal court. In early 1895 Federal Circuit Court Justice Simonton issued a temporary injunction because the dispensary act, which prohibited common carriers from transporting alcohol across state lines even if it was not intended for sale in the state, interfered with interstate commerce in alcohol (SC Senate and House 1894). Governor Evans directed dispensary officials to ignore the injunction and continue as before and for constables to be particularly vigilant because he believed the injunction would encourage the importation of liquor and still more legal challenges to the dispensary (Eubanks 1950, 324). Then in 1896, Judge Simonton further undermined the law when he ruled that the law was unconstitutional insofar as it prohibited the importation of alcohol for personal use. Because the dispensary was neither a prohibition nor an inspection law, it did not fall under the general police powers of the state to regulate private importations. Dispensary constables continued to enforce the law. Dozens of further challenges worked their way through the state and federal courts, but the state prevailed in most when it was shown that the confiscated liquor was destined for resale rather than personal use.

Judge Simonton's 1896 decision prompted the legislature to amend the act requiring the state chemist to test all imported liquor, including that for personal use. This law was challenged and, again, Judge Simonton struck down the sections that applied to personal use as an unconstitutional restriction in interstate trade. Simonton's decision effectively enjoined the dispensary constabulary, and after several constables were jailed for contempt, the governor temporarily disbanded the force (South Carolina House 1899). Some counties resumed issuing saloon licenses and the governor reported more than 300 licensed establishments in June 1897 and 650 licensed establishments in June 1898.

Meanwhile challenges continued in the courts. In 1897 Judge Simonton had found that the sections of the law that limited sales to daylight hours, no sales by the drink in unsealed containers, no drinking on the premises, no Sunday sales, and no sales to minors and drunkards to be constitutional. The issue was finally closed on May 8, 1898 when US Supreme Court Chief Justice Fuller in *Vandercook v. Vance*

wrote the majority opinion that upheld the constitutionality of the dispensary system nearly in its entirety, but upheld the private-use exception. The dispensary constabulary was reorganized, licenses sellers were closed, and the dispensaries again became the monopoly distributors of alcohol in the state.

Figure 1



Sources: SC Attorney General (1888-1902).

Temperance and prohibitionist groups pushed their agenda on the premise that limiting the public's access to inexpensive alcohol would reduce poverty and crime. Temperance groups were quick to note that restrictions reduced arrests for public drunkenness, but some recognized the perverse effect might be to increase binge drinking. As Eubanks (1950, 191) notes, people took their bottles home and were "prone to get on more serious [drinking] sprees and commit more crimes of violence than if he had taken a few drinks at a saloon and carried none away." Public concern with violence prompted the Attorney General to investigate and he produced a table (summarized in Figure 1) that reported the total number of homicide cases disposed of in the pre-1894 and dispensary (post-1893) eras. He reported an increase of about 75% in the number of homicide cases (average of

122.6 before and 212.9 after the dispensary) and a 40% increase in the average number of assault cases in the years before and during the dispensary.

"It was pointed out," writes Eubanks (1950, 191), "that the seeming decrease in [public] drunkenness and the actual increase in serious crime could be alike traced to the Dispensary's door." The marked increase in violence was attributed to the increase in bootlegging and moonshining, but Dispensary proponents expressed confusion over why this should be so. The official interpretation of the dispensary system was that it sold unadulterated liquor at reasonable prices. And while it is likely that the dispensary sold chemically pure spirits, it was alleged that the dispensary sometimes watered its liquor to increase its profit margin. Moreover, it is not clear that the monopoly dispensary sold the liquor people wanted at competitive prices. Table 2 reports gross sales, net profits and the net margin on sales for the local dispensaries for selected years. Net margins were high by modern standards and increased 2.4 times between 1897, when the law's constitutional status was still uncertain and some communities licensed saloons, and 1905, when the only meaningful legal limit on the dispensary was the personal-use exemption. Margins at the local dispensaries are indicative of market power in that margins in the modern retail sector average about 2% to 4%. Bootlegging followed from the dispensary's monopoly pricing; high prices invite competition when entry is difficult to deter and bootlegging was financially remunerative given the high margins.

An additional invitation for marginal bootleggers to enter the illegal liquor sector was the dispensary's failure to provide the types and qualities demanded. The central dispensary bought domestic rye, bourbon, gin and rum in bulk then packaged, labeled and priced them on a three-grade scale. In 1896 X-grade bourbon sold for 20 cents per pint; XX for 25 cents and XXX for 30 cents. The central dispensary paid $1 per gallon wholesale, or 12.5 cents per pint, for grade X (*New York Times* 1896). A legislative investigation of corrupt practices that commenced in 1905 and culminated with the dispensary's dissolution in 1907, uncovered two systemic problems. First, demand was greatest for lowest grade, lowest priced spirits, but margins for both the distillers and dispensers were also lowest on X-grade alcohol. Distillers paid official rebates and illegal kickbacks to the dispensary's purchasing agents in return for its purchases of grade XX and XXX liquors. Local

dispensers complained that they experienced shortages of low-cost liquor and were required to hold excess inventories of higher grades. Second, when the dispensary did purchase grade-X liquor, they watered the bottles labeled as X and packaged the less diluted product as XX and XXX. They then wholesaled it to the local dispensers at $1.60 per gallon for heavily watered X, $2.00 for less-watered X labeled XX, and $2.40 for X purported to be XXX.

