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**Union College Smokers: Hurting Themselves but Helping Others?**

*Mixed methods research on the relationship between smoking and volunteering*

By

Cameron Robertson

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Submitted in partial fulfillment  
of the requirements for  
Honors in the Department of Sociology

UNION COLLEGE

March, 2016

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## ABSTRACT

ROBERTSON, CAMERON    Union College Smokers: Hurting Themselves but Helping Others? Mixed methods research on the relationship between smoking and volunteering. Department of Sociology, June 2016

ADVISOR: HILL BUTLER, DEIDRE

This mixed methodology research project analyzes the relationship between smoking cigarettes and volunteer participation rates utilizing an empirical analysis of 2006 and 2010 Current Population Surveys (CPS), as well as a qualitative analysis on the perception and behaviors of Union College student smokers. Existing studies have indicated a negative association between smoking cigarettes and social participation, yet little research has been done on the specific relationship between smoking status and volunteer participation. Utilizing CPS supplements on tobacco use and volunteering, this empirical analysis finds that smoking cigarettes has a significant association with decreased volunteer participation rates. This research also includes an analysis of in-depth interviews conducted on a handful of Union College student smokers, as well as an overview of the changing Union College tobacco policy and its potential effects on the student bod

## CHAPTER 1

### **1.1 Background & Significance:**

This study analyzes the relationship between smoking cigarettes and volunteer participation rates. Existing studies have indicated a negative association between smoking cigarettes and social participation, yet little research has been done on the specific relationship between smoking status and volunteer participation. This research proves useful in identifying likely participants for volunteer activities. This research additionally aims to better understand the motivations behind both smoking and participating in community services activities. These findings can aid volunteer organizations, as they can utilize this evidence when determining the most accurate audience to contact when attempting to find volunteer laborers in their communities.

With modern technology and research, society has accepted the fact that the consumption of tobacco products has a direct correlation to a reduced lifespan. The negative effects of smoking cigarettes far outweigh any positive effects for individuals. Because of this, many researchers theorize that smokers will be less ambitious throughout life and have a decreased desire to meet future goals (Evans et al 2006:318). With smokers' potential lack of ambition in some aspects of life, will they feel the desire to give back to society through volunteer efforts as many other Americans do? While smokers may have accepted the negative implications being placed on their bodies, are they still willing to help others? The research questions that this paper aims to answer are:

- *Do smokers have decreased participation in volunteer activities?*
- *Does an increase in smoking lead to decreased volunteering?*
- *Why do individuals choose to smoke?*
- *Why (or why not) do individuals participate in community service?*
- *Does smoking influence the decision to participate in volunteer activities?*

Previous research has shown that higher rates of smoking have been linked to lower educational levels along with other specific demographic characteristics. While there have been many studies conducted on the nature of smokers and their decision making, there has yet to be research conducted on smokers' participation in volunteer activities. Seeing as other studies have concluded that smoking lowers productivity level of individuals, it begs the question if these same individuals still feel the desire to aid others in their society. Answering this research question provides insight to the motives and behavioral characteristics of smokers. While some may assume smokers have in some ways 'given up' on a healthy and positive life, this research provides new information on the willingness of smokers to aid others in society even if they refuse to aid themselves in terms of health.

This study aims to gain insight on whether tobacco use may be a crucial influencing factor on volunteer motivation. While previous research articles have highlighted smoker's differing participation rates in society, there is yet to be in-depth insight regarding whether smokers are motivated to give back to society through volunteer activities at a similar rate to non-smokers. Researchers may never truly understand the reasoning behind individuals utilizing tobacco products. With all the negative implications of these decisions, researchers including myself are curious as to

what other types of choices smokers may be making. This mixed methods study aims to draw conclusions on US smokers and their willingness to participate in volunteer activities.

## **1.2 Literature Review**

Volunteer participation plays a crucial role in American society, providing aid to individuals in need and enhancing the general wellbeing of communities. Recent research done by the Bureau of Labor Statistics has shown a decreasing participation rate of U.S. citizen in volunteer activities over the past 5 years (Bureau of Labor Statistics 2014). With approximately 18% of U.S. citizens currently smoking cigarettes (Center for Disease Control and Prevention 2015), the question is raised if smokers participate in volunteer activities as much as non-smokers. Numerous studies have been conducted on the nature of smokers as well as volunteering individuals. This literature review analyzes the previous works of researchers in an attempt to further our understanding of volunteer workers and their relationship to the use of tobacco products. The first section of this literature review attempts to better understand the characteristics of volunteers, followed by the characteristics of smokers, then leading to the relationship between smoking cigarettes and participating in volunteer activities.

### **1.2.1 Volunteering:**

In American society, it is often assumed that volunteer participation is directly correlated to being an altruistic individual, with a genuine desire to give back to society. Regarding individuals utilizing tobacco products, this assumption begs us to wonder if



these individuals who knowingly harm themselves would still feel the desire to help others. Previous research done by Paul Schervish and John Havens (1997) provides insight into the actual motivations of volunteer workers, which might not be as simplistic as previously thought. Their study concluded that measures of volunteer participation and 'charitable giving' actually depend less on characteristics of generosity and conscious frameworks than previously thought. Instead, Schervish and Havens propose that the major factors influencing willingness to volunteer come from surrounding "households and communities of participation" (Schervish & Havens 1997:256), and can directly influence an individual's personal motivation to volunteer. Additionally, the amount of available opportunity to participate in volunteer activities in an individual's community is able to have a strong impact on their decision to volunteer. Further influencing individuals participation can be the respective weight of volunteer obligations, as many would be turned off by volunteer activities requiring long hours or strenuous work. In addition to these influential factors, the researchers note that most volunteering takes place in one's own community or church, and will be self-beneficial (Schervish & Havens 1997:257). These findings indicate that volunteer motivations are derived from characteristics outside generosity as previously believed. This empirical research raises questions of whether tobacco use may have a significant effect on volunteer motivation, as previously assumed motivations are inaccurate. The researchers detail limitations to their findings. They note that participation rates have a direct correlation to the volunteer organization's networking abilities, which is not taken into account. Furthermore, the researchers state that even apparently insignificant variables can play a role in participation rates. Because of these

limitations, individuals' actual internal motivation for volunteering may be misinterpreted in this study.

Researchers Thomas, Musick, and Wilson (1998) similarly focus on the influences that can affect an individual's choice to participate in volunteering. The authors argue that in order to increase volunteer participation rates, individuals must be reminded that volunteering is a 'civil duty' that they are obligated to perform in society. Furthermore, the authors detail two main theories behind individuals' willingness to participate in volunteer activities. The 'normativist' perspective assumes that volunteer activities come from individuals being socialized and influenced into obtaining pro social attitudes. With this mindset, these individuals willingly volunteer in society in order to adhere to the socialization type in which they have been raised. Alternatively, the 'social practice' perspective instead assumes that volunteer behaviors come from practical related experience along with social participation. Individuals that have positive experiences associated with volunteering and community service activities are more likely to behave in a manner that supports their previous experiences in community service roles. The researchers additionally found that community service experiences during youth have a direct correlation to continued community service in the future. The study finds that making mandatory volunteer activities for younger age children increased the likelihood of future volunteering for the individuals. The authors focus on social and behavioral influences driving community service participation.

On the contrary, some research has presented arguments that instead suggest volunteer activities has little to do with behavioral influences and more about internal

motivation. Researchers Hustinx, Lesley, and Lammertyn (2003) presented a unique argument in which they suggest that volunteer characteristics in individuals should be interpreted as a biographical characteristic rather than a behavioral activity. The authors suggest that internal forces motivating individuals to volunteer in society are extremely complex and multidimensional, lacking a specific source for participation motivation (Hustinx et al. 2003:171). While the range of complexity that goes into the choice to participate can vary from biological and behavioral standpoints, the researchers suggest that complex and undetermined internal forces acting on individuals are ultimately responsible for whether or not they will choose to volunteer in community activities.

Despite complexity in the decision to volunteer, research has found extreme benefits for those who do choose to participate in these activities. Morrow-Howell et al. (2003) performed research on the correlation between volunteering and well-being in older aged adults. The study concluded that older adults who engage in more hours of volunteering report to have higher levels of general well-being compared to those who do not volunteer (Morrow-Howell et al. 2003:141). This finding can be related to smoking cigarettes, as an individual who smokes is likely to not care about their general well-being and health due to the obvious negative health implications associated with cigarettes. Other factors in the study were found to have no influence on the relationship, including the number of organizations the person volunteered for, the type of organization, or perceived benefit of the work.

Volunteering can often be considered an altruistic activity, similar to donating to charitable causes and organizations. Research completed by O'Herlihy et al. (2002)

analyzes factors that influence the act of charitable donation by individuals in society. The researchers studied specific donation factors of individuals such as how much they give in total, their demographic and behavioral patterns of giving, how much they give to various areas of need, and how they make their donations to charities. From there analysis, the researchers were able to make multiple conclusions on the relationship between individuals and donating, including higher levels of charitable giving being associated with higher levels of income, wealth, religious participation, age, marriage, educational attainment, US citizenship, higher proportion of earned wealth vs. inherited wealth, and financial security (O'Herlihy et al 2002:544-550). An additional influential factor for donation includes "communities of participation", or the groups/clubs in which an individual is involved. These findings are important to take into account when analyzing the relationship between volunteering and smoking cigarettes. Although it cannot be assumed that charitable giving is equivalent to volunteering, the similar altruistic nature of the behavior can provide useful insight into the characteristics of individuals likely to participate in volunteering activities.

