

UNIVERSITY OF CALIFORNIA,
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The Evolution of Marijuana Politics in the United States

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Sociology

by

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DEDICATION

To my communities...

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The Evolution of Marijuana Politics in the United States

By

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Doctor of Philosophy in Sociology

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The abstract of your contribution goes here.

Chapter 1

Introduction

Policy change is a core interest in the social sciences. Although policy change is often the result of decisions made by institutional political actors, some policy issues are “locked out” of the traditional policy-making process. Marijuana legalization in the United States is an ideal case for identifying new mechanisms of policy change.

One key to understanding when, how, and why policies change is through an examination of political, cultural, and structural contexts. Modeling the interrelation between political contexts and discourse, over time, while also accounting for the structural environments within which both are embedded is critical for understanding policy changes that are initiated by non-institutional actors. This dissertation aims to improve our understanding of policy change, generally, and the process of incremental marijuana legalization, more specifically. Across three empirical studies, this dissertation explores how narratives impact general discourse about marijuana, how discourse impacts the diffusion of legalization across states, and how segregation at the local level impacts support for legalization initiatives. I thus aim to address the evolution of marijuana politics over time, as well as extend theories of change on contentious political issues.

Chapter 2 involves an exploration of marijuana discourse over time. Here, I model variation in narratives over time, and how these variations contribute to a dramatic drop in the amount of negative attention to/coverage of marijuana.

Chapter 3 explains the rate of adoption/diffusion of legalization across the United States. I find that marijuana legalization was adopted more quickly in states with increasing amounts of positive discourse about marijuana.

Chapter 4 investigates local level support for legalization initiatives. I argue that support is highest in communities with high levels of segregation between residents with children and those without.

In sum, these chapters ask:

- Did discourse about marijuana change over time? If so, how?
- What structural, political, or cultural factors impacted the rate of legalization?
- What structural factors impacted support for legalization initiatives?

In all three studies, a blend of theoretical and methodological advancements will be applied for the purpose of improving models of policy change in the United States.

Chapter 2

The Discursive Shift on Marijuana Legalization

2.1 Introduction

Examination of frames, narratives, and discourse has been central to sociological understanding of cultural and political change (Ghaziani and Baldassarri 2011; Vasi et al. 2015; Bail 2012; McCammon et al. 2007). I contribute to this line of inquiry by investigating whether and how framing about marijuana changed over time. Coverage of marijuana presents an ideal case with which to examine discursive shifts, given that the ways in which marijuana was covered has moved away from negative discussions that centered on crime and danger (Newhart and Dolphin 2019; Bonnie and Whitebread II 1970; Rosenthal and Kubby 1996), towards positive and neutral discussions regarding the benefits of marijuana and marijuana legalization (Mosher and Akins 2019). To what extent has there been a general shift away from negative coverage of marijuana? And to what extent have new frames come to dominate the discussion of marijuana?

With recent advances in the field of computational social science, it has become easier than ever to gather, code, and analyze large corpuses of text for the purpose of tracking discursive trends (Bateman et al. 2019; Bail 2012; Vasi et al. 2015). As such, I rely on webscraping techniques to gather newspaper articles about marijuana over time, breaking these articles as either covering marijuana with or without coverage of a marijuana advocacy organization. I, next, rely on automated text analysis to code the valence of each news article. Finally, using a combination of inductive and deductive approaches, I create a list of eight possible frames (and keywords associated with these frames) that may have appeared in marijuana coverage. I use automated coding to categorize each article as having the presence or absence of each frame.

In this article, I shed light on the ways in which frames about marijuana changed in the United States between 1990 (when marijuana initiatives began to take off) and 2016. I demonstrate various characteristics about marijuana coverage and discourse over time. First, I show that, after 1996, when marijuana medicalization was on the ballot in California, coverage of marijuana increased dramatically. Secondly, I show that coverage of marijuana became decreasingly negative and increasingly neutral over time. Thirdly, I show that frames centering on revenue creation and politics came to dominate the discussion of marijuana, followed by framings related to rights and patients.

2.2 Marijuana Discourse Across Time

According to historians studying marijuana, initial depictions of marijuana were positive, centering on the medicinal and material benefits of cannabis (Bonnie and Whitebread II 1970; Rosenthal and Kubby 1996). While there was relatively little coverage of marijuana during this time (Bonnie and Whitebread II 1970; Mosher and Akins 2019), what little coverage did exist was positive. However, during the 1930s, the valence of this coverage

shifted as a result of political and bureaucratic changes.

In 1930, President Herbert Hoover established the Federal Bureau of Narcotics (FBN) and appointed Harry J. Anslinger as commissioner. According to scholars, Anslinger was in charge of repurposing prohibition funds, and, in noticing that Americans were enjoying Mexican and Native-American cannabis, Anslinger chose to direct his Bureau's resources toward cannabis (Newhart and Dolphin 2019). In fact, Anslinger used media to paint cannabis in a negative light as a way to ramp up public opposition to the substance. Anslinger used stories and advertisements in newspapers (including William Randolph Hearst's newspapers) to portray cannabis as dangerous to women, children, and society (Mosher and Akins 2019). Hearst, for his part, stood to lose economically if American cannabis use expanded – he invested in wood pulp, which he used for his papers, and the expansion of hemp (which could also be used for cheaper newspaper manufacturing) put him in danger of losing his fortune. Through a campaign of “yellow” journalism, which enabled Anslinger to rebrand the drug with the more Native-sounding name marihuana (or marijuana) instead of cannabis, Anslinger and Hearst were able to associate the drug with a source or group of people responsible for the drug problem: immigrants, Mexicans, and indigenous “others.” Through newspapers, Anslinger and Hearst were able to “sell” marijuana as dangerous – relying on a fear narrative that argued that only through cannabis prohibition could America's children, women, and society be protected (Mosher and Akins 2019; Newhart and Dolphin 2019; Rosenthal and Kubby 1996).

Within a few years, these narratives took hold. In fact, over this time, marijuana became increasingly associated with criminality – and in particular, minority criminality. During this time, marijuana was thought to be used mainly by minorities (freed Black slaves and Mexican immigrants) and had psychological properties that made them more prone to violence (Caulkins et al. 2012; Slaughter 1987). These dominant narratives came to be used in arguments to Congress in favor of a full ban on marijuana – resulting in the creation of the

Marihuana Tax Act of 1937 (Newhart and Dolphin 2019).

Between the 1930s and 1960s, the Act faced tough criticism in state and federal courts, as the judicial system worked to clarify the parameters of the law as well as what could and could not be enforced (Bonnie and Whitebread II 1970; Mosher and Akins 2019). Around this time, advocacy organizations emerged to fight for access to marijuana (Newhart and Dolphin 2019). In 1970, the first marijuana movement organization, the National Organization for the Reform of Marijuana Laws, was created to fight against marijuana prohibition and to move public opinion on marijuana so as to enable full legalization of marijuana for all people. It wasn't until the mid-1990s and early 2000s (during NORML's fight for medicinal marijuana use on the California ballot) that other organizations such as the Marijuana Policy Project (1995), Students for Sensible Drug Policy (1998), and the Drug Policy Alliance (2000) joined the fight – each with a specific purpose for legalization. For example, MPP would work on marijuana policy specifically while DPA would focus on both marijuana and similar narcotic policies, and SSDP would work to change the minds of youth, particularly on college campuses.

According to prior research, marijuana discourse in the shifted in the 1960s. During this time, coverage of marijuana centered on the freedom to use the drug, but also included negative coverage about users – framing users as addicts, hippies, and burnouts (Mosher and Akins 2019). Given that many scholars have given attention to coverage of marijuana during this period, and that of coverage during the beginning of President Nixon's "War on Drugs," (Bonnie and Whitebread II 1970; Mosher and Akins 2019; Alexander 2010; Caulkins et al. 2012), I focus on coverage that took place immediately following this time, when change via statewide initiatives became a plausible alternative for policy change.

In the mid-1990s, private individuals began to fight against marijuana prohibition in the United States by sponsoring marijuana medicalization initiatives in states with direct democratic processes. During this same time, newspapers 1) give increasing attention to mar-

ijuana, and 2) link discussions of marijuana with additional topics. Some scholars have indicated that during this time, narratives about marijuana began to become more positive, as coverage tended to focus on the political aspects of initiatives or voters, the benefits to patients, and the rights of cannabis users (Newhart and Dolphin 2019; Mosher and Akins 2019; Bonnie and Whitebread II 1970). Over time, the trajectory of marijuana legalization is such that states (under federal prohibition of marijuana, and those with the initiative/referendum process) would first propose medical legislation, followed by recreational legalization legislation. During this time, marijuana coverage began to link with larger “American” values of liberties and freedom, in addition to shifting to the benefits of legalization for revenue, creating resources for rehabilitation, decreasing crime, and altering policing practices – especially in communities of color (Mosher and Akins 2019; Newhart and Dolphin 2019).

Given this shift, I expect to find a shift in narratives about marijuana over time, coupled with a shift in the valence of attention to marijuana over time. Before turning to my data and methods, I outline some of the current thinking on the ways in which discourse changes.

2.3 Discursive Change Processes

Discourse has been the subject of recent academic work, with most focusing on the role of social movements or advocacy organizations in initiating discursive change (Bail 2012; Earl 2004; McCammon et al. 2007; Ghaziani and Baldassarri 2011; Vasi et al. 2015; Gamson and Modigliani 1989). In particular, organizations offer their own diagnoses of and solutions to problems and can impact public discourse on an issue injecting novel, highly resonant frames into public discussion (Benford and Snow 2000). Frames that ‘fit’ the broader discursive environment (McCammon et al. 2007) or those that articulate widespread beliefs and values usually survive over alternative frames (McCammon et al. 2001; Snow et al. 2007; Gamson and Modigliani 1989), because their frames “are more easily integrated into broader media

narratives” on an issue because these frames seem more familiar (Bail 2012) and appear realistic or legitimate.

Coverage of issues is critical to this process (Amenta et al. 2009; Ferree et al. 2002). Therefore, mass media are important to cultural change. Mass media are central for making sense of relevant events (Gamson and Modigliani 1989), and serve to identify and redefine issues for the public. These discussions can shape audience perceptions. While media are a master forum within which actors compete for coverage of their issues (Amenta et al. 2012), media organizations themselves operate by a set of procedures that can also have effects on discourse on issues.

News organizations make decisions about what counts as “news” (Galtung and Ruge 1965). News is selected based on its timeliness/currency, the impact of the events to be covered, and the proximity of those events to potential readers (with local news angles being considered important, particularly in national stories). In particular, politics receives the most coverage because political decisions have high impact and include prominent people. In addition, reporters often have increased access to political actors. In sum, much of what counts as news revolves around institutional political activity, including stories about politicians, bills being discussed or laws being passed (Amenta et al. 2012). Therefore, it is reasonable to assume that discursive change on marijuana may have occurred by way of institutional political actors. However, as is the case for many hotly contested issues like marijuana, engaging in discussions on these topics provides little political advantage, rendering many political actors unwilling to even discuss the issue. In particular, when dominant discourse on a topic is negative, political actors will be unwilling to discuss the issues in new, more positive ways, for fear of reprisals from their constituents in the form of lost votes.

Given the tendency of journalists and the norms of news-gathering organizations to seek out official sources (Schudson 2002; Gitlin 1980; Gans 1979), especially during times of high attention to the issue in the news cycle (Baumgartner and Jones 1993) the general lack

of discussion by political actors creates opportunities for other actors (including journalists themselves) to, not only, provide alternative narratives on an issue, but shift the character of discourse by linking the issue with alternative topics.

I argue that, by linking discourse about contested issues to additional, more institutionalized topics or narratives, journalists can facilitate a stark transformation in public understandings on an issue, and call into question the legitimacy of dominant representations. Initial marijuana discourse centered on criminality and the negative educational, occupational, and mental effects of marijuana use. In recent years, however, this discourse has given way to increasingly positive (or fewer negative) discussions of marijuana’s medical, community, and economic benefits. This coverage has shifted the arenas within which marijuana was discussed by linking marijuana with narrative topics related to medicine, rights, freedom, economics, crime, and policing. Yet it remains unclear whether and how these new narrative topics contributed to the discursive shift away from a dominant negative discourse about marijuana.

2.4 Data & Method

Given my interest in *whether* and *how* marijuana discourse shifted over time, I analyze text from print news media across the United States. To do so, I rely on the ProQuest newspaper database. I constrain the analysis to 1990 and on because coverage on marijuana was relatively low prior to 1990, and because this time frame immediately followed Reagan’s intensified “War on Drugs” and “Just Say No” campaign.

