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Marijuana Politics: Elite Racial Discourse, Socio-Economic (In)Justice, and Attitudes Towards Marijuana Legislation

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Abstract

Legalizing marijuana is often advocated as a measure to address the persistent racial injustices within the American criminal justice system. Previous research indicates that support for marijuana legalization has become increasingly entrenched. However, there has been no prior study that directly evaluates the influence of pro- and anti-legalization arguments by elites, specifically those framed in terms of their impact on the African American community.

Considering this, the primary objective of this study is to understand how deeply rooted opinions about marijuana legalization are. I do so by examining the extent to which elite racial appeals prime voters' racial predisposition to marijuana policies. Specifically, I investigate the effect of explicit elite racial framing on respondent's policy position on the extent of legalization (recreational use nationwide, medical use nationwide, illegal nationwide, or leave the decision to the states), social equity-focused policies (reparative justice), and beliefs about whether legalization would help improve underrepresented communities. I further study why some sectors of the population are fiercely opposed to marijuana policies even when exposed to positive information about legalization, thereby investigating whether the American public is willing to change their beliefs towards marijuana policies in the face of countervailing information that confounds stereotypes.

To address these research inquiries, I employ a two-step methodology. Initially, I analyze support for marijuana policies utilizing nationally representative surveys. Subsequently, I incorporate a novel surveyembedded experiment to assess the impact of elite racial communication on voters' views about marijuana.

The experimental manipulation revealed statistically significant differences across the three conditions on several dependent variables. These include respondents' policy positions on the extent of legalization, opinions on the economic impact of legalization on marginalized communities, and views on marijuana economic reparative policies. This suggests that opinions about marijuana policies are not deeply entrenched or settled; rather, they are nuanced and malleable, particularly when shaped by explicit elite racial rhetoric.

ii

The differential treatment effects - except for views on economic reparative marijuana policy, which consistently showed high levels of support among Blacks - were more pronounced among Black Protestants and Blacks who consider their racial identity important to their self-concept. Contrary to previous literature suggesting that racial cues must be implicit rather than explicit to be effective, these experimental results demonstrate the nuanced influence of explicit elite communication that directly addresses how African American communities would be affected by marijuana legalization policies.

Table of Contents Chapter 1: Introduction	1
Political Background	1
Public View on Marijuana Policies	۵
Study's Contributions	10
Dissertation Outline	10
Chanter 2: Theory and Hynotheses	17
Flite Communication	12
Group-Centrism Framework	12
Explicit-Implicit Model	13
Racial Identity Theories	10
Black Racial Identity	10
White Racial Identity	10
Integrating Elite Racial Framing and Racial Identity Theories	10
Cultural Theory of Preference Formation	10
	21 24
Chapter 3: Data and Methodology	24 25
Observational Data	25
Dow Data	25
r ew Dala	25 26
ipsos Dala	20
	27 20
Pow 2021 Poll	29 31
rew 2021 roll	32
Survey-Embedded Experiment	31
Analytical Stratogy	30
Chapter 4: Findings from Observational Study	وو ۱۵
Pow - Sample Descriptive Statistics	 12
Pew - Sample Descriptive Statistics	 ۸۸
Pew - Divariate Analysis	 50
Insos - Samnla Descrintiva Statistics	50
Insos - Bivariate Analysis: Oninions About Legalization	56
Insos - Multivariate Analysis: Opinions About Legalization	50
Insos - Bivariate Analysis: Opinions About Social Reparation	00 61
Insos - Bivariate Analysis: Opinions About Social Reparation	01
Insos - Bivariate Analysis: Opinions About Economic Impact on Marginalized Communities	05 60
Ipsos - Multivariate Analysis: Opinions About Social Reparation, Economic Reparation, and Economic Impact of Legalization on Marginalized Communities	09
Discussion	75
Chapter 5: Findings from Experimental Study	78
· · · · · · ··························	
v	

Sample Descriptive Statistics	79
Bivariate Analysis: Opinions About Legalization	82
Bivariate Analysis Controlling for Subgroups: Opinions About Legalization	85
Bivariate Analysis: Opinions About Economic Reparation	93
Bivariate Analysis Controlling for Subgroups: Opinions About Economic Reparations	96
Multivariate Analysis with Interactions: Opinion About Economic Reparation	
Bivariate Analysis: Opinions About the Economic Impact of Legalization on Marginalized Communities	101
Bivariate Analysis Controlling for Subgroups: Opinions About the Economic Impact of Le on Marginalized Communities	<i>galization</i> 103
Discussion	
Chapter 6: Conclusion	112
Summary	112
Policy Implications	115
Limitations and Future Research Recommendations	115
Bibliography	

List of Tables	
Table 1 Specific Wording of Treatments with Highlighted Differences	
Table 2 Measures of Marijuana Legalization across Major Public Opinion Polls	
Table 3 Descriptive Statistics - Pew	43
Table 4 Relationship between Respondent Characteristics and Support for Marijuana Legali	zation
	47
Table 5 Multinomial Regression Estimates of Support for Federal Marijuana Legalization	51
Table 6 Descriptive Statistics - Ipsos	
Table 7 Multinomial Regression Estimates of Support for Federal Marijuana Legalization	60
Table 8 Relationship between Social Reparation and Respondents' Characteristics	63
Table 9 Relationship between Economic Reparation and Respondents' Characteristics	67
Table 10 Relationship between Perception of whether legalization would Improve Marginaliz	ed
Communities Economically and Respondents' Characteristics	70
Table 11 Regression Estimates for Social Reparation, Economic Reparation, and View of wh	nether
legalization would Improving Marginalized Communities Economically	74
Table 12 Randomization Testing (group testing)	78
Table 13 Descriptive Statistics – Survey-Based Experiment data	81
Table 14 Legalization Policies by Experimental Conditions	
Table 15 Support for Federal Recreational Marijuana Legalization by Experiment	
Table 16 Relationship Between Support for Federal Recreational Legalization and Exposure	e to
Racial Sentiments Controlling for Respondents' Characteristics	90
Table 17 Economic Reparation Opinion by Experimental Conditions	95
Table 18 Relationship Between Support for Economic Reparation and Exposure to Elite Rac	ial
Framing Controlling for Subgroups	
Table 19 Regression Estimates of Support for Economic Reparation with an Interaction Vari	able
	101
Table 20 Perception of Whether Legalization Would Improve Marginalized Communities	
Economically by Experimental Conditions	103
Table 21 Relationship Between perception of whether legalization would Improve Marginaliz	zed
Communities Economically and Exposure to Experimental Treatment Controlling Subgroup	s 106
Table 22 Views of Racial Disparities in the Criminal Justice System and Marijuana Police	
Encounters by Race	114

List of Figures

Figure 1 Legalization Status by States (May 2024)	3
Figure 2 Gallup Cumulative Data of Support for Marijuana Legalization (1969-2023)	4
Figure 3 Bar Graph of Racial Importance by Racial Identity	37
Figure 4 Predicted Probabilities of Marijuana Legalization by Religious Service Attendance	52
Figure 5 Proportional Representation of Support for Federal Recreational Marijuana Legalizat	ion
by Respondent Characteristics	58
Figure 6 Predicted Probability of Support for Federal Recreational Marijuana Legalization by	
Respondents across the Experimental Groups with a 95% CI	85
Figure 7 Predicted Probability of Support for Economic Reparation by Respondents across th	ie
Experimental Groups with a 95% Cl	94
Figure 8 Predicted Probability of Belief that Legalization would help Improve Marginalized	
Communities Economically by Respondents across the Experimental Groups with a 95% CI	102

Chapter 1: Introduction

The recent arguments over repealing federal cannabis prohibition, President Joe Biden's pardon of detainees convicted of simple possession under federal law, coupled with his administration's recent attempt to reschedule cannabis from Schedule I to Schedule III, have re-emphasized the relevance of marijuana legalization and racial (in)justice in the U.S. political landscape.

The drug war, especially with marijuana, has hurt African Americans more than other racial groups (Alexander 2012; Bobo and Thompson 2006). There is widespread consensus in reported government statistics, policy think tanks, and advocacy studies that Blacks are nearly four times more likely than Whites to be jailed for marijuana possession, even though African Americans, non-Hispanic Whites, and Hispanics all use marijuana at about the same rate (Edwards et al. 2020; Provine 2011). Against this backdrop, legalizing marijuana is widely characterized by proponents as an attempt to correct the wrongs of continuing racial unfairness in the American criminal justice system, even though legalization efforts also aim to promote economic growth driven by marijuana consumption.

It is, however, crucial to emphasize that the mechanisms of persisting racial inequalities in marijuana incarceration and other racial injustice-related laws in force now are more covert and implicit than the processes of evident racial prejudices before the Civil Rights Era (Mendelberg 2001). African Americans, on the other hand, directly experience and are intensely aware of these inherent racial prejudices in the criminal justice system. Recent research reveals that racial disparities in arrests persist even in states that have legalized or decriminalized marijuana (Edwards et al. 2020). Despite the legal changes, actions such as possessing large quantities of marijuana, selling it, using it in school zones, or underage use remain illegal. According to the ACLU, in states like Massachusetts, Maine, and Vermont, these racial disparities in marijuana arrests have worsened following legalization (Edwards et al. 2020). For example, in New York, despite the statewide decriminalization of marijuana in 2019, individuals from Black and, to a lesser extent, Latinx communities comprised 95% of all marijuana-related arrests and 96% of all criminal court summonses in New York City (Legal Aid Society 2020).

Opponents of marijuana legalization claim that the rise in arrests is attributable to the continuous repression of black markets that operate outside of the strictly controlled legal market. They fear that

legalization would lead to more widespread drug consumption, culminating in crimes such as DUIs and increased contacts with police, particularly among people of color, wondering if legalization would reduce the cost of law enforcement on African Americans (Davenport 2014; SAM 2023; Tate 2014). Specifically, scholars like Davenport (2014) have argued that because of the structural racism and U.S. law enforcement's coercive operations against African Americans, legalizing marijuana would have little influence on overall levels of coercive government activity against African Americans. He contends that legalizing might bring additional state agencies into touch with Black communities, which may not be beneficial—physically, mentally, politically, economically, or socially.

There is also skepticism among opponents as to whether Black communities can benefit from cannabis industries in states that have legalized marijuana. Even though states that allow recreational marijuana enterprises claim high growth in monthly sales, production, and business services (Doussard 2017), studies have shown that African Americans constitute less than 2% of cannabis business owners (Barcott, Whitney, and Bailey 2021). In response, policy think tanks and advocacy studies have argued that the best way to right the wrongs from the decades-old War on Drugs is to go beyond mere legalization and embark on equity-focused cannabis policies - programs designed to provide opportunities to communities that have been marginalized by previous cannabis laws – such as pardoning of detainees convicted of simple possession, expunging their criminal records, and setting aside dispensary licenses for individuals from communities disproportionately affected by marijuana arrest.

Despite the ensuing debate, marijuana legalization campaigns have succeeded in legalizing marijuana usage, notably medicinal marijuana, in most U.S. states, even though the substance is still illegal at the federal level. As of May 2024, thirty-eight states and the District of Columbia have legalized marijuana under various conditions, although only roughly twenty-four states have authorized recreational marijuana. (see Figure 1 for the different state legalization status. CBD states only not included)



Figure 1. Legalization Status by State (May 2024)

Longitudinal national opinion polls from Gallup and the University of Chicago's General Social Survey (GSS) have shown a steadily growing support for marijuana legalization since the 1960s. In recent years, a significant majority of U.S. citizens have favored legalization. Figure 2 illustrates this rising trend among American voters over time. Specifically, Gallup data highlights a notable increase in support, surpassing the 50% mark in 2013 and subsequently rising by 10% points to 58% following the legalization of recreational marijuana in Colorado and Washington. By 2023, Gallup reported record-high support of 70% for legalization (Saad 2023), indicating a broadly settled opinion among Americans.



Figure 1 Gallup Cumulative Data of Support for Marijuana Legalization (1969-2023)

While legalizing marijuana is widely characterized as an attempt to correct the wrongs of continuing racial unfairness in the criminal justice system, no study has directly evaluated the influence of pro- and antilegalization arguments by elites that are framed explicitly in terms of the effects legalization would have on the African American community. Considering this, the primary objective of this study is to understand how deeply rooted opinions about marijuana legalization are. I do so by examining the extent to which elite racial appeals prime voters' racial predisposition on marijuana legalization policies. Specifically, I investigate the effect of explicit elite racial framing on respondent's policy position on the extent of legalization (recreational use nationwide, medical use nationwide, illegal nationwide, or leave the decision to the states), social equity-focused policies (reparative justice), and beliefs about whether legalization would help improve underrepresented communities. This study is also among the first to assess sources of variation in support of social equity-focused marijuana policies. I further study why some sectors of the population are fiercely opposed to marijuana policies even when exposed to positive information about legalization, thereby investigating whether the American public is willing to change their beliefs towards marijuana policies in the face of countervailing information that confounds stereotypes.

Like any significant social change, the legalization of marijuana has induced quite a large body of public opinion studies. While there have been several investigations of the correlates of public attitudes toward marijuana legalization (Frendreis and Tatalovich 2020; Schnabel and Sevell 2017; Nielson 2010; Caulkins, Kilmer, and Kleiman 2012; Toch and Maguire 2014), my study provides one of the few comprehensive evaluations of the racializing effects of elite communication regarding marijuana. It examines the factors accounting for the variation in opinions toward marijuana policies in America and assesses the durability of these views. By advancing the boundaries of theories on racial framing effects, this research offers valuable insights for legislators and policymakers. It enhances their understanding of the dynamics of political attitudes, thereby informing the strategic development of policy campaigns to target and engage electorates more effectively.

Political Background

While not exhaustive, this section highlights critical eras in the evolution of marijuana legislation. The political trajectory of marijuana legislation in the United States extends back to the 1930s. Before 1936, the public's attention primarily focused on more hazardous drugs like cocaine and opiates, with marijuana being a minor worry in places like New Orleans (Armstrong and Parascandola 1972; Stringer and Maggard 2016). Leading drug specialist Harry Anslinger, the Commissioner of the Federal Bureau of Narcotics, appointed in the year 1930, viewed marijuana as a minor annoyance not worth the resources of his department (Carroll 2004, 65; Stringer and Maggard 2016). He thought that the focus should be on regulating more potent drugs like cocaine and opiates. Prior to January 1936, when the Reorganization Act endangered Anslinger's job and the Federal Bureau of Narcotics' dissolution, marijuana got little attention (Carroll 2004; Stringer and Maggard 2016). At this point, the rhetoric and sentiments towards marijuana began to shift. Despite lacking scientific or medical knowledge, Anslinger started fabricating horror stories linking drug use to violent crime (Carroll 2004). He played a significant role in producing and promoting educational films and articles about marijuana, such as *Assassin of Youth, Marihuana, the*

Weed with Roots in Hell, and *Tell Your Children* (later known as *Reefer Madness*) in 1936 (Boyd 2009). In one article, Anslinger described marijuana as "dangerous as a coiled rattlesnake" and recounted a story of a Florida man who allegedly killed his family with an ax after smoking marijuana (Anslinger and Cooper 1937, 18). This shift in rhetoric led to the first federal marijuana legislation, the Marihuana Tax Act of 1937, which criminalized marijuana (Carroll 2004; Faupel, Horowitz, and Weaver 2010).

The "moral panic" surrounding cannabis intensified during the Nixon administration, which implemented harsher criminal sentencing for street drugs (Nielsen 2010). It was during Nixon's administration that marijuana was listed as a Schedule I drug – in the same category as heroin and cocaine – under the Controlled Substance Act. In his 1968 campaign, Nixon's law-and-order platform was a means of appealing to White voters, especially in the south, by exerting social control over African Americans, culminating in his declaration of the War on Drugs. Policing minor drug offenses became a tool to achieve this end. As White House Chief of Staff H.R. Haldeman noted,

"[President Nixon] emphasized that you have to face the fact that the whole problem is really the Blacks. The key is to devise a system that recognizes this while not appearing to" (Baum 1996, 13). The primary targets of the War on Drugs were encapsulated in the category "the young, the poor, the Black" (Baum 1996, 21), reflecting the administration's underlying racial agenda.

Reagan's War on Drugs represented a significant escalation in severity compared to its predecessor. According to several sources, including Lusane (1991), Weatherspoon (1998), and Provine (2007), the system of mass imprisonment was driven by anxiety and fear around crack arrest, possession, and usage. Despite the intense backlash against crack cocaine's arrival in the mid-1980s, the official war on drugs declared by the Reagan administration in October 1982 was mainly based on marijuana usage and associated arrests (Alexander 2012). Before Reagan took office as president, he asserted that "Marijuana is probably the most dangerous drug in America" during his 1980 presidential campaign (Smith and Merolla 2020). As president, Reagan signed the Anti-Drug Abuse Act and the Comprehensive Crime Control Act of 1984, which introduced mandatory sentencing for drug possession and increased penalties for federal marijuana offenses. His administration also enacted the Military Cooperation with Law Enforcement Act, facilitating collaboration between the military and law enforcement agencies at various levels, granting access to bases, intelligence, research, weaponry, and equipment for drug interdiction

efforts (Alexander 2012). Furthermore, during Reagan's presidency, the Supreme Court upheld a sentence of 40 years for possession and intent to distribute 9 ounces of marijuana (Alexander 2012).

Presidents George Bush and Bill Clinton were staunch advocates of the drug war, overseeing a substantial increase in incarceration rates, with marijuana possession constituting approximately 80% of these cases (Alexander 2012; Taylor, 2014). Both administrations intensified the transfer of military equipment, technology, and training to local law enforcement, contingent upon agencies prioritizing drug enforcement and allocating resources to drug-related arrests (Alexander 2012). The Clinton administration further amended the Anti-Drug Abuse Act to include a "three-strikes" provision mandating life sentences for repeat drug offenders (Sacco 2014).

Since the 1980s, the number of individuals under correctional supervision—prison, probation, or parole has surged from 1.8 million to 7.3 million, according to the Bureau of Justice Statistics (Taylor 2014). Despite comprising only 12% of the U.S. population, Blacks account for nearly half of the prison population (Taylor 2014). In 1997, 9% of the Black population was incarcerated or had been previously, compared to 2% of the White population (Taylor 2014). Many minor marijuana offenders, primarily young adults from minority communities, face lifelong consequences such as criminal records that hinder employment and education opportunities and, in some cases, permanent disenfranchisement from voting.

In contrast to these punitive measures, the push to legalize marijuana gained traction in the late twentieth and early twenty-first centuries. Advocates claimed its medicinal advantages and pointed out that criminalization disproportionately harmed minority communities (Musgrave and Wilcox 2014; Pacula et al. 2002; Tate 2014). California's 1996 Proposition 215 represented a dramatic shift by authorizing medicinal marijuana usage, prompting other states to follow suit (Musgrave and Wilcox 2014). In 2012, Colorado and Washington were pioneers in legalizing recreational marijuana, igniting a national trend toward legalization fueled by shifting public attitudes (Caulkins, Kilmer, and Kleiman 2012). This trend is backed by data demonstrating the high cost of marijuana prohibition to the government, as well as advocacy for the economic benefits of a regulated marijuana market and the importance of social justice in decreasing imprisonment rates for nonviolent drug offenses.

In recent years, support for criminal justice reform has grown significantly at both state and federal levels. Notably, the Marijuana Opportunity Reinvestment and Expungement (MORE) Act and the Cannabis Administration and Opportunity Act bills seek to decriminalize and legalize marijuana at the federal level, expunge certain marijuana-related convictions, and invest in communities disproportionately affected by the War on Drugs. States that have legalized marijuana are also debating how to effectively address the long-standing injustices of the Drug War. Among the twenty-four states that have legalized marijuana, twenty-two have implemented criminal justice reforms such as record relief and resentencing, twenty have set up industry participation assistance programs, and eighteen have adopted or are considering community reinvestment provisions (Hrdinova and Ridgway 2024).

Despite these efforts, several publications emphasize the failure of social justice measures to meet their objectives. Administrative hurdles, insufficient databases, and a lack of resources hinder the implementation of record relief and sealing (Hrdinova and Ridgway 2024; Krane 2023; Lawrence 2023; Zhang, Kapos, and Fertig 2023). Furthermore, social equity programs aimed at assisting communities disproportionately affected by the War on Drugs face challenges such as lengthy delays caused by legal disputes over eligibility criteria, high entry costs, and limited access to traditional financing due to cannabis' federal status (Hrdinova and Ridgway 2024).

The growing movement toward legalization and decriminalization notwithstanding, marijuana remains a contentious issue in American politics. Proponents stress the benefits of regulation and taxation and the social justice implications of eliminating punitive drug laws. They contend that legalization may produce significant income, assure product safety, and alleviate the unequal burden of drug restrictions on minority groups.

Opponents argue that legalization exacerbates the issues that proponents seek to address. They point out that there are disproportionately more marijuana dispensaries than food stores in low-income and historically marginalized neighborhoods (SAM 2023). Despite the predominance of dispensaries in these places, the communities do not reap the economic benefits. Instead, the related consequences, such as increased use and misuse, normalization, and hospitalizations, are disproportionately concentrated in

vulnerable populations. Meanwhile, the profits from these dispensaries often flow out of the communities that face the brunt of their harmful consequences (SAM 2023).

Public View on Marijuana Policies

National opinion polls have shown that support for marijuana legalization has become well-entrenched, with about an overwhelming 88% of U.S. adults in 2024 favoring legalizing marijuana for medical or recreational use (Pew 2024; Saad 2023).

Race and ethnicity have been significant predictors of attitudes toward marijuana legalization, although the results have varied (Caulkins, Coulson, Farber, and Vesely 2012; Chen and Killeya-Jones2006; Lambert, Ventura, Baker, Jenkins 2006; Terry-McElrath, Emery, Szczypka, and Johnston 2011; Thornhill 2011). Some studies indicate that Blacks living in cities with high Black drug arrest rates are more likely to support cannabis law reform (Thornhill 2011). Historically, Blacks have been less likely than Whites to support legalization (Meares 1997). However, recent research shows that Blacks and other non-Whites are generally more supportive due to perceptions of racial bias in the criminal justice system (Bobo and Johnson 2004; Pew 2024; Toch and Maguire 2014). Hispanics and Asians are the least likely ethnic group to support recreational cannabis (Pew 2024). Additionally, racial prejudice negatively affects Whites' support for cannabis legalization despite a significant increase in overall support among Whites in recent years (Smith and Merolla 2020; Pew 2024; Schwadel and Ellison 2017).

Political party identification and political ideology are significant predictors of opinions toward marijuana legalization. Liberals and Democrats are more likely to favor legalization than conservatives and Republicans (Boaz 2011; Caulkins, Coulson, Farber, and Vesely 2012; Danigelis, Hardy, and Cutler 2007; Newport 2011; Pew 2024; Rarey 2002). However, Galston and Dionne (2013) point out significant ambivalence toward legalization, particularly among conservatives. This ambivalence, they argue, may stem more from their views on states' rights and skepticism about the effectiveness of government regulation than from a genuine shift in attitudes towards marijuana itself.

Religion has a significant impact on opinions about marijuana legalization. Protestant affiliation is frequently related to anti-legalization beliefs, whereas individuals with no religious affiliation tend to prefer

legalization (Caulkins, Coulson, Farber, and Vesely 2012; Hodge, Cardenas, and Montoya 2001; Merrill, Folsom, and Christopherson 2005; Nielsen 2010), indicating that organized religion can be a barrier to intergenerational value transitions (Inglehart 1997; Frendries and Tatalovich 2020). Furthermore, research has found that increasing religious service attendance predicts unfavorable sentiments about legalization more than religious membership alone (Frendries and Tatalovich 2020; Krystosek 2016; Smith and Merolla 2020).

Previously, attitudes toward marijuana legalization seemed to reflect a generational divide, but subsequent analyses reveal a mix of period and cohort effects. Nielsen (2010) found that hostility towards legalization peaked during the Reagan-Bush era, compared to the Ford-Carter and Clinton-G.W. Bush-Obama administrations. Cohort analysis shows that support for legalization has increased significantly among generations after the Baby Boom, with only those over age 65 still largely opposed (Caulkins, Coulson, Farber, and Vesely 2012; Galston and Dionne 2013; Kandel 2001; Pew 2024).

Myriad studies have highlighted gender differences in both marijuana use and attitudes toward legalization. Women tend to exhibit lower rates of marijuana use and are less supportive of legalization compared to men (Agrawal and Lynskey 2007; Galston and Dionne 2013; Kerr et al. 2007; Nielsen 2010). Additionally, educational attainment plays a significant role, with individuals having higher levels of education more likely to support marijuana legalization (Galston and Dionne 2013; Goode 1970; Nielsen 2010). Marriage and parenthood have emerged as negative predictors of attitudes toward marijuana legalization (Caulkins, Coulson, Farber, and Vesely 2012; Cubbins and Klepinger 2007; Yamaguchi and Kandel 1985). Moreover, individuals who have had interactions with the criminal justice system are more likely to support reforming cannabis laws (Collingwood, O'Brien, and Dreier 2018).