Additional research has explored volunteering from more of a psychological viewpoint, analyzing the motivations for helping behaviors such as volunteering. Researcher Shalom Schwartz (1973) analyzed the helping behaviors and the internal characteristics associated with them. Some of his findings included that personal norms has little impact on volunteering for individuals who deny self-responsibility. This finding is important for our analysis, because smoking individuals are often found to internally rationalize their decision-making. This internal rationalization process for smokers could be extended into the community service field, leading smoking

individuals to lack a desire or feel empathetic to contribute to community service efforts. The research additionally shows that for individuals who acknowledge self-responsibility, personal norms have an impact on volunteering activities. The researchers conclude that personal responsibility and personal social interaction ability are some of the key attributes driving the variance in the likeliness of volunteering in society.

It is most often assumed that altruism is the driving factor behind the majority of volunteer activities by individuals. Researcher Walter Rehberg (2005) suggests that volunteering dynamics have been changing in correlation to modernization of the world. In his research, the author suggests that there has been a change from 'collective' forms of volunteering to now 'reflective' volunteering forms that are more focused on benefits to the individuals rather than society. From the quantitative study performed by Rehberg, 11% of the sampled individuals in the studied stated that altruism was the driving force for their participation in volunteer activities. In the study, he concluded that the other motivations for volunteering included 'completing a quest for the new' along with 'completing a quest for oneself' (Rehberg 2005:115). These alternative motivations revolve around the individual attempting to enhance their own lifestyle rather than performing volunteer activities for the general wellbeing of society. This approach is interesting when analyzing the relationship between smoking and volunteering, as it could be argued that smoking is a selfish behavior that hurts those around you in the long run.

Research conducted by Boss (1994), similarly suggests that volunteering is not influenced as much by other characteristics as some individuals seem to assume. This

researcher focused on the relationship between college individuals' internal ethics and participating in community service work. In the research, the author suggests that students are often in a "post-conventional stage of principled moral reasoning" (Boss 1994:185). This stage of moral reasoning is characterized by a realization that individuals hold a separate identity from society and can live by their own ethical principles. Therefore, the author argues that participating in community service as a college age student is an internal decision that is not substantially influenced by outside sources such as society and peers. While altruism may or may not play a substantial role on internal motivation, this researcher argues that community service participation in college age students only comes from their own internal ethical decisions. With a more complete understanding of the motivations of volunteers, our literature review can now focus on the given relationship between cigarettes and volunteer participation.

### **1.2.2 Smoking:**

Many studies have been conducted on smoking individuals and the characteristics associated with this behavior. One study on smokers specifically addresses the overall healthiness of smokers' lifestyles and the choices that they make besides smoking cigarettes. Researcher Castro (1989) researched moderate to heavy smokers, analyzing their behavioral decision-making and daily activities. From his research, he suggests that heavier smokers exhibit significantly healthier lifestyles than those who choose to not to smoke. Additionally, these individuals tended to show signs of increased risk of coronary heart disease, caused by unhealthy actions outside of

smoking (Castro 1989:107). Overall, the author concluded that individuals who become more involved in smoking exhibit less healthy lifestyles on the terms of cognitive, behavioral, and motivational dimensions. These findings can be related to decision-making in smoking individuals, including participating in volunteer activities. Seeing as motivational dimensions of smokers are weaker than non-smokers, this study could suggest that smoking individuals will most likely have less motivation to participate in activities to benefit themselves and others, including volunteering.

Similar research has also analyzed the healthiness in smokers' decision-making, specifically analyzing the consumption of specific beverages. Researchers Carmody et al. (1985) compared a 571-person sample of male and female healthy, middle-class Americans who defined themselves as smokers, former smokers, or non-smokers. From their analysis of the sample, the researchers found that both smokers and former smokers were more likely to drink higher amounts of alcohol and coffee when compared to non-smokers. This finding stayed valid regardless of gender. Furthermore, the higher consumption level of alcohol for smokers was similar to former smokers. This finding begs the question of whether or not former smokers still have negative health tendencies in life despite being able to quit smoking. Additional conclusions from the researchers showed that the number of cigarettes smoked per day was positively correlated with total alcohol and coffee consumption.

Other research has focused on smokers' rational decision-making, and why they choose to smoke cigarettes. While one study by Chaloupka (1990) focused specifically on the fluctuation of cigarette prices and taxation, he also addresses addictiveness in smokers and their decision-making tendencies. From his research, an important finding

is that smoking individuals have tendencies of behaving 'myopically', lacking long-range perspectives. This specific finding can be related to volunteer activities, which most often only have long-term benefits to individuals' communities. Volunteering is often thought to be an activity, which is associated with a 'pay it forward' mentality. Because smokers have shortsighted tendencies, they may lack interest in participating in volunteer activities that will not immediately make a positive impact on the surrounding community.

There have been a plethora of studies on the characteristics of tobacco users. Regardless of the study, it is clear that smoking has negative health effects on users. One study conducted by Jamil et al. (2009), focuses on the relationship between smoking cigarettes and specific foreign nationalities. One surprising finding in the study showed that negative health effects were actually highest for former smokers rather than current smokers. Additionally, the researchers found that being older, male, unmarried, and non-middle eastern all contributed to a higher probability of being a current smoker. With these characteristics in mind, it will be useful when analyzing the characteristics of volunteering individuals, to accurately compare them with those of smokers. Furthermore it is a known statistic that female married individuals are more likely to participate in volunteer activities. Because of the researchers finding that male unmarried individuals are associated with higher probabilities of being current smokers, it may be a sign that smokers are less likely to hold similar characteristics to volunteering individuals.

Additional research conducted by Claude Steele (1988) focused on the internal motivation behind smoking cigarettes. With the obvious negative effects of tobacco,



there is internal rationalization that that smokers go through when making the decision to smoke cigarettes. The author describes the “smokers dilemma” and internal dissonance that smoking cigarettes invokes on users due to the negative health implications. This dissonance is most often overcome by internal rationalization in which the author suggests that smokers tend to either: prolong quitting, deny health risks, and rationalize the benefits of smoking cigarettes. All three of these actions allow for smokers to feel that they are making the right decision when smoking. Sometimes internal rationalization for smoking can seem somewhat uneducated. It should be noted that similar rationalizations for not participating in community service activities might be easy for these same individuals to make. From a physiological standpoint, analyzing the rationalization method of smokers is an intriguing yet difficult tactic when comparing their likeliness of volunteering.

Other alternative research has instead aimed to explore some unanswered questions relating to who smokes, who doesn't smoke, who smokes too much, and who can stop smoking. Researchers McArthur, Waldron, and Dickson (1958) took a psychological approach to answering the questions in a way that had not previously been done. The main portion of findings include correlation of smoking habits with a conceptual model that notes individuals smoking status is determined by whether or not they have been introduced to the habit as a result of social influences. The research also finds that the ability to stop smoking is determined by the “usefulness” of the habit to fit personal needs. This study relates well with the previous studies that have been conducted on smoking individuals influences and rationalization process. This paper

shows a similar combination of findings including social influences having an effect on smoking motivation as well as internal rationalization process.

Additional research has focused on the causes for individuals to smoke on a global level. One specific study conducted by Park (2009) examined smoking behavior and smoking initiation patterns of a 4<sup>th</sup> grade cohort in South Korea over a four-year span. A 'binary logistic regression analysis' was used to determine the significant factors related to smoking initiation, which was found to typically start in middle school years. Furthermore, the researcher found that smoking could often be attributed to factors like loneliness at school, self-control, delinquent behavior, depressive symptoms, and stress. The characteristics are parallel to the findings of previous studies. The characteristic of delinquent behavior being attributed to smoking cigarettes can be interesting for this research paper, as it seems unlikely that a delinquent individual would choose to volunteer. The study concludes that smoking prevention strategies should be aimed at elementary school aged children rather than at middle school children. While this study can prove useful in analyzing the characteristics of smokers, it must be taken into account the higher rate of smoking in Korea compared to other parts of the world.

Similar to the previous research surrounding the topic of internal rationalization, an article by Slovic (2005) discusses how risk influences human decision-making, in particular the decision to smoke cigarettes (page S39). Recent research shows that young smokers give little or no conscious thought to risks or to the amount of smoking they will be doing. They are instead driven to smoke by the "affective influences" of the moment. Most expect to be able to stop soon or at their own

will. Data indicates that beginning smokers lack the experience to appreciate the long term affects of smoking and the way their future self will value the tradeoff between health and the need to smoke. These findings are very interesting when thinking about the relationship between smoking and volunteering. With these individuals lacking the ability to think about long-term harm, they will most likely refuse to think about the long-term positive effects that volunteering has on society. Because there is often no immediate gain from volunteering, this research seems to support the hypothesis that smoking individuals will be less likely to volunteer.

Smoking individuals are sometimes assumed to make careless and impulsive decisions regarding smoking cigarettes. Researchers Spillane, Smith, and Kalher (2010) address this question in a research study on impulsivity in cigarette and nicotine users. The research finds that personality characteristics associated with impulsivity influence the use and dependence of cigarette and other nicotine usage. The study used self-reports and behavioral measures of impulsivity to find its relationship with factors such as current smoking status, smoking initiative, and smoking cessation outcomes. Five specific traits related to impulsive behavior were examined: negative urgency, positive urgency, lack of planning, lack of perseverance, and sensation seeking. The researcher used a cross sectional report nature. As expected, the researcher found that different behaviors were more closely associated with a dependence on nicotine, with sensation seeking being a strong predictor of smoking status. Similar to other findings on characteristics of smoking individuals, small immediate gains and impulsive behaviors are common traits in smoking individuals. Volunteering, on the contrary, is almost never an impulsive behavior, as it usually involves extensive planning. For smoking

individuals who are impulsive, the findings of this research seem indicative that smokers may not have attributes that will push them towards volunteering in society.