Table 2

Local dispensary average net margins

Year	Dispensaries	Gross sales	Net profits	Net margins
	#	$	$	%
1897	90	1,252,289	84,783	6.8
1898	93	1,358,989	91,716	6.7
1899		no report available		
1900	92	2,421,840	270,160	11.2
1901		information not reported		
1902	103	2,406,214	382,683	15.9
1903	110	2,817,999	455,647	16.2
1904	111	3,374,786	543,372	16.1
1905	109	3,556,713	590,199	16.6

Notes: net margin = net profits / gross sales.
Sources: South Carolina. State Board of Control (1897-1905).

Various ruses were used to circumvent the dispensary. In 1913 the state chemist reported that his office had tested 19 different beverages labeled as "cider" and "near beer" that claimed to be alcohol free. Of these, just five beverages were 1% or less alcohol by volume; twelve were 5% or more and two were 12% or more alcohol by volume (South Carolina, Commissioner of Agriculture 1913, 158). Corruption and law-breaking were more common, however. In one notable instance, J. Dudley Haselden, a member of the State Board of Control, was accused by newspaperman Ben Sellers of running a private saloon in his own house stocked by free liquor provided by distillers' salesmen (*New York Times*, December 24 1899). Haselden took exception to Sellers' exposé, gathered two friends and some weapons and visited Sellers. Sellers emerged from the fight with a gunshot wound to the

stomach, his father was wounded in the arm; Haselden suffered a rifle shot to the leg and one of his friends took a nonfatal shotgun discharge in the back.

If the disputes over the dispensary system elicited potentially deadly violence between government officials and newspapermen, it is not unreasonable to expect that violence would be rife in among those engaged in its illicit distribution. Monopoly pricing, in addition to the adulteration and dishonest mislabeling of alcohol, was an invitation for bootleggers who offered different, cheaper or honestly labeled goods. The Charleston *News and Courier* (February 24, 1898), long-standing a critic of the dispensary system, labeled the entire system a "breeder of lawlessness, crime and unending strife."

Data

To investigate the relationship between alcohol restriction and violence, data on assault, homicide, and liquor-law violation were gathered from annual reports of the South Carolina Attorney General (AG). Each year, the AG asked district State Solicitors (the equivalent of a district attorney) to forward information on the prosecutions of felony cases handled in their circuits. Nearly every year beginning with 1888, the AG tabulated the information and reported it in standard form for the subsequent half-century in a largely unchanged format.

Figure 2 reproduces a representative page from the 1901 AG's report for Greenville County, which organizes the relevant data by crime and disposition. Thus the information coded into the data for analysis includes the 5 acquittals (not guilty) and 17 convictions for assault, the 10 acquittals and 15 convictions for murder and the 6 acquittals and 21 convictions for violations of the dispensary law.

Report of the Solicitor of the Eighth Circuit of Cases Tried and Disposed of During the Year Ending the 1st Day of December, 1901.

CRIMES.—GREENVILLE COUNTY.	No Bill.	Discontinued.	Not Guilty.	Mistrial.	Guilty.	Jail and Fine.	County Chain Gang.	Penitentiary for Term.	Penitentiary for Life.	Death Sentence.
Adultery	..	..	..	..	1	1	..	..	..	..
Arson	..	1	..	..	1	..	..	..	1	..
Assault, with intent to kill, and aggravated assault and battery	..	5	5	..	17	..	17	..	..	..
Burning untenanted house	..	..	1	..	1	..	..	1	..	..
Bigamy	..	1	..	..	....	..	..	..	..	..
Burglary	..	..	5	..	9	..	6	..	..	..
Car breaking	..	..	..	..	3	..	3	3	..	..
Carrying concealed weapons	..	1	..	..	....	..	..	..	..	..
Disturbing meeting	..	..	..	..	1	..	1	1	..	..
Disposing of property under lien	..	..	..	..	2	..	2	..	..	..
Forgery	..	..	..	..	1	..	..	..	..	..
Gaming	..	..	..	..	9	9	..	..	..	..
Highway robbery	..	..	3	..	5	..	5	..	..	..
House-breaking	..	2	1	..	8	..	8	..	..	..
Larceny	..	1	..	..	6	..	6	..	..	..
Malicious mischief	..	1	..	..	....	..	..	..	..	..
Murder	..	..	10	..	15	..	..	6	6	3
Rape	..	..	..	..	1	..	..	..	1	..
Riot	..	2	1	..	17	17	..	..	..	..
Selling liquor without a license—Dispensary law.	..	7	6	..	21	..	..	..	..	..
Totals	..	21	32	..	118	27	48	11	8	3

The variables of particular interest in the existing literature are the murder rate and either enforcement expenditures (Miron 1999; Jensen 2000) or whether restrictions or prohibitions, which can be considered a treatment in a difference-in-differences approach, were in place in a given year (Owens 2011, Livingston 2016). The data available here differ from these standard variables, but are no less useful for an investigation of the connection between alcohol control and violence. One difference is the measure of violence. Typically, the dependent variable is defined as the murder rate, which is the number of reported murders per hundred thousand people. The information included in the AG reports is not the murder rate per se, but rather the number of individuals indicted who later stood trial for murder or manslaughter and were either acquitted or convicted.[2] The dependent variable of principal interest is labeled the *homicide prosecution rate*, which is defined as the sum of

