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## **Regulating the Public Health—How Policy Stances are Influenced by Personal Behavior, Liberty, Ideology and More**

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**Regulating the Public Health—How Policy Stances are  
Influenced by Personal Behavior, Liberty, Ideology and More**

An Honors Thesis submitted in partial fulfillment of the requirements for Honors Studies  
in Political Science

By

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J. William Fulbright College of Arts and Sciences

**The University of Arkansas**

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### **Abstract**

To what extent is individual opposition to public health regulations consistent across different types of regulations across the public sphere? Does a person's policy stance vary depending on the issue at hand? Do other determinants have a measurable influence? In order to answer these questions, data were collected via a web-based survey completed by 284 undergraduate students at the University of Arkansas. Respondents were asked about their concerns regarding public health issues such as smoking and secondhand smoke exposure, as well as obesity, alcohol abuse, and seatbelt usage. The findings are that individual opposition to public health regulations can be consistent depending upon certain determinants, including personal behavior, perception of liberty, public health consciousness, and risk perception.

## Chapter 1: Introduction

Over the course of the United States' history, many regulations aiming to promote the public health have been enacted at the local, state, and federal levels of government. Generally meeting with success, those regulations have in part led to a dramatic increase in average life expectancy at birth for both sexes from 47.3 years in 1900 to 78.7 years in 2010 (USDHHS 2014a, 80). However, other Organisation for Economic Co-operation and Development countries have also steadily outpaced the United States in that same category at least since 1980 (82). While this may be attributed in part to healthcare access and quality, among other things, the compounded effect of unhealthy personal behaviors must also be taken into account. As will be shown, efforts to regulate unhealthy personal behaviors such as smoking, diet, alcohol abuse, and seatbelt usage, to name but a few, have been successful during the last several decades. In some instances, opposition to those regulations has been relatively unpronounced. In others, it has been vehement.

The impetus for this study was a proposed amendment to Fayetteville, Arkansas' Municipal Code § 95.05 (2003) that would have revoked the exemption status of bars located within city limits from the now statewide prohibition on indoor public smoking. Tobacco shops are the only other businesses that currently enjoy the privilege of being able to allow indoor public smoking. There is no doubt that the Fayetteville City Council has the authority to promulgate a smoking ban in bars, for the Arkansas Clean Indoor Air Act of 2006 “is cumulative to and does not prohibit the enactment of . . . local ordinances prohibiting smoking that are more restrictive.”<sup>1</sup> Nevertheless, during the ensuing public

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<sup>1</sup> Ark. Code Ann. § 20-27-1808(a).

debate, many Fayettevillians spoke out against the amendment, focusing primarily on the debate over liberty versus the public health (Fayetteville 2011, 28). It was therefore not a question of whether that particular personal behavior *could* be regulated, but whether it *ought* to be regulated.

Still, such a question merely brings more questions to the forefront. When the detrimental health effects of secondhand smoke have been so well documented, why are so many people opposed to a policy measure that would curb those effects? Do those who oppose such regulations do so because those regulations conflict with the individual's fundamental belief in the importance of personal liberty? Conversely, could an individual's opposition merely stem from more subtle factors, such as being a post-hoc justification for personal behavior or their perceptions of and aversion to risk? Is support a product of public health consciousness? What role might other explanations play, such as a person's political ideology or party identification? Finally, from a broader perspective, how do those factors apply to other issues? Is opposition to public health regulations consistent across different types of regulations across the public sphere, or does it vary depending on the issue at hand?

This is a preliminary study intended to spur further scholarly research, allowing for such a wide array of questions to be hypothesized. Salient issues, including smoking and secondhand smoke exposure, obesity, alcohol abuses, and seatbelt usage, will be used to measure levels of support for public health regulations. The relationship between those policy stances and six influential determinants will be tested. Those determinants include personal behavior, perception of liberty, public consciousness, political ideology, party identification, and risk perception. Data collected via a methodically developed and

distributed survey will then be presented and analyzed extensively. The object is to establish lines of inquiry and ultimately to assist in the development of more effective policies that promote the public health through a pragmatic approach.

## **Chapter 2: Forming Policy Stances**

### **The Relationship Between Public Opinion and Public Policy**

Even if more effective policies are discovered, substantial public support is often required to realize them. To be sure, Americans in general are apathetic about many issues, and many policies have been promulgated with relatively little input. Nonetheless, empirical studies have consistently measured a clear congruence between opinion and policy on salient issues (see, e.g., Erikson 1976; Weissberg 1976; Monroe 1978; Page and Shapiro 1983; Dahl 1989; Smith 2000; Burstein 2003). Given the amount of public outcry concerning the issues included in this study, they must be included among the most salient. Therefore, it seems that measures such as the proposed Fayetteville amendment will likely continue to be difficult to achieve without substantial public support.

Some scholars, however, have attempted to minimize the influence of public opinion to near negligibility (see, e.g., Block 1987; Domhoff 1998). Although, as Paul Burstein (2003, 29) points out, even “those whose theories attribute little power to the public concede that governments sometimes follow public opinion.” But if government only sometimes follows public opinion, what is it following the rest of the time? Several studies have attempted to measure the relationship between opinion and policy in view of factors such as interest group activity, political party involvement, and influence by elites, but they have found that, controlling for these factors, public opinion remains influential (see, e.g., Smith 1999; Burstein 2003). That is not to say that opinion and policy always align when issues are salient—government does enact measures to which



the public is opposed—that is to agree with Benjamin Page and Robert Shapiro’s (1983, 189) assessment that opinion and policy align more often than not.

### **Decision-Making Processes**

Accepting the premise that there is a relationship between opinion and policy, it is now left to discover what shapes individual opinions and policy stances. Angus Campbell et al. (1960) touched off an era of behavioral studies of the American electorate in their groundbreaking work, *The American Voter*. Based primarily on data from the 1952 and 1956 presidential elections, the conclusions drawn therein were limited in scope, especially considering the mass realignment of political party loyalties that would follow in the in the politically turbulent decades to come. Central to the conclusions in what is also known as the Michigan school of thought is that, more often than not, American voters are irrational actors, basing their decisions on inherited ideas of partisanship rather than making decisions in their own self-interest. From this it can be inferred that a person’s party identification is the key determinant their own political opinions on specific issues.

V. O. Key, Jr. begged to differ in his 1966 work, *The Responsible Electorate*. Utilizing much of the same data, Key does confirm the significance of the Michigan model based on party identification, but ultimately draws different conclusions; namely, that “voters are not fools” (1966, 7). According to Key, most Americans are in fact rational actors. For them, while they often do vote according to party identification, that identification is informed by policy stance more than vice versa. In other words, although some Americans do toe the party line no matter their policy stances, many more strive for

consistency, and “[t]hose whose policy preference conflicts with their party voting record are most likely to defect” (150). This suggests that an individual’s policy stances are not merely dictated by their party identification, but that, at least on an individual level, it is party identification that is informed by policy stances.

A decade after Key’s final academic effort was published posthumously, Norman Nie, Sidney Verba, and John Petrocik (NVP) published *The Changing American Voter* (1976), with an enlarged edition to follow (1979). It was yet another direct response to the Michigan school, but incorporated aspects of Key as well. Rather than refute either of their predecessors’ work, NVP expanded them both to the point of reconciliation. They found that voting patterns of the 1950s and early 1960s did resemble the partisan divide as a result of policy stances built upon lingering New Deal coalition loyalties, which explains why party identification was seemingly the source of public opinion. NVP were also able to witness the cultural explosion that ran from the early 1960s to the early 1970s, and the subsequent changes in voting behavior that followed. From their perspective in the late 1970s, the American electorate had become less partisan, more individualistic, and more frequently engaged in issue voting. Eventually, depending on the issue, NVP found that Americans’ policy stances had more to do with whether one identified as a conservative or liberal rather than as Democrat or Republican, suggesting a relationship between political ideology and public opinion.

*The Changing American Voter* offered more than just a contemporary observation, however. NVP discovered quite rightly that the decision-making processes of American voters can be both rational and irrational, can change over time due to a myriad of factors, and that while none of those factors are mutually exclusive, some are

more prevalent than others depending on the issue at hand and the present circumstances. Even more variations abound. Warren Miller and J. Merrill Shanks updated the argument in *The New American Voter* (1996, vii) by incorporating many of the leading theories that had developed during the preceding two decades, ultimately finding that, “[t]hese varied sources of information and insight . . . have neither rested on nor produced an integrated or unified body of theory from which specific hypotheses can be derived.”

### **Specific Determinants**

Unfortunately, the present study cannot examine how public opinion is formed through the lens of each decision-making theoretical variation, and, moreover, must be confined to only a few determinants, all for the sake of both brevity and efficacy. A couple of them, party identification and political ideology, namely, have been discussed in part. Their impact on public opinion will be elaborated upon further. Perceptions of liberty and risk will be examined as well.

Party Identification. As aforementioned, party identification may have an impact on public opinion under the right conditions. Those conditions were present throughout Franklin Delano Roosevelt’s tenure as President of the United States from 1933 to 1945, when the country faced two overlapping international crises: the Great Depression and World War II. Prevailing despite unprecedented adversity, that Democrats enjoyed the loyalty of the New Deal coalition well into the 1960s (and perhaps to some extent the 1970s) comes as no surprise. Campbell et al.’s (1960) findings reflected an American electorate that trusted partisan elites.

Of course, the eventual collapse of the New Deal coalition, as well as the Civil Rights Movement, the Vietnam War, and the Watergate scandal eroded that trust throughout the remainder of the 1960s and into the 1970s. Party identification's impact on public opinion eroded with it as Key (1966) and NVP (1979) found (see also, e.g., Rosenstone and Hansen 1993). However, as the next few decades saw the completion of party realignment, new conditions gave rise to partisan influence on public opinion once again, albeit drastically different than before.

Rather than a single dominant party, or two enfeebled parties, studies have shown increasing party polarization since the end of the Reagan administration (see, e.g., McCarty, Pool, and Rosenthal 2006; Dodson 2010). This has resulted in increased partisan sway on public opinion, but only within each party's sphere of influence. James Druckman and Rune Slothuus (2012) found that as party polarization among elites increased, so did mass support for party platforms, and that substantive information had less influence than before. Kara Lindaman and Donald P. Haider-Markel (2002) also found that party elites influence opinion among their party members, especially salient issues like those relating to the culture wars. Currently, party polarization continues to increase, but not without complications. The rise of the Tea Party caucus within the Republican Party has proved the most enduring, but data on their long-term impact on partisan influence of public opinion is not yet forthcoming.

Political Ideology. NVP did find as late as 1979 that Americans' policy stances were increasingly based on political ideology more than party identification. Stanley Feldman (1988) also found that policy stances are linked to underlying, basic beliefs that inform

political ideology. Both of those assessments were probably true at the time of their publication, but NVP's observation that the American electorate is ever in flux alludes to an eventual change in either those attitudes or at least how those attitudes are applied.

