TO BE OR NOT TO BE SMOKE-FREE:

AN ANALYSIS OF THE UNIVERSITY OF ALASKA ANCHORAGE PEER

INSTITUTIONS' SMOKING AND TOBACCO POLICIES

A

PROJECT

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ABSTRACT

More colleges and universities are adopting smoke-and tobacco-free policies, yet no literature exists on how types of enforcement protocols aide in policy success. The goal of this study was to assess the comprehensive smoke- and tobacco-free policies of the University of Alaska Anchorage's peer and neighboring postsecondary institutions to determine what enforcement type may benefit the university in moving towards a comprehensive smoke-free campus policy. Both quantitative and qualitative methods were used. In particular, content analysis was used to determine each peer institution's campus tobacco policy and enforcement strategy, while case study analysis was used to assess the effectiveness of different enforcement types. Results show that approximately 52% of UAA peer institutions have either comprehensive tobacco- and smoke-free campus policies. Of the institutions with comprehensive smoke- or tobacco-free campus policies, 57% have hard/strict enforcement protocols. The case study analyses of two smoke/tobacco-free campuses suggested that hard enforcement with set guidelines and a punitive offense system would promote more policy success over soft enforcement, which only provided verbal reprimand. Study findings suggested that a hard enforcement type was the preferred enforcement method of the sample and that a hard enforcement type supported overall policy success. The study recommends adoption of comprehensive smoke- or tobacco-free campus policies, utilization of a pre-implementation preparatory period before adoption of comprehensive smoke-or tobacco-free policy, and inclusion of hard enforcement protocols to the comprehensive smoke- or tobacco-free policy.

DEDICATION

        This work is dedicated to my Lord and Savior, Jesus Christ, whom through all things are possible (Philippians 4:13).

        I would also like to dedicate this work to my family. To my mother, Edna Britt, who taught me the meaning of strength, hard work, and faith. Despite the trials of being a single parent to two knuckle-headed high-school kids, she provided the tough love and encouragement that shaped who I am today. To my brother Jason, for believing in me, even when I didn't. And lastly, to the memory of my father, Lloyd Jerald Britt, whose cheers from the bleachers I can still hear, whose face of approval I can still see, and whose words of valor still guide me.

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CHAPTER 1: INTRODUCTION

Tobacco use remains the number one cause of preventable morbidity and mortality in the United States, contributing to 443,000 deaths annually (National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP], 2011). Though overall smoking rates have dropped in half since the 1964 landmark Surgeon General's report on smoking, the prevalence rates for young adults (ages 18-24) have remained stagnant (Center for Disease Control and Prevention [CDC], 2012). This chapter introduces the current public health issue of tobacco use on college campuses and the gaps in smoking and tobacco policy enforcement. This chapter also describes the study's goal and research questions to reach the following objectives: determine the number of UAA-peer institutions and neighboring college campuses with comprehensive smoke-free and tobacco-free campus policies, identify and classify what types of enforcement are listed within the institutions' policies, and determine the success of institutions with comprehensive smoke-or tobacco-free policies that utilize two different enforcement types.

1.1 Tobacco and College Campuses – A Public Health Problem

The Office of the Surgeon General maintains that there is no risk-free level of exposure to secondhand smoke (SHS), as any level of exposure is a known cause of mortality, killing approximately 46,000 non-smoking adults from heart disease and an additional 3,400 deaths from lung cancer each year (NCCDPHP, 2011). Clean indoor air laws have been proven an optimal public health solution to effectively reduce the harms associated with exposure to SHS (CDC, 2012). However, outdoor smoking restrictions have varying degrees of restrictiveness and regulations, thus being more difficult to

determine effectiveness of such policies (Jacobson & Zapawa, 2001). Further, minimal research is available regarding the acceptance of and compliance with outdoor smoking policies.

Young people are especially vulnerable to becoming tobacco users (World Health Organization [WHO], 2013), as adolescents and young adults are distinctively susceptible to social and environmental influences. Tobacco use among young adults aged 18-24 years is a growing public health concern (Monitoring the Future [MTF], 2010). It has been reported that up to 25.0% of adult smokers initiated smoking or using tobacco products after entering college (Everett & Huston, 1999 and Hines, Fretz, & Nollen, 1998). The most recent report of the American College Health Association's National College Health (ACHA) Assessment showed that 15.2% of college students have used cigarettes within the last 30 days, with higher rates reported (17.3%) when considering lifetime use and/or use of additional tobacco products (ACHA, 2011). As there are approximately 39.0% of 18-24 year olds enrolled in college (Snyder, Dillow, & Hoffman, 2009), the application of tobacco control policies to college campuses represents an enormous potential for impact, warranting deliberate attention among college and university administration.

To address the apparent disparity of tobacco use in the young adult population, a number of renowned organizations have banded together in an effort to protect young adults against the widespread effects of tobacco. The ACHA, in conjunction with the CDC, published an updated position statement from their original 2009 statement, encouraging colleges and universities to be diligent in their efforts to achieve a 100% (also called comprehensive) indoor and outdoor, campus-wide, tobacco-free environment

(ACHA, 2012a). Further, the Institute of Medicine (IOM) issued a call to action for all college campuses to become completely smoke-free (IOM, 2009).

Campus environments have the potential to encourage initiation and progression of tobacco use as well as to discourage it (Halperin & Rigotti, 2003). As most smokers become addicted before the age of 20 (CDC, 2012), a decision to quit smoking as a young adult would most likely be a permanent one. Thus, institutions can facilitate the targeting of health promotion efforts to curb tobacco use among young adults (Wallar et al., 2013).

As of January 2, 2014, there were at least 1,182 campuses with 100% smoke- and tobacco-free policies (ANRF, 2014). This movement of colleges and universities in becoming smoke- or tobacco-free is increasing. Yet, many colleges and universities have not roused to the calls to action. Why have they not done so? This research finds that enforcement efforts of such policies are perceived as an ongoing challenge (Plaspohl, Parrillo, Vogel, Tedders, & Epstein, 2012). Existing research focuses on the reduction of tobacco use prevalence among college students by utilizing strategies such as education campaigns, access to cessation programs, and effects of smoke-free housing. Yet, there is a nominal amount of studies assessing the success of campus smoke- or tobacco-free policy enforcement strategies.

Some challenges of smoke- or tobacco-free policy enforcement are the perceived burden of the financial expenses to the institution (Procter-Scherdtel & Collins, 2013) and the daunting perception of not achieving policy support from the campus community, especially students (Reindl et al., 2013). However, no sufficient data have been found on the financial burden of smoke- or tobacco-free policies. Moreover, research from a

national study of undergraduate college students in the United States shows overwhelmingly strong support for tobacco control policies that aim to reduce cigarette smoking on college campuses (Rigotti, Regan, Moran, & Wechsler, 2003).

However, even with strong support for smoke- and tobacco-free campus policies, the question of the impact of such policies without an actionable enforcement plan lingers. The existing inconsistencies in enforcing smoke- or tobacco-free policies may lead to a feeble link between policy intent and outcome. It can be said that campus tobacco policies without enforcement undermine the work of health professionals on college campuses and more importantly jeopardize the health of students, faculty, and staff (Fennell, 2012). Thus, weaker policy implementation involving strategies for enforcement can lead to a higher number of students smoking on school property (Sabiston, et al., 2009). In studies where students were asked about what could be done regarding non-compliance of smoke- and tobacco-free policies, the general response was that more restrictive policies with stringent enforcement be put in place (Eisen-Cohen, 2005; Procter-Scherdtel & Collins, 2013; and Burns et al., 2013). Other study findings show that students dismissed the verbal warning enforcement approach (referred to as 'soft enforcement' in this study), recognizing that they alone cannot effectively enforce any policy; and feel that authority is required for compliance (Baillie, Callaghan, & Smith, 2011).

This study focused on the University of Alaska Anchorage (UAA), as it is the state's largest post-secondary institution and the selected "health campus" for the entire UA system. Further, the UA system does not have a smoke-free or tobacco-free policy in place, putting thousands of students, faculty, staff and visitors at risk of exposure to

harmful tobacco smoke. This study is supported by the American Lung Association in Alaska (ALAA), the State of Alaska Tobacco Prevention and Control (TPC) program and the University of Alaska Anchorage (UAA) Smoke-free Taskforce. ALAA, the TPC program, and the UAA Smoke-Free Taskforce aim to reduce SHS exposure and assist in changing social norms around tobacco use by assisting, implementing and enforcing smoke- and tobacco-free campuses (ALAA, 2013).

The study analyses are based on the UAA Office of Institutional Research's selected list of peer institutions, which are similar to UAA based on an integrated combination of variables. Through a rigorous peer selection method, twenty-two comparator peers and twenty aspirational peers were determined to be similar to UAA. This study also addressed the smoking and tobacco policies of neighboring campuses to offer even closer comparisons to UAA.

In Alaska, the proportion of young adult smoking has remained high and unchanged since 1996, where 27.1% of Alaskan young adults reported being smokers compared the national average of 21.0% young adults (Alaska Tobacco Facts, 2013). Mirroring the high smoking rates of Alaska's young adult population, smoking prevalence at UAA has increased by 3.0% since 2009 (17.1%) to the current rate of 20.4% since 2009 (Garcia and Mapaye, 2013). The Garcia and Mapaye (2013) study further showed that the greater proportion (45.0%) of UAA students would support the idea of issuing tickets and fines to students who were caught not following a smoke- or tobacco-free policy; falling in line with other published studies of perceptions of enforcement (Eisen-Cohen, 2005; Harris et al., 2009; Procter-Scherdtel & Collins, 2013; and Burns et al., 2013).

1.2 Research Goal and Research Questions

The goal of this study was to assess the comprehensive smoke- and tobacco-free policies of UAA's peer and neighboring postsecondary institutions to draw comparisons that may determine what enforcement type may benefit UAA in moving towards a comprehensive smoke-free campus policy.

The three research questions the study addressed are:

1. Do UAA's peer institutions and neighboring college campuses have comprehensive smoke-free or tobacco-free policies?

2. Among the institutions with comprehensive smoke- or tobacco-free policies, what type of enforcement is employed?

3. How successful are institutions with comprehensive smoke- or tobacco-free policies dependent on the type of enforcement utilized?

To answer the above research questions, a mixed-methods approach was utilized in performing a document review and content analysis of the smoking and tobacco policies of UAA's forty-two peer institutions, as well as two additional neighboring college campuses to UAA. The research objectives that guided the study are: determine the number of UAA-peer institutions and neighboring college campuses with comprehensive smoke-free and tobacco-free campus policies, identify and classify what types of enforcement are listed within the institutions' policies, and determine the success of institutions with comprehensive smoke- or tobacco-free policies that utilize two different enforcement types.

1.3 Study Significance

Tobacco control policies may deter tobacco use and reduce secondhand smoke exposure to students (Halperin & Rigotti, 2003). This study reviewed the comprehensive smoke- or tobacco-free policies of UAA's peer institutions and neighboring college campuses to discover comparisons and themes that may encourage UAA towards the national college campus trend of implementing a comprehensive smoke- or tobacco-free campus policy.

By focusing on enforcement aspects of the peer institutions' policies, this study filled an important gap in adding to the insufficient amount of literature on the enforcement and compliance of outdoor smoking restrictions and comprehensive smoke- and tobacco-free college campus policies. Further, the study sought to discover new enforcement strategies that support more successful smoke- and tobacco-free policies on college campuses.

This study provided an exploration of how college campuses and other learning facilities can utilize peer institutions and neighboring college campuses to customize smoke-free or tobacco-free enforcement procedures in a way that optimally reflects their campuses' overall environment. The impact of this study may ultimately deliver greater public health protection, especially to young adults who make up the majority of college campus populations.

CHAPTER 2: BACKGROUND AND LITERATURE REVIEW

Chapter Two explores worldwide and national research on tobacco use, tobacco prevention and control in the state of Alaska, and the movement towards college campus smoke- and tobacco-free policies. In section two of this chapter, research gaps, such as enforcement and perceptions of smoke- and tobacco-free college campus policies are discussed. Section three describes the study background and section four discusses the significance of the research.

2.1 Literature Review

       The Tobacco Pandemic

The World Health Organization (2013) estimated that worldwide, tobacco use will kill approximately one billion people in the twenty-first century and is currently claiming the lives of nearly six million people each year. If the current trends continue, tobacco use will cause more than eight million deaths annually by 2030 (WHO, 2013).

In the United States, tobacco use continues to be the leading cause of preventable morbidity and mortality, contributing to 443,000 deaths annually, and is related to nearly 20% of all deaths (NCCDPHP, 2011). Since the 1964 landmark Surgeon General's report, successes in tobacco control have dropped smoking rates in half as Americans' collective view of smoking has been transformed from an accepted national pastime to a discouraged menace to individual and public health (United States Department of Health and Human Services [USDHHS], 2014). There are more former smokers than there are present smokers, with a current smoking rate of 18%, versus nearly 43% in 1965 (USDHHS, 2014). Approximately 70% of smokers want to quit and 45% of smokers try to quit each year (USDHHS, 2014).

Despite the encouraging shift in societal views of smoking, individuals choosing not to smoke are still exposed to the harmful effects of smoking. The Office of the Surgeon General maintains that there is no risk-free level of exposure to secondhand smoke (SHS), as it is proven to cause numerous health problems in infants and children, such as severe asthma attacks, respiratory infections, ear infections, and sudden infant death syndrome (SIDS). Health problems in adults include direct correlations to heart disease and lung cancer (United States Department of Health and Human Services [USDHHS], 2006). SHS exposure is a known cause of mortality, killing approximately 46,000 non-smoking adults from heart disease, and an additional 3,400 deaths from lung cancer each year (NCCDPHP, 2011).

Due to the adverse health outcomes related to SHS exposure, restrictions on smoking, such as clean indoor air laws, are instituted across the nation. Clean indoor air laws prove to be an optimal public health solution in effectively reducing the harms associated with SHS exposure (CDC, 2007). For the past 30 years, the enactment of strong clean indoor air laws have been a goal of the tobacco control movement (Jacobson & Zapawa, 2001). The combination of scientific, moral, and public policy provide the justification favoring clean indoor air laws. Advocates of clean indoor air laws claim that the health benefits for the majority of the population far outweigh any claims of intrusion upon individual liberties. Further, federal court rulings maintain that tobacco users do not have the legal right to expose others to SHS and they are not entitled to protection against discrimination (Campaign for Tobacco Free Kids, 2012). Smoking restrictions in the workplace are now common in many jurisdictions; with evidence suggesting that smoke-

free legislation has a positive impact on those who are occupationally exposed (Goodman, Haw, Kabir, & Clancy, 2009).

Smoking restrictions in the workplace do reduce SHS exposure, but only to those inside the workplace and those of legal working age. Therefore, communities, institutions, and businesses have increasingly begun to adopt smoke-free policies for outdoor areas (USDHHS, 2006). However, outdoor smoking restrictions have varying degrees of restrictiveness and regulations within different states; hence a difficulty in the determination of the overall effectiveness of outdoor smoking policies (Jacobson & Zapawa, 2001). Further, nominal research is available regarding the acceptance of and compliance with such outdoor policies.

Young people are especially vulnerable to becoming tobacco users (WHO, 2013), as adolescents and young adults are distinctively susceptible to social and environmental influences. Tobacco companies spend billions of dollars marketing to youth and young adults each year (CDC, 2012). Young adults (ages 18-24) make up the majority of college-aged adults and are the youngest legal targets of tobacco marketing. The U.S. Federal Trade Commission (FTC) reports have documented major escalations in tobacco company marketing expenses, as well as changes from traditional and print media toward point-of-sale marketing, sampling events, and other promotions (FTC, 2002). Classified tobacco industry documents have been discovered that describe tactics that target young adults by sponsoring trendy social events where free cigarettes are often distributed (Ling & Glantz, 2002).

The Surgeon General's Report on *Preventing Tobacco Use among Youth and Young Adults* (2012), states that each day in the United States, over 3,800 young people

under 18 years of age smoke their first cigarette, and over 1,000 youth under age 18 become daily cigarette smokers. Eighty-eight percent of adults who become daily smokers had their first cigarette by 18 years old, with 99% having their first cigarette by 26 years of age (CDC, 2012).

Thus, the most impactful setting to prevent the uptake of smoking is the educational environment, where youth and young adults congregate most. Research shows that students considered to be at low risk of beginning to smoke are more likely to start if they attend a school with a relatively high prevalence of smoking among students (Sabiston et al., 2009). The evidence is sufficient to conclude that there is a causal relationship between peer group social influences and the initiation and maintenance of smoking behaviors during adolescence (CDC, 2012).

Tobacco Prevention and Control in Alaska

Tobacco control in Alaska has a successful history, saving thousands of lives every year. Adult smoking prevalence in Alaska has declined from 28% in 1996 to 23% in 2011, signifying approximately 27,000 fewer adult smokers in 2011 than in 1996 and approximately 400 million dollars saved in health care costs (Alaska Tobacco Facts, 2013).

Despite the progress that has been made in reducing tobacco use prevalence in Alaska, it remains the leading cause of preventable death, responsible for approximately one in five of all mortalities in Alaska (Peterson, Pickle, Boles, & Bobo, 2012); and, killing more Alaskans than infectious disease, alcohol, car accidents, illegal drugs, murders, and suicides combined (Peterson et al., 2012).

Alaska Tobacco Facts (2013) reports that the majority of Alaskan adults who currently smoke want to quit, where nearly 3 in 5 smokers tried to quit in the last 12 months. Among those with the desire to quit are certain populations that are disproportionally affected by tobacco use, which are: Alaska Natives, whom are almost twice as likely to smoke as non-natives, people with low socioeconomic status, and young adults (ages 18-29) (Peterson et al., 2012). The proportion of young adult smokers has remained the same from 1996 to the present, where approximately 27% of young adults reported being a smoker (Alaska Tobacco Facts, 2013).