To track discursive change, I rely on articles about marijuana in the Proquest database from 1990 to 2016. Because marijuana advocacy organizations may have had an impact on coverage, I separately searched for articles about marijuana in the absence of advocacy orga-

nizations, and articles about marijuana that included advocacy organizations. To accomplish this, I wrote a Python script to identify and download all local articles from Proquest that mention “marijuana” between 1990 and 2016.¹ Because national newspapers may be more likely to cover national issues over local issues, I exclude national newspapers, including the *New York Times*, the *Los Angeles Times*, the *Washington Post*, and the *Wall Street Journal*. In addition, I exclude articles that mention at least one of the four main marijuana advocacy organizations. Therefore, I also exclude articles that mention National Organization for the Reform of Marijuana Laws (NORML), Marijuana Policy Project (MPP), Drug Policy Alliance (DPA), and Students for Sensible Drug Policy (SSDP), and their variants. In total, there were 14,163 articles mentioning marijuana. After removing duplicate articles, articles outside of the U.S. or located in the U.S. capitol², short articles (e.g. articles with fewer than 100 words), and articles that are not fully searchable,³ I am left with 10,096 locally-based articles that mention marijuana in some fashion. In addition, I removed articles that come from “alternative” or sensationalized newspapers. To figure out whether or not the newspaper was an “alternative newspaper,” I searched the websites for each newspaper, removing any newspaper that claimed that it was an alternative newspaper. In sum, I am left with 5,893 articles about marijuana which do not include mention of marijuana advocacy organizations.

Because marijuana advocacy organizations’ discussion of marijuana may be important for discursive change on marijuana, I also include coverage of “marijuana” alongside coverage of marijuana advocacy organizations. As such, I wrote a separate Python script to identify and download all articles from Proquest that mention “marijuana” and any one of the four largest marijuana advocacy organizations (and the variants of their names) between 1990 and 2016. Therefore, the script was able to capture all coverage of “marijuana” coupled with coverage of marijuana advocacy organizations, including the National Organization for

¹This does not include variants of the word marijuana, or the word cannabis

²ProQuest sometimes mistakenly identifies non-U.S. articles when only-U.S. articles are specified.

³Articles with fewer than about 900 words.

the Reform of Marijuana Laws (NORML), Marijuana Policy Project (MPP), Drug Policy Alliance (DPA), and Students for Sensible Drug Policy (SSDP).⁴ In total, there were 1,616 articles mentioning a marijuana movement organization. After cleaning the data set of articles by removing duplicate articles, I am left with 1,150 articles mentioning marijuana advocacy organizations. In addition, after removing and articles coming from alternative news sources, I am left with 787 marijuana organization-related articles. For these articles, I include a dummy code to represent that they include mentions of organizations. In sum, there are 6,680 articles used for the analysis.

Because I am interested in the shift away from negative discourse about marijuana, I categorize each article based on its polarity or valence.⁵ I code each article with the assistance of a naïve Bayes classifier in R’s `sentiment` package (Jurka 2012). The naïve Bayes algorithm uses a stock of trained text that has been associated with three types of polarity (positive, neutral, or negative), and tries to classify each document as one of the three polarities. I then create dummy codes for each article based on its polarity.

For example, in an article in the *Tennessee Tribune* in 2013, the following was reported:

President Obama’s Administration is making incremental progress to address the basic unfairness of our federal drug policy and law enforcement policy, and I appreciate that it has started to work on these important issues.

In this section of the article, the words “progress,” “address,” and “appreciate” would be categorized as positive, and the word “unfairness” would be categorized as negative, given the linguistic dictionary – a stock of trained keywords signifying negative, neutral, and positive

⁴Importantly, I separate these sets of coverage for future empirical work on the impact of organizations on the discursive shift.

⁵To prepare all documents for textual analysis, following the procedure used by Bail (2012), I use software in R to transform each article into fully-searchable sets of words, and clean the textual data by eliminating excessive words (e.g. stop-words such as numbers, conjunctions, and determiners), and transforming each word into its stem variant.

coverage – provided by the `sentiment` package in R (Jurka 2012).⁶ As such, this section of the article would be categorized as positive, given that it would be given more positive codes than negative codes. In instances where there are equal amounts of negative and positive words in a text document, or where there are neither negative or positive words included, the article is coded as neutral. I use this dictionary to code the valence or polarity of each article, for all 6680 articles.

Given my interest in the frames included in coverage of marijuana, I give each article a code for the presence or absence of various frames. To select frames, I rely on a process of induction – my selection of frames is based on the various connections with marijuana as discussed by previous researchers. In particular, I focus on eight frames about marijuana, based on prior research, which include “liberties,” “rights,” (Rosenthal and Kubby 1996), “revenue,” “rights” (Caulkins et al. 2012; Miron 2010), “patients,” “rehabilitation,” “crime reduction, and “policing (in communities of color),” (Newhart and Dolphin 2019; Mosher and Akins 2019; Alexander 2010). As such, I rely on keywords to select whether these frames are absent or present in coverage of marijuana. In the Table below, I outline the search terms used for identifying these frames. In the Table, “+” represents the logical operator “OR” and “*” represents the logical operator “AND.”

Table 2.1: *Search Terms for Marijuana Narratives*

Narrative	Search Terms (Stems)
Rights	“rights”
Liberties	“libert” + “freedom”
Revenue	“tax” + “revenue” + “dollar” + “money” + “monet”
Patient	“patient” + “medic”
Policing	“policing” + “police” * (“black” + “latin”)
Crime Reduction	“reduc” * “crim”
Politics	“vot” + “politic”
Rehabilitation	“rehab”

⁶The dictionaries can be viewed through the package information provided by Jurka (2012).

For example, the following excerpt comes from an article in the *Colorado Springs Independent* in 2013 that was coded as containing a “revenue” frame:

New city sales tax revenue from the venue would exceed \$275,000. (By comparison, medical marijuana last year brought in \$1.1 million in sales tax.) The stadium would cost about \$60 million to build.

As seen, although this article covers revenue from a stadium, it also compares that revenue to revenue generated by medical marijuana.

2.5 Results

As seen in the figures below, there was a substantial change in marijuana coverage over time. In particular, it is important to recognize that there was a consistent increase in overall coverage of marijuana over time. The amount of attention to marijuana reached its peak in 2014, with just over 600 articles. We can see that there are two dramatic peaks in coverage – in 2010 and 2014, respectively. These peaks coincide with ballot initiatives California, Alaska, and Washington state.

Given the coding for valence/polarity of articles, there was both a substantial decrease in negative attention to marijuana and an increase in neutral coverage of marijuana. As seen in the figures below, the percent of negative coverage about marijuana only dropped below fifty percent in 1996 (when medical marijuana was on the ballot in California) and again in 2008. Only after 2010 did negative attention to marijuana consistently drop below fifty percent. During this same time, we see that coverage of marijuana became more neutral over time. In fact, a majority of attention to marijuana was neutral in later years, between 2013 and 2016. Given these data, there is a sense that marijuana discourse changed over time,

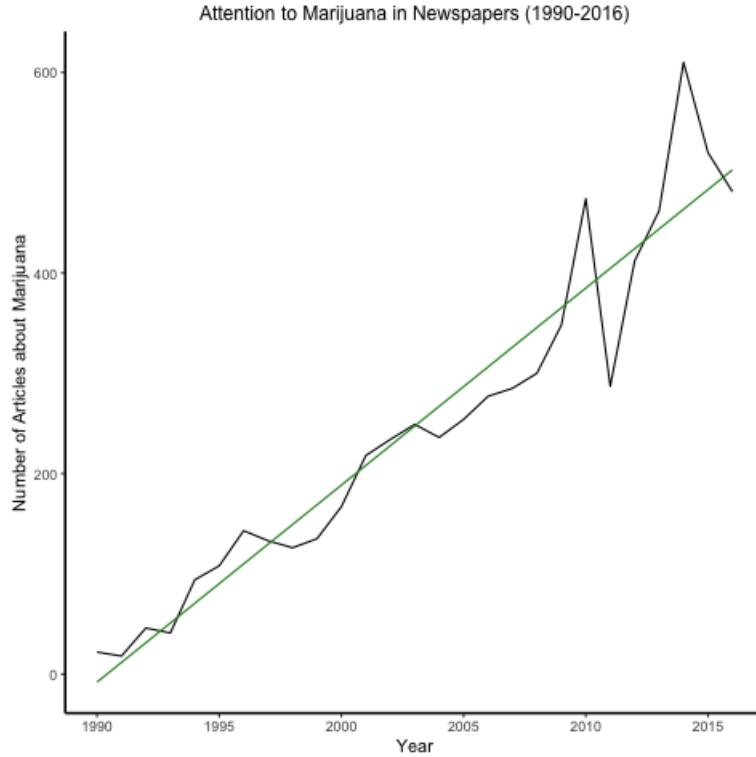


Figure 2.1: Coverage of Marijuana

becoming less negative – a shift away from the dominant negative discourse on marijuana identified in prior research (Mosher and Akins 2019; Bonnie and Whitebread II 1970).

Finally, I use the aforementioned keywords to identify frames presented in articles about marijuana. As shown in the figure below, there are periodic drops in frames that coincide with national elections (Presidential re-elections and midterms), which is contrary to literature suggesting that elections increasing attention to political issues. Here we see large drops in most frames in 2004 and 2012, indicating that other frames may have come to dominate marijuana coverage when national issues reach the public agenda. To be sure, frames varied in quantity over time. Importantly, between 1990 and 2016, frames about revenue creation dominated nearly all yearly coverage. This indicates that often times, when discussing marijuana, these narratives were linked with discussions of revenue, money, or taxation. While the dominance of this frame is clear, narratives linking marijuana to political behavior

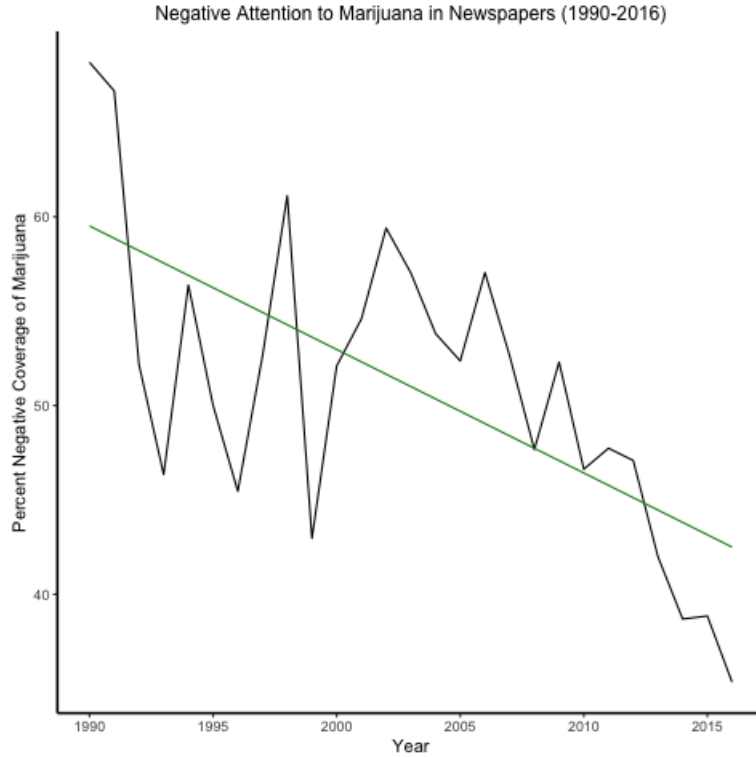


Figure 2.2: Percent of Negative Coverage

came second. All frames exhibit some degree of variation over time, with frames of liberties, policing, and rehabilitation being the least frequent themes in almost every year of coverage.

2.6 Conclusions

In this article, I account for variation in the discourse about marijuana by considering how narratives have changed over time. As I have demonstrated, marijuana discourse did, in fact, change over time. Firstly, I show that coverage of marijuana has increased during the period of study. We see peaks and valleys in coverage, but also a general upward trend for attention to marijuana. Yet, not only did coverage discourse about marijuana become less negative, and more neutral, over time, but the ways in which marijuana was discussed also changed over time. There was a general broadening, over time, of the frames used to discuss

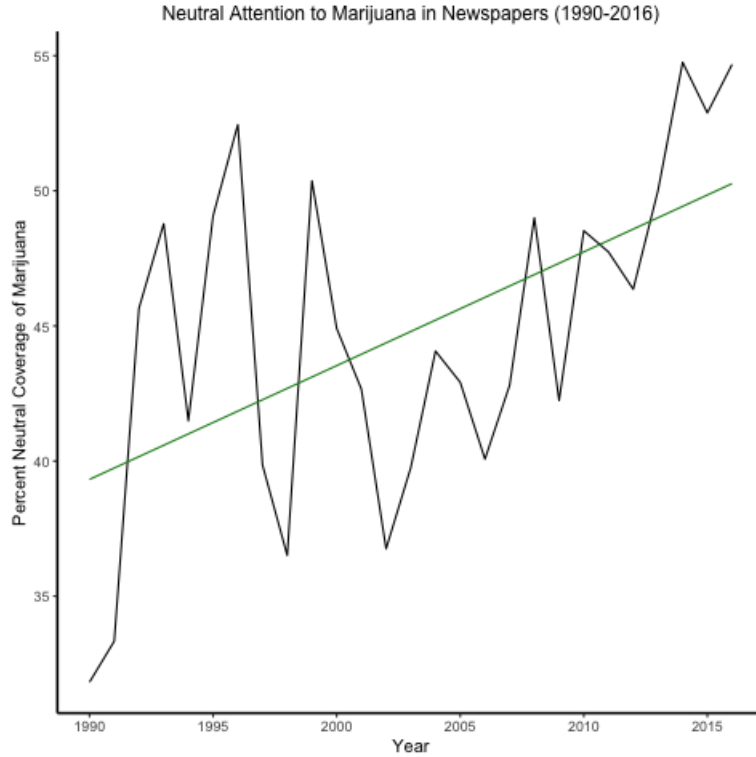


Figure 2.3: Percent of Neutral Coverage

marijuana. While most coverage of marijuana in 1990 included relatively equal numbers of various frames, frames became more varied over time, with frames about revenue creation coming to dominate a large number of articles. In most years, linking marijuana coverage with frames of revenue creation and politics was most common, whereas frames about liberty, rehabilitation, and policing were least likely.