That change came in the form of emergent two-dimensional ideologies based on issue type (social and economic) and philosophy (conservative, moderate, and liberal), resulting in at least seven basic ideology types and all the subtle variations in between (see, e.g., Shafer and Claggett 1995; Treier and Hillygus 2009).<sup>2</sup> Those ideological types remain accurate indicators of policy stances. Shawn Treier and D. Sunshine Hillygus (2009, 679-80) did go one step further and differentiated between the American electorate in general and political elites, finding that the latter's policy stances can still be measured in the one-dimensional ideological terms of conservative and liberal, especially as party polarization has increased of late.

Finally, studies have shown that very few Americans identify as radical or reactionary ideologues and that more of them identify as moderates (Fiorina 2004; Treier and Hillygus 2009). That has probably been true for some time. As party polarization has increased, moderates have increasingly shed their partisan ties and become independents; a trend that gives some weight to the rather classic argument asserted by both Downs (1957) and Converse (1964) that moderates are pivotal swing voters, decide election outcomes, and therefore must be pandered to.

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<sup>2</sup> Those seven basic ideology types include conservative, social conservative and economic moderate, social moderate and economic conservative, moderate, social moderate and economic liberal, social liberal and economic moderate, and liberal.

Liberty. Empirical academic studies on perceptions of liberty and how they influence policy stances and public opinion are sparse, if not non-existent. Normative discussions are more prevalent, and are enjoyable to engage, but often fail to contribute the desired insight. That is because no absolute definition of liberty may be said to exist. Liberty can only be defined in very broad terms. Montesquieu (1977, 200) defines liberty in *The Spirit of the Laws* as “a right of doing whatever the laws permit.” However, that is inoperable within the context of this study in particular and probably in regard to American institutions in general. Were the definition of liberty thus, lawmakers would cease to be its protector and would instead become its chief adversary. Thomas Jefferson saw this point all too clearly. He wrote in a letter to Isaac H. Tiffany, “rightful liberty is unobstructed action according to our will within the limits drawn around us by the equal rights of others. I do not add ‘within the limits of the law,’ because law is often but the tyrant’s will, and always so when it violates the right of an individual” (Jefferson 1819). Applying this interpretation, personal liberty may therefore be broadly defined as the right to do whatever one wants up until the point at which the right of others to do whatever they want is infringed.

Reconciling that definition of liberty with individual policy stances on contemporary public health issues can be somewhat problematic. It is not merely a personal decision of whether or not to lead a healthy lifestyle. Competing perceptions of liberty can emerge and they are often neither obvious nor easily counterbalanced when they do. Sometimes the balance actually shifts in favor of regulation. Other times it does not. Nevertheless, liberty should not be abandoned every time it is inconsistent with the public health, especially when so many Americans have given their lives to secure and

preserve it over the last two centuries. The result would be healthy people living in an unhealthy society. Neither should liberty be solely relied upon to determine the viability of public health policies. The result would be an unhealthy people living in an unhealthy society, for liberty without restraint may be worse than no liberty at all. Achieving the maximum health possible of both society and its people would be ideal, and that requires finding harmony between liberty and the public health.

That broad definition is a popular theme among scholars regardless (Fried 2005), and while it is rather useful, it is by no means universal. The definition of liberty has not only changed over time to enfranchise more people, there has never really been a prevailing consensus of what liberty actually means at any given time in American history (Kammen 1986). As a result, liberty is subjective, and competing perceptions of it can be invoked to support and oppose the same issue, making it difficult gather substantive data. Nevertheless, it is the aim of this study to at least try, for the conflict between serious health threats and personal liberty has been and will continue to be central to the American public health debate (Gostin et al. 2002; Bayer and Colgrove 2002).

Risk Perception. Some risk is involved in nearly every undertaking, whether it is economic, social, or personal. Public health officials use risk to determine the potential harm posed to the population at large by any human activity so they can advocate a course of action that mitigates those risks as much as possible. For the purposes of this study, risk perception is intended to mean how the public perceives the risks associated with unhealthy behaviors and how those perceptions not only influence their personal

behavior, but also how those perceptions might inform public policy stances.

Experts define risk in terms of annual deaths, whereas the general public tends to also incorporate a slew of other elements (Schmidt 2004), and although Americans do often estimate annual death rates somewhat accurately (Lichtenstein et al. 1978; Slovic, Fischhoff, and Lichtenstein 1985), their perception of whether or not they are at risk for something is often inflated (Taylor 1999b). Nevertheless, several factors shape how those risks are perceived, including, as Markus Schmidt (2004) so keenly articulated, voluntariness, controllability, the delay effect, natural vs. manmade, familiarity and habituation, as well as benefit and risk-benefit distribution, and the role of the media.

Voluntariness refers to whether a risk is assumed voluntarily or is imposed, with the former lessening risk perception and the latter heightening it (Renn 1992; Jungermann & Slovic 1993). Controllability refers to whether or not a person can control the assumption of a risk (Schmidt 2004, 5). If they can, perception of risk is lessened. If they cannot, that perception is heightened. The delay effect refers to “the initial event and the actual impact of damage” (6). For example, a regular smoker might perceive the risks associated with smoking as less because they have yet to develop lung cancer. Schmidt also points out that natural risks are more readily assumed than manmade risks, thereby lessening the perceived risks of the former and increasing those of the latter (6).

Familiarity and habituation is a conditioned acceptance of risk that lessens perceptions of that risk as it is continually assumed over time (Slovic, Fischhoff, and Lichtenstein 1986).

Benefit and risk-benefit distribution influences perceptions of risk based on who is assuming the risk and who benefits as a result. When they are one in the same, the perceived risks are lessened. When they are different, those assuming the risk perceive it



to be higher. Benefits and risks are also weighed on an individual level (Schmidt 2004, 8). Finally, concerning the role of the media, risk perceptions can be either heightened or lessened depending upon coverage or the lack thereof (9).

The resulting perceptions of risk have been shown to influence both personal behavior and action (Mileti 1993). As such, personal behavior usually only changes when perception of risk is high (Janis and Mann 1977). These findings suggest that risk perception not only has a direct impact on personal behavior, but can also inform policy stances. Nevertheless, that does not hold true for everyone, and those that perceive risk yet seem content to let it endure, either by persisting in risky personal behaviors or by opposing regulations intended to mitigate the risks to individuals and communities, must be acknowledged.

### **Public Opinion on the Public Health**

Researchers have had some trouble consistently measuring public opinion of public health issues. That is not only because it is difficult to sustain interest in the public health (Institute of Medicine, 1), but also because very few know what the public health is exactly (Taylor 1997, 2). Overwhelming majorities do view the functions of public health as very important once told what they are, but only 57% think that the public health is the government's responsibility (1-2). Typically, the more educated they are, the more Americans support increased spending on the public health (Taylor 1999b), yet a CDC (1998, 70) study found that support for education and awareness programs is barely above 50%. Most Americans, although opposing general sales tax increases, overwhelmingly support sales tax increases on tobacco and alcohol products (CDC 1998,

69-71), and on alcohol specifically if the taxes are designed to pay for alcohol treatment and prevention programs (Denk et al. 2000, 313).

Just before the turn of the century, 75% of Americans saw smoking as a major health problem, 70% saw alcohol abuse as such, and 63% saw obesity as a major problem (Taylor 1999a, 4). A more recent poll found that order flipped, with 81% seeing obesity as a very serious problem, 67% seeing smoking as such, and only 47% seeing alcohol as very serious (Mendes 2012). Public opinion data on seatbelts is much more difficult to come by given that many of those laws are over thirty years old. What is available is data on compliance, and, as will be elaborated upon in chapter three, seatbelt use in the United States has increased from 11% in 1981 to 85% in 2010 (CDC 1999, 371; NHTSA 2010b).

### **Summary**

Public policies are much easier to enact when they are driven by public opinion.

Unfortunately, public opinion often lags behind the incessant demands of the complex American system and it becomes necessary to develop more than just viable public health policies. Different policy outcomes must be studied, comprehensive public awareness and education programs have to be undertaken, and opposing special interest groups must be thwarted, all to build support. To accomplish these ends, it is important to understand how factors like party identification, political ideology, as well as perceptions of liberty and risk, shape public opinion.

Party identification can influence the policy stances of individuals when their connection to the party is strong, whether in times of single party dominance or extreme

party polarization. However, Americans' decision-making processes are fluid and able to adapt to different circumstances, meaning that Americans are capable of making decisions for themselves when they become disillusioned with party politics. That is inevitably the case during extreme polarization, when moderates no longer identify with the increasingly radical or reactionary platforms of their former party and turn independent, thereby strengthening party influence over the rank and file while weakening the parties in terms of overall numbers. As such, political ideology is probably a much better measure of public opinion, especially when dimensions such as issue type are added to the mix. Even then, policy stances may be subject to a variety of factors informing individual perceptions of risk and liberty.

### **Chapter 3: The Issues**

While by no means exhaustive, the ensuing discussion incorporates the key talking points of each public health issue included in this study, as well as overviews the advantages and disadvantages of major policy measures associated therewith. Again, those issues include smoking, obesity, alcohol abuse, and seatbelt laws. As will be made apparent in chapter four on survey methodology, two public health issues that were originally included in this study have been specifically excluded because they are inconsistent with the others. Those are hand washing laws and alternative medicine. Despite obvious variations, the other four issues are much more salient and are measurable in the same way. Hand washing is highly encouraged, but hand washing laws are not enforced on the general public. Those laws target employees of businesses, especially in the food industry. Defining alternative medicine is a difficult task. There is no method by which to determine substances that qualify as alternative medicines, and as such, what is considered to be a bona fide alternative medicine to some may be illegal and considered harmful by others.

#### **Smoking**

It is rather easy to understand the American fascination with tobacco. After all, had it not been developed as a staple crop of the southern colonies during the seventeenth century, the British enterprise across the Atlantic might have very well floundered (Burns 2007, 59-62). Tobacco was developed, however, and it provided the colonies with an economic foundation from which to expand and eventually grow into the nation they have become

today (59-62). Over the next three centuries, particularly after the Gilded Age brought the innovation of the cigarette and greater production capacities to American manufacturers, smoking tobacco became increasingly popular (133-35). It was not until the mid-twentieth century when scientific findings began to expose the detrimental health effects of tobacco that its widespread use began to decline.

The Surgeon General reported in 2014 that smoking tobacco can cause cancer in nearly every organ of the human body, lead to cardiovascular and respiratory diseases, have adverse effects on reproductive health, and much more (USDHHS 2014b, 68). Secondhand smoke exposure, or what is often called passive smoking, is even more sinister in that people risk many of the same detrimental health effects regardless of never having actively smoked. Prolonged subjection to a smoky environment is all that is required. Leading to the death of nearly 480,000 Americans per year, smoking has definitely earned its title as “the leading preventable cause of death in the United States” (CDC 2014a).