To combat the effects of tobacco use on these disparate populations and all Alaskans, the State of Alaska Tobacco Prevention and Control Program (TPC), aims to prioritize efforts towards these disparate populations, with statewide goals to:

1. Prevent the initiation of tobacco use by young people,

2. Promote tobacco cessation among adults and young people,

3. Eliminate exposure to secondhand smoke, and

4. Identify and eliminate tobacco-related disparities in specific populations.

The Alaska TPC program provides grants to local organizations to provide education around the effects of tobacco use and SHS exposure, promote evidence-based strategies that discourage youth initiation, provide support for tobacco users to quit, and protect residents from SHS exposure (TPC, 2014).

A huge win for public health efforts in Anchorage, the state's largest, most populous city, came in the year of 2006, when the Municipality of Anchorage passed a 100% smoke-free workplace law, inclusive of restaurants and bars. Smoke-free workplace laws protect the public against the detrimental effects of SHS. Almost 90% of

Alaskan adults agree that people should be protected from SHS (Alaska Tobacco Facts, 2013). Even among smokers, support is high; 77% agree that people should be protected from SHS (Alaska Tobacco Facts, 2013). Perhaps indirectly due to the 100% smoke-free workplace law; Anchorage has the lowest smoking rate of all the regions in Alaska at 16% (Alaska Tobacco Facts, 2013).

With a high level of community support for SHS protection and the stagnant tobacco use rates of the young adult population, a clear solution to drive down tobacco use prevalence in young adults and decrease SHS exposure would be the adoption of smoke-free and tobacco-free college campus policies. The Anchorage/Matanuska-Susitna region is the most populated region in Alaska and home to the state's largest college campus, the University of Alaska Anchorage (UAA). By being the largest city in Alaska and attracting a number of young adults traveling to Anchorage every year for college, tobacco prevention and control strategies can affect a significant number of people, especially young adults, when engaged on Anchorage's college campuses.

The College Campus Movement

Tobacco use among college students in the United States poses a serious public health concern. Approximately one in five college students report use of any type of tobacco product, while 11.5 % of college students smoke occasionally over the course of their four years in school, making the young adult age group a growing public health concern (MTF, 2010). Other studies indicate that between 8% and 25% of adult smokers report initiating smoking or using tobacco products after entering college (Everett & Huston, 1999 and Hines, Fretz, & Nollen, 1998). More than half (52%) of current undergraduate student smokers reported an increased amount of cigarettes smoked since

entering college (Halperin, 2000). There could be many reasons for the uptick of smoking among young adults, such as more freedom to make personal decisions, stress, increased visibility of smoking on campus (Halperin & Rigotti, 2003), and heavy targeting by the tobacco industry (FTC, 2002). Such data leads to the assumption that tobacco use may be initiated or increased during the college years, to which tobacco control policies may deter tobacco use and SHS exposure to students (Halperin & Rigotti, 2003).

The most recent report of the American College Health Association (ACHA)'s National College Health Assessment showed that 15.2% of college students have used cigarettes within the last 30 days, with reported higher rates (17.3%) when considering lifetime use and/or use of additional tobacco products (ACHA, 2011). Because there are approximately 39% of 18-24 year olds enrolled in college (Snyder, Dillow, & Hoffman, 2009), the implementation of tobacco control policies on college campuses represents an enormous potential for impact, warranting deliberate attention among college and university administration.

Czart, Pacula, Chaloupka, and Wechsler (2001), conducted a study documenting the impact of campus policies on college smoking behavior. Findings indicated that college smokers living in areas with more smoking restrictions in public places smoked fewer cigarettes and the decrease in smoking became more pronounced when campus-wide policies were included and enforced. Conclusions showed that smoking restrictions on college campuses only appeared to influence smoking behavior when complete bans were imposed.

As most smokers become addicted before the age of 20 (CDC, 2012), a decision to quit smoking as a young adult would most likely be a permanent one. Thus,

institutions can facilitate the targeting of health promotion efforts to curb tobacco use among young adults (Wallar et al., 2013).

Health organizations across the world have banded together in an effort to protect young adults against the widespread effects of tobacco. In October of 2012, ACHA, in conjunction with the CDC, published an updated position statement from their original 2009 statement that encourages colleges and universities to be diligent in their efforts to achieve a 100% indoor and outdoor, campus-wide, tobacco-free environment (ACHA, 2012a). *Healthy Campus 2020,* a document designed to reflect the unique needs of college students and the campus community, set a goal to reduce the prevalence of college students who report cigarette use within the last 30 days to a rate below 14% by the year 2020 (ACHA 2012b). In a call to action, the Institute of Medicine offered a series of recommendations to help end the tobacco problem in the United States, with a specific recommendation that targeted college campuses, calling for an overall goal of becoming smoke-free (IOM, 2009).

It is stated in the 2012 Surgeon General's Report on *Preventing Tobacco Use Among Youth and Young Adults* that college campuses can either contribute to or prevent nicotine addiction. Thus, in an effort to promote and support the adoption and implementation of smoke- or -tobacco-free policies at universities, colleges, and other postsecondary institutions across the United States, the U.S. Department of Health and Human Services created the Tobacco-Free College Campus Initiative to serve as a readily available online resource (ACHA, 2012b).

Due to the aforementioned national efforts, there has been a widespread increase in comprehensive smoke- and tobacco-free campus policies. In January 2, 2014, there

were at least 1,182 campuses with 100% smoke- and tobacco-free policies (Americans

for Nonsmokers Rights Foundation [ANRF], 2014). These types of all-inclusive, 100%

covered policies are also called comprehensive policies where all campus grounds are

smoke- or tobacco-free. ANRF (2013) defines comprehensive smoke/tobacco-free

policies as the prohibition of smoking/tobacco use in:

- Facilities and vehicles, owned or leased by the college/university, regardless of
  location,

- Any enclosed place on college or university property, including private residential
  space within college/university housing, and

- Outdoors on all college/university campus property, including parking lots.

    Comprehensive smoke- and tobacco-free polices further prohibit the use of

tobacco related advertising or sponsorship on college/university property, at

college/university sponsored events, or in publications produced by the college/university,

with the exception of advertising in a newspaper or magazine that is not produced by the

college/university and which is lawfully sold, bought, or distributed on college or

university property (ANRF, 2013). ANRF (2013) does recognize some exemptions in

comprehensive smoke/tobacco-free policies, but only those limited to: using tobacco

inside one's own vehicle; and/or religious ceremonies; and/or research purposes in a

controlled laboratory setting.

2.2 Research Gaps

    Although there is an increase in the pursuit of smoke-fee and tobacco-free policies

on college campuses across the United States and other countries, enforcement efforts of

such policies are perceived as an ongoing challenge (Plaspohl, Parrillo, Vogel, Tedders,

& Epstein, 2012). The most noted barrier that institutions struggle with is enforcement (Carpenter & Russom, 2011; Reindl, Glassman, Price, Dake, & Yingling, 2013; Procter-Scherdtel & Collins, 2013; and Phasphol et al., 2012). In a recent study of perceptions of college and university presidents regarding tobacco-free campus policies, Reindl and colleagues (2013) found that of the 405 surveys conducted with presidents or chancellors across the nation, the most commonly identified (68%) institutional barrier in implementing tobacco-free policies was "enforcement issues."

A reason enforcement can be seen as problematic is the perceived burden of the financial expenses, such as paying for security, new signs, and other miscellaneous items (Procter-Scherdtel & Collins, 2013). At the time of the literature review for this study, only one published article was found on the financial impacts of smoke- or -tobacco free policies. Gerson, Allard, and Towvim (2005) presented the impact of smoke-free policies on resident halls of three major universities. Granted, the focal location of the study was in campus living quarters, which allowed for better enforcement monitoring, the results may also be conveyable towards a campus-wide approach. The findings of Gerson et al. (2005) indicated that implementation of smoke-free residence hall policies imposed little economic burden on the study universities. Key findings show that:

- Positive impacts in several key areas included decreased damage to residence hall buildings, decreased fire alarms, decreased incidence of student roommate conflicts, improved student retention, decreased attrition, and improved policy enforcement.
- Campus personnel did not report student and alumni resistance, changes in personnel workloads, or an increased financial burden.

- Administrators reported that increased direct costs, such as the purchase of cigarette receptacles, were outweighed by the benefits of the policy change.

Another reason enforcement of smoking and tobacco policies are challenging is that administrators have a daunting perception of not achieving support for such policies, ensuing in the potential for backlash from students if such policies were to be implemented (Reindl et al., 2013). However, in a national survey of 10,904 randomly selected undergraduate students enrolled in 119 U.S. colleges, the majority of students expressed strong support for tobacco control policies that aim to reduce cigarette smoking on college campuses (Rigotti, Regan, Moran, & Wechsler, 2003).

Several studies exist concerning the attitudes, beliefs, and behaviors college students exhibit towards smoke- and tobacco-free policies (Rigotti, et al., 2003; Seo, et al., 2011; and Reindl et al., 2013). The research demonstrates that a majority of students support smoke- and tobacco-free policies and show that such policies also change tobacco-related behaviors. For example, in a study of college students in Arizona (n=605), more than 80% of students surveyed supported a complete smoking ban (Eisen-Cohen, 2005). In another study, an online survey to staff and students (n=969) reported that smokers, ex-smokers and non-smokers were supportive of a smoke-free policy on campus, but more so, the majority of respondents (66%) felt the campus should be completely smoke-free and that a completely smoke-free campus would have a positive effect on staff (70%) and student (75%) quality of life (Burns et al., 2013).

An editorial by Fennell (2012) supports comprehensive tobacco-free campus policies as a credible public health initiative, yet questions the impact of such policies without an actionable enforcement plan. Fennell goes on to state that policies without

enforcement undermine the work of college health professionals and more importantly the health of students, faculty, and staff.

The inconsistencies in enforcing smoke- and tobacco-free policies may lead to a feeble link between policy intent and outcome. Czart and associates (2001) found that instituting multiple enforcement strategies has a cumulative effect on smoking behaviors of college students and that restrictions on college campuses discourage smoking when they are combined with multiple enforcement strategies and actively enforced.

To date, the only discovered published research on college campus enforcement approaches was that of Harris, Stearns, Kovach, & Harrar in the 2009 study on the effects of a multicomponent approach to enforcing outdoor smoking bans on campus. The multicomponent approach consisted of passive methods, such as ground markings, enhanced signage, and correct receptacle placement; and active methods, such as human confrontation and citations (untested variable). During the intervention, the results displayed that the proportion of smokers who always complied with the outdoor smoking ban was 33% during baseline, which then increased to 74% during the intervention, and was maintained at 54% during the follow-up period (Harris et al., 2009). However, after the follow-up period, with no continued intervention, the rates soon returned to pre-intervention numbers. The study concluded that passive methods can become routine over time and may lose some effectiveness. Similar to the Czart et al. study, Harris and associates found that combining active methods to passive methods boosts social expectations of compliance. Other study findings suggests that smoking behavior among college students is influenced when the level of smoking restrictions reach a threshold level and it is no longer easy for smokers to evade these policies (Eisen-Cohen, 2005).

Baillie and associates (2011) found that students are influenced instead by what they see, hear, and experience on campus; they are aware of what rules they can break and get away with. Students that witness others disregarding these regulations without consequence can alter their subsequent smoking practices enabling weaker policy implementation and can lead to higher numbers of students smoking on school property (Sabiston, et al., 2009). In studies where students were asked about what could be done regarding non-compliance of smoke- and tobacco-free policies, the general response was that more restrictive policies with stringent enforcement be put in place (Eisen-Cohen, 2005; Procter-Scherdtel & Collins, 2013; and Burns et al., 2013). Displaying a more detailed response to enforcement, the aforementioned study by Burns and associates surveying 969 university students and staff, indicated enforcement of a smoke-free policies on campuses should include: reminders (32.9%), anti-smoking education (32.9%), disciplinary process for staff/students (24.5%), monetary fines (20.9%), and community service (20.6%); while 5.6% indicated there should be no consequences for individuals not adhering to the policy (Burns et al., 2013).

Smoke-free workplace laws have successfully shown that smoking bans decrease smoking prevalence and positively contribute to social norms (American Cancer Society Cancer Action Network, 2011). The same can be said of banning the use of tobacco on college campuses. Smoke-free environments create social atmospheres that reinforce messages about the negative aspects of smoking and promoting a healthier way of living by encouraging current smokers to quit or reduce their consumption. Further, smoke-free environments may prevent part-time or social smokers from transitioning into regular, habitual smokers.

In a study on the effect of smoke-free campus policies on students' behaviors and attitudes related to tobacco, Seo, Macy, Torabi, & Middlestadt (2011) collected self-report surveys from a total of 3,266 students at two different campus settings; one a treatment campus that implemented a smoke-free policy, and the other a control campus that had a policy of allowing smoking 30 feet from any entrance or exit of a building. Results in the cross-sectional analyses showed that students exposed to the smoke-free campus policy demonstrated significant favorable changes in smoking behavior, perceptions of peer tobacco use, and smoking norms compared to students on the control campus. In the longitudinal analyses, students exposed to the smoke-free campus policy exhibited these changes along with significant favorable changes in attitudes toward regulation of tobacco. The findings showed a decrease in the social acceptability of tobacco use when tobacco policies are enacted.

More studies are indicating consistent enforcement of smoke- and tobacco-free campus policies are predictive of policy adherence and success (Evans-Whipp, Bond, Ukoumunne, Toumbourou, & Catalano, 2010; and Sabion et al., 2009). Due to this, the ACHA acknowledges enforcement in their updated position statement, with a recommendation of: "Plan, maintain, and support effective and timely implementation, administration, *and consistent enforcement of all college/university tobacco-related policies, rules, regulations, and practices. Provide a well-publicized reporting system for violations* [emphasis added]"(ACHA, 2012a). Aside from this ACHA statement, no other tobacco control organization or major health organization has released statements or guidelines regarding policy enforcement; instead, leaving the topic ambiguous and to be determined by the educational institution.

2.3 Project Background

This study was done in partnership with the American Lung Association in Alaska (ALAA). The ALAA is one of sixteen statewide recipients of the State of Alaska Tobacco Prevention and Control Community Grant for fiscal years 2014-2017. Grant recipients work with community groups to reduce SHS exposure and assist in changing social norms around tobacco use by influencing tobacco-related knowledge, attitudes, and practices (TPCP, 2014).

One of ALAA's goals, stated in their 2013 Tobacco Prevention and Control Community Grant action plan, is to eliminate exposure to SHS. Numerous strategies are tied to this goal, but *Strategy 1.5* speaks to the topic of this research, stating that ALAA will work with community colleges, vocational schools, universities and other learning facilities to implement and enforce tobacco-free campuses, identifying young adults as the priority population (ALAA, 2013). With the significant increase in college campuses adopting smoke- and tobacco-free polices across the nation, ALAA has identified UAA as a key partner in this effort.

The University of Alaska Anchorage

The University of Alaska (UA) system is Alaska's largest educational system that is comprised of three major hubs across the expanse of the state. The hubs are named after the largest location sites, which are: the University of Alaska Anchorage (UAA), the University of Alaska Fairbanks (UAF), and the University of Alaska Southeast (UAS). UAA is located in the southcentral region of Alaska. UAF is located in the interior region of Alaska and UAS is located in the southeast region. Within each hub are numerous site locations. The UAA and UAF hubs each have eight location sites, while the UAS hub has three location sites. Each hub contributes to a system of nearly 35,000 full- and part-time

students (University of Alaska System, 2014). The study specifically looked at the site location of UAA, as it is the largest of all UA System site locations.

UAA is the state's largest post-secondary institution. Located in the heart of Alaska's largest city, the medium-sized urban campus sits on 362 acres and is nestled in the middle of the University-Medical district, adjacent to the Alaska Native Medical Center, Alaska Pacific University and Providence Alaska Medical Center (US News, 2014). Anchorage experiences all four seasons with a temperate winter due to its close location to the Pacific Ocean (World Guides, 2014). Most Anchorage residents do not associate with a religion (39%), yet the Catholic Church has the most affiliates at 24% (City-data.com, 2014). Alaska was ranked 12th of all 50 states in a 2013 Gallup poll the most conservative states (Jeffrey, 2014).

In Fall 2013, the recorded student population of UAA was 17,922, with the largest enrollment of students (33.5%) being 20-24 years old and the second largest (17.2%) being the 25-29 age group (University of Alaska Anchorage [UAA], 2014). Looking at the total population of UAA's undergraduate and graduate levels students, non-traditional students (25+ years old) make up a slightly larger percentage in population, versus traditional students (18-24 years old) (UAA, 2014). However, this does not take into account the amount of time spent at the university, by which traditional students are the majority by far. UAA's student population is comprised of 59.2% female and 40.8% male with an ethnic majority being 61.6% Caucasian/White (UAA, 2014).

The UA system does not have a comprehensive smoke- or tobacco-free policy in place, putting thousands of students, faculty, staff and visitors at risk of exposure to harmful tobacco smoke. Yet, UAA does have a smoking policy. In accordance with the

State of Alaska Statue 18.35.300-350 and the Board of Regents' Policy 05.12.092, UAA

has prohibited all smoking of tobacco products inside UAA facilities since October 1,

1989. The UAA Smoke-Free Environment Policy was updated on September 7, 2012, to

incorporate a smoking ban within 20 feet of all UAA facility entrances (UAA, 2012).