The current study investigates the characteristics of discursive change on contested issues. I find that, over time, marijuana became linked with frames that centered on traditional citizen behavior (political behavior) and benefits to society (revenue creation). Additionally, this work contributes to a growing chorus of scholarship on discursive change (Bail 2012; Bateman et al. 2019). In particular, this descriptive chapter broadens the scope of scholarly study by investigating the changing character of narratives about contentious political issues. It is my hope that this work will stimulate research on discursive and political factors that

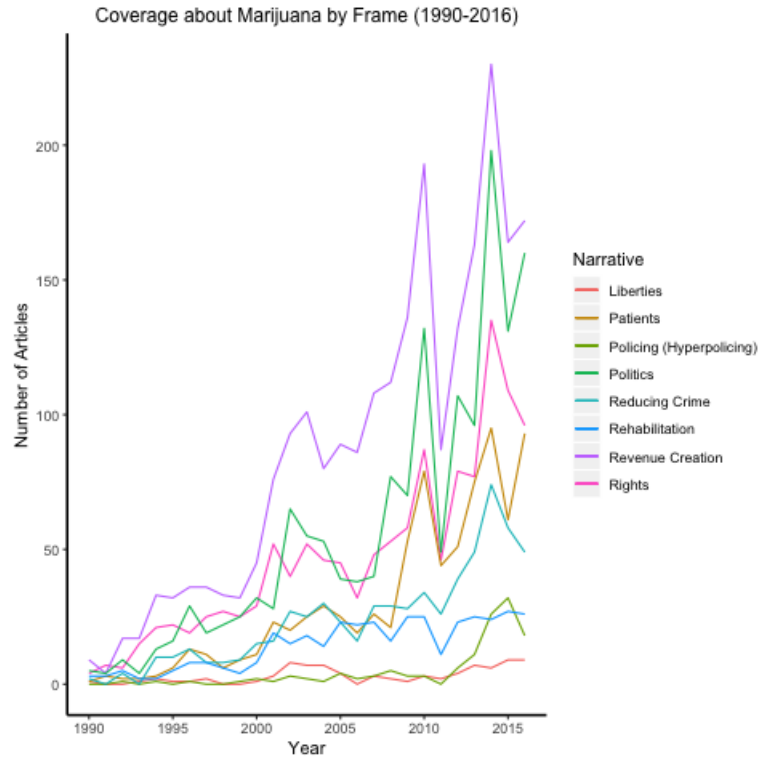


Figure 2.4: Amount of Coverage for Each Narrative

influence discursive change.

2.7 Appendix

Table 2.2: *Marijuana News Coverage (N=6,680)*

Newspaper	N	Newspaper	N
Colorado Springs Independent	460	Between the Lines	42
Philadelphia Tribune	451	News India-Times	42
Los Angeles Times	248	International Examiner	41
New Pittsburgh Courier	237	Atlanta Inquirer	40
Miami New Times	178	High Country News	40
New York Beacon	174	Windy City Times	40
Los Angeles Sentinel	170	Fort Apache Scout	38
The Epoch Times	170	The Charlotte Post	37
Navajo Times	167	The Culvert Chronicles	36
Call & Post	151	Seminole Tribune	34
Michigan Chronicle	140	Bay State Banner	33
Houston Press	131	The New York Jewish Week	33
The Louisiana Weekly	127	Au-Authm Action News	31
Phoenix New Times	125	Jewish Advocate	30
Current	119	Native American Times	30
Afro-American	111	The Beacon Hill Times	29
Forward	110	Milwaukee Courier	28
Tri-State Defender	110	News from Indian Country	25
Filipino Reporter	108	Jackson Advocate	24
Recorder	106	Jewish Bulletin of Northern California	24
Indian Country Today	103	Asian Reporter	21
The Skanner	100	El Chicano Weekly	20
Wall Street Journal	95	Jewish News of Greater Phoenix	20
Westside Gazette	95	Weekly Planet	19
New York Times	91	Jewish Exponent	18
Wind River News	91	The Athens News	17
Michigan Citizen	89	The Jewish Press	16
The Arab American News	85	Chicago Independent Bulletin	13
The Christian Science Monitor	77	Confederated Umatilla Journal	12
Oakland Post	74	Italian Voice	11
Sacramento Observer	74	The Circle: News from an American Indian Perspective	11
South Florida Times	74	The American Israelite	10
India Abroad	70	The Hunter Envoy	9
Sun Reporter	70	Asian Pages	8
The Jewish News Weekly of Northern California	70	ARTVOICE	7
The Tennessee Tribune	67	New York Amsterdam News	7
Chicago Defender	66	Cherokee Advocate	5
The Jacksonville Free Press	66	Armenian Reporter	4
The Gambit	64	Polish American Journal	4
Irish Voice	62	The Richmond Afro-American and the Richmond Planet	4
The Filipino Express	62	Akwesasne Notes	3
India-West	57	Armenian Reporter International	3
Char-Koosta News	56	Industrial Worker	3
Mississippi Link	55	North American Post	3
Sho-Ban News	53	San Francisco Metro Reporter	3
Washington Jewish Week	53	The CVN	3
The Boston Banner	49	California Voice	2
Northwest Asian Weekly	46	Cherokee Observer	2
Chicago Citizen	44	GlobalPost	2
Precinct Reporter	43	MetroWest Jewish News	2
The Ojibwe News	43	Cherokee Phoenix and Indian Advocate	1
		Hellenic Times	1
		Oklahoma Indian Times	1
		The Native Nevadan	1

Chapter 3

The Legalization of Recreational Marijuana in the United States, 1990–2016

3.1 Introduction

States embrace policy innovations to signal their alignment with emergent societal values. Marijuana legalization is a prime example. In the absence of federal legislation, states have become the sites for legalization. Yet today, more than a decade after President Barack Obama’s Deputy Attorney General, David W. Ogden, released a memorandum recommending that the Department of Justice only prosecute individuals or business that did not comply with state medical marijuana laws (Ogden 2009), most states have not yet legalized.

I seek to understand why some states embrace legalization and others do not. I explore the effects of public opinion, political opportunities, and the valence of marijuana in public conversation. The literature on U.S. policy change has highlighted how political opportunity

structures, social movements, and public opinion have influenced policy (Burstein and Linton 2002). Although most studies have evolved to emphasize the role of numerous causal factors in combination, including but not limited to public opinion, aspects of the political environment, or social movement organizations and actions (Burstein and Linton 2002), it ignores others. For example, the focus on political context centers, almost exclusively, on the makeup of larger legislative bodies (e.g. Congress or State Assemblies), which ultimately overlooks policy change that occurs by alternative means (e.g. public citizen initiative). What is more, these works often ignore the exogenous effects of nearby locales and the impact of discourse about political issues. Because of this, scholars may lack broader understanding of the causal factors associated with policy change and policy diffusion across the United States.

I ask how public opinion, aspects of the political environment – other than the presence of allies in government – and discourse affect the rate of passage of marijuana legislation. In so doing, I account for the relative roles of marijuana public opinion, political competition in elections, a state’s history with voting on the marijuana issue, and the impact of exogenous legalization, as well as the effects of discourse on the spread of legalization across the States. I argue that political context and discursive contexts matter for increasing the rate at which states legalize. In particular, I argue that competitive elections stimulate interest and voter turnout, which increases representation of interests previously excluded from the political system. As such, under competitive elections, marijuana legalization initiatives have better chances of success. Moreover, amenable discourse about political issues creates a context where voters not only are more willing to discuss marijuana, but are more willing to talk about and perceive marijuana in positive ways, creating openings for legalization.

I use original data to test these hypotheses about policy change. I draw on panel data from the United States between 1990 and 2016, to investigate the factors that influence the rate of marijuana legalization in the U.S. By 2016, eight states did so for recreational use. Although many states passed recreational legalization through the ballot initiative process during the

Obama presidency – when the administration signaled leniency on enforcement of marijuana laws (Ogden 2009), many states considered legalization prior to 2009.

3.2 The History of Marijuana Legalization

In 1930, President Herbert Hoover established the Federal Bureau of Narcotics (FBN) and appointed Harry J. Anslinger as commissioner. According to some scholars, in preparing for inevitable end of prohibition and the upcoming Twenty-first Amendment, Anslinger sought to direct funds previously earmarked for maintaining and enforcing alcohol prohibition towards drugs in America (Hari 2015). The agency’s main focus was to prevent the smuggling, flow, distribution, and sale of illicit (hard) drugs, such as opium and heroin in the United States. Yet, opium and heroine had relatively few users. Therefore, to ensure the success of his Bureau, part of Anslinger’s plan was to target another drug: cannabis. In order to discourage Americans from using cannabis, and to have a reason for the FBN, Anslinger planned to paint cannabis in a negative light by way of smear campaigns and “yellow” journalism (Mosher and Akins 2019; Newhart and Dolphin 2019; Rosenthal and Kubby 1996).

Noticing that some Americans were enjoying Mexican and Native-American cannabis, Anslinger worked with William Randolph Hearst, using stories and advertisements in Hearst’s newspapers to portray cannabis as the enemy of the people. Hearst, for his part, was on board because he stood to lose economically if American cannabis use expanded. Hearst relied on wood pulp for the manufacturing of his papers, and had his money tied up in wood pulp industries. The expansion of cannabis acceptance, however, was a threat to Hearst’s newspaper business because it meant the expansion of hemp, the fiber of the cannabis plant, which could also be used for newspaper manufacturing, but came at a cheaper cost. Hemp, and thus, cannabis, threatened Hearst’s fortune. Through a campaign of “yellow” journalism, which enabled Anslinger to rebrand the drug with the more Native-sounding name mari-

huana (or marijuana) instead of cannabis, Anslinger and Hearst could associate the drug with a source or group of people responsible for the drug problem: immigrants, Mexicans, and indigenous “others.” Through newspapers, Anslinger and Hearst were able to “sell” marijuana as danger – relying on a fear narrative that argued that only through prohibition could America’s children, women, and society be protected. In fact, in 1937, Anslinger was reported in the *New York Times* as having said the following, “Primarily we want to protect our young people from a danger which is not apparent to them?” In addition, Anslinger doubled-down on the race problem – claiming that marijuana made Blacks believe themselves equal to whites, and that the drug forced minority races into fits of anger, rage, terror, and crimes of brutality.

Over time, with enough public and legislative support behind him, worked with Congress to put forth the Marihuana Tax Act of 1937, which officially made the possession and sale of marijuana in the United States illegal, allowing only the restricted and sale of price-inflated hemp, which would now be taxed through the purchase of tax stamps enabled verification of the product’s legitimacy, but also allowed the federal government to collect revenue from its sale. The problem was, with little enforcement power, the FBN was often unable to prosecute those who broke the law. This problem led to a flurry of legislation to support the enforcement of the Marijuana Tax Act. Over the years, even after Anslinger left the Bureau in 1962, prohibition of marijuana was strengthened and harsher penalties were applied. Between 1952 and 1956, the Boggs Act and the Narcotic Control Act strengthened penalties by instituting mandatory minimum sentences between two and ten years and up to \$20,000 in fines. Yet, in 1970, the Supreme Court found argued that mandatory minimum sentences were unconstitutional. Therefore, as a result, Congress enacted the Controlled Substances Act, which removed mandatory minimums, but in a slight of hand, reclassified marijuana as a Schedule I drug (those assumed to have a high potential for abuse or addiction and with no known medicinal purpose), on par with heroin, LSD, and peyote. Further, in 1973, President Richard Nixon, calling for a “War on Drugs” reorganized the FBN into the Drug Enforcement

Agency (DEA), and provided increased resources and personnel for enforcement. President Ronald Reagan continued and intensified the drug war, working with Congress to enact the Comprehensive Crime Control Act of 1984 and the Anti-Drug Abuse Act of 1986, which, together, reestablished mandatory minimum sentences, and instituted the three-strikes law, which many have argued is the primary reason for the explosion of the the U.S. prison population (Alexander 2010).

In the early 1970s, states began to push back on the issue of federal marijuana prohibition, using direct democratic processes like the ballot initiative to enact laws of their own. As Newhart and Dolphin (2019) argue, in many states, the opportunities for legalization took on a peculiar two stage process – states would enact laws that enabled access to marijuana for medical purposes, and growing support surrounding medicalization would pave the way for or smooth the transition to legalization by way of ballot initiative (Kilmer and Maccoun 2017). In 1972, for example, California was the first state to take up the medicalization. This ballot initiative was unsuccessful, however, with nearly two-thirds of voters opposing medicalization, which proved costly for medicalization across the U.S. With the exception of a failed legalization initiative in Oregon in 1986 (Measure 5) and a formal criminalization initiative in Alaska in 1990, the marijuana was not seriously taken up until the 1990s, when, in 1996, California again attempted to medicalize. This time, however, a majority of Californians supported medicalization. In short, during the 1990s, medicalization of marijuana took off, with seven states voting to allow for the medical use of cannabis. Importantly, during that time, public opinion on marijuana underwent a rapid positive shift. From 2000 to 2016, eighteen states attempted to make marijuana for medical or recreational use.