As these detrimental health effects were discovered, local and state governments slowly began to intervene. The first state to impose a smoking ban in more than just governmental buildings was Minnesota after the legislature passed the Clean Indoor Act of 1975. With few exceptions, including bars and restaurants that provided a no smoking section, the law prohibited smoking in all “public places, places of employment, public transportation, and public meetings.”<sup>3</sup> A decade later, the Aspen, Colorado City Council passed the first law prohibiting smoking in restaurants unless certain ventilation

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<sup>3</sup> Minn. Stat. Ann. § 144.411.

requirements were met.<sup>4</sup> California became the first state to prohibit smoking in all enclosed workplaces, including restaurants, in 1995. Bars were exempted from the law until 1998.<sup>5</sup> In what is now considered the most restrictive smoking ban in the country, the City of Calabasas, California passed the Comprehensive Second-hand Smoke Control Ordinance of 2006, which effectively prohibits smoking in all public places, indoor or outdoor.<sup>6</sup> To date, the only federal prohibitions on public smoking include a Department of Transportation ban on smoking aboard commercial passenger flights and an executive order issued by President Bill Clinton that bans smoking in all indoor public spaces occupied by the executive branch.<sup>7 8</sup>

Despite smoking bans such as these, 19% of American adults continued to smoke as of 2011. That number has decreased from 42.4% in 1965, but inconsistently. Over a 10-year span from 1965 to 1974, the amount of American adults that smoked decreased by 5.3 percentage points to 34.1%. Over a similar span from 1978 to 1987, that number again decreased 5.3 percentage points from 34.1% to 28.8%. In sum, from 1965 to 1987, a 23-year span, the amount of American adults that smoked decreased by 13.6 percentage points. However, over a 22-year span from 1990 to 2011, that number decreased by only 6.5 percentage points from 25.5% (CDC 2013).

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<sup>4</sup> City of Aspen Clean Indoor Air Act of 1985, Aspen, Colorado Municipal Code § 13.16.

<sup>5</sup> California Smoke-Free Workplace Act, Cal. Lab. Code § 6404.5.

<sup>6</sup> Calabasas, California Municipal Code § 8.12.

<sup>7</sup> “Smoking Aboard Aircraft,” *Code of Federal Regulation* Title 14, Pt. 252, 2000 ed.

<sup>8</sup> “Protecting Federal Employees and the Public From Exposure to Tobacco Smoke in the Federal Workplace,” *Federal Register* 62 (August 7, 1997) p. 43451.

These diminishing returns may make the goal set by the Office of Disease Prevention and Health Promotion of reducing the amount of American adults that smoke to 12% by 2020 difficult to achieve (USDHHS 2015). Perhaps that difficulty is due to the remaining state and local governments that have yet to enact any comprehensive public smoking ban. The jurisdictions that allow public smoking to persist do contain 19.2% of the United States population (Americans for Nonsmokers Rights Foundation 2015). Perhaps more resources are required than are presently available to reduce smoking below a certain level. Most likely, it is due to the fact that nearly every smoking ban is first and foremost justified to reduce passive smoking, not necessarily active smoking, which ultimately lies at the heart of the matter.

Anti-smoking advocates have repeatedly and emphatically suggested that Americans ought to quit smoking for good, but total prohibition has yet to become a strategy. Even the most restrictive smoking ban in America concedes the right of competent adults to smoke. But nonsmokers also have the right to occupy indoor and arguably many outdoor public places without being exposed to secondhand smoke. This is a prime example of competing perceptions of liberty.

Arguing against the proposed Fayetteville amendment that would ban smoking in bars, nonsmoker Mary Chodrick wrote the following in a May 4, 2011 e-mail to Mayor Lioneld Jordan:

Since a person has to be 21 years old to enter or work in these bars, I feel that a patron or employee of these bars is a free participant in the smoking atmosphere. I feel that a non-smoker is free to chose [sic] a bar where smoking is already not allowed . . . I really feel that a basic freedom would be taken away from a person who wishes to have a beer, smoke, and enjoy the camaraderie . . . before a bunch of “do-gooders” arbitrarily took that freedom from him. (Fayetteville 2011, 28)

Chodrick makes a couple of valid points. First, competent adults knowingly patronize and seek employment at establishments that allow indoor public smoking. Second, patrons that do not want to be exposed to secondhand smoke can simply choose to patronize establishments where indoor public smoking is not allowed. As far as the employees go, they too can simply choose to seek employment elsewhere if they feel it necessary.

Chodrick does forget to mention the freedom of business owners to choose how to operate. More than 350 opponents signing two different petitions did not. The language of one petition read that, “the choice to be a smoking establishment should be left to the owner of the establishment” (Fayetteville 2011, 50). This suggests that the right of owners to choose is more important than the right of patrons and employees to choose, but does not go so far as to rescind the latter. On the contrary, the freedom of all three is seemingly preserved. Employees of smoking establishments in Fayetteville even signed and submitted typed statements to the City Council affirming as much. They read, “I choose to work in a smoking establishment where I am knowingly exposed to second hand smoke and any potential health risks it might pose. I choose to work in this environment because I am an adult and capable of making my own decisions” (60-125). Why then would government infringe upon such obvious exercises of personal liberty when it seems as though the free market has already worked everything out?

Advocates of the proposed amendment argue that the market has not worked everything out. On April 27, 2011, Dr. Robert Patton sent an e-mail to the amendment’s sponsor, Alderwoman Adella Gray, noting that, “in a time of high unemployment, you [Gray] are protecting the worker faced with a decision between their job and their



health.” Patton writes further, “[t]here is no excuse for exempting public venues such as bars . . . Research shows that anti-smoking legislation results in a reduction of overall tobacco use in the community” (Fayetteville 2011, 26). These are also valid points. During the first half of 2011, the unemployment rate was on the rise in Arkansas. In January, it was at 7.8%, and by June, it was up to 8.1% (Arkansas Department of Workforce Services 2011, 5). The potential then for a person seeking employment to settle for a job that may compromise their health is very real. Moreover, a ban on smoking in bars could in fact reduce overall tobacco use in the community. Trotter, Wakefield, and Borland (2002, 300) examined the behavior of socially cued smokers and found that 69% of adult smokers patronize bars, that 70% of them have a propensity to smoke more when in that setting, and that 25% of them would probably quit were a ban imposed. The study was conducted in Victoria, Australia, but the cultural divide notwithstanding, those percentages suggest that a significant decrease in the adult smoking population would result from a ban on smoking in bars—an agreeable by-product of a measure that seeks to reduce passive smoking.

Dr. Patton also made what is probably the most viable argument used by advocates of smoking bans when he stated that, “smokers are less healthy and utilize more healthcare resources than the nonsmoker. We, as citizens, pay a part of that bill through higher healthcare costs” (Fayetteville 2011, 26). The overall economic impact of smokers does put pressure on healthcare providers, raising costs that are ultimately passed on to smokers and nonsmokers alike in the form of higher insurance premiums and deductibles. When smokers who have subsidized healthcare plans such as Medicaid get sick, states are often forced to pick up the bill. The Office of Disease Prevention and

Health Promotion reports that “tobacco use costs the U.S. \$193 billion annually in direct medical expenses and lost productivity” (USDHHS, 2015).

Several assertions made by both opponents and advocates of the proposed amendment do not withstand scrutiny. Opponents argue that smoking bans have a negative economic impact on businesses by driving off well-established clientele and making it harder to compete. However, Scollo et al. (2003, 13) refute those claims, inquiring into the legitimacy of economic studies and concluding that, “[p]olicymakers can act to protect workers and patrons from the toxins in secondhand smoke confident in rejecting industry claims that there will be an adverse economic impact.” Opponents also neglect to take the liberty claims of nonsmokers into account. Many bars serve as venues where public events, including the performing arts, take place. As a result, nonsmokers cannot simply choose to patronize a different establishment. They are faced with the choice of either subjecting themselves to an unhealthy environment or being excluded. Some nonsmokers are further burdened by physical ailments such as asthma that preclude them altogether from patronizing establishments that allow indoor public smoking, depriving them of any choice whatsoever and basically subjecting them to inadvertent discrimination. Finally, opponents neglect the bargaining power of owners, who are at a tremendous advantage when negotiating the terms of employment with prospective employees.

Advocates fail to address the fact that the amount of establishments in Fayetteville that are exempt from the statewide smoking ban and choose to allow indoor public smoking are few in proportion to the amount of establishments that are either not exempt or choose not to allow indoor public smoking. There are consequently many more jobs

available to nonsmokers seeking employment in the hospitality industry than there are for smokers or those willing to be exposed to secondhand smoke, even with a high unemployment rate. Furthermore, any argument for the minority rights of disabled persons must mention the minority rights of others, including smokers. People with physical ailments exacerbated by secondhand smoke may still turn to nonsmoking establishments, whereas smokers would have no alternative were smoking banned in bars. Finally, with respect to the negative economic impact of smoking, smokers offset those costs at least in part by paying insurance plan surcharges and tobacco sales taxes.

Tobacco sales taxes are a part of a broader strategy by public officials to reduce both active and passive smoking, but unlike other policy measures that actually spend taxpayer money, taxes achieve the feat of both reducing tobacco use and generating revenue. That revenue can be used to offset the negative economic impact of smoking, be earmarked as special revenues to address specific areas of concern, be used to supplement the general fund, and more. Tobacco sales taxes have been employed at the federal and state level, as well as very few municipalities, and were implemented or increased significantly throughout the country after the Surgeon General reported in 2000 that, “[i]ncreases in the price of cigarettes will lead to reductions in both smoking prevalence and cigarette consumption among smokers” (USDHHS, 19). In 2009, the federal government began to impose a sales tax of \$1.01 per pack of 20 cigarettes, approximately a 159% increase of the former rate enacted in 1997.<sup>9</sup> While inconsistent, every state also imposes a sales tax on cigarettes. The highest state sales tax per pack of cigarettes in the

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<sup>9</sup> The Children Health Insurance Program Reauthorization Act of 2009, *U.S. Code* 26 (2009) § 5701(b).

country is New York at \$4.35.<sup>10</sup> The lowest state sales tax per pack of cigarettes in the country is Missouri at \$0.17.<sup>11</sup> Since October 1, 2013, Arkansas has imposed a sales tax of \$1.15 per pack of cigarettes.<sup>12</sup> Although not raised off of cigarettes alone, Arkansas reported gross tobacco sales tax revenues of nearly \$49 million for fiscal year 2014 (State of Arkansas Department of Finance and Administration 2014).