Recognizing the positive public health implications of a smoke-free campus policy, UAA

signed on to the Fresh Air Campus Challenge, a first-of-its-kind effort to encourage all

college campuses in Alaska, Idaho, Oregon and Washington to adopt a 100% smoke- or

tobacco-free policy by 2016 (Green and Gold News, 2013). Further, the Alaska State

Board of Regents selected UAA as "the health campus" for the entire UA system,

charging it with raising an army of homegrown doctors, nurses and medical workers, as

well as battling public health problems wherever they surface (McKoy, 2013). If being

part of the Fresh Air Campus Challenge and being dubbed "the health campus of the UA

System" is not impetus enough, the UAA Smoke-Free Taskforce conducted an online

survey of 562 randomly chosen UAA students in Fall 2013. Garcia and Mapaye (2013)

found that of the respondents, almost 80% were non-smokers and that about 75% of

students supported or strongly supported a comprehensive smoke-free policy at UAA.

The Garcia and Mapaye (2013) study further shows that smoking prevalence at

UAA has increased by 3% since 2009 (17.1%), to the current rate of 20.4%, and that

smoking rates among males and females have also increased (by 6% and 2%,

respectively) since 2009. When asked about enforcement, the greater proportion (45%) of

students would support the idea of giving students a ticket and fine if caught not

following a smoke/tobacco-free policy; falling in line with other published studies

(Eisen-Cohen, 2005; Harris et al., 2009; Procter-Scherdtel & Collins, 2013; and Burns et al., 2013) on the topic of enforcement (Garcia & Mapaye, 2013).

The ALAA and the UAA Smoke-Free Taskforce have taken steps towards achieving a comprehensive smoke-free policy at UAA since 2012. This study aimed to assist the endeavors of the ALAA and the UAA Smoke-Free Taskforce. The UAA Smoke-Free Taskforce is opting for a comprehensive smoke-free policy, where no tobacco smoke is allowed on any University property. The reason the UAA Smoke-Free Taskforce chose to pursue a comprehensive smoke-free policy instead of a comprehensive tobacco-free policy is for the primary concern of nonsmokers inhaling SHS and the increasing rates of smoking on the UAA campus. All tobacco products are equally as concerning to the UAA Smoke-Free Taskforce, but a comprehensive smoke-free policy is in line with the mission of the ALAA, as well laying the foundation for an easier transition to a comprehensive tobacco-free policy in the future.

With the partnership of students, faculty/staff, and community leaders that make up the UAA Smoke-Free Taskforce, the ALAA aims to influence decision makers at UAA in support of a comprehensive smoke-free policy at UAA (ALAA, 2013). As the largest university in Alaska and with possibly the largest, most consistent congregation site of young adults in the state, the UAA Smoke-Free Task Force believes that by enacting a comprehensive smoke-free policy, UAA will impact the health and well-being of thousands of young adults; truly lead the UA system in battling the most significant public health issue in the world.

Peer Institutions

Colleges and universities utilize peer institutions to provide a context for comparing judgments and numbers of selected characteristics important to the university. UAA's Office of Institutional Research is charged with compiling a list of peer institutions; educational institutions that are similar to UAA based on an integrated combination of variables. The Office of Institutional Research selects peer institutions every 5-10 years, depending on the pursuits of the university. These peer institutions act as benchmarks in developing a deeper understanding of how UAA currently compares to a composite average of its peers and to track trend changes in peers vs. UAA (Rice, Zhu, & Marshall, 2007). There are two types of peers: (1) Comparator—those institutions that are similar, but not identical, in fundamental characteristics, and (2) Aspirational—those institutions one aspires to be like. Through a rigorous peer selection method, twenty-two comparator peers and twenty aspirational peers were determined to be similar to UAA. This research also addresses the smoking and tobacco policies of neighboring campuses (Wayland Baptist University and Alaska Pacific University) to offer even closer comparisons to UAA.

2.4 Research Significance

Every university has its own unique atmosphere, culture and environment. Often times, because of Alaska's geographic environment, it is difficult to justify comparisons of Alaska to other states. As Rice and his colleagues (2007) finalized the UAA peer institution list, it was noted that though the final peer list represents universities that come as close as possible to UAA, "no one is exactly like UAA."

Thus, by focusing on UAA's peer institutions and neighboring college campuses, the study may provide a new variable of comparison for UAA to its peers and allow for a deeper understanding of successes and challenges of its peers' comprehensive smoke- and tobacco-free campus policies; as well as assist in determining implementation strategies and enforcement type specific to UAA.

This study fills an important gap in the scarce literature of campus smoke- and tobacco-free enforcement strategies. Moreover, results of this study can be used to encourage college campuses towards comprehensive smoke- and tobacco-free policies with clearer steps towards enforcement strategies. The contribution of this study may ultimately deliver greater public health protection, especially to young adults who make up the majority of college campus populations.

CHAPTER 3: METHODS AND ANALYSIS

This chapter describes the research methods and analyses used to reach the goal of assessing the comprehensive smoke-or tobacco-free policies of UAA's peer institutions and neighboring college campuses to draw comparisons that may determine what type of enforcement strategies may benefit UAA in moving towards a comprehensive smoke-free campus policy. The three research questions that led the methodology of the study are as follows:

1. Do UAA's peer institutions and neighboring college campuses have comprehensive smoke-free or tobacco-free policies?

2. Among the institutions with comprehensive smoke- or tobacco-free policies, what type of enforcement is employed?

3. How successful are institutions with comprehensive smoke- or tobacco-free policies dependent on the type of enforcement utilized?

This chapter presents the research design, identifies the study population, addresses data measurement and analysis, and discusses the limitations of the data. The analysis subsection will be divided by the three guiding research objectives that seek to answer the research questions, as analysis methods vary.

3.1 Research Design

This study was a mixed-methods approach utilizing two types of study designs to address the three research questions. Research question one and two were addressed through a document review design. The document review process provides a systematic procedure for identifying and deriving useful information from existing documents (U.S. DHHS, 2009). Research question three was addressed through a case study design. A

case study design, on the other hand, explores new areas where little theory is available, describes a process and aims to explain a complex phenomenon (Kohn, 1997). Further, a case study involves multiple sources of data to gain a broad, robust understanding. In this research, data was pulled from university websites, university documents and key informant interviews. The case in this design is the peer institution and unit of analysis is the institution's policy. Case study analysis involves three steps: describing the case, emergence of findings, and comparing cases and themes that emerged from data (Kohn, 1997).

3.2 Sample

The study sample included all of UAA's comparator and aspirational peer institutions, as well as two neighboring college campuses nearby to UAA, for a total sample size of forty-four institutions. In total, UAA has twenty-two comparator peers and twenty aspirational peers, which were determined by UAA's Department of Institutional Research through a rigorous peer selection process (Rice et al., 2007). For the complete list of comparator and aspirational peer institutions, please see Table 1. The two neighboring campuses in the study sample include Alaska Pacific University and Wayland Baptist University. These two neighboring institutions were purposively selected as they are in closest proximity to the UAA main campus versus other campuses in the UAA hub region. By further selecting peers in the same environmental setting, this study optimized an individualistic approach for UAA in implementing discovered enforcement strategies in the research to the environmental characteristics found in Alaska.

Table 1. Study Sample

Aspirational Peers	Comparator Peers	Neighboring Colleges
Ball State Univ	Auburn Univ-Montgomery	Alaska Pacific Univ
Bowling Green State Univ-Main	Boise State Univ	Wayland Baptist Univ-ANC
Florida Atlantic Univ	Cleveland State Univ	
Illinois State Univ	Columbus State Univ	
Middle Tennessee State Univ	Indiana State Univ	
Northern Illinois Univ	Indiana Univ-Northwest	
Portland State Univ	Indiana Univ-Purdue-Ft Wayne	
San Francisco State Univ	Indiana Univ-Southeast	
Southwest Missouri State Univ	Lamar Univ	
Southwest Texas State Univ	Northern Kentucky Univ	
Univ Texas-El Paso	Southern Connecticut State Univ	
Univ Texas-San Antonio	Univ West Florida	
Univ Akron-Main	Univ Alabama-Huntsville	
Univ Alabama	Univ Arkansas-Little Rock	
Univ Central Florida	Univ Massachusetts-Boston	
Univ Nevada-Las Vegas	Univ Michigan-Dearborn	
Univ New Orleans	Univ Missouri-St Louis	
Univ North Texas	Univ Nebraska-Omaha	
Western Michigan Univ	Univ North Carolina-Greensboro	
Wright State Univ-Main	Univ Southern Maine	
	Weber State Univ	
	Wichita State Univ	
20	22	2
		Sample Size *n= 44*

3.3 Data Collection

Data collection began with the retrieval of all smoking and tobacco policies from the study sample (n=44). An Internet search was conducted of each institution's website with the search phrases "smoking policy," "tobacco policy," "smoke-free," and "tobacco-free." All retrieved policies were compiled in separate Microsoft Word documents by

their cohort names: Aspirational Peers, Comparator Peers, and Neighboring College Campuses.

In one case, a smoking and/or tobacco policy was not able to be located on the Internet. Thus, a phone call and e-mail were sent to the appropriate contact requesting the policy. All forty-four policies were obtained. A part of document review is determining the accuracy of the documents. Thus, an in-depth query of all smoking and tobacco-related material on each institution's website was conducted to ensure the smoking and/or tobacco policies collected were in fact current and factual. The researcher reviewed all collected data and collection methods were repeated several times to ensure accuracy through the six-month collection period.

Data collection methods for research questions one and two were the same, as their study design is the same. However, in collecting data for research question three (how successful are institutions with comprehensive smoke- or tobacco-free policies dependent on the type of enforcement utilized?), different data collection methods were used consistent with the question's case study design.

To identify the two peer institutions used as case studies, a list of twenty-three institutions were identified as being a smoke- or tobacco-free institution. To narrow down the sample from twenty-three institutions to just two for the case study, a screener was employed. Screening was done to identify which institutions have relevant data that adequately answers research question three.

Screening questions included:

1. Does the institution have a comprehensive smoke- or tobacco-free policy?

2. Does the institution have "soft/non-strict" or "hard/strict" enforcement protocols?

3. Does the institution have smoking prevalence data from before the comprehensive smoke- or tobacco-free policy was implemented and does it have smoking prevalence data after implementation? If there is a report on this data, can it be shared?

Data for screening questions 1 and 2 were established by the analysis conducted for research questions 1 and 2. Data for screening question 3 were obtained by contacting appropriate institution representative(s).

The initial communication to administer the screening questions with the peer institution was made via e-mail, as most university websites do not provide a specific contact person. By sending e-mails to general e-mail addresses provided on university websites, replies were received from the e-mailed institutions with pertinent university personnel's direct contact information. The University of Alaska Institutional Review Board waived this study for review, as it did not meet the federal definition for human subjects research (*see Appendix A*). However, proper precautions were taken during the interview process, in which the e-mail and telephone scripts were distributed to every potential interview participant in order to provide full informed consent (*see Appendix D*). Results for research question three were based on anecdotal evidence provided by the interviewee's first hand experiences.

Of the twenty-three institutions that have smoke- or tobacco-free policies contacted for participation in the study, twelve institutions did not reply. Of the eleven institutions that replied, only eight passed the screener. Of the eight institutions that passed the screener, five interviews were conducted. Of the five interviews, two institutions were selected to be case studies.

Institutions that passed the screener were then asked to participate in a short interview (see *Appendix E* for interview questions) to determine the fulfillment of the markers of success for smoke- or tobacco-free campus policies created for this study.

3.4 Data Analysis

In addressing research questions 1 and 2, content analysis was used. Content analysis is an approach to the analysis of documents and texts that seek to quantify content in terms of predetermined categories and in a systematic and replicable manner (Bryman, 2008). A content analysis was conducted for the study, as data accessibility was limited to the documents produced and published by the institutions, as well as time limitations and the inability of direct access for observation of the institutions (Holsti, 1969, p.603). Content analysis is most frequently used for research problems in which the question can be answered directly from the description of the content, rather than an indicator from which other characteristics are to be inferred (Holsti, 1969, p.610).

Addressing research question 3 involved case study analysis. Case study analysis aims to uncover subtle distinctions of cases and provide a richness of understanding and multiple perspectives (Kohn, 1997). This can be done through several techniques, yet the project utilized an open-ended, semi-structured interview, to allow the interviewees to freely express their thoughts. Combining the case study analysis with the content analysis permit an assessment of the relationship between comprehensive smoke- or tobacco-free policies to the enforcement types and assess which enforcement types may be more successful at affecting positive change on smoking prevalence and social norms on college campuses.

The following subsections provide the details of the analysis used in this study for each of the research questions.

3.4.1 Analytical Procedure for Assessing the Number of Peer and Neighboring Institutions with Comprehensive Smoke- and Tobacco-Free Campus Policies.

Content analysis minimizes bias by offering transparency in the procedures for coding or assigning the raw policy material to categories. Replication of the procedure was done for every institution. All data were stored in a coding schedule form created in Microsoft Excel onto which all the data relating to a category being coded was entered. The coding schedule and coding manual are listed in *Appendix B and Appendix C.* The institutions are considered cases, which are displayed in the first column of the coding sheet. The first row displays the categories of which the content data are systematically coded by units.

All policies were analyzed through a classification of twenty-two predetermined categories adapted from the American Nonsmokers' Rights Foundation smoke-free and tobacco-free model polices, (ANRF, 2013). The categories are defined as:

- No Policy;

- Limited Smoking Policy;

- Smoke-free Policy w/ exemptions;

- Smoke-free Policy;

- Tobacco-free Policy;

- 100% Indoor;

- 100% Outdoor;

- Date Policy implemented*;

- Detailed exemptions;

- Exemption notes*;

- Prohibition on college owned, leased vehicles;

- Definitions offered;

- Ft from door;

- Smoking areas;

- Smoking area notes*;

- Policy applies to all Faculty, staff, students and visitors;

- Current taskforce, program or team;

- Onsite smoking cessation program available/ referral to State Quitline;

- Tobacco related advertisement/ sponsorship prohibited on property/ publications;

- Soft Enforcement;

- Hard Enforcement; and

- Enforcement notes*.

In addition to defining the categories to which the policy data is classified, recording units were assigned by the following enumeration: 0- No; 1- Yes; and 2- Not listed within policy. Further, in some categories, denoted with an asterisk above, context units in the form of sentences were used for further reference. The use of enumeration in content analysis offers more precision with numerical terms than is provided by impressionistic 'more or less' judgments of 'either-or'" (Kaplan and Goldsen, 149, p.83).

Proceeding content data codification, analysis determined each institutions policy based on the following definitions:

- No Policy – the institution does not have an existing policy nor is abiding of state or county smoke-free laws.

- Limited Smoking Policy - the institution has an indoor smoking policy that is compliant to the state or county's smoke-free workplace laws. No designated smoking areas have been identified, but smoking is permissible at designated square feet from entrances.

- Smoke-free Policy with Exemptions - the institution has a smoke-free campus policy that includes exemptions, allowing smoking in some outdoor spaces, such as designated smoking areas.

- Comprehensive Smoke-free Policy - smoking is not allowed indoors or outdoors on campus property. Exceptions as listed by ANRF (2013), such as smoking in an enclosed private vehicle, are allowed.

- Comprehensive Tobacco-free Policy - tobacco use of any kind is not allowed indoors or outdoors on campus property.

Definitions were developed by the researcher in accordance with ANRF's smoke-and tobacco-free model policies. The frequencies of all institutions' policy designations are displayed in the next chapter.

3.4.2 Analytical Procedure for Identifying and Classifying the Types of Enforcement Listed Within the Institutions' Policies.

For this portion of the study, only institutions with "comprehensive smoke-free policy", and a "comprehensive tobacco-free policy" were included. Institutions that were defined as having a 'smoke-free policy with exemptions', 'no policy' or 'limited smoking policy' were excluded. Each institution's policies on enforcement were reviewed for its

content and then coded into either 'soft' (non-strict) enforcement or 'hard' (strict)

enforcement. The definitions for each enforcement type are as follows:

- Soft (non-strict) Enforcement – An act of the campus community in educating one
  another about the policy and verbally requesting that offenders extinguish tobacco
  materials. Complaints of student noncompliance are directed to the Dean of
  Students and complaints of employee noncompliance are reported to department
  supervisors. No further steps or violation procedures are conducted.

- Hard (strict) Enforcement – In addition to the aforementioned soft enforcement
  definition, an offense system, with steps of disciplinary action chosen by the
  institution, is conducted. Examples of such recourse can be monetary fines and/or
  that the policy's disciplinary procedure is the same as all other violations of
  campus policies.

**3.4.3 Analytical Procedure for Determining the Success of Institutions with
Comprehensive Smoke- or Tobacco-Free Policies that Utilize a Soft Enforcement or
Hard Enforcement Type.**

In determining the success of the different types of enforcement among

institutions with comprehensive smoke/tobacco-free policy, a case study analysis was

used. The case study analysis involved the comparison of two institutions that posed a

close resemblance to the characteristics of UAA, such as student enrollment number and

demographics, university location (urban campus) and type of environment (both

physical and cultural).

The selection of the two institutions was further determined by their campus

tobacco policy categorizations. In order to perform a well-rounded analysis of the cases,

different policy designations of each institution were sought. Thus, one institution had a comprehensive smoke-free campus policy with either a soft or hard enforcement type and the other institution had a comprehensive tobacco-free campus policy with an opposing enforcement type than the first institution. The selected institutions were contacted and a key informant was selected from each institution to participate in an in-depth, semi-structured interview.

In order to determine the success of the selected institutions' comprehensive smoke- or tobacco-free policies, three markers of success were evaluated. This research defined a successful comprehensive smoke- or tobacco-free policy as having the following markers:

- Marker 1: Decrease in smoking prevalence rates of the college/university population;

- Marker 2: Positive perception of policy from visitors, students and staff; and

- Marker 3: Compliance with the smoke-or tobacco-free policy.