Study's Contributions

While prior research has illustrated that support for marijuana legalization has become well-entrenched in recent times due to several factors, including the widespread characterization of marijuana legalization as a measure to address ongoing racial inequities in the criminal justice system, there has been no direct study evaluating the influence of explicit elite pro- and anti-legalization arguments expressly framed

around their impact on the African American community This dissertation seeks to fill this critical gap by examining how these targeted arguments may shift public opinion and policy support. Again, little is known about attitudes toward social equity-focused marijuana policies, one of the gaps this study seeks to fill. Allen et al. (2023) surveyed New Jersey electorates, revealing that many participants were unfamiliar with the concept of equity in cannabis policy. Furthermore, many respondents provided "neutral" or "don't know" answers about their support for specific social equity-focused policies. This highlights the need for greater public awareness and understanding of these initiatives and more comprehensive research to inform policymakers on public opinion regarding social equity in marijuana legislation.

Dissertation Outline

This manuscript consists of several chapters. Chapter 1 provides an introduction and overview of the study. Chapter 2 draws from theories relevant to the study's inquiries, deriving testable hypotheses that guide subsequent investigations. Chapter 3 presents the study's methodology, including the data sources, specific measures utilized, and the analytical strategies applied to interpret the findings. Chapter 4 presents and discusses results from secondary analysis of national opinion polls, offering insights into prevailing attitudes towards cannabis policies. Chapter 5 shifts focus to a survey-embedded experiment designed further to explore nuanced aspects of public opinion regarding marijuana policies. This experimental approach enriches the study's empirical foundation by providing insight into how varying explicit elite racial frames and arguments affect attitudes and policy preferences. The concluding chapter, Chapter 6, synthesizes the findings from the preceding chapters, offering a comprehensive conclusion that underscores the implications of the research outcomes. It also critically assesses the study's limitations and proposes avenues for future research to expand and refine our understanding of public opinion dynamics surrounding marijuana legalization in contemporary American society.

Chapter 2: Theory and Hypotheses

Elite Communication

Elite communication is arguably the primary factor in shaping public opinion (Zaller 1992). Because the public generally lacks the information necessary to make sound political judgments (Converse 1964), elite framing—the deliberate selection of certain words, phrases, or other content— is important and serves as a cognitive shortcut for electorates (Zaller 1992; Kinder 2006). Citizens often face numerous conflicting considerations on any given issue, leading to confusion and ambivalence (Chong 1993; Hochschild 1981). Elite frames help resolve this ambiguity by directing attention to the most relevant and important considerations. Framing cues not only serve as cognitive shortcuts but also have the potential to either instill greater panic or boost confidence in the public (Calfano, Djupe, Cox, and Jones 2016).

The extensive body of literature concerning framing and priming has consistently demonstrated that heightened attention directed towards specific issues within public discourse, whether facilitated by media exposure or political campaigning, amplifies the probability of the general populace relying on factors associated with those issues when formulating political assessments (lyengar and Kinder 2010; Krosnick and Brannon 1993; Tesler and Sears 2010).

Group-Centrism Framework

Scholars that draw from the group-centric theoretical framework have uncovered that when elites frame policies to emphasize who benefits, group-centered thinking tends to rise, but focusing attention elsewhere reduces the group-centric inclination (Gilens 1996; Nelson and Kinder 1996; Soss, Langbein, Metelko 2003; Winters 2006). Many policies in America are intentionally designed with specific groups in mind, leading to debates that often focus on these targeted groups (Glazer and Moynihan 1975; Weir, Orloff, and Skocpol 1988). From a psychological perspective, group-centrism is a convenient heuristic, simplifying complex policy issues into a straightforward evaluative standard (Nisbett and Ross 1980; Popkin 1991; Sniderman, Brody, and Tetlock 1991). American public opinion often reflects this approach, where support or opposition to policies like crime (Hurwitz and Peffley 2005; Soss et al. 2003), affirmative action (Kinder and Sanders 1990; Kluegel and Smith 1983), the death penalty (Peffley and Hurwitz 2007), welfare (Nelson and Kinder 1996; Winter 2008), and reparative programs (Reichelmann, Roos, and

Hughes 2022) are influenced by sentiments towards specific groups. Nelson and Kinder (1996), however, have argued that even though group-centrism opinion seems to be the natural mode of political thinking, it doesn't make it an immutable or inevitable heuristic and that group-centrism will only play a significant role in "public thinking about policy issues when the *linkages* between groups and policies are made more explicit through deliberate framing of the issue" (Nelson and Kinder 1996, 1057). While group-centric framing may not effectively prime all issue attitudes due to variations in their formation and salience (Lenz 2012; Nelson and Kinder 1996; Tesler 2015), empirical research consistently demonstrates that attitudes pertaining to race and racial groups, particularly those established early in life and deeply ingrained with emotional significance, are more prone to priming effects (Banks and Valentino 2012; Henry and Sears 2009). Consequently, these attitudes are more likely to influence subsequent evaluations and behavior (Krosnick and Petty 2014).

Explicit-Implicit Model

One aspect of the scholarly discourse surrounding elite racial appeals centers on whether these appeals must be implicit or explicit to effectively influence racial attitudes. Scholars such as Tali Mendelberg (2001) contend that in contemporary society, individuals, due to the norm of equality, are motivated not only to avoid public perceptions of racism but also to resist viewing themselves as racist. Proponents of the implicit racial appeals hypothesis have argued and provided evidence that for elite racial appeals to be effective, they must be communicated through subtle visuals like the "American flag" or "Willie Horton" and coded language, such as phrases like "get tough on crime" or "inner city," while avoiding explicit racial language that endorses "White prerogatives," expresses "anti-Black sentiments," or perpetuates racial stereotypes (Hurwitz and Peffley 2005; Mendelberg 2001; Nteta, Lisi, and Tarsi 2016; Tokeshi and Mendelberg 2015; Valentino, Hutchings, and White 2002; White 2007; Winter 2008). Mendelberg (2001), for example, theorizes that implicit racial cues circumvent the norm of equality by enabling recipients to process racial content subconsciously. In other words, implicit racial cues may bypass the conscious scrutiny or resistance individuals might apply if the racial content were presented explicitly.

While extant literature has demonstrated robust support for the implicit over explicit racial appeal hypothesis, some findings have suggested a more nuanced impact of elite racial rhetoric. Huber and

Lapinski (2006) conducted a study revealing no significant differences in racialized policy support or the activation of racial prejudice across implicit, explicit, and nonracial appeals. This study challenges previous assumptions about the differential effects of implicit versus explicit racial appeals and raises doubts about the universality of priming effects resulting from implicit racial appeals. Valentino and colleagues (2018) presented compelling evidence indicating that racial attitudes strongly and comparably predict opinions on various political matters regardless of whether race was evoked implicitly, explicitly, or nonracial. These findings suggest that the influence of racial attitudes on political opinions may transcend the mode of racial messaging used.

Contrasting with these patterns, the effectiveness of Donald Trump's 2016 presidential campaign strategy was characterized by explicit messaging targeting specific racial, ethnic, and religious minorities in a brazen and, at times, perceived as racist manner (Valentino, Newburg, and Neuner 2019). Trump overtly labeled Mexican migrants as "murderers," "rapists," and "bad people," suggested that African immigrants should return to their "shithole countries," and denigrated the majority-Black city of Baltimore as a "disgusting, rat and rodent-infested mess." Many Americans either cheered or tolerated these racial hostilities because Trump's explicit racial appeals were linked to propaganda asserting that "[immigrants] are taking our jobs. They're taking our manufacturing jobs. They're taking our money. They're killing us." This message was central to his "Make America Great Again" campaign, underscoring the strategic deployment of explicit racial appeals within political communication despite evolving perspectives on the differential impact of implicit versus explicit racial rhetoric. Strategic frames transcend mere positions or arguments on an issue. Whether articulated implicitly or explicitly, strategic frames involve carefully constructed representations of an issue that imbue it with emotional weight and memorability (Gamson 1992; Gamson and Lasch 1983; Gamson and Modigliani 1987). These frames articulate the core of the problem, suggest how the public should perceive it, and may even propose actions to address it (Entman 1993; Gamson and Modigliani 1987).

Framing is also an endemic part of political discourse. Framing not only describes but also serves as a directive (Nelson and Kinder 1996; Zaller 1992). Once frames saturate public political discussions, they shape how ordinary citizens cognitively structure and understand pressing social policy problems.

Because elites believe that establishing their frame as the predominant one on a given policy problem represents electoral success and thus constitutes 'winning' a debate in the public sphere, they engage in the proverbial 'War of frames' to shape the issues (Manheim 1991; Skocpol 1994).

Racial Identity Theories

The concept of race, a social construct, has broader implications for almost every aspect of our lives. Society continuously categorizes individuals into different racial groups, which has dire consequences, particularly regarding societal status, wealth, and political power (Jardina 2019; Shapiro 2004). As is well established in the literature, these racial divisions in America have been arguably the primary source of intergroup conflict, as Blacks and other minorities have struggled to achieve equality. At the same time, Whites have worked to maintain their power and position at the top of the racial hierarchy through either overt or covert machinations.

Unsurprisingly, there is still a clear racial hierarchy in today's America, with Whites at the very top and Blacks at the very bottom, with other racial and ethnic groups occupying the middle ground, and this is true even though Black people and other minorities have come a long way toward achieving greater equality in this country (Bobo 2004; Dawson 2001; Kim 2000). Scholars like Bobo (2004), Jardina (2019), and Masuoka and Junn (2013), among others, have argued this hierarchy continues to shape race relations in the United States and fundamentally structures the way Americans understand their group, their identification with that group, and their group relation to others.

Social identity theory (SIT) has been foundational for studying racial and ethnic identity and has helped understand the substance of intergroup politics (McClain et al. 2009). SIT perspectives posit that people want to improve their sense of self-worth by promoting the interests of their in-group through out-group evaluations (Tajfel and Turner 1986; Barker 1988; Walters 1988).

Black Racial Identity

Early studies on racial identity predominantly focused on racialized minority groups (Phinney 1990; Rowley, Sellers, Chavous, and Smith 1998; Sellers et al. 1998), illustrating how individuals from these

groups maintain positive self-evaluations despite experiencing cultural racism and racial discrimination (Tajfel and Turner 1986; Williams and Mohammed 2009). Specifically, scholars of racial minority group identity have argued that the long history of discrimination and persecution in the United States has led to the development of a robust racial identity among racial minorities, particularly Blacks (Williams and Mohammed 2005).

Racial identification is a significant factor in Black political involvement and participation (Chong and Rogers 2005; Dawson 1994; Miller, Gurin, Gurin, and Malanchuk 1981; Shingles 1981; Tate 1994). Black racial identity also motivates support for more redistributing governmental measures such as affirmative action and welfare policies (Dawson 1994). This line of thought has been expanded recently to explain political assessments and participation among Asian Americans and Latinos (Junn and Masuoka 2008; Sanchez 2006; Stokes-Brown 2012; Zepeda-Millán and Wallace 2013).

White Racial Identity

Previous work that attempted to study White racial identity focused on symbolic predispositions, such as racial resentment and symbolic racism, that White individuals acquire early in life and serve as powerful and enduring influences on political attitudes in adulthood (Kinder and Sanders 1996; Kinder and Sears 1981; McConahay and Hough 1976; Sear and Kinder 1985). Succinctly stated, these works have "compared the effects of White identity to the effects of White racial animus on racialized policy preferences" (Jardina 2019, 29), finding little to no effects when it comes to White group interests or White in-group attitude (Citrin and Sears 2014; Sears and Savalei 2006). Further works along this train of thought have argued that unlike the overt racial attitudes towards Blacks before the civil rights movement era, which were defined by beliefs that Blacks are biologically and innately inferior, today's White prejudice towards Blacks is characterized by anti-Black affect coupled with the belief that Blacks do not subscribe to traditional American values such as hard work and patriotism (Kinder and Winter 2001; Sear and Kinder 1985; Sears and Henry 2005).

Recent scholarship has argued that these prior works found little to no evidence of Whites' attachment to their racial in-group in predicting political behavior in part because of data limitations and flawed

measures of White racial identity (Abdelal, Herrera, Johnston, and McDermott 2006; Jardina 2019). As Ashley Jardina (2019) pointed out, most national opinion polls made available to the public, such as the ANES, did not include a direct measure of White racial identification before 2012. For instance, Wong and Cho (2005), in their extensive examination of White identity, depended on a proximal item, a group closeness measure, that was included in ANES Time Series data conducted between 1992 and 2000. Concerns about the closeness item not fully capturing a sense of group attachment—instead, it probably measures sentiments of sympathy or social distance—have been brought up by current studies. Therefore, depending solely on these objects could prevent academics from fully exploring the political influence of White identity (Citrin, Wong, and Duff 2001; Jardina 2019; Junn and Masuoka 2008).

While racial resentment and racial animus are significant components of White public opinion, recent scholarship has opined that symbolic racism theory falls short of a thorough explanation of White racial attitudes when it comes to contemporary race relations in the United States with its rapidly growing racial and ethnic diversity. Jardina (2019), for instance, believes that while racial resentment is very much situated in the socio-political development of modern race relations between Blacks and Whites, it is not intended to account for Whites' attitudes towards other minorities.

More recent research has expanded to examine White racial identity, revealing its connection to opposition to specific policies (Croll 2007; Hartmann, Gerteis, and Croll 2009; Hunt and Reichelmann 2019; Jardina 2019). This body of work often highlights a defensive response where White racial identity is linked to views that uphold the existing racial hierarchy, particularly under circumstances involving perceived threats to status or resources. More specifically, these works on White racial identity suggest that individuals who have a strong attachment to their racial group, who identify most deeply with it, and who are aware of their group's privileges are the ones most interested in preserving the racial hierarchy and are most reactive to perceived threats to the status of White dominance (Hunt and Reichelmann 2019; Jardina 2019; Wong and Cho 2005; Wittrup et al. 2019). Accordingly, it is expected that strong White identifiers are most reactive to threats to their group, and this threat fosters White identifiers' predisposition to view the world through the lens of their group identity and to be more attuned to the interests of their in-group.

Integrating Elite Racial Framing and Racial Identity Theories

This dissertation draws extensively from the aforementioned theoretical assumptions to develop testable hypotheses. Primarily, I develop theoretical hypotheses that would guide the test of whether elite racial frames – framed explicitly within the context of how marijuana legalization would either positively or negatively impact the African American community – can persuade individuals and shift opinions on marijuana policies.

Research indicates that the American public may be open to changing their views on criminal justice policy issues, with new information capable of influencing opinions (Bobo and Thompson 2006). For example, studies on crime demonstrate that support for harsher policies decreases when respondents are informed about the criminal or the circumstances of the crime (Applegate, Cullen, Turner, and Sundt 1996; Cullen, Fisher, and Applegate 2000; Zamble and Kalm 1990). This malleability of opinion is primarily attributed to the public's limited knowledge of the subject (Delli Carpini and Keeter 1997) and numerous conflicting considerations, leading to confusion and ambivalence (Chong 1993; Hochschild 1981).

While there appears to be robust and entrenched support for marijuana legalization in recent times, as portrayed by media narratives and opinion polls, I contend that conflicting considerations about marijuana persist among the public, resulting in voter confusion. Although a significant majority of Americans (88%) support either medical or recreational marijuana, only 17% report having used marijuana, and 75% express concerns about its effects on teenagers (McCarthy 2023). Moreover, there are competing debates among medical and political elites. On one side, marijuana has been medically validated for treating seizures (Friedman and Devinsky 2015), nausea (Birdsall, Birdsall, and Tims 2016), spasticity (Kramer 2015), and chronic pain (Hills 2015; Mücke et al. 2018; Rhyne, Anderson, Gedde, and Borgelt 2016). On the other hand, studies have linked marijuana use to mental health issues such as hallucinations, paranoia, and disorganized thinking (Crane, Langenecker, and Mermelstein 2015; Stapinski, Montgomery, and Araya 2016), developmental problems during and after pregnancy (Goldschmidt, Day, and Richardson 2000; Richardson et al. 2002; Young-Wolff et al. 2017), and nausea and vomiting (Smith, Walsh, and Forest 2019).

Political elites also engage in contentious debates regarding the legalization of recreational marijuana. Proponents argue that legalization aims to correct racial biases within the criminal justice system, while opponents claim it perpetuates racial inequality.

Given the public's limited knowledge and exposure to conflicting considerations on marijuana, I hypothesize that exposure to pro- or anti-marijuana legalization appeals by elites, explicitly framed in terms of their impact on the African American community, will increase the likelihood of the general populace relying on these frames when forming opinions on marijuana, all else equal (Hypothesis 1). I expect those exposed to the pro-legalization argument to be more likely to support recreational legalization, support social equity-focused marijuana policies, and believe legalization would help improve underrepresented communities. Inversely, I expect Blacks to increasingly respond to elite racial anti-legalization cues.

Based on the group-centrism theoretical framework and minority racial identity theories, I also expect Blacks to be more responsive than other races to elite racial appeals that highlight how legalization would impact African American communities, all else equal (Hypothesis 2). More specifically, I expect Blacks to show greater responsiveness to elite racial pro-legalization appeal that highlights legalization as a way to bring about criminal justice reform, given that studies have shown that Blacks are more skeptical of the equal application of the law by the criminal justice system (Bobo and Thomson 2004; Bobo and Thomson 2006; Hurwitz and Peffley 2001).

It is also plausible for Blacks to respond significantly in the affirmative to anti-legalization arguments that make salient the perpetuation of systemic economic racial inequality and the negative health effect that legalization would have on young African Americans. Economic inequality in the United States, which may be traced to the system's racial construction, allows the few wealthy Whites to exploit their position at the expense of the country's many poorer people of color (Brodkin 2004). In an industrialized, regulated, legalized marijuana market, only the wealthiest could afford the high costs of cultivation and production. Consequently, the wealthy elite will use their power in a democracy and a capitalist economy to gain more from marijuana industrialization (Beeghley, 2000). They will then do whatever it takes to keep those resources and stay in power (Mar 2000) at the expense of the collective minority group that has suffered

from the unfairness of marijuana criminalization. Considering these theoretical assumptions, I would anticipate that Blacks exposed to elite racial anti-legalization cues would be more likely to oppose recreational legalization and, by extension, be skeptical about legalization benefiting Black neighborhoods economically.

Most individuals today desire to avoid not just public impressions of racism but also thinking of themselves as racist (Mendelberg 2001). To appear racist is no longer acceptable in modern democracies, either among elites or electorates (Schuman, Steeh, Bobo, and Krysan 1997; van Dijk 1991). In a series of experiments, Gaertner and Dovidio (1986) discovered that Whites only discriminate against Black persons when the discrimination appears to be nonracial and treat Blacks and Whites the same when the bias seems to be clearly racial. Following the norm of equality in democracies, I anticipate Whites to condemn government acts when exposed to elite information emphasizing racial injustice and unfairness meted out to a collective group by governments through legislation, all this being equal (Hypothesis 3).

Egalitarian norms notwithstanding, most public opinion polls regarding reparation programs – programs or initiatives aimed to repair harm caused to a group by a collective - indicate that the debate lies along racial lines, with White Americans opposing them and Black Americans supporting them (Moore 2014; Langer 2020; UMASS Amherst 2021). However, the number of White people engaged in racial justice protests such as Black Lives Matter after George Floyd's murder suggests that mere race categorization is not the only predictor of who supports acknowledgment and repair of past racial harms such as the disproportionate marijuana incarceration of Blacks by the criminal justice system.

Drawing from the racial identity theories, one can deduce that strong attachment to one's race in the form of racial importance serves different functions for White people than it does for Black people, yet in both cases, these functions center on the beliefs of deservingness. Black racial importance, on the one hand, affirms their past experiences of racialized violence and validates a sustained push for equality and recognition. Based on this assertion, I would expect Blacks to support social equity-focused marijuana policies regardless of information exposed by elites (Hypothesis 4).

On the other hand, racial importance among Whites is also an important dimension of racial identity, which is grounded in the preservation of status (Jardina 2019). In this study, I consider racial importance as a mechanism that allows White Americans to disconnect from the generational harms caused by structural racism in the criminal justice system. The issue for Whites who consider their racial identity very important to them is whether a program of reparations such as prioritizing Blacks in the marijuana industry - in the form of providing by providing technical and financial support or by setting aside a certain number or type of licenses and investment taxes from the industry into disproportionately affected communities - is fair to their relative position. I, therefore, hypothesize that exposure to racialized pro-legalization sentiments highlighting African Americans as the benefactors of legalization may provoke a counterintuitive response among Whites who consider their racial identity important to themselves (Hypothesis 5). This is, in part, a product of how Whites, who consider their racial identity important to themselves, view their own racial in-group rather than solely their perceptions of out-groups.

White racial importance is distinct from racial resentment, which stems from anti-Black affect combined with the belief that Black individuals do not adhere to traditional American values such as hard work and patriotism. Research indicates that racial resentment is deeply rooted in stable, underlying social-psychological predispositions formed early in life (Barkan and Cohn 1994; Bobo and Johnson 2006; Cohn, Barkan, and Halterman 1991; Ellsworth and Gross 1994). Given these entrenched attitudes, it is plausible that individuals with high levels of racial resentment will exhibit resilient views toward racialized policies, such as the legalization of recreational marijuana and social equity-focused marijuana policies. Therefore, I hypothesize that individuals with high racial resentment will maintain rigid opposition to these policies, unaffected by external influences or new information (Hypothesis 6).

Cultural Theory of Preference Formation

Despite the power of elite communication and strong racial attachments to in-groups, public reaction to political messages may continue to be divisive along the lines of cultural institutions such as political parties and religious groups (Wildavsky 1987; Zaller 1992). According to cultural theory frameworks, institutions give people a sense of self, shape their choices, and set limits on social interactions (Leege 2001; Wildavsky 1987). Once the beliefs and cultural boundaries of polarizing institutions are set,

members are compelled to process information in a way that supports those beliefs and attitudes, making it almost impossible for even elites in their in-group to change them. These boundaries are strengthened by the link between threat perception, political conservatism (Jost, Pelham, Sheldon, and Sullivan., 2003), and the desire to handle uncertainty or ambiguity (Bonanno and Jost 2006; Nail and McGregor 2009). As applied here, negative opinions about marijuana should be difficult to counter among self-selected affiliates of religious institutions, particularly evangelical churches and the Republican party (Newman and Smith 2007; Prior 2007).

I expect religious ties, especially with Evangelical Christian churches, to be essential for many reasons. Most religious doctrines in the U.S. expose adherents to specific moral directives, leading them to internalize specific religious messages that discourage substance abuse and use (Adamczyk and Palmer 2008; Bartkowski and Xu 2007; Ford and Hill 2012; Longest and Vaisey 2008). Specifically, Evangelical Protestants advocate for stringent prohibitions on various "sins" in contrast to liberal religious traditions. Evangelical doctrines opine that people who partake in these behaviors are sinners who can be saved via abstinence and penitence (Cochran and Beeghley 1991). Religious institutions, especially evangelicals, hold to the view that human actions are immoral if they are against God's will in Scripture (Holinger and Gushee 2000). Since marijuana and alcohol have similar psychoactive effects on the human brain and the functioning of the body, evangelicals who restrict the use of alcohol-based on scriptural views would also forbid the use of marijuana. I therefore expect evangelical protestants to have a more fixed and inflexible negative opinion of legalization (Hypothesis 7).

Socialization perspectives suggest that the more time individuals spend in religious institutions, the more these doctrines and teachings shape their socio-political attitudes and behaviors (Putnam 1995). Angela McCarthy and colleagues (2011) argue that significant differences exist between one's religious affiliation and the manner and intensity with which one practices religion. Membership in a religious group or community varies considerably regarding worship service attendance, adherence to doctrinal teachings, and the extent to which religion influences political and social views (McCarthy, Davis, Garand, and Olson 2011). For instance, as highlighted by McCarthy et al. (2011), Catholics who regularly attend Mass develop different views and attitudes than those less observant. Scholars such as Green (2007) and

Layman (2001) have noted that religiosity has fostered new political alliances within and across religious traditions, exemplified by the New Christian Right Movement (Green 2007).

Research consistently associates increased religious service attendance with lower rates of recreational marijuana use and opposition to its legalization (Bartkowski and Xu 2007; Frendries and Tatalovich 2020; Hill, Burdette, Weiss, and Chitwood 2009; Krystosek 2016; Longest and Vaisey 2008; Smith and Merolla 2020). Consequently, I hypothesize that individuals who spend more time in religious institutions are more likely to deeply internalize religious doctrines and teachings on abstaining from drug abuse, leading them to hold resilient views against marijuana legalization (Hypothesis 8).

The two major political parties in the United States have become increasingly polarized along religious lines. There has been a noticeable shift in political affiliation among Christians, with conservatives tending to favor the Republican Party and liberals or secularists leaning towards the Democratic Party (Brooks and Manza 2004; Layman 2001). This polarization has contributed to a rise in affective polarization, leading individuals identifying as Democrats and Republicans to view opposing partisans more negatively, with partisan affect influencing both political and nonpolitical judgments (Iyengar and Westwood 2014; Abramowitz and Webster 2018).