The negative economic impact of smoking is also offset through the Tobacco Master Settlement Agreement (MSA) of 1998, in which the four largest tobacco companies in the United States at the time—Philip Morris, R. J. Reynolds, Brown & Williamson, and Lorillard—agreed to pay 46 states \$206 billion through 2025 (Cutler et al. 2002).<sup>13</sup> Not only does this continue to help states financially, Sloan and Trogdon (2004) found that the MSA substantially decreased smoking rates because tobacco companies passed that cost on to consumers in the form of more expensive products. Since passing the Tobacco Settlement Proceeds Act of 2000 by referendum, Arkansas remains one of the only states to actually spend their settlement money on health related programs.<sup>14</sup> Those programs include the Arkansas Aging Initiative, the Arkansas Bioscience Institute, the College of Public Health, the Delta Area Health Education

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<sup>10</sup> N.Y. Tax Law § 20-471 (2010).

<sup>11</sup> Mo. Ann. Stat. § 149.0015 (2014).

<sup>12</sup> Ark. Code Ann. § 26-57-208, 26-57-802, 26-57-803, 26-57-804, 26-57-806, 26-57-1101 (2014).

<sup>13</sup> The remaining four states—Florida, Minnesota, Mississippi, and Texas had previously reached individual agreements. Also, Brown & Williamson merged with R. J. Reynolds in 2004 to form Reynolds American.

<sup>14</sup> Ark. Code Ann. § 19-12-101.

Center, Medicaid Expansion Programs, the Minority Health Initiative, and the Tobacco Prevention and Cessation Program (Shultz et al. 2012).

Effective policy measures that cost money include a slew of government funded media campaigns that have sprung up all across the nation. On the federal level, the “Centers for Disease Control and Prevention (CDC) launched the first-ever paid national tobacco education campaign—*Tips From Former Smokers (Tips)* in March 2012” (CDC 2014b). The *Tips* campaign depicts former smokers coping with various illnesses suffered as a direct result of smoking. Intentionally graphic, the goal of the campaign is not only to encourage current smokers to quit, but also to provide them with the necessary resources and information to be successful. According to McAfee et al. (2013, 2007-8), the *Tips* campaign encouraged approximately 1.6 million smokers to attempt cessation in 2012 alone, with approximately 100,000 being successful. The campaign was continued in 2013 and 2014.

On the state level, the implementation of similar tobacco education campaigns has varied considerably. “[A] few (such as California and New York) have run consistent media campaigns for many years, whereas others have either never run media campaigns or have made intermittent efforts at low doses” (McAfee et al. 2013, 2003). In Arkansas, the Department of Health (ADH) launched its *Stamp Out Smoking (SOS)* campaign, which has released at least 42 different television, radio, and print ads since 2009 (Stamp Out Smoking 2014).<sup>15</sup> *SOS* also utilizes the national 1-800-QUIT-NOW hotline. It redirects callers to their state’s respective call center. Remarkably, “[a]ll states have quitlines with trained coaches who provide information and help with quitting”

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<sup>15</sup> The campaign itself began in 2002.

(Smokefree.gov 2014). ADH also provides grants to community programs designed to curb tobacco use. The architect of the proposed 2011 Fayetteville amendment, the Northwest Arkansas Tobacco-Free Coalition, is in fact a recipient of such a grant. Both the ADH grant program and media campaign are a direct product of funds received from the Tobacco MSA.

Packaging and advertising is heavily regulated as well, this time mostly by the federal government and sparingly by state and local governments. These regulations ensure consumers are informed of the detrimental health effects of smoking and that advertisements do not run rampant. The first effective packaging regulation was the Federal Cigarette Labeling and Advertising Act of 1965. It forced manufacturers to place a warning on the outside of every pack of cigarettes that read “Caution: Cigarette Smoking May Be Hazardous to Your Health.”<sup>16</sup> Current law now allows manufacturers to choose between one of nine more specific warning labels. Over time, minimums on font size, type, and color were also implemented to make the warning labels more conspicuous.<sup>17</sup> Advertising regulations began in earnest with the Public Health Cigarette Smoking Act of 1970. It banned tobacco advertisements on broadcast television and radio.<sup>18</sup> Opponents railed against the provision, citing First Amendment protections, but the provision survived legal challenges on the grounds that it promoted a compelling government interest—the public health. The Surgeon General has now backed up that interest with evidence, reporting that, “[i]ntensive review of the available data . . .

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<sup>16</sup> Public Law 89-92, *U.S. Statutes at Large* 79 (1965): 283.

<sup>17</sup> Cigarette Labeling and Advertising, *U.S. Code* 15 (2014) § 1333.

<sup>18</sup> Public Law 91-222, *U.S. Statutes at Large* 84 (1970): 89.

suggests a positive correlation between level of advertising and overall tobacco consumption” (USDHHS 2000). Advertising regulations have multiplied as a result.

### **Obesity**

Obesity is the second leading cause of preventable death in the United States (Mokdad et al. 2004, 1238). Predominantly the result of poor diet and lack of exercise, the detrimental health effects of obesity, according to the National Heart, Lung, and Blood Institute, include heart disease, hypertension, type 2 diabetes, respiratory problems, cancer, and more (National Heart, Lung and Blood Institute 2014). Unlike smoking rates, however, obesity rates have remained steady for some time. Ogden et al. (2014, 806) found that as late as “2011-2012 . . . 34.9% . . . of adults aged 20 years or older were obese,” and that those rates had not significantly changed during the preceding eight years. Concerning economic impact, Finklestein et al. (2009, 822) found that obesity could have increased medical costs as much as \$147 billion by 2008. These facts are alarming, and it is no wonder that public officials have finally started to intervene.

Instead of addressing all the factors associated with obesity, this study will rather focus on the particular personal behavior of consuming large sugary beverages. The National Center for Health Statistics indicates that consumption of sugary beverages is linked to obesity and that, “[a]pproximately one-half of the U.S. population consumes sugar drinks on any given day” (Ogden et al. 2011). Even if that is limited to one sugary beverage per day, it is still well above the American Heart Association’s recommendation of consuming fewer than three sugary drinks per week (Lloyd-Jones et al. 2010, 596).

There is no doubt then that Americans need to reduce their sugary beverage intake, but can government facilitate that result without a resounding outcry?

The most contentious attempt at reducing the consumption of sugary beverages came in the form of a 2012 initiative adopted by the New York City Board of Health that sought to prohibit hospitality oriented establishments from selling sugary beverages greater than 16 ounces (New York City Department of Health and Mental Hygiene, Board of Health 2014). Ultimately, the regulation never went into effect after the New York Court of Appeals struck it down on the grounds that it violated separation of powers.<sup>19</sup> A similar measure instituted by a legislative body such as the New York City Council or the New York State Legislature probably would have withstood the challenge. Another failed attempt at reducing the consumption of sugary beverages was California's proposed Sugar-Sweetened Beverages Safety Warning Act of 2014. Rather than a limit on sugary beverage sizes, this bill sought to regulate product packaging by requiring a warning label that read, "STATE OF CALIFORNIA SAFETY WARNING: Drinking beverages with added sugars contributes to obesity, diabetes, and tooth decay."<sup>20</sup> The bill passed the California State Senate, but failed in the Assembly. Probably the most feasible policy measure pursued so far has been taxation. According to the Council of State Governments, "39 states and Washington, D.C., impose a sales tax on at least some soda purchases," with only "[t]hree states – Washington, Arkansas, and West Virginia – impos[ing] an excise tax on soft drinks at the wholesale level" (The Council of State

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<sup>19</sup> *New York Statewide Coalition of Hispanic Chambers of Commerce v. The New York City Department of Health and Mental Hygiene*, 23 NY3d 681 (2014).

<sup>20</sup> Sugar-Sweetened Beverages Safety Warning Act of 2014, Cal. S.B. 1000 (2014).



Governments 2014). Nevertheless, no additional sales tax directly targeted soft drinks at the consumer level until very recently. On November 4, 2014, residents of Berkeley, California voted overwhelmingly in favor of the first “sin” tax on soda, levying one-cent per ounce of soda purchased.<sup>21</sup> The federal government has made no significant attempt at reducing the consumption of sugary beverages other than requiring that products include a list of ingredients on their packaging.

The concerns involved with attempting to regulate the consumption of sugary beverages hinge upon the regulations themselves. A compelling government interest has been established, but should efforts manifest themselves in the form of size limitations as attempted by the New York City Board of Health? Those that consume large sugary beverages do not pose an immediate threat to themselves and to others like those that consume excessive amounts of alcohol do. Size limitations also do not prevent consumers from simply imbibing multiple servings, which would be the case even if size limitations were extended to include convenience and grocery stores. These limitations therefore seem unworkable. The California bill to put a warning label on sugary drink packaging on the other hand does preserve liberty in the sense that it merely attempts to educate rather than limit. *New York Times* published an article by Reed Abelson (2011) that discussed what might prove to be a viable option—Body Mass Index (BMI) requirements imposed by insurance companies, under which people become eligible for premium discounts if those requirements are met or a doctor declares the requirements to be unreasonable for that particular person. Finally, taxation preserves liberty as well, and could very well offset some of the negative economic impact resulting from obesity.

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<sup>21</sup> Imposing a General Tax on the Distribution of Sugar-Sweetened Beverage Products. Berkeley, CA, Municipal Code § 7.72 (2014).

## Alcohol Abuse

Alcohol abuse has been every bit as controversial an issue as smoking, if not more so.

However, it was treated much more as a social issue at first than as a health issue. Eric

Burns wrote in his book *The Spirits of America*:

[A]n individual who had drifted too many sheets to the wind wreaked . . . havoc on his community, breaking the social contract in almost all of its provisions. He ruined property, alienated friends and inflicted wounds, both physical and emotional, on members of his own family, wounds that were in many cases so severe they could never be healed. Then as now, the latter was the most insidious effect of inebriation: beaten wives, terrified children, family environments so toxic that out of them could come nothing but more malefactions, more violations of the social contract. (Burns 2004, 71-2)

Hoping to reduce these consequences, the temperance movement began in the early nineteenth century. The movement culminated in 1919 with the ratification of the Eighteenth Amendment, which effectively prohibited alcohol in the United States. Such a drastic remedy ultimately proved inoperable though, leading to repeal of the amendment in 1933 with the ratification of the Twenty-first. In a rare move of the New Deal Era towards federalism, the new amendment relinquished authority over alcohol to the states. Section two of the Twenty-first Amendment reads, “[t]he transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.”<sup>22</sup> Many states subsequently legalized alcohol statewide or relinquished authority yet again to local jurisdictions. Other states kept prohibition intact. In 1966, more than three decades later, Mississippi was the last state to repeal its prohibition laws (LiquorLaws.net 2009).