As mentioned in the literature review, compliance of smoke- or tobacco-free campus policies has not been studied. As there are no set precedence markers of success for compliance of such policies, the determination of success of policy enforcement types remain in anecdotal evidence provided in the key informant interviews, such as perspectives on the successes and challenges of comprehensive smoke- or tobacco-free policy as well as identifying and expounding on any financial costs associated with the enforcement type.

Comparisons were made between each selected case to provide a richness of understanding and multiple perspectives in determining which enforcement type yielded

a more successful policy. To enhance comparisons and implications for a successful

policy, data of each institution was gathered on general case characteristics such as

student demographics, university location (urban campus versus rural campus), physical

environment (weather of four seasons), and cultural context (religion and political views).

The cultural context of each institution was examined to offer deeper understanding of

the religious environment and tobacco history of the campus' cities; however, it was not

factored into the success of the case policies. The elements of the case-study analysis for

this research question are more specifically addressed in Chapter Four.

CHAPTER 4: RESULTS

This chapter presents the study findings guided by the three research questions. The structure of this chapter will present findings in the order of each of the research questions posed. The results of the content analysis are presented in both sections 4.1 and 4.2 and the results of the case study analysis are presented in section 4.3.

4.1 Research Question 1: *Do UAA's peer institutions and neighboring college campuses have comprehensive smoke-free or tobacco-free policies?*

All policies were analyzed through a classification of twenty-two predetermined categories adapted from the American Nonsmokers' Rights Foundation (2013) smoke-free and tobacco-free model polices. Table 2 displays the policy designation list of the sample.

From the aspirational peer group of twenty, eight policies were completely tobacco-free (40%), two policies were completely smoke-free (10%), seven had smoke-free polices with exemptions (35%) and three had limited smoking policies (15%). The comparator peer group of twenty-two had eight policies that were completely tobacco-free (36%), four policies that were completely smoke-free (18%), three had smoke-free policies with exemptions (14%) and seven had limited smoking policies (32%). UAA's neighboring campuses reported one completely tobacco-free campus policy and one smoke-free policy with exemptions.

Table 2. Policy Designations

UAA Aspirational Peers n=20	UAA Comparator Peers n= 22	UAA Neighboring Campuses n=2
Tobacco-free Policy	**Tobacco-free Policy**	**Tobacco-free Policy**
Ball State Univ	Cleveland State Univ	Wayland Baptist Univ-ANC
Southwest Missouri State Univ	Indiana Univ-Northwest	**Smoke-free Policy with exemptions**
Southwest Texas State Univ	Indiana Univ-Purdue-Ft Wayne	Alaska Pacific Univ
Univ Texas-El Paso	Indiana Univ-Southeast	
Univ Texas-San Antonio	Lamar Univ	**Limited Smoking Policy**
Univ Akron-Main	Northern Kentucky Univ	**UAA**
Middle Tennessee State Univ	Univ Missouri-St Louis	
Western Michigan Univ	Univ Southern Maine	
Smoke-free Policy	**Smoke-free Policy**	
Univ Central Florida	Boise State Univ	
Univ North Texas	Indiana State Univ	
Smoke-free Policy with exemptions	Univ Arkansas-Little Rock	
Bowling Green State Univ-Main	Univ Michigan-Dearborn	
Florida Atlantic Univ	**Smoke-free Policy with exemptions**	
Illinois State Univ	Auburn Univ-Montgomery	
Northern Illinois Univ	Columbus State Univ	
Portland State Univ	Weber State Univ	
San Francisco State Univ	**Limited Smoking Policy**	
Wright State Univ-Main	Southern Connecticut State Univ	
Limited Smoking Policy	Univ Alabama-Huntsville	
Univ Nevada-Las Vegas	Univ West Florida	
Univ Alabama	Univ Massachusetts-Boston	
Univ New Orleans	Univ Nebraska-Omaha	
	Univ North Carolina-Greensboro	
	Wichita State Univ	

Of the forty-four policies analyzed, seventeen were completely tobacco-free (38%), six were completely smoke-free (14%), eleven had smoke-free policies with exemptions (25%) and ten had limited smoking policies (23%). Figure 1 displays the findings of Research Question 1 in frequencies, with the most abundant policy designations shown clockwise. A majority of peer institutions have comprehensive tobacco-free campus and smoke-free policies with a combined 52%. However, smoke-free policies with exemptions and limited smoking policies were close behind with a combined 48%.

Policy Designations

Smoke-free
14%

Tobacco-free
38%

52%

Limited
23%

Smoke-free
w/
exemptions
25%

48%

n=44
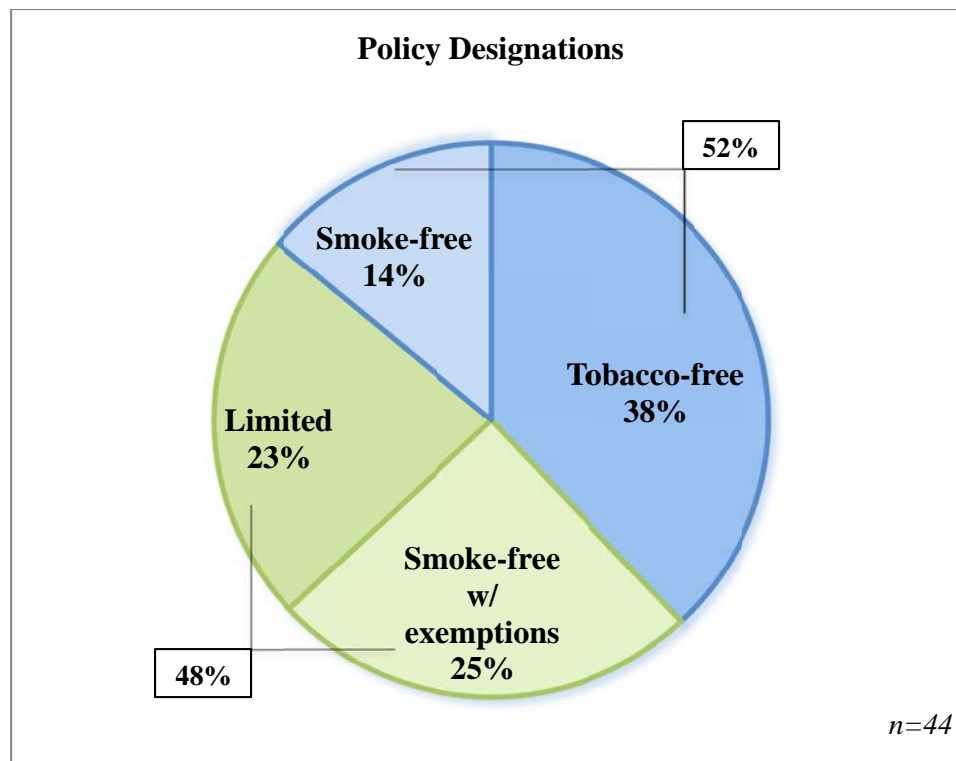
Figure 1. Policy Designation Frequencies

4.2 Research Question 2: *Among institutions with comprehensive smoke- or tobacco-free policies, what type of enforcement is employed*?

As mentioned previously, enforcement type of each policy was analyzed by categorizing the enforcement data by predetermined definitions, whereby a soft (non-strict) enforcement type encourages verbal discussions throughout campus community in education about the policy and requesting that offenders extinguish tobacco materials. Complaints can be directed to appropriate university officials. However, no further steps or violation procedures are conducted. A hard (strict) enforcement type also encourages community enforcement of verbal requests to offenders, but additionally enacts a standard disciplinary procedure, such as fines and reprimand with proceeding disciplinary action.

Table 3 displays the twenty-three institutions that are designated with comprehensive smoke- or tobacco- free policies and their corresponding enforcement types.

Table 3. Enforcement Type of Smoke-or Tobacco-free Campus Policies

Tobacco-Free		Smoke-Free	
UAA Aspirational Peers		**UAA Aspirational Peers**	
Ball State Univ	Hard	Univ North Texas	Soft
Southwest Texas State Univ	Hard	Univ Central Florida	Soft
Univ Texas-El Paso	Hard	**UAA Comparator Peers**	
Univ Texas-San Antonio	Hard	Boise State Univ	Hard
Univ Akron-Main	Hard	Univ Arkansas-Little Rock	Hard
Southwest Missouri State Univ	Hard	Indiana State Univ	Soft
Western Michigan Univ	Hard	Univ Michigan-Dearborn	Soft
Middle Tennessee State Univ	Soft		*n= 23*
UAA Comparator Peers			
Cleveland State Univ	Hard		
Indiana Univ-Purdue-Ft Wayne	Hard		
Lamar Univ	Hard		
Univ Southern Maine	Hard		
Indiana Univ-Northwest	Soft		
Indiana Univ-Southeast	Soft		
Northern Kentucky Univ	Soft		
Univ Missouri-St Louis	Soft		
UAA Neighboring Campuses			
Wayland Baptist Univ-ANC	Soft		

Of the twenty-three institutions with comprehensive smoke-or tobacco-free campus policies, thirteen (57%) have hard enforcement protocols. For a better understanding of what hard enforcement protocols these institutions deploy, please see *Appendix F* for a list of excerpts from each policy.

Of the seventeen institutions that have comprehensive tobacco-free policies, Figure 2 depicts 65% having a hard enforcement type while 35% have a soft enforcement type.
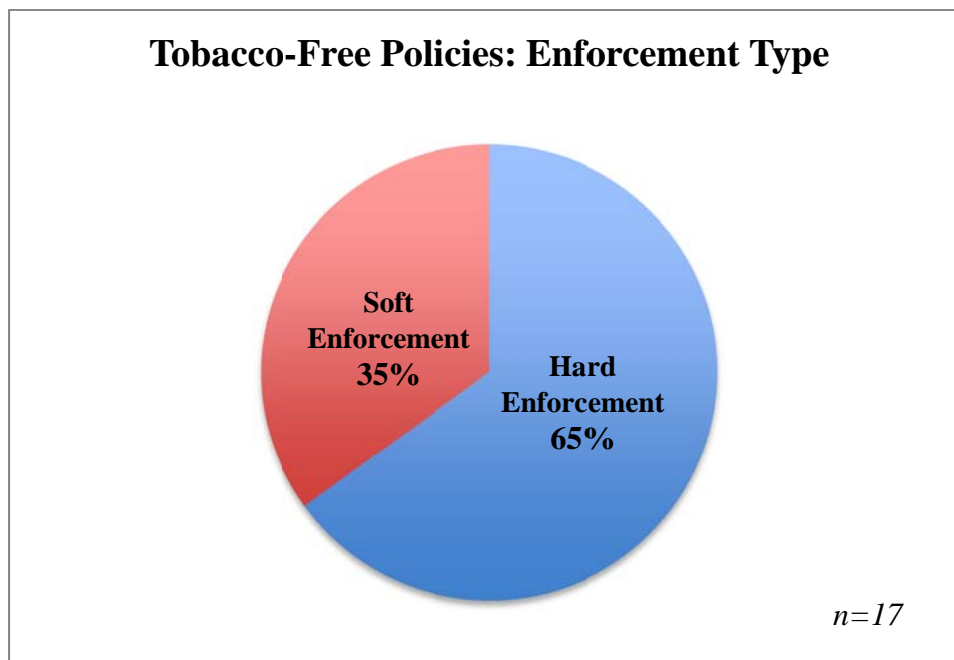
Figure 2. Enforcement Type of Institutions with Tobacco-Free Policies

Within the sample of institutions that have comprehensive tobacco-free policies (n=17) there are eight aspirational peers, eight comparator peers, and one neighboring campus. Within these aspirational peers, all but one had hard enforcement types (88%). Of the comparator peers four (50%) have hard enforcement types. Wayland Baptist University is the neighboring campus peer and it has a soft enforcement type. As no prevalence data is collected for Wayland Baptist University, it did not pass the screener to move into research question three.

Six peer institutions have comprehensive smoke-free policies, in which four are aspirational peers and two are comparator peers. Figure 3 depicts 33% of peer institutions with comprehensive smoke-free policies have hard enforcement types. The

majority (67%) of peer institutions with comprehensive smoke-free policies have soft enforcement types. Both comparator peers in this sample have hard enforcement types.

Smoke-Free Policies: Enforcement Type

Hard Enforcement

33%

Soft Enforcement 67%

n=6
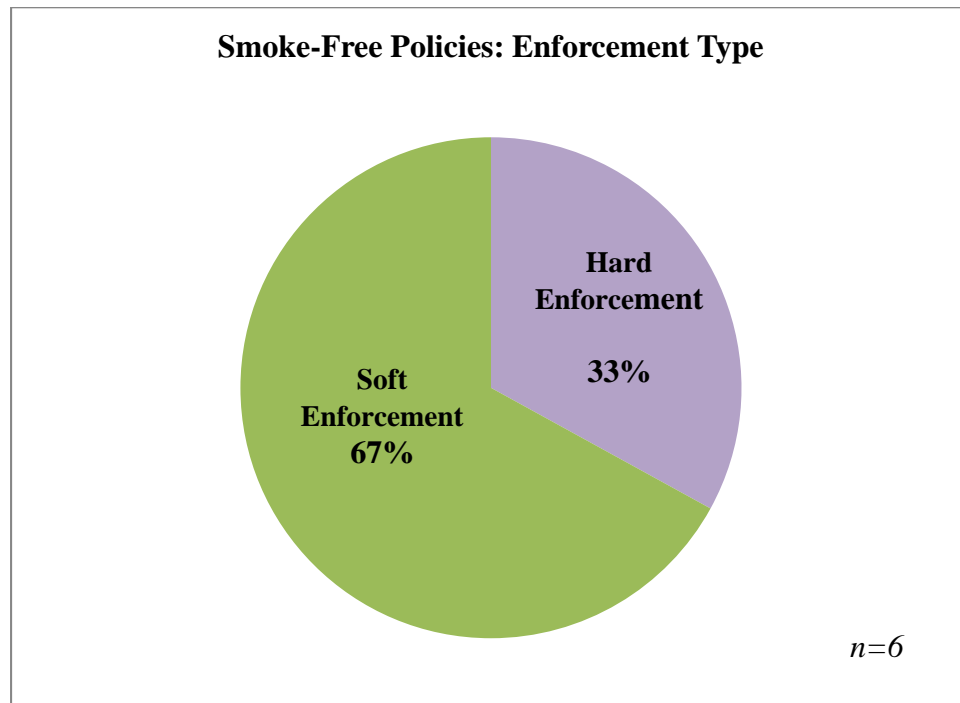
Figure 3. Enforcement Type of Institutions with Smoke-Free Policies

4.3 Research Question 3: *How successful are institutions with comprehensive smoke- or tobacco-free policies dependent on the type of enforcement utilized?*

The selected institutions as cases for the case study analysis to answer this research question are Middle Tennessee State University (MTSU) in Murfreesboro, Tennessee and Boise State University (BSU) in Boise, Idaho. MTSU is an aspirational peer with a comprehensive tobacco-free policy and a soft enforcement type. BSU is a comparator peer with a comprehensive smoke-free policy and a hard enforcement type. The following sections will present the findings of each case study with the last section comparing the two cases. Though the cultural context of each case was examined to offer

deeper understandings and insights, it was not factored into the success of the case policies.

4.3.1 Case Study: Middle Tennessee State University

Middle Tennessee State University (MTSU) is the oldest and largest undergraduate university in the state of Tennessee. MTSU is situated at the geographic center of the state in the city of Murfreesboro, the fastest growing major city in Tennessee and one of the fastest growing cities in the country (Middle Tennessee State University [MTSU], 2014). The state of Tennessee resides on the Bible Belt, an informal term for a region in southern United States where social conservatism and evangelical Protestantism is a significant part of the culture, with a primarily Southern Baptist religion of 45% (City-data.com, 2014). In a 2013 Gallup poll of 18,871 adults asked to rank the most conservative states, Tennessee was ranked 9th (44.9%) of all 50 states (Jeffrey, 2014). An important cultural characteristic to note on Tennessee is that it is ranked third in the nation in pounds of tobacco produced and second in the nation in the number of tobacco farms (Tiller, No Date).

MTSU is a mid-sized urban campus set on over 500 acres with an enrollment of about 24,000 students (US News, 2014). Gathered from the MTSU student profiles of enrollment from Fall 2013, the largest age group of students enrolled at MTSU is 21-24 years old (undergraduate level, 40% and graduate level, 19%) with a majority of female students (53.7%) to males (46.3%). Ethnically, the majority of students at MTSU are Caucasian/White (67.6%) and African American/Black (19.6%) (MTSU, 2014). MTSU is listed as an aspirational peer to UAA.

MTSU announced the adoption of a comprehensive tobacco-free policy in June 2011 and implemented the policy on January 1, 2012. The policy discussion came about during a faculty senate meeting, where strong support from the faculty and staff, pushed the administration to adopt the policy. The stated purpose of the policy is "to reduce harm from secondhand smoke, provide an environment that encourages persons to be tobacco-free, establish a campus culture of wellness, and promote a tobacco-free future."

The policy applies to all forms of tobacco products as well as smokeless electronic cigarettes and other similar nicotine delivery devices. MTSU included electronic cigarettes in the policy, as they look similar to cigarettes. Thus, determining that enforcement of the tobacco-free policy would be easier when no question can be posed regarding whether or not a cigarette device contains tobacco or other illegal substances. Further, the use of items that appear to be tobacco products detracts from an environment promoting tobacco-free lifestyles.

Exceptions to MTSU's tobacco-free policy include the use of tobacco in privately owned vehicles, for academic research activities and in artistic performances to be approved by the Provost. In order to assist tobacco-users in quitting, MTSU provides cessation services to all students, faculty and staff. Services include on-site over-the-counter nicotine replacement products at the Campus Pharmacy, one-on-one counseling services, referrals to state Quitline and distribution of quit kits. The enforcement type of MTSU is categorized as being soft because fines and citations are not incorporated into the present policy, but campus discipline policies may be invoked if necessary.