This ideological division is rooted in stable individual differences in psychological needs, motives, and orientations toward the world (Carney, Jost, Gosling, Potter 2008). Studies have consistently shown that individuals who identify as liberal tend to express greater support for marijuana legalization than those who identify as conservative (Caulkins, Kilmer, and Kleiman 2012). Given that liberals and conservatives generally align with the Democratic and Republican parties, respectively, it is expected that Democrats will show greater support for marijuana legalization. At the same time, Republicans will exhibit greater opposition, irrespective of information exposure.

Further research indicates that conservatives and Republicans hold more punitive views on criminal justice matters, which are deeply rooted in stable underlying social psychological predispositions. As such, I hypothesize that Republicans will maintain a consistently negative opinion about marijuana legalization regardless of exposure to elite information (Hypothesis 9).

Hypotheses

These theoretical arguments and the readings of the literature lead to the following summarized hypotheses:

H₁: Explicit elite racial appeals – both in favor and in opposition–will significantly influence voters' opinions regarding marijuana legalization policies, all else being equal.

H₂: African Americans are more responsive to pro- or anti-marijuana legalization appeals by elites when framed in terms of their impact on the African American community, all else being equal.

H₃: White individuals exposed to explicit elite pro-legalization appeals - that highlights the negative effect that marijuana prohibition laws have on people of color - are more likely to support marijuana legalization policies, all else being equal.

H₄: African Americans are more likely to support social equity-focused marijuana policies regardless of elite racial information exposure.

H₅: White individuals who consider their racial identity important are more likely to oppose social equityfocused marijuana policies when exposed to elite racial information highlighting African Americans as beneficiaries of the legalized marijuana industry.

H₆: Individuals with high levels of racial resentment are more likely to oppose marijuana legalization policies regardless of elite racial information exposure.

H₇**:** Evangelical Protestants are more likely to oppose marijuana legalization regardless of elite racial information exposure.

H₈: Individuals who frequently attend religious services are more likely to oppose marijuana legalization regardless of elite racial information exposure.

H₉: Republican affiliates are more likely to oppose marijuana legalization regardless of elite racial information exposure

The next chapter describes the methodology, including the data sources, specific measures utilized, and the analytical strategies applied to interpret the findings.

Chapter 3: Data and Methodology

To address these research inquiries, I employ a rigorous two-step methodological approach. I first analyze public support for marijuana policies by utilizing nationally representative surveys from PEW and Ipsos. These surveys provide a broad and statistically valid understanding of the attitudes across different demographics. These data identify patterns and key factors influencing public opinion on marijuana legislation.

Subsequently, I incorporate a novel survey-embedded experimental design to assess the impact of elite racial communication on voters' perspectives. This experimental component is designed to explore how messages from influential figures or groups framed around racial issues can shape and potentially alter voters' views on marijuana policies. Furthermore, the experiment evaluates the extent voters are willing to reconsider their established beliefs when presented with countervailing information that challenges predominant views.

This comprehensive methodology allows for a detailed examination of current public opinion and provides insights into the dynamics of opinion formation, particularly in the context of racially charged political communication.

Observational Data

Pew Data

The observational research is based on data from three different publicly available social and political national opinion data conducted by Pew Research Center (PEW) in 2021 and Ipsos in 2021 and 2022. The 2021 Pew Wave 87 data is drawn from the American Trends Panel (ATP), conducted from April 5 to April 11, 2021, and includes 5,109 adult respondents with oversamples of Asian, Black, and Hispanic Americans. The Pew Research Center created the ATP, a nationally representative panel of randomly selected noninstitutionalized adults living in the U.S., including Alaska and Hawaii. Panelists in the ATP engage in self-administered web surveys, and those without home internet access are provided with a tablet and wireless connection. The panel comprises more than 10,000 adults and features an annual recruitment for new panelists nationwide to address attrition. ATP data undergoes a multi-step weighting process to address sampling and nonresponse issues. Initially, each panelist receives a base weight

based on their selection probability for the recruitment survey. These weights are adjusted for nonresponse and panel attrition to align with population benchmarks, creating a full-panel weight. A wavespecific base weight is developed for the raw 2021 Pew Wave 87 poll by adjusting the full-panel weights according to its selection probabilities. The final step involves calibrating these weights to match demographic and non-demographic population benchmarks. These weights are then trimmed to minimize precision loss. The final 2021 Pew Wave 87 dataset has a +/- 2.1 percentage points margin of sampling error.

The Pew Research Center is a nonpartisan fact tank that reports on U.S. political and social attitudes and behaviors. The Pew 2021 Wave 87 poll asks participants about a range of policy issues, which include but are not limited to marijuana legalization, abortion, and the death penalty. It also asks respondents about their views regarding political elites and institutions. In addition, respondents are asked about their demographic characteristics, such as age, sex, religion, political affiliation, region, and income, among others. Post-paid incentives were presented to all participants. Incentives varied from \$5 to \$20, based on easy or difficult access to respondents. Different incentive amounts were created to boost participation among typically low-respondent categories. The Pew survey was conducted in English and Spanish.

Ipsos Data

Similarly, the Ipsos polls are conducted using the KnowledgePanel® (KP), a large online address-based probability panel representative of the adult U.S. population. The KP panel comprises about 55,000 adults and incorporates the annual recruitment of new members nationwide to counteract attrition. The 2021 Ipsos survey, conducted from April 16 to April 18, has a total of 1,017 noninstitutionalized nationally representative adults aged 18 and over. The 2022 Ipsos poll, on the other hand, was conducted from April 1 to April 4 and constitutes a probability sample of 1,021 adults aged 18 or older. Like the Pew survey, Ipsos adjusts the raw datasets to meet national benchmarks, using rigorous and iterative weighting techniques. The weighted Ipsos polls have a margin of error of +/- 3.3 percentage points for the full sample. Ipsos is an independent market research firm managed by research professionals. The organization's researchers evaluate market potential and analyze market trends. They also measure public opinion globally. The 2021 and 2022 surveys ask extensive cannabis-related policy questions in the

U.S., which are very relevant to the current study. The Ipsos polls were also conducted in English and Spanish.

Experimental Data

The survey-embedded experiment data was collected via the online Qualtrics survey software using an opt-in sample design. Recruitment occurred through the Lucid Theorem platform between May 30 and June 8, 2023. Lucid Theorem is a survey vendor that provides online quota samples typically consisting of a diverse and representative group of respondents from various demographic and geographic backgrounds. Even though survey samples from Lucid are non-probabilistic, studies show that demographic and experimental findings on Lucid match U.S. Census Bureau benchmarks better than other convenience samples like MTurk, making it appropriate for social science research (Coppock and McClellan 2019). Recruitment was restricted to respondents who were U.S.-based, and the initial total number of participants was 3,597.

Participants were randomly assigned to read one of two versions of a short excerpt in which a witness before a congressional committee offers either pro-legalization or anti-legalization arguments or to a control condition in which they read an unrelated paragraph about electric vehicles. The positive condition draws from Sen. Chuck Schumer's (D-NY) statement in a press conference that introduced the Cannabis Administration and Opportunity Act – a bill that seeks to end federal prohibition of marijuana. On the other hand, the negative sentiment is an excerpt from a statement by Abu Edwards, the National Director of Smart Approaches to Marijuana (SAM) – a non-profit organization that opposes the legalization of marijuana – during a campaign against marijuana legalization in Illinois. The treatment conditions are displayed in Table 1 with highlighted areas showing the differences.

After consenting to the survey, participants were required to complete a 10-minute survey approved by the University of Cincinnati's Institutional Review Board. For survey quality control, the study included attention checks (Berinsky, Margolis, and Sances 2014; Hauser and Schwarz 2015) after participants were exposed to the treatments. The attention checks were easy comprehension questions about the treatments to capture whether respondents were reading and cognitively processing the treatment conditions. The attention checks were programmed to end the survey for inattentive respondents automatically. A data quality check was performed on the raw data to ensure high-quality data.
Respondents who used less than 2 minutes – an unreasonable period – to complete the survey, which required approximately 10 minutes, were removed from the data in addition to the inattentive respondents. Respondents showing clear patterns of satisficing and those with very high rates of leaving questions blank were also removed. One limitation of the experimental dataset is that a technical glitch didn't allow the attention check programming to work for the control condition, resulting in more respondents in the control conditions than the treatment groups. However, I conducted a randomization test to show that the randomization worked regardless of the technical glitch. The randomization test is elaborated on in the results section.

The final working data after the quality checks consists of 2520 participants. After exposure to treatment, participants were asked about their views regarding marijuana policies. Specifically, respondents were asked about their policy position on the extent of legalization (recreational use nationwide, medical use nationwide, illegal nationwide, or leave the decision to the states), beliefs about whether legalization would bring about criminal justice system reforms, views about the likely economic impact of legalization on Black and poor neighborhoods, and opinions about a proposal to create a more equitable marijuana industry by setting aside dispensary licenses for individuals from underrepresented groups. Demographic information about participants was collected and respondents were asked other relevant questions such as whether they have had encounters with the police related to marijuana use.

Positive Condition	Negative Condition
Legalizing marijuana will have a positive impact on	Legalizing marijuana will have a negative impact on
the African American community Removing	the African American community Removing
connabic from the federal list of controlled	cannabic from the federal list of controlled
substances will put an end to the unfair targeting of	substances will put more drugs on the streets in
communities of color.	communities of color.
Due to the criminalization of marijuana, many young African Americans have unnecessarily severe criminal records that will make it tougher to find jobs, get credit, and live a normal life. Putting people in prison for using marijuana is a waste of financial and human resources. This is not the future we want for our community.	Due to the legalization of marijuana, many young African Americans have been involved in deadly accidents, injured, or arrested by the police due to driving while under the influence of marijuana. Legalizing marijuana exposes people to drug use which will increase the rate of addiction. This is not the future we want for our community.
Legalizing marijuana will create business opportunities for investment that will enhance the economy in predominantly Black neighborhoods.	Legalizing marijuana will create business opportunities for rich investors, but this will not enhance the economy in predominantly Black neighborhoods.
For all these reasons, let's stand up for the African American community and say YES to legalizing marijuana.	For all these reasons, let's stand up for the African American community and say NO to legalizing marijuana.

Table 1 Specific Wording of Treatments with Highlighted Differences

Measures

Most national and publicly available opinion surveys that measure opinions about marijuana legalization are constrained by a measure limitation that only assesses whether participants favor or oppose marijuana legalization (see Table 2 for measures of legalization across major political and social opinion polls). Gallup and GSS, for example, have included a binary measure of cannabis legalization opinion among the electorate since the 1960s and 1970s, respectively, up until today. The idea of repeating the same measure of opinion on the policy over time is to ensure continuity and internal reliability of the measure. This notwithstanding, the binary response measure oversimplifies the complex policy issue and fails to capture the diversity of opinions and perspectives on the topic. By offering only two choices, individuals are forced into a binary decision, which may not accurately reflect their nuanced views or considerations. Thus, relying on such a binary measure may not allow researchers to investigate the opinion's complexity thoroughly.

Gallup / General Social Survey (GSS)	lpsos
Do you think marijuana should be legal or not?	
□ Yes, legal	Which statement comes <u>closest</u> to your
	The federal government should legalize cannabis for medical and recreational use.
Public and Religion Research Institute (PRRI)	D. The federal new second
making the use of marijuana legal Strongly favor Somewhat favor	should legalize cannabis for medical use only.
Somewhat opposeStrongly oppose	The federal government should defer to the states about the legalization of cannabis.
	The federal government should keep cannabis illegal.
Pew Research Center	
Which comes close to your view about the use of marijuana?	Undecided/don't know
It should be legal for medical and recreational use	
It should be legal for medical use only	
It should NOT be legal	

Table 2 Measures of Marijuana Legalization across Major Public Opinion Polls

Pew 2021 Poll.

Dependent Variable

This study relies on Pew's measure of views about marijuana - an improved measure compared to a binary measure – to gauge respondents' opinions about marijuana legalization. The item asks respondents for their views about the use of marijuana. The survey question is coded as (1) It should be legal for medical and recreational use, (2) It should be legal for medical use only, and (3) It should NOT be legal.

Independent Variables

The analyses of this study also include demographic characteristics that previous studies have shown are correlates of opinion about marijuana legalization, including race, religion, age, sex, party affiliation, education, region, and income.

Race is one of the primary independent measures, and it relies on the survey question: "*Which of the following describes your race?*" I categorize participants into four groups: (1) Whites, (2) Blacks or African Americans, (3) Hispanics, and (4) Other races which include multiracial respondents. Relying on Stetzer and Burge's (2016) measure of religious affiliation, I categorize respondents into seven groups that capture the mainstream religious groups in the U.S.: (1) Mainline protestants, (2) Evangelical protestants, (3) Roman Catholics, (4) Black protestants, (5) Jews, (6) Other faiths, and (7) Unaffiliated. The study also includes a measure of religious service attendance, coded on a 7-point scale ranging from (1) More than once a week to (7) never attending religious service.

Age is coded into four categories: (1) Young adults (age 18-29), (2) Early middle-aged adults (30-49 years), (3) Late middle-aged adults (50-64 years), and (4) Seniors (65 years and older). Respondents' party affiliation is coded as (1) Democrat, (2) Independent, and (3) Republican. Sex is coded as (1) Female and (0) Male. Respondents' region of residence is coded as (1) Southern residents and (0) Otherwise. Education is categorized into three groups: (1) Respondents with a high school or less than a high school diploma, (2) Respondents with some college course, and (3) Respondents with college or postgraduate degrees. Household income is measured from a continuous item that ranges from (1) Less than \$30,000 to (9) \$100,000 or more.

The study also includes a measure of respondent's *belief about racial unfairness in the criminal justice system* as it ties to the debate about legalizing marijuana. Racial fairness in the criminal justice system is gauged relying on a single survey question that asks participants to choose from two statements that come closer to their views, even if neither is exactly right: (1) "Minorities are more likely than Whites to be sentenced to the death penalty for committing similar crimes" and (2) "Whites and minorities are equally likely to be sentenced to the death penalty for committing similar crimes." I recode this measure as (1) a "racially biased criminal justice system" and (0) a "fair racial justice system."

Ipsos 2021 and 2022 Polls

Dependent Variables

Outcome variables from the Ipsos polls include respondents' policy views about cannabis legalization, opinions about social equity-focused policies, and views about whether legalization would benefit underrepresented communities unfairly impacted by marijuana incarceration.

Ipsos polls have a more comprehensive measure of respondents' policy position on marijuana. The item asks respondents, "Which statement comes close to your view?" and the response options are: (1) The federal government should legalize cannabis for medical and recreational use, (2) The federal government should legalize cannabis for medical uses only, (3) The federal government should defer to the states about the legalization of cannabis and (4) The federal government should keep cannabis illegal.

Another dependent variable in the study is views about social equity marijuana policies. To gauge views about social equity-focused policies that capture collective justice to communities disproportionally harmed by marijuana incarceration, I rely on two survey items asking respondents about their opinions on implementing retrospective laws if cannabis were fully legalized in their area. The items are:

- (1) Releasing those serving time in jail for cannabis-related charges
- (2) Removing prior arrests or convictions of cannabis-related offenses from someone's criminal record

The response values range on a 4-category Likert scale from (1) "Strongly support" to (4) "Strongly oppose" with a (5) "Don't know" option. I create an additive index using the above items, and I refer to these items collectively as *social reparation*. I recode the variable into a binary measure representing agreement for easy analysis. Specifically, (0) is coded as "Oppose" and (1) as "Support". The social reparation index achieved Cronbach's alpha of 0.87, indicating the *social reparation* scale's excellent internal consistency and reliability. It is crucial, however, to mention that Cronbach's alpha assumes unidimensionality but is not a test for it (Roos and Bauldry 2021).

Another dependent variable assesses respondents' perceptions of *economic reparations* as a social equity-focused policy aimed at economically improving communities that have been unjustly targeted by the criminal justice system for marijuana-related offenses. To gauge respondents' views on economic reparation, I rely on a single survey item that asks respondents about their opinions on investing a portion of the taxes collected from legal sales to communities disproportionately affected by drug arrests. The response options range on a 4-category Likert scale from (1) "Strongly support" to (4) "Strongly oppose" with a (5) "Don't know" option. I recode the variable into a binary measure representing agreement for easy analysis. Specifically, "Oppose" responses are coded as 0 and "Support" responses are coded as 1.

The fourth outcome variable measures perception about whether legalization would have a positive economic impact on underrepresented communities disproportionately affected adversely by the clutches of the War on Drugs. This concept is measured using a proxy item that asks respondents' views about whether legalization would benefit the rich more than the poor. The survey item has a 4-point Likert scale ranging from (1) "Strongly agree" to (4) "Strongly disagree" with a (5) "Don't know" option. I adjust the response options into a binary measure of (0) Disagreeing that legalization would economically impact underrepresented communities and (1) Agreeing that legalization would economically impact underrepresented communities.

Independent Variables

Respondents' demographic characteristics in the Ipsos and experimental data are coded to align with the measures in the Pew dataset to ensure the internal reliability of my analyses. In addition to the demographic variables, I include other variables in my studies that capture respondents' views about the

harmfulness of marijuana and views about marijuana being a 'gateway drug' for other harmful, illegal substances. These views are tied to the legalization debate, with those who view the use of cannabis as a 'gateway drug' vehemently opposing legalization and those who think of marijuana as a harmless drug overwhelmingly supporting the recreational use of marijuana.

To capture views on cannabis as a gateway drug, I rely on the survey question that asks respondents the extent to which they agree or disagree with the statement *"Cannabis use will lead people to use more addictive drugs"* as a result of the legalization of recreational marijuana or cannabis. The survey item has a 4-point Likert scale ranging from (1) "Strongly agree" to (4) "Strongly disagree". I recode the response options into a binary measure of (0) "Disagree" and (1) "Agree" for easy analysis.

To gauge views about the harmfulness of cannabis, I rely on the survey question that asks respondents the extent to which they agree or disagree with the statement, *"Cannabis is less harmful to one's own health than alcohol or tobacco."* The survey item has a 4-point Likert scale ranging from (1) "Strongly agree" to (4) "Strongly disagree". I recode the response options into a binary measure of (0) "Disagree" and (1) "Agree" for easy analysis.

Survey-Embedded Experiment

Dependent Variables

In the experimental survey, I utilized Ipsos's comprehensive measure of respondents' policy stance on federal marijuana legalization. This measure includes five categorical responses: (1) Support federal recreational and medical legalization, (2) Support federal medical-only legalization, (3) Defer to states to decide, (4) Remain illegal, and (5) Undecided. Subsequently, I adjusted this variable to reflect opinions on support for federal recreational marijuana legalization, categorizing responses as either (1) "Support" or (0) "Oppose."

To gauge perceptions on *economic reparation*, I rely on the survey question that asks respondents the extent to which they favor or oppose a New York policy that seeks to reserve recreational marijuana dispensary licenses for individuals from communities that were disproportionately impacted by the enforcement of cannabis prohibition and other underrepresented groups. The response option is a 4-point

Likert scale ranging from (1) Favor strongly to (4) Oppose strongly. I adjust the response options to (1) "Favor" and (0) "Oppose."

The third dependent variable relies on two survey items to measure respondents' perceptions about whether legalization would economically benefit underrepresented communities. The survey items were:

- (1) Revenue from marijuana sales will help improve Black neighborhoods
- (2) Revenue from marijuana will help improve poor neighborhoods

The response values range on a 4-category Likert scale from (1) "Agree Strongly" to (4) "Disagree Strongly" with a (5) "Don't know" option. I then create an additive index from the two items, with (1) representing agreement and (0) representing disagreement with the above items. The index achieved Cronbach's alpha of 0.88, which indicates its excellent internal consistency and reliability.

Independent Variables

The primary independent variable is the exposure to elite racial appeal. Respondents exposed to the positive elite racial appeal are coded as (1) "Positive Condition," and respondents exposed to negative elite racial appeal are coded as (2) "Negative condition." Respondents exposed to the unrelated paragraph are coded as (3) "Control condition."

Another crucial mediating variable to this study is the level of racial importance to respondents. This measure differs significantly from the standard racial self-categorization that Americans often indicate on forms, applications, and surveys. Self-categorization alone does not necessarily reflect the significance of these identities to an individual's self-concept. It is only when individuals emotionally invest in their group identities that these attachments start to influence behavior (Tajfel 1974). The survey question asks respondents, "*How important is [your] racial background to how you think about yourself?*" with response options ranging from "extremely important" to "not at all important" on a five-point scale. Figure 2 illustrates bar graphs representing the levels of racial importance among different racial groups. Consistent with previous research, Figure 3 demonstrates that racial identity holds greater significance for Black individuals, and, to a lesser extent, other racialized minorities compared to White individuals (White and Burk 1987; Pinderhughes 1997; Tatum 1997). This heightened importance among Black individuals is primarily attributed to the distinctiveness of Black identity, which is rooted in historical experiences of

domination, enslavement, racial violence, and the ongoing struggle to overcome these adversities (Sellers et al. 1998).

Conversely, for Whites, the dominant societal position diminishes the salience of racial identity, as they are less frequently confronted with social and cultural differences, less likely to have their identity grounded in overtly ethnic structures, and less likely to have faced prejudice, discrimination, or disadvantage based on ethnicity or race (Doane 1997). For the purposes of this study, I categorized those who selected "somewhat important" or "very important" as (1) "Racial importance" across all racial groups. The remaining options were combined and coded as (0) "Otherwise."



Figure 2 Bar Graph of Racial Importance by Racial Identity

In addition to respondents' views on whether marijuana is a gateway drug (a measure similar to that of the secondary data), I also control for a variable that measures whether respondents or their close family members have had encounters with the police related to marijuana use. This measure directly assesses respondents' personal experiences with the criminal justice system. These respondents possess what Zaller and Feldman (1992) describe as "doorstep" opinions regarding the criminal justice system and its relation to marijuana users. Such firsthand experiences will likely result in these respondents being well-informed and having stable preferences on marijuana policies. Personal interactions with the criminal justice system often provide individuals with a grounded and consistent viewpoint, making their perspectives on marijuana legalization particularly insightful for the study. This control variable ensures that the analysis accurately captures the influence of direct experience on opinions about marijuana legislation, accounting for the potentially nuanced views of those directly impacted by law enforcement

practices. This variable is measured by relying on the survey question that asks respondents, "*Have you* or a close family member ever had an encounter with police or other law enforcement officers related to using marijuana?" The response option is coded as (1) "Yes" and (0) "No."

Racial resentment is another subgroup variable I control for. I rely on Kinder and Sanders's (1996) racial resentment scale to measure racial resentment. This scale taps into subtle hostility toward African Americans with four questions about Black work ethic, the impact of discrimination on African American advancement, and notions of Black people getting more than they deserve. The four survey items are:

- Generations of slavery and discrimination have created conditions that make it difficult for Blacks to work their way out of the lower class.
- (2) Irish, Italians, Jewish, and many other minorities overcame prejudice and worked their way up. Blacks should do the same without any special favors.
- (3) It's really a matter of some people not trying hard enough; if Blacks would only try harder, they could be just as well off as Whites.
- (4) Over the past few years, Blacks have gotten less than they deserve.

The response values range on a 5-category Likert scale from (1) "Agree Strongly" to (5) "Disagree Strongly" with (3) as the mid or neutral point. Response values for questions (2) and (3) are reversed coded to reflect hostility towards African Americans. I then create an additive scale from the above survey items to reflect (1) respondents who agree and (0) who disagree. The scale achieved a Cronbach alpha of 0.84, indicating excellent internal consistency and reliability.

I also controlled for respondents' demographic characteristics such as racial categorization, education, religious affiliation, religious attendance, age, education, sex, region, and party identification. As mentioned earlier, these variables, except for religious attendance, are coded to align with the measures in the observational datasets to ensure internal consistency and reliability. For more straightforward cross-tabulation analyses, religious attendance in the experimental study is coded into a binary response, with (1) representing respondents who attend church service at least once a week and (0) who do otherwise.

Analytical Strategy

All analyses utilizing secondary observational datasets were weighted to ensure results were more accurate, representative, and unbiased results (DuMouchel and Duncan 1983; Hahs-Vaughn 2005; Korn and Graubard 1995; Pferrermann and HomImes1985). While sampling weights are applied to all observational data analyses, the experimental data analyses are reported without weighting. According to Mutz (2011), weights in experimental survey data enhance the representativeness of samples drawn from populations with known parameters, such as census data. She argues that sample representativeness is directly linked to the parameters used to construct the weights, making it reasonable to use weights to ensure treatment effects are proportionate across demographics like age, income, and sex. However, weighting poses challenges when used on variables with uncertain population distributions, particularly when varied treatment effects are expected (Calfano, Djupe, Cox, and Jones 2016). Since my experimental analyses aim to determine if subgroups respond differently to specific conditions, focusing on treatment effects within the population is unnecessary. (Calfano, Djupe, Cox, and Jones 2016; Miratrix, Theodoridis, and Campos 2018).