[2] Because some solicitors in some years combined murder and manslaughter into a single category, they were combined here when reported separately to assure consistency. Including manslaughter cases, moreover, captures the total level of violence better than just the murder rate when juries regularly found murder defendants guilty of manslaughter.

acquittals, mistrials, and convictions per hundred thousand people (population estimates are linearly interpolated between census years). The homicide prosecution rate may reveal more about participation in violence than the murder rate in that the homicide prosecution rate is a measure of the number of individuals for which grand juries and prosecutors believed there was sufficient evidence to establish probable cause of the defendant's culpability to take the case to trial. A preliminary search of local newspapers reveals that many homicides involved more than one defendant, as in the Haselden-Sellers case, and the homicide prosecution rate better captures participation in violence than the murder rate, which captures a singular outcome.

Cases "no billed" by grand juries and discontinued ("nolled") by prosecutors are not included because contemporary observers with more information than is available to the historian did not believe there was sufficient evidence to pursue a prosecution. The results are not qualitatively different if "no bill" and "nolle prosequi" cases are included in the numerator.

Equivalent measures are also constructed for the assault prosecution rate and the liquor violation prosecution rate, both of which also provide measures of participation in these activities.

The history of the dispensary system also reveals that some care be shown in how the dispensary era is defined. The original act established the dispensary in 1893; the 1893 revision to the dispensary act led to the reopening of the dispensaries in summer 1894; and the final US Supreme Court determination made most of the law's provisions fully enforceable beginning in late 1898. But it must also be recalled that, despite the court injunctions instructing dispensary officials, especially the constables, to stand down, Governor Evans instructed the constables to ignore the first two injunctions and continue enforcing the law. It was only in 1898 that the constabulary was dissolved, only to be reorganized the following year. It is not clear then that sharp breaks, which are usually called for in a standard difference-in-differences approach are applicable in this case.

Table 3

Homicide, assault and liquor prosecution rates

	Obs	Homicide prosecution rate	Assault prosecution rate	Liquor prosecution rate
		Two regimes		
1888-1892	155	10.09	22.83	2.25
		[9.01]	[14.72]	[6.19]
1893-1902	322	14.49**	24.28	8.95**
		[9.98]	[14.81]	[14.03]
		Two regimes		
1888-1893	180	10.43	22.41	2.35
		[9.21]	[14.30]	[6.26]
1894-1902	297	14.66**	24.65	9.45**
		[10.00]	[15.03]	[14.37]
		Two regimes		
1888-1895	210	10.41	22.81	2.11
		[8.90]	[14.26]	[5.85]
1895-1902	267	15.15**	24.59	10.43**
		[10.19]	[15.16]	[14.82]
		Three regimes		
1888-1892	155	10.09	22.83	2.25
		[9.01]	[14.72]	[6.19]
1893-1897	163	14.34**	25.04	8.49**
		[10.35]	[14.03]	[15.47]
1898-1902	159	14.65**	23.49	9.41**
		[9.62]	[15.58]	[12.41]

Notes: regimes refer to periods before and after the law was passed (1893) and periods when it was not clear whether the law was constitutional (1893-1898) and when the US Supreme Court finally upheld its constitutionality and the law was more strictly enforced. ** implies difference in means for years in question and pre-dispensary period at p-value<0.01.
Sources: author's calculation from South Carolina Attorney General (1888-1902).

Absent a readily identifiable sharp break, it is appropriate to let the data speak. Table 3 parses the data based on four dates when it would be reasonable to expect a break in the liquor and homicide prosecution rates: following the passage of the original act in 1892; following passage of the amended act in 1893; and following Judge Simonton's personal-use exception 1895. Finally, instead of just two regimes, there may be three: one prior to the original act; one between the original act and the final Supreme Court finding; and, one following the finding that the law was

constitutional. The homicide and liquor prosecution rate data suggest a break pre- and post-1893, or the passage of the original act. The number of homicide prosecutions increased from about 10 to about 14.5 per hundred thousand after the dispensary law became operative. Not surprisingly, the liquor prosecution rate increased nearly four-fold. Prior to the dispensary, liquor prosecutions were mostly for selling without a license or selling to minors. After the dispensary went into effect, all manner of violations were prosecuted and quite vigorously in some counties.

The assault prosecution rate data, alternatively suggests that the three regime model might be more appropriate because the assault rate increased by about 10 prosecutions per hundred thousand in the years immediately following passage of the original act, but returned to pre-dispensary levels by 1898. Regressions are reported using each approach, but the two-regime dating using 1893 or the three-regime models using 1893 and 1898 as the break dates probably best capture the effect of differential liquor law enforcement attributable to the establishment of the dispensary system.