Prohibition may not have been feasible, but temperance advocates still worked to limit access to alcohol. After all, the social issues related with alcohol abuse did not just

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<sup>22</sup> U.S. Constitution, amend. 21, sec. 2.

go away. On top of that, knowledge about the health issues related to alcohol abuse was becoming more widespread, and limiting access to alcohol could curb those effects too. The CDC currently reports both short-term and long-term health risks associated with drinking. In the short-term, alcohol abuse can lead to personal injury, violence, alcohol poisoning, risky sexual behavior, and reproductive problems. In the long-term, alcohol abuse can lead to heart disease, cirrhosis of the liver, cancer, brain damage, mental health issues, and alcoholism (CDC 2014c).

To combat this, measures have been enacted at all levels of government. For example, municipalities heavily regulate businesses by requiring that bars and retail liquor stores obtain certain permits and adhere to certain hours of operation. Counties in many states have the power to decide for themselves whether or not to allow alcohol sales at all. States enforce drunk-driving laws as well as set standards for product alcohol content. Technically, states also control the legal drinking age, but the federal government for all intents and purposes usurped that power when Congress passed the National Minimum Drinking Age Act of 1984. That law forced states to set a minimum drinking age of 21 years or suffer cutbacks in federal highway funding.<sup>23</sup> Every state eventually complied. Finally, like the tobacco industry, the federal government also regulates the advertising practices of the alcohol industry.

Despite these efforts, Americans continue to abuse alcohol. “In 2012, 24.6 percent of people ages 18 or older reported that they engaged in binge drinking in the past month; 7.1 percent reported that they engaged in heavy drinking in the past month.” As a result, 17 million adults have alcohol related disorders, which lead to the death of approximately

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<sup>23</sup> 23 *U.S. Code* 23 (2014) § 158.

88,000 Americans every year and make alcohol abuse “the third leading preventable cause of death in the United States” (National Institute of Alcohol Abuse and Alcoholism 2014).

There are several liberty concerns involved with alcohol. Foremost, that government would seek to deprive competent adults of the choice to drink is rather alarming. To be sure, government probably ought to regulate personal behavior to some extent, but prohibit it altogether? Should other unhealthy behaviors be prohibited too? Temperance advocates might point out that the Eighteenth Amendment did not prohibit people from drinking alcohol, but from manufacturing, transporting, and selling it. Nevertheless, outright prohibition was the de facto law. And what about those post-Prohibition state provisions that allowed the sale of alcohol to be outlawed in one county but permitted it in the next? The lengths to which people were willing to circumvent the law during Prohibition suggest that distance would not be a deterrent, but simply an obstacle that could lead to an increase in drunk-driving—the area where temperance advocates stand on the most solid ground, for taking the liberty of driving drunk deprives others of the liberty to travel American highways safely.

Another liberty concern is the national minimum drinking age of 21. Opponents stress the fact that 18 is the age of majority in nearly every other legal aspect. At the age of 18, Americans are considered legal adults, they can vote, and they can enlist in the armed forces. In other words, 18 to 20 year olds can be convicted by their country, help shape it, and die for it, they just cannot publicly drink alcoholic beverages within its confines. This might seem tantamount to age discrimination, but the only two 21 to drink laws ever to be challenged on those grounds were upheld by a United States District

Court in Michigan and the Louisiana State Supreme Court, respectively. They both held that age is not a suspect classification protected by the Constitution and therefore that the state was promoting a compelling government interest that trumped any potential discrimination involved.<sup>24 25</sup>

As with smoking and obesity, the most viable argument made by temperance advocates is that alcohol abusers have an overall negative economic impact. They too put pressure on healthcare providers and raise costs that are ultimately passed on to others. Alcohol abusers also cause a significant amount of property damage, especially through drunk-driving related automobile accidents. That alone caused alcohol to exceed the previously stated economic impact of smoking by some \$30 billion. In 2006, “[t]he estimated cost of excessive drinking was \$223.5 billion” (Bouchery et al. 2011, 516).

### **Seatbelt Usage**

According to the National Highway Traffic Safety Administration (2010a; hereafter NHTSA), over 33,000 people were killed as a result of traffic accidents in 2009, a trend that ranks it the sixth leading cause of preventable death in the United States. Of those killed, 53% were not wearing seatbelts. While that number remains high, it has decreased significantly since state governments started requiring some sort of seatbelt use beginning in 1984. All vehicle occupants are now required to wear a seatbelt in 28 states and Washington, D.C. Front seat occupants are required to wear a seatbelt in 21 states (Insurance Institute for Highway Safety 2014). Enforcement does vary, but only to the

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<sup>24</sup> R. Guy, Opinion, Ref. Civil No. 8-73015 and Civil No. 8-73159, U.S. District Court, Eastern District of Michigan, Southern Division, Detroit, MI, December 22, 1978.

<sup>25</sup> *Manuel v. State Of Louisiana*, 692 So. 2d 320 (La. 1996).

extent that some states have passed primary seatbelt laws that allow police officers to issue citations if a violation is observed, whereas other states have passed secondary seatbelt laws that only allow police officers to issue citations if another traffic violation is observed first. Regardless, seatbelt laws have resulted in an increase of seatbelt use from 11% in 1981 to 85% in 2010 (CDC 1999, 371; NHTSA 2010b).

Compared to the other issues discussed in this study, the liberty concerns with seatbelt laws are relatively straightforward. Opponents of seatbelt laws complain that competent adults ought to be allowed to assume the risk of not wearing a seatbelt while in a moving vehicle because it has no affect on others. That might be a sound argument were it not for the negative economic impact resulting from a lack of seatbelt use. Like people that smoke, make poor diet choices, and abuse alcohol, people who do not wear seatbelts put added stress on healthcare providers and raise costs. That is because people who do not wear seatbelts are more likely to suffer serious injury and even death when in traffic accidents. NHTSA (2009) reports that, “lap/shoulder seat belts, when used, reduce the risk of fatal injury to front seat occupants (age 5 and older) of passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent.” Having established a compelling government interest, the only question that remains is whether human lives are worth the reductions in personal liberty.

### **Summary**

Opponents of public measures that are intended to curb the detrimental health effects of these issues often espouse personal liberty as the crux of their argument. To them, any negative consequences are self-imposed. Taken to the extreme, a person therefore ought

to be able to drive to their favorite bar that allows indoor public smoking with no seatbelt on and a spiked, gallon-sized soft drink in the center console. Unfortunately, it is not that easy. All the externalities resulting from unhealthy personal behaviors must be acknowledged and taken into account. When they are, the issues become much more complicated. Other determinants such as personal behavior and public consciousness play a role too. That is not to say that personal liberty ought to be altogether discarded, but is to say that the public health is enough of a compelling government interest to warrant at least some regulation.

## Chapter 4: Hypotheses / Survey Development

### Hypotheses

1. The more an individual engages in an unhealthy personal behavior, the less likely that individual is to support regulation of that behavior.
2. The more an individual believes that engaging in an unhealthy personal behavior is a question of personal liberty, the less likely that individual is to support regulation of that behavior.
3. The more conscience an individual is of others engaging in an unhealthy personal behavior, the more likely that individual is to support regulation of that behavior.
4. The more liberal an individual is, the more likely that individual is to support public health regulations.
5. Democrats are more likely to support public health regulations.
6. The less risky an individual perceives secondhand smoke to be, the less likely that individual is to support indoor public smoking regulations.

### Developing the Survey

The web-based survey utilized in this study was developed during June 2014 and invitations to participate were distributed from September 8, 2014 to September 16, 2014 via e-mail to approximately 1576 undergraduate students at the University of Arkansas.<sup>26</sup> Those students had officially declared majors in Political Science, Psychology, and/or Criminal Justice, although some had unofficially switched degree programs prior to

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<sup>26</sup> For the complete survey, see the Appendix .



taking the survey. The data collected from the survey should not be mistaken for a statistical sample of a larger population such as the City of Fayetteville, the State of Arkansas, or the country at large. The only population that the sample may be said to represent is the 1576 students to whom the survey was distributed. Nevertheless, as this study is preliminary and is merely an effort intended to spur further scholarly research, it still has considerable merit.

Encompassing 43 items, the survey is comprised of three major sections: issue questionnaire, additional questions on smoking, and demographics. Respondents were first asked to answer questions concerning six major health issues in the United States, including secondhand smoke exposure, diet, alcohol abuse, seatbelt usage, hand washing, and alternative medicine. As discussed in chapter three, diet is narrowed to large sugary beverage consumption. Also discussed was that both hand washing and alternative medicine had to be excluded to promote consistency because they ultimately proved irreconcilable with the other four issues. Each remaining issue was broken into five distinct question types that focused on personal behavior, public consciousness, regulation support, inclination towards personal liberty, and issue importance. Responses were measured along a five-point Likert-scale, ranging from strongly disagree (1), somewhat disagree (2), neutral (3), somewhat agree (4), to strongly agree (5). Indices for each question type were subsequently generated based on the sum of all responses.

The first question type measured respondents' personal behavior. For example, respondents were asked to what extent they agree with the statement "I always wear my seatbelt while in a moving vehicle." The more respondents agreed with the statement, the less they engaged in that unhealthy personal behavior. The second question type, public

consciousness, measured whether respondents' expected or encouraged others to behave in a healthy way. For example, respondents were asked to what extent they agree with the statement "I encourage others to refrain from consuming large sugary beverages." The more respondents agreed with the statement, the more conscious they were of others engaging in that unhealthy personal behavior.

The third question type, regulation support, measured respondents' support for certain public policies. For example, respondents were asked to what extent they agree with the statement "Laws regulating the sale and public consumption of alcohol are necessary to prevent drinking and driving, alcoholism, liver disease, and cirrhosis." The more respondents agreed with the statement, the more they supported regulation of that unhealthy personal behavior. The fourth question type, views towards personal liberty, measured respondents' opposition to government regulation and belief that engaging in an unhealthy personal behavior is a question of personal liberty. For example, respondents were asked to what extent they agree with the statement "The government should stay out of it. Adults should be able to decide for themselves whether or not to go to bars that allow public indoor smoking." The more respondents agreed with the statement, the more they believed that engaging in that unhealthy personal behavior is a question of personal liberty.

The fifth question type, issue importance, measured respondents' interest in public health issues. For example, respondents were asked to what extent they agree with the statement "Laws that prohibit smoking in bars are an important issue to me." The more respondents agreed with the statement, the more important they believed that unhealthy personal behavior is an important issue. This will be important to measure

whether or not there is a difference in policy stances between those who believe the issues are important and those who do not. After all, those who show up are the ones that decide public policy.

Respondents were next asked five additional questions on smoking in order to better identify policy approaches with strong public support and to compare the results concerning secondhand smoke by asking the same questions in a slightly different way. The first question, however, gauged respondents' perception of secondhand smoke exposure as a risk by asking whether or not they believed evidence suggesting that secondhand smoke exposure has detrimental health effects. The remaining four questions gauged respondents' support for an all-out ban on public smoking, support for clean air alternatives to an all-out ban, support for current laws, as well as opposition to current laws. Responses were measured along the same five-point Likert-scale used during the issue questionnaire.