The strategy for analyzing the observational secondary datasets takes the sequence of univariate, bivariate, and multivariate assessments. I first conduct univariate descriptive statistics to understand the distribution of the variables used in this study. Tables 3 and 4 provide weighted descriptive statistics for all study variables in the secondary datasets. Following the univariate descriptive statistics, I conduct weighted bivariate chi-square test analyses to examine associations and variations between the dependent variables and respondent characteristics. I also calculate Cramer's V, a measure of association, to gauge the strength of association between the dependent and independent variables (Reynolds 1984). Since my dependent variables are categorical, ordinal least squares (OLS) multivariate analyses are inappropriate (Aldrich and Nelson 1984; Long 1997; McKelvey and Zavoina 1975). I rely on weighted binary and multinomial logistic techniques to build multivariate models to estimate the predictors of my dependent variables. As is well known, binary logistic regression models permit analyses of the effects of a set of explanatory variables on a non-interval-scale dependent variable in a manner analogous to standard linear regression without violating the conditions necessary to satisfy least-square estimation (Ranganathan, Pramesh, and Aggarwal 2017). Multinomial logistic regression is a simple

extension of binary logistic regression that allows for more than two categories of the dependent or outcome variable. Both binary and multinomial logistic models use maximum likelihood estimation to evaluate the probability of categorical membership (Aldrich and Nelson 1984).

I first conducted a randomization test in the experimental study to ensure respondents were assigned correctly to the treatment conditions. Random assignment is critical in experimental research as it effectively distributes confounding variables—external factors that could influence the dependent variable—equally across all groups (Shadish, Cook, and Campbell 2001). This process minimizes the risk of systematic biases, thereby allowing researchers to isolate and assess the independent variable's effect accurately (Johnson 2019). Random assignment ensures that observed outcomes are attributable to the treatment or intervention rather than pre-existing differences among participants (Babbie 2020). As the gold standard in experimental design, random assignment significantly enhances the internal validity of a study by ensuring equivalence between the treatment and control groups (Campbell and Stanley 2015). This strengthens the argument that any observed effects result from experimental manipulation, not extraneous variables.

After the randomization test, I conduct bivariate chi-square tests to estimate the differential treatment effect across the conditional groups, controlling for subgroups. I further conduct post hoc analyses by calculating for the adjusted residuals to identify cells making the most significant difference and contribution to the chi-square test results (Agresti 2007; Delucchi 1983)

To ensure the robustness of all analyses, "don't know" responses were excluded. Such responses can arise at various stages of the cognitive process: participants may not understand the question, struggle to retrieve relevant information, lack sufficient information to formulate an answer or find it challenging to translate their thoughts into the provided response options (Tourangeau and Rasinski, 1988; Weisberg, 2005). Specifically, in the context of the dependent and independent variables examined in this study, "don't know" responses likely indicate a lack of necessary information to provide an informed answer. Therefore, these responses were excluded from the analysis to concentrate on respondents with adequate information to form an opinion.

The next two chapters report the results of the analysis beginning with the results of the observational data in Chapter 4 followed by the experimental results in Chapter 5.

Chapter 4: Findings from Observational Study

Pew - Sample Descriptive Statistics

In this chapter, I analyze the observational datasets, laying the groundwork for the subsequent surveyembedded experiment. Table 3 shows the univariate descriptive statistics of this study's variables of interest in the Pew dataset, providing a comprehensive overview of the demographic and attitudinal composition of the sample. The distribution of support for marijuana legalization reveals that 60.93% of respondents (N = 3,089.03) favor both recreational and medical use. In contrast, 30.89% (N = 1,566.21) support medical use only, and 8.18% (N = 414.75) believe marijuana should be illegal. Regarding religious affiliation, 14.56% of respondents (N = 737.70) identify as Mainline Protestants, 20.59% (N = 1,043.60) as Evangelical Protestants, and 21.47% (N = 1,087.94) as Catholics. Black Protestants constitute 8.58% (N = 439.70), Jews 1.65% (N = 83.76), and individuals of other faiths 4.64% (N = 234.96). The unaffiliated group represents 28.42% (N = 1,440.34) of the sample. Attendance at religious services varies, with 8.47% (N = 430.89) attending more than once a week, 18.03% (N = 916.99) once a week, and 6.83% (N = 347.51) once or twice a month. Those attending a few times a year make up 15.10% (N = 767.90), while those who seldom attend constitute 25.61% (N = 1,302.19), and those who never attend are 25.95% (N = 1,319.52).

The racial composition of the sample includes 62.18% White respondents (N = 3,156.46), 12.18% Black respondents (N = 618.19), 17.03% Hispanic respondents (N = 864.26), and 8.61% identifying as other races (N = 437.08). The age distribution shows that 19.42% (N = 986.48) are young adults (18-29), 34.04% (N = 1,728.91) are in early middle age (30-49), 25.18% (N =1,279.08) are in late middle age (50-64), and 21.35% (N = 1,084.53) are seniors (65+). Educational attainment shows that 37.68% (N = 1,922.67) have a high school education or less, 30.40% (N = 1,551.40) have some college education, and 31.92% (N = 1,628.93) are college graduates or higher. Respondents from the South constitute 38.29% (N = 1,956.03) of the sample. The mean income score is 4.56 (SE = 3.10), ranging from 1 to 9. Among the respondents, 38.01% (N = 1,701.62) identify as Democrats, 29.20% (N = 1,307.15) as Republicans, and 32.80% (N = 1,468.23) as Independents. Regarding the approval of President Biden, 59.93% of respondents (N = 3,034.47) expressed approval.

Table 3 Descriptive Statistics - Pew

Variables	N (%) for categorical data M (SE) for continuous data [max, min]
Marijuana legalization	
Both recreational and medical	3,089.03 (60.93%)
Medical only	1,566.21 (30.89%)
lllegal	414.75 (8.18%)
Religious affiliation	
Mainline protestants	737.70 (14.56%)
Evangelical protestants	1,043.60 (20.59%)
Catholics	1,087.94 (21.47%)
Black protestants	439.70 (8.58%)
Jews	83.76 (1.65%)
Other faith	234.96 (4.64%)
Unaffiliated	1,440.34 (28.42%)
Religious service attendance	
More than once/wk.	430.89 (8.47)
Once/wk.	916.99 (18.03)
Once or twice/mo.	347.51 (6.83)
Few times/yr.	767.90 (15.10)
Seldom	1,302.19 (25.61)
Never	1,319.52 (25.95)
Race	
White	3,156.46 (62.18%)
Black	618.19 (12.18%)
Hispanic	864.26 (17.03%)
Other	437.08 (8.61%)
Age Category	
Young adults (18-29)	986.48 (19.42%)
Early middle age (30-49)	1,728.91 (34.04%)
Late middle age (50-64)	1,279.08 (25.18%)
Seniors 65+	1,084.53 (21.35%)

Source: Pew Research Center 2021. Weighted frequencies and means with weighted percentages, standard deviations in parentheses, and maximum and minimum in brackets.

Table 3 continued	
Variables	N (%) for categorical data
	M (SE) for continuous data [max, min]
Party affiliation	
Democrats	1,701.62 (38.01%)
Republicans	1,307.15 (29.20%)
Independent	1,468.23 (32.80%)
Education	
HS grad or less	1,922.67 (37.68%)
Some college	1,551.40 (30.40%)
College graduate +	1,628.93 (31.92%)
Married	2,644.91 (51.99%)
Sex (female)	2,651.68 (52.40%)
Region (South)	1,956.03 (38.29%)
Income	4.56 (3.10) [1, 9]
Biden Approval	3,034.47 (59.93%)
Racial bias of the criminal justice system (CJS)	1,485.80 (59.67%)

Source: Pew Research Center 2021. Weighted frequencies and means with weighted percentages, standard deviations in parentheses, and maximum and minimum in brackets.

Pew - Bivariate Analysis

Table 4 shows the bivariate chi-square analysis between support for marijuana legalization and respondents' characteristics. Consistent with previous literature, the analysis reveals significant variations based on political affiliation, race, education level, sex, region, age, marital status, Biden approval, beliefs about racial unfairness in the criminal justice system, religious affiliation, and religious service attendance.

Among political affiliations, Democrats showed the highest support for recreational marijuana legalization at 71.57%, compared to Republicans at 39.83% and Independents at 63.87%. Support for medical-only legalization is highest among Republicans (45.39%) and lowest among Democrats (23.10%). Opposition to legalization is highest among Republicans (14.78%) and lowest among Democrats (5.32%). The chi-square value of 343.9 and p-value of <0.001, with a Cramer's V of 0.20, indicate a statistically significant, strong association between party identification and support for marijuana legalization.

Whites and Blacks show similar support for recreational and medical marijuana (63.64% and 64.98%, respectively), while Hispanics and those of other races show lower support (52.41% and 52.40%, respectively). The chi-square value of 64.4 and p-value of <0.001, with a Cramer's V of 0.08, suggest a statistically significant, weak association between race and marijuana legalization support.

Education level also influences support, with college graduates showing the highest support for recreational and medical marijuana (65.39%), followed by those with some college (62.52%), and those with high school or less (55.83%). The chi-square value of 46.5 and p-value of <0.001, with a Cramer's V of 0.07, indicate a statistically significant, weak association.

Gender differences reveal that males (63.06%) are more supportive of recreational and medical marijuana than females (58.68%). The chi-square value of 25.7 and p-value of <0.001, with a Cramer's V of 0.07, suggest a statistically significant, weak association.

Regional differences show that non-Southern respondents are more supportive of recreational and medical marijuana (62.49%) compared to Southern respondents (58.41%). The chi-square value of 343.9 and p-value of <0.01, with a Cramer's V of 0.05, indicate a statistically significant, weak association.

Age-wise, younger adults are the most supportive of recreational and medical marijuana (71.80%), with support decreasing with age. The chi-square value of 102.1 and p-value of <0.001, with a Cramer's V of 0.13, indicate a statistically significant, moderate association.

Marital status shows that unmarried respondents are more supportive of recreational and medical marijuana (67.92%) compared to married respondents (54.49%). The chi-square value of 112.5 and p-value of <0.001, with a Cramer's V of 0.14, suggest a statistically significant, moderate association.

Approval of President Biden significantly correlates with support for recreational and medical marijuana (69.40% among those who approve vs. 48.11% among those who disapprove). The chi-square value of 236.3 and p-value of <0.001, with a Cramer's V of 0.22, indicate a statistically significant, strong association.

Beliefs about racial unfairness in the criminal justice system also affect support, with those perceiving the system as unfair showing higher support for recreational and medical marijuana (70.47%) compared to those who perceive it as fair (50.37%). The chi-square value of 112.5 and p-value of <0.001, with a Cramer's V of 0.21, suggest a statistically significant, strong association.

Religious affiliation shows that 'Nones' are the most supportive of recreational and medical marijuana (76.79%), followed by Jewish (73.57%) and those of other faiths (69.72%). Evangelicals are the least

supportive (43.45%). The chi-square value of 353 and p-value of <0.001, with a Cramer's V of 0.19, indicate a statistically significant, moderately strong association.

Religious service attendance shows a clear trend: more frequent attendance correlates with lower support for recreational and medical marijuana. Those who never attend services show the highest support (74.30%), while those who attend more than once a week show the lowest (28.49%). The chi-square value of 526.7 and p-value of <0.001, with a Cramer's V of 0.32, indicate a strong association.

Table 4 Relationship between Respondent onalactenstics and Support for Manjuana Legalization					
	Respondents' Party Identification				
Support of marijuana legalization	Republicans	Democrats	Independent	Total	
Recreational and medical	39.83%	71.57%	63.87%	59.77%	
Medical only	45.39%	23.10%	30.55%	32.06%	
Illegal	14.78 %	5.32 %	5.58 %	8.17%	

100.00

(1,301.06)

100.00

(1,691.50)

100.00

(1,455.43)

100.00

(4, 448)

Table 4 Relationship between Respondent Characteristics and Support for Marijuana Legalization

Note: Weighted frequencies in parentheses

Total

Chi-Square: 343.9 p-value:<0.001 Cramer's V: 0.20

	Respondents' Race				
Support of marijuana legalization	White	Black	Hispanic	Other	Total
Recreational and medical	63.64%	64.98%	52.41%	52.40%	60.94%
Medical only	29.03%	26.50%	35.78%	40.45%	30.84%
Illegal	7.33%	8.52%	11.81%	7.15%	8.22%
Total	100.00 (3,139.71)	100.00 (615.86)	100.00 (852.83)	100.00 (428.59)	100.00 (5,037)

Note: Weighted frequencies in parentheses

Chi-Square = 64.4 p-value:<0.001 Cramer's V = 0.08

	Respondents' Education Level				
Support of marijuana legalization	College graduate +	Some College	High Sch. or less	Total	
Recreational and medical	65.39%	62.52%	55.83%	60.94%	
Medical only	28.09%	30.71%	33.44%	30.89%	
Illegal	6.51%	6.76%	10.73%	8.17%	
Total	100.00 (1,622.80)	100.00 (1,550.11)	100.00 (1,892.09)	100.00 (5,065)	

Note: Weighted frequencies in parentheses

Chi-Square = 46.5 p-value:<0.001 Cramer's V = 0.07

	Respondents' Sex			
Support of marijuana legalization	Male	Female	Total	
Recreational and medical	63.06%	58.68%	60.77%	
Medical only	27.71%	34.02%	31.02%	
Illegal	9.22%	7.30%	8.22%	
Total	100.00	100.00	100.00	
	(2,393.64)	(2,628.36)	(5,022)	

Note: Weighted frequencies in parentheses Chi-Square = 25.7 p-value:<0.001 Cramer's V = 0.72

		Region (South)			
Support of marijuana legalization	South	Non-South	Total		
Recreational and medical	58.41%	62.49%	60.93%		
Medical only	33.81%	29.08%	30.89%		
lllegal	7.78%	8.43%	8.18%		
Total	100.00	100.00	100.00		
	(1,942.44)	(3,127.56)	(5,070)		

Note: Weighted frequencies in parentheses

Chi-Square = 343.9 p-value:<0.01 Cramer's V = 0.05

Table 4 continued

	Respondents' Age Categorization					
	Young	Early	Late	Seniors	Total	
Support of marijuana legalization	adults	middle age	middle age			
Recreational and medical	71.80%	64.86%	59.57%	46.71%	61.01%	
Medical only	24.03%	25.21%	32.21%	44.48%	30.84%	
lllegal	4.17%	9.93 %	8.22%	8.81%	8.15%	
Total	100.00 (970.91)	100.00 (1,727.52)	100.00 (1,270.14)	100.00 (1,071.42)	100.00 (5,040)	

Note: Weighted frequencies in parentheses

Chi-Square = 102.1 p-value:<0.001 Cramer's V = 0.13

	Marital Status			
Support of marijuana legalization	Not married	Married	Total	
Recreational and medical	67.92%	54.49%	60.94%	
Medical only	26.33%	35.09%	30.88%	
Illegal	5.75%	10.42%	8.18%	
Total	100.00	100.00	100.00	
	(2,425.57)	(2,624.49)	(5,050)	

Note: Weighted frequencies in parentheses

Chi-Square = 112.5 p-value:<0.001 Cramer's V = 0.14

	Biden Approval			
Support of marijuana legalization	Approve	Disapprove	Total	
Recreational and medical	69.40%	48.11%	60.84%	
Medical only	24.98%	39.99%	31.02%	
Illegal	5.62%	11.90%	8.15%	
Total	100.00	100.00	100.00	
	(1,942.44)	(3,127.56)	(5,070)	

Note: Weighted frequencies in parentheses

Chi-Square = 236.3 p-value:<0.001 Cramer's V = 0.22

	Beliefs about Racial Unfairness in the CJ System				
Support of marijuana legalization	Unfair	Fair	Total		
Recreational and medical	70.47%	50.37%	62.34%		
Medical only	24.23%	36.49%	29.19%		
Illegal	5.30 %	13.15%	8.47%		
Total	100.00	100.00	100.00		
	(1,472.72)	(1,000.27)	(2,473)		

Note: Weighted frequencies in parentheses

Chi-Square = 112.5 p-value:<0.001 Cramer's V = 0.21

Table 4 continued

			Respo	ondents' Relig	ious Affili	ation		
Support of marijuana legalization	Mainline	Evangelical	Catholic	Black protestant	Jewish	Other Faith	Nones	Total
Recreational and medical	59.55%	43.45%	53.97%	63.88%	73.57%	69.72%	76.79%	61.72%
Medical only	32.10%	41.74%	38.97%	27.65%	15.64%	22.10%	19.63%	30.77%
Illegal	8.35%	14.81%	7.56%	8.47%	10.79%	8.18%	3.57%	8.20%
Total	100.00 (728.28)	100.00 (1,041.15)	100.00 (1,072.90)	100.00 (436.63)	100.00 (83.95)	100.00 (232.40)	100.00 (1,435.69)	100.00 (1,435.69)
Note: Weighted frequencies in Chi-Square = 353. p-value:<0	parentheses .001 Cramer's	V = 0.19	Respond	ents' Religiou	s Service	Attendance		
Support of marijuana legalization	More than once/wk.	Once/wk.	Once or twice/mo.	Few times yr.	/ Seld	om	Never	Total
Recreational and medical	28.49%	40.59%	60.45%	64.55%	70.0	3% 7	4.30%	60.93%
Medical only	49.77%	46.05%	33.04%	29.34%	24.7	5% 2	1.00%	30.86%
lllegal	21.74%	13.35%	7.51%	6.12%	5.23	3%	4.71%	8.21%
Total	100.00 (420.62)	100.00 (901.97)	100.00 (347.97)	100.00 (767.47)	100. (1,297	00 7.16) (1,	100.00 ,314.80)	100.00 (5,050)

Note: Weighted frequencies in parentheses Chi-Square = 526.7 p-value:<0.001 Cramer's V = 0.32

Pew - Multivariate Analysis

The multinomial logistic regression model in Table 5 offers a more rigorous analysis by estimating the differentiating preferences for medical-only legalization and outright prohibition versus recreational legalization while holding all other variables constant.

Blacks show significantly higher odds of supporting medical-only legalization, with an incidence rate ratio (IRR) of 3.358 (p < 0.05) and making marijuana illegal (IRR = 11.306, p < 0.01) compared to recreational legalization. Hispanics are also more likely to support the medical-only (IRR = 2.235, p < 0.01) and illegal (IRR = 2.828, p < 0.01) options. Other races exhibit similar trends, with higher odds for medical-only (IRR = 3.48, p < 0.01) and illegal (IRR = 2.42, p < 0.05).

Age plays a significant role, with young adults (18-29) less likely to support medical-only (IRR = 0.439, p < 0.01) and illegal (IRR = 0.198, p < 0.01) options compared to recreational legalization. Early middle age (30-49) and late middle age (50-64) groups also show lower odds for medical-only legalization (IRR = 0.383, p < 0.01 and IRR = 0.461, p < 0.01, respectively), and late middle age shows lower odds for prohibition (IRR = 0.503, p < 0.10).

Religious affiliation affects legalization preferences. Compared to those with no religious affiliation, Evangelical Protestants are significantly more likely to support marijuana being illegal (IRR = 3.387, p < 0.05), as are Mainline Protestants (IRR = 2.317, p < 0.10).

Model 2	Fed medical v	s. Fed	State vs.	Fed rec.	Fed illega	al vs. Fed
	rec.				re	ec
Independent variables	IRR	p- value	IRR	p-value	IRR	p-value
Blacks	1.537		1.42		3.813	***
Hispanics	.967		.523		1.752	
Other races	2.581	**	1.758		2.579	
Young adults (18-29)	1.403		.441	**	1.137	
Early middle age (30-49)	.518	**	.382	***	.609	
Late middle age (50-64)	.732		.548	**	.535	
Married	.838		1.12		.812	
Independent	.818		1.203		1.483	
Republicans	1.768	**	3.242	***	4.159	***
Female	1.261		.776		.556	**
Some college	1.016		1.337		.476	*
College graduate +	.904		1.442		.854	
income	1.028		1.103		.975	
South	1.255		.879		1.004	
Gateway drug	9.767	***	4.418	***	34.925	***
Less harmful	.171	***	.282	***	.093	***
Constant	.583		.47		.201	***
Model statistics	N = 907 χ ² = 295.24***					
	Pseudo R ² =					
	.22					
0 00001 *** 0	4 ** 0 5 * 14					

Table 5 Multinomial Regression Estimates of Support for Federal Marijuana Legalization

Source: 2022 Ipsos. ***p < .01, **p < .05, *p < .10 (two-tailed tests)

Note: Reference groups are Whites, Seniors (65+), Non-married, Male, Democrats, High School or less, and Non-South. The base group for the dependent variable is support for federal recreational marijuana legalization.

Religious service attendance increases the odds for both medical-only use (IRR = 1.375, p < 0.01) and prohibition (IRR = 1.449, p < 0.01) compared to recreational use. See Figure 4 for the predicted probabilities of marijuana legalization by religious service attendance. The predictive margins of support for recreational marijuana legalization, medical-only marijuana legalization, and marijuana prohibition among respondents who never attend religious services are 75%, 21%, and 5%, respectively. Contrarily, the predictive margins of support for recreational marijuana legalization, medical-only marijuana legalization, medical-only marijuana legalization, and marijuana a legalization, medical-only marijuana legalization, and marijuana prohibition among respondents who attend religious services more than once a week are 42%, 45%, and 12%, respectively, holding all other variables constant.





Predictive Margins with 95% Cls

Females are more likely to support medical-only legalization (IRR = 1.641, p < 0.01) but are not significantly different in their views on illegal versus recreational legalization. Married individuals are more likely to support both medical-only legalization (IRR = 1.681, p < 0.01) and prohibition (IRR = 2.306, p < 0.05) compared to recreational legalization.

Political affiliation shows that Republicans have higher odds of supporting medical-only legalization (IRR = 2.322, p < 0.01) but not significantly different for illegal versus recreational. Biden's approval rating significantly decreases the odds of support for making marijuana illegal (IRR = 0.342, p < 0.01).

Education impacts views on legalization, with people having some college education and college graduates showing lower odds of supporting illegal legalization (IRR = 0.466, p < 0.10 and IRR = 0.484, p

< 0.10, respectively). Household income negatively correlates with support for medical-only legalization (IRR = 0.93, p < 0.05), all else equal.

Respondents who believe the criminal justice system is racially biased are less likely to support the medical-only (IRR = 0.574, p < 0.05) and illegal options (IRR = 0.519, p < 0.05).

Ipsos – Sample Descriptive Statistics

Table 6 shows the univariate descriptive statistics of this study's variables of interest in the Ipsos datasets, providing a comprehensive overview of the demographic and attitudinal composition of the samples in 2021 and 2022.

In 2021, 45.58% of respondents supported the federal recreational legalization of marijuana, 21.88% supported federal medical-only legalization, 21.71% preferred deferring the decision to states, and 10.82% believed marijuana should remain illegal. In 2022, the support for federal recreational legalization slightly increased to 46.09%, support for federal medical-only legalization rose to 22.87%, those preferring state-level decisions decreased to 19.14%, and those supporting continued illegality increased to 11.90%. 68.46% of respondents supported social reparation, and 57.65% supported investing a portion of the taxes collected from legal sales to communities disproportionately affected by drug arrests (economic reparation). 34.31% of respondents believed that marijuana legalization would help improve underrepresented neighborhoods economically, while this belief decreased to 30.90%.

The perception that marijuana is a gateway drug was held by 32.86% of respondents in 2021 and slightly decreased to 31.91% in 2022. The belief that marijuana use is less harmful compared to alcohol and tobacco was held by 49.44% of respondents in 2021 and slightly decreased to 47.98% in 2022.

The racial composition of respondents was as follows: in 2021, 62.99% were White, 11.80% were Black, 16.51% were Hispanic, and 8.69% identified as other races. 2022, the distribution was similar, with 62.49% White, 12.00% Black, 16.90% Hispanic, and 8.60% other races. In 2021, the age distribution of respondents was 20.08% young adults (18-29), 31.25% early middle age (30-49), 27.23% late middle age

(50-64), and 21.44% seniors (65+). In 2022, the proportions were 20.30% young adults, 32.88% early middle age, 24.58% late middle age, and 22.25% seniors.

In 2021, 35.05% of respondents identified as Democrats, 34.64% as Republicans, and 30.31% as Independents. In 2022, the proportions shifted to 37.45% Democrats, 27.18% Republicans, and 35.37% Independents. The education levels of respondents in 2021 were 38.59% with high school graduation or less, 30.00% with some college education, and 31.41% with a college degree or higher. In 2022, 37.90% had high school graduation or less, 27.10% had some college education, and 35.00% had a college degree or higher. The proportion of female respondents was 51.70% in 2021 and 51.50% in 2022.

Approximately 38% of respondents in both years were from the South (38.10% in 2021 and 38.30% in 2022). On a scale from 1 to 7, the mean income level was 4.67 (SE = 1.75) in 2021 and 4.72 (SE = 1.79) in 2022. The percentage of respondents who were married was 56.25% in 2021, which decreased to 52.43% in 2022. The descriptive statistics highlight the close alignment between the two surveys conducted in 2021 and 2022.