Additional research has been conducted on individuals attempting to quit smoking, and specific characteristics that are associated with success and failure. Researchers Norman, Conner, and Bell (1999) used regression analysis to attempt to predict quit rates by analyzing specific characteristics. From their research, they found that in their sample of 84 individuals, the intention to quit smoking could be predicted by the individuals perceived behavioral control and their perceived susceptibility. As previous research has indicated, many smokers internally rationalize their decision to smoke cigarettes. The research in this study notes that for successful interventions to take place, councilors must focus on increasing individuals' perception of self-control and potential to relapse. These findings can be interesting for the analysis of smoking and volunteering, because many of these individuals that cannot quit smoking acknowledge their lacking self control, which may make them more likely to seek self care before reaching out to help others.

### **1.2.3 Smoking & Volunteering:**

Although there is little research on the specific relationship between smoking and volunteering in society, some studies have been made connections that are similar and applicable to this specific relationship. With recent technological advances, it is well known that cigarettes have harsh negative health implications with little positive gain from their utilization. Researchers Thoits and Newitt (2001) investigated the relationship between volunteers and their personality traits. Their research concluded

with positive correlations between certain personality characteristics and volunteer participation. Findings found those with socioeconomic resources, such as higher levels of education, are associated with increased volunteer participation. In our society, smokers are often associated with lower levels of education. This correlation may cause smokers, who have less socioeconomic resources, to have decreased volunteer participation rates. Furthermore, Thoits and Newitt found the position of “personality goods”, such as happiness, self-esteem, and low depression, to increase chances of volunteering. For many decades, smoking has also been associated as a form of stress-relief for many of its users. From these researchers’ findings, it leads to the question if smokers have higher stress levels and less personality goods than others, potentially leading to decreased volunteering. The researchers also found those who are more socially integrated, including active involvement in religious groups or community organizations, tend to volunteer more. The most important finding of their research came from their conclusion that people with a greater level of well-being tend to invest more hours volunteering (Thoits & Hewitt 2001:127). Due to the negative implications of smoking, the well being of smokers is greatly decreased, allowing us to assume that smoking most likely leads to a lower investment in volunteer service work. Although the work of Thoits and Newitt has no connection to individuals’ utilization of cigarettes, their findings allow for a more accurate prediction of the relationship between smoking and volunteer participation. While their findings are intriguing, they note limitations in their research design, including the unreliable measure of ‘well-being’ and ‘personality goods’, along with the potential inaccuracy in the measured number of volunteer hours worked in previous years by their subjects.

Researchers Caplan, Cob, and French (1975) find similar findings in their research in factors contributing to cigarette smoking quit rates. The researchers conducted a multivariate analysis of 200 males, specifically studying the relationship between smoking, job stress, social support, and personality traits. From their research, they concluded that individuals were more likely to quit smoking when they had lower levels of job stress, work load, and personal responsibilities. Additionally, individuals who were able to quit smoking were found to be less persistent and competitive than others (Caplan et al. 1975:211). These findings are supportive of alterative research, indicating that stress has a large impact on the decision whether or not to utilize cigarettes.

Important characteristics of participating in volunteer work include individuals being flexible, patient, and dependable (Hands of Humanity, 2015). Although uncertain if smokers possess these characteristics, Mitchell (1999) focuses on a different characteristic pertaining to the majority of those who utilize cigarettes; impulsivity. She analyzed the relationship between smoking cigarettes and impulsivity. From her research, she concludes smokers have statistically higher levels of impulsivity (Mitchell 1999:455). Furthermore, her research also indicates that smokers tend to choose small immediate money over large, delayed money (Mitchell 1999:455). Being impulsive does not bode well to societies' expected volunteer characteristics, which include the opposite characteristic of patience. Volunteering requires planning and organization in order to participate in charitable work while maintaining alternative personal obligations. The finding of impulsivity among smokers in Mitchell's research raises doubts that these individuals will volunteer at a similar rate to non-smokers. Some

limitations in her research were found. While there is still a significant correlation, it should be noted that the differences in levels of impulsivity between individuals might come from alternative factors other than smoking. Additionally, smoking has a direct correlation to an increase likelihood of alcohol and other substance abuse issues, which may impact the findings of impulsivity in smokers.

While little research has been done on the relationship between volunteer efforts and smoking, researchers have analyzed individuals' social participation as a whole and its relationship to smoking. Researcher Lindström (2004) investigated the relationship between psychosocial work conditions, social participation, and daily smoking. While Lindström's work did not solely focus on volunteer participation, we can place this action within the subcategory of social participation. Lindström's findings showed a positive association between individuals' smoking daily and lower social participation rates. However, he stresses the important association between both social participation and daily smoking with different psychosocial work conditions and unemployment. Lindström concludes that work conditions and unemployment may affect daily smoking either directly or through aspects of social participation (Lindström 2004:289). Lindström's findings introduce outside influences that may alter the relationship between volunteer participation and smoking. When doing empirical research on these variables, it is important to keep in mind influences such as work conditions and unemployment, which may be causal influences in fluctuating smoking and volunteer rates. Limitations to the study should be considered, as Lindström's research focused on social participation and social capital rather than volunteer participation rates. While of a similar nature, volunteer rate conclusions

cannot be drawn from Lindström's work, as we do not know the exact relationship between individuals' social participation/social capital and their attendance in volunteer activities. Further more, Lindström's conclusions are uncertain. While he alleges the influencing factors of work condition and unemployment, his proposal is uncertain, with further research needing to be completed before a definitive conclusion can be made.

An additional piece by researcher Wilson (2000) examines volunteering individuals and different aspects in their lives. One important note that the author mentions is the fact that volunteering in youth decreases the likelihood of "problem behaviors" such as school truancy and drug abuse. This is interesting because smoking cigarettes may be able to considered a 'problem behavior' in many ways. The author also discusses multiple theories regarding volunteering, one of which includes individual attributes that either stress rational action and cost-benefit analysis. Furthermore, an additional theory stresses social ties and organizational activities factored into volunteering. This research is interesting when analyzing the connection between smoking and volunteering because it highlights the opposition in characteristics that lead to the differing behaviors. For example, previous research mentioned by Park (2009) found that delinquent behaviors were attributed to individuals smoking cigarettes. Contrarily, this research done by Wilson (2000) found that volunteering decreases delinquent behaviors. Therefore, it seems in some aspects volunteering and smoking cigarettes are attributed with opposite behavioral characteristics.



Lindström, Isacsson, Elmståhl, and The Malmö Shoulder-Neck Study Group (2003) investigated aspects of social participation between daily smokers, intermittent smokers, and individuals who had stopped smoking. These researchers findings concluded with results supporting the previous literature analyzed. Regarding daily smokers, when compared to a reference population, conclusions were made that daily smokers had high rates of non-participation in activities relating to social capital. These activities excluded meetings regarding organizations of labor unions, church attendance, or cultural actives such as cinematic and art related exhibitions. Although not directly analyzed in this research, volunteer participation can be assumed to be included in the activities relating to social capital that had a decreased participation by smokers. This study's findings increase our understanding of the personality of smokers; being less involved in community activities than the outside population. An intriguing additional conclusion made in this study is that smokers tend to have had higher rates of visiting nightclubs within the past year. This aspect of smokers decision making can be related back to Mitchell's finding of smokers increased impulsive nature. This furthers our interest in smoker's potential desire to 'live in the moment', aiming for instant gratification rather than focusing on future goals. Individuals who lead lives of this type may potentially feel less inclined to give back to their surrounding community and instead seek to maximize personal benefit in the present. Limitations to this study include its longitudinal nature, which may inaccurately depict the nature of current daily smokers as participants being observed often drop out of the study over time. Similar to Lindström's other research, limitations regarding the findings of social

participation may not correlate directly to individuals' willingness to participate in volunteer efforts.

### **1.3 Literary Review Conclusions:**

Through the analysis of these previously crafted pieces of literature, insight is provided regarding the relationship between smokers and their participation in volunteer activities. While there has been little research done on the actual relationship between cigarette usage and volunteer participation rates, previous empirical research furthers the understanding regarding the motivation of volunteer workers, attitudes of individuals who choose to smoke, and the relationship between social participation and smoking. From the existing literature, it is clear that the motivations behind choosing to smoke cigarettes and volunteer in society are both very complex. The preexisting studies provide insight on the differing characteristics of individuals who smoke cigarettes, along with volunteering individuals. None of the studies for smoking individuals and volunteering individuals showed overlapping characteristics or motivations behind their actions. Conclusions found by previous researchers in some cases present findings for the characteristics of smokers that are unlikely to positively influence participation in volunteering activities. While no definite conclusions can be made without further research, the previous studies show some evidence leaning towards a negative relationship between the two behaviors. The use of this literature review will enhance my ability to assess the validity of my analytical research on smoking and volunteer participation.

Personal empirical research on the relationship between smoking and volunteer participation rates will aim to draw conclusions on the correlation between these variables, utilizing insight from these previously crafted analyses. As previous research indicates, motives for volunteer participation may not be as simplistic as previously assumed, with the need for varying influential factors to be taken into account. My empirical study will aim to gain insight on whether tobacco use may be a crucial influencing factor on volunteer motivation. While these previous research articles have highlighted smoker's participation in society, there is yet to be in-depth insight regarding whether smokers are motivated to give back to society through volunteer activities at a similar rate to non-smokers.