Empirical strategy

Early studies investigating the connection between liquor control and violence used time series methods, but the time-series on murder rates in the early twentieth century is problematic because relatively few states reported mortality by cause prior to the 1920s (Miron 1999; Jensen 2000). Although most of the remaining states started reporting data around or after 1920, Owens (2011) shows that later reporting states had notably higher murder rates than earlier reporting states. It is difficult to ascertain whether these states had higher rates independent of Prohibition, or whether alcohol control laws had already raised the murder rate.

Recent studies adopt alternative estimation strategies that consider temperance regulations or outright prohibitions as treatment effects that lend themselves to difference-in-differences approaches (Owens 2011; Livingston 2016). A standard treatment effects model would estimate a regression of the following form:

$$(1)\ \text{murder rate}_{tc} = \alpha + \beta_1\ \text{dispensary}_{tc} + \beta_2\ \text{post-dispensary}_{tc} + \beta_3\ \text{dispensary}_{tc} * \text{post-dispensary}_{tc} + \beta_4\ X_{tc} + \varepsilon_{tc}$$

where the dependent variable measure measures violence in year t and county c. The dispensary variable represents a dichotomous treatment variable (dispensary versus no dispensary) in year t and county c; post-dispensary is a dichotomous variable that equals one in the period after implementation; and X represents a vector of controls likely to influence the murder rate. In a standard difference-in-differences approach, the coefficient on β_3 provides an estimate of the effect of dispensary regulation on those subject to it (or, the effect of the treatment o the treated).

It is impossible to implement the approach implied in Equation 1 because the dispensary system was imposed simultaneously throughout the state so that the regression yields an estimate of post-dispensary, or a before-after effect. In the alternative, I estimate a continuous difference-in-differences model, similar to that used by Acemoglu, Autor and Lyle (2004), that exploits differential enforcement of the dispensary law across counties and time to determine the effect of increased liquor enforcement on violence.[3] Thus, the estimated model takes the form:

$$(2)\ \text{homicide prosecution rate}_{tc} = \alpha + \beta_1\ \text{liquor prosecution rate}_{tc} + \beta_2\ \text{dispensary}_{tc} + \beta_3\ \text{liquor prosecution rate}_{tc} * \text{dispensary}_{tc} + \beta_4\ t_t + \beta_5\ \text{Circuit}_c + \varepsilon_{tc}$$

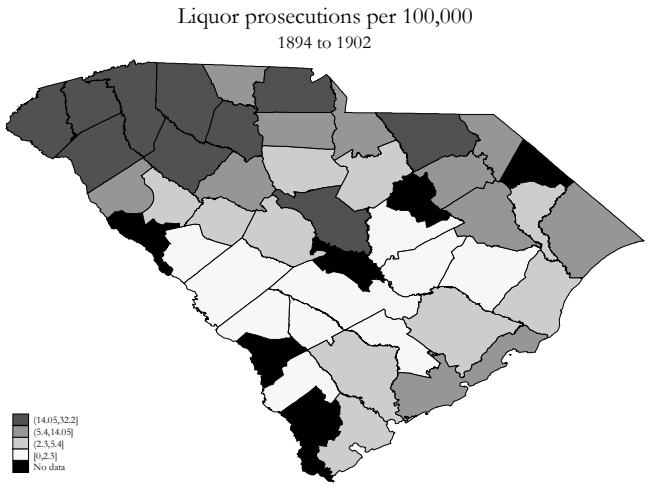
Where the homicide participation rate is, as discussed in the previous section, the number of murder and manslaughter cases prosecuted per hundred thousand people in year t and county c. The liquor prosecution rate is the number of liquor law violations prosecuted per hundred thousand. In the pre-dispensary era, there were relatively few – about 2 per hundred thousand -- liquor-law prosecutions, most of which were for Sunday sales, selling without a license and selling to minors. After passage of the dispensary act, liquor-law violations were mostly for selling or

[3] Adorno (2007) provides a detailed derivation of the econometrics of the continuous treatment approach.

transporting liquor by other than official dispensers. As in any differences-in-differences-type estimation, β_3 is the coefficient of interest. Under certain general conditions, it will provide consistent and unbiased estimate of the effect of dispensary enforcement on the population subject to enforcement (that is, it will estimate the effect of the treatment on the treated) (see, for example, Lechner 2010).

Regressions are also estimated with year and circuit fixed effects, with standard errors clustered on county. Circuit, rather than county, fixed effects are implemented because state solicitors oversaw prosecutions in their circuits, which included between three and five counties. Although local attitudes surely influenced enforcement efforts, it was the solicitors and their assistants who worked (or not) to secure grand jury indictments, chose which indicted defendants to prosecute, and the resources devoted to the prosecution of liquor cases. Thus, the circuit fixed effect captures differences in solicitor behaviors.

Figure 3



Two issues naturally arise in the use of a continuous rather than a dichotomous treatment variable. The first is whether enforcement varied in a systematic fashion that mimics a meaningful treatment. Figure 3 maps the average liquor-law prosecution rate in dispensary era (1893-1902). It reveals that the state can

be divided into three distinct enforcement zones: the lightly enforced counties in the low-country (the southeastern corner on or near the Atlantic coast) and the Pee Dee region (the northeast corner that borders North Carolina); the barely enforced Midlands or Santee district; and the relatively heavily enforced western up-country around Spartanburg-Greenville-Anderson. The counties and solicitors' circuits that devoted more resources to enforcement are not a random sample.