Interview Questions

The three defined markers of success guided the interview responses. Responses, with the exception of reported prevalence rates, are based on anecdotal evidence and first hand experiences provided by the key informant. Key informants were identified as the most appropriate person to respond to the interview questions (e.g. Wellness Program Coordinator, Health Center Director) through the initial identification process and wish to remain anonymous.

Marker 1: *Decrease in smoking prevalence rates of the university population.*

There are successful declines in smoking prevalence rates at MTSU. MTSU utilizes both the Core Drug and Alcohol Survey and the National College Health Assessment (NCHA)-II to track patterns in tobacco use. Declines in cigarette use were seen in both assessments after the implementation of the tobacco-free campus policy. In the case of the Core Drug and Alcohol Survey, cigarette use pre-policy implementation was at 33.2% in October 2009. In the NCHA-II, 30-day use of cigarettes specifically dropped from 19.9% in March 2010 to 18.1% in March 2013. Further, there is a significant change in the observed decrease of outdoor smoking on campus since implementation of the policy.

When asked about an increase in the use of cessation services provided on campus and an increase in referrals to the state Quitline or other cessation services, the key informant responded that there has not been an observed increase of direct counseling. However, the Campus Health Clinic, through which students are prescribed nicotine replacement therapies (NRTs) or prescription drugs to aid in cessation, may have experienced an increase. The key informant also noted that there had not been an uptick

in sales for NRTs at the Campus Pharmacy nor in requests for smoking cessation classes**.** As for employees, data had not been assessed on access to telephonic health coaching provided through insurance plans.

When separately asked about a change in financial costs due to the policy, the key informant stated that costs were very minimal and that the institution made efforts to save money on signage. Instead of paying for new signs, sticker decals that fit nicely over the old signs were used. In total, the key informant estimated that no more than $2,000 was spent to cover entire campus. Signs were paid for by MTSU funds. The key informant further added that there was concern that enrollment rates would drop because of the policy, but expressed that they have not.

Marker 2: *Positive perception of policy from visitors, students and faculty/staff.*

The key informant felt that student perceptions of the policy were negative, as they generally did not feel the policy had been effective due to the lack of enforcement. The key informant echoed similar sentiments when asked about the perceptions of faculty and staff, stating some were positive and some were negative. Employees either commented on how they saw fewer smokers on campus or they commented on how they still saw smokers on campus and were frustrated by what they see as lack of enforcement. The enforcement frustrations will be expounded on in Marker 3. The key informant was unsure about visitor perceptions of the policy. Questions had not been asked about policy perceptions, but the key informant planned to add such questions to the 2013-2014 Core Drug and Alcohol Survey.

Marker 3: *Compliance with the smoke- or tobacco-free policy.*

MTSU utilizes a community enforcement approach where any student, employee, or visitor is authorized to remind violators of the tobacco-free policy. If a reported violator is an employee, they receive incremental sanctions ranging from verbal warning from their supervisor through written reprimands in the Human Resources file, and ultimately could be terminated for repeat offenses. As for students, Judicial Affairs staff determines sanctions on a case-by-case basis, where community service hours are common punishments. However, these enforcement routes are seldom taken, and the enforcement stops at verbal communication. There is no offense report system in place, other than notifying a security guard, faculty or staff member or in case of employees, their supervisors. Thus, it is difficult to identify a student policy violator to go through the judicial process. The enforcement aspects of MTSU's tobacco-free policy were determined before implementation of the policy.

When asked to extinguish tobacco materials, offenders initially comply. However, as time has passed since the implementation date, offenses have increased. The key informant estimated that initially 99% obeyed the policy, but now it is at 50% compliance and 50% non-compliance. Within the observed 50% of offenders, the key informant felt they have become less compliant and at times confrontational when asked to respect the policy. The key informant attributed this to non-conformist personalities and strong addictions to tobacco. This "prevailing lack of civility in general society has also caused many people to fear confronting smokers," stated the key informant. For example, a pregnant woman confronted a smoker, requesting he comply with the policy. He responded by blowing smoke in her face. Another example is of an offender, when asked

to comply with the policy, responded with "if I'm going to stop you are going to have to take it out of my mouth." Such explicit examples are few; however they resonate deeply with those assisting in the community enforcement of the policy.

Yet, despite the dropping compliance rate, the key informant stated social norms around tobacco acceptance on campus are changing. It is now rare to see a smoker on campus, especially near the entrance of a building and most times smokers that are spotted are in transit from their car to a building entrance. Smokers know of the policy and make an effort to conceal what they are doing, like hiding behind a building air conditioning unit.

When asked about successes of the MTSU tobacco-free policy, the key informant exclaimed that "overall, the impact of the policy has been very positive. The documented drop in actual smoking rates, as well as the decline in visible smoking on campus, documented how far MTSU has come." The key informant felt that the six-month implementation period of the policy contributed to the aforementioned success. Communication strategies, marketing campaigns and incentives to quit during implementation period helped spike interest and compliance. The key informant stated that "the change requires a cultural shift, and supporters of the tobacco-free policy continue to expect prevalence rates to decline over time."

Challenges of the tobacco-free policy at MTSU are primarily due to lack of enforcement. The key informant explained as follows:

"Many members of the campus community (students, faculty, and staff) expected a stronger level of enforcement than what has been practically implemented. This expectation has led some to the viewpoint that the policy has completely failed, as

it is still common to encounter violators and there is often no enforcement except among a few highly motivated employees who are willing to have confrontations and ask for student identification."

There are further enforcement issues with students refusing to provide identification. If this occurs, most times the confronter relents. The Campus Police chose not to be involved with enforcement matters from the planning stages of the tobacco-free policy, with an outlook that "there are more important things the Force needs to spend time on." Additional uniformed security personnel have been hired as foot patrol to enforce all policies, including the tobacco-free policy. And though this was helpful at the time, the positions have expired due to state funding.

The key informant discussed "confrontation fatigue" of employees and students who were policy champions initially, but have felt the strain of bearing the enforcement load with little assistance. Supportive student leaders, part of American Democracy Project, have been researching enforcement models to find a solution to the fatigue. When asked about solutions to this issue, the key informant stated, "there is no easy fix other than a more punitive enforcement strategy, like issuing citations." The key informant felt that positive change is observed every year with the incoming freshman, such as less smoking. But the key informant does feel that a policy with "more teeth would be beneficial to sustaining the initial effects of the tobacco-free policy."

A stricter enforcement of the tobacco-free policy will also assist in combatting the rise of e-cigarette use on campus. Despite the devices being prohibited in the policy, it seems that students' perceptions of the dangers of e-cigarettes are nonchalant and the inclusion of e-cigarettes in the policy is blatantly ignored.

The key informant stated that if MTSU were to re-do the implementation process, "having a double-phased approach would have been better; where in Year 1 a community enforcement approach is upheld along with communication about the upcoming year's policy change, being more punitive one in Year 2." The key informant felt this approach would have lessened the idea of a tobacco-free policy as targeting smokers as well as offer a transitional period for more marketing and communication**.** The MTSU Tobacco-free taskforce convenes annually to discuss the policy. Discussions regarding policy revisions to include monetary fines and citations will occur at this year's meeting.

4.3.2 Case Study: Boise State University

Boise State University (BSU) is the largest public research institution in Idaho. BSU is situated in the growing metropolitan capital city at the State's center of government, business, technology and health care (US News, 2014). Boise's primary religion is the Church of Jesus Christ and Latter-Day Saints (LDS) or Mormonism (34%) (City-data.com, 2014). Boise is located near the Mormon Corridor, a term for areas of the western region of the United States with a majority of inhabitants belonging to the LDS faith. Religion is important to note in regards to this study, as LDS members abstain from tobacco use. In the aforementioned Gallup poll on the most conservative states in America, Idaho was ranked third (Jeffrey, 2014).

BSU is a mid-sized urban campus set on 175 acres with an enrollment of 22,678 students (Boise State University [BSU], 2014). Gathered from the BSU student census from Fall 2013, the largest age group of students enrolled at BSU were 21-24 years old at 27% with a majority being female students (54.0%). Ethnically, the majority of students

at BSU are Caucasian/White at 76.7% (BSU, 2014). BSU is listed as a comparator peer to UAA.

BSU announced the adoption of a comprehensive smoke-free policy in October 2008 before implementing the policy on August 17, 2009. Several years before the announcement of the smoke-free policy, strong support from BSU's student government, Faculty Senate, and professional and classified staff organizations led the administration to adopt the policy. A smoke-free policy perception survey was conducted in 2008, prior to implementation, yielded the following key findings that further strengthen the cause for a smoke-free policy: 86% of Boise State students, 92% of faculty, and 87% of staff agree that all universities should provide a smoke-free environment for students and 92.3% of Boise State students agree that the desire to breathe clean air should take precedent over smokers' desire to smoke. The stated purpose of BSU's policy is "To promote a safe and healthful work environment and to encourage smokers to reduce or eliminate their consumption of tobacco, therefore protecting non-smokers from exposure to tobacco smoke." The policy applies to all forms of tobacco products that produce smoke on all university property, other properties owned or leased by the university, and all university leased or owned vehicles. This policy also prohibits the use of cigarettes in personal vehicles on the property.

The only exception to BSU's smoke-free policy is the creation of designated smoking areas at the Taco Bell Arena, Bronco Stadium and the Morrison Center for use by patrons during events. The University President must approve such exceptions. In order to assist in quitting smoking, BSU provides cessation services to all students, faculty and staff. Cessation services include one-on-one counseling services, group

counseling services, visits with medical staff at the Campus Health Center, referrals to state Quitline and distribution of quit kits.

The enforcement type of BSU is categorized as hard or strict, where a three-tier offense system is utilized. The last offense initiates disciplinary procedures (expulsion and trespassing) against any individual found to be in continuous violation of the policy.

Interview Questions

The three defined markers of success guided the interview responses. Responses, with the exception of reported prevalence rates, are based on anecdotal evidence and first hand experiences provided by the key informant. Key informants were identified as the most appropriate person to answer the interview questions (e.g. Wellness Program Coordinator, Health Center Director) through the initial identification process and wish to remain anonymous.

Marker 1: *Decrease in smoking prevalence rates of the university population.*

There have been successful declines in smoking prevalence rates at BSU. BSU conducted a Smoke-Free Campus Evaluation 2010 and participated in the National College Health Assessment (NCHA)-II to track patterns in tobacco use. Declines in cigarette use were seen in both assessments after the implementation of the smoke-free campus policy. BSU data shows that during Fall 2009 (after implementation), 8.3% of smokers reported a decrease in tobacco use directly in response to the smoke-free policy. The percentage of BSU employees reporting tobacco use declined from 7.4% in 2007 to 5.1% in Fall 2009. Further, as reported in the NCHA, students described a decrease in tobacco use from 22.0% in 2007 to 20.6% in 2009 and a decline from 15.3% in 2011 to 13.8% in 2013.

To mirror the declined prevalence rates, a significant decrease of observed outdoor smoking on campus has occurred since implementation of the policy. From the Smoke-Free Campus Evaluation 2010, data shows that in Fall 2009:

- Those reporting exposure more than once a week declined from 72.4% to 30.4%;

- Those reporting never being exposed increased from 7.9% to 19.6% (P < .001)

- Exposure to outdoor smoke fell by 52% after the smoke-free campus policy was implemented.

When asked about an increase in use of cessation services provided on campus and referrals to the state Quitline or other cessation services, the key informant answered that there has been an increase of services before policy implementation and thereafter. Smoking cessation classes are offered to students and faculty. Students can see medical providers at the Campus Health Center to be referred to the state Quitline for a free four-week provision of nicotine replacement therapies (NRTs) and/or to be referred to an on-campus health coach for individualized cessation counseling. The key informant mentioned that the group cessation classes are becoming less popular and thinks that separating classes specific to students and another for faculty and staff may be helpful.

When asked about increased costs (e.g. more security to police grounds) due to the policy, the key informant stated that no further costs have incurred and does not feel that an increase in costs due to the policy will occur in the future.

Marker 2: *Positive perception of policy from visitors, students and faculty/staff.*

The key informant felt that overall perceptions of the policy are highly positive and stated that a majority of students understand the campus smoke-free policy and negative feedback due to the policy is rarely received. Faculty and staff are also highly positive, as many of them initially supported the policy. A recent policy evaluation to assess current perceptions has not been conducted.

Marker 3: *Compliance with the smoke- or tobacco-free policy.*

BSU utilizes a three-tiered enforcement approach where any student, employee, or visitor is authorized to remind violators of the tobacco-free policy. Further, BSU employs a Security Operations Team that polices the campus grounds to enforce campus policies. The primary goal of the BSU enforcement procedures is to respect the environment and campus community members, while protecting the health of everyone while they are at BSU. In order to reach this goal, BSU initially implemented the smoke-free policy with a soft, non-strict enforcement procedure. However, due to an increase in complaints from individuals both on and off campus regarding smokers and trash, Boise State Campus Security, Student Affairs, and Human Resource Services changed the policy to incorporate smoke-free campus enforcement measures. In Spring 2011, BSU augmented the established "campus community shared responsibility of enforcement" or soft enforcement as this research categorizes it, with the addition of an offense system. The offense system is as follows:

1st Offense: Remind individuals about BSU smoke-free campus policy and provide a copy of the Smoke-Free information card (identification may be

requested and campus I.D. cards are required to be presented when requested by a

University official).

2nd Offense: Provide a written warning for individuals who have previously been

apprised of the policy (identification will be requested).

3rd Offense: After written warning, individuals will be asked to provide

identification and a Security Incident Report (SIR) will be completed and filed.

SIRs will be reviewed and copies will be forwarded to the appropriate office to

initiate disciplinary processes (e.g. Student: Student Rights and Responsibilities;

Employee: Human Resources for referral to the appropriate supervisor/ manager/

Vice President; and Visitor: University Security) (Boise State University, 2014).

There are no fines or citations associated with the enforcement of this policy.

To promote confidence in advocating for compliance, BSU created

communication guidelines posted on their Smoke-free Campus website. These

communication guidelines provide language to inform and educate violators to stop

smoking without provoking a confrontation or creating bad feelings, as well as provide a

script for advocates to use. Further, BSU has provided a Feedback Link on the Smoke-

free Campus website, that allows for anyone to comment and make reports of observed

use. The key informant stated that most feedback is positive and occasionally receives

reports of violator's locations and times of day to assist where and when security officers

should focus.

When asked to extinguish tobacco materials, most of the time violators comply

and are usually nice about it. Those that are not as respectful still extinguish their

cigarettes. Security personnel have only cited trespassing and expelled a handful of violators since the smoke-free policy went into effect.

When asked about successes of the BSU smoke-free policy, the key informant stated that in the five years since the policy implementation, the social norms around smoking acceptance on campus have changed for the better. Smokers understand why the smoke-free policy is in place and when some smokers do break the policy, they make an effort to conceal what they are doing in more remote areas on campus; when asked to comply, they usually do. The key informant also felt that the online Feedback Link acts as a great reporting system that helps advocates who are not confrontational do their part in promoting the smoke-free policy.

The key informant also felt that the nine-month preparation period before policy implementation helped tremendously. This time allowed for the recruitment of Fresh Air Advocates, education and outreach campaigns on campus, and marketing campaigns, such as videos, PSAs and newspaper articles. Further, this time allowed the training of advocates and security personnel who enforce the policy.

Challenges of the smoke-free policy at BSU are primarily due to the difficulty of enforcing the policy. The key informant explains that,

> "In January 2, 2012, the smoke-free Boise law went into effect prohibiting smoking in all public places, including Boise City parks, which are adjacent to the campus. The city parks implement a strict enforcement with monetary fines. But, because BSU does not have a monetary fine enforcement system, students are coming back to campus to smoke.

The manager of the Security Operations Department at BSU stated that the primary reason for difficulty in enforcing the current policy is that the absence of a citation process, involving monetary fines, makes it difficult for violators to take the policy seriously. Security officers can request the violator's name to issue written warnings and include in an SIR, but violators tend to give fake names or claim to not have their institution identification cards. The manager stated, "There is no real recourse for consequences." Both the key informant and the Security Operations manager felt that a more punitive policy, mirroring the city park violation structure, would help the enforcement aspect of the smoke-free policy.

Another challenge has been combatting the rise of e-cigarette use on campus. E-cigarettes have been banned indoors at BSU, but not outdoors, causing confusion between the e-cigarette and standard cigarette and more of an issue for security personnel.

As BSU has altered its enforcement approach once before, the key informant stated that it "may take a few more years before amending the policy again." However, there are meetings scheduled to discuss enforcement issues or prohibition of e-cigarettes as well as beginning discussions on implementing a "heavier enforcement plan that explores fines."

4.3.3 Comparing the Two Case Studies

As previously noted, both MTSU and BSU were selected as cases due to their differing policy designations and enforcement type, as well as both institutions having close resemblances to the characteristics of UAA, such as student demographics, university location (urban campus versus rural campus), physical environment. MTSU is an aspirational peer with a comprehensive tobacco-free policy and a soft enforcement

type. BSU is a comparator peer with a comprehensive smoke-free policy and a hard enforcement type.

Background research and interview responses of MTSU and BSU have been presented. Now, a comparison of the two cases will be made based upon general information such as: institution environment, student demographics, cultural context, type of policy, amount of time the policy has been in place, exemptions in the policy, cessation services, and policy enforcement protocols. Then, further comparisons of interview responses will be presented based upon the three markers of success.