Chapter 2 will discuss the methodology behind the research to be conducted, including an overview of the mixed methods approach to be utilized. The next chapter will also address the specific hypotheses to be tested in this research paper, along with insight on the specific data sets to be analyzed and survey questions to be asked.

## CHAPTER 2

### **2.1 Mixed Methodology Research Approach:**

For this research, I utilize a mixed methods approach in order to gain valuable insight on the relationship between smoking and volunteering. The qualitative portion is composed of interviews conducted on Union College student smokers. The results from this portion of the research provide in-depth insight into the perspectives and motivations of smoking students, in an attempt to gain an understanding of any possible influence on volunteer habits. The qualitative area additionally incorporates an overview of Union's changing tobacco policy tobacco-free campus, and includes a faculty overview to gain insight on student smokers and associated policy to be passed. The quantitative portion of this study entails a large empirical analysis coming from 2006 and 2010 Current Population Survey (CPS) data. The results from this quantitative portion provide numerical results on the relationship between smoking and volunteering, attempting to better understand the specific variables and influential factors related to the possible relationship. This chapter will outline the different methods to be utilized, the sources of the data collection, and the main objectives of this study.

### **2.2 Qualitative Method**

#### **2.2.1 Union College Student Interviews:**

In order to conduct a qualitative analysis on these individuals, I conducted in-depth interviews in various locations around the Union College campus in Schenectady, NY, in attempt to achieve the most comprehensive results. I have chosen this location

because of its easy access to myself, as a student. While the quantitative portion of this analysis focused on the specific correlation between smoking cigarettes and volunteering, this qualitative portion attempts to gain insight into the minds of smokers. More specifically, by conducting interviews I am to understand if smokers', who may potentially lack of ambition in some aspects of life, will feel the desire to give back to society through volunteer efforts as many other Americans do? While smokers may have accepted the negative implications being placed on their bodies, are they still willing to help others? The research questions that this paper will aim to answer are:

***Do smokers have decreased participation in volunteer activities? Does an increase in smoking lead to decreased volunteering? Why do individuals choose to smoke? Why (or why not) do individuals participate in community service? Does smoking influence the decision to participate in volunteer activities?***

On the Union campus, there are four main exclusive areas outside which smoking individuals primarily utilize to take cigarette breaks. These areas include: outside the entrance to the Shaffer Library, outside the Davidson Residence Hall, outside the Fox Residence Hall, and outside the CPH Residence Hall. For this set of interviews, I plan on approaching students utilizing these locations for smoking and attempting to conduct brief interviews on them (if willing). By utilizing these on-campus locations, I aim to interview students of varying ages and class standing in order to obtain the most reliable data. Furthermore, the interviews also come from individuals within my own personal friend network and Greek life affiliation, in which I have received snowball insight on other smoking individuals to be interviewed. The limitations in this sample should note that all subjects have student status. As previous research has found, education has a direct impact on individuals' decision to participate

in volunteer activities. Regardless of this, I aim to utilize these surveys as a means to find underlying motivations regarding why (or why not) individuals participate in volunteer activities.

I aim to make the interviews as brief and direct possible, I simultaneously attempted to approach the interview subjects in a conversational manner, so that I can understand the entirety behind their decision to participate (or not) in volunteer activities without creating an awkward atmosphere. Additionally, because smoking is often associated as a stress-reliever, students may feel less inclined to participate in more time-consuming interviews, which is why I plan on focusing on a small number of questions. For the interviews, the following question guideline was utilized.

- 1. Can you tell me your age, gender, and ethnicity?**
- 2. How would you define yourself as a smoker? (ex. Light smoker, moderate smoker, or heavy smoker?)**
- 3. Can you tell me a little bit about your participate in community service activities either at school or at home/ roughly how often?**
- 4. Can you talk to me about the value you place on your health?**
- 5. Can you talk to me about the value you place on your community and other individuals' health?**
- 6. Can you provide me with some information on why (or why not) you participate in volunteer activities.**
- 7. Can you talk a little about your decision to smoke cigarettes despite the scientifically proven negative health effects associated with their consumption?**
- 8. Follow-Up Question – After learning about the purpose of this research project, do you think that smoking cigarettes has had any impact on your volunteer efforts?**

The first three questions in this interview process will be targeted to learn the demographics and behaviors of sampled individuals (questions 1-3). The four three questions will be targeting main areas of interest in understanding the perspectives and

attitudes of student smokers at Union College (questions 3-7). The last question will be presented after the interview has been completed, and will aim to gain insight on their opinion of the research hypothesis and potential correlation between smoking and volunteering (question 8). After completing the interviews, student responses will be utilized to analyze the perspectives of student smokers and aim to make conclusions about attitudes towards tobacco utilization and volunteering.

### **2.2.2 Union College Policy Review and Discussion**

The second portion of the qualitative analysis focuses more closely on Union College's tobacco policies and the progression towards creating a tobacco-free campus. Additional in-depth interview results will be discussed, coming from a key faculty member who's had experience with the school's tobacco policy. An in-depth discussion on the Union College administration's perspective and plan for action will come from an in depth interview with Eric Noll, Chief Human Resources Officer at Union College. Discussion on the school's student smoking population will also be derived from information gathered through Dr. Steve Leavitt, Vice President of Student Affairs and Dean of Students. This discussion will touch on the changing attitudes of tobacco utilization, and the obstacles in creating a tobacco-free campus. A review of the current Union College policy on tobacco use will also be included in this discussion.

### **2.2.3 Qualitative Economic Considerations**

Within any research project, the economic consideration must be taken into account. The economic costs involved in carrying out this research study are non-existent. The sampled individuals that I aim to interview are easily accessible, as I am

currently a student at Union College with all locations needed within walking distance. While I could provide economic incentives to subjects for their participation in the interview process, I feel that I will be able to collect an adequate subject group without this step.

## **2.3 Quantitative Method**

### **2.3.1 Current Population Survey Data Analysis**

The quantitative portion of this analysis includes empirical research utilizing Current Population Survey data. Focusing on the relationship between smoking cigarettes and volunteering, the main hypotheses to be tested in the qualitative portion of this research include:

**Do smokers have decreased participation in volunteer activities? Is an increase in smoking associated with a decrease in likelihood of volunteer participation?**

The goal of this study is to see if Current Population Survey data supports the suggested null hypothesis. CPS data provides an array of information on individuals including volunteer participation rates, tobacco use, maternal characteristics, education levels, occupations, and regional characteristics. This analysis draws conclusions on the relationship between smoking and volunteering, utilizing CPS data from 2006 and 2010. To analyze this data, a CPS data file on tobacco use from August 2006 has been merged with CPS data on volunteer workers from September 2006. Additionally, a CPS data file on tobacco use from August 2010 has been merged with CPS data on volunteer workers from September 2010. Regression results of the data are weighted using the calculated supplement non-response weight provided in the CPS data set. The four data



sets used were combined using the economic data analysis tool, STATA. The data sets were merged together by matching the household identifier and person line number variables. These data sets include a variety of general information on the surveyed individuals in addition to information on their volunteer participation rates and usage of tobacco products. From these data sets, I chose to analyze surveyed individuals between the ages of 18 and 65, resulting in a sample size of 48,798 for 2006, and a sample size of 48,622 individuals for 2010. The data analysis results from 2006 and 2010 CPS data have been analyzed independently, as the surveyed subjects differ from year to year. Merging all four data sets together could alter the analysis results in unfavorable ways. While there is more recent CPS data available, including supplements in 2014, the data sets from 2006 and 2010 are the most recent data sets available that utilize the same subjects in both the tobacco and supplement, which is necessary for an accurate regression analysis.

### **2.3.2 Data Analysis Empirical Model:**

The goal of the econometric model introduced in this paper is to explore a possible relationship between tobacco users and their participation in volunteer activities. Many factors are able to impact individual's decision to participate in volunteer activities. The economic model utilized in this empirical analysis includes the factors of age, marital status, ethnicity, education, employment status, citizenship, metropolitan status, and regional location. The econometric model utilizes key independent variables on cigarette use in addition to variables for control in an attempt to analyze the relationship between smoking status and volunteer participation rates. Through a unification of these variables in an empirical equation, the specific

relationship between cigarette consumption and the probability of an individuals having previous volunteered can be interpreted. This research will attempt to support my hypothesis of cigarette consumption being a negatively influential factor in individuals' choice to volunteer.

$$\Pr (HAS\_VOLUNTEERED=1 | \beta) = \Phi (\beta_0 + \beta_1 EVERYDAY + \beta_2 SOMEDAYS + \beta_3 FORMERLY + \beta_4 AGE + \beta_5 MARRIED + \beta_6 FEMALE + \beta_7 BLACK + \beta_8 HISPANIC + \beta_9 OTHER + \beta_{10} HI\_SCH + \beta_{11} SOME\_COL + \beta_{12} MORE\_COL + \beta_{13} EMPLOYED + \beta_{14} UNEMPLOYED + \beta_{15} MSA + \beta_{16} NORTHEAST + \beta_{17} MIDWEST + \beta_{18} SOUTH + \beta_{19} IMMIGRANT)$$

The following variables (except for age) are 'dummy variables', only taking binary values of 1 or 0. The independent variables will be regressed on the dependent variable to assess their effects. The exemption of vocational variables should be noted, as large amounts of previous research suggest a direct correlation between blue-collar workers and increased cigarette use. Additionally, the lack of economic variables utilized is due their inconclusive nature, with capital having ambiguous effects on all other variables used. It should be noted that personal regression analysis has previously been conducted on these two data sets utilizing an empirical model that account for wage. The results of this analysis is not included in this research but it should be noted that the independent variable 'everyday', held statistical significance in all regression analyses. Similarly, this same variable help statistically significance when limiting the analysis to only include CPS subjects currently enrolled in universities. This empirical model was not utilized due to the low amount of CPS survey subjects enrolled in universities, and the corresponding educational programs not being limited to undergraduate degrees. It should be noted that these variables not included do have an effect on volunteering. As seen in the research conducted by Thoits and Newitt (2001),

individuals with higher socioeconomic resources, including wealth and education, having increased opportunities and likeliness to volunteer in society. This is a research area that could be further studied in order to potentially produce a more accurate empirical model for an analysis on the relationship between smoking and volunteering.