Enforcement in South Carolina reflects national trends in that temperance movements gained more traction in less urbanized places and in places with more evangelical Christians (Owens 2011). And although public opinion toward saloons was overwhelmingly negative, places with more taverns and saloons were less likely to support temperance regulations or prohibitions. An OLS regression (reported in the appendix) reveals that the fraction of a county's legislative delegation voting in favor of the dispensary increased in the percent Baptist in the county (in 1890); and decreased the in the percent African American, population per square mile and, most importantly, the existing homicide rate. None of the estimated coefficients, however, are statistically significant predictors of the delegations' support.

The second concern is whether dispensary enforcement was endogenous to the level of violence. If officials, for example, stepped up liquor-law enforcement in response to increases in violence, then the resulting estimates will be biased. The evidence suggests that enforcement was not endogenous. As just noted, support among a county's legislative delegation was not positively correlated with the murder rate; the estimated coefficient implies that a one standard deviation increase in the murder rate (in the cross section) is associated with a ***decline*** of 0.26 of a standard deviation in the percent voting in favor. In addition, a regression of liquor law enforcement per hundred thousand on a lag of homicide prosecutions per hundred thousand generates a small positive coefficient. A one standard deviation increase in the previous year's homicide rate leads to an increase in enforcement equal to 0.17 standard deviations in liquor-law enforcement. It is reasonable then to proceed assuming that liquor-law prosecutions and homicide prosecutions were driven by observable and unobservable factors that are not strongly jointly correlated and that the level of liquor enforcement did not respond endogenously to past or current homicide rates.

Documenting alcohol-induced and market-based violence

The countervailing temperance influences of lower alcohol-induced violence and greater market-based violence means that the predicted net effect of alcohol control on violence is ambiguous. One advantage of South Carolina's dispensary system is that it affords an opportunity to sort out the effects. For law-abiding citizens, the dispensary system increased the cost of alcohol by limiting retail distribution points, which was sold only at centrally located county dispensaries. Among this group, making alcohol less available should reduce alcohol-related violence. For the less law-abiding, however, the dispensary system offered opportunities to profit by the illegal manufacture, transportation and sale of alcohol. For this group, increased enforcement is likely to lead to more market-based violence.

Econometrically, any change in alcohol-induced violence will manifest itself in a shift in the intercept of an estimated relationship enforcement and violence. At zero enforcement, a law making alcohol less available – all else constant – will reduce the rate of violence if alcohol, in fact, promotes violent behaviors among those who consume alcohol. At the same time, any change in enforcement- or market-based violence will manifest itself in a positive slope of the estimated relationship between the enforcement rate and the homicide rate. More enforcement, which makes legal alcohol less available will make participation in illegal alcohol sales more profitable, which encourages entry. But with more participants or more activity among existing participants increase the potential number of disputes that will be resolved through violence.

Alcohol control and homicide prosecutions

Figure 4 provides a scatterplot of liquor-law prosecution and homicide prosecution rates before and after adoption of the dispensary system and illuminates the difference between alcohol- and market-based violence. In the pre-dispensary

era, when liquor was relatively available, increased enforcement efforts, which were aimed mostly at suspects who sold without a license or to minors, were associated with fewer homicide prosecutions. In the dispensary era, by contrast, increased enforcement efforts, which were aimed mostly at disrupting the distribution networks of moonshiners and bootleggers, were associated with markedly increased homicide prosecution rates.

Figure 4

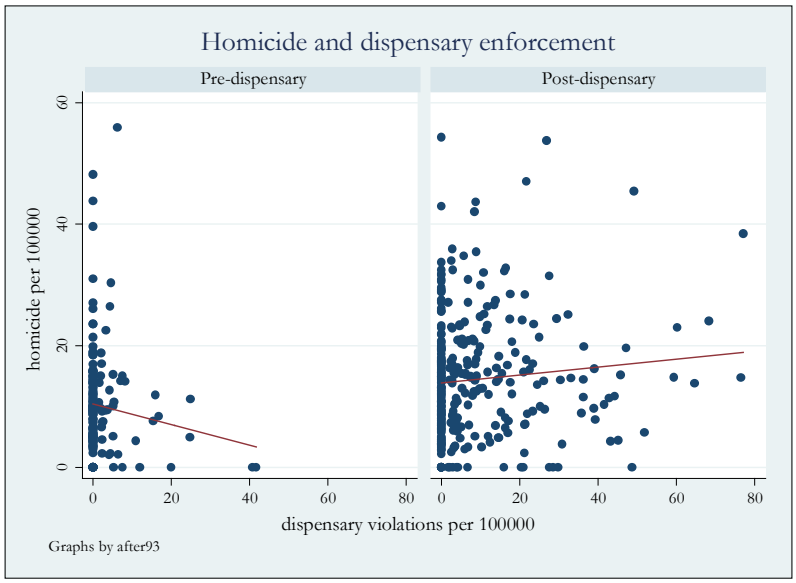


Figure 4 illustrates the basic identification strategy for the formal empirical analysis in which we treat enforcement as a continuous rather than a dichotomous treatment variable. Table 4 reports regressions using four alternative regime definitions: passage of the original act (1892); passage of the amended act (1893); federal recognition of personal-use exemption (1894); and, the three regime phase culminating with the law being upheld in 1898. The regression results confirm the implications of Table 3, namely that alternative two-regime models do not offer substantially different results.