Table 6 Descriptive Statistics - Ipsos

Variables	N (%) for categorical data M (SE) for continuous data [max_min]	N (%) for categorical data M (SE) for continuous data [max_min]
	2021	2022
Fed. Marijuana legalization		
Recreational	456.25 (45.58%)	465.50 (46.09%)
Medical only	219.06 (21.88%)	230.98 (22.87%)
Differ to states	217.35 (21.71%)	193.28 (19.14%)
lllegal	108.34 (10.82%)	120.23 (11.90%)
Social reparation	N/A	579.14 (68.46%)
Economic reparation	N/A	584.59 (57.65%)
Improve underrepresented neighborhood	346.15 (34.31%)	313.01 (30.90%)
Gateway drug	331.92 (32.86%)	324.23 (31.91%)
Less harmful	499.85 (49.44%)	487.47 (47.98%)
Race		
White	640.60 (62.99%)	638.07 (62.49%)
Black	120.05 (11.80%)	122.54 (12.00%)
Hispanic	167.94 (16.51%)	172.59 (16.90%)
Other	88.41 (8.69%)	87.80 (8.60%)
Age Category		
Young adults (18-29)	204.26 (20.08%)	207.26 (20.30%)
Early middle age (30-49)	317.77 (31.25%)	335.67 (32.88%)
Late middle age (50-64)	276.92 (27.23%)	250.91 (24.58%)
Seniors 65+	218.05 (21.44%)	227.16 (22.25%)
Party affiliation		
Democrats	323.87 (35.05%)	341.59 (37.45%)
Republicans	320.09 (34.64%)	247.87 (27.18%)
Independent	280.04 (30.31%)	322.54 (35.37%)
Education		
HS grad or less	392.46 (38.59%)	386.97 (37.90%)
Some college	305.10 (30.00%)	276.69 (27.10%)
College graduate +	319.44 (31.41%)	357.33 (35.00%)
Sex (female)	525.77 (51.70%)	525.84 (51.50%)
Region (South)	387.47 (38.10%)	391.04 (38.30%)
Income	4.67 (1.75) [1,7]	4.72 (1.79) [1,7]
Marital status (married)	572.01 (56.25%)	535.31 (52.43%)

Source: Ipsos 2021, 2022. Note: Weighted frequencies and means with weighted percentages, standard deviations in parentheses, and maximum and minimum values in brackets.

Ipsos – Bivariate Analysis: Opinions About Legalization

Figure 5 shows the bivariate chi-square analysis between support for federal recreational marijuana legalization and respondent characteristics. The analysis reveals statistically significant variations based on political affiliation, race, marital status, beliefs about whether marijuana is a gateway drug, and views of whether marijuana use is less harmful.

Support for federal recreational marijuana legalization varies across races. A majority of 56.34% Hispanics supported federal recreational marijuana legalization, followed by 45.31% of Blacks, 44.84% of Whites, and 36.08% of other races. The chi-square value of 343.9 and p-value of <0.01, with a Cramer's V of 0.10, indicates a moderate association between support for federal recreational marijuana legalization and race. Among age cohorts, early middle-aged adults showed the highest support at 55.13%, followed by younger adults at 53.22%, late middle-aged adults at 42.82%, and seniors at 30.21%. The chi-square value of 39.1 and p-value of <0.001, with a Cramer's V of 0.20, indicates a statistically significant, strong association between support for federal recreational marijuana legalization and age.

Among political affiliations, Democrats showed the highest support for federal recreational marijuana legalization at 51.76%, compared to Republicans at 26.44% and Independents at 49.71%. The chi-square value of 43.6 and p-value of <0.001, with a Cramer's V of 0.22, indicates a strong association between support for federal recreational marijuana legalization and party affiliation. Those who are unmarried showed higher support for federal recreational marijuana legalization at 51.53%, compared to married respondents at 41.24%. The chi-square value of 10.7 and p-value of <0.01, with a Cramer's V of 0.10, indicates a statistically significant, moderate association between support for federal recreational marijuana legalization and party affiliation and party affiliation.

Those who don't believe marijuana use is a gateway drug showed higher support for federal recreational marijuana legalization at 63.08%, compared to those who view marijuana use as a gateway drug at 10.02%. The chi-square value of 304.1 and p-value of <0.001, with a Cramer's V of 0.54, indicates a statistically significant, strong association between support for federal recreational marijuana legalization and view about whether marijuana use is a gateway drug. Those who view marijuana use as less harmful

showed higher support at 69.78% compared to those who don't view marijuana use as less harmful at 23.83%. The chi-square value of 214.1 and p-value of <0.001, with a Cramer's V of 0.46, indicates a statistically significant, strong association between support for federal recreational marijuana legalization and views about whether marijuana use is less harmful.



Figure 4 Proportional Representation of Support for Federal Recreational Marijuana Legalization by Respondent Characteristics

Note: ns= Not statistically significant

Ipsos - Multivariate Analysis: Opinions About Legalization

The multinomial logistic regression model in Table 7 offers a more rigorous analysis by estimating the factors that differentiate between preferences for federal medical marijuana legalization, deferring to states to decide, and federal prohibition compared to federal recreational legalization, holding all variables constant.

The analysis revealed that Blacks are more likely to support federal prohibition of marijuana compared to federal recreational legalization, with an incidence rate ratio (IRR) of 3.813 and a highly significant p-value of less than 0.01. Hispanics, however, do not show significant differentiation in their preferences. Individuals of other races support federal medical legalization more than federal recreational legalization, with IRR of 2.581 at a p-value <.05.

Age also plays a significant role. Young adults (18-29) are less likely to support the state deciding on the legality of marijuana compared to federal recreational legalization, indicated by an IRR of 0.441 and a p-value <.05. Early middle-aged adults (30-49) show lower support for both deferring to states and federal prohibition compared to federal recreational legalization, with IRRs of 0.382 and 0.609, respectively, both statistically significant. Late middle-aged adults (50-64) show less support for deferring to states compared to federal recreational legalization, with an IRR of 0.548 at a p-value <.05.

Political affiliation is another crucial factor. Republicans are more likely to oppose federal recreational legalization, favoring federal prohibition (IRR = 4.159) and deferring to states (IRR = 3.242), both statistically significant. Females are less likely to support federal illegality compared to federal recreational legalization, with a statistically significant IRR of 0.556.

Education shows mixed results. Respondents with some college education are significantly associated with lower support for federal prohibition compared to federal recreational legalization. Income, marital status, and regional differences (South vs. Non-South) do not show statistically significant differences in model 2.

Perceptions about marijuana also significantly influence preferences. Those who believe marijuana is a gateway drug show a very high likelihood of supporting federal prohibition (IRR = 34.925) and deferring to states (IRR = 4.418), both highly significant. Conversely, those who perceive marijuana as less harmful

show strong support for federal recreational legalization, as indicated by significantly lower IRRs for federal medical legalization (0.171), state legalization (0.282), and federal prohibition (0.093).

Model 2	Fed medical v	/s. Fed	State vs	. Fed rec.	Fed illeg	al vs. Fed
	rec.				re	ec
Independent variables	IRR	p-	IRR	p-value	IRR	p-value
		value				
Blacks	1.537		1.42		3.813	***
Hispanics	.967		.523		1.752	
Other races	2.581	**	1.758		2.579	
Young adults (18-29)	1.403		.441	**	1.137	
Early middle age (30-49)	.518	**	.382	***	.609	
Late middle age (50-64)	.732		.548	**	.535	
Married	.838		1.12		.812	
Independent	.818		1.203		1.483	
Republicans	1.768	**	3.242	***	4.159	***
Female	1.261		.776		.556	**
Some college	1.016		1.337		.476	*
College graduate +	.904		1.442		.854	
income	1.028		1.103		.975	
South	1.255		.879		1.004	
Gateway drug	9.767	***	4.418	***	34.925	***
Less harmful	.171	***	.282	***	.093	***
Constant	.583		.47		.201	***
Model statistics	N = 907					
	χ² = 295.24***					
	Pseudo R ² =					
	.22					
Source: 2022 Insos ***n < 0	1 **n < 05 *n < 10	0 (two-tailed t	tests)			

Table 7 Multinomial Regression Estimates of Support for Federal Marijuana Legalization

Source: 2022 lpsos. ***p < .01, **p < .05, *p < .10 (two-tailed tests)

Note: Reference groups are Whites, Seniors (65+), Non-married, Male, Democrats, High School or less, and Non-South. The base group for the dependent variable is support for federal recreational marijuana legalization.

Ipsos – Bivariate Analysis: Opinions About Social Reparation

Table 8 shows the bivariate chi-square analysis of the relationship between support for social reparation and respondents' characteristics. Social reparation is defined as expunging criminal records for those arrested for marijuana possession and pardoning incarcerated individuals for marijuana-related offenses. The analysis reveals significant variations based on political affiliation, race, marital status, sex, education, region, beliefs about whether marijuana is a gateway drug, and views of whether marijuana use is less harmful.

White respondents show 35.24% opposition and 64.76% support. In contrast, Black respondents display the highest support at 84.52%, with only 15.48% opposing. Hispanic respondents also show strong support at 74.65%, while 25.35% oppose. Respondents of other races exhibit 62.50% support and 37.50% opposition. The chi-square value is 18.5 with a p-value of less than 0.001, indicating a statistically significant relationship and Cramer's V is 0.15, suggesting a moderate association.

Support among males is at 66.14%, and among females, it is 70.73%. Opposition is slightly higher among males at 33.86% compared to 29.27% among females. The chi-square value of 2.1 is not statistically significant, indicating no substantial difference in support for social reparation by sex. Not married respondents show a higher level of support at 75.90%, with 24.10% opposing. Married respondents have 61.76% support and 38.24% opposition. The chi-square value of 19.5 with a p-value of less than 0.05 and Cramer's V of 0.15 indicate a significant relationship.

A notable difference in support for social reparation is observed across political affiliations. Democrats show the highest support at 79.35%, with only 20.65% opposing. Independents show 70.70% support, and Republicans show the least support at 43.60%, with 56.40% opposing. The chi-square value is 72.1 with a p-value of less than 0.001, and Cramer's V is 0.31, indicating a strong association.

Support among college graduates is at 66.33%, among those with some college education at 65.72%, and among those with a high school education or less at 72.56%. Opposition is highest among those with some college education at 34.28%. The chi-square value of 3.9 and a p-value of less than 0.05, with Cramer's V of 0.07, indicate a weak but statistically significant relationship.

Support for social reparation is slightly higher in the non-South at 72.22% compared to the South at 66.19%. Opposition is 33.81% in the South and 27.78% in the non-South. The chi-square value of 3.3 (p < 0.10) and Cramer's V of 0.06 indicates a weak association.

Respondents who disagree with the idea of marijuana as a gateway drug show 84.89% support for social reparation, whereas those who agree show 39.90% support. Opposition is 15.11% among those who disagree and 60.10% among those who agree. The chi-square value is 163.5 with a p-value of less than 0.001 and Cramer's V of 0.30, indicating a strong association.

Respondents who believe marijuana is less harmful show 84.90% support for social reparation, whereas those who disagree show 43.39% support. Opposition is 56.61% among those who think it is harmful and 15.10% among those who believe it is less harmful. The chi-square value is 47.2, with a p-value of less than 0.001 and Cramer's V of 0.27, indicating a strong association.

Table e Relationenip between eeela Reparation and Reepondente enaluetenetie							
		Respondents' Race					
Social reparation	White	Black	Hispanic	Other	Total		
Oppose	35.24%	15.48%	25.35%	37.50%	31.54%		
Support	64.76%	84.52%	74.65%	62.50%	68.46%		
Total	100.00	100.00	100.00	100.00	100.00		

(95.25)

(143.02)

(74.82)

(846)

(532.91)

Table 8 Relationship between Social Reparation and Respondents' Characteristics

Note: Weighted frequencies in parentheses

Chi-Square = 18.5 p-value:<0.001 Cramer's V = 0.15

	Respondents' Age Categorization				
	Young	Early	Late	Seniors	Total
	adults	middle	middle		
Social reparation		age	age		
Oppose	20.69%	25.25%	38.31%	42.50%	31.54%
Support	79.31%	74.75%	61.69%	57.50%	68.46%
Total	100.00	100.00	100.00	100.00	100.00
	(169.27)	(272.16)	(210.08)	(194.49)	(846)

Note: Weighted frequencies in parentheses

Chi-Square = 29.5 p-value:<0.001 Cramer's V = 0.19

	Respondents' Sex				
Social reparation	Male	Female	Total		
Oppose	33.86%	29.27%	31.54%		
Support	66.14%	70.73%	68.46%		
Total	100.00	100.00	100.00		
	(419.32)	(394.11)	(846)		

Note: Weighted frequencies in parentheses

Chi-Square = 2.1 ns.

		Marital Status				
Social reparation	Not married	Married	Total			
Oppose	24.10%	38.24%	31.54%			
Support	75.90%	61.76%	68.46%			
Total	100.00	100.00	100.00			
	(400.52)	(445.48)	(846)			

Note: Weighted frequencies in parentheses

-		
Chi-Square = 19.5	p-value:<0.05	Cramer's $V = 0.15$

	Respondents' Party Identification				
Social reparation	Democrats	Independent	Republicans	Total	
Oppose	20.65%	29.30%	56.40%	33.33%	
Support	79.35%	70.70%	43.60%	66.67%	
Total	100.00	100.00	100.00	100.00	
	(287.61)	(273.54)	(205.84)	(767)	

Note: Weighted frequencies in parentheses Chi-Square: 72.1 p-value:<0.001 Cramer's V: 0.31
Table 8 continued

	Re	Respondents' Education Level			
Social reparation	College graduate +	Some College	High Sch. or less	Total	
Oppose	33.67%	34.28%	27.44%	31.54%	
Support	66.33%	65.72%	72.56%	68.46%	
Total	100.00 (290.93)	100.00 (242.35)	100.00 (312.73)	100.00 (846)	

Note: Weighted frequencies in parentheses

Chi-Square = 3.9	p-value:<0.05	Cramer's V = 0.07

	Region (South)			
Social reparation	South	Non-South	Total	
Oppose	33.81%	27.78%	31.54%	
Support	66.19%	72.22%	68.46%	
Total	100.00	100.00	100.00	
	(528.02)	(317.98)	(846)	

Note: Weighted frequencies in parentheses Chi-Square = 3.3 p< 0.10 Cramer's V=0.06

	Gateway Drug			
Social reparation	Disagree	Agree	Total	
Oppose	15.11%	60.10%	31.97%	
Support	84.89%	39.90%	68.03%	
Total	100.00	100.00	100.00	
	(468.99)	(281.01)	(750)	

Note: Weighted frequencies in parentheses Chi-Square = 163.5 p-value:<0.001 Cramer's V = 0.30

		Less Harmful			
Social reparation	Disagree	Agree	Total		
Oppose	56.61%	15.10%	30.22%		
Support	43.39%	84.90%	69.78%		
Total	100.00	100.00	100.00		
	(260.74)	(455.26)	(716)		

Note: Weighted frequencies in parentheses

Chi-Square = 47.2 p-value:<0.001 Cramer's V = 0.27

Ipsos - Bivariate Analysis: Opinions About Economic Reparation

Table 9 shows the bivariate chi-square analysis between support for economic reparation and respondents' characteristics. Economic reparation is defined as investing a portion of the taxes collected from legal sales to communities disproportionately affected by drug arrests. The analysis reveals significant variations based on political affiliation, race, marital status, sex, education, beliefs about whether marijuana is a gateway drug, and views of whether marijuana use is less harmful.

Regarding respondents' race, the analysis shows significant differences in support for economic reparation (Chi-Square = 12.0, p < 0.001, Cramer's V = 0.12). White respondents displayed lower support (73.03%), while Black respondents showed the highest support (87.07%). Hispanic respondents also exhibited high support (81.01%), whereas respondents of other races were slightly less supportive (69.79%). This indicates a strong racial dimension in attitudes toward economic reparation, with Black and Hispanic respondents more favorably inclined compared to White and other racial groups.

Age categorization also presented significant variations (Chi-Square = 16.1, p < 0.001, Cramer's V = 0.14). Young adults were the most supportive (76.80%), followed by early middle-aged adults (83.05%). Late middle-aged adults had a lower support level (66.84%), and seniors' support was closer to the overall average (74.27%). These results suggest that middle-aged adults, particularly those in the early middle age group, are more supportive of economic reparation than younger and older age groups.

Gender differences revealed a statistically significant relationship (Chi-Square = 5.1, p < 0.05, Cramer's V = 0.08). Females showed greater support for economic reparation (79.25%) compared to males (72.36%). Marital status also showed significant differences (Chi-Square = 4.1, p < 0.05, Cramer's V = 0.07), with non-married respondents more supportive (79.14%) than married respondents (72.94%),.

Party identification exhibited one of the most pronounced differences (Chi-Square = 62.2, p < 0.001, Cramer's V = 0.30). Democrats overwhelmingly supported economic reparation (86.52%), whereas Republicans showed much lower support (54.45%). Independents fell in between, with 77.99% support. This strong partisan divide underscores the significant role of political affiliation in shaping opinions on economic reparation, although it is noteworthy that a majority of Republicans were supportive. Educational level differences were also significant (Chi-Square = 12.2, p < 0.001, Cramer's V = 0.12), with lower educational attainment associated with higher support for economic reparation. Respondents with a high school education or less showed the highest support (82.59%), followed by those with some college (72.82%) and college graduates (70.72%).

Attitudes towards marijuana as a gateway drug showed a significant relationship with views on economic reparation (Chi-Square = 64.2, p < 0.01, Cramer's V = 0.30). Respondents who disagreed with the notion of marijuana use as a gateway drug were more supportive of economic reparation (85.80%) than those who agreed (58.94%).

Finally, perceptions of marijuana being less harmful also exhibited a significant association (Chi-Square = 47.2, p < 0.01, Cramer's V = 0.27). Respondents who believed marijuana is less harmful were more supportive of economic reparation (84.91%) compared to those who did not (61.43%).

	Respondents' Race				
Economic reparation	White	Black	Hispanic	Other	Total
Oppose	26.97%	12.93%	18.99%	30.21%	24.17%
Support	73.03%	87.07%	81.01%	69.79%	75.83%
Total	100.00	100.00	100.00	100.00	100.00
	(479.79)	(95.66)	(135.06)	(71.49)	(782)

Table 9 Relationship between Economic Reparation and Respondents' Characteristics

Note: Weighted frequencies in parentheses

Chi-Square = 12.0 p-value:<0.001 Cramer's V = 0.12

	Respondents' Age Categorization				
	Young adults	Early middle	Late middle	Seniors	Total
Economic reparation		age	age		
Oppose	23.20%	16.95%	33.16%	25.73%	24.17 %
Support	76.80%	83.05%	66.84%	74.27%	75.83%
Total	100.00 (147.97)	100.00 (258.37)	100.00 (191.36)	100.00 (184.29)	100.00 (782)

Note: Weighted frequencies in parentheses

Chi-Square = 16.1 p-value:<0.001 Cramer's V = 0.14

Respondents' Sex			
Male	Female	Total	
27.64%	20.75%	24.17%	
72.36%	79.25%	75.83 %	
100.00	100.00	100.00	
(387.89)	(394.11)	(782)	
	Male 27.64% 72.36% 100.00 (387.89)	Respondents' Se Male Female 27.64% 20.75% 72.36% 79.25% 100.00 100.00 (387.89) (394.11)	

Note: Weighted frequencies in parentheses

Chi-Square = 5.1 p-value:<0.05 Cramer's V = 0.08

		Marital Status			
Economic reparation	Not married	Married	Total		
Oppose	20.86%	27.06%	24.17%		
Support	79.14%	72.94%	75.83 %		
Total	100.00	100.00	100.00		
	(364.79)	(417.21)	(782)		

Note: Weighted frequencies in parentheses Chi-Square = 4.1 p-value:<0.05 Cramer's V = 0.07

	Re	Respondents' Party Identification				
	Democrats	Independen	Republican	Total		
Economic reparation		t	S			
Oppose	13.48%	22.01%	45.55%	24.79 %		
Support	86.52%	77.99%	54.45%	75.21%		
Total	100.00	100.00	100.00	100.00		
	(274.53)	(251.29)	(183.18)	(709)		

Note: Weighted frequencies in parentheses

Table 9 continued

	Re	Respondents' Education Level			
Economic reparation	College graduate +	Some College	High Sch. or less	Total	
Oppose	29.28%	27.18%	17.41%	24.17 %	
Support	70.72%	72.82%	82.59%	75.83%	
Total	100.00 (261.47)	100.00 (223.39)	100.00 (297.13)	100.00 (782)	

Note: Weighted frequencies in parentheses

Chi-Square = 12.2 p-value:<0.001 Cramer's V = 0.12

	Region (South)			
Economic reparation	South	Non-South	Total	
Oppose	23.59%	25.11%	24.17%	
Support	76.41%	74.89%	75.83 %	
Total	100.00	100.00	100.00	
	(485.36)	(296.64)	(782)	

Note: Weighted frequencies in parentheses

Chi-Square = 0.2 ns.

	Gateway Drug				
Economic reparation	Disagree	Agree	Total		
Oppose	14.20%	41.06%	24.27%		
Support	85.80%	58.94%	75.73 %		
Total	100.00	100.00	100.00		
	(691.18)	(322.82)	(698)		

Note: Weighted frequencies in parentheses Chi-Square = 64.2 p-value:<0.01 Cramer's V = 0.30

	Less Harmful				
Economic reparation	Disagree	Agree	Total		
Oppose	38.57%	15.09%	23.73%		
Support	61.43%	84.91%	76.27%		
Total	100.00	100.00	100.00		
	(244.90)	(421.10)	(666)		

Note: Weighted frequencies in parentheses

Chi-Square = 47.2 p-value:<0.01 Cramer's V = 0.27

Ipsos - Bivariate Analysis: Opinions About Economic Impact on Marginalized Communities

Table 10 shows the bivariate chi-square analysis of the relationship between the perception of whether marijuana legalization would economically benefit marginalized communities and respondents' characteristics. The analysis reveals significant variations based on race, age, marital status, beliefs about whether marijuana is a gateway drug, and views of whether marijuana use is less harmful.

Regarding respondents' race, the results indicate a significant association with perceptions of economic improvement due to legalization (Chi-Square = 16.4, p < 0.05, Cramer's V = 0.16). Specifically, 42.00% of White respondents disagreed with the statement, while 58.00% agreed. Among Black respondents, a higher proportion (66.27%) disagreed, whereas 33.73% agreed. Hispanic respondents showed a nearly even split, with 49.35% disagreeing and 50.65% agreeing. Other racial groups had 52.05% disagreeing and 47.95% agreeing. These findings suggest that Black respondents are more skeptical about the economic benefits of legalization for marginalized communities compared to other racial groups.

Age categorization also showed significant differences in perception (Chi-Square = 9.6, p < 0.001, Cramer's V = 0.12). Young adults had the highest agreement rate (61.06%), with disagreement at 38.94%. Early middle-aged adults showed 57.51% agreeing and 42.49% disagreeing. Late middle-aged adults and seniors had higher disagreement rates (53.33% and 52.12%, respectively) compared to their agreement rates (46.67% and 47.88%). Marital status revealed a significant association (Chi-Square = 4.1, p < 0.05, Cramer's V = 0.07). Non-married respondents were more likely to agree (57.33%) compared to married respondents (49.55%).

Party identification did not show a statistically significant relationship (Chi-Square = 4.6, ns). Democrats, Independents, and Republicans had similar levels of agreement and disagreement, with Democrats showing slightly more disagreement (51.15%) compared to Independents (41.26%) and Republicans (48.41%). The perception of marijuana as a gateway drug showed a highly significant association (Chi-Square = 66.6, p < 0.01, Cramer's V = 0.32). Respondents who disagreed with the gateway drug notion were more likely to agree that legalization would benefit marginalized communities economically (66.42%), compared to those who agreed with the gateway drug notion (32.75%). Finally, the perception of marijuana as less harmful also demonstrated a significant relationship (Chi-Square = 11.6, p < 0.01, Cramer's V = 0.14). Respondents who perceived marijuana as less harmful were more likely to agree with the economic benefits of legalization (59.48%) compared to those who did not (45.15%).

Table 10 Relationship between Perception of whether legalization would Improve Marginalized
Communities Economically and Respondents' Characteristics
Respondents' Race

	Respondents Race					
Improve marginalized communities	White	Black	Hispanic	Other	Total	
Disagree	42.00%	66.27%	49.35%	52.05%	46.87%	
Agree	58.00%	33.73%	50.65%	47.95%	53.13%	
Total	100.00 (425.25)	100.00 (75.09)	100.00 (116.84)	100.00 (62.82)	100.00 (680)	

Note: Weighted frequencies in parentheses

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Chi-Square = 16.4 p-value:<0.05 Cramer's V = 0.16

	Respondents' Age Categorization				
	Young	Early	Seniors	Total	
Improve marginalized	adults	middle	middle		
communities		age	age		
Disagree	38.94%	42.49%	53.33%	52.12%	46.87%
Agree	61.06%	57.51%	46.67%	47.88%	53.13 %
Total	100.00	100.00	100.00	100.00	100.00
	(125.53)	(221.28)	(178.12)	(155.06)	(680)

Note: Weighted frequencies in parentheses Chi-Square = 9.6 p-value:<0.001 Cramer's V = 0.12

	Respondents' Sex				
Improve marginalized communities	Male	Female	Total		
Disagree	47.10%	46.64%	46.87%		
Agree	52.90%	53.36%	53.13 %		
Total	100.00	100.00	100.00		
	(339.57)	(340.43)	(680)		

Note: Weighted frequencies in parentheses Chi-Square = 0.0 ns.