Finally, respondents were asked eight demographic questions to further filter and analyze the data as necessary. Those questions included sex, date of birth (converted to age in years), party identification, political ideology, smoking frequency, smoking setting, and bar attendance. Sex is a dichotomous question. Date of birth is a fill-in-the-blank question. Party identification is a nominal question, allowing for strong or lean identification with either major party, as well as identification as a moderate, independent, or other. By excluding the respondents who identified as independent or other, answers to this question may be measured along the same five-point Likert-scale used for the issue questionnaire and additional questions on smoking. Political ideology is measured along that same scale. Smoking frequency and bar attendance are measured

along very similar six-point and seven-point Likert-scales, respectively. Smoking setting is a nominal question that is somewhat contingent upon smoking frequency.

### **Shortcomings**

There are several methodological shortcomings in this study that need to be addressed. The limited scope in population that the sample size represents has already been mentioned. Future research of a similar nature should attempt to achieve a statistical sample of a larger population within a jurisdiction, such as the City of Fayetteville, the State of Arkansas, or the country at large. It may be necessary to refine the survey to accomplish that. In its present form, the survey is lengthy, and at least ten questions were thrown out due to inconsistency.<sup>27</sup> Those questions could have been used to ask a whole battery of questions on both liberty and risk and further developed those lines of inquiry, allowing for the possibility of competing perceptions of liberty and the measurement of each factor shaping risk perception as articulated by Schmidt (2004). Finally, the survey should have measured political ideology two-dimensionally as suggested by, e.g., Shafer and Claggett (1995) and Treier and Hillygus (2009).

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<sup>27</sup> See page 18.

## Chapter 5: Data

### Demographics

Although several respondents did not answer every question, there were 284 respondents who answered either all or nearly all of the questions.<sup>28</sup> Out of the 1576 students to whom the survey was distributed, that is roughly an 18% response rate. Respondents varied in years of age from 18 to 61, with a mean of 21.71. Over three-quarters of the respondents are female (216) and only 23.4% are male (66). As far as party identification, 8.1% of the respondents identified as a strong Democrat (23), 19.1% Democrat (54), 17.3% moderate (49), 15.9% lean Republican (45), 14.1% strong Republican (40), 16.6% independent (47), and 8.8% as other (25). As far as political ideology, 16.3% of the respondents identified as very liberal (46), 21.9% somewhat liberal (62), 30.4% middle of the road (86), 21.9% somewhat conservative (62), and 9.5% very conservative.

Over half of the respondents claimed to have never smoked cigarettes (157), while almost 10% claimed to have once smoked but to have successfully quit (27). Nearly 20% of the respondents claimed to have only smoked one or two cigarettes in the past (53), and fewer than 15% claimed to smoke either between five cigarettes a month but less than half a pack a day (21) or to sometimes smoke but less than five cigarettes a month (21). Only 1.8% of the respondents claimed to smoke more than half a pack of cigarettes a day (5). Of those respondents who admitted to smoking (96), 53.1% claimed to do so at bars or at parties (51), 30.2% at bars or at parties and sometimes by

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<sup>28</sup> Where appropriate, means were substituted for unanswered questions. These means are not a part of the demographic data presented, but are used in calculating correlation coefficients.

themselves (29), and 16.7% claimed to smoke only by themselves (16).

Just fewer than 60% of the respondents claimed to go out to bars at least once a year (167), while 40.6% never go to bars (114). This number is probably skewed considering that the mean age of respondents is barely over 21, making it illegal for many respondents to enter bars. Regardless, as 18-20 year olds are eligible voting citizens, their voice is just as relevant as those who are legal to drink. Over 25% of the respondents claimed to go out to bars at least once a month (80).

### Correlation Coefficients

Relationships between survey responses are measured using Pearson Correlation Coefficients ( $r$ ) and are presented below in tables II through VI. It is important to note that, as always, correlation does not imply causation, but merely a linear relationship between two variables. For the purposes of this study, the strength of that relationship is defined as follows:

Table I	
Correlation Coefficient ( $r$ )	Relationship Strength
$r = 1$	Perfect
$1 > r > 0.7$	Strong
$0.7 > r > 0.3$	Moderate
$0.3 > r > 0$	Weak
$r = 0$	No Relationship

The relationship between two variables can also be measured directionally in terms of positive or negative value of  $r$ . A positive value indicates that there is a direct relationship between two variables, or that, as one gets larger, so does the other. A negative value

indicates an inverse relationship between two variables, or that, as one gets larger, the other gets smaller. Statistical significance of each correlation is determined using p-value thresholds of .025 and .0005. The p-values themselves are derived from sample size ( $n$ ) and  $r$  using a one-tailed test. Any relationship with a p-value greater than .025 is considered not statistically significant. Those with a p-value less than .0005 are considered very significant.

Table II shows the relationship between certain beliefs/personal behaviors and policy stances measured in the issue questionnaire and demographic survey sections. Those relationships may provide support for hypotheses one through five. As indicated in chapter four, personal behavior is measured using responses to question type one on the issue questionnaire, personal liberty by question type four, and public consciousness by question type two. Policy stances are measured in terms of regulation support, which is measured using responses to question type three on the issue questionnaire. Political ideology and party identification are measured using responses to those questions in the demographic section, although respondents who identified as either independent or other have been measured separately to achieve linearity. That is why  $n$  drops from 284 to 211 on party identification. The same applies to subsequent tables. Finally, indices were created using the sum of the responses for each question type on the issue questionnaire to measure the relationship between certain beliefs/personal behaviors and policy stances overall.

Table II		Support for Regulation				
		Secondhand Smoke	Large Sugary Beverages	Alcohol Abuse	Seatbelt Laws	Overall
Belief / Personal Behavior	Personal Behavior	.491** n=284	.177* n=284	.415** n=284	.396** n=284	.380** n=284
	Personal Liberty	-.637** n=284	-.592** n=284	-.629** n=284	-.634** n=284	-.696** n=284
	Public Consciousness	.557** n=284	.272** n=284	.454** n=284	.537** n=284	.520** n=284
	Political Ideology	.047 n=284	.160* n=284	-.072 n=284	.005 n=284	-.060 n=284
	Party Identification	.074 n=211	-.180* n=211	-.097 n=211	.121 n=211	-.030 n=211

\* p-value < .025; \*\* p-value < .0005

The table indicates a statistically significant, moderately direct relationship between healthy personal behavior and support for regulation overall ( $r=.380$ ), as well as in each category except large sugary beverages. There, the relationship is also statistically significant and direct, but weak in strength ( $r=.177$ ). The relationship between views on personal liberty and support for regulation is statistically significant and moderate in each category. However, in each instance, there is an inverse relationship rather than a direct relationship. Overall, the relationship between views on personal liberty and support for regulation is moderate, but it is on the cusp of having a strong inverse relationship ( $r=-.696$ ). The relationship between public consciousness and support for regulation is statistically significant and moderate in every category except, again, large sugary beverages. There, the relationship is also statistically significant and direct, but weak in



strength ( $r=.272$ ). Overall, public consciousness and support for regulation have a statistically significant, moderately direct relationship ( $r=.520$ ). The only statistically significant relationships between political ideology or party identification and support for regulation occur under the large sugary beverage category, and both of those relationships are weak in strength ( $r=.160$ ;  $r=-.180$ ).

Table III shows the same relationships for political ideology as Table II, except that Table III includes only those respondents who identified as either independent or other. This could establish stronger relationships between political ideology and support for regulation for those respondents who did not identify with a party than those relationships between political ideology and support for regulation for those respondents who did identify with a party.

Table III	Support for Regulation				
	Secondhand Smoke	Large Sugary Beverages	Alcohol Abuse	Seatbelt Laws	Overall
<b>Political Ideology</b>	.061 n=72	-.051 n=72	-.053 n=72	-.138 n=72	-.060 n=72

\* p-value < .025; \*\* p-value < .0005

Changes in the data are only considered substantive if there was a statistically significant relationship that was at least moderately strong and that is no longer the case, or if that was not the case and it now is. Changes in the strength of statistically significant relationships from moderate to strong and vice versa are also observed. There was no substantive change in the data from Table II.

Table IV also shows the relationship between certain beliefs/personal behaviors and policy stances except that it concentrates solely on the issue of secondhand smoke by

relying upon that portion of the issue questionnaire, as well as the additional questions on smoking and demographic survey sections. Those relationships may provide support for hypotheses one, four, five, and six, and also allow for a basis of comparison between data. As indicated in chapter four, four of the five additional questions on smoking gauge respondents' support for different policy approaches towards secondhand smoke, including all-out prohibition, alternatives to prohibition, adequacy of the current laws, and the repeal of those laws. The remaining question gauges respondents' perception of secondhand smoke exposure as a risk, and is reflected in the table as secondhand smoke harms. Smoking frequency, bar patron frequency, political ideology, and party identification are all derived from the demographic survey section and remain subject to any aforementioned constraints.

Table IV		Support for Regulation				
		Secondhand Smoke	All-Out Prohibition	Prohibition Alternatives	Current Laws Adequate	Repeal Current Laws
Belief / Personal Behavior	Smoking Frequency	.406** n=284	.429** n=284	-.045 n=284	-.141* n=284	-.136* n=284
	Bar Patron Frequency	.374** n=284	.312** n=284	-.062 n=284	-.087 n=284	-.060 n=284
	Secondhand Smoke Harms	.492** n=284	.420** n=284	.055 n=284	-.051 n=284	-.254** n=284
	Political Ideology	.121* n=284	.146* n=284	-.086 n=284	.118* n=284	.113 n=284
	Party Identification	.204* n=211	.180* n=211	-.054 n=211	.179* n=211	.057 n=211

\* p-value < .025; \*\* p-value < .0005

The table indicates several statistically significant relationships that are at least moderate

in strength. There is a direct relationship between smoking frequency and the secondhand smoke category that is both statistically significant and moderate ( $r=.406$ ). The same goes for the relationship between smoking frequency and the all-out prohibition category ( $r=.429$ ), as well as the relationships between bar patron frequency and both the secondhand smoke and all-out prohibition categories ( $r=.374$ ;  $r=.312$ ). There is also a direct relationship between secondhand smoke harms and both the secondhand smoke and all-out prohibition categories ( $r=.492$ ;  $r=.420$ ).