Column 1 reports a baseline regression without year or circuit fixed effects. The constant implies 10.5 homicide prosecutions per hundred thousand with no liquor-law prosecutions. If we assume a single perpetrator per homicide, the estimate

is about double the modern murder rate. If we assume, alternatively, two perpetrators per homicide, the late-nineteenth century homicide rate would be about the same as the modern murder rate. The actual value was likely an intermediate value.

Table 4

Difference-in-differences estimates of liquor enforcement on homicide

	(1)	(2)	(3)	(4)	(5)
Variable	Two regimes	Two regimes	Two regimes	Two regimes	Three regimes
After 1892	3.426	4.894			5.202
	[0.972]**	[2.349]*			[2.873]
After 1893			4.802		
			[2.339]*		
After 1894				4.804	
				[2.337]*	
After 1898					4.509
					[2.345]
Liquor prosecution	-0.169	-0.261	-0.269	-0.267	-0.261
	[0.067]*	[0.074]**	[0.082]**	[0.092]**	[0.073]**
After*Liquor	0.235	0.281	0.296	0.295	0.248
	[0.078]**	[0.088]**	[0.093]**	[0.092]**	[0.088]**
After2*Liquor					0.325
					[0.112]**
Constant	10.474	10.663	10.661	10.687	10.742
	[0.911]**	[1.773]**	[1.765]**	[1.760]**	[1.742]**
Year FEs	No	Yes	Yes	Yes	Yes
Circuit FEs	No	Yes	Yes	Yes	Yes
Obs	477	477	477	477	477
F-stat	13.38**	11.94**	12.26**	11.87**	11.25**
R-sq	0.05	0.17	0.18	0.18	0.18

Notes: ** implies p-value<0.01; * implies p-value<0.05. Standard errors clustered on the county reported in parentheses.
Sources:

The issue at hand, of course, is whether increased liquor law enforcement led to an increase in the murder rate. The results suggest that it had a profound effect. In the traditional difference-in-differences approach, the coefficient of principal interest is the interaction term, *After*Liquor*, which captures the effect of the treatment on the treated of a simple on/off treatment. But with a continuous treatment effect,

some county-years experienced no treatment (e.g., Charleston in most years), other couny-years experienced intensive treatment (e.g., Spartanburg with an average of 32.2 liquor law prosecutions per year), while other county-years experienced intermediate treatments. The coefficient on Liquor prosecutions implies that additional liquor-law enforcement when alcohol was widely available reduced the homicide prosecution rate, but the coefficient on the interaction (treatment) term implies a higher homicide rate. With a continuous enforcement effect, to understand the effect of law it is helpful to determine the marginal effects at different points in enforcement distribution. Thus, the coefficient on *After 1892* implies that imposition of alcohol control absent any additional state enforcement efforts increased the homicide prosecution rate by nearly 3.5 per hundred thousand. At the mean liquor prosecution rate (6.77), the marginal effect of prosecution was to increase the homicide prosecution rate by a statistically significant 5.02 per hundred thousand. At one standard deviation above the mean liquor prosecution rate, the effect of the additional enforcement was to increase the predicted homicide prosecution rate by 7.94 per hundred thousand, or by more than one-half the pre-dispensary level of about 13 per hundred thousand.

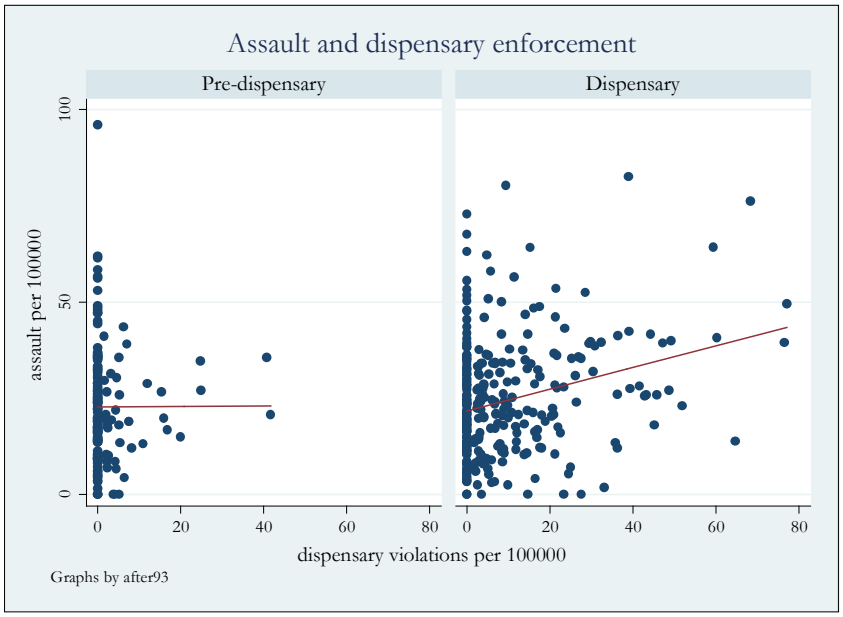
The coefficients reported in Column 2 are conditional on county and year fixed effects to control for unobservable effects that influenced the homicide rate by year and by circuit. The inclusion of the fixed effects, assuming that passage of the original 1892 act had a meaningful effect on liquor prosecutions, increases the estimated effect of liquor prosecutions on homicide rates. A one standard deviation increase in liquor-law prosecutions increased the homicide prosecution rate by 10.29 per hundred thousand. The results in Columns (3) and (4), which assume later dates at which the enforcement effects would be effect while the law was still under legal challenge, reveal similar effects as those in Column (2). Thus, the dispensary law had an almost immediate effect on the homicide rate even in areas where the law was lightly enforced.