### **2.3.3 Defining Key Variables**

#### **Dependent Variable:**

Has\_volunteered – Individual has participated in volunteer activities within the past year of the survey given

#### **Key Independent Variables:**

Everyday – Individual smokes cigarettes on a daily basis

Somedays – Individual smokes cigarettes only some days

Formerly – Individual formerly used to smoke cigarettes

#### **Additional Independent Control Variables:**

Age – Age of the individual

Married – Individual has a present spouse

Female – Individual is of the female gender

Black – Individual is of African American decent

Hispanic – Individual is of Hispanic decent

Other – Individual is of ethnic origin outside white, black, or Hispanic

Hi\_sch – Individual has only obtained a high school level education

Some\_col – Individual has a portion of collegiate level education

More\_col – Individual has obtained a bachelors degree or higher

Employed – Individual is currently employed

Unemployed – Individual is currently unemployed

MSA – Individual resides in metropolitan statistical area

Northeastern – Individual lives in the northeastern US

Midwest – Individual lives in the mid-western US

South – Individual lives in the southern US

Immigrant – Individual is not a natural born citizen

### **2.3.4 Descriptive Statistics of CPS Data**

The descriptive statistics in Appendix 1.1 highlight the mean estimations of the variables used and the corresponding standard errors for 2006 data variables.

Descriptive statistics on the dependent variable, Has\_volunteered, indicates that 27.2 % of the sampled individuals participated in volunteer activities within the past year. The statistics additionally provide insight on the amount of smokers within the sample. Results indicate that 19.8% of sampled individuals are daily smokers and 3.7% smoke some days, but not regularly. The sample is also composed of 15.9% former smokers who no longer use cigarettes. Information on other key variables should also be noted, such as the average age of sampled individuals, being 40 years old, and the sample's gender composed of roughly 51% women. The demographic statistics show a sample composed of 68% white individuals, 11% black, 13% Hispanic, and 6% coming from other ethnicities. Educational statistics indicate a high amount of schooling in the sample, with 28% of having a bachelors degree or higher. Employment statistics additionally indicate approximately 74% of individuals being currently employed.

The descriptive statistics in Appendix 1.2 highlight the mean estimations of the variables used and the given variable standard errors for 2010 data. Descriptive statistics on the dependent variable, Has\_volunteered, indicate that 27.7% of the sampled individuals participated in volunteer activities within the past year. The statistics additionally provide insight on the amount of smokers within the sample. Results indicate that 13.5% of sampled individuals are daily smokers and 3.4% smoke some days, but not regularly. The sample is also composed of 14.4% former smokers who no longer use cigarettes. Information on other key variables should also be noted, such as the average age of sampled individuals, being 42 years old, and the sample's gender composed of roughly 51% women. The demographic statistics show a sample composed of 67% white individuals, 11% black, 15% Hispanic, and 7% of other

ethnicities. Educational statistics indicate a high amount of schooling in the sample, with 30% of individuals having a bachelors degree or higher. Employment statistics additionally indicate approximately 70% of individuals being currently employed.

#### **2.4 Union College Student Survey Data**

A quantitative portion will also include a brief data analysis of the Union College student body. This data analysis and discussion will prove relevant and useful regarding the qualitative analysis of Union College student interviews and the Union College policy discussion sections. The quantitative data on Union College students comes from multiple surveys provided by faculty members seeking knowledge on student attitudes and behaviors. Surveys to be analyzed include an on-campus student surveys conducted by Dr. Steve Leavitt, the Union College Vice-President of Student Affairs and Dean of Students. Additional surveys to be analyzed include the 2015 Union College student CORE alcohol and drug survey, and the 2015 Union College HEDS student survey.

## CHAPTER 3

### **3.1 Qualitative Results**

#### **3.1.1 In-Depth Interview Responses and Analysis**

The student interview portion of this research was conducted on 14 participants currently enrolled at Union College, all of which reported to be cigarette smokers. The demographics of the students' interviews can be seen below in Figure 1. The sample consisted of 10 males and 4 females ranging in age between 18 and 22. The interviews consisted of 3 brief questions on subjects' background and behaviors, 4 questions targeting main areas of interest in this research study, and 1 follow-up question about the research hypothesis (noted in Section 2.2.1). All questions were asked to subjects in a similar fashion. In order to gain the most honest and accurate answers from participants, the interviews were conducted in public and conveyed in a conversational manner rather than formal. After conducting these interviews, knowledge on the attitudes and behaviors of student smokers was gathered.

**Figure 1:** Demographics of Interviewed Students

| <b>Category</b>                                     | <b>Number of Subjects</b> |
|---|---------------------------|
| <b>Gender</b>                                       |                           |
| Male  | 10                        |
| Female  | 4                         |
| <b>Age</b>  |                           |
| 18  | 1                         |
| 19  | 2                         |
| 20  | 5                         |
| 21  | 5                         |
| 22  | 1                         |
| <b>Ethnicity</b>                                    |                           |
| White   | 12                        |
| African American                                    | 1                         |
| Indian  | 1                         |
| <b>Smoking Status</b>                               |                           |
| Light Smoker  | 9                         |
| Moderate Smoker                                     | 4                         |
| Heavy Smoker  | 1                         |
| <b>Smoker Type</b>                                  |                           |
| Situational   | 10                        |
| Habitual  | 4                         |
| <b>Number of Times Volunteered Within Past Year</b> |                           |
| 0   | 1                         |
| 1-2   | 4                         |
| 3-5   | 6                         |
| 5-7   | 5                         |
| 7+  | 1                         |
| <b>Total Subjects</b>                               | <b>14</b>                 |

### 3.1.2 Responses on Interview Topics

The first topic covered in the interviews aimed to gain insight on the perspectives of students' personal wellbeing and general concern for health. From the subject's responses, 12 of the 14 participants indicated that they had high levels of concern for fitness and health. Of these responses received from the interview question, 2 responses noted being NCAA Division III athletes on campus, 8 responses mentioned weekly workout routines at the gym, and 5 responses mentioned self-concern on dietary and eating habits. This interview question indicated nearly all of the interviewed individuals having a concern for their health despite choosing to smoke cigarettes. Furthermore, two interview responses described on a specific 'figure' that they were attempting to maintain through fitness and health. One student elaborated in this area, noting the presence of a stereotypical Union student body type on campus. Elaborating on this topic, one subject noted that Union College students are extremely healthy, with the large portion of students involved in athletics and intramural sports, noting obesity and unhealthy lifestyles as extremely uncommon on campus and looked down upon in some ways. These responses seemed interesting, as smoking individuals may be assumed to lack self-concern for body image and healthy lifestyle behaviors.

Pervious literature conducted by Castro (1989), specifically addressed the physicality of smokers, and suggested that heavier weighted smokers exhibit significantly unhealthier lifestyles than others in various aspects of their lives. Despite these students being smokers, because they still are concerned with their health and wellbeing, they may still be able to maintain healthy lifestyles in all other aspects

besides smoking cigarettes. In general, from the student responses it seems that the college atmosphere at Union encourages a healthy and active student body.

The next topic covered aims to gain insight on student attitudes about others' health and the value that they place on the surrounding community. Interviewed participants gave similar responses on this topic. Regarding concern for others' health, 12 of 14 responses showed strong empathy and awareness for peers and general individuals in need of aid. Of those concerned, responses varied, noting ethical values embedded internally, a necessary call of duty to help less fortunate individuals, internal reward through empathetic actions, and desire to be surrounded by those with similar health goals. Similar to interview area 1, the responses indicate the majority of interviewed individuals showing concern for the healthiness and decisions of individuals other than themselves. Of the two subjects that showed a lack of serious concern for others health when asked about the topic responded with an explanation of how personal behavioral decisions, healthy or not, should not be judged by others. The other subject indicating a lack of concern for others' health seemed slightly taking back by the question, and instead described stressful college academics, and a lack of ability to take time away from personal concerns while in school. This specific subject seemed to stray away from a direct response to the interview question, for unknown reasons.

This respondent could correlate with previous research conducted by Park (2009), who found that smoking cigarettes is highly correlated to high stress levels. Similar, research conducted by Caplan, Cob, and French (1975) also found that individuals were more likely to quit smoking when they had lower levels work load and personal responsibilities. Some of these students decision to smoke cigarettes may de



affected to the rigorous academics of Union College and their ability to utilize tobacco as a stress-relieving tactic. This topic was included in these smoker interviews because of the negative health effects on others through second hand smoking and unintended peer influence to use tobacco products.