## Chapter 6: Data Analysis

Given the amount of data obtained from the survey, it's possible to analyze it excessively. Therefore, the following analysis will be confined to the six hypotheses set forth in chapter four, along with any pertinent sub-hypotheses that may arise. In each instance, the null hypotheses ( $H_0$ ), also known as the opposite of the stated hypothesis (alternative hypothesis:  $H_A$ ), will either be rejected or will fail to be rejected. If the former is the case, the alternative hypothesis will be accepted. The aforementioned p-value thresholds of .025 and .0005 are still relied upon for relationship significance, without which any null hypothesis must fail to be rejected.

### Hypothesis One

The first hypothesis asserts that the more an individual engages in an unhealthy personal behavior, the less likely that individual is to support regulation of that behavior. The null hypothesis is, conversely, that an individual is not less likely to support regulation of an unhealthy personal behavior the more that individual engages in that behavior. However, it must be noted that question type one measures the extent to which the respondents indicated they engage in a *healthy* personal behavior, not an *unhealthy* behavior. That means a direct relationship is necessary to reject the null instead of an inverse relationship. As a result, the alternative and null hypotheses are stated in statistical notation as follows:

$$H_A: r > 0$$

$$H_0: r \leq 0$$

Referring to Table II in chapter five, the overall relationship between healthy personal behavior and support for regulation is direct, very significant with a p-value less than .001, and moderate in strength with a correlation coefficient of .380. The null hypothesis is therefore rejected and the alternative hypothesis is accepted, a conclusion that can also be reached when the test is applied to each issue, respectively. The relationship between personal behavior and support for regulation of large sugary beverages is only significant and weak in strength ( $r=.177$ ), but every other relationship between healthy personal behavior and support for regulation is very significant and moderate in strength. Keeping in mind the scope of this study, the data in Table II provide substantial support in favor of hypothesis one.

Hypothesis one can be examined more thoroughly using the data presented in Table IV, which shows the relationship between smoking frequency and support for five different smoking policy outcomes. Smoking frequency is measured directionally in terms of being healthy as before. The five policy outcome categories include the support for regulation metric used in Table II, labeled secondhand smoke, as well as support for an all-out prohibition on all indoor or outdoor public smoking, support for an alternative to a prohibition on indoor smoking in bars such as a requirement to maintain certain air quality levels, support for keeping the laws the same, and support for repealing current laws.

The relationship between smoking frequency and the secondhand smoke category is very significant and moderate in strength ( $r=.406$ ), leading the null hypothesis to be rejected. The same can be said when it comes to the relationship between smoking

frequency and support for an all-out prohibition ( $r=.429$ ). The null hypothesis fails to be rejected on both the relationship between smoking frequency and support for prohibition alternatives, and the relationship between smoking frequency and support for keeping the laws the same. Although the latter relationship is significant, it is weak and inverse ( $r=-.141$ ). When it comes to the relationship between smoking frequency and support for repealing the current laws, the correlation coefficient must be made into a positive number to retain logical consistency. After all, support for repealing the current laws is not support for regulation, but opposition to regulation. Once that is done, the null hypothesis is rejected. The data in Table IV also provide substantial support for hypothesis one, insofar as the unhealthy personal behavior is smoking and the regulation is an all-out prohibition.

### **Hypothesis Two**

The second hypothesis asserts that the more an individual believes that engaging in an unhealthy personal behavior is a question of personal liberty, the less likely that individual is to support regulation of that behavior. The null hypothesis is, conversely, that an individual is not less likely to support regulation of an unhealthy personal behavior the more that individual believes that engaging in that behavior is a question of personal liberty. Unlike with hypothesis one, an inverse relationship is necessary to reject the null of hypothesis two. As a result, the alternative and null hypotheses are stated in statistical notation as follows:

$$H_A: r < 0$$

$$H_O: r \geq 0$$

Referring to Table II, the overall relationship between views on personal liberty and support for regulation is inverse, very significant, and, although moderate in strength, is on the cusp of being strong ( $r=-.696$ ). The null hypothesis is therefore rejected and the alternative hypothesis is accepted, a conclusion that can also be reached when the test is applied to each issue, respectively. The data in Table II provide substantial support in favor of hypothesis two.

### **Hypothesis Three**

The third hypothesis asserts that the more conscience an individual is of others engaging in an unhealthy personal behavior, the more likely that individual is to support regulation of that behavior. The null hypothesis is, conversely, that an individual is not more likely to support regulation of an unhealthy personal behavior the more conscience that individual is of others engaging in that behavior. A significant, direct relationship is necessary to reject the null hypothesis. As a result, the alternative and null hypothesis are stated in statistical notation as follows:

$$H_A: r > 0$$

$$H_O: r \leq 0$$

Referring to Table II, the overall relationship between public consciousness and support for regulation is direct, very significant, and moderate in strength ( $r=.520$ ). The null hypothesis is therefore rejected and the alternative hypothesis is accepted, a conclusion that can also be reached when the test is applied to each issue, respectively. The relationship between public consciousness and support for regulation of large sugary beverages is only significant and weak in strength ( $r=.272$ ), but every other relationship

between public consciousness and support for regulation is very significant and moderate in strength. The data in Table II provide substantial support in favor of hypothesis three.

#### **Hypothesis Four**

The fourth hypothesis asserts that the more liberal an individual is, the more likely that individual is to support public health regulations. The null hypothesis is, conversely, that an individual is not more likely to support public health regulations the more liberal that individual is. A significant, direct relationship is necessary to reject the null hypothesis. As a result, the alternative and null hypothesis are stated in statistical notation as follows:

$$H_A: r > 0$$

$$H_O: r \leq 0$$

Referring to Table II, the overall relationship between political ideology and support for regulation is inverse, insignificant, and weak in strength ( $r=-.060$ ). The null hypothesis therefore fails to be rejected and the alternative hypothesis cannot be accepted, a conclusion that can also be reached when the test is applied to every issue except large sugary beverages, respectively. The relationship between political ideology and support for regulation of large sugary beverages is direct, but merely significant and weak in strength ( $r=.160$ ). The data in Table II do not provide substantial support in favor of hypothesis four.

Hypothesis four can be more thoroughly examined by using the data presented in Table III, which measures the relationship between political ideology and support for regulation by including only those respondents who identified as either independent or other. This could establish stronger relationships between political ideology and support



for regulation for those respondents who did not identify with a party than for all respondents. Nevertheless, overall and on each issue, the null hypothesis fails to be rejected. The data in Table III do not provide substantial support in favor of hypothesis four either.

The data presented in Table IV might also be of some use. In addition to smoking frequency, that table shows the relationship between political ideology and support for five different smoking policy outcomes. The relationship between political ideology and the secondhand smoke category is significant but weak ( $r=.121$ ). The same may be said for the relationship between political ideology and support for an all-out prohibition ( $r=.146$ ), and political ideology and support for keeping the laws the same (.118). After testing each relationship, the null hypothesis is rejected. The data in Table IV provide support in favor of hypothesis five, but it is not substantial, especially if applied outside the scope of this study.

### **Hypothesis Five**

The fifth hypothesis asserts that Democrats are more likely to support public health regulations. The null hypothesis is, conversely, that Democrats are not more likely to support public health regulations. A significant, direct relationship is necessary to reject the null hypothesis. As a result, the alternative and null hypothesis are stated in statistical notation as follows:

$$H_A: r > 0$$

$$H_0: r \leq 0$$

Referring to Table II, the overall relationship between party identification and support for regulation is inverse, insignificant, and weak in strength ( $r=-.030$ ). The null hypothesis therefore fails to be rejected and the alternative hypothesis cannot be accepted, a conclusion that can also be reached when the test is applied to each issue. There is a significant relationship between party identification and support for regulation of large sugary beverages, but it is inverse and weak in strength ( $r=-.180$ ). The data in Table II do not provide substantial support in favor of hypothesis five.

Hypothesis five can be examined more thoroughly using the data presented in Table IV, which shows the relationship between party identification and support for five different smoking policy outcomes. The relationship between party identification and the secondhand smoke category is significant but weak ( $r=.204$ ). The same may be said for the relationship between political ideology and support for an all-out prohibition ( $r=.180$ ), and political ideology and support for keeping laws the same ( $r=.179$ ). After testing each relationship, the null hypothesis is rejected. The data in Table IV provide support in favor of hypothesis five, but it is not substantial, especially if applied outside the scope of this study.

### **Hypothesis Six**

The sixth hypothesis asserts that the less risky an individual perceives secondhand smoke to be, the less likely that individual is to support indoor public smoking regulations. The null hypothesis is, conversely, that an individual is not less likely to support indoor public smoking regulations the less risky that individual perceives secondhand smoke to be. Whether secondhand smoke harms is measured directionally, towards believing that it

does. A significant, direct relationship is therefore necessary to reject the null hypothesis. As a result, the alternative and null hypothesis are stated in statistical notation as follows:

$$H_A: r > 0$$

$$H_O: r \leq 0$$

Referring to Table IV, the relationship between secondhand smoke harms and the secondhand smoke category is very significant and moderate in strength ( $r=.492$ ). The same may be said for the relationship between secondhand smoke harms and support for an all-out prohibition ( $r=.420$ ). In both instances, the null hypothesis is rejected and the alternative hypothesis is accepted. When it comes to the very significant yet weak relationship between secondhand smoke harms and support for repealing the current laws ( $r=-.254$ ), the correlation coefficient must be made into a positive number to retain logical consistency ( $r=.254$ ). Once that is done, the null hypothesis is rejected there too. The data in Table IV provide substantial support in favor of hypothesis six, but only insofar as the regulation supported is an all-out prohibition.

## Chapter 7: Conclusion

Although the findings will be related forthwith, this study mostly concludes as it began—by asking questions. Support for public health regulations is influenced by a wide variety of determinants, only six of which have been examined in this study. Even then, attempting to measure the relationship between policy stances and just those factors, including personal behavior, perception of liberty, public consciousness, political ideology, party identification, and risk perception, might have been too ambitious. But understanding those relationships definitely was never the object of this study. Acknowledging time and again that this study is far too limited in scope for that, its object has rather been to spur more pointed scholarly research, and that end may have very well been achieved. The data provides ample food for thought and the potential to develop each line of inquiry further. Recommendations on how to proceed are included.

### Personal Behavior

So how much influence does personal behavior have on support for public health regulations? Is opposition post-hoc justification for personal behavior? According to the studies discussed in chapter three, roughly 19% of adults smoke (CDC 2013), 34.9% of adults over the age of 20 are obese (Ogden et al. 2014, 806), 24.6% of adults over the age of 18 abuse alcohol on a monthly basis (National Institute of Alcohol Abuse and Alcoholism 2014), and 15% of vehicle occupants do not wear their seatbelt (NHTSA 2010b). It is reasonable to assume that at least some people who engage in an unhealthy personal behavior want to persist in doing so, and that they would therefore oppose

regulations intending to curb that behavior.