The results in Column (5) provide a limited test of Livingston's (2016) hypothesis that the effect of liquor control on homicide might evolve over time. He argues that because the public is given advance notice of when controls will go into effect that they can stockpile alcohol, the result of which would be a short-term

decline in homicide and long-run increase as stockpiles are exhausted. When the dispensary era is divided into the early and later period, the short term effect is to increase participation in homicide, and the longer-term effect is somewhat larger, though the interaction terms are not statistically different. It does not appear that the enforcement effect on homicide either rises or falls over time. It increases immediately after the law goes into effect and remains at the higher level.

Alcohol control and assault prosecutions

Figure 5



Homicide, of course, is not the only form of violence that might be influenced by alcohol restrictions. Many assaults do not end in homicide and it is likely that the countervailing effects posited in the connection between alcohol and murder will also be evident between alcohol and aggravated assault.

Figure 5 provides a scatterplot and the estimated linear relationship between the assault prosecution rate and the liquor law enforcement rate for the period before and after 1893. Without controlling for year and circuit fixed effects, the evidence points to a positive relationship between liquor law enforcement efforts and the assault prosecution rate.

Table 5

Difference-in-differences estimates of liquor enforcement on assault

	(1)	(2)	(3)	(4)	(5)
Variable	Two regimes	Two regime	Two regime	Two regime	Three regimes
After 1892	-1.063	-6.832			-4.732
	[1.237]	[3.526]†			[3.749]
After 1893			-6.413		
			[3.543]		
After 1894				-6.472	
				[3.530]†	
After 1898					-7.083
					[3.565]†
Liquor prosecution	0.005	-0.141	-0.04	-0.051	-0.142
	[0.127]	[0.169]	[0.174]	[0.175]	[0.169]
After*Liquor	0.276	0.396	0.291	0.303	0.375
	[0.170]	[0.207]†	[0.222]	[0.222]	[0.206]†
After2*Liquor					0.425
					[0.229]†
Constant	22.821	24.282	23.808	23.887	24.335
	[1.464]**	[4.668]**	[4.696]**	[4.705]**	[4.700]**
Year Fes	No	Yes	Yes	Yes	Yes
Circuit Fes	No	Yes	Yes	Yes	Yes
Obs	477	477	477	477	477
F-stat	4.86**	4.38**	3.89**	3.90**	4.10**
R-sq	0.05	0.12	0.12	0.12	0.12

Notes: ** implies p-value<0.01; * implies p-value<0.05. Standard errors clustered on the county reported in parentheses.
Sources:

Table 5 reports regressions of the assault prosecution rate on the same enforcements variables used in the homicide prosecution rate regressions. Column (2) and Column (5) offer the preferred specifications in that enforcement efforts appear to have increased immediately after the establishment of the dispensary (Col. 2), but a second incrementally stricter regime may emerged after the 1898 US Supreme Court decision. Estimates reported in Col 2 imply that, at zero enforcement, the autonomous level of assaults declined by a meaningful 6.8

prosecutions per hundred thousand, which can be interpreted as a decline in the incidence of alcohol-induced violence. A lesser availability of legal alcohol without enforcement squeezing illicit distribution networks reduced the incidence of violent assault. The estimated coefficient on β_3, or the difference-in-difference estimate, implies that the marginal effect of greater enforcement at the mean would *decrease* in the assault rate by 4.15 per hundred thousand. A standard deviation (12.45) increase in liquor law prosecutions increased the assault prosecution rate by a trivial and statistically insignificant 0.76 assaults per hundred thousand.

The three-regime model generates qualitatively similar results. Making liquor less available had the paradoxical effect of increasing the homicide rate even while the assault rate declined around the mean enforcement rates. It may have been that one consequence of closing saloons and making alcohol less available reduced brawling and other forms of nonlethal violence, but the emergence of illicit distribution networks led to higher rates of lethal violence.

Conclusions

A common thread that connected such disparate accounts of prohibition as the cinematic accounts of Elliott Ness's team of untouchables to serious journalistic accounts such as Wainwright's (2016) *Narconomics* to academic analyses such as O'Flaherty and Sethi's (2010) account of modern urban "war zones" is that well-meaning but serious restrictions on highly desired goods are fraught by unintended consequences. Progressive Era reformers, including the prohibitionists, believed that the rise of urban violence in the late nineteenth century was fueled not just by rapidly increasing urban densities, but by the rapid proliferation of the saloon. Reformers considered the salon the problem and worked to outlaw or at least place onerous restrictions on them. The reformer's efforts, however, did little to reduce violence and, as Miron (1999) argued, may have exacerbated already high rates of urban violence.