Table 3.1: *Passage of State Ballot Initiatives on Recreational Marijuana Legalization*

State	Year	Initiative	Age Limit	Possession Limit	Adjusts Criminal Penalties ^a	Recognizes Medical Uses	Revenue Generation	Creates Regulatory Entity	Passed
Alaska	2000	Measure 5	18	Unlimited	✓	✓		✓	No
Nevada	2002	Question 9	21	3 oz.		✓	✓	✓	No
South Dakota	2002	Initiative 1	None	Unlimited					No
Alaska	2004	Measure 2	21	Unlimited	✓	✓		✓	No
Colorado	2006	Initiative 44	21	1 oz.					No
Nevada	2006	Question 7	21	1 oz.			✓		No
California	2010	Proposition 19	21	Unlimited			✓	✓	No
Colorado	2012	Amendment 64	21	1 oz.			✓	✓	Yes
Oregon	2012	Measure 80	18	Unlimited		✓	✓	✓	No
Washington	2012	Initiative 502	21	1 oz.		✓	✓	✓	Yes
Alaska	2014	Measure 2	21	1 oz./6 plants	✓	✓	✓	✓	Yes
Oregon	2014	Measure 91	21	8 oz./4 plants		✓	✓	✓	Yes
Ohio	2015	Issue 3	21	8 oz./4 plants		✓	✓	✓	No
				1 oz. (no lic.)					
Arizona	2016	Proposition 205	21	1 oz./6 plants	✓		✓	✓	No
California	2016	Proposition 64	21	28.5 g/6 plants	✓	✓	✓	✓	Yes
Maine	2016	Question 1	21	2.5 oz./6 plants			✓	✓	Yes
Massachusetts	2016	Question 4	21	1 oz.(10 oz.)/6 plants		✓	✓	✓	Yes
Nevada	2016	Question 2	21	1 oz./6 plants	✓	✓	✓	✓	Yes

Notes: Data collected from each state's Secretary of State website.

^a For those states that chose to also reduce penalties.

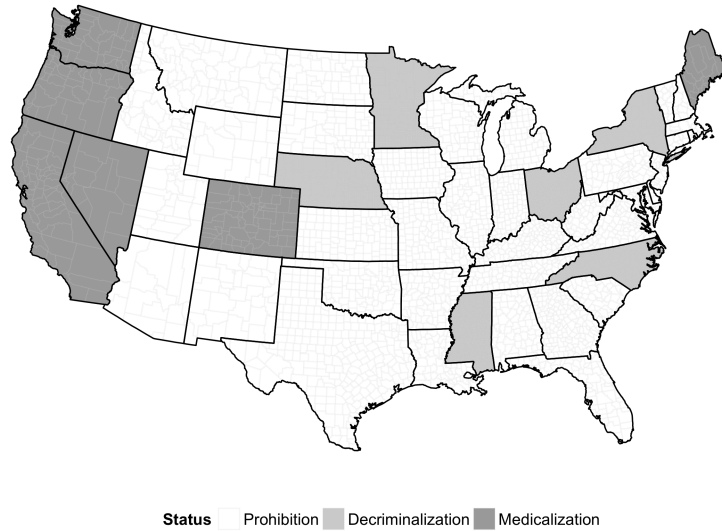


Figure 3.1: Marijuana Legalization Status in U.S. Counties, 2000

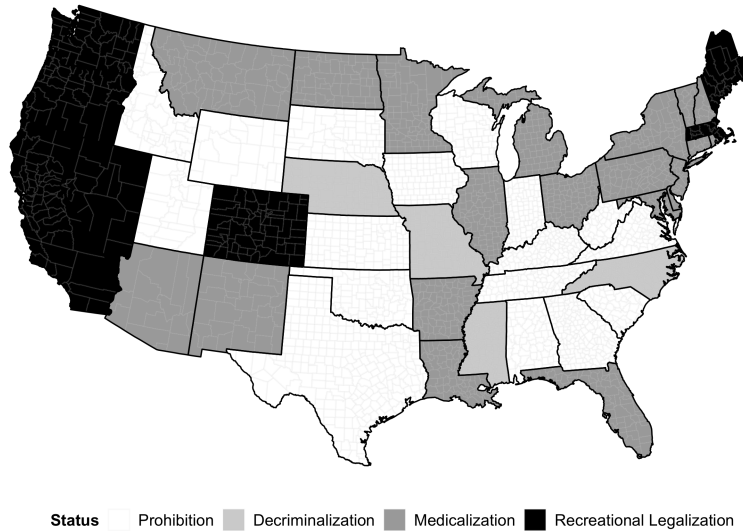


Figure 3.2: Marijuana Legalization Status in U.S. Counties, 2016

3.3 The Processes Behind Policy Diffusion

3.3.1 *Political Context*

What shapes the likelihood of policy change? The issue of policy change has been a central theme in political sociology. To understand variation in the adoption of marijuana legalization, I examine the relationship between political opportunities, public opinion, and discursive opportunities.

Theories about political opportunity center on how aspects of the political environment affect the potential for policy outcomes. Often, these works center on the role of elite allies (Amenta et al. 1994; Amenta 2006), arguing that successful policy change depends on the presence of sympathetic elites or state bureaucrats. While these studies expand our understanding of policy change, they do not recognize that there may be different pathways to legalization, and that these pathways might affect the probability of legalization. One may ask, does policy change emerging from an absence of elite allies possess characteristics dissimilar to

other sorts of policy changes?

Policy change can emerge from two mechanisms. In nearly all cases, “state” level policy change is the result of (or mediated by) politicians and legislators (Amenta et al. 1994; Amenta 2006). Therefore, these political officials have the final say on what does or does not become official policy. In this formulation the assumption is that, because politicians are principally concerned with reelection (Page and Shapiro 1983; Mayhew 1974; Downs 1957; Stimson et al. 1995), they will sponsor or support policies that accord with the interests of their constituents. In the second formulation, policy change can occur through direct democratic means, such as citizen initiatives, which renders political officials, or political allies less necessary. This is important for the current study, where changes or reversals on morality-based policy may require ground-up mobilization by citizens and voters rather than support by political officials. Important are the commonalities between these two mechanisms of policy change (politician-initiated versus voter-initiated), which is that change is more likely when it aligns with the interests of a large proportion of population. Given politicians’ interest in reelection, they may possess genuine fears about supporting marijuana legalization – during the “war on drugs,” they may support continued prohibition in order to appear tough on crime; seeming less than tough may undermine support from their constituents. Therefore, given the history of prohibition in the United States, and resistance amongst politicians, citizen initiatives provide an opportunity for marijuana legalization.

Relatedly, the proportion of voters who either stand to benefit from policy change, or whose position encompasses opening up civil rights or liberties advocate for change. Because Democrats typically believe that marijuana legalization promotes their interests in fairness, access, opportunity and removing barriers to accessing the franchise, I argue that states with larger percentages of Democrats, will be more likely to adopt marijuana legalization (McCammon et al. 2007, 2001; Soule and Olzak 2004).

In sum, I expect aspects of the political environment to be related to the rate of passage

in the states, including measures of democrats, levels of electoral competition, and prior initiatives discussing the same issue (Key Jr 1957; Boushey 2016). Importantly, there may also be external pressures on the diffusion of policy change. Researchers studying political institutions also demonstrate the remarkable trend towards conformity across geographic units, with regard to political and policy change – with examples ranging from access to the franchise (Uggen and Manza 2002; Manza and Brooks 1999), extension of benefits (Amenta 2006; Amenta et al. 2005) and expansion of civil rights and liberties (Andrews 1997), and importantly, policies. As such, legalization in neighboring states may affect the likelihood that policy change occurs in the focal state.

3.3.2 *Public Opinion*

When incorporated in models of political change, public opinion also matters. According to some scholars, when a majority of the public supports a policy, other political institutional factors such as political context or the influence of interest groups recede in importance (Burstein and Linton 2002; ?). Thus, public opinion also matters for state-level policy change. Public opinion is an important predictor of policy change insofar as it serves as a signal of constituents’ preferences. Yet, while public opinion may best serve politicians’ voting, it may also predict support for voter initiatives. Therefore, states with majority supportive public opinion on marijuana legalization may be prone to legalizing more quickly than others.

3.3.3 *Cultural Context*

Finally, and likely equally as important, is the role of discursive opportunity structures. Discursive opportunity structures are those that increase the saliency of particular cultural forms, beliefs, or ways of talking about issues. A discursive opportunity structure is made up

of elements in the cultural environment. This includes hegemonic discourse or discussions about a particular issue in the broader field of discussion. Much of this work has focused on how the broader discourse about a subject may be critical for political and policy change. This literature speaks to the broader cultural context within which policy change occurs. (McCammon et al. 2007, 2001). For example, recent work has argued how more coverage, and more positive coverage of controversial issues (Amenta et al. 2019, 2009) can alter discourse on a topic (Bail 2012; Ghaziani and Baldassarri 2011), which can ultimately impact political outcomes (Vasi et al. 2015). Therefore, I expect positive discourse on marijuana to be related to the rate of legalization across the U.S. In sum, based on these theories, one can hypothesize that policy initiatives borne out of amenable political or cultural contexts may be more successful than others.

3.4 Data & Method

To assess the relative impacts of public opinion, political contexts, and discursive contexts on the rate of legalization, I draw on longitudinal data from 1990 to 2016 for 49 U.S. states.¹ States as units of analysis provide comparative leverage to explain variation in the over-time likelihood of legalization because I can compare 49 states across 27 years. State level demographic data come from the 1990 and 2000 U.S. Census and the American Community Survey (ACS) 2005-2009.

The dependent variable, whether or not a state legalized marijuana in a given year, comes from the Secretary of State website for each state.² Because my main dependent variable of interest is dummy-coded and longitudinal – whether or not a state legalized marijuana for recreational use in a given year – I use event history analysis to estimate the models.

¹I exclude Alaska for data reliability issues.

²These data are also confirmed through Ballotpedia, given that legalization in all states (through 2016) resulted from popular votes via the citizen initiative.

I constrain my analysis to legalization between 1990 and 2016 because the first successful effort to legalize marijuana in any capacity (medical or recreational) appeared in California in 1996³ and the most recent election data end in 2016. The key test of my arguments involve relative comparisons between the effects of public opinion, political contexts and discursive opportunities on the rate of legalization across the U.S. Therefore, below, I highlight the various data incorporated to test these arguments. In event history analysis, the results are presented as hazard ratios. The coefficients from the models represent the rate of passage, with significant positive coefficients indicating an increasing effect on the rate of passage (or that legalization is likely to occur faster in the state), whereas significant negative effects indicate a decrease on the rate, or a slowing effect on passage.

3.4.1 *Public Opinion*

I include data from the Roper Center for Public Opinion Research, which covers marijuana public opinion data from various polls from 1988 to 2013. The data come from various sources and years, including marijuana public opinion from 1988 (ABC News Poll), 2001 (Gallup/CNN/USA Today Poll), 2003 (Gallup Poll), 2009 (CBS News Poll), 2010 (60 Minutes/Vanity Fair Poll), 2011 (CBS News/60 Minutes/Vanity Fair Poll), 2012 (USA Today Poll), and 2013 (BS News/60 Minutes/Vanity Fair Poll). Importantly, data between polls are linearly interpolated.

3.4.2 *Political Opportunity Structure*

Political opportunities are those that signal the likelihood or potential for successful policy change. In the case of marijuana, this includes percentage of Democratic voters, political

³California was the first to attempt medicalization, proposing a similar unsuccessful medicalization initiative in 1972. Given that this was the only case in the 1970s and 1980s, I exclude this from the analysis.

competition, and the number of prior marijuana initiatives. Political partisanship is also associated with support. Indeed, as informed by research at the individual level, compared to Republicans, Democratic voters are more supportive of legalization (Rosenthal and Kubby 1996; Caulkins et al. 2012). Therefore, I use data from Congressional Quarterly’s *America Votes* to calculate the percentage of voters who voted for the Democratic candidate in the 1988, 2000, and 2008 presidential elections. For 1990, these data come from the 1988 election, and represent the percentage of votes for Michael Dukakis. Data from the 2000 election represent the percentage of votes for Al Gore. Data from the 2008 election represent the percent of votes for Barack Obama. These data are linearly interpolated for intermediate years.