The third topic specifically addressed community service perspectives and the value that individuals place on volunteering. This interview question produced mixed results, with 8 individuals showing strong support and high value in community service, and 6 individuals showing a lack of support and inefficiency in community service. From the responses supporting community services, responses included individuals feeling a need to help the less fortunate, and an internal ability to better the community. Some responses indicated that volunteering was seen as a responsibility as an educated individual. Similarly, research previously conducted by Thomas, Musick, and Wilson (1998), argues that the act of volunteering is a 'civil duty' that they are obligated to perform in society, and is influenced by societies expectations. Other responses included volunteering as an opportunity for personal growth. Relating to previous research conducted by Schervish and Havens (1997), one aspect leading to increased participation regards individuals seeing the behavior as self-beneficial. With some Union College student responses mentioning the opportunity for personal growth, this student behavior may have more of an intrinsic motive than commonly perceived.

These responses indicate that a large portion of interviewed individuals actively support community service, and enjoy their volunteer experiences. On the contrary, individuals who lacked support for community service efforts provided reasoning including ineffectiveness of their volunteer time, an unnecessary expectation as a Union

College student, as well as an inability to make a noticeable difference. The majority of students denoting community service value mentioned the surrounding area of Schenectady, with one response describing it as an “unfixable” community. Additionally, another subject elaborated on their opinion, explaining that the surround Schenectady area offers little to Union College students, allowing for a lack of empathy to provide support to the area. An additional response mentioned a feeling of lacking safety while off-campus in Schenectady, and a lack of desire to immerse in the community outside of Union. Furthermore, another response indicated that ineffectiveness in community service efforts, suggesting that they only target those who seek out help, rather than having an ability to aid the community as a whole. These responses prove interesting, as many of these justifications could potentially be solvable through increased community service and support.

Despite this, previous research conducted by Boss (1994), indicates that participating in community service as a college age student is an internal decision that is not substantially influenced by outside sources such as society and peers. Despite the majority of Union students participating in community service, from this perspective it can be justified that a student’s internal perspective may be of greater value to them than the expectations of fellow students and the college. Overall, the results from this question seemed out of place when looking back on the previous questions responses regarding the concern and value placed on others. While almost all responses indicated a general concern for the wellbeing of others, answers seemed to be mixed when specifically targeted toward perspectives on volunteering.

### 3.1.3 A Decision To Smoke?

The last question proved to be the main area of interest in these interviews, attempting to gain insight into the decision to smoke cigarettes as a student. Results from this interview question presented varying methods of internal justification in 13 of the cases, and 1 subject acknowledging their negative decision and lacking any reasoning for their decision to smoke. The internal justification responses showed an array of differing perspectives on the harm associated with smoking cigarettes.

One of the main overlapping justifications concerned the Union College atmosphere, and the status of being a college student. Justification in this area included individuals noting smoking cigarettes as a fairly normal habit for students around campus, not carrying any stigma with the action. Some responses indicated that smoking cigarettes only occurred during times of high academic stress, and were utilized to calm nerves. Subjects additionally reported to have a lack of concern for addiction, with 2 participants indicating that they would never smoke cigarettes after graduating from college. A previous study conducted by Slovic (2005), found similarly that young smokers give little or no conscious thought to risks or to the amount of smoking they will be doing. Instead, the research indicates that these individuals are driven to smoke by the “affective influences” of the moment, with most expecting to be able to stop soon or at their own will. These findings correlate to the interviewed student smokers, who fail to acknowledge any potential difficulty in ceasing their actions at a later time.

An additional overlapping justification was smoking as a social behavior, also associated partying and drinking alcohol. The majority of responses included social

justification in some form, with responses commonly noting smoking “only on weekends”, “only at parties”, “only when intoxicated”, and “only when I’m with my friends”. Responses in this category showed a general lack of concern for the negative health effects of smoking, for some reason assuming that smoking with others or when intoxicated had differing effects than otherwise. Previous research completed by Carmody et al. (1985) supports these findings. In their research, they conclude that both smokers and former smokers were more likely to drink higher amounts of alcohol and coffee when compared to non-smokers. These students who smoke cigarettes may be members of the Union population that participate in drinking alcohol more frequently than others. Furthermore, peer pressure also played a role in internal justification, with responses noting that they never purchase cigarettes themselves. One respondent elaborated, noting that they “don’t even enjoy smoking”, but would smoke cigarettes at parties in-group settings to fit in with their peers. Additional justification came from one participant noting to only smoke cigarettes when they were “caught up in the moment”, and not thinking rationally about their decisions. Similar to these findings, researchers Spillane, Smith, and Kalher (2010) found that personality characteristics associated with impulsivity influence the use and dependence of cigarette and other nicotine usage. With smokers often being more impulsive than others, these student smokers may be more susceptible to utilizing cigarettes in social environments where they see peers and social groups smoking without indicating concern.

Another less common form of justification was seen in 3 responses, all of which to some extent mentioned the desire to live in the moment. These responses indicated a

lack of concern for future personal health problems, indicating that occasional smoking was acceptable as an undergrad. One specific response noted college as “the only time to experiment”, with a desire to try new things, good and bad, before graduating.

Only one response internally justified being a smoker, despite knowing the negative harm being inflicted on their body. This respondent indicated that they had started smoking in high school, and was unable to give it up when they came to college. This respondent mentioned a prior attempt to stop smoking cigarettes, but was unsuccessful. The respondent noted the harm already done to their body, yet justified continuing to smoke cigarettes noting, “the damage is already done”. While responses similar to this were extremely limited in the interview sample, previous literature by Norman, Conner, and Bell (1999) indicates overlapping problems in this subjects approach and perception of smoking. In their research, they conclude that successful smoking interventions must focus on increasing individuals’ perception of self-control and potential to relapse. With this student failing to acknowledge any ability of self-control, they are clearly prone to continue smoking cigarettes in the future.

The responses from this interview question showed a large amount of internal justification for smoking cigarettes, with the majority lacking a concern for the negative health effects inflicted on their bodies. Internal justification in smokers was also noted in the research conducted by Claude Steele (1988), who noted that these individuals tend to use methods of ‘internal dissonance’ as justification. In his work he notes that smokers often prolong quitting, deny health risks, and rationalize the benefits of smoking cigarettes in order to continue their behavior. All of the student responses in these interviews seem to use a justification method that aligns with these research

findings. From the responses, it is clear that the interviewed individuals do not think that their smoking status has an effect on which they are as a person, or their other behavioral decisions in life.

### **3.1.4 Follow-Up: Correlation Between Smoking and Volunteering**

After the interviews were conducted, an overview of the research project was described and a follow-up question was asked regarding their opinion of any influence that smoking may have on their decision to volunteer. From the responses to this question, all subjects refuted any influence that smoking cigarettes has on their volunteer behaviors. All the subjects to some extent concluded that volunteering was a personal choice unrelated to other behavioral decisions. The respondents seemed to indicate that their personal decision to smoke cigarettes had little influence on their rest of their lives. This response may prove to be another method of internal justification, arguing that smoking is not negatively impacting them. Furthermore, the majority was intrigued with the hypothesis being tested, yet refuted any potential negative correlation between smoking and volunteering. Relating to previous literature, the research of Shalom Schwartz (1973), found that personal norms has little impact on volunteering for individuals who deny self-responsibility. Noting this, these students who often find internal justification in their smoking behaviors, may be not negatively effecting their alternative behaviors, including volunteering in community service efforts.

### 3.1.5 Overlapping Response Themes

After conducting the interviews with students, it is clear that there are key overlapping themes in their responses, which effect answers in all of the key areas of interest. First, the participants in this study lack a self-identity as a smoker. From the interview participants, 9 individuals reported to be light smokers, 4 reported to be moderate smokers, and only 1 reported to be a heavy smoker. Despite this, the majority of interviewed subjects described smoking on a frequent basis, yet refused to acknowledge themselves as heavy smoking individuals. Furthermore, identifying as a situational smoker proved be a strong factor when noting reasoning behind smoking cigarettes. With 10 students claiming to be situational smokers, these individuals were able to utilize this status as a method to fight any claim of potential addiction. When reporting as a situational smoker, any stigma or connection to habitual smokers is removed, able to justify their actions as being merely temporary. Despite this, almost all the responding situational smokers reported frequently smoking on weekends and in situational occasions. It is hard to define where the line from situational smoker turns into habitual smoker.

One research study on smokers conducted by McArthur, Waldron, and Dickson (1958), notes individuals smoking status is determined by whether or not they have been introduced to the habit as a result of social influences. With many of these college students justifying their actions as situational and social behaviors, these individuals' may be less inclined to determine their own smoking status as anything other than what their peers do. In the case of this study, it does not seem that most peers self-identify as habitual smokers, possibly leading to these student smokers ability to see

past their actions. This inability to self identify correctly could be another method of internal justification used to continue smoking.

An additional overlapping theme came with the influence of Union College. A large portion of responses for maintaining personal health, volunteering in the society, and deciding to smoke all noted a desire to fit in with the Union College student population 'norm'. The college atmosphere played a large role in the responses to all interview questions. In the research completed by Schervish and Havens (1997), they propose that the major factors influencing willingness to volunteer come from surrounding "households and communities of participation". The community surrounding individuals at Union College specifically plays a key role and aligns well with the previous research completed in this area. Academic stress contributed to some individuals' responses regarding a lack of value on community service participation along with a desire to utilize cigarettes on occasion. The results of this interview show that the Union College population places expectations on its students in various aspects of their lives, and the interview subjects behaviors are often influenced by these expectations.

Furthermore, an additional overlapping theme came with a lack of concern for health problems associated with smoking cigarettes. Even the individuals that did acknowledge the negative health implications refused to show concern for their actions. This overlapping theme begs the question of what education on tobacco these individuals have received in their lives, and their ability to negate internal fear while smoking. Previous research completed by Chaloupka (1990) found similar results in his study of smokers, suggesting that they have tendencies of behaving "myopically",



lacking long-range perspectives. These methods of internal justification by students may be partially due to tendencies of desire for immediate reward, lacking to understand the long-range negative harm that they are inflicting on their bodies.