South Carolina's liquor control experiment between 1893 and 1905 offers a unique opportunity to investigate the link between liquor control and violence. The results, which are robust to alternative specifications and control variables, reveal

that average annual homicide prosecution rate, a reasonable measure of the murder rate, jumped by 75% after the opening of the dispensary. When county-level homicide rates are regressed on county-level liquor-law enforcements rates in a difference-in-difference approach, the results imply that a standard deviation increase in enforcement increased the homicide prosecution rate by nearly 8 per hundred thousand people; this is more than one-half the pre-dispensary era homicide prosecution rate of 13 per hundred thousand people. Liquor law prosecutions, however, had a trivial effect on the assault rate. Although the evidence does not directly address O'Flaherty and Sethi's (2010) war-zone hypothesis, it is consistent with their finding that modern drug prohibitions lead to more lethal violence.

References

Acemoglu, Daron, David H. Autor, and David Lyle. 2004. "Women, war, and wages: The effect of female labor supply on the wage structure at midcentury." *Journal of Political Economy* 112(3): 497- .

Adorno, Valentina. 2007. *Program Evaluation with Continuous Treatment: Theoretical Considerations and Empirical Application*. PhD. dissertation: Università di Bologna.

Association of Religion Data Archives. Statistics of Churches in the United States, County File, 1890. Available at http://www.thearda.com/Archive/Files/Downloads/1890CENSCT_DL2.asp.

Christensen, Niels, Jr. 1908. "The state dispensaries of South Carolina." *Annals of the American Academy of Political and Social Sciences* 32( ): 77-85.

Clary, Gary. 2016. South Carolina Circuit Court Judge (retired). Personal communication.

Copeland, Wilbur F. 1892. *Handbook of Prohibition Facts*. New York: Funk & Wagnalls Company.

Eubanks, John Evans. 1950. *Ben Tillman's Baby: The Dispensary System of South Carolina, 1892-1915*. Augusta, Georgia: Tidwell Printing Supply Company.

Hendricks, Ellen Alexander. 1945a. "The South Carolina dispensary system, part I." *North Carolina Historical Review* 22(2): 176-197.

Hendricks, Ellen Alexander. 1945b. "The South Carolina dispensary system, part II." *North Carolina Historical Review* 22(3): 320-349.

Jensen, Gary F. 2000. "Prohibition, alcohol, and murder: Untangling countervailing mechanisms." *Homicide Studies* 4(1): 18-36.

Lechner, Michael. "The estimation of causal effects by difference-in-difference methods." *Foundations and Trends in Econometrics* 4(3): 165-224.

Livingston, Brendan. 2016. "Murder and the black market: Prohibition's impact on homicide rates in American cities." *International Review of Law and Economics* 45(1): 33-44.

Miron, Jeffrey. 1999. "Violence and the U.S. prohibition of drugs and alcohol." *American Law and Economics Review* 1(1): 78-114.

Miron, Jeffrey. 2004. *Drug War Crimes*. Washington, DC: Independent Institute.

O'Flaherty, Brendan and Rajiv Sethi. 2010. "Peaceable kingdoms and war zones: Preemption, ballistics, and murder in Newark." In *The Economics of Crime: Lessons for and from Latin America*, 305-353. Edited by Rafael Di Tella, Sebastian Edwards, and Ernesto Schargrodsky. Chicago: University of Chicago Press.

Owens, Emily G. 2011. "Are underground markets really more violent? Evidence from early 20th century America." *American Law and Economics Review* x(x): 1-44.

Owens, Emily G. 2014. "The American temperance movement and market-based violence." *American Law and Economics Review* x(x): 433-472.

Sheen, Dan R. 1910. "Shall we compensate the liquor traffic?" *American Prohibition Year Book* 10: 129-132.

Smith, Helen Glenn. 2005. "The red tape cocktail: Charleston's reaction to the South Carolina dispensary system." *Chrestomathy* 4: 195-217.

South Carolina. Attorney General. 1888-1902. *Report of the Attorney General to the General Assembly of South Carolina for the Fiscal Year*. Columbia: The State Company, State Printers.

South Carolina. State Board of Control. 1897-1905. *Report of the State Board of Control for the Fiscal Year*. Columbia, SC: Bryan Printing Company.

South Carolina. Commissioner of Agriculture, Commerce and Industries. 1913. *Twelfth Annual Report* (1912). Columbia: Gonzales and Bryan, State Printer.

South Carolina. House of Representatives. 1899. "Governor's Message." *Journal of the House of Representatives of the General Assembly of the State of South Carolina.* Columbia, SC: Bryan Printing Co., State Printers.

South Carolina. Senate and House of Representatives. "Memorial of the general assembly of the state of South Carolina to the Congress of the United States in the matter of receivers of railroad corporations and the equity jurisdiction of the courts in the United States." *American Law Review* 28(2): 161-195.

Wainwright, Tom. 2016. *Narconomics: How to Run a Drug Cartel*. New York: Public Affairs.