	Marital Status					
Improve marginalized communities	Not married	Married	Total			
Disagree	42.67%	50.45%	46.87%			
Agree	57.33%	49.55%	53.13%			
Total	100.00	100.00	100.00			
	(312.75)	(367.25)	(680)			

Note: Weighted frequencies in parentheses

Chi-Square = 4.1 p-value:<0.05 Cramer's V = 0.07

Improve marginalized	Respondents' Party Identification				
communities	Democrats	Independent	Republicans	Total	
Disagree	51.15%	41.26%	48.41%	46.94 %	
Agree	48.85%	58.74%	51.59%	53.06%	
Total	100.00	100.00	100.00	100.00	
	(229.08)	(214.61)	(175.31)	(619)	

Note: Weighted frequencies in parentheses

Chi-Square: 4.6 ns.

Table 10 continued

	Respondents' Education Level				
Improve marginalized	College	Some	High Sch. or	Total	
communities	graduate +	College	less		
Disagree	46.33%	51.37%	43.87%	46.87%	
Agree	53.67%	48.63%	56.13%	53.13%	
Total	100.00	100.00	100.00	100.00	
	(231.80)	(196.15)	(252.05)	(680)	
Note: Weighted frequencies in parentheses					
Chi-Square = 2.5 ns.					
		R	egion (South)		
Improve marginalized		South	Non-South	Total	
communities					
Disagree		45.88%	48.56%	46.87 %	
Agree		54.12%	51.44%	53.13 %	
Total		100.00	100.00	100.00	
		(428.61)	(251.39)	(680)	
Note: Weighted frequencies in parentheses					
Chi-Square = 0.0 ns.					
		(Gateway Drug		
Improve marginalized		Disagree	Agree	Total	
communities					
Disagree		33.58%	67.25%	46.08%	
Agree		66.42%	32.75%	53.92%	
Total		100.00	100.00	100.00	
		(392.83)	(232.17)	(625)	
Note: Weighted frequencies in parentheses	0.00				
Chi-Square = 66.6 p-value:<0.01 Cramers v =	0.32		occ Harmful		
Improve mercinelized		Diagaraa		Total	
communities		Disagree	Agree	Total	
		54 85%	10 52%	15.88%	
Agroo		JH.00 /0	HU.UZ /0	40.00 /0	
		40.1070	09.40%	J4.12%	
ΙΟΙΑΙ		100.00	100.00%	100.00	
		(223.38)	(3/3.62)	(597)	

Note: Weighted frequencies in parentheses

Chi-Square = 11.6 p-value:<0.01 Cramer's V = 0.14

Ipsos - Multivariate Analysis: Opinions About Social Reparation, Economic Reparation, and Economic Impact of Legalization on Marginalized Communities

The analysis in Table 11 presents multivariate regression estimates for three dependent variables: social

reparation, economic reparation, and the views about the economic impact of legalization on marginalized

communities. Each model provides insights into the factors influencing these views.

Model 4 and Model 5 examine the odds of supporting social reparation and economic reparation respectively. The results show that Blacks are significantly more likely to support social and economic reparation, with an odds ratio of 2.418 (p < .05) and an odds ratio of 1.869 (p = 0.12), respectively. Conversely, Republicans are significantly less likely to support social reparation, with an odds ratio of 0.356 (p < .01). Individuals who perceive marijuana as a gateway drug are also less likely to support social reparation (odds ratio = 0.25, p < .01), while those who believe marijuana is less harmful are more likely to support it (odds ratio = 3.326, p < .01). Higher education levels are positively associated with support for social reparation, as college graduates have an odds ratio of 1.882 (p < .01) compared to those with a high school education or less.

In Model 5, the results indicate that females are significantly more likely to support economic reparation, with an odds ratio of 1.564 (p < .05). Republicans are significantly less likely to support economic reparation (odds ratio = 0.29, p < .01). Similar to Model 4, those who view marijuana as a gateway drug are less likely to support economic reparation (odds ratio = 0.453, p < .01). At the same time, those who see it as less harmful are more likely to support it (odds ratio = 2.248, p < .01). College graduates are also more likely to support economic reparation (odds ratio = 2.954, p < .01).

Model 6 investigates the odds of believing legalization would economically improve marginalized communities. The results reveal that Blacks are significantly less likely to hold this view, with an odds ratio of 0.313 (p < .01). Late middle-aged individuals (50-64) are also less likely to believe in the economic benefits of legalization for marginalized communities (odds ratio = 0.51, p < .01). Republicans, however, do not show a significant association in this model. Those who consider marijuana a gateway drug are less likely to believe in its economic benefits (odds ratio = 0.28, p < .01), whereas perceptions of marijuana being less harmful do not significantly affect this belief.

	Mode	el 4	Mod	el 5	N	lodel 6
	Social re	paration	Economic reparation		Improve marginalized communitie	
	Odds ratio	p-value	Odds ratio	p-value	Odds ratio	p-value
Blacks	2.418	**	1.869	0.12	.313	***
Hispanics	1.248		1.493		.781	
Other races	.664		.638		.884	
Young adults (18-29)	1.473		.666		1.181	
Early middle age (30-49)	1.182		1.008		1.233	
Late middle age (50-64)	.898		.51	***	.825	
Female	1.239		1.564	**	.859	
Married	.704		1.166		.816	
Independent	.801		.689		1.312	
Republicans	.356	***	.29	***	1.197	
Some college	1.155		1.378		.755	
College graduate +	1.882	***	2.954	***	.891	
Household income	1.11		.94		1.044	
South	1.118		.753		1.005	
Gateway drug	.25	***	.453	***	.28	***
Less harmful	3.326	***	2.248	***	.991	
Constant	1.249		4.115	***	1.976	
Model Statistics	N =	767	N =	709	N =	619
	χ ² =	173.86***	χ ² =	104.40***	χ ² =	65.91***
	Pseudo R ² =	0.26	Pseudo R ² =	0.18	Pseudo R ² =	0.10

Table 11 Regression Estimates for Social Reparation, Economic Reparation, and View of whether legalization would Improving Marginalized Communities Economically

Source: 2022 Ipsos. ***p < .01, **p < .05, *p < .10 (two-tailed tests). Note: Reference groups are Whites, Seniors (65+), Religious unaffiliated, Male, Democrats, High School or less, and Non-South.

Discussion

This chapter aimed to offer insight into prevailing attitudes towards cannabis policies. Specifically, this chapter analyzed correlates of the marijuana legalization stance of respondents (whether they support recreational, medical-only, leave to states to decide, or marijuana prohibition), support for social equity-focused policies (social and economic reparations), and perceptions of whether legalization would benefit marginalized communities economically.

From the findings, Blacks and Hispanics showed higher support for restrictive marijuana policies, which can be attributed to several community-specific concerns. These communities may perhaps fear that legalization will lead to an increase in marijuana dispensaries in their neighborhoods, potentially escalating the accessibility of the drug to children. This increased availability could further lead to higher rates of drug use among minors, contributing to more incidents of driving under the influence (DUIs) and emergency room visits (SAM 2023). Studies have also shown that minority communities are often disproportionately impacted by drug-related offenses and health issues, which might explain their cautious stance on marijuana legalization (Cerdá et al. 2012; Unger et al. 2020).

The study also revealed that Blacks show strong support for marijuana reparation policies but were less likely to believe in the economic benefits of legalization for marginalized communities, pointing to broader concerns about racial equity and skepticism about whether legalization will address systemic economic disparities.

Gender differences also played a role, with females showing higher support for restrictive marijuana policies but showing more support for economic reparation. Married respondents also showed higher support for restrictive marijuana policies. This finding, consistent with previous literature (Agrawal and Lynskey 2007; Jacobs 2006; Galston and Dionne 2013; Kerr et al. 2007), can be attributed to the fact that women, and to some extent, married individuals, have been generally socialized as caretakers and nurturers and would, therefore, be concerned about policies that would ensure the safety of others, mainly, their young children (Shapiro and Mahajan 1986). Again, women being more supportive of egalitarian values (Inglehart and Norris 2000) and their experience with social programs (Soss, Fording, and Schram 2011), such as being more likely to be direct beneficiaries of social programs as compared to

men can perhaps explain why women are more supportive of marijuana-related economic reparation programs.

As previous research (Caulkins, Coulson, Farber, and Vesely 2012; Galston and Dionne 2013; Kandel 2001; Pew 2024) has suggested, this study also found that younger and early middle-aged adults show greater support for recreational legalization than seniors, reflecting generational shifts in attitudes.

The study also found that higher education levels connect with more support for recreational legalization and are favorably related with support for marijuana restitution measures. This might be because highly educated people tend to have more progressive views on drug regulations, which could be related to exposure to a wider range of perspectives and the development of critical thinking skills. Again, highereducated people's support for marijuana restitution policies implies that they are more aware of social and economic justice concerns, favoring efforts that correct past disparities and create fair prospects. The link between education and support for marijuana reparation policies emphasizes the need for education in creating a more informed and socially conscious population.

The study also reveals that religious factors significantly influence views, with Evangelical Protestants and frequent religious service attendees more likely to oppose recreational legalization, emphasizing the moral and doctrinal opposition within these groups (Adamczyk and Palmer 2008; Bartkowski and Xu 2007; Ford and Hill 2012; Longest and Vaisey 2008).

Political affiliations also predicted differences in support, with Republicans favoring more restrictive policies compared to Democrats. Specifically, Republicans were significantly more likely to oppose federal recreational legalization, preferring stricter federal regulations or state-level controls. This aligns with broader ideological divides on drug policy and government regulation (Abramowitz and Webster 2018; lyengar and Westwood 2014).

The study also showed that individuals who highly approve of President Joe Biden are more likely to support recreational marijuana legalization. This finding could perhaps rather reflect the 'presidents' responsiveness to prevailing public opinion on cannabis legalization (Canes-Wrone and Shotts 2004). Historically, both Biden and Vice President Kamala Harris have held strict positions on drug policy. Biden,

as a Senator, sponsored punitive drug laws, including the Comprehensive Narcotics Control Act of 1986 and the 1994 crime bill. Harris, as 'California's Attorney General, opposed Proposition 19, citing concerns about increased crime (Tate 2014). Despite these past stances, the Biden administration has shifted towards marijuana policy reform, including pardoning those convicted of simple possession and working to reclassify marijuana from Schedule I to Schedule III. This shift reflects the administration's responsiveness to public support for legalization and the political benefits of such alignment.

There was also a correlation between respondents' beliefs about racial prejudice in the criminal justice system and their support for less restrictive marijuana legislation, indicating that these individuals are motivated to support legalization by concerns about equality and fairness (Bobo and Johnson 2004). Again, people's views on marijuana's potential as a gateway drug or its relative safety factor heavily into their support for legalization. The study shows that recreational legalization is more likely to get the backing of people who see recreational use as less hazardous than of those who see marijuana as a gateway drug. The importance of public perceptions in influencing support for policies is emphasized by these findings.

What this section has revealed is the variations in public attitudes towards support for cannabis policies. Given the limitations on assessing causality and reliability of opinions in observational data, I turn to an experimental design in the next Chapter where respondents are randomly assigned to read one of two versions of a short excerpt in which a witness before a congressional committee offers either prolegalization or anti-legalization arguments or to a control condition in which they read an unrelated paragraph about electric vehicles. This experimental manipulation aims to investigate whether opinions about cannabis policies are as well entrenched as media and national opinion polls suggest, or if exposure to explicit elite pro- and anti-legalization arguments, specifically framed around their impact on the African American community, can influence and shift public opinion.

Chapter 5: Findings from Experimental Study

I began the analysis with a balance test to see if the experiment had successful randomization. I compared the survey quota characteristics across the three experimental conditions to test for randomization. The survey quota characteristics include sex, generational cohorts, race, religious traditions, party identification, political ideology, household income, region, and education. All analyses yielded no statistically significant differences in the survey quota characteristics across the experimental conditions, indicating that the randomization for the experiment worked (See Table 12).

	Positive condition (n = 627)	Negative Condition (n = 769)	Control (n =1,124)	Total (n=2520)	χ 2 /df, p-value
Sex					1.57/2, <i>p</i> = .45
Male	49.92	46.94	49.47	48.81	
Female	50.08	53.06	50.53	51.19	
Generation					6.63/6, <i>p</i> = .35
Gen Z	16.91	15.34	15.84	15.95	
Millennials	28.55	30.69	32.38	30.91	
Gen X	24.88	27.57	26.69	26.51	
Boomers	29.67	26.40	25.09	26.63	
Racial identity					21.71/14, <i>p</i> = .11
American Indian/Alaska	1.44	1.04	1.16	1.19	
Asian	3.67	4.30	4.99	4.45	
Black or African American	13.58	10.56	14.26	12.96	
Native Hawaiian or Other	0.80	0.78	0.53	0.68	
Pacific Islander					
Hispanic/Latino/Latinx	7.51	6.26	9.54	8.03	
White (non-Hispanic)	71.41	73.79	67.11	70.22	
Multiracial	1.12	1.83	1.52	1.51	
Other	0.48	1.43	0.89	0.95	

Table 12 Randomization Testing (group testing)

Note: The table displays column percentages. ***p < .01, **p < .05, *p < .10

Table 12 continued

	Positive	Negative	Control	Total	χ 2 /df, p-value
	condition	Condition	(n =1,124)	(n=2520)	
	(n = 627)	(n = 769)			
Religious traditions					13.03/12, <i>p</i> = .37
Mainline	17.41	16.60	17.80	17.50	
Evangelical	17.25	20.39	21.03	19.93	
Catholic	17.57	16.86	19.74	18.65	
Black protestant	8.79	6.93	8.21	7.99	
Jewish	2.72	2.22	2.40	2.47	
Other Faith	4.47	5.62	4.06	3.75	
Nonaffiliated	31.79	31.37	26.75	29.72	
Party identification					6.19/4, <i>p</i> = .19
Democrats	45.37	44.79	42.55	44.14	
Independent	18.21	19.01	22.53	20.06	
Republicans	36.42	36.20	34.92	35.80	
Political ideology					4.13/4, <i>p</i> = .39
Liberal	33.44	34.07	31.61	32.83	
Moderate	35.27	31.17	34.00	33.46	
Conservative	31.28	34.76	34.38	33.71	
Household income					12.18/8, <i>p</i> = .14
less than \$24,999	25.37	25.33	28.78	26.88	
\$25,000 - 49,999	26.83	23.87	28.14	26.52	
\$50,000 - 74,999	20.81	21.87	18.46	20.08	
\$75,000 - 99,999	17.40	18.40	9.68	10.69	
\$100,000 and greater	9.59	10.53	14.93	15.83	
Region					5.19/6, <i>p</i> = .52
Northeast	19.14	20.29	21.62	20.60	
Midwest	19.30	21.20	17.88	19.25	
South	37.96	36.80	38.88	38.02	
West	23.60	21.72	21.62	22.14	
Education					8.19/4, <i>p</i> = .22
Some/HS	23.76	25.49	29.15	26.69	
Post HS	28.25	25.62	25.74	26.33	
Bachelor	27.45	28.10	26.82	27.37	
Postgraduate	20.55	20.78	18.30	19.62	

Note: The table displays column percentages. ***p < .01, **p < .05, *p

Sample Descriptive Statistics

Table 13 shows the descriptive statistical distribution of the variables of interest in the experimental study. Respondents were randomly divided into different experimental conditions, with 24.88% in the positive framing group, 30.52% in the negative framing group, and 44.60% in the control group. Demographically, the sample included 70.22% White, 12.96% Black, 8.03% Hispanic, and 8.79% from other racial backgrounds. From the racial categorization, 22.62% of Whites, 79.13% of Blacks, and 52.24% of Hispanics considered their racial identity important to their self-concept. Religious affiliation varied, with 17.50% identifying as Mainline Protestants, 19.93% as Evangelical Protestants, 18.65% as Catholics, 7.99% as Black Protestants, 2.47% as Jews, 3.75% belonging to other faiths, and 29.72% unaffiliated. 21.08% of respondents also attend religious services at least once a week. In terms of age distribution, 20.95% were young adults (18-29), 37.70% were early middle age (30-49), 24.88% were late middle age (50-64), and 16.47% were seniors (65+). Party affiliation showed that 43.54% were Democrats, 36.11% were Republicans, and 20.34% were Independents. Educational attainment indicated that 26.69% had a high school education or less, 26.33% had some college, and 46.98% were college graduates or higher. Female respondents constituted 51.19% of the sample. The regional distribution showed 38.02% from the South.

Regarding perceptions and personal experiences, 39.15% of respondents viewed marijuana as a gateway drug, and 23.83% reported that they or a close family member had had personal encounters with police related to using marijuana.

Combing respondents' views on their policy positions on cannabis policies regardless of information exposure, views on federal marijuana legalization indicated that 49.68% supported recreational use, 22.10% supported medical-only use, 13.65% preferred deferring to states, 8.97% opposed legalization, and 5.60% were undecided. 50.36% supported economic reparation, which is defined as setting aside dispensary licenses for individuals from marginalized groups, while 45.39% agreed that legalization would help improve marginalized communities economically.

Variables	N (%) for categorical data				
	M (SE) for continuous data [max, min]				
Fed. Marijuana legalization					
Recreational	1,252 (49.68%)				
Medical only	557 (22.10%)				
Differ to states	344 (13.65%)				
Illegal	226 (8.97%)				
Undecided	141 (5.60%)				
Economic reparation	1,265 (50.36%)				
Benefit underrepresented communities	877 (45.39%)				
Treatment					
Positive condition	627 (24.88%)				
Negative condition	769 (30.52%)				
Control condition	1.124 (44.60%)				
Race					
White	1.766 (70.22%)				
Black	326 (12.96%)				
Hispanic	202 (8.03%)				
Other	221 (8.79%)				
Racial importance					
White	387 (22.62%)				
Black	254 (79.13%)				
Hispanic	105 (52 24%)				
Religious affiliation					
Mainline protestants	425 (17 50%)				
Evangelical protestants	484 (19.93%)				
Catholics	453 (18 65%)				
Black protestants	194 (7 99%)				
Jews	60 (2 47%)				
Other faith	91 (3 75%)				
Unaffiliated	722 (29 72%)				
Religious service attendance	529 (21 08%)				
Young adults (18-29 vrs.)	528 (20.95%)				
Farly middle age (30-49 yrs.)	950 (37 70%)				
Late middle age (50-64 yrs.)	627 (24 88%)				
Seniors 65+	415 (16 47%)				
Party affiliation	410 (10.4770)				
Democrats	1 006 (13 51%)				
Republicans	909 (36 11%)				
Independent	512 (20 34%)				
Education	512 (20.3470)				
HS grad or less	668 (26 60%)				
Some college	650 (26.33%)				
	009 (20.3370) 1 176 (46 099()				
College graduate +	1,170 (40.90%)				
Der (Ielliale)	1,230 (31.1370) DEQ (30.030/)				
Cetoway drug	900 (00.UZ%)				
Baleway urug	30U (33.13%) 500 (33.93%)				
	JYY (23.03%)				
Raciai resentment	441 (17.90%)				

Table 13 Descriptive Statistics – Survey-Based Experiment data

Bivariate Analysis: Opinions About Legalization

Table 14 shows the bivariate chi-square test between respondents' views of support for marijuana legalization by the experimental conditions. The results of the Pearson chi-square test (χ^2 (8) = 30.78, p < 0.001) and the likelihood-ratio chi-square test (χ^2 (6) = 30.73, p < 0.001) reveal statistically significant differences in legalization policy preferences across the experimental conditions. Post hoc analysis, with adjusted residuals greater than ±1.96 highlighted in bold, indicates statistical significance beyond the null hypothesis of independence.

For those in the Positive condition, 56.62% (4.01) support federal recreational legalization, which is significantly higher than expected under the null hypothesis of independence. Conversely, only 17.22% (-3.40) support medical-only legalization, indicating a significantly lower proportion than expected. Support for deferring legalization to states was 12.60% (-0.89), and 8.13% (-0.84) believed marijuana should remain illegal. The undecided proportion was 5.42% (-0.22).

In the Negative condition, 44.60% (-3.38) supported federal recreational legalization, significantly lower than expected. In contrast, support for medical-only legalization was notably higher at 27.05% (3.97). Support for deferring to states was 14.56% (-0.89), and 9.36% (0.46) believed marijuana should remain illegal. The undecided rate was 4.42% (-1.70).

Among those in the Control condition, 49.29% (-0.36) supported medical and recreational legalization, 21.44% (-0.72) supported medical-only legalization, and 13.61% (-0.05) preferred to defer to states. Those believing it should remain illegal constituted 9.16% (0.31), while 6.49% (1.76) were undecided.

Results show that experimental manipulations significantly impacted respondents' opinions and that there is a wide range of support for various marijuana legalization policies based on the influence of elite racial appeals.

Table 14 Legalization Policies by Experimental Conditions

	Conditions					
	Positive	Negative	Control	Total		
Legalization Policies						
Medical and recreational	56.62%	44.60%	49.29%	49.68%		
	(4.01)	(-3.38)	(-0.36)			
Medical only	17.22%	27.05%	21.44%	22.10%		
	(-3.40)	(3.97)	(-0.72)			
Differ to states	12.60%	14.56%	13.61%	13.65%		
	(-0.89)	(-0.89)	(-0.05)			
Should remain illegal	8.13%	9.36%	9.16%	8.97%		
	(-0.84)	(0.46)	(0.31)			
Undecided	5.42%	4.42%	6.49%	5.60%		
	(-0.22)	(-1.70)	(1.76)			
Total	100.00%	100.00%	100.00%	100.00%		

Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than ± 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true.

Pearson chi2(8) = 30.78, p-value < 0.001

Likelihood-ratio chi2(6) = 30.73 p-value < 0.001

For ease of interpretation, I adjusted the question that captures views about federal marijuana legalization to reflect whether respondents (1) "Support federal recreational marijuana legalization" or (0) "Oppose it." The cross-tabulation in Table 15 shows the support for federal recreational marijuana legalization across experimental conditions with significant adjusted residuals highlighted.

The analysis in Table 15 reveals that 56.62% of respondents in the Positive condition supported federal recreational legalization, significantly higher than expected (adjusted residual = 4.01). Conversely, only 44.60% in the Negative condition supported legalization, which is significantly lower than expected (adjusted residual = -3.38). Support in the Control condition is 49.29%, with no significant deviation from the expected value (adjusted residual = -0.36).

For those in the Positive condition, 43.38% oppose federal recreational legalization, significantly lower than expected (adjusted residual = -4.01). In the Negative condition, 55.40% oppose legalization, significantly higher than expected (adjusted residual = 3.38). The Control group had 50.71% opposition,

with no significant deviation (adjusted residual = 0.36). Overall, the Pearson chi-square test (χ^2 (2) = 20.07, p < 0.001) and the likelihood-ratio chi-square test (χ^2 (2) = 23.12, p < 0.001) of Table 15 indicate that the differences in support and opposition across the experimental conditions are statistically significant. This analysis further highlights the impact of the experimental conditions on respondents' support for federal recreational marijuana legalization, showing a notable increase in support under the Positive condition and a significant decrease under the Negative condition. (See Figure 6 for the predicted probability of the differences of support across the experimental conditions at a 95% CI).

	Conditions					
	Positive	Negative	Control	Total		
Federal Recreational legalization						
Oppose	43.38% (-4.01)	55.40% (3.38)	50.71% (0.36)	50.32%		
Support	56.62% (4.01)	44.60% (-3.38)	49.29% (-0.36)	49.68%		
Total	100.00%	100.00%	100.00%	100.00%		

Table 15 Support for Federal Recreational Marijuana Legalization by Experiment

Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true. Pearson Chi2 (2) = 20.07, p-value <0.001

likelihood-ratio chi2(2) = 23.12, p-value < 0.001





Note: Predicted probability was generated from a bivariate logistic regression

Bivariate Analysis Controlling for Subgroups: Opinions About Legalization

Following the analysis of support for federal recreational marijuana legalization by the experimental conditions, I further investigated support for federal recreational legalization by treatment exposure, controlling for respondents' characteristics shown in Table 16. Using a chi-square test and a post hoc adjusted residual analysis, I assess whether there are significant differences in support and opposition across different conditions (Positive, Negative, and Control) for each subgroup.