Secondly, political competition is an important signal of the openings or vulnerability of political systems to demands from advocacy organizations or citizens, as well as to policy change. This would signal the pressures facing political candidates for office. I hypothesize that more competitive elections increase turnout, and thus increase pressures on politicians to conform to a majority of constituents’ demands. Therefore, I use the above voting data to construct a measure of political heterogeneity, or the amount of competition that exists in a state, based on Peter Blau’s heterogeneity index (Blau 1977a), measured as:

$$1 - \sum_{i=1}^k P_i^2 \tag{3.1}$$

where P_i is the proportion of the people voting for party/category, i , across k number of total parties. The heterogeneity index can range from 0 to 1, where 0 represents complete homogeneity – that all voters voted for the same party, and 1 indicates complete heterogeneity – that voters are more evenly dispersed across parties. The index represents the probability that two members randomly selected from the population of voters will have

voted for different Parties. Again, these data are based on the linearly interpolated voting data.

Relatedly, external political opportunity structures may also affect the rate of legalization. Recent work in political science reveals the impact external political opportunities have on internal likelihoods of change. Boushey (2016) for example shows that policy innovations were more likely to diffuse to a focal state if nearby or neighbor states had previously, or simultaneously, enacted similar policies. As such, we know that external political opportunities may increase pressure for compliance, thereby creating internal political opportunities. As such, I include a measure for the proportion of a state's neighbors that legalized marijuana in or before that year. To create this measure, I create a dummy code for each state for the status of recreational marijuana in that year (1 = marijuana legal in this year; 0 = marijuana not legal in this year). Next, for each state, I create a list of each focal state's neighbor states (e.g. the list of states you would enter if you crossed the state line for a focal state). Then, for each focal state, I calculate the proportion of neighbor states that had legalized in that year. For some scholars, this variable would also serve as a measure of regional influence.

A final measure of political opportunity structure is whether or not (or the amount of times) marijuana has been brought up for a vote in the state. This can serve as a measure of the saliency of the marijuana issue for the general public. As such, I use data from the Secretary of State for each state to calculate the number of times marijuana was previously brought up, in a progressive way, using the ballot initiative (e.g. decriminalization, medicalization, taxation, or recreational legalization).

3.4.3 *Discursive Opportunity Structure*

As I have argued, dominant cultural beliefs or discourse about marijuana may influence the likelihood of marijuana in a given year. Recent research has demonstrated the impact of cultural beliefs or dominant discourse on political outcomes (Bail 2012; McCammon et al. 2007; Ghaziani and Baldassarri 2011). As such, I use text from non-national print news media across the United States from 1990 to 2016. I focus on local rather than national level discourse in print media given criticism against relying on national media sources (Earl et al. 2004)⁴, and given that local coverage is often more substantive than national coverage. To capture positive marijuana discourse in each state in each year between 1990 and 2016, I use text data from all non-national news articles that, taken from ProQuest, that mention “marijuana.” In total, there were 14,163 articles mentioning marijuana. After removing duplicate articles, articles outside of the U.S. or located in the U.S. capitol⁵, short articles (e.g. articles with fewer than 100 words), and articles that are not fully searchable,⁶ I am left with 10,096 locally-based articles that mention marijuana in some fashion. To code each article as either having positive discourse or not, I categorize each article based on its polarity.⁷, with the assistance of a naïve Bayes classifier. The naïve Bayes algorithm uses a stock of trained text that has been associated with three types of polarity (positive, neutral, or negative) and classifies each document as one of the three polarities.

⁴I therefore exclude the *New York Times*, *Los Angeles Times*, *Wall Street Journal*, and *Washington Post*.

⁵ProQuest sometimes mistakenly identifies non-U.S. articles when only-U.S. articles are specified.

⁶Articles with fewer than about 900 words.

⁷To prepare all documents for textual analysis, following the procedure used by Bail (2012), I use software in R to transform each article into fully-searchable sets of words, and clean the textual data by eliminating excessive words (e.g. stop-words such as numbers, conjunctions, and determiners), and transforming each word into its stem variant.

3.4.4 *Control Variables*

To assess the effect of public opinion, political opportunities, and discursive opportunities on legalization, it is necessary to account for several features of U.S. states that might also be associated with support for legalization. Unless otherwise noted, all variables come from the Census or the American Community Survey. I include data from the *Association of Religion Data Archives* (ARDA) to calculate measures of Evangelical Protestants and Catholics as a percentage of the total population in a county. I include measures of religious adherence because opposition to marijuana remains strong among those affiliated with these religious denominations (Caulkins et al. 2012; Palamar 2014). In order to ensure that religious adherence data precede marijuana voting data and the independent variables from the Census, I use data from the 1990 ARDA county file (aggregated to the state) for years between 1990 and 1999, and the 2000 ARDA county file (aggregated to the state) with data from 2000 to 2016, these values are also linearly interpolated for years between each county file.

Support for legalization initiatives might also depend on population size. I therefore include a measure for the natural log of the total population in a state. I control for the percentage of the population that identifies as Black or Latino, given that these groups exhibit considerable variation with respect to their views on marijuana legalization.⁸ Education is associated with liberal attitudes towards marijuana (Pedersen 2009), and increasing support for marijuana legalization may be attributed, in part, to increases in the size of the college-educated population (Rosenthal and Kubby 1996). I, therefore, include a measure of the percent of the population aged 25 or older with a bachelor's degree. Finally, given recent arguments about the economic benefits of legalization (Mosher and Akins 2019), I include a measure of the percent of the state population that is employed.

⁸A March 2010 Pew Research poll showed that Blacks and Hispanics had lower support, respectively 41 percent and 35 percent, for legalization than Whites (42 percent), although in 2013, Blacks showed the strongest support for legalization.

3.5 Results

Table 1 presents event history results for the rate of legalization of marijuana in each state from 1990 to 2016. The first column of Table 1 includes only the measure of public opinion. As shown, the coefficient for public opinion has a significant positive effect on the rate of legalization across the U.S, meaning that increases in public support for legalization is related to increases in the hazard rate, or rate of passage for legalization. Coefficients, b , in event history analysis are interpreted through exponentiation, where $(e^b - 1) * 100$ gives the expected percent change in the dependent variable that is associated with a one-unit increase in the independent variable, in the presence of controls. For my measure, a one-unit increase in public support for marijuana is associated with a 2.29 percent increase in the rate of passage of legalization.

Model 2 includes the measures of political opportunity structure, including percent Democrat, political competition, history of marijuana initiatives in the state, and the proportion of neighbors legalized. We see that the coefficient for public opinion falls to non-significance in the presence of political opportunity structure variables, which is contrary to claims by political scientists about the importance of public opinion over political contexts (Burstein and Linton 2002). In fact, we see that only the measures for political competition, and percent Democratic voters are strong predictors of the rate of legalization. This coefficient indicates that there is a strong increase in the rate of passage in states with increasing competitiveness, and states with higher percentages of voters support for Democrats. No other POS variables were significantly related to increasing the rate of passage.

Model 3 incorporates a measure of discursive opportunity structure. We see that for this model, the measure of positive discourse about marijuana is significantly related to the rate of passage. We also see that the measure for political competition and the measure of percent Democrat remains significantly and positively related to the rate of passage. No other POS

Table 3.2: *Rate of Legalization across the United States*

	(1)	(2)	(3)	(4)
Percent Favoring Legalization ^a	0.022** (0.014)	0.013 (0.014)	0.007 (0.019)	0.023* (0.025)
Percent Democrat ^a		0.183** (0.091)	0.112* (0.089)	0.134 (0.137)
Political Competition ^a		48.882** (24.560)	48.530** (24.186)	40.948 (37.048)
Prior Marijuana Initiatives		-0.093 (0.065)	-0.078 (0.068)	-0.131 (0.091)
Proportion Neighbors Legalized		0.162 (0.130)	0.248 (0.149)	0.280 (0.215)
Positive Marijuana Coverage			0.325*** (0.115)	0.315** (0.230)
Total Population (logged) ^a				-0.043 (0.892)
Percent College ^a				0.028 (0.418)
Percent Black ^a				-0.133* (0.148)
Percent Latino ^a				-0.003 (0.076)
Percent Evangelical ^a				0.080 (0.083)
Percent Catholic ^a				0.003 (0.071)
Percent Employed ^a				0.350 (0.441)
Observations	1,313	1,313	1,313	1,313
Wald χ^2	7.19	15.16	26.96	182.74
Log Likelihood	-25.66	-20.15	-16.33	-14.04
AIC	53.33	50.3	44.65	54.08
BIC	53.27	50.03	44.33	53.38

Notes: Standard errors are in parentheses.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ (two-tailed test).

^aValues linearly interpolated for years between Census'.

variables have significant impacts on the outcome.

Finally, Model 4 is the full model which includes controls for the percent of state residents with a bachelors degree, the natural log of the total population, percent Black, percent Latino, percent Catholic, percent Evangelical, and percent employed. We see here that the measure of DOS, or positive discourse about marijuana remains a significant positive predictor of the rate of passage in a state, whereas measures for public opinion now rises to significance, and the measure of political competition falls to non-significance. Yet, based on the model fit indices, AIC and BIC, which are both measures of variance explained controlling for the number of parameters in the model (e.g. parsimony) – where the best models explain the most variance with fewer parameters, the best model excludes controls (Model 3).

3.6 Conclusions

Scholars of social policy often focus on the laggard pace of policy change in the United States. Yet, as I have demonstrated, each set of factors uniquely contributes to increases in the rate of legalization, and this rate varies substantially across states, namely as a function of positive discourse about marijuana and political competition. For example, legalization occurred more quickly in places like Nevada, where amenable public opinion, political and discursive contexts were lacking, but also occurred in places like Oregon and Washington, where amenable contexts were present.

In this article, I account for variation in the rate of legalization by considering how various aspects of POS, DOS, and public opinion, influence the extent to which voters support the legalization of marijuana through citizen initiative. After controlling for numerous other attributes of U.S. states, I still find a strong, statistically significant relationship between

discursive opportunities and whether a state legalizes marijuana or not, when it does. As I have argued, this relationship can be explained in terms of strong support amongst voters in places with competitive elections and positive discourse

The current study addresses gaps political sociology and political science by investigating structural effects on policy change. First, given the longstanding tradition in studies of marijuana legalization to investigate the individual precipitants of support, this work follows a more recent line of inquiry devoted to understanding the structural influences on marijuana legalization, which provides general insights into patterns of support for policy change. Additionally, this work contributes to a growing chorus of scholarship on the consequences of discourse (Bail 2012; Vasi et al. 2015), with a focus on political outcomes. In particular, this research broadens the scope of scholarly study by empirically investigating the impacts of discourse and political opportunities on the pace of policy change.

In this article, I focused on how structural patterns of relations shape policy change. It is my hope that this work will stimulate research on discursive and political factors that influence policy change on controversial issues.

Chapter 4

Parental Segregation, Marijuana Legalization, and Concerns over the Mobility of Children

4.1 Introduction

Americans have become increasingly accepting of marijuana legalization (Caulkins et al. 2012; Rosenthal and Kubby 1996; Gallup 2013; Pew Research Center 2013). According to Gallup data, as recently as 2000 fewer than one third of Americans believed that that marijuana should be made legal. By 2013, the percentage of people supporting legalization had reached 58 percent. In light of these trends, in 2009, President Barack Obama's Deputy Attorney General, David W. Ogden, released a memorandum recommending that the Department of Justice only prosecute individuals or business that did not comply with state medical marijuana laws (Ogden 2009). Although marijuana remained illegal at the federal level, this signaled a potential shift in marijuana policy priorities of the Obama Administra-

tion and was followed by a dramatic increase in the number of states placing medical and recreational marijuana on ballot initiatives. From 2000 to 2016, ballot initiatives in eleven states had initiatives to legalize the recreational use of marijuana. As Table 1 demonstrates, statewide ballot initiatives exhibited considerable variation in community level support for legalization – from 17.18 percent in Kiowa County, Colorado to 73.73 percent in San Miguel County, Colorado. In addition to reflecting rapidly changing public opinion on a controversial political issue, the outcome of these votes has led to eight states legalizing marijuana for recreational use.

Voting data for marijuana ballot initiatives provide a unique opportunity to examine the sources of support for legalization. While legalization is important in its own right because it involves conflicts over civil liberties, the outcome of the conflict also has implications for millions of Americans who rely on the drug as medicine and those who choose to use it recreationally. Supporters of legalization seek increased and safe access, while understanding that legalization could contribute to increased use (Ingraham 2017). Generally, these data provide an opportunity to examine how structural features of local contexts shape public opinion on a controversial issue. The fight over marijuana’s legality is a battle over meanings of morality, medicine, and addiction. These meanings are the product of social construction processes, developed through everyday social interaction, and are dependent upon the social contexts in which people are embedded. The ways in which various meanings associated with marijuana resonate with individuals should depend, to a great extent, on the patterns of social relations across local contexts. In this paper, I identify structural features of local contexts that affect the extent to which legal marijuana is perceived as non-threatening to the community.