General Institution Data

Both MTSU and BSU are located in fast growing, busy metropolitan cities, which are either close to the state capital city (MTSU) or located in the state capital city (BSU). Both institutions are considered mid-size, with BSU slightly trailing in overall student population count (approximately 1,300 less) to MTSU's 24,000. MTSU is also a larger campus with over 500 acres, where BSU sits on 175 acres. Similarly to UAA, both institutions have a higher majority of Caucasian/White students than other ethnicities. BSU has a higher majority of Caucasian/White students (76.8%) to MTSU's 67.6%, whereby MTSU is more culturally diverse. Further similar to UAA are that both schools have more females enrolled than males.

Cultural Context of Institutions

In comparing institutions for a case study analysis, it is important to look at the cultural context in which each institution is located as culture can directly and indirectly influence the campus environment. The cultural contexts examined in this study are state religion, political views, and specific to Tennessee, its state tobacco history.

Firstly, the differing geography of each state along culturally diverse religious regions of the Mormon Corridor (BSU) and the Bible Belt (MTSU), poses an inference of differing baseline tobacco use in general. This can be seen in the cigarette use prevalence rates of each state, where Idaho has a lower rate of 16.4% and Tennessee has a cigarette prevalence rate of 24.9% (State Highlights, 2012). Secondly, the political views of each state can shape the overall perception of tobacco use in both state and campus environments. Idaho, Tennessee, and Alaska are all considered conservative states, yet Idaho is ranked the highest of the three, being 3rd, 9th, and 12th of the 50 states, respectively (Jeffrey, 2014). Conservatives typically favor lower taxation and personal liberties. This statement is supported by the amount of cigarette taxes per pack in each state, where again Idaho has the lowest taxes at was $0.57 per pack, followed by Tennessee at $0.62 per pack, and Alaska at $2.00 per pack (State Highlights, 2012). Lastly, the fact that Tennessee is one of the states in the U.S. that produces tobacco for economic gain can directly influence the perception and prevalence of tobacco use.

Campus Policies

Despite the differences in the cultural contexts of both cases, the smoke- or tobacco-free campus policies were the focus of analysis in this study. BSU announced the adoption of a comprehensive smoke-free policy in October 2008 before implementing the policy nine-months later on August 17, 2009. MTSU announced the adoption of a comprehensive tobacco-free policy in June 2011 and implemented the policy six months later on January 1, 2012. Not only has BSU's policy been in place longer, there was also more preparatory time involved, versus MTSU. Further, BSU had strong support from the student government, the faculty senate, and professional and classified staff

organizations years before the policy was even announced. At BSU, a smoke-free policy perception survey was conducted in 2008, where an overwhelming majority of students, faculty and staff surveyed felt positive about the provision of a provide a smoke-free environment and the right to breathe clean air. BSU selected a comprehensive smoke-free campus over a comprehensive tobacco-free campus, as they felt the main issue was the health concerns of SHS.

At MTSU, the impetus of the tobacco-free policy came from the faculty senate. With strong support from faculty and staff, the MTSU administration created the policy. A comprehensive tobacco-free policy was selected instead of a smoke-free policy to recognize that all tobacco-use is dangerous and MTSU strives to establish a campus culture of wellness. No perception survey pre or post policy has been conducted at MTSU.

BSU and MTSU both include e-cigarettes in their policies. However, MTSU has included e-cigarettes from initial implementation of the policy as well as including it in policy marketing campaigns. MTSU felt the inclusion of e-cigarettes would assist in enforcement by causing less confusion. BSU revised their policy to incorporate the ban of e-cigarettes, but only indoors.

Policy exceptions also differ between the two cases. MTSU allows for the standard ANRF exceptions of tobacco use, including in privately owned vehicles, for academic research activities and in artistic performances to be approved by the Provost. BSU prohibits the use of smoking in private vehicles and the only policy exception is designated smoking areas near three locations during school events, as a courtesy to visiting patrons.

Both cases offer similar cessation services to their students, faculty and staff. Each institution offers one-to-one and group counseling, medical provider referrals from their Campus Health Centers and referrals to Quitline services. MTSU only differs by providing over the counter NRT at a discounted price through the Campus Pharmacy.

Interview Questions

Marker 1: *Decrease in smoking prevalence rates of the university population.*

Findings show successful declines in smoking prevalence rates at both MTSU and BSU. Both cases utilize the NCHA as a tracking tool for tobacco use patterns on campus, however MTSU utilized the Core Drug and Alcohol Survey for its 2009 pre-policy implementation data, which records MTSU's student cigarette use in the past 30 days at a high 33.2% in October 2009. In the NCHA, 30-day rates declined significantly with the use of cigarettes specifically dropped from 19.9% in March 2010 to 18.1% in March 2013. BSU has more collected data, partly due to the policy being in effect for a longer amount of time. The NCHA data reports that students described a decrease in tobacco use from 22.0% in 2007 and to 20.6% 2009 and a decline from 15.3% in 2011 to 13.8% in 2013. Figure 4 depicts the decline of smoking prevalence of both cases. The legend icons (MTSU is a blue diamond and BSU is a red square) are designated below the corresponding case's implementation year.
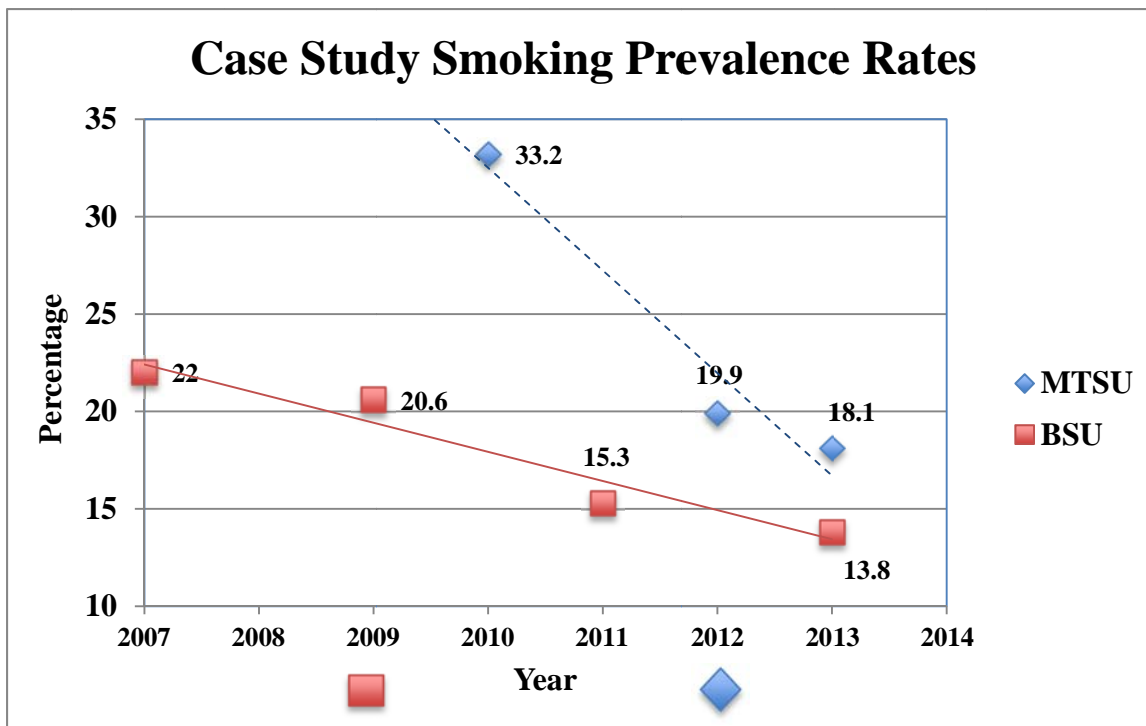
Figure 4. Case Study Smoking Prevalence Rates

When asked about the use of cessation services provided on campus after implementation, BSU explained that there has been an increase in cessation counseling, both in one-on-one and group classes during the pre-implementation period and directly after. However, one-on-one counseling has become more popular on the BSU campus, thus the ability to see a large number of interested participants have declined. Conversely, MTSU has not seen an increase in cessation services post policy implementation, but the key informant explained that the Health Center might have data that says otherwise.

In regards to a change in financial costs due to the policy, BSU stated that no additional costs have been incurred. MTSU stated that costs were very minimal. Though new signage was paid by MTSU funds, an estimate of no more than $2,000 was spent to cover the entire campus.

Marker 2: *Positive perception of policy from visitors, students and faculty/staff.*

In line with the perception survey done pre-policy at BSU, there is still a high positive perception of the comprehensive smoke-free campus policy. The BSU key informant stated that negative feedback is seldom received on the Feedback Link of their tobacco-free website and rarely hears negative perceptions of the policy from faculty or staff unless it is in regards to more enforcement.

MTSU, however, reports that both students, faculty and staff perceptions of the comprehensive tobacco-free policy are negative. The negative view is primarily due to the perceived lack of enforcement of the policy, causing confusion and frustration on campus.

Marker 3: *Compliance with the smoke-or tobacco-free policy.*

Policy enforcement protocols of each are different, yet both cases do not have fines or citations attached to either institution's enforcement protocols. BSU has a hard enforcement type with a three-tiered offense system where a verbal warning as the first offense, a Student Identification Report written by a security officer is the second offense, and disciplinary action as the third. MTSU has a soft enforcement type that allows any student, employee, or visitor is authorized to remind violators of the tobacco-free policy. Though the MTSU policy states that disciplinary action "may be taken if necessary," the key informant stated this hardly occurs due to the lack of a report system. The enforcement of the MTSU comprehensive tobacco-free policy typically stops at verbal communication.

In regards to policy compliance, BSU and MTSU are in completely different situations, where MTSU reports to be in more of a quandary. At BSU, a majority of

violators comply with the policy and are usually nice about it. Those that are not so respectful still extinguish their cigarettes. In the five years since policy implementation, security personnel have only cited trespassers and expelled a handful of violators since the smoke-free policy went into effect. At MTSU, the perceived compliance rate offered by the key informant at time of policy implementation was 99%, yet just two years into the policy the key informant perceived compliance to be at 50%. Violators of the policy at MTSU have been seen as less compliant and at times confrontational when asked to respect the policy. Confrontational attitudes from violators have further upset policy supporters at MTSU.

Policy enforcement is the prevailing challenge in both cases. As MTSU struggles with dropping compliance rates and negative tobacco-free policy perceptions, the key informant attributed such issues to the soft enforcement protocols. Students, faculty, and staff expected a stronger level of enforcement than what is currently implemented and because there are no "teeth" to the policy, supporters of the policy are going through "confrontation fatigue" and simply have stopped asking violators to comply. This expectation has led some to the viewpoint that the policy has completely failed.

BSU is experiencing recent issues with their enforcing their smoke-free campus policy due to the 2012 Smoke-free Boise law. The law utilizes a hard enforcement policy issuing monetary fines to violators. Because BSU does not have a fine or citation system, students who once smoked at the parks are now returning to campus. Further, security personnel at BSU feel that the absence of a citation process involving monetary fines makes it difficult for violators to take the policy seriously.

Another challenge for both cases is the topic of e-cigarettes. Though e-cigarettes are completely banned at MTSU, it seems that students' perceptions of the dangers of e-cigarettes are nonchalant and the inclusion of e-cigarettes in the policy is blatantly ignored. At BSU, e-cigarettes are allowed outdoors, but because of the similarities to cigarettes, enforcement is becoming more difficult.

Solutions to these challenges were the same for both cases: a stricter enforcement policy with monetary fines or disciplinary citations. MTSU and BSU have scheduled meetings to discuss enforcement issues that include monetary fines and citations as remedies.

The success of both case policies are found in the reported social norms change around smoking acceptance on campus. Both cases reported that the decline in smoking prevalence gives a tangible understanding of success, but also there is an "understanding" of the policies. The attempts of concealment of smoking on both campuses further show this understanding. Both cases also felt that the preparatory period before policy implementation assisted with this understanding and with positive policy perceptions in the case of BSU.

CHAPTER 5: DISCUSSION

This chapter draws deductions and implications from the findings presented in Chapter Four. This chapter presents a discussion in the order of each of the research questions posed.

5.1 Research Question 1: *Do UAA's peer institutions and neighboring college campuses have comprehensive smoke-free or tobacco-free policies?*

Tobacco use among college students in the United States is a serious public health concern, as approximately 1 in 5 college students report use of any type of tobacco product (MTF, 2010). The literature review in Chapter Two provided evidence to assume that tobacco use may be initiated or increased during the college years, to which tobacco control policies may deter tobacco use and SHS exposure to students (Halperin & Rigotti, 2003). In Alaska, 27.1% of young adults ages 18-29 years old reported being a smoker, which is 6.1% higher than the national average of 21% (Alaska Tobacco Facts, 2013).

By studying UAA, the state's largest educational institution, its peer institutions and neighboring college campuses, this research question determined what kinds of smoking and tobacco use policies are enacted to protect the vulnerable population of young adults against the dangers of tobacco.

The findings show that the majority of peer institutions have comprehensive tobacco-free campus (38%) and smoke-free policies (14%) with a combined 52%, which positively applies the public health charge of protecting the young adult population. However, smoke-free policies with exemptions (25%) and limited smoking policies (23%) were close with a combined 48%. As previously mentioned, limited smoking policies only restrict smoking indoors, compliant to the state or county's smoke-free

workplace laws. Smoking is permissible at designated square feet from entrances, yet there are no designated smoking areas. Almost a quarter of the study sample is designated as having limited smoking policies on campus, showing that there is more room for much public health improvement. It is also possible that the institutions with limited smoking policies did not display an updated smoking policy or post relevant data for the researcher to adequately classify the institution. Further, UAA itself is designated as having a limited smoking policy, thus the motivation of the study.

UAA's neighboring college campuses of Wayland Baptist University and Alaska Pacific University (APU) have a comprehensive tobacco-free policy and a smoke-free policy with exemptions, respectively. As APU does not have a smoke- or tobacco-free policy, it did not move into the sample for research question two or three. However, it provides stricter reinforcement than that of UAA's limited smoking policy, by offering designated smoking areas. Yet, one can assume that the enforcement of this policy is similar to that of UAA where no enforcement protocol exists.

Smoke-free policies with exemptions (25%) also made up a quarter of the policy designation findings of the study sample. The study's definition of a smoke-free policy with exemptions is one that has a smoke-free campus policy that prohibits smoking indoors but exempts (allows for) smoking in some outdoor spaces, such as designated smoking areas or parking lots. Because each institution determines their set of policy exemptions, there can be much variation among policies. Table 4 provides a list of the institutions designated as a smoke-free campus with policy exemptions to better provide an understanding of the varying exemptions within the study sample.

Table 4. Exemptions

UAA Aspirational Peers	
Bowling Green State Univ-Main	Designated smoking areas
Florida Atlantic Univ	Designated smoking areas
Illinois State Univ	University owned private residence; Designated "non-smoking" areas
Northern Illinois Univ	Residence Halls and the Holmes Student Center Hotel; Smoking allowed everywhere except where there is fixed seating
Portland State Univ	Designated smoking areas
San Francisco State Univ	Designated smoking areas
Wright State Univ-Main	Cigarette, cigar, and/or pipe smoking is allowed only in individual resident living units and only when all residents of the unit agree to allow smoking; Designated smoking areas

UAA Comparator Peers	
Auburn Univ-Montgomery	Resident Halls and student housing; Designated smoking areas; Disabled people who can not reach smoking areas can smoke as close to smoking areas as possible
Columbus State Univ	Designated smoking areas
Weber State Univ	Smoking is allowed 25 feet from all buildings but prohibited in the smoke-free corridor

UAA Neighboring Campuses	
Alaska Pacific Univ	Designated smoking areas

n= 11

5.2 Research Question 2: *Among the institutions with comprehensive smoke- or tobacco-free policies, what type of enforcement is employed?*

Several studies have shown that smoking restrictions on college campuses only appear to influence smoking behavior when complete bans are imposed (Czart et al., 2001; Halperin & Rigotti, 2003; Harris et al., 2009; & Fennell, 2012), yet enforcing these bans remains a constant issue. This research question attempted to fill the gap in research

regarding the absence of enforcement protocols within campus smoking and tobacco-use policies by defining two enforcement types, classifying the enforcement types of the study sample and quantifying the results.

The two enforcement type definitions produced for this study are: first, a soft enforcement type that encourages everyone in the campus community to verbally confront violators of the policy, but no further steps or violation procedures are conducted; and second, a hard enforcement type that compounds the verbal community approach with additional application of standard disciplinary procedures, such as fines and reprimands.

Findings show that, overall, of the institutions with comprehensive smoke-or tobacco-free campus policies, 57% have hard enforcement protocols. However, when the enforcement type is assessed by policy designation of either comprehensive smoke- or tobacco-free policies, comprehensive tobacco-free policies pursue a strict approach, with eleven of the seventeen peer institutions having a hard enforcement type at 65%. Contrastingly, the majority of peer institutions (four of the six) with comprehensive smoke-free policies pursue a less strict, soft enforcement type with only 33% pursuing hard enforcement. Thus, it can reasonably be assumed that institutions with comprehensive tobacco-free policies, which is the strictest of the policy designations of this study, tend to pursue the stricter and harder enforcement types. However, this is not the case, as will be discussed in following section. The study found hard enforcement to be the preferred enforcement method of UAA peer institutions, leaning to the research that when restrictions are actively enforced on college campuses they can discourage smoking (Czart et al., 2001). It can also be inferred that institutions with either

comprehensive smoke- or tobacco-free policies impose a soft enforcement type because there is no published recommendations or guidelines on enforcement or whether having hard or soft enforcement type is better at promoting success of campus policies.