For Mainline Protestants, there were no significant differences in support or opposition across the conditions, with opposition percentages ranging from 49.54% in the Positive condition to 60.98% in the

Negative condition, and support percentages ranging from 39.02% in the Negative condition to 50.46% in the Positive condition ($\chi^2 = 3.11$, p = 0.210). This analysis suggests that explicit elite racial appeals about pro- or anti-marijuana legalization do not significantly affect their stance on legalization. Evangelical Protestants show a significant difference in opposition under the Negative condition, with 66.89% opposing legalization compared to 59.05% in the Positive condition (adjusted residual = 2.05). Support is significantly lower in the Negative condition at 33.11% (adjusted residual = -2.05), indicating that negative framing of legalization's impact on African Americans increases Evangelical opposition ($\chi^2 = 4.44$, p = 0.11). Catholic respondents also exhibit significant differences, particularly under the Positive condition, where support is higher at 53.64% (adjusted residual = 2.30) and opposition is lower at 46.36% (adjusted residual = -2.30), suggesting that positive framing increases support for legalization among Catholics ($\chi^2 = 5.36$, p = 0.07).

Black Protestants display the most pronounced differences, with opposition dramatically higher in the Negative condition at 63.46% (adjusted residual = 3.25) and significantly lower in the Positive condition at 26.42% (adjusted residual = -3.08). Conversely, support is significantly higher in the Positive condition at 73.58% (adjusted residual = 3.08) and lower in the Negative Condition at 36.54% (adjusted residual = -3.08), indicating that positive sentiments about legalization's effects significantly boost support for legalization among Black Protestants (χ^2 = 14.61, p = 0.00).

Again, higher religious attendance shows a significant difference in opposition under the Negative condition, with 72.19% opposing legalization compared to 58.59 % in the Positive condition and 60.00% in the control condition (adjusted residual = 2.05). Support is significantly lower in the Negative condition at 33.11% (adjusted residual = -2.05). Religious attendance significantly affects support for legalization under adverse racial impact conditions, suggesting that highly religious individuals might be more influenced by negative racial contexts in their stance on drug policies. For those with no religious affiliation ("Religious Nones"), there are no significant differences in support or opposition across conditions, with support consistently around 61.63% and opposition at 38.37% ($\chi^2 = 1.82$, p = 0.40), suggesting elite racial appeals do not significantly impact their views on legalization.

Among age categories, young adults show a significant increase in support under the Positive condition at 63.08% (adjusted residual = 2.59) and lower opposition at 36.92% (adjusted residual = -2.59), indicating positive racial framing significantly enhances support for legalization (χ^2 = 6.83, p = 0.03). Early middle-aged individuals also show significant differences, with higher support in the Positive condition at 66.67% (adjusted residual = 2.83) and lower opposition at 33.33% (adjusted residual = -2.83) (χ^2 = 10.95, p = 0.00). Late middle-aged respondents, however, only show marginally significant differences, with lower opposition in the Positive condition at 47.31% (adjusted residual = -2.44) (χ^2 = 6.26, p = 0.04). For seniors, there are no significant differences in support or opposition across conditions, with opposition percentages ranging from 64.04% in the Positive condition to 71.97% in the Negative condition and support percentages ranging from 28.03% in the Negative condition to 35.96% in the Positive condition (χ^2 = 2.21, p = 0.33), suggesting that explicit racial appeal exposure does not significantly affect their stance on legalization.

Regarding party affiliation, Democrats showed a significant increase in support in the Positive condition at 67.61% (adjusted residual = 2.88) and a decrease in opposition at 32.39% (adjusted residual = -2.88), while the Negative condition had higher opposition at 45.06% (adjusted residual = 2.50) and lower support at 54.94% (adjusted residual = -2.55) (χ^2 = 10.47, p = 0.00). Independents also showed a significant increase in support in the Positive condition at 61.40% (adjusted residual = 2.48) and lower opposition at 38.60% (adjusted residual = -2.48) (χ^2 = 6.23, p = 0.04). Republicans exhibited a significant increase in opposition in the Negative condition at 69.78% (adjusted residual = 2.31) and lower support at 30.22% (adjusted residual = -2.31) (χ^2 = 7.37, p = 0.05).

For race, Whites exhibited increased support in the Positive condition at 54.81% (adjusted residual = 2.58) and decreased opposition at 45.19% (adjusted residual = -2.58) (χ^2 = 7.49, p = 0.02). Blacks show increased support in the Positive condition at 69.41% (adjusted residual = 2.93) and higher opposition in the Negative condition at 58.02% (adjusted residual = 2.90) (χ^2 = 12.67, p = 0.00). Hispanics showed no significant differences (χ^2 = 2.22, p = 0.33).

Racial importance indicates significant differences for Blacks, with increased support in the Positive condition at 70.31% (adjusted residual = 2.54) and higher opposition in the Negative condition at 58.73%

(adjusted residual = 2.85) (χ^2 = 10.97, p = 0.00). Whites and Hispanics did not show statistically significant differences.

Educational level showed significant findings for those with a high school education or less, with increased support in the Positive condition at 68.92% (adjusted residual = 3.47) and decreased opposition at 31.08% (adjusted residual = -3.47) (χ^2 = 16.18, p = 0.00). Respondents with some college education showed increased support in the Positive condition at 55.68% (adjusted residual = 2.11) (χ^2 = 5.29, p = 0.07), while college graduates showed no significant differences (χ^2 = 3.89, p = 0.14).

For females, the Pearson chi-square test results indicate a significant difference (χ^2 (1) = 10.68, p < 0.001). In the Positive condition, 54.78% of females supported legalization, with an adjusted residual of 3.02, highlighting a substantial positive shift in opinion compared to the control group. Conversely, in the Negative condition, only 42.65% supported legalization, with an adjusted residual of -2.31, indicating a significant decrease in support. The support was 46.65% in the Control condition, showing no significant difference.

Similarly, the Pearson chi-square test results also indicate a significant difference (χ^2 (1) = 9.13, p < 0.01) among males. In the Positive condition, 58.47% of males supported legalization, with an adjusted residual of 2.61, indicating a significant positive shift in opinion. In the Negative condition, only 46.81% supported legalization, with an adjusted residual of -2.40, marking a significant decrease in support. The support was 51.98% in the Control condition, showing no significant difference.

Regionally, respondents from the South showed increased support in the Positive condition at 57.98% (adjusted residual = 3.18) and higher opposition in the Negative condition at 60.42% (adjusted residual = 3.80) (χ^2 = 18.06, p = 0.00), indicating that Southern residents are significantly influenced by the explicit elite racial framing of pro- or anti-marijuana legalization arguments, with positive framing leading to higher support and negative framing leading to lower support.

For perceptions about marijuana as a gateway drug, no significant differences were found across conditions ($\chi^2 = 1.76$, p = 0.41), with opposition percentages ranging from 73.52% in the Positive condition to 77.49% in the Negative condition and support percentages ranging from 22.51% in the

Negative condition to 26.48% in the Positive condition ($\chi^2 = 2.21$, p = 0.33), suggesting that explicit racial appeal exposure does not significantly affect their stance on legalization.

However, for those with police encounters, there was increased opposition in the Negative condition at 45.96% (adjusted residual = 2.84) and higher support in the Positive condition at 71.43% (adjusted residual = 2.51) (χ^2 = 10.56, p = 0.00).

For racially resentful participants, there were no significant differences in support or opposition across the conditions, with opposition percentages ranging from 66.97% in the Positive condition to 64.89% in the Negative condition and support percentages ranging from 35.11% in the Negative Condition to 32.03% in the Positive Condition ($\chi^2 = 1.13$, p = 0.57). In other words, racial rhetoric exposure does not significantly affect the stance on legalization taken by those who are resentful toward African Americans.

These findings illustrate that exposure to explicit elite pro- and anti-marijuana legalization arguments framed to highlight how legalization would impact the African American community significantly affects support for marijuana legalization, with variations across religious, demographic, and socio-political factors. Positive racial framing generally increases support, while negative framing enhances opposition, highlighting the nuanced influence of racial-impact framing in shifting attitudes toward marijuana legalization.

			Condition		
	Positive Condition	Negative Condition	s Control	Total	χ 2, p-value
<i>(Religious Traditions)</i> Mainline					3.11. ns
Oppose	49.54% ns	60.98% ns	54.40% ns	55.06%	
Support	50.46%	39.02%	45.60%	44.94%	
Evangelical	110	110	110		4.44. 0.11
Oppose	59.05% ns	66.89% (2.05)	56.14% ns	60.12%	,
Support	40.95% ns	33.11% (-2.05)	43.86% ns	39.88%	
Catholic		(,			5.36, **
Oppose	46.36% (-2.30)	59.69% ns	58.41% ns)	55.85%	- ,
Support	53.64% (2.30)	40.31% ns	41.59% ns	44.15%	
Black Protestant					14.61, ***
Oppose	26.42% (-3.08)	63.46% (3.25)	43.82% Ns	44.33%	
Support	73.58% (3.08)	36.54% (-3.25)	56.18% ns	55.67%	
Religious Nons		· · ·			1.82, ns
Oppose	34.54% ns	40.7% ns	38.97% ns	38.37%	
Support	65.46% ns	59.24% ns	61.03% ns	61.63%	
(Age category)					
Young Adults					6.83, **
Oppose	36.92% (-2.59)	50.96% ns	49.38% ns	46.78%	
Support	63.08% (2.59)	49.04% ns	50.62% ns	53.22%	
Early middle-aged	. ,				10.95, ***
Oppose	33.33% (-2.83)	47.85% (2.64)	41.53% ns	41.68%	
Support	66.67% (2.83)	52.15% (-2.64)	58.47% ns	58.32%	
Late middle-aged					6.26, **
Oppose	47.31% (-2.44)	59.89%	57.24%	55.34%	·
Support	52.69% (2.44)	40.11% ns	42.76% ns	44.66%	

 Table 16 Relationship Between Support for Federal Recreational Legalization and Exposure to

 Racial Sentiments Controlling for Respondents' Characteristics

	Table	16	continued
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			Condition		
			S		
	Positive Condition	Negative Condition	Control	Total	χ 2, p-value
Seniors					2.21, ns
Oppose	64.04%	71.97%	65.09%	66.99%	
	ns	ns	ns		
Support	35.96%	28.03%	34.91%	33.01%	
	ns	ns	ns		
(Party Affiliation)					
Democrats					10.47, ***
Oppose	32.39%	45.06%	39.96%	39.60%	
	(-2.88)	(2.50)	ns		
Support	67.61%	54.94%	60.04%	60.40%	
	(2.88)	(-2.55)	ns		
Independents					6.23, **
Oppose	38.60%	52.74%	51.19%	48.83%	
	(-2.48)	(1.12)	ns		
Support	61.40%	47.26%	48.81%	51.17%	
	(2.48)	(-1.12)	ns		
Republicans					7.37, p = *
Oppose	59.65%	69.78%	63.03%	64.25%	
	(-1.67)	(2.31)	ns		
Support	40.35%	30.22%	36.97%	35.75%	
	(1.67)	(-2.31)	ns		
(Sex)					
Female	45.00%			50.040/	10.68, ***
Oppose	45.22%	57.35%	53.35%	52.64%	
	(-3.02)	(2.31)	ns	47.000/	
Support	54.78%	42.65%	46.65%	47.36%	
Mala	(3.02)	(-2.31)	ns		0 4 0 **
Male			40.000/	47.000/	9.13, **
Oppose	41.53%	53.19%	48.02%	47.89%	
	(-2.61)	(2.40)	ns	50 4 4 9 (
Support	58.47%	46.81%	51.98%	52.11%	
Ocurth	(2.61)	(-2.40)	ns		40.00 ***
South	40.000/	60 400/	40.669/	E0 040/	18.06, """
Oppose	42.UZ%	0U.42%	49.00%	50.94%	
Quanart	(-3.18) 57.000/	(J.ÖU) 20 590/	11S	10.060/	
Support	51.90% (240)	33.30% (2 90)	50.34%	49.00%	
	(3.18)	(-3.8U)	ns		

			Condition		
			S		
	Positive Condition	Negative Condition	Control	Total	χ 2, p-value
Cataway					1.76
Gateway		77 400/	70 500/	74.000/	1.76, NS
Oppose	73.52%	11.49%	73.50%	74.80%	
Current ant				05 000/	
Support	26.48%	22.51%	26.44%	25.20%	
Delles encounter	ns	ns	ns		40 50 ***
Police encounter	00 570/	45.000/	20.400/	00 700/	10.56, ****
Oppose	28.57%	45.96%	36.10%	30.73%	
Current and	(-2.51)	(2.84)		00.070/	
Support	/1.43%	54.04%	63.90%	63.27%	
	(2.51)	(-2.84)	ns		
(Race)					7 40 **
white	45 400/	50 740/	44.000/		7.49, **
Oppose	45.19%	53.71%	44.38%	50.45%	
a	(-2.58)	ns	ns		
Support	54.81%	46.29%	55.63%	49.55%	
	(2.58)	ns	ns		
Blacks					12.67, ***
Oppose	30.59%	58.02%	44.38%	44.17%	
	(-2.93)	(2.90)	(0.07)		
Support	69.41%	41.98%	55.63%	55.83%	
	(2.93)	(-2.90)	(0.07)		
Hispanic					2.22, ns
Oppose	42.55%	56.25%	44.86%	47.03%	
	ns	ns	ns		
Support	57.45%	43.75%	55.14%	52.97%	
	ns	ns	ns		
(Educational level)					
HS/less graduate					16.18, ***
Oppose	31.08%	52.82%	43.69%	43.56%	
	(-3.47)	(3.10)	ns		
Support	68.92%	47.18%	56.31%	56.44%	
	(3.47)	(-3.20)	ns		
Some college					5.29, **
Oppose	44.32%	56.12%	51.92%	51.14%	
	(-2.11)	ns	ns		
Support	55.68%	43.88%	48.08%	48.86%	
	(2.11)	ns	ns		
College graduate +					3.89, ns
Oppose	48.49%	55.88%	54.08%	53.23%	
	ns	ns	ns		
Support	51.51%	44.12%	45.92%	46.77%	
	ns	ns	ns		

Table 16 continued

			Conditions		
	Positive Condition	Negative Condition	Control	Total	χ 2, p-value
(Racial importance)					
White					0.25, ns
Oppose	55.56%	58.26%	55.50%	56.33%	
	ns	ns	ns		
Support	44.44%	41.74%	44.50%	43.67%	
	ns	ns	ns		
Black					10.97, ***
Oppose	29.69%	58.73%	42.52%	43.31%	
	(-2.54)	(2.85)	(-0.25)		
Support	70.31%	41.27	57.48%	56.69%	
	(2.54)	(-2.85)	(0.25)		
Hispanic					1.70, ns
Oppose	36.00%	52.00%	50.91%	36.00%	
	ns	ns	ns		
Support	64.00%	48.00%	49.09%	64.00%	
	ns	ns	ns		
Racial resentment					1.13, ns
Oppose	66.97%	64.89%	61.19%	63.72%	
	ns	ns	ns		
Support	33.03%	35.11%	38.81%	36.28%	
	ns	ns	ns		
Religious attendance					2.36, **
Oppose	58.59%	72.19%	60.00%	63.14%	
	ns	(2.73)	ns		
Support	41.41%	27.81%	40.00%	36.86%	
	ns	(-2.73)	ns		

Table 16 continued

Note: Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true. ****p* < .01, ***p* < .05, **p* < .10, ns = not significant

Bivariate Analysis: Opinions About Economic Reparation

Next, I investigate the extent to which respondents in the experimental groups support a marijuana economic reparation program defined as reserving recreational marijuana dispensary licenses for individuals from communities that were disproportionately impacted by the enforcement of cannabis prohibition and other marginalized groups. The results in Table 17 reveal significant differences in support for economic reparation across the experimental conditions. As shown in Figure 7, respondents in the Positive condition have higher support for economic reparation than respondents in the Negative and

Control conditions. Inversely, support for economic reparation was relatively lower among respondents in

the Negative condition compared to those in the Positive and Control conditions.



Figure 6 Predicted Probability of Support for Economic Reparation by Respondents across the Experimental Groups with a 95% CI

Note: Predicted probability was generated from a bivariate logistic regression

The chi-square test results in Table 17 reveal that in the Positive condition, 56.57% of respondents supported economic reparation, significantly higher than the expected value under the null hypothesis of independence, as indicated by an adjusted residual of 3.58. Conversely, 43.43% of respondents opposed economic reparation in this condition, with an adjusted residual of -3.58, showing a significant reduction in opposition.

In stark contrast, the Negative condition shows a support rate of 46.54%, with an adjusted residual of - 2.53, indicating a significant decrease in support compared to the Positive condition. Meanwhile, opposition in the Negative condition stands at 53.46%, with an adjusted residual of 2.53, indicating a notable increase in opposition.

In the Control condition, the support was 49.51%, and opposition was 50.49%, with no adjusted residuals reaching the significance threshold of \pm 1.96, suggesting no significant deviation from the expected values under the null hypothesis.

The comparative analysis between the Positive and Negative conditions highlights the powerful influence of elite racial framing on public opinion. The Positive condition results in a higher support rate for economic reparation (56.57%) compared to the Negative Condition (46.54%), demonstrating that positive framing can significantly enhance public support. Conversely, the Negative condition results in higher opposition rates (53.46%) compared to the Positive condition (43.43%).

•	Conditions						
Economic reparation	Positive	Negative	Control	Total			
Oppose	43.43% (-3.50)	53.46% (2.53)	50.49%	49.64%			
Support	56.57% (3.50)	46.54% (-2.53)	49.51%	50.36%			
Total	100.00	100.00	100.00	100.00			

Table 17 Economic Reparation Opinion by Experimental Conditions

Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true.

Pearson Chi2 (2) = 14.42, p-value < 0.001

likelihood-ratio chi2(2) = 14.45, p-value <0.001

Bivariate Analysis Controlling for Subgroups: Opinions About Economic Reparations

The chi-square analysis in Table 18 further examines support for economic reparation by treatment exposure, controlling for respondents' characteristics. Table 18 reveals that for White respondents, the Positive condition shows 50.34% support for economic reparation, the Negative condition shows 43.54% support, and the Control condition shows 45.54% support. These differences are marginally statistically significant ($\chi^2 = 4.77$, p = 0.09).

Among Black respondents, there is a consistently high level of support for economic reparation across all conditions, with 74.12% support in the Positive condition, 69.14% in the Negative condition, and 70.44% in the Control condition. These differences are not statistically significant ($\chi^2 = 0.56$, p = 0.76). Hispanic respondents show considerable variation, with 71.74% support in the Positive condition (adjusted residual = 2.45), 50.00% in the Negative condition, and 51.89% in the Control condition. The differences are statistically significant ($\chi^2 = 6.05$, p = 0.05), indicating that positive racial framing significantly increases support among Hispanic respondents.

Similarly, among Black Protestants, there is a consistently high level of support for economic reparation across all conditions, with 73.58% support in the Positive condition, 69.23% in the Negative condition, and 69.66% in the Control condition. These differences are also not statistically significant ($\chi^2 = 0.31$, p = 0.86).

Examining respondents who considered their racial identity important to them, White respondents show 38.27% support in the Positive condition, 46.09% in the Negative condition, and 51.83% in the Control condition, with a p-value of 0.11, indicating no significant difference. Black respondents maintain high support levels across conditions, with no significant variation ($\chi^2 = 0.42$, p = 0.81). While not showing significant differences ($\chi^2 = 2.65$, p = 0.27), Hispanic respondents still display higher support in the Positive Condition (72.00%) compared to the Negative and Control conditions.

For Republicans, the chi-square value of 7.54 with a significance level (p < 0.01) indicates statistically significant differences in their stance on economic reparation across the experimental conditions. In the Positive condition, 57.96% of Republicans opposed economic reparation, while 42.04% supported it. The adjusted residuals (-2.13 for opposition and 2.13 for support) indicate that opposition is significantly lower,

and support is significantly higher than expected under the null hypothesis of independence. In the Negative condition, opposition increased to 69.68%, with only 30.32% showing support. The adjusted residuals (2.42 for opposition and -2.42 for support) highlight that opposition is significantly higher, and support is significantly lower than expected.

For Democrats, the chi-square value of 4.84 with a significance level (p < 0.05) suggests significant differences in support for economic reparation across the conditions. In the Positive condition, 30.39% opposed and 69.61% supported economic reparation, with adjusted residuals (-2.14 for opposition and 2.14 for support) showing that opposition is significantly lower, and support is significantly higher than expected. In the Negative condition, opposition increased to 38.48%, with support at 61.52%. The Control condition showed 36.70% opposition and 63.30% support, aligning closely with baseline expectations.

Support remains low across all conditions for respondents categorized by racial resentment, with no significant differences ($\chi^2 = 0.27$, p = 0.87). The highest opposition is in the Negative Condition (76.34%), and the highest support is in the Control condition (24.88%).

Finally, for respondents with police encounter experiences, there is a significant difference in support for economic reparation. In the Positive condition, support is high at 76.25% (adjusted residual = 3.04), while opposition is significantly lower at 23.75% (adjusted residual = -3.04). In contrast, support in the Negative condition is 60.25% (adjusted residual = -1.98), significantly lower than expected, while opposition is markedly higher at 39.75%. The differences are statistically significant (χ^2 = 10.10, p = 0.01).

				Conditions		
		Positive Condition	Negative Condition	Control	Total	χ 2, p-value
<i>(Racia</i> White	l categorization)					4.77, *
	Oppose	49.66%	59.46%	54.32%	53.82%	
	Support	50.34%	43.54%	45.54%	46.18%	
Blacks						0.56, ns
	Oppose	25.88%	30.86%	29.56%	28.92%	
	Support	74.12%	69.14%	70.44%	71.08%	
Hispan	ic					6.05, *
	Oppose	28.26% (-2.45)	50.00%	48.11%	44.00 %	
	Support	(1.10) 71.74% (2.45)	50.00%	51.89%	56.00%	
(Rac	ial importance)	(- <i>)</i>				
White	000000	61 720/	52 01%	10 170/	FO 71 0/	4.29, ns
	Oppose	01.7370	46.00%	40.17 /0	JZ.71 /0	
	Support	30.21%	40.09%	51.03%	47.29%	
Black	Oppose	25.00%	26.98%	29.37%	27.67%	0.42, ns
	Support	75.00%	73.02%	70.63%	72.33%	
Hispan	ic					2.65 ns
mopun	Oppose	28.00%	48.00%	45.45%	41.90%	2.00, 110
	Support	72.00%	52.00%	54.55%	58.10%	
Black p	protestant					
	Oppose	26.42%	30.77%	30.34%	29.38%	0.31, ns
	Support	73.58%	69.23%	69.66%	70.62%	
Democ	rat					4.84, *
	Oppose	30.39% (-2.14)	38.48%	36.70%	35.62 %	
	Support	69.61% (2.14)	61.52%	63.30%	64.38%	

 Table 18 Relationship Between Support for Economic Reparation and Exposure to Elite Racial

 Framing Controlling for Subgroups

			Conditions		
	Positive	Negative	Control	Total	χ 2, p-value
	Condition	Condition			
Republicans					7.54, **
Oppose	57.96%	69.68%	63.18%	63.87%	
	(-2.13)	(2.42)			
Support	42.04%	30.32%	36.82%	36.13%	
	(2.13)	(-2.42)			
Racial resentment					0.27, ns
Oppose	73.39%	76.34%	75.12%	75.06%	
Support	26.61%	23.66%	24.88%	24.94%	
Police encounter					10.10, ***
Oppose	23.75%	39.75%	35.38%	33.44%	
	(-3.04)	(1.98)			
Support	76.25%	60.25%	64.62%	66.56%	
	(3.04)	(-1.98)			

Table 18 continued

Note: Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true. ****p* < .01, ***p* < .05, **p* < .10, ns = not significant

Multivariate Analysis with Interactions: Opinion About Economic Reparation

In Table 19, I develop a logistic regression model to explore the relationship between support for economic reparation and the interaction between the importance of white racial identity and exposure to a pro-legalization elite frame. This model controls for key variables, including political affiliation, education, racial resentment, police encounters, and white racial importance. The analysis in Table 19 reveals several significant findings.

Firstly, individuals in the Positive condition are 1.651 times more likely to support economic reparation compared to those in the Negative condition, with this result being statistically significant (p < 0.001). Conversely, the Control condition does not show a significant effect on support for economic reparation compared to the Negative condition with an odds ratio of 1.099 and a p-value of 0.367.

Political affiliation also plays a critical role. Regardless of information exposure, Independents and Republicans are significantly less likely to support economic reparation, with odds ratios of 0.519 and 0.413, respectively (both p < 0.001), suggesting that those identifying as Independent or Republican are less supportive compared to Democrats.
Educational attainment influences support as well. Regardless of information exposure, individuals with some college education have lower odds (odds ratio = 0.769, p = 0.035) of supporting economic reparation than those with a high school education or less. Similarly, college graduates are less likely to support economic reparation, with an odds ratio of 0.806 (p = 0.051).

Racial resentment is a strong negative predictor of support for economic reparation. The odds ratio is 0.277 (p < 0.001), indicating that higher levels of racial resentment, regardless of information exposure, significantly decrease the likelihood of supporting economic reparation.