Perceptions about marijuana are rooted in concerns about life outcomes, and are, to some extent, shaped by family structure. Parents, in particular, constitute a large source of opposition to marijuana legalization out of concern for the wellbeing of children (Elder and

Greene 2019; Newhart and Dolphin 2019; Caulkins et al. 2012; Rosenthal and Kubby 1996). Many parents may oppose legalization because they believe marijuana threatens children’s ability to lead successful lives (Lynskey and Hall 2000; Kandel et al. 1986; Lifrak et al. 1997; Fergusson et al. 2002; Kandel 2002). Indeed, while a majority of Americans may view marijuana relatively harmless, many may also believe that children should not be exposed to marijuana out of fear that the drug will hinder a child’s life outcomes. I argue that support for legalization should be strong where large portions of the community are childfree, and where residents with children are spatially segregated from those who are childfree, and that these effects should be particularly strong in communities with high prospects for mobility. The absence of children in local contexts resulting from higher proportions of the childfree or the segregation of parents from nonparents, I propose, leads many community residents to view legalization as less threatening to the community as a whole. In communities where residents view marijuana as non-threatening, high prospects for economic mobility can contribute to a general sense that legal marijuana would do little to disrupt the social fabric of the community.

4.2 A Brief History of Legalization Across the U.S.

In 1930, President Herbert Hoover established the Federal Bureau of Narcotics (FBN) and appointed Harry J. Anslinger as commissioner. According to some scholars, in preparing for inevitable end of prohibition and the upcoming Twenty-first Amendment, Anslinger sought to direct funds previously earmarked for maintaining and enforcing alcohol prohibition towards drugs in America (Hari 2015). The agency’s main focus was to prevent the smuggling, flow, distribution, and sale of illicit (hard) drugs, such as opium and heroin in the United States. Yet, opium and heroine had relatively few users. Therefore, to ensure the success of his Bureau, part of Anslinger’s plan was to target another drug: cannabis. In order to dis-

courage Americans from using cannabis, and to have a reason for the FBN, Anslinger planned to paint cannabis in a negative light by way of smear campaigns and “yellow” journalism (Mosher and Akins 2019; Newhart and Dolphin 2019; Rosenthal and Kubby 1996).

Noticing that some Americans were enjoying Mexican and Native-American cannabis, Anslinger worked with William Randolph Hearst, using stories and advertisements in Hearst’s newspapers to portray cannabis as the enemy of the people. Hearst, for his part, was on board because he stood to lose economically if American cannabis use expanded. Hearst relied on wood pulp for the manufacturing of his papers, and had his money tied up in wood pulp industries. The expansion of cannabis acceptance, however, was a threat to Hearst’s newspaper business because it meant the expansion of hemp, the fiber of the cannabis plant, which could also be used for newspaper manufacturing, but came at a cheaper cost. Hemp, and thus, cannabis, threatened Hearst’s fortune. Through a campaign of “yellow” journalism, which enabled Anslinger to rebrand the drug with the more Native-sounding name marihuana (or marijuana) instead of cannabis, Anslinger and Hearst could associate the drug with a source or group of people responsible for the drug problem: immigrants, Mexicans, and indigenous “others.” Through newspapers, Anslinger and Hearst were able to “sell” marijuana as danger – relying on a fear narrative that argued that only through prohibition could America’s children, women, and society be protected. In fact, in 1937, Anslinger was reported in the *New York Times* as having said the following, “Primarily we want to protect our young people from a danger which is not apparent to them?” In addition, Anslinger doubled-down on the race problem – claiming that marijuana made Blacks believe themselves equal to whites, and that the drug forced minority races into fits of anger, rage, terror, and crimes of brutality.

Over time, with enough public and legislative support behind him, worked with Congress to put forth the Marihuana Tax Act of 1937, which officially made the possession and sale of marijuana in the United States illegal, allowing only the restricted and sale of price-inflated

hemp, which would now be taxed through the purchase of tax stamps enabled verification of the product's legitimacy, but also allowed the federal government to collect revenue from its sale. The problem was, with little enforcement power, the FBN was often unable to prosecute those who broke the law. This problem led to a flurry of legislation to support the enforcement of the Marijuana Tax Act. Over the years, even after Anslinger left the Bureau in 1962, prohibition of marijuana was strengthened and harsher penalties were applied. Between 1952 and 1956, the Boggs Act and the Narcotic Control Act strengthened penalties by instituting mandatory minimum sentences between two and ten years and up to \$20,000 in fines. Yet, in 1970, the Supreme Court found argued that mandatory minimum sentences were unconstitutional. Therefore, as a result, Congress enacted the Controlled Substances Act, which removed mandatory minimums, but in a slight of hand, reclassified marijuana as a Schedule I drug (those assumed to have a high potential for abuse or addiction and with no known medicinal purpose), on par with heroin, LSD, and peyote. Further, in 1973, President Richard Nixon, calling for a "War on Drugs" reorganized the FBN into the Drug Enforcement Agency (DEA), and provided increased resources and personnel for enforcement. President Ronald Reagan continued and intensified the drug war, working with Congress to enact the Comprehensive Crime Control Act of 1984 and the Anti-Drug Abuse Act of 1986, which, together, reestablished mandatory minimum sentences, and instituted the three-strikes law, which many have argued is the primary reason for the explosion of the the U.S. prison population (Alexander 2010).

In the early 1970s, states began to push back on the issue of federal marijuana prohibition, using direct democratic processes like the ballot initiative to enact laws of their own. As Newhart and Dolphin (2019) argue, in many states, the opportunities for legalization took on a peculiar two stage process – states would enact laws that enabled access to marijuana for medical purposes, and growing support surrounding medicalization would pave the way for or smooth the transition to legalization by way of ballot initiative (Kilmer and Maccoun 2017). In 1972, for example, California was the first state to take up the medicalization.

This ballot initiative was unsuccessful, however, with nearly two-thirds of voters opposing medicalization, which proved costly for medicalization across the U.S. With the exception of a failed legalization initiative in Oregon in 1986 (Measure 5) and a formal criminalization initiative in Alaska in 1990, the marijuana was not seriously taken up until the 1990s, when, in 1996, California again attempted to medicalize. This time, however, a majority of Californians supported medicalization. In short, during the 1990s, medicalization of marijuana took off, with seven states voting to allow for the medical use of cannabis. Importantly, during that time, public opinion on marijuana underwent a rapid positive shift. From 2000 to 2016, eighteen states attempted to make marijuana for medical or recreational use.

Table 4.1: *State Ballot Initiatives on Recreational Marijuana Legalization*

State	Year	Initiative	% Supporting Legalization	County Min	County Max	County Mean	County SD
Alaska	2000	Measure 5	40.88	NA	NA	NA	NA
Nevada	2002	Question 9	39.13	26.60	49.60	36.14	5.29
South Dakota	2002	Initiative 1	37.97	20.14	69.83	36.25	8.10
Alaska	2004	Measure 2	44.25	NA	NA	NA	NA
Colorado	2006	Initiative 44	41.08	17.18	73.73	37.61	14.21
Nevada	2006	Question 7	44.08	29.62	52.64	39.59	6.18
California	2010	Proposition 19	46.54	31.77	64.06	44.82	7.77
Colorado	2012	Amendment 64	55.32	31.97	79.19	52.25	10.35
Oregon	2012	Measure 80	46.75	27.73	60.77	40.87	6.82
Washington	2012	Initiative 502	55.70	37.83	68.29	50.63	6.76
Alaska	2014	Measure 2	53.23	NA	NA	NA	NA
Oregon	2014	Measure 91	56.11	31.28	71.38	47.60	9.46
Ohio	2015	Issue 3	36.35	18.00	42.65	33.57	4.98
Arizona	2016	Proposition 205	48.68	35.37	55.34	45.08	5.89
California	2016	Proposition 64	57.13	43.59	74.26	54.11	7.08
Maine	2016	Question 1	50.26	36.72	55.21	48.64	4.44
Massachusetts	2016	Question 4	53.66	48.14	65.76	56.18	5.86
Nevada	2016	Question 2	54.47	32.86	56.36	45.06	6.16

Note: Data collected from each state's Secretary of State website.

4.3 Support for Liberalization Policies

Research at the individual level shows that Americans' support for political issues centers on ideology. For example, support for liberalization policy issues like same-sex marriage or abor-

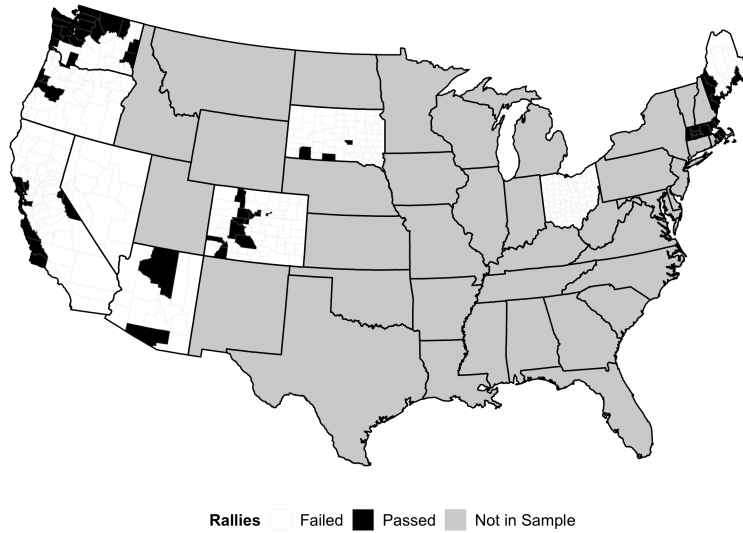


Figure 4.1: Marijuana Legalization Status in U.S. Counties, 2016

tion rights is highest amongst the politically liberal, college-educated, religiously unaffiliated, and younger populations (Baunach 2012; Zucker 1999; Pew Research Center 2017a,b). A similar trend exists for marijuana (Caulkins et al. 2012; Newhart and Dolphin 2019; Schnabel and Sevell 2017; Rosenthal and Kubby 1996). Support for legalization is highest amongst non-religious, never-married, younger, liberal, and college educated individuals (Schnabel and Sevell 2017; Pew Research Center 2015; Elder and Greene 2019; Eagly et al. 2004). At a general level, many supporters of legalization view marijuana as a civil liberty issue – that people should have the freedom to use marijuana for medicine or recreation without fear of retribution (Newhart and Dolphin 2019; Schnabel and Sevell 2017; Rosenthal and Kubby 1996).

Importantly, however, research also shows that support and opposition to legalization is associated with parenthood. Parents often exhibit the strongest opposition to legalization, whereas those without children show strongest support (Elder and Greene 2019; Mosher and Akins 2019; Newhart and Dolphin 2019; Caulkins et al. 2012; Rosenthal and Kubby 1996). Elder and Greene (2019) expand upon social role theory to explain parental opposition to

marijuana legalization, arguing that the transition to parenthood, and the concerns this role entails, may lead parents to take conservative positions on political issues. Concerns about how legal marijuana might impact their family, marriage, children, and other social relationships can lead parents to oppose marijuana legalization.

For many parents, liberalization on morality-based political issues triggers concerns about the family. Scholars of morality policy argue that liberalization signals a decline in traditional family values, and incites fear about children’s likelihood of economic mobility and ability to reproduce their family’s class status (Beisel 1997; Gusfield 1963; Eskridge Jr. and Spedale 2006). Therefore, parents develop a personal stake in protecting their children from behaviors that could hinder chances at leading successful lives (Beisel 1997; Gusfield 1963). Legalization, for many parents, equates to increased access to marijuana, even for vulnerable populations. The moral stigma many parents attach to marijuana stems from fears about perceived negative status and class consequences for their children and their families (Elder and Greene 2019; Lynskey and Hall 2000; Kandel et al. 1986; Lofrak et al. 1997; Fergusson et al. 2002; Kandel 2002; Rosenthal and Kubby 1996). As Beisel (1997:5) argues, parents believe that exposure and use will render children “unfit for desirable jobs and social positions” and that their children will “not be hired, or will be excluded from desired social circles, because their habits, reputations, or appearance will make them seem untrustworthy” and as a result, their children will be “excluded from the social networks vital to their future success” (Beisel 1997:199). It is for these reasons that parents often oppose legalization.

Yet, support for legalization is on the rise (Pew Research Center 2013; Gallup 2013). Given the aforementioned literature, nonparents may exhibit strong support for legalization. Indeed, literature has demonstrated that support is high amongst individuals without children (Newhart and Dolphin 2019; Caulkins et al. 2012; Rosenthal and Kubby 1996). This may result from nonparents developing different stakes in the legalization debate – stakes other than the protection of children and family economic or class status. Specifically, I expect

that support for legalization will be clustered in communities characterized by an absence of children. Thus, the structure of local communities shapes the extent to which marijuana is perceived as non-threatening.

While not all nonparents share similar beliefs about marijuana, I argue that perceptions about the freedom to use marijuana (rather than beliefs about protecting children from harm) will resonate in communities where children are absent. Put another way, support for legalization should be high where nonparents predominate (e.g. where a large portion of the population is childfree). Perhaps more importantly, social structure can impose constraints on both social ties and the information people use to form opinions about political issues (Blau 1977b,a; McVeigh and Sobolewski 2007). Segregation, for example, can decrease contact opportunities between those with distinct viewpoints, making it increasingly difficult for members of different groups to understand or develop a stake in the other's concerns (Herek and Capitanio 1996). This is why, in the case of marijuana legalization, I believe the spatial segregation of parents from nonparents also plays a role in the formation of perceptions about marijuana being nonthreatening to the community.