Lastly, an overlapping theme not yet touched on is Greek Life. It should be noted that at Union College, 52% of those eligible participate in Greek Life. Furthermore, 10 of the 14 interviewed students currently participate in Greek Life. Being involved in these societies are associated social activities, including parties and drinking alcohol. Responses for individuals who justify smoking in social settings and while drinking alcohol may be influenced by their Greek peers to participate in this activity. Furthermore, Greek Life also requires philanthropy and community service events to be completed each term. Having easier access to community service opportunities and the ability to volunteer with fellow Greek members could influence interviewed participants to volunteer more often than they would if they were not involved in these societies. It should be noted that the single participant reporting not having participated in any community service activity within the last year was 18, making them ineligible to participate in Greek Life at Union. Because of the large portion of Union College students involved in Greek Life, it is difficult to conclude the influence that it may have on interview responses.

### **3.1.6 General Analysis of Interview Participants**

The interviews conducted on 14 Union College students led to a better understanding of the perspectives and behaviors of college-age smoking individuals. The original purpose of this qualitative analysis was to gain insight to the potential negative relationship between smoking cigarettes and volunteering in community

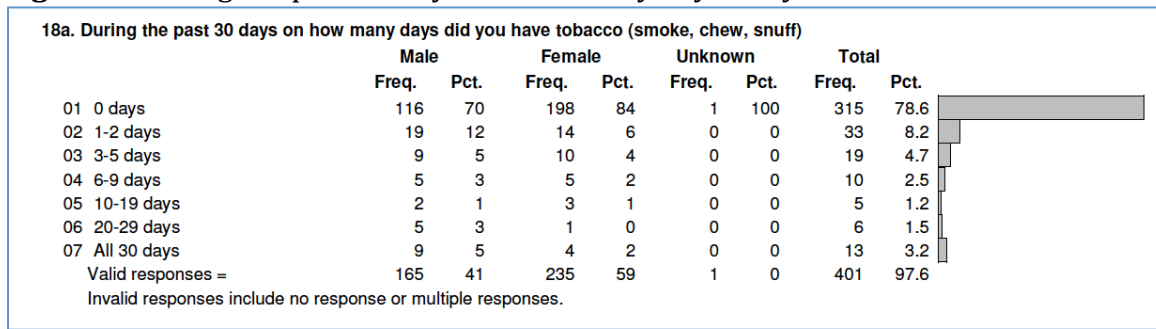
service efforts. From the interviews, it is clear that Union College has a big influence on the behaviors and perspectives of student smokers and their willingness to volunteer. Seeing as the sampled individuals were all college-age students, no direct relationship between these variables can be concluded due to the various social and educational influences in their lives. Despite this, conclusions are able to be drawn regarding the relationship between education, smoking, and volunteering in society, and will be discussed in the concluding sections of Chapter 4.

### **3.2 Union College Policy Change:**

#### **3.2.1 Who is using Tobacco?**

With a changing school policy planning on banning all forms of tobacco use on campus, it is important for the school to have an understanding of how it will affect the student body. Utilizing data compiled from the 2015 Union CORE alcohol and drug survey that was conducted on campus, there are a few questions that touch on tobacco use that can help understand the portion of students who smoke. This survey conducted on Union College students received an average of 401 responses per question. One of the questions asks participants how often they utilize tobacco products. The data indicates that around 79% of students on campus have not utilized tobacco products within the past month. Furthermore, of the 22% that have, approximately 3% are daily smokers, 8% only reported smoking once or twice, and around 10% reported some times.

**Figure 1.** During the past 30 days on how many days did you have tobacco?



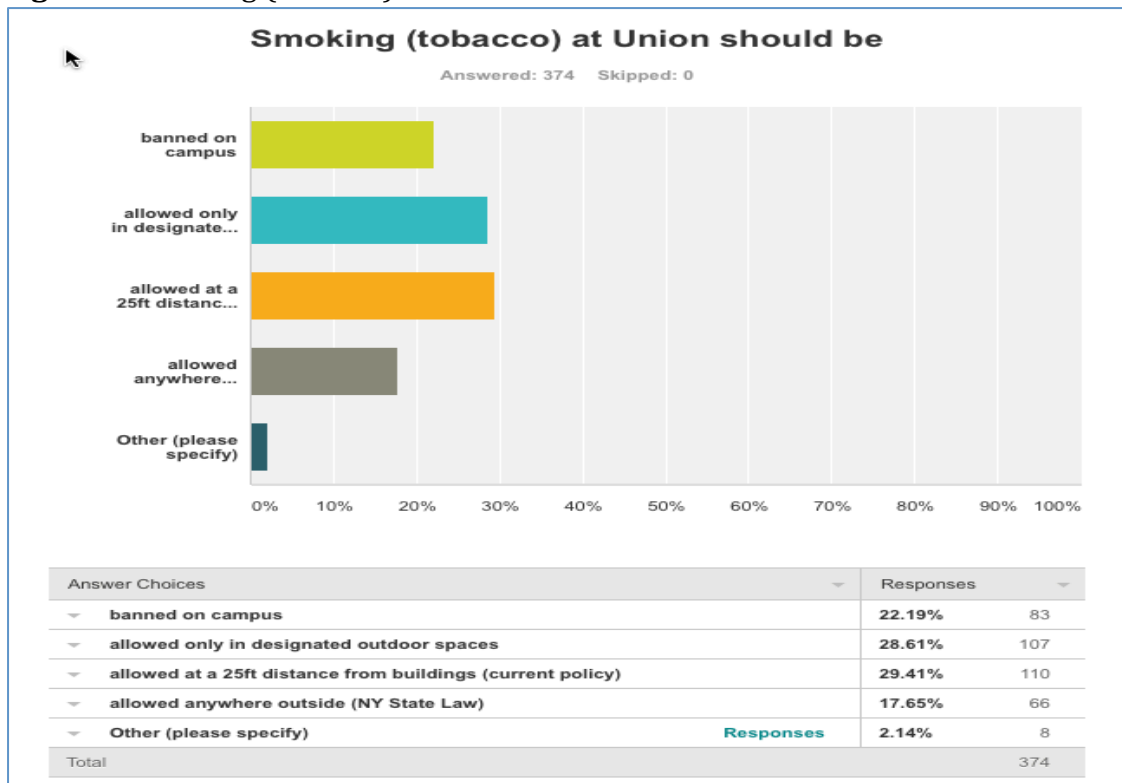
This data is important when looking at the results from interviews conducted on campus. This data shows that the smoking population at Union College is a very small portion of the student body. Furthermore, with a policy change soon to come, this information helps administration in understanding the potential effects of the new rules to be put in place. The results of this survey information indicate that the majority of the student body will not be affected by a ban on tobacco products.

### 3.2.2 Student Perspective

Another important factor to account for when changing a school policy is student opinion. While school administrators have the final say when it comes to school policy, it is also crucial to know if the student body will support a policy change. A 2014 on-campus Union College Survey completed by Steve Leavitt, Vice President for Student Affairs and Dean of Students, asked students about their opinion on the tobacco policy in place at Union. The survey conducted received a total of 374 responses about what the best tobacco policy at Union should be. From the data collected, the current policy in place, which allows for individuals to smoke 25 feet away from buildings, received the highest amount of responses at approximately 29%. On the opposite end of the spectrum, the more radical response of tobacco being banned on campus received 22%

of responses, the third highest out of the results. Out of all the options for students to choose from, approximately 75% chose an option that allowed for students to continue utilizing tobacco products on campus in some form.

**Figure 2.** Smoking (tobacco) at Union should be?

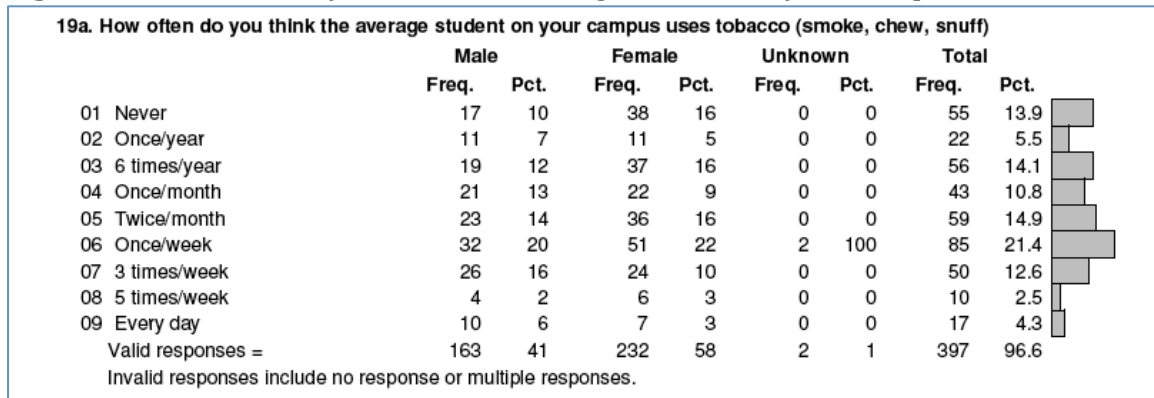


The responses from this survey are important when looking at a policy change on campus. Administrators should be educated on the opinions of the student body, in which the majority do not agree on a complete ban on tobacco products. On the contrary, having a large portion of students desire a complete ban on tobacco products indicates that some of these students strongly desire for tobacco use to not occur.