Hypothesis one asserted that the more an individual engages in an unhealthy personal behavior, the less likely that individual is to support regulation of that behavior. That hypothesis was accepted. From this study, it can be concluded that policy stances on salient issues are influenced by personal behavior. It is recommended that further research along this line of inquiry focus on a single public health issue. For example, how can particular personal behaviors involved with obesity such as diet and exercise be examined in such detail as to isolate vulnerabilities in the opposition's argument? If meaningful public health regulations can be instituted in areas where opposition has yet to coalesce, progress can be made. Nevertheless, those areas are few and far between when it comes to salient issues, where those opposed to regulation will fight tooth and nail for every inch of turf. Should they be compelled to capitulate? That may very well depend on the liberty interests involved.

### **Perception of Liberty**

The debate over personal liberty versus the public health was the impetus for this study. Do those who oppose public health regulations do so because of a conflict with the individual's fundamental belief in the importance of personal liberty? Hypothesis two asserted that the more an individual believes that engaging in an unhealthy behavior is a question of personal liberty, the less likely that individual is to support regulation of that behavior. That hypothesis was accepted. Therefore, insofar as personal liberty can be conflated with less regulation, the data support the notion that those who oppose public health regulations often believe that competent adults should be able to decide for

themselves whether or not to engage in an unhealthy personal behavior.

Those findings may be somewhat fleeting, however, for as Kammen (1986) found, the definition of liberty is both elusive and fluid. Further research along this line of inquiry ought to focus on reconciling competing interests that arise under the broad definition of liberty asserted by Jefferson (1819) and accepted by many scholars (Fried 2005). Under that definition, liberty is the right to do whatever one wants up until the point at which the right of others to do whatever they want is infringed. But what happens when someone's liberty will be infringed no matter what happens? Whose right takes precedence and in what setting? When should government intervene?

### **Public Consciousness**

Is support for public health regulations a product of public health consciousness?

Hypothesis three asserted that the more conscience an individual is of others engaging in an unhealthy personal behavior, the more likely that individual is to support regulation of that behavior. That hypothesis was accepted. Therefore, individuals that expect or encourage others to refrain from engaging in unhealthy personal behaviors tend to support public health regulations more. Recommendations for further research along this line of inquiry include distinguishing between layers of public consciousness, from family, friends, acquaintances, to strangers.

### **Political Ideology**

What role might other explanations play, such as a person's political ideology? NVP (1979) and Feldman (1988) suggest a relationship between policy stances and political

ideology. Hypothesis four asserted just that, but that hypothesis was not accepted. Perhaps that is due to NVP's (1979) additional finding that the American electorate is ever in flux. Further research along this line of inquiry ought to examine that same relationship, except next time political ideology should be measured two-dimensionally as suggested by Shafer and Claggett (1995), and Treier and Hillygus (2009). Once a suitable experiment is found, it should be repeated over time to compensate for any fluctuation in the data. Is there a relationship between policy stances and political ideology some of the time and not other parts of the time? If so, why?

### **Party Identification**

What role might other explanations play, such as a person's party identification? Hypothesis five asserted that Democrats are more likely to support public health regulations. That hypothesis was not accepted. Perhaps that is due to the fact that the country has become increasingly polarized since the end of the Reagan administration (see, e.g., McCarty, Pool, and Rosenthal 2006; Dodson 2010). Although the parties might have more influence over diehard members, the parties' influence on the people might be less overall. That the hypothesis was not accepted could also be due to Key's (1966) finding that policy stances are not informed by party identification, but that party identification is informed by policy stances. Further research along this line of inquiry ought to examine the same relationship between party identification and support for public health regulations more thoroughly by expanding the metric for party identification beyond the two-party system. If a relationship can be established, the experiment ought to be repeated over time to compensate for any fluctuation in party

polarization.

### **Risk Perception**

Could an individual's opposition merely stem from more subtle factors, such as being post-hoc justification for perception of risk? This determinant is probably the least well examined by this study. Hypothesis six asserted that the less risky an individual perceives secondhand smoke to be, the less likely that individual is to support indoor public smoking regulations. That hypothesis was accepted, but only insofar as the regulation was an all-out prohibition, meaning alternatives to prohibition might be on the table for those who do not perceive secondhand smoke as risky. Further research along this line of inquiry ought to examine risk perception of more unhealthy personal behaviors for reasons of comparison and include a battery of questions that focus on the seven factors discussed by Schmidt (2004).

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Is opposition to public health regulations consistent across different types of regulations across the public sphere, or does it vary depending on the issue at hand? According to the data, it is generally consistent in terms of personal behavior, perception of liberty, public consciousness, and risk perception. However, it is inconsistent on an individual basis. It would be interesting to discover why. Do individuals only oppose regulation of the unhealthy personal behaviors they engage in, and if so, is personal liberty their argument? Do they support regulation of unhealthy personal behaviors they do not engage in, and if so, is that irrespective of the personal liberty arguments of others? Questions such as those drive at the very heart of the discussion over regulating the public health, and



perhaps at the very heart of the American experience.

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## Appendix

### The Survey

#### Risk and Smoking Survey

My name is Robert Lee and I am an undergraduate at the University of Arkansas in Fayetteville. I am conducting research for my undergraduate honor's thesis on cognitive dissonance and secondhand smoke exposure. I ask that you complete the following survey. This interview should take only a few minutes to complete; you are free to decline any questions you wish, but your candid answers will be greatly appreciated.

This is a request for completely voluntary participation. Your responses will be recorded anonymously and you can be assured that all information collected will be kept confidential to the extent allowed by law and University policy.

Thank you in advance for your valuable thoughts and insights contributed to this important research project. If you have any questions, concerns, or complaints with this research, please call me at (\*\*\*) \*\*\*-\*\*\*\* or e-mail me at r1001@uark.edu or my thesis chair, Bill Schreckhise at schreckw@uark.edu. You may also contact the University of Arkansas Institutional Review Board at (479) 575-4572.

#### **LIKERT QUESTIONNAIRE**

We would like to know your thoughts the following topics. Please indicate to what extent you agree or disagree with the following statements:

##### **SEATBELTS**

1. I always wear a seatbelt while in a moving vehicle.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

2. I expect others to wear a seatbelt while in a moving vehicle.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

3. Seatbelt laws are necessary to protect individuals from death and serious injury resulting from automobile accidents.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

4. The government should stay out of it. Adult drivers and adult passengers should be able to decide for themselves whether or not to wear a seatbelt while in a moving vehicle.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

5. Seatbelt laws are an important issue to me.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

#### HAND WASHING

6. I always wash my hands after using the restroom.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

7. I expect others to wash their hands after using the restroom.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

8. Laws requiring employees to wash their hands after using the restroom are necessary to prevent the spread of germs in business establishments.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

9. The government should stay out of it. Employees should be able to decide for themselves when to wash their hands.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

10. Hand washing laws are an important issue to me.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

#### LARGE SUGARY BEVERAGES

11. I always refrain from consuming large sugary beverages.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

12. I encourage others to refrain from consuming large sugary beverages.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

13. Laws regulating the sale of large sugary beverages are necessary to prevent health issues such as diabetes and obesity.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

14. The government should stay out of it. Adults should be able to decide for themselves whether or not to consume large sugary beverages.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

15. Laws regulating the sale of large sugary beverage are an important issue to me.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

#### ALCOHOL

16. I refrain from consuming excessive amounts of alcohol.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

17. I encourage others to refrain from consuming excessive amounts of alcohol.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

18. Laws regulating the sale and public consumption of alcohol are necessary to prevent drinking and driving, alcoholism, liver disease, and cirrhosis.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

19. The government should stay out of it. Adults should be able to decide for themselves when and how much alcohol to consume.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

20. Laws regulating the sale and public consumption of alcohol are an important issue to me.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

#### ALTERNATIVE MEDICINE

21. I only treat illnesses with government approved over-the counter-and doctor prescribed medications.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

22. I expect others to only treat illnesses with government approved over-the-counter and doctor prescribed medications.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

23. Laws prohibiting the consumption of certain drugs, regardless of their medical value, are necessary to prevent afflictions such as drug abuse, addiction, and overdoses.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

24. The government should stay out of it. Adults should be able to decide for themselves whether or not to treat illnesses with alternative medicines that are neither government approved nor doctor prescribed.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

25. Laws prohibiting the consumption of certain drugs, regardless of their medical value, are an important issue to me.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

## SECONDHAND SMOKE

26. I do not go to bars that allow indoor smoking.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

27. I encourage others not to go to bars that allow indoor smoking.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

28. Laws that prohibit indoor smoking in bars are necessary to prevent health issues such as lung cancer and heart disease.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

29. The government should stay out of it. Adults should be able to decide for themselves whether or not to go to bars that allow indoor smoking.

Strongly Disagree Somewhat Disagree Neutral Somewhat Agree Strongly Agree

30. Laws that prohibit indoor smoking in bars are an important issue to me.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

**ADDITIONAL QUESTIONS**

Please indicate to what extent you agree or disagree with the following statements:

31. I find the argument that exposure to secondhand smoke can have detrimental health effects such as lung cancer and heart disease convincing.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

32. I would support a prohibition on all public smoking, indoor or outdoor.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

33. I would support an alternative to a prohibition on indoor smoking in bars such as a requirement that those bars maintain a higher level of air quality through ventilation systems or other applicable technology.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

34. The current laws regulating indoor public smoking are adequate.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

35. The current laws regulating indoor public smoking should be repealed.

Strongly Disagree   Somewhat Disagree   Neutral   Somewhat Agree   Strongly Agree

**DEMOGRAPHICS**

36. What is your sex?

Male                      Female

37. What is your date of birth? (DD/MM/YY)

\_\_\_\_\_

38. What is your major?



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39. How do you identify your political affiliation?:

Strong Democrat  
Lean Democrat  
Moderate  
Lean Republican  
Strong Republican  
Independent  
Other

40. How would you identify your political beliefs?:

Very liberal  
Somewhat liberal  
Middle of the road  
Somewhat conservative  
Very conservative

41. Which of the following statements best explains how often you smoke cigarettes?

I usually smoke half a pack of cigarettes or more a day.  
I usually smoke more than five cigarettes a month, but less than a half a pack a day.  
I sometimes smoke, but usually less than five cigarettes a month.  
I have smoked only a cigarette or two in the past.  
I used to smoke cigarettes, but I no longer smoke them.  
I have never smoked cigarettes.

42. If you smoke, which statement best describes *when* you smoke?

I only smoke at bars or at parties.  
I usually smoke at bars and parties, but I also sometimes smoke by myself.  
I only smoke by myself.

43. How often do you go to out to bars as a customer?

I usually go out to bars at least five times a week.  
I usually go out to bars two to four times a week.  
I usually go out to bars about once a week.  
I usually go out to bars less than once a week, but more than once a month.  
I go out to bars a few times a year, but usually it's less than once a month.  
I go out to bars less than once a year.  
I never go out to bars.