Littering provides an illustration of responses to different enforcement methods. There are large media campaigns about saving planet Earth and how it is our responsibility as a human race to do so by not littering. There are "No Littering" signs posted at every state park, parking lot and places of business. Yet, studies have found that passive enforcement methods such as signs are less effective compared to signs combined with more assertion (Harris et al., 2009). In some states, police officers can issue monetary tickets for littering on the first offense (Zaveri, M., 2012). People will litter if they do not feel they will be punished. The same may be true for smoking and tobacco-use on college campuses.

5.3 Research Question 3: *How successful are institutions with comprehensive smoke- or tobacco-free policies dependent on the type of enforcement utilized?*

Enforcement efforts of smoke- or tobacco-free policies are perceived as an ongoing challenge (Plaspohl, Parrillo, Vogel, Tedders, & Epstein, 2012). Yet, studies are indicating consistent enforcement of smoke- and tobacco-free campus policies is predictive of policy adherence and success (Evans-Whipp, Bond, Ukoumunne, Toumbourou, & Catalano, 2010, & Sabiston et al., 2009). This research question explored two selected institutions with different policy designations and enforcement types to assess which enforcement type assists in overall policy success. Three predetermined markers of success were used to gauge which case provided a more successful policy due to enforcement type. However, other emergent themes that led to

overall policy success were identified and will be discussed. To recap the case selections, MTSU is an aspirational peer with a comprehensive tobacco-free policy and a soft enforcement type, while BSU is a comparator peer with a comprehensive smoke-free policy and a hard enforcement type.

Major points of discussion regarding the general information of the cases derived from each campus policies, before exploring the interview questions, are the differences in policy designation, the length of preparatory periods before implementation and the perceived support of the policy prior to implementation. As stated in the findings, BSU became a comprehensive smoke-free campus in 2009, three years before MTSU became a tobacco-free campus in 2012. The time difference could have shaped the policy choice of BSU, as less research and motivating factors to become a tobacco-free campus existed at the time of their enactment. This can be seen in the 2012 ACHA amendment to their 2009 position statement, acknowledging tobacco-free policies (ACHA, 2012a). This finding further shows the novel, yet progressive nature of campus smoking and tobacco policy research.

Further, BSU announced the adoption of a comprehensive smoke-free policy nine months before implementation in 2009. MTSU announced the adoption of a comprehensive tobacco-free policy six months before the implementation in 2012. Though both cases attributed policy success to the preparation period before policy implementation, the longer preparation period of BSU may have served for the better policy outcome in regards to the campus community perception, which will be discussed in more depth.

Another identified theme that is a factor of determining policy success is the conduction of a policy perception survey of the campus community before implementation. BSU conducted such a survey with findings of overwhelming support from students, faculty and staff. Conducting perception survey helps to gauge the campus environment for challenges and areas of expansion. Negative policy perceptions would indicate that more work needs to be done with campus outreach and policy campaigns to discover why and raise awareness of the benefits of smoke-or tobacco-free policies. Providing a policy perception survey also enables the campus community to feel aware and be a part of policy discussion, and ultimately be able to take ownership of the policy due to their knowledge and potential involvement. The same can be said for student debates, town hall meetings, and student votes.

MTSU did not conduct a policy perception survey. Rather, the impetus of the tobacco-free policy came from the faculty senate and with strong support of faculty was pushed through administration. The absence of a policy perception survey may lead one to believe that there was an absence of campus community involvement with policy development, planning and outreach, leading to the a lack of student support.

Each case provided exceptions to their policies, yet are not categorized as policies with exemptions as these are tolerable exceptions to be classified as comprehensive smoke-or tobacco-free policies by ANRF. As mentioned in section one of this chapter, each institution declares their own exceptions. For example, BSU allows for smoking areas on campus when large events like football games occur. Events and smoking areas are monitored by security personnel and must be cleared by administration beforehand.

Markers of Success

Marker 1: *Decrease in smoking prevalence rates of the university population.*

Smoking prevalence rates declined significantly for both MTSU and BSU with a significant decline of -15.1% at MTSU and that of -8.2% at BSU. The significance seen at MTSU may be partly due to the use of two different surveys to collect the data sets. Currently, BSU does report a lower smoking rate (13.8%) than MTSU (18.1%).

Marker 2: *Positive perception of policy from visitors, students and faculty/staff.*

BSU's comprehensive smoke-free campus policy received positive acclaim from visitors, students and faculty/staff, just as it did in the pre-implementation policy perception survey. MTSU, however, reported that both students, faculty and staff perceptions of the comprehensive tobacco-free policy are negative.

Though both cases cited enforcement protocols as the primary reason for complaints and dissatisfaction, the emerging theme of preparatory periods involving policy perception surveys to determine initial support may be a factor in negative policy perceptions. Further, social norms of tobacco use may differ on each campus and in each state.

Marker 3: *Compliance with the smoke- or tobacco-free policy.*

At BSU, a majority of violators comply with the policy and are usually nice about it. Oppositely, at MTSU, the perceived compliance rate has dropped to 50% from 99% in the two years that the policy has been in effect. Both institutions have security operations on campus, yet only BSU involves their security team directly with the campus policy. MTSU does not have support from the security personnel, as they do not believe it is a part of their job descriptions to confront smokers. Thus, enforcement is left to campus

faculty, staff and students willing to confront violators. On student perceptions of college policy enforcement strategies, students discounted the soft enforcement approach, recognizing that they alone cannot effectively enforce any policy and feel that authority is required for compliance (Baillie et al., 2011).

Thus, the lack of support from campus security departments affects the overall success of smoke-or tobacco-free campus policies. The lack of support from the MTSU security team leads to further stipulations that the six months preparatory period was not utilized to reach out to staff, as the faculty pushed the policy through to administration.

In regards to enforcement issues on campus, both cases felt the need to revise their enforcement protocols for the same reason, to incorporate a more extensive and punitive enforcement. MTSU students, faculty, and staff expected a stronger level of enforcement, or as stated, a policy with "teeth." In line with their frustrations, the aforementioned study by Baillie and colleagues (2011) found that students tended to focus on the perceived failed implementation of a tobacco control policy that does not provide a controlled environment on campus and feel the infringements of campus tobacco control policies should be addressed seriously. The study concluded that the student perceptions appeared sensitive to the perceived hypocrisy and unfairness of enforcement practice (Baillie et al., 2011).

MTSU supporters of the policy are going through "confrontation fatigue" and simply have stopped asking violators to comply. As the aforementioned study states, the expectation has led previous supporters to the viewpoint that the policy has completely failed. The lowly perception of the policy, lack of security support and "confrontation

fatigue" experienced by the policy supporters led MTSU to seek a discussion of policy revisions to incorporate a hard enforcement type to end their enforcement woes.

Similarly, BSU seeks to revise their smoke-free campus policy to incorporate monetary fines that mimic fines issued at the neighboring state owned public park. Though BSU experiences positive perceptions and compliance, the hard enforcement type offered without more substantive reinforcement will not hold in the environment of neighboring public park smoking fines.

A weaker policy implementation involving strategies for enforcement can lead to a higher number of students smoking on school property (Sabiston, et al., 2009). The results of this study suggest that a soft enforcement type does not effectively uphold smoke- or tobacco-free campus policies and that a hard enforcement type leads to overall policy success. Table 5 depicts that based on the three markers of success, BSU with its hard enforcement type, prevails.

Table 5. Enforcement Type: Case A versus Case B + (yes), - (no), ~(neutral), ***(more successful policy)

Markers of Success	BSU *Smoke-fee/Hard*	MTSU *Tobacco-free/Soft*
Decreased Prevalence	+	+
Positive Perception	+	-
Compliance	~	-
Outcome	✱✱✱	

5.3.1 Contextual Discussion Topics

Cultural Context

The cultural context of each state and thereby case should necessarily be addressed and taken in consideration with the overall findings and results of the study. The differing religious views, conservative stances, and economy ventures of each case may have influenced the social norms on the campus of each case. MTSU was found to have a less successful policy than that of BSU, which can be in part due to the state's cultural environment.

Secular Trends

Though the national smoking rate continues to dramatically decline since the 1964 Surgeon General Report on Smoking, (USDHHS, 2014), it is imperative to take into account the secular trends of each case study's overall state smoking rates to compare to the drop in smoking prevalence of each case presented by success marker 1. Though both institutions reported a significant drop in smoking prevalence since the implementation of their smoke- or tobacco-free policies (refer to Figure 4), this was not the case for the state prevalence rates. Figure 5 depicts the Behavioral Risk Factor Surveillance System for cigarette use from years 2011-2012. There were no reported rates generated before 2011 on the CDC State Highlight website. The state of Alaska's adult smoking prevalence rate has continued to decrease, from 22.9% in 2011 to 20.5% in 2012. Similarly, Idaho's adult smoking prevalence rates have also declined from 17.2% in 2011 to 16.9% in 2012. However, the smoking prevalence rates in Tennessee have increased from 23.0% in 2011 to 24.9% in 2012. The overall state rate of Tennessee contrasts sharply with the reported smoking prevalence rates at MTSU, where in 2012 the smoking prevalence was reported

at 19.9%. This can infer that despite increasing state prevalence rates, the implementation

of a smoke- or tobacco-free policy on campus environments can further aid in decreasing

smoking prevalence rates.
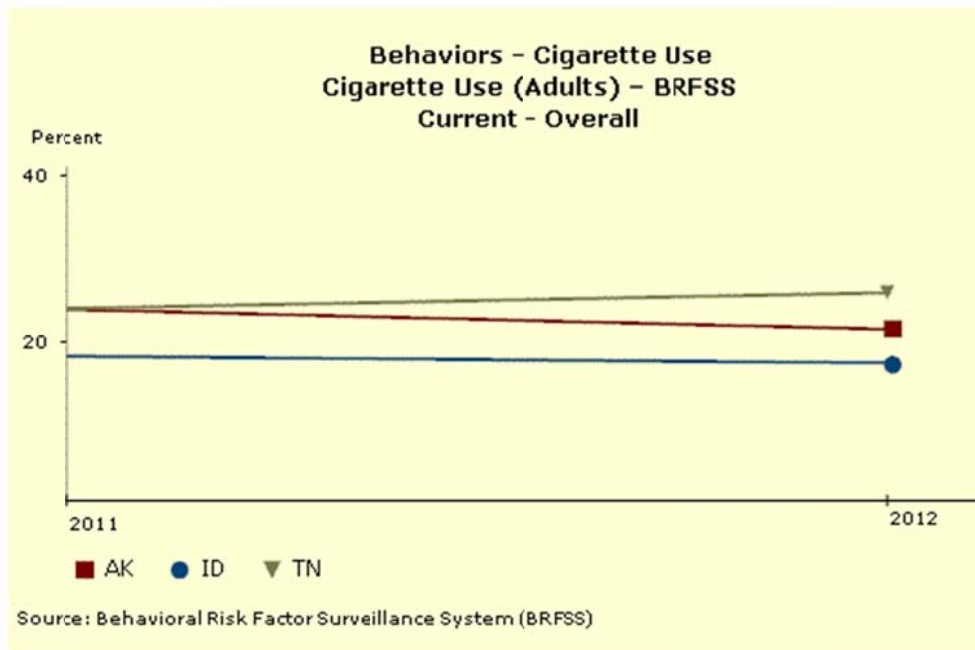
Figure 5. State Smoking Prevalence Rates. Photo Credit: State Highlights 2012, CDC

Potential for Unintended Consequences

Potential for unintended consequences of smoke- and tobacco-free campus

policies is likely. Negative examples of such consequences are that students can smoke or

use tobacco in areas off campus that are not safe, such as public walkways near streets

and road medians. Further, private property and business property can be accessed as

smoking areas. As seen in the case of BSU with a smoke-free campus policy in place,

students migrated to the nearby public park to smoke. Yet, when this park became

smoke-free with associated monetary fines given to violators, students started smoking on

campus grounds again because such fines were not in place. Similarly, in the University-

Medical district that UAA shares with APU, Providence Hospital and the Alaska Native

Medical Center (ANMC), smokers from the near-by tobacco-free campuses of ANMC and Providence Hospital can be seen on the UAA and APU campuses. On the other hand, positive consequences of smoke- and tobacco-free policies can promote entire areas, such as the University-Medical district, to have the same policies allowing for a unified enforcement plan and promotion of a healthy environment.

5.4 Public Health Implications

The study provides numerous public health implications in regards to the Ten Essential Public Health Services. It is well understood that tobacco use is the leading cause of preventable death in the United States and though overall smoking rates have dropped in half since the 1964 landmark Surgeon General's report on smoking, the prevalence rates for young adults (ages 18-24) have remained the same (CDC, 2012). Tobacco prevention and control studies continue to investigate and diagnose reasons for the high prevalence in this population, but until these smoking rates drop, tobacco use will remain a serious public health issue. This study investigated the issues of campus policy enforcement by providing guidance on how to better promote compliance and policy success.

This study would not have been possible without the partnership of the ALAA, State of Alaska TPC program, and the UAA Smoke-Free Taskforce, thus mobilizing community partnerships around the city of Anchorage and with national organizations to reduce SHS exposure and assist in changing social norms around tobacco use by influencing tobacco-related knowledge, attitudes, and practices. This research also provides new insights and possible solutions to the enforcement issue of campus smoking and tobacco use policies. As there is scarce research provided on the topic, the study

offers an innovative mixed-methods approach of conducting content analysis and case study analysis of peer institutions to determine a prevailing enforcement type that promotes policy success. Further, other universities may utilize the steps involved in this study to conduct an in-depth analysis of their peer institutions in determining what kind of policy to enact and which enforcement type to pursue.

Lastly, a public health service that this study fulfills is the enforcement of regulations that protect the health of the public and ensure safety. Though the study did not test smoking or tobacco policy enforcement strategies, it does promote the findings that a hard/strict enforcement type with set guidelines and a punitive offense system be pursued over a soft or less strict enforcement type that only provides verbal statements of policy guidelines.

Perhaps the most significant contribution to be made for public health programs and policies as a result of this study is its ability to provide colleges and universities with a detailed profile of the work accomplished by peer institutions in their quest to achieve and maintain a healthy tobacco-free campus environment.

5.5 Strengths and Limitations of the Study

The study design of a mixed-method approach, using content analysis (quantitative method) and case study analysis (qualitative method), presented a number of strengths and limitations. Noted strengths of the study are the relatively inexpensive nature of the study design, the ability to obtain background information of the sample in an unobtrusive manner, the flexibility to conduct analysis without being physically or directly present to perform observations, and the emergence of issues not otherwise anticipated. The research itself is the first known study on enforcement types of smoke-

and tobacco-free campus policies, contributing to the gap of research on this topic. To establish credibility of the study, multiple data sources were checked in the content analysis phase, a multi-method approach to retrieving data (general case data and interview data) for the case study analysis. To further ensure transferability of the study, the coding schedule and manual are provided (*see Appendices B and C*) for content analysis and a purposeful sampling was conducted in the selection process for the case study analysis to ensure variation and multiple perspectives of the cases.

The primary limitations of this study include the possibilities of error in data collected on the institutions websites, which potentially decreases reliability, the possibility of bias from key informants in interview processes, as well as the overall limitation of literature on campus tobacco policy enforcement aspects.

Though an in-depth inquiry of smoking and tobacco policies and smoking and tobacco related topics was performed on each institution's website (n=44), the possibility of the sought information being inapplicable, disorganized, unavailable, or out of date was high. While some websites provided a breadth of information that was easily accessible via a simple search, others were deemed less user-friendly, proving more difficult in accessing data. One case did not have adequate data posted on the website, so that emails and phone calls were made until the data was obtained. Further, the data collected could be biased because of selective survival of information on the websites, as well as the collected data may be incomplete or inaccurate. A technical limitation also exists in the data that were coded as "not listed"; this could jeopardize the designation of the institution's policy and enforcement type, providing an erroneous conclusion, if indeed this unlisted data exists but is not posted on the institution's website.

As with all interview data, the information gained is potentially restricted by the fact that it is self-reported, allowing for bias on the Key informant's part. Due to the fact that the interview was semi-structured, to allow for free flowing data collection of emergent themes, data collected could be large in quantity but inapplicable to the study.

In regards to bias, as with all interview data, the information gained is potentially restricted by the fact that it is self-reported, allowing for bias on the interviewee's part. Though all studies require time and effort, a document review design requires accuracy of the documents being reviewed. To achieve accurate data, an in-depth review of all smoking and tobacco-related material on each institution's website were conducted to ensure the smoking and/or tobacco policies collected were in fact current and factual. While some websites provided a breadth of information that was easily accessible via a simple search, others were deemed less user-friendly, proving more difficult in accessing data. Thus, the study could be time consuming to collect, review, and analyze many documents.

As previously stated, most academic literature on the topic focuses either on student tobacco use and predictors of use or policy perceptions on college campuses. This study is unique in attempting to determine the success of a policy based on enforcement type.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

The conclusions and recommendations from this project offer implications for future research. The recommendations provided from the findings of this study will be useful in expanding on the limited information of enforcement aspects of smoke- and tobacco-free policies on college campuses.

Summary

Young people are especially vulnerable to becoming tobacco users (WHO, 2013), as adolescents and young adults are distinctively susceptible to social and environmental influences. With tobacco use rates in this population stalled across the nation, the educational environment may provide the most impactful setting to prevent the uptake of smoking. Research shows that students considered to be at low risk of beginning to smoke are more likely to start if they attend a school with a relatively high prevalence of smoking among students (Sabiston, et al., 2009). Other studies have found that the campus environment has the potential to encourage initiation and progression of tobacco use as well as discourage it (Halperin *&* Rigotti, 2003).

Academic literature demonstrates that a majority of students support smoke- and tobacco-free policies and that such policies also change tobacco related behaviors. (Rigotti, et al., 2003; Eisen-Cohen, 2005; Seo, et al., 2011; and Reindl et al., 2013). Further, students support more restrictive policies with stringent enforcement (Eisen-Cohen, 2005; Procter-Scherdtel & Collins, 2013; and Burns et al., 2013). The general theoretical literature on the subject of smoke- and tobacco-free policies on college campuses and specifically in the context of enforcement is inconclusive and scarce.