Individuals who report that either they or their close family members have had an encounter with police or other law enforcement officers related to using marijuana, regardless of information exposure, are more likely to support economic reparation, with an odds ratio of 1.849 (p < 0.001), suggesting that personal or vicarious experiences with the police may heighten support for policies aimed at addressing economic injustices.

Racial importance also influences support. Black respondents who view racial importance highly are more likely to support economic reparation (odds ratio = 1.8, p = 0.006). For White respondents, higher racial importance alone increases the likelihood of support (odds ratio = 1.415, p = 0.014). However, the interaction term (Positive * White racial importance) has an odds ratio of 0.403 (p = 0.002), indicating that the positive frame significantly reduces the effect of White racial importance on support for economic reparation. In other words, framing legalization as helpful for the Black community actually has a boomerang effect of making these Whites more likely to oppose reparations than they would be otherwise.

Model 7		
Independent variables	Odds ratio	p-value
Positive condition	1.651	***
Control condition	1.099	
Black Protestants	.978	
Independent	.52	***
Republicans	.413	***
Some college	.769	**
College graduate +	.806	*
Racial resentment	.358	***
Police encounter	2.105	***
Black racial importance	1.8	***
White racial importance	1.415	**
Positive * White racial importance	.403	***
Constant	1.489	***
Model Statistics	N = 2,346	
	χ ² = 337.02***	
	Pseudo R ² = 0.10	

Table 19 Regression Estimates of Support for Economic Reparation with an Interaction Variable

Source: Survey embedded-experiment data ***p < .01, **p < .05, *p < .10 (two-tailed tests) Note: Reference groups are Negative condition, Democrats, and High School or less.

Bivariate Analysis: Opinions About the Economic Impact of Legalization on Marginalized Communities I finally assess in this section respondents' perception of whether legalization will economically benefit marginalized communities. In Table 20, I examine the relationship between views about the economic impact of legalization on marginalized communities and the exposure to various experimental conditions. As shown in Figure 8, respondents in the Positive condition are more likely to believe that legalization would improve marginalized communities economically than those in the Negative and Control conditions. Inversely, respondents in the Negative condition were less likely to believe that legalization would improve marginalized communities economically than those in the Positive and Control conditions.





Note: Predicted probability was generated from a bivariate logistic regression

The results from Table 20 examine perceptions of whether marijuana legalization would economically benefit marginalized communities across different experimental conditions. In the Positive condition, 55.43% of respondents disagreed that legalization would improve marginalized communities, whereas 44.57% agreed. In contrast, in the Negative condition, a higher percentage (70.17%) disagreed, while only 29.83% agreed. In the Control condition, 66.06% disagreed, and 33.94% agreed. The adjusted residuals indicate significant deviations from the null hypothesis of independence. Specifically, in the Positive and Negative conditions, the higher agreement and lower disagreement rates are significant, as indicated by the bolded adjusted residuals. The Pearson Chi-Square test and the

likelihood-ratio Chi-Square test both show highly significant results (Pearson Chi² (2) = 34.08, p < 0.001; likelihood-ratio Chi² (2) = 33.62, p < 0.001), indicating evidence that the experimental conditions influenced respondents' perceptions.

Table 20 Perception of Whether Legalization Would Improve Marginalized CommunitiesEconomically by Experimental Conditions

	Conditions				
– Improve marginalized communities	Positive	Negative	Control	Total	
Disagree	55.43% (-5.56)	70.17% (3.81)	66.06%	64.68%	
Agree	44.57% (5.56)	29.83% (-3.81)	33.94%	35.32%	
Total	100.00	100.00	100.00	100.00	

Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true. Pearson Chi2 (2) = 34.08, p-value <0.001

likelihood-ratio chi2(2) = 33.62, p-value < 0.001

Bivariate Analysis Controlling for Subgroups: Opinions About the Economic Impact of Legalization on Marginalized Communities

Table 21 examines the relationship between the perception of whether legalization would economically improve marginalized communities and exposure to experimental treatment, controlling for various subgroups. Among Whites, 59.50% in the Positive condition disagreed that legalization would improve marginalized communities economically, with an adjusted residual of -3.86, indicating a significant deviation. In contrast, 40.50% agreed, showing a significant positive deviation (adjusted residual = 3.86). In the Negative condition, 70.28% disagreed, which is a significant positive deviation (adjusted residual = 2.03), while only 29.72% agreed (adjusted residual = -2.03). This suggests that the Negative condition significantly increases disagreement among Whites compared to the Positive condition and the control group, with 68.91% disagreement and 31.09% agreement.

For Black respondents, 39.51% in the Positive condition disagreed (adjusted residual = -3.03), while a substantial 60.49% agreed (adjusted residual = 3.03). In the Negative condition, 62.82% disagreed, with no significant deviation noted, and 37.18% agreed. The control group showed 57.05% disagreement and 42.95% agreement. These results indicate that the positive condition significantly increases agreement among Black respondents.

Hispanic respondents also displayed notable differences. In the Positive condition, 45.65% disagreed (adjusted residual = -2.20), while 54.35% agreed (adjusted residual = 2.20). The Negative condition had 72.92% disagreement (adjusted residual = 2.16) and 27.08% agreement (adjusted residual = -2.16), indicating a significant increase in disagreement in the Negative condition. The control group showed 59.62% disagreement and 40.38% agreement.

Examining the importance of racial identity, Whites showed no significant differences, with disagreement and agreement percentages roughly similar across all conditions. However, for Black respondents, the Positive condition significantly increased agreement (66.67% with adjusted residual = 3.19), while the Negative condition increased disagreement (62.30% with adjusted residual = 2.00). Hispanics showed significant deviation in the Negative condition with 68.00% disagreement (adjusted residual = 2.07) and 32.00% agreement (adjusted residual = -2.07).

There was also a significant difference among Black protestants (χ^2 = 18.43, p < 0.001). In the Positive condition, 69.39% agreed (adjusted residual = 4.29), significantly higher than 35.29% in the Negative condition and 33.33% in the Control condition (adjusted residual = -2.57). In the positive condition, Black Protestants agreed that legalization would help improve marginalized communities economically.

There were also significant differences among Republicans ($\chi^2 = 8.73$, p < 0.05). In the Positive condition, 32.46% agreed (adjusted residual = 2.93), compared to 22.02% in the Negative condition and 23.17% in the Control condition. Republicans in the Positive condition significantly agreed with the view that legalization would help improve marginalized communities economically.

There were significant differences among Democrats across conditions ($\chi^2 = 23.14$, p < 0.001). In the Positive condition, 56.88% agreed (adjusted residual = 4.00), while only 37.46% agreed in the Negative

condition (adjusted residual = -4.07). The control condition had 47.05% agreement. Democrats in the Positive condition were significantly more likely to agree. In contrast, Democrats in the Negative condition were significantly more likely to disagree with the view that legalization would help improve marginalized communities economically.

Racial resentment did not yield significant differences across conditions, with disagreement and agreement levels remaining consistent. However, police encounters showed significant differences. In the positive condition, 42.77% disagreed (adjusted residual = -3.11), and 57.23% agreed (adjusted residual = 3.11). The Negative condition increased disagreement to 64.10% (adjusted residual = 3.17) and decreased agreement to 35.90% (adjusted residual = -3.17).

In summary, the perception that legalization would economically benefit marginalized communities varies significantly with exposure to experimental treatments, particularly among racial groups and those with police encounters. Positive framing tends to increase agreement, while negative framing increases disagreement. These findings underscore the importance of framing in shaping public perceptions and policy support.

			Conditions		
	Positive Condition	Negative Condition	Control	Total	χ 2, p-value
<i>(Racial categorization)</i> White					15.20, ***
Disagree	59.50% (-3.86)	70.28% (2.03)	68.91%	66.97%	
Agree	40.50% (3.86)	29.72% (-2.03)	31.09%	33.03%	
Blacks					9.88, ***
Disagree	39.51% (-3.03)	62.82%	57.05%	53.97%	
Agree	60.49% (3.03)	37.18%	42.95%	46.03%	
Hispanic					7.25, **
Disagree	45.65% (-2.20)	72.92% (2.16)	59.62%	59.60%	
Agree	54.35% (2.20)	27.08% (-2.16)	40.38%	40.40%	
(Racial importance)					
White					0.55, ns
Disagree	66.67%	66.67%	63.04%	64.91%	
Agree	33.33%	33.33%	36.96%	35.09%	
Black					11.18, ***
Disagree	33.33% (-3.19)	62.30% (2.00)	54.40%	51.22%	
Agree	66.67%́ (3.19)	37.70 [%] (-2.00)	45.60%	48.78%	
Hispanic					5.93, *
Disagree	33.33%	68.00% (2.07)	49.06%	50.00%	
Agree	66.67%	32.00 [%] (2.07)	50.94%	50.00%	

 Table 21 Relationship Between perception of whether legalization would Improve Marginalized

 Communities Economically and Exposure to Experimental Treatment Controlling Subgroups

Note: Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true. ***p < .01, **p < .05, *p < .10, ns = not significant

Table 21 continued

			Conditions		
	Positive Condition	Negative Condition	Control	Total	χ 2, p-value
Black Protestants					18.43, ***
Disagree	30.61% (-4.29)	64.71%	66.67 (2.57)	56.68%	
Agree	69.39% (4.29)	35.29%	33.33 (-2.57)	43.32%	
Republicans	()		x y		8.73, **
Disagree	67.54% (-2.93)	77.98%	76.83%	74.83%	
Agree	32.46% (2.93)	22.02%	23.17%	25.17%	
Democrats	()				23.14, ***
Disagree	43.12% (-4.00)	62.54% (4.07)	52.95%	53.45%	
Agree	56.88% (4.00)	37.46% (-4.07)	47.05%	46.55%	
Racial resentment		X /			0.11, ns
Disagree	78.90%	78.63%	80.00%	79.32%	
Agree	21.10%	21.37%	20.00%	20.68%	
Police encounter					14.40, ***
Disagree	42.77% (-3.11)	64.10% (3.17)	53.18%	53.26%	
Agree	57.23% (3.11)	35.90% (-3.17)	46.82%	46.74%	

Note: Column percentages and adjusted residuals (in parentheses). Adjusted residuals greater than \pm 1.96 are highlighted in bold as they are more extreme than what would be expected if the null hypothesis of independence was true. ****p* < .01, ***p* < .05, **p* < .10, ns = not significant

Discussion

Consistent with Hypothesis 1, respondents were more likely to change their views on the legalization of marijuana when exposed to either pro- or anti-legalization elite racial information framed explicitly in terms of how legalization would impact African American communities. This is evident in that respondents exposed to pro-legalization information were highly supportive of recreational marijuana legalization. In sharp contrast, those exposed to anti-marijuana arguments were less supportive of recreational legalization. What this finding suggests is that the mass public generally does not have a firmly settled view on marijuana legalization, even though leading media narratives and public opinion polls show otherwise. Therefore, public education campaigns accurately conveying the risks and benefits of

marijuana on African American communities could significantly influence societal attitudes and, consequently, policy preferences.

The study also revealed that Blacks, compared to other races, had a more distinctive point of resonance with the experimental manipulation, which is consistent with Hypothesis 2 and the group-centric framework, suggesting that when frames emphasize who benefits, group-centered thinking tends to rise (Gilens 1996; Nelson and Kinder 1996; Soss, Langbein, and Metelko 2003; Winter 2006). Blacks showed greater responsiveness to elite racial pro-legalization appeals that promised legalization as a way to bring about criminal justice reform. Contrarily, Blacks were also significantly more responsive to anti-legalization arguments that make salient the perpetuation of racial economic inequality and the adverse health effect that legalization would have on young African Americans. These findings were even stronger among Blacks who consider their racial identity important to their self-concept.

The differential treatment effect was also more pronounced among Black Protestants than Blacks who are not Protestants. This finding aligns with studies showing that Black churches play an important role in African American political mobilization and activism (Harris 1994). Black Protestants, on the main, are very similar to White Evangelical protestants on several theological dimensions, such as the proscription of abortion and same-sex marriage (Burge and Djupe 2019). However, because of a history of being oppressed, Black Protestants have developed an entirely different perspective on religious practice and the role of government in helping protect those who are disadvantaged. My dissertation supports this claim, demonstrating that Black Protestants display a positive orientation toward the economic impacts of legalization in their communities when provided with affirmative information. This positive shift is especially evident within the context of business opportunities and potential investments in these areas, highlighting the significant role of targeted, affirmative messaging in shaping public opinion on both criminal justice reform and economic development.

Generally, Whites showed increased support for legalization in the positive condition but showed no significant difference in the Negative condition. This finding suggests that the positive condition may have activated a belief in personal autonomy and bodily sovereignty among Whites (Taylor 2014). Alternatively, it could indicate that Whites, influenced by contemporary norms of equality, aim to avoid being perceived

as racist. Consequently, they are more likely to condemn biased actions of the criminal justice system when exposed to elite information emphasizing racial injustice and unfair treatment imposed on marginalized groups through legislation prohibiting cannabis use.

The experimental study also revealed that individuals with lower educational attainment were more susceptible to changes in opinion due to new information or persuasive arguments presented in experimental conditions. In contrast, college graduates demonstrated no significant variations in support or opposition across experimental situations. This might be because higher levels of education are frequently associated with more solid and firmly held beliefs that are less amenable to change through experimental manipulations. College graduates may have more access to varied sources of information and a stronger capacity to critically assess arguments, resulting in more consistent policy choices less influenced by experimental settings (Zaller 1992).

Consistent with my hypotheses on the resilience of negative opinion about marijuana legalization, my dissertation revealed that Evangelical Protestants, individuals who spend more time in religious institutions, Republican party affiliates, and racially resentful individuals had a more fixed and inflexible negative opinion of legalization, indicating that "punitive attitudes are largely rooted in certain fairly stable underlying social psychological predispositions" (Bobo and Johnson 2004, 155). More specifically, Evangelical Protestants, people with higher levels of religious attendance, and Republicans showed a significant difference in opposition under the Negative condition and no significant difference under the Positive condition. This finding suggests that the anti-marijuana legalization sentiments instead activated rather than persuaded opinions.

Regarding economic reparations, opinions were generally malleable and susceptible to elite pro- and antilegalization suasions. However, Blacks, and to a greater extent, Black Protestants and Blacks who consider their race as important to their self-concept, showed a high level of support for economic reparation across all conditions. This suggests that regardless of information exposure, Blacks, because of their past experiences of racialized violence, validate a sustained push for equality and recognition. On the other hand, the importance of white racial identity substantially reduces the likelihood of supporting economic reparation. This reversal response suggests that Whites who are strongly attached to their race

consider a reparation program that prioritizes Blacks in the marijuana industry as relatively unfair and see such economic advantage to an out-group as a threat to their racial dominance (Jardina 2019).

Generally, the result on the issue of whether legalization would help improve marginalized communities suggests only a small degree of malleability of public opinion as a function of elite racial framing of the issue. The analysis revealed that respondents are generally skeptical about the view that legalization would help improve marginalized communities. The overall skepticism likely indicates the awareness of economic inequality in the United States, which allows the few wealthy Whites to exploit their position at the expense of the country's many poorer people of marginalized racial groups. (Brodkin 1998).

White respondents were generally skeptical about the economic benefits of legalization for marginalized communities. However, the positive framing condition slightly mitigates this skepticism, leading to a higher agreement rate (40.50%) than the Negative condition (29.72%). This finding suggests that positive elite messaging can partially shift perceptions among White respondents, though the overall skepticism remains substantial.

In contrast, Black and Hispanic respondents show a more pronounced perception shift under the positive framing condition. For Black respondents, agreement that legalization would benefit marginalized communities is significantly higher in the Positive condition (60.49%) compared to the Negative condition (37.18%). Similarly, Hispanic respondents exhibit a substantial increase in agreement under the Positive condition (54.35%) relative to the Negative condition (27.08%). These findings underscore the potential for targeted positive framing to effectively shift perceptions among racial minorities, who may be more responsive to messages that align with their experiences and aspirations for economic improvement.

When controlling for racial importance, the results for White respondents remain largely unchanged, indicating no significant differences across conditions. This suggests that for White respondents, the salience of racial identity does not significantly interact with elite framing to influence perceptions about legalization's economic impact. In contrast, Black respondents with high racial importance show significant positive shifts in their perceptions under the positive framing condition, reinforcing the idea that racial identity salience can amplify the impact of positive messaging.

The influence of political affiliation is particularly notable. Among Republicans, the positive framing condition reduces opposition to the idea that legalization would benefit marginalized communities, though a majority still disagree. This partial shift suggests that while positive framing can slightly mitigate opposition, deeply rooted partisan beliefs remain dominant in shaping perceptions.

Democrats, on the other hand, exhibit a more substantial shift in their perceptions under the positive framing condition. The agreement that legalization would benefit marginalized communities is significantly higher in the Positive condition (56.88%) compared to the Negative condition (37.46%). This indicates that Democrats are more responsive to positive elite framing, likely due to their ideological alignment with social justice and economic equity themes.

Overall, this section demonstrates that the experimental manipulation elicited differential treatment effects on three key outcome variables: support for recreational marijuana legalization, support for a marijuana economic reparation program, and perceptions of whether legalization would economically benefit marginalized communities.

Chapter 6: Conclusion

Summary

Although the legalization of marijuana has been portrayed as a remedy for the ongoing racial injustices within the criminal justice system, achieving racial justice has often been a secondary or incidental aim. This has led to continued discriminatory enforcement of marijuana laws, the exclusion of people of color from leading and benefiting from the marijuana industry, and a failure to address the harms inflicted on communities of color by the drug war.

Despite these racial disparities, marijuana legalization campaigns have successfully legalized its use in most U.S. states. Media narratives, public opinion polls, and prior research indicate that support for legalization has grown robust due to various factors, including the perception that it addresses racial inequities in the criminal justice system.

This dissertation contributes to the study of public opinion on marijuana legalization by offering one of the few comprehensive evaluations of how elite racial communication influences racial perceptions regarding marijuana. It examines the factors that shape opinions on marijuana policies in the U.S. and evaluates the stability of these views. Specifically, my research assesses the impact of explicit elite arguments, both for and against legalization, framed in terms of their effects on the African American community. My dissertation investigates the influence of such racial framing on respondents' policy positions regarding the extent of legalization, reparative marijuana policies, and beliefs about whether legalization would benefit underrepresented communities.

Consistent with my theoretical expectations, the experimental manipulation produced effects on respondents' views regarding support for recreational marijuana legalization, support for a marijuana economic reparative program, and perceptions of whether legalization would economically benefit marginalized communities. For instance, individuals exposed to positive framing were significantly more likely to support recreational legalization (56.62%) compared to those in the negative framing condition (44.60%) and the control group (49.29%). These findings indicate that explicit elite racial framing can significantly influence public opinion about marijuana policies. They also suggest that contrary to mainstream media portrayals and certain polling firms, opinions about marijuana policies are not deeply

entrenched or settled. Instead, they are more nuanced and malleable, especially when influenced by explicit elite racial rhetoric.

The differential treatment effects - except for views on economic reparative marijuana policy, which consistently showed high levels of support among Blacks - were more pronounced among Black Protestants and Blacks who consider their racial identity important to their self-concept. These findings demonstrate that explicit racial cues effectively activate in-group identification among Blacks. This contrasts with previous studies, which indicate that racial cues are only effective in activating racial attitudes on ostensibly non-racial issues when they are implicit, especially among Whites (Mendelberg 2001; Valentino, Hutchings, and White 2002). This result is also suggestive that although African Americans experience and are keenly aware of the inherent racial prejudice in the criminal justice system (see Table 22), they are not deeply politicized nor united in their views on marijuana legalization.

This division in views, I argue, arises from a state of ambivalence rooted not in ignorance but in an inability or unwillingness to fully commit to a single stance. In this context, forming an opinion involves negotiating among competing, often contradictory considerations (Chong 1993; Liberman and Chaiken 1991). For instance, one must weigh the benefits of supporting legalization, which could help expunge unjust criminal records that hinder employment, credit access, and normal living for people of color, against the potential drawbacks, such as the risk of young African Americans being involved in accidents, injuries, or arrests due to driving under the influence of marijuana. Thus, explicit elite racial frames help temporarily resolve the uncertainty in opinions caused by ambivalence by providing guidance on the relevance and importance of these conflicting factors.

As Table 22 indicates, Black individuals are acutely aware of and experience racial prejudice in the criminal justice system. There is a significant difference in perceptions of racial disparities in sentencing, with an overwhelming 92% of Black respondents believing that minorities are more likely to be sentenced than Whites. Similarly, the data shows that Black individuals are more likely to have a police encounter related to marijuana than other races, reflecting broader concerns about policing practices and racial profiling in law enforcement.

Table 22 Views of Racial Disparities in the Criminal Justice System and Marijuana Police Encounters by Race

	Whites	Blacks	Hispanics	Other
Racial Unfairness in the CJ System				
Minorities are more likely than whites to be sentenced	50.23%	92.00%	65.85%	69.59%
Whites and minorities are equally likely to be sentenced	49.77%	8.00%	34.15%	30.41%
Pearson's Chi-Square, p-value = 252.70, ***				
Marijuana police encounter				
Yes	20.92%	37.85%	30.85%	20.36%
No	79.08%	62.15%	69.15%	79.64%
Pearson's Chi-Square, p-value = 50.29, ***				

Note: The table displays column percentages

Source: Racial unfairness, Pew 2021; Police encounter, Survey-embedded experiment 2023.

***p < .01, **p < .05, *p < .10

Another noteworthy finding regarding economic marijuana reparations is that the positive condition elicited a counterintuitive response from Whites who consider their racial identity important to their selfconcept. This suggests that the positive frame, which emphasizes creating business opportunities for investment to enhance economies in predominantly Black neighborhoods and grant people of color access and power in this sphere, challenges their established racial status quo and leads to a backlash effect.

Furthermore, despite the influence of elite racial framing, specific demographic groups—such as Evangelical Protestants, individuals with frequent religious institution attendance, Republican Party affiliates, and those harboring racial resentment—exhibit significant resistance to changing their opinions, even when presented with conflicting information. This observation underscores the persistence of cultural barriers that reinforce negative perceptions and deter openness to alternative viewpoints.

Finally, the findings regarding whether legalization would benefit marginalized communities indicated limited responsiveness of public opinion to elite racial framing. The analysis indicated a prevailing skepticism among respondents concerning the notion that legalization would effectively enhance conditions for marginalized communities.

Policy Implications

The findings from my dissertation carry several policy implications. Firstly, public support for marijuanarelated policies is highly sensitive to how the issue is framed. Therefore, tailoring messages to align with demographic and ideological backgrounds is crucial for garnering widespread support. For instance, framing should emphasize the economic benefits of legalization, especially in marginalized communities such as Black and Hispanic populations. By addressing the economic benefits and social justice implications of marijuana legalization, policymakers can garner greater support from these influential demographic segments.

Secondly, it is imperative to ensure that policy discussions and formulation processes are inclusive and representative of diverse perspectives. Engaging community leaders, advocates, and representatives from various demographic backgrounds facilitates a more comprehensive understanding of the nuanced issues at play. By incorporating diverse viewpoints into policy deliberations, policymakers can craft solutions that not only address the specific concerns of different communities but also foster broader consensus and legitimacy. This inclusive approach enhances the likelihood of implementing effective and equitable marijuana policies that meet the needs and expectations of a diverse society.

Finally, as my dissertation reveals that respondents generally harbor skepticism regarding whether legalization would genuinely benefit marginalized communities, a substantial policy research is warranted to deepen our understanding of public perceptions and support for marijuana reparative programs- such as reserving marijuana dispensary licenses to individuals from marginalized communities and investing marijuana taxes in communities disproportionately affected by the War on Drugs. Additionally, policy feedback research is essential to evaluate the impact of these initiatives on individuals and communities that have historically borne the brunt of drug enforcement policies which can inform future policy adjustments and advocacy efforts.

Limitations and Future Research Recommendations

Although this dissertation provides one of the few comprehensive public opinion studies on marijuana policies, it is not void of limitations. Firstly, this dissertation measured explicit elite racial framing effects immediately following message exposure, and therefore do not know whether effects are enduring. Future

research should explore the long-term effects of framing on public opinion regarding marijuana related policies. Longitudinal studies can provide insights into how attitudes evolve over time and the sustainability of framing effects.

Secondly, although the experimental manipulations were based on actual statements from political elites, the exposure to these messages was forcefully imposed on participants in the experimental condition. This level of exposure is far beyond what any real-world campaign could realistically achieve (Allen et al. 2023).

Research using different methodologies, including a "Quant Crit" in-depth interview or focused group discussion to ascertain whether findings from the experimental study reflect community views may further add to our knowledge.

Finally, while this study has underscored the influential role of elite framing in shaping public opinion on marijuana policies, it has not examined how the attributes and characteristics of elites influence their ability to shape the terms of political discourse through framing. Throughout this dissertation, the sources of these frames have remained anonymous and impersonal; future research should delve into how attributes such as authority and credibility of these sources affect the framing process (Druckman 2001; Nelson and Kinder 1993).

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