4.4 Parental Segregation and the Protection of Child Mobility Prospects

Residential segregation within communities is a manifestation of choices individuals make about where to live, as well as structural barriers to access. This sorting process has implications for the structure of communities. Research has demonstrated that life cycle changes such as marriage, new career opportunities, and childbearing increase the odds of residential relocation (Clark et al. 1994; Rossi and Shlay 1982; Rossi 1980; DaVanzo 1976; Clark and Davies Withers 1999; Dieleman et al. 1995). In fact, recent research shows that a majority of

American parents reported moving to new communities they believed were better places to raise children (Taylor et al. 2008), and in particular, relocating to areas with a predominance of other families with children (Clark and Davies Withers 1999; Rossi and Shlay 1982). Yet, only recently have scholars given attention to how family residential relocation is influenced by a desire to protect children's economic mobility prospects (Owens 2016; Beisel 1997). For many parents, family-predominant environments can provide a sense of solidarity, by increasing the likelihood of interaction with others who share similar lifestyles and perhaps goals for their families. These environments may also provide access to social and cultural capital necessary for maintaining and reproducing family privilege. Because many parents want their children to do as well as or better than they have in life, to increase their children's odds of economic mobility, and thus family privilege they may engage of strategies of individual or family-level segregation, such as the construction of private educational institutions (Andrews 2002; Nevin and Bills 1976) or relocating to areas with a predominance of families (Owens 2016), which can result in aggregate level residential segregation of parents and their families from nonparents.

Residential parental segregation results in a spatial concentration of parents which facilitates interaction between people of similar household compositions, and potentially, similar beliefs about the role of the family, and the consequences of legal drugs for their children. These relationships emerge and are maintained by local institutions including schools, clubs, and social events (Beisel 1997). Residential segregation also limits opportunities for contact, communication, and interaction between individuals with distinct household compositions (see (Blau 1977b,a). In these segregated environments, nonparents are less likely to come into contact with parents, and thus, less likely to develop a similar stake in protecting children's (1) mobility prospects or (2) potential for reproducing family privilege. When people with children are integrated into the community, it can contribute to cultural understandings of marijuana as harmful, a perception that is different from those that may develop in places where few children reside. Contexts with high degrees of parental segregation can

be conducive to the development and resonance of attitudes about marijuana's impact on children's future mobility.

4.4.1 *Parental Segregation and Politics*

The segregation of parents can shape political behavior (Beisel 1997). Recent work shows that segregation's political impact extends into voting, particularly where exposure to threats or outgroups is increasingly prevalent (see Andrews and Seguin 2015). Concern for children's ability to reproduce class status is a source of anxiety, one that encourages opposition to various morality-based policy issues, including abortion, anti-prohibition, obscenity, gambling (Luker 1984; Gusfield 1963; Beisel 1997). For these reasons, communities characterized by a predominance of nonparents will exhibit higher support for marijuana legalization. Moreover, when parents are residentially-segregated, the lack of interaction with parents increases the likelihood that residents do not develop a stake in protecting children's mobility prospects, and thus, view marijuana as non-threatening. What is more, worldviews that position marijuana as non-threatening might ring true in communities where actual prospects for economic mobility exist, which further strengthens support for legalization. Moreover, where parents are less integrated into these communities (more segregation), the concerns many parents have about the protection of children may not resonate with the larger population. As a result, the size of the nonparent population, and the spatial segregation of parents from nonparents should be related to support for legalization.

Support for legalization should be high under these conditions because 1) residents with children can expect that others will be reluctant to use marijuana around children, and marijuana use in distant communities is of little concern and 2) residents without children, especially when spatially segregated from residents with children, may be more inclined to support legalization without regard thinking that marijuana may be perceived as harmful.

4.4.2 *Parental Segregation and Community Mobility*

Because many parents are often concerned with their children’s prospects for mobility, and many nonparents are not concerned with these prospects, actual prospects for mobility in the local context should diminish parents’ concerns about legal marijuana’s perceived negative consequences for their children’s life outcomes. Scholars of economic opportunity have shown that both low inequality as well as high diversification in positions of employment signal economic expansion and opportunity (Blau and Duncan 1967; Moore 1966). Given this trend, residents in areas of high economic opportunity could be especially resistant to claims about the threats of legal marijuana to the child (and therefore, family) mobility. Therefore, I expect support for marijuana legalization to be especially strong in areas of low income inequality and areas with high levels of diversification in occupations.

4.5 Data & Method

To assess the importance of the distribution of parents and nonparents on support for legalization, I draw on cross-sectional data from 2000 to 2016 for U.S. counties in the ten states where recreational marijuana legalization initiatives appeared on the ballot.¹ To mitigate the issue of multiple legalization initiatives during the observed years, I use voting data from a state’s first initiative, which ensures that the voting data closely correspond with the Census and ACS data used as independent variables.

Counties as units of analysis provide comparative leverage to explain variation in support for legalization because I can compare 413 counties across ten states. Given that the lived experience of residents in a state may be distinct in different parts of the state (e.g. see McVeigh and Sobolewski 2007), a county level analysis allows me to account for intrastate

¹I exclude Alaska for data reliability issues.

heterogeneity that may be associated with views on marijuana legalization. County level demographic data come from the 2000 U.S. Census and the American Community Survey (ACS) 2005-2009. Voting outcomes between 2000 and 2008 are matched with 2000 Census data and votes between 2009 and 2016 are matched with ACS 2005-2009 data.

The dependent variable, the percent of votes in support of marijuana legalization in each county, comes from the Secretary of State website for each state. Because my main dependent variable of interest is a percentage, I use ordinary least squares regression to estimate the models. I constrain my analysis to ballot initiatives between 2000 and 2016 because the first recreational use initiative appeared in 2002 and the most recent election data end in 2016. To account for boundary changes in counties and county equivalents in Colorado, I construct county clusters for each period by aggregating data for those counties. This procedure amounted to one Broomfield County² cluster from five county units in Colorado, which results in 409 counties for the analysis. Because variation in voting may be associated with state level differences, such as the phrasing of the initiative or the year it was on the ballot, I control for variation between states by holding state effects constant, using state level fixed effects models. Doing so is analytically similar to including a dichotomous variable for each state. The state level fixed effects approach controls for all unobserved, time-invariant state level characteristics.

4.5.1 *Parental Segregation*

The key test of my argument involves determining whether counties with higher percentages of parent households, and segregation of parent from nonparent households, exhibit higher support for recreational marijuana. I take data from the Census and the American Community Survey and use the index of dissimilarity to construct a measure of parental

²In 2001, Colorado's Broomfield County was created from portions of Adams County, Boulder County, Jefferson County, and Weld County.

segregation.³ The dissimilarity index for each county is represented as:

$$\sum_{i=1}^d \frac{t_i |p_i - P|}{2TP(1 - P)} \quad (4.1)$$

where t_i is the total population of households in a Census block group, p_i is the proportion of households in a Census block group with children, T is the total population of households in the county, and P is the proportion of county households with children (see Massey and Denton 1988). The dissimilarity index can range from 0 to 100, where 0 represents complete integration and 100 indicates complete segregation. The value indicates the percentage of households with children that would have to be relocated to a different Census block group to create an even distribution of parent households across all Census block groups in a county. As shown in Table 2, parental segregation varies substantially across the U.S. counties, with at least one county having a high of over thirty-five percent. In addition, a total of five counties contain a single block group and, therefore, have a value of zero on the segregation measure since there are no block groups across which segregation can occur. I estimate the models with these cases included and obtain similar results to the findings when these cases are excluded.⁴

4.5.2 *Prospects for Economic Mobility*

As I have argued, fears about children's prospects for mobility are at the heart of positions on moral issues, including marijuana. It is therefore necessary to include cross-sectional measures of mobility. Many studies of mobility incorporate longitudinal measures, capturing intergenerational mobility by comparing children's wealth, job, and income to that of their

³A household with at least one related or unrelated child under the age of 18 is considered a parent household. I consider the extent to which households with children are distributed unevenly across Census block groups within each county.

⁴These include San Juan County, Colorado; Hinsdale County, Colorado; Mineral County, Colorado; Campbell County, South Dakota; Jones County, South Dakota.

parents. While important, these measures of actual mobility tell us nothing about how parents’ perceptions of their children’s future mobility equally inform and shape parents’ behavior. I, therefore, use data from the Census and ACS to construct two measures of the county’s overall potential for economic mobility. First, I use the Gini coefficient of income inequality as an estimate of inequality in economic opportunity (Corak 2013; Kuznets 1955). Put another way, with more equality in income, residents may be more likely to view their community as having the potential for maintaining or improving their class status. Residents may also view their communities as having the potential for mobility where heterogeneity in occupations exists. The placement of residents across a diverse set of occupations can signal opportunities for mobility through various occupations. As such, I use Census and ACS data to construct a measure of occupational heterogeneity, based on Peter Blau’s heterogeneity index (Blau 1977a), measured as:

$$1 - \sum_{i=1}^k P_i^2 \tag{4.2}$$

where P_i is the proportion of the population in each occupational category, i , across k number of occupational categories. The data are aggregated to each of 13 occupational categories: (1) management, business, and financial (2) professional, (3) healthcare support, (4) protective service, (5) food preparation and serving-related, (6) building, grounds cleaning, and maintenance, (7) personal care and service, (8) sales and related, (9) office and administrative support, (10) farming, fishing, and forestry, (11) construction, extraction, and maintenance, (12) production, and (13) transportation and material moving. The heterogeneity index can range from 0 to 1, where 0 represents complete homogeneity – that all population members are in the same occupational category, and 1 indicates complete heterogeneity – that the population members are more evenly dispersed across occupational categories. The index represents the probability that two members randomly selected from the population will be

in different occupational categories.

4.5.3 *Control Variables*

To assess the effect of parental segregation, it is necessary to account for several features of U.S. counties that might also be associated with support for legalization. Unless otherwise noted, all variables come from the Census or the American Community Survey. Through contact, the spatial segregation of parents from nonparents facilitates support for marijuana legalization. Therefore, in a similar fashion, the percentage of county households without children should increase support for legalization. Political partisanship is also associated with support. Indeed, compared to Republicans, Democratic voters are more supportive of legalization (Rosenthal and Kubby 1996; Caulkins et al. 2012). I use data from Congressional Quarterly's *America Votes* to calculate the percentage of voters who voted for the Democratic candidate in the presidential elections that coincide with or immediately precede the decennial data. For example, for marijuana votes during the 2000 period, I use the percent of the vote for Al Gore in 2000 and for the ACS 2005-2009 period marijuana votes, I use percent of the vote for Barack Obama in 2008. I also include data from the *Association of Religion Data Archives* (ARDA) to calculate measures of Evangelical Protestants and Catholics as a percentage of the total population in a county. I include measures of religious adherence because opposition to marijuana remains strong among those affiliated with these religious denominations (Caulkins et al. 2012; Palamar 2014). In order to ensure that religious adherence data precede marijuana voting data and the independent variables from the Census, I match data from the 2000 ARDA county file with county data from both decennial periods.

Support for legalization initiatives might also depend on population size. I therefore include a measure for the natural log of the total population in a county. Importantly, parental

segregation may result from parents' movement to suburban communities. Because measures of percentage of urban and rural land area are not comparable across Census and ACS data, I use population density as a proxy for percent urban. To ensure that the effects of parental segregation do not reflect differences in income, I also include a measure of median household income. I control for the percentage of the population that identifies as African American or Latino, given that these groups exhibit considerable variation with respect to their views on marijuana legalization.⁵ Education is associated with liberal attitudes towards marijuana (Pedersen 2009), and increasing support for marijuana legalization may be attributed, in part, to increases in the size of the college-educated population (Rosenthal and Kubby 1996). I, therefore, include a measure of the percent of the population aged 25 or older with a bachelor's degree. Also from the Census, as a proxy for the age of the population⁶, I include a variable measuring the percentage of the population that is age 65 or over. Descriptive statistics for these and all other variables included in the regression models are presented in Table 2, below.

4.6 Results

Table 3 presents ordinary least squares estimates (with controls for state level effects) of the percentage supporting legalizing recreational marijuana. In the first column, I include the measure of parental segregation, which has a significant and positive relationship with the outcome. This finding lends support for my argument that the spatial segregation of parents from nonparents shapes perceptions of marijuana as non-threatening – every one unit increase in parental segregation is associated with a .44 percent increase in support for legalization.

⁵A March 2010 Pew Research poll showed that Blacks and Hispanics had lower support, respectively 41 percent and 35 percent, for legalization than Whites (42 percent), although in 2013, Blacks showed the strongest support for legalization.

⁶Because the 2000 Census and 2005-2009 American Community Survey use median age measures that are not comparable, I use the size of the aged population as a proxy.