The study sought to assess comprehensive smoke- and tobacco-free policies of peer institutions and neighboring college campuses of UAA to draw comparisons that may determine what enforcement type may benefit UAA in in moving towards a comprehensive smoke-free campus policy. To do so, the study explored three questions regarding smoke- and tobacco-free campus policies of the selected sample. First, do UAA's peer institutions and neighboring college campuses have comprehensive smoke-free or tobacco-free policies? Second, among the institutions with comprehensive smoke- or tobacco-free policies, what type of enforcement is employed? And third, how successful are institutions with comprehensive smoke- or tobacco-free policies dependent on the type of enforcement utilized?

The findings show that 52% of UAA peer and neighboring institutions have comprehensive tobacco-free campus and smoke-free policies. However, almost a quarter of the study sample is designated as having limited smoking policies, displaying the fervent and continual need for tobacco control action on college campuses.

Overall, the findings show that 57% of institutions with smoke-or tobacco-free campus policies have hard enforcement protocols. The study finds hard enforcement to be the preferred enforcement method of the sample, leaning to the research that when restrictions are actively enforced on college campuses they can discourage smoking (Czart et al., 2001). It must be noted, however, that there are currently no clear, published recommendations or guidelines on enforcement and which enforcement type (soft or hard) is better at promoting success of campus policies.

The cases explored in the study were MTSU, an aspirational peer with a comprehensive tobacco-free policy and a soft enforcement type, and BSU, a comparator

peer with a comprehensive smoke-free policy and a hard enforcement type. Three markers of success were predetermined to gauge the research question outcome. These markers are a decrease in smoking prevalence rates of the university population, a positive perception of policy from visitors, students and faculty/staff, and compliance with the smoke- or tobacco-free policy.

Both cases presented reported significant declines in smoking prevalence rates since the enactment of each policy, implying that policy designation, either smoke-free or tobacco-free, does not affect the success of the policy. Further, significant declines in prevalence rates have occurred on the MTSU campus, even in a state where the overall adult smoking prevalence rates have increased. Implementing a smoke- or tobacco-free policy will aide in a decrease in prevalence rates despite the enforcement type. However, case study findings suggest that the inclusion of a hard enforcement type to the policy may present lower prevalence rates, as BSU has a last reported smoking prevalence rate of 13.8% and MTSU has a last reported smoking prevalence rate of 18.1%, despite the different baselines of each campus' smoking rates and the different state smoking prevalence rates.

Perceptions of policy and compliance were presented through interviews with key informants of each case. Findings continue to lean towards a hard enforcement type as BSU received positive policy perceptions from the campus community and more compliance to the policy versus MTSU. Yet, enforcement issues are prevalent in both cases, thus each case resolved to revise their policies to incorporate a more extensive and punitive enforcement.

Other potential predictors of success not predetermined by the study markers were the need for a preparation period before policy implementation, the conduct of a policy perception survey of the campus community before implementation, and the support from campus security staff for enforcement. Each of these strategies was conducted by BSU, subsequently leading to a more successful policy than MTSU.

Cultural context should also be considered in the determination of policy success. The differing locations of each institution in this study are predominately influenced by religious beliefs and tobacco production history. However, key informants did not address the cultural context in giving their answers.

The study confirms the notions of previous research (Evans-Whipp, Bond, Ukoumunne, Toumbourou, & Catalano, 2010; and Sabiston et al., 2009) that strict and consistent enforcement of smoke- and tobacco-free campus policies are predictive of policy adherence, and success and further that college campuses can discourage the tobacco use

The results of this study suggest that a soft enforcement type does not effectively uphold smoke- or tobacco-free campus policies and that a hard enforcement type leads to overall policy success, adding new research to the existing theoretical literature in support of smoke- and tobacco-free campus policies.

Recommendations

Preliminary findings of this study offer three primary recommendations: (1) the adoption of comprehensive smoke- or tobacco-free campus policies; (2) the utilization of a preparatory period pre-implementation of a comprehensive smoke-or tobacco-free

policy: and (3) the inclusion of hard/strict enforcement protocols to the comprehensive smoke-or tobacco-free policy.

Recommendation 1: *Adoption of comprehensive smoke- or tobacco-free campus policies.*

Educational institutions should answer the call to action of national health organizations (Institute of Medicine and ACHA) to join the growing list of approximately 1,200 colleges and universities adopting comprehensive smoke- or tobacco-free campus policies. Studies show an overwhelming support from campus communities for comprehensive smoke- and tobacco-free campus policies. With the smoking prevalence rates of the young adult population stalled, the application of tobacco control policies to college campuses represents an enormous potential for impact for public health.

Specifically to UAA, research shows that students considered to be at low risk of beginning to smoke are more likely to start if they attend a school with a relatively high prevalence of smoking among students (Sabiston, et al., 2009). Thus, as smoking prevalence rates at UAA have increased by 3% since 2009, a major implication for UAA to combat increasing smoking rates and promote the health and well-being of the campus population is to adopt a comprehensive smoke-free campus policy.

Recommendation 2: *Utilization of a pre-implementation preparatory period before adoption of comprehensive smoke-or tobacco-free policy*

As effective implementation of smoke- and tobacco-free policies is crucial for these policies to improve health outcomes, the consideration of planning for time spent before a policy is implemented is advised. In this time, an assessment of policy perceptions, challenges, barriers, and enforcement protocols of the campus community

can be conducted. Outreach to campus community groups, especially the security operations team, communication plans and educational strategies should be deployed at this time. As study findings have suggested, a preparatory period enables the campus community to feel aware of and be part of the policy discussion, and ultimately be able to take ownership of the policy due to their knowledge and potential involvement.

Recommendation 3: *Inclusion of hard/strict enforcement protocols to the comprehensive smoke-or tobacco-free policy.*

The updated ACHA position statement recommendations to: "Plan, maintain, and support effective and timely implementation, administration, *and consistent enforcement of all college/university tobacco-related policies, rules, regulations, and practices. Provide a well-publicized reporting system for violations* [emphasis added]"(ACHA, 2012a).

Though this statement does not speak to the level of enforcement, the recommendation is clear that consistent enforcement should be included in all tobacco-related policies. This study recommends taking the ACHA statement a step further by including hard/strict enforcement protocols, comprehensive of an offense system tied to punitive disciplinary actions or monetary fines. The study finds that a hard enforcement type promotes decreases in prevalence rates and an increase in positive policy perceptions and policy compliance.

Specifically to UAA, the student policy perception survey conducted in Fall 2013 showed that a greater proportion (45%) of students support the idea of giving tickets and fines to violators of the policy, falling in line with other published studies (Eisen-Cohen, 2005; Harris et al., 2009; Procter-Scherdtel, 2013; and Burns et al., 2013) on the topic of

enforcement. Thus, the inclusion of hard/strict enforcement protocols to a comprehensive smoke-free campus policy will aid in overall policy success.

Future Research Implications

This study presents five implications for future research needed to advance theoretical literature in the area of enforcement protocols in smoke- or tobacco-free policies on college campuses.

The first implication is that global and national health organizations seen as leaders and guides in navigating public health and tobacco control issues (CDC, ACHA, ANRF) should release guidelines for enforcement protocols. The reasons as to why college and university campuses should enact a comprehensive smoke- or tobacco-free are clearly marketed, yet the lack of concise strategies and procedures around how to enforce such policies are uncharted.

Secondly, the majority of national colleges and universities do not have comprehensive smoke- or tobacco-free polices. Though adoption of these policies is on the rise, it may be worthy for researchers to investigate reasons of why schools that do not have or are uninterested in implementing smoke-and tobacco-free campus policies.

Thirdly, a comparison study of the smoking prevalence rates of campuses that do not have smoke- or tobacco-free policies to those that do should be conducted. Examples of exploratory questions are, "Are campuses across the nation experiencing increased smoking prevalence rates similar to UAA as they operate without a smoke- or tobacco-free policy in place? Or, are their rates following the national trend and declining?"

Fourthly, there is little known about the health effects of e-cigarettes and few studies that have captured evidence that e-cigarettes are useful in helping people to quit

smoking. ANRF reports that 167 tobacco-free schools across the nation prohibit the use of e-cigarettes anywhere on campus (ANRF, 2014). For campuses that have smoke- or tobacco-free policies, that either include or do not include e-cigarettes, it would be research worthy to monitor the use of e-cigarettes on college campus to determine if there is an upsurge in use and the possible detrimental effects of e-cigarette use to a smoke- or tobacco-free policy.

Finally, additional studies need to be conducted to explore two essential aspects of this study. The first aspect is discovering how utilizing a university campus' peer institutions as a study sample encourage and motivate the university into becoming smoke- or tobacco-free. The second aspect is the examination of the influence that hard or soft enforcement protocols have on the success of smoke- or tobacco-free policies.

Final Thoughts

The detrimental health effects of tobacco use and secondhand smoke are widely known, yet youth and young adults are still extremely vulnerable and susceptible to social and environmental influences of tobacco. Universities and colleges campuses possess enormous influence in encouraging or discouraging the initiation and progression of tobacco use in this delicate population. By adopting a comprehensive smoke- or tobacco-free campus policy, inclusive of hard/strict enforcement protocols, university and college campuses may hold the key to decreasing the smoking prevalence rates of this population and future generations of students.

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Appendix A: IRB Waiver

Subject: RE: UAA MPH Student - question on Project Practicum IRB requirement

Kelly A McLain (kamclain@uaa.alaska.edu) 1/22/14
To: Joy Britt
Cc: Gabriel M Garcia

Hi Joy,

This e-mail is to confirm that your proposed project involving the review of UAA's Peer Institution's campus smoking policies does not meet the federal definition for human subjects research and therefore does not require review by the UAA Institutional Review Board. We do not require any additional information at this time. Please contact us if you do plan to include activities that would require IRB review prior to contacting participants or collecting identifiable information.
I am cc'ing your mentor, Dr. Gabe Garcia, for acknowledgement of this determination.

Thank you,

Kelly

Kelly McLain
Assistant Dean & Operations Manager
University of Alaska Anchorage
University Honors College
(907) 786-1057
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Appendix B: Coding Schedule

Coding Schedule Sample								
	No Policy	Limited Smoking Policy	Smoke-free Policy w/ exemptions	Smoke-free Policy	Tobacco-free Policy	100% indoor	100% outdoor	Date Policy implemented
Case #1								
Case #2								

	Detailed exemptions	Exemption notes*	Prohibition on college owned, leased vehicles	Definitions offered	Feet from door	Smoking areas	Smoking area notes*	Policy applies to all Faculty, staff, students and visitors?
Case #1								
Case #2								

	Current taskforce, program or team	Onsite smoking cessation program available/ Referral to Quitline	Tobacco related advertisement/ sponsorship prohibited on property/ publications	Soft Enforcement	Hard Enforcement	Enforcement notes*
Case #1						
Case #2						

Appendix C: Coding Manual

Coding Manual	
Cases	Names of Institutions
Categories	1. No Policy
	2. Limited Smoking Policy
	3. Smoke-free Policy w/ exemptions
	4. Smoke-free Policy
	5. Tobacco-free Policy
	6. 100% Indoor
	7. 100% Outdoor
	8. Date Policy implemented*
	9. Detailed exemptions
	10. Exemption notes*
	11. Prohibition on college owned, leased vehicles
	12. Definitions offered
	13. Ft from door
	14. Smoking areas
	15. Smoking area notes*
	16. Policy applies to all Faculty, staff, students and visitors
	17. Current taskforce, program or team
	18. Onsite smoking cessation program available/ Referral to State Quitline
	19. Tobacco related advertisement/ sponsorship prohibited on property/ publications
	20. Soft Enforcement
	21. Hard Enforcement
	22. Enforcement notes*

Recording Units/ Codes	0	No
	1	Yes
	2	Not Listed

Context Units (*Categories with an asterisk*)	Phrases, numbers and sentences used as descriptors

Appendix D: Telephone and E-mail Interview Script

E-mail script:

Hello my name is (INTERVIEWER NAME) and I am from the University of Alaska Anchorage (UAA). I am conducting a study on smoke- and tobacco-free campus policies of identified peer institutions of UAA.

Your university, (UNIVERSITY NAME) is a (*aspirational or comparator peer*) of UAA and has been identified as having either a comprehensive smoke-or tobacco-free campus policy. Your participation in this study would be most appreciated. A simple reply to the question below will aid in determining the study sample.

1. Does (UNIVERSITY NAME) have smoking prevalence data (either collected by the university or by participating in the National College Health Assessment) before the comprehensive smoke- or tobacco-free policy was implemented and does it have smoking prevalence data after implementation? If there is a report on this data, can it be shared?

If you choose to participate in this study, information you provide will be used for publications or presentations of study findings. Only your university will be identified in the research.

Thank you for your time.

Telephone script:

Hello my name is (INTERVIEWER NAME) and I am calling from the University of Alaska Anchorage. I am conducting a study on smoke- and tobacco-free campus policies of identified peer institutions of UAA. Your university, (UNIVERSITY NAME) is a (aspirational or comparator peer) of UAA and has been identified as having either a comprehensive smoke-or tobacco-free campus policy. Your participation in this study would be most appreciated. This interview will take less than 20 minutes. By participating in the interview, you will be giving your consent to participate in this study.

If you choose to participate in this study, information you provide will be used for publications or presentations of study findings. Only your university will be identified in the research. However, I want to assure you that all of the information you give me is strictly confidential, and none of it will be released in any way that would permit the identification of you individually. Your help is voluntary, but your participation is important to the success of the study. If you wish you may decline to answer any question at any time and you may decline participation at any time. There are no risks and benefits to you for participating. Information gained from this study will assist the American Lung Association in Alaska and the University of Alaska Anchorage's Smoke-free Taskforce to better understand tobacco policy implementation issues on college campuses. Also there is no cost or compensation for participating. If you have any questions about the project you can ask them at any time or call me back at (PROVIDE PHONE NUMBER). Your rights as a research subject are very important and I can inform you that due to the nature of this study, it did not meet the federal definition for human subjects research. Do I have your permission to continue? Can I call you back at a more convenient time?

Appendix D: Interview Questions

Date:
Institution Name:
Institution Designations:
Key Informant:

1. Has the *(institution name)* experienced a decrease in smoking prevalence rates? Is this being tracked? If not, will it be?

2. Has there been an increase in smoking and tobacco cessation aid on campus and/or an increase in referrals to the state Quitline or other cessation services?

3. Is there an observed decrease in outdoor smoking on campus?

4. When asked to extinguish tobacco materials, do offenders comply?

5. How are offenses reported?

6. Is there decrease in number of reported offenses?

7. (Question for *hard enforcement type only*) Has there been decrease of fines and violations? If not, is this still perceived as in compliance?

8. Has there been a cost analysis of the policy conducted? Have costs increased or stayed the same since the policy's implementation?

9. In regards to student, visitor and staff/faculty perceptions, do you feel there is a positive, negative or same as before perception since the implementation of the policy?

   Students:

   Visitors:

   Staff/Faculty:

10. Please explain your enforcement and violation policy.

11. What are your perspectives on the successes and challenges of the comprehensive smoke-or tobacco-free policy?

Appendix F- Enforcement List

UAA Aspirational Peers	Policy Explanation	UAA Comparator Peers	Policy Explanation	UAA Comparator Peers	Policy Explanation
Tobacco-Free		**Tobacco-Free**		**Smoke-Free**	
Ball State Univ	$100 fine per occurrence, failure to pay fine will be handled in the same way debt on delinquent accounts	**Cleveland State Univ**	Reported blatant and chronic violations are subject to established disciplinary protocols applicable to faculty, staff, and students.	**Boise State Univ**	Three tier offense system where last offense initiates disciplinary procedures (expulsion and trespassing) against any individual found to be in continuous violation of the policy
Southwest Texas State Univ	Violations will be dealt with on a case by case basis in accordance with established disciplinary policies.	**Indiana Univ-Purdue-Ft Wayne**	Disciplinary action on a case by case basis.	**Univ Arkansas-Little Rock**	According to AR Law Clean Air on Campus Act of 2009, The penalty for violating the law is a fine not less than $100 or greater than $500. Standard progressive disciplinary procedures shall be followed for students, staff, and faculty who fail to abide by this policy
Univ Texas-El Paso	Violations could result in referral to the appropriate University officials for disciplinary action in accordance with established student, staff, and/or faculty codes of conduct and procedures	**Lamar Univ**	Students and Employees who violoate the policy will be subject to established disciplinary procedures.		
Univ Texas-San Antonio	Violations will be dealt with on a case by case basis in accordance with established disciplinary policies.	**Univ Southern Maine**	Initial enforcement involves education, awareness, and referrals for those seeking smoking/tobacco cessation supports. Beginning on September 1, 2013 those who violate the Tobacco policy will incur progressive disciplinary procedures		
Univ Akron-Main	Students who violate any provision of this policy shall be subject to disciplinary action pursuant to the student disciplinary code. Employees who violate any provision of this policy shall be subject to disciplinary action, up to and including a $100 fine for each violation beyond the initial violation. Visitors to the campus who violate any provision of this policy may be requested to leave the property or be subject to arrest for trespass.				
Southwest Missouri State Univ	Students who violate the policy will be reviewed through the student judicial process and may expect either a fine or a requirement to perform community service in the form of a suitable project that addresses some aspect of health and safety.				
Western Michigan Univ	Violation of this policy will be addressed through existing employee and students disciplinary processes. If conflicts or problems should arise, environmental, safety, and health considerations will prevail.				

$n= 13$