Table 4.2: *Descriptive Statistics for Variables (N=409)*

Statistic	Mean	St. Dev.	Min	Max
Percent Support for Legalization	40.35	10.26	17.18	73.73
Parental Segregation	17.70	7.33	0.00	39.88
Percent Households without Children	66.84	6.63	31.24	82.48
Income Inequality	0.43	0.03	0.34	0.58
Occupational Heterogeneity	0.88	0.02	0.77	0.91
Percent Democratic	43.69	13.36	8.76	85.36
Total Population (logged)	10.57	1.79	6.32	16.10
Population Density (logged)	3.45	1.96	-1.31	8.71
Percent Latino	10.48	14.01	0.10	79.87
Percent African American	2.07	3.52	0.00	28.81
Percent College	13.90	5.97	4.22	40.02
Percent Evangelical	25.85	14.83	0.00	96.71
Percent Catholic	39.92	19.53	0.00	97.93
Percent Married	55.13	6.52	30.34	73.25
Median Income (\$1000s)	43.71	12.25	12.69	87.73
Percent Age 65 or Older	14.58	4.53	3.00	31.22
Percent Employed	57.86	7.73	30.10	83.65

Model 2 omits the segregation measure but includes all control variables. Support for legalization is strongest in communities with high percentages of households without children. In addition, support is higher in counties with high percentages of Democratic voters and high percentages of college graduates. Among the other control variables, coefficients for the size of the Latino and the African American population are negative, suggesting that support for legal marijuana is lower in counties with large minority populations. The age variable is significant and negatively related to the outcome, indicating that support is weaker in counties with higher percentages of elderly residents. Similarly, counties with higher percentages of married residents have significantly lower support. Finally, support for legalization is weak in communities with high rates of employment.

In column 3 of Table 3, the measure of parental segregation, net of controls, maintains a positive effect on support for legalization. This finding yields support for my argument that perceptions of marijuana as non-threatening to “ring true” in places where higher percentages

of nonparents reside and in places where parents are spatially segregated from nonparents. Thus, negative perceptions of marijuana do not resonate in communities where residents have limited contact with parents and their children. In this model, all other controls maintain similar relationships with the outcome.⁷

4.6.1 *Strengthening Perceptions about Legalization*

I have argued that parental segregation increases support for legalization by shaping perceptions about the threat of marijuana to children’s mobility prospects. If I am correct about these underlying mechanisms, I expect the effect of parental segregation to be strengthened in locales where high prospects for future mobility exist. That is, I expect support to be strongest in places with a high degree of occupational diversity and where income inequality is low. As seen in Table 4, these expectations are confirmed. The first column of Table 4 introduces an interaction between the parental segregation measure and income inequality. The variables in the interaction are centered at their mean values. When included, the main effect of parental segregation remains positive and significant, which indicates that when income inequality is at its mean, parental segregation has a predicted positive effect on support for marijuana legalization. The significant coefficient for the interaction term indicates that this positive effect is weaker in places with higher than average levels of income inequality. In places with high inequality, there are diminished beliefs about prospects for mobility. Thus, legal marijuana would further hinder mobility through what limited opportunities that currently exist. Relatedly, in the second column, parental segregation has a positive effect on support for legalization when occupational heterogeneity is set at its mean, and this positive effect is stronger in counties with higher than average levels of occupational diversity. Where actual opportunities for mobility exist, by way of occupational diversity, residents may view

⁷The size of the effect is small, where Cohen’s $f^2 = .018$.

Table 4.3: *Percent Supporting Recreational Marijuana Legalization in U.S. Counties: OLS Regression Estimates with Controls for State-Level Effects*

	(1)	(2)	(3)
Parental Segregation	0.442*** (0.072)		0.145** (0.056)
Percent Households without Children		0.341*** (0.079)	0.343*** (0.078)
Income Inequality		-6.341 (11.169)	-8.294 (11.112)
Occupational Heterogeneity		32.120 (22.859)	24.388 (22.886)
Percent Democratic		0.311*** (0.035)	0.312*** (0.035)
Total Population (logged)		-0.661 (0.411)	-0.871* (0.415)
Population Density (logged)		-0.405 (0.415)	-0.407 (0.412)
Percent Latino		-0.071* (0.034)	-0.081* (0.034)
Percent Black		-0.207* (0.093)	-0.202* (0.093)
Percent College		0.471*** (0.112)	0.442*** (0.111)
Percent Evangelical		-0.006 (0.028)	-0.009 (0.028)
Percent Catholic		0.031 (0.023)	0.033 (0.023)
Percent Married		-0.314*** (0.081)	-0.272** (0.082)
Median Household Income (\$1000s)		0.063 (0.060)	0.057 (0.060)
Percent Age 65 or Older		-0.653*** (0.125)	-0.670*** (0.124)
Percent Employed		-0.135* (0.059)	-0.132* (0.059)
Observations	409	409	409
R ²	0.086	0.659	0.665

Notes: Standard errors are in parentheses.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ (two-tailed test).

issues like marijuana legalization as less threatening to children’s ability to lead successful lives.

4.7 Conclusions

Longstanding parental opposition to morality-related issues remains a common argument for the laggard pace of marijuana policy change in the United States. Yet, as I have demonstrated, the character of opposition varies substantially across local contexts, namely as a function of the size and distribution of parents (and their children) across counties. For example, there is strong support for legalization in places like San Francisco County, California and San Juan County, Washington, where parental households are in the minority, but it is also strong in places like Shannon County, South Dakota, where parents predominate. What these counties have in common is high levels of parental segregation.

In this article, I account for variation across local contexts by considering how the organization of social life in local settings influences the extent to which community residents view legal marijuana as threatening or not. After controlling for numerous other attributes of U.S. counties, I still find a strong, statistically significant relationship between parental segregation and support for legalizing recreational marijuana. As I have argued, this relationship can be explained in terms of strong support amongst nonparents. Segregated communities, in my characterization, are contexts where characterizations of marijuana as non-threatening to children resonate, particularly because daily interactions less frequently parents and children.

The current study addresses broad gaps in literature on sociology of the family and policy change by investigating the structural effects of parenthood on voting for controversial issues. First, given the longstanding tradition in studies of marijuana legalization to investigate the

Table 4.4: *Percent Supporting Recreational Marijuana Legalization in U.S. Counties, Interaction Effects: OLS Regression Estimates with Controls for State-Level Effects*

	(1)	(2)
Parental Segregation	0.190** (0.058)	0.189*** (0.054)
Percent Households without Children	0.357*** (0.078)	0.372*** (0.075)
Income Inequality	-11.460 (11.112)	-10.809 (10.626)
Occupational Heterogeneity	24.725 (22.734)	48.485* (22.219)
Percent Democratic	0.312*** (0.035)	0.319*** (0.033)
Total Population (logged)	-1.011* (0.417)	-0.930* (0.397)
Population Density (logged)	-0.311 (0.411)	-0.148 (0.396)
Percent Latino	-0.081* (0.034)	-0.086** (0.032)
Percent Black	-0.173 (0.093)	-0.213* (0.089)
Percent College	0.423*** (0.111)	0.444*** (0.106)
Percent Evangelical	-0.016 (0.028)	-0.008 (0.027)
Percent Catholic	0.027 (0.023)	0.036 (0.022)
Percent Married	-0.290*** (0.082)	-0.317*** (0.079)
Median Household Income (\$1000s)	0.062 (0.060)	0.126* (0.058)
Percent Age 65 or Older	-0.676*** (0.123)	-0.653*** (0.119)
Percent Employed	-0.119* (0.059)	-0.202*** (0.058)
Parental Segregation X Income Inequality	-2.559* (1.032)	
Parental Segregation X Occupational Heterogeneity		10.421*** (1.702)
Observations	409	409
R ²	0.670	0.695

Notes: Standard errors are in parentheses.

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$ (two-tailed test).

individual precipitants of support, this work follows a more recent line of inquiry devoted to understanding the structural influences on marijuana legalization, which provides general insights into patterns of support for policy change.

Additionally, this work contributes to a growing chorus of scholarship on the consequences of parenthood (Beisel 1997; Owens 2016), with a focus on political outcomes. In particular, this research broadens the scope of scholarly study by empirically investigating the impacts of parenthood on voting. Continuing along this line of inquiry will allow scholars of the family and of political sociology to generate stronger theoretical claims about the role of parenthood in politics more generally.

In this article, I focused on how structural patterns of relations shape perceptions of and voting on controversial political issues. Although public support for marijuana legalization is above fifty percent nationally, it is my hope that this work will stimulate research on why marijuana policy change has stalled in the face of a growing positive discourse around, and majority public support for, marijuana legalization.

4.8 Appendix

Table 4.5: Correlation Matrix for County Level Variables ($N=409$)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Percent Support for Legalization	1																
2. Parent Segregation	0.42	1															
3. Percent Households without Children	0.20	-0.02	1														
4. Income Inequality	0.32	0.19	0.08	1													
5. Occupational Heterogeneity	-0.21	0.11	-0.05	-0.23	1												
6. Percent Democratic	0.66	0.54	0.06	0.34	-0.07	1											
7. Total Population (logged)	0.30	0.69	-0.15	0.05	0.03	0.57	1										
8. Population Density (logged)	0.23	0.57	-0.09	0	-0.06	0.59	0.88	1									
9. Percent Latino	0.08	0.29	-0.40	0.14	0.23	0.18	0.29	0.09	1								
10. Percent African American	0.08	0.34	-0.05	0.18	-0.07	0.36	0.53	0.55	0.10	1							
11. Percent College	0.54	0.19	0.22	0.25	-0.57	0.35	0.31	0.32	-0.04	0.13	1						
12. Percent Evangelical	-0.30	-0.02	0.15	-0.15	0.23	-0.35	-0.08	-0.10	-0.15	-0.14	-0.25	1					
13. Percent Catholic	0.35	0.22	-0.18	0.23	-0.10	0.40	0.29	0.19	0.50	0.23	0.27	-0.68	1				
14. Percent Married	-0.57	-0.57	0.08	-0.43	0.01	-0.69	-0.48	-0.42	-0.18	-0.40	-0.16	0.21	-0.29	1			
15. Median Household Income (\$1000s)	0.36	0.45	-0.03	-0.16	-0.25	0.43	0.65	0.66	0.12	0.26	0.58	-0.15	0.26	-0.16	1		
16. Percent Age 65 or Older	-0.26	-0.17	0.58	0.03	0.15	-0.21	-0.35	-0.31	-0.28	-0.20	-0.33	0.20	-0.25	0.37	-0.38	1	
17. Percent Employed	0.06	-0.12	0.01	-0.20	-0.38	-0.04	0.08	0.20	-0.15	-0.03	0.60	-0.23	0.09	0.21	0.41	-0.35	1

Chapter 5

Conclusion

Essential to understanding policy change is also understanding the cultural/discursive factors, political environments, and structural contexts within which policies can change. This dissertation aimed to improve our understanding of the processes of policy change through an exploration of discursive change over time, the role of discourse on the pace of legalization across the United States, and the impact of the segregation on local support for legalization.

In the second chapter, I show that discourse about marijuana changed over time, becoming less negative and more neutral. Importantly, over time, discussions of marijuana became linked with frames of revenue creation and political behavior. While this framing shift may have contributed to the decrease in negative coverage, in this chapter, I focused only on describing whether or not a shift occurred.

In the third chapter, I found that the amount of positive discourse about marijuana was critical for the rate of adoption of legalization. Typically, legalization happened more rapidly in states with direct democratic processes (e.g. citizen initiatives). Yet, as I demonstrate, positive discourse about marijuana was critical for the pace of legalization.

Finally, in the fourth chapter, I show how structural inequality shapes support for legalization. Literature has demonstrated that parenthood shapes positions on marijuana policy change. Taking a structural perspective, I show that the distribution of parents and non-parents, and how the segregation of these groups across local contexts shapes aggregate support for legalization.

This thesis provides many findings related to policy change. Among them are three findings that improve our understanding of policy change:

- Contentious political issues may benefit from connecting to “traditional” frames, such as revenue and political behavior. Doing so may broaden the beneficiary group of the policy change.
- Discourse on an issue may shape the likelihood of adoption or diffusion for contentious political issues.
- Segregation across local contexts remains a critical factor for aggregate support for contentious political issues.

While these findings improve our understanding of marijuana policy change, this work was also imperfect because of a series of practical limitations:

- Much of the discursive data collected from Proquest was hamstrung by the inability of researchers to collect the population of coverage without serious commitment. As a result, I was unable to collect the population of coverage of marijuana, including articles in national newspapers, without encountering significant challenges or without requests for additional resources. As such, I am limited to only local coverage of marijuana discourse.

- There are state-level factors, such as the saliency of marijuana, over time, that may be important influences on the rate of legalization. However, no known data set tracks the saliency of issues without significant manipulation. As such, these data were not included in models assessing the rate of adoption.

These findings suggest a series of improvements for future work, such as

- Including coverage of national news discourse on marijuana
- Improving scraping, coding, and analytic technologies to ensure replicable results
- Comparing coverage of marijuana in the Proquest database to similar coverage in additional databases
- Expanding scope conditions to include coverage of marijuana from 1930 and beyond, and incorporating recent coverage of marijuana on social media such as Facebook or Twitter.
- Using the Google API to track the saliency of issues over time
- Tracking the saliency of marijuana over time, relative to the saliency of other issues during that same time
- Improving measures of static perceptions of mobility, and how those relate to support for legalization

Through a series of descriptive and empirical investigations, using new methodologies, I have aimed to improve our understanding of policy change on contentious political issues. Through these findings, I hope to have contributed to the technical and theoretical development of social science, particularly that of political change.

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