In a similar manner, it is also important to analyze the student body's perception of the smoking population at Union College. From the 2015 Union CORE alcohol and drug survey, one particular question asked students how often they thought the

average Union College student utilizes tobacco products. This particular question was very interesting when comparing the responses to that in Figure 1. The results from the 397 responses indicated that approximately only 14% of the sampled individuals think that the average Union student never smokes, while the responses from Figure 1 indicate that roughly 79% of the same sampled individuals had not utilized tobacco in the past 30 days. Furthermore, the results indicate that 19.4% of sampled individuals think the average union student utilizes tobacco at least 3 times per week. Comparing this to Figure 1, it can be seen that of these same individuals only 5.9% responded to utilizing tobacco more than 10 times per month. The results from this survey also indicated that the highest response from the sampled individuals, 21.4%, thought that the average Union student utilizes tobacco at least once per week.

**Figure 3.** How often do you think the average student on your campus uses tobacco?



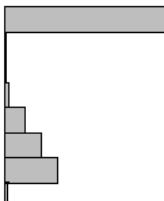
Results from this survey are important when analyzing the student body's perspective on the correct tobacco policy at Union College. It should be noted that while the majority of students reported that the best tobacco policy should allow tobacco use on campus in smoke from (Figure 2), these same students might be uneducated on the actual smoking demographic of their student body. A change in Union's policy to a

tobacco-free campus would most likely affect fewer individuals on campus than perceived by students. While these students think that the average Union College student utilizes tobacco, this is actually not the case.

### **3.2.3 The Influence of Union College:**

From the interviews conducted, multiple responses indicated some sort of influence that helped lead to the use of cigarettes on campus. The “college atmosphere” that Union produces was claimed to be a key contributor and internal justification for smoking cigarettes as a student. When researching the use of tobacco at Union College, it is also important to analyze the influence that the school may have on users. From the 2015 Union CORE alcohol and drug survey, some questions touched on this topic, which should be analyzed when considering a change in school policy. One particular question asked participants when the first time they utilized a tobacco product was, and received 405 responses. The results in Figure 4 indicate that 58.3% of the sampled individuals had never utilized tobacco products in their lives. Of the 41.7% of respondents that have utilized tobacco in their lives, approximately 46% of these individuals first tried tobacco products between the age of 18 and 20. Furthermore, approximately 31% of these individuals first tried tobacco between the age of 16 and 17.

**Figure 4.** At what age did you first use tobacco?

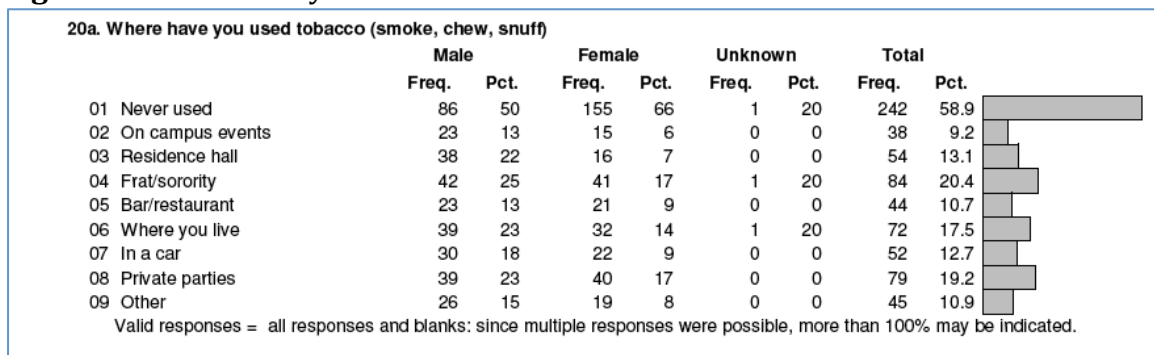
| 16a. At what age did you first use tobacco (smoke, chew, snuff) |       |      |        |      |         |      |       |      |   |
|---|-------|------|--------|------|---------|------|-------|------|---|
|   | Male  |      | Female |      | Unknown |      | Total |      |   |
|   | Freq. | Pct. | Freq.  | Pct. | Freq.   | Pct. | Freq. | Pct. |   |
| 01 Never  | 82    | 49   | 153    | 65   | 1       | 50   | 236   | 58.3 |  |
| 02 Under 10   | 1     | 1    | 0      | 0    | 0       | 0    | 1     | 0.2  |   |
| 03 10 - 11  | 0     | 0    | 1      | 0    | 0       | 0    | 1     | 0.2  |   |
| 04 12 - 13  | 3     | 2    | 2      | 1    | 0       | 0    | 5     | 1.2  |   |
| 05 14 - 15  | 15    | 9    | 13     | 6    | 0       | 0    | 28    | 6.9  |   |
| 06 16 - 17  | 31    | 18   | 22     | 9    | 0       | 0    | 53    | 13.1 |   |
| 07 18 - 20  | 35    | 21   | 41     | 17   | 1       | 50   | 77    | 19.0 |   |
| 08 21 - 25  | 1     | 1    | 3      | 1    | 0       | 0    | 4     | 1.0  |   |
| 09 26+  | 0     | 0    | 0      | 0    | 0       | 0    | 0     | 0.0  |   |
| Valid responses =   | 168   | 41   | 235    | 58   | 2       | 0    | 405   | 98.5 |   |
| Invalid responses include no response or multiple responses.    |       |      |        |      |         |      |       |      |   |

The responses from this survey are important in analyzing the impact that the Union College atmosphere may have on the decision for individuals to utilize tobacco products. Knowing that the average age of a Union College student is between the ages of 18 and 22, it is interesting to see that nearly half of individuals that have used tobacco products first tried them as a student at Union College. This result can aid administration in understanding the potential impact of the current tobacco policy in place, which may promote the acceptance of tobacco use to some degree. It can be assumed that if there were to be a tobacco-free policy in place, the amount of students who first tried tobacco products as a student at Union College would be decreased. Promoting a tobacco-free campus would create an incentive for students to not utilize tobacco products because of negative repercussions that would be associated with it.

Similarly, the in-depth interviews conducted involved a large majority of students participating in Greek life on campus. Many of the interviewed students also indicated smoking on a situational level rather than as a habitual behavior. While it is unable to be certain, the influence of Greek life may play a key role in these students decision to participate in smoking cigarettes. Greek life at Union College often involves participating in weekly parties and social gathering with peers, which may allow for an

increased amount of interaction with other smoking individuals, leading to peer pressure or smoking as a social activity. An additional question on the 2015 Union CORE alcohol and drug survey asked participants where they have used tobacco products in their lives. Similarly to the data collected in other questions, results show that 58.9% of responses indicate students never having utilized tobacco products. The highest results of the individuals that do utilize tobacco products was “Frat/Sorority”, collecting 20.4% of responses. The second highest response from tobacco-using individuals was “Private parties”, collecting 19.2% of responses. Other top responses included “Where you live”, with 17.5% of responses, and “Residence Hall”, with 13.1% of responses.

**Figure 5.** Where have you used tobacco?



The results from this survey question further emphasize the possible role that Union College’s Greek life and current policy contribute to students’ decision to utilize tobacco products on campus. With Greek life fraternities and sororities being the highest utilized location for tobacco products by the surveyed individuals, the social influence of these groups could influence students’ tobacco-related decisions. With the majority of the interviewed participants in the qualitative study indicating smoking only as a situational behavior, peer influences and social gatherings are likely to



increase internal justification for their behaviors, as tobacco use at private parties was the second highest response. Furthermore, with Union's policy change in the future, it should also be noted that that tobacco use at residence halls received a large amount of responses. By changing the school's policy on tobacco, students will not be able to utilize these products as freely as they currently are, which will most likely decrease the amount of tobacco use around these campus owned buildings.

### **3.2.4 Volunteering**

The in-depth interviews conducted on campus indicated a high level of student participation in volunteer activities. After completing these interviews, an understanding of the Union College student body's participation in volunteer activities is needed to accurately understand the common behaviors of students. The HEDS Union College Survey has been conducted every 2-3 years, with the most recent available data coming from 2010. The 2010 survey received 409 responses from Union College students. One question in this survey asks students how often they participate in volunteer activities. The results shown in Figure 6 compare Union students participation to other colleges who have conducted HEDS Surveys. From the survey question, Union College students have volunteered at increasing rates throughout the years, with 69.4% of sampled students volunteering on some level in 2010. Furthermore, 42.3% of sampled students volunteered two hours a week or less, and 17.6% of sampled students volunteered between 3-5 hours a week. The 2010 survey responses indicate that Union students volunteer at higher rates than the peer colleges that are being compared.

**Figure 6. Time Spent Volunteering: Union College Students Vs. Peer College Students**

| Q. 15 TIME SPENT IN VARIOUS ACTIVITIES: |       |        |       |        |       |        |       |        |       |        |       |        |       |        |      |        |
|---|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|------|--------|
|   | 2001  |        |       |        | 2005  |        |       |        | 2008  |        |       |        | 2010  |        |      |        |
|   | Union |        | Peers |        | Union |        | Peers |        | Union |        | Peers |        | Union | Peers  |      |        |
| Volunteering                            |       |        |       |        |       |        |       |        |       |        |       |        |       |        |      |        |
| None                                    | 168   | 48.8%  | 925   | 50.1%  | 156   | 44.8%  | 1,143 | 48.2%  | 123   | 37.4%  | 569   | 46.0%  | 125   | 30.6%  | 895  | 37.3%  |
| 2 Hours a Week or Less                  | 109   | 31.7%  | 558   | 30.2%  | 121   | 34.8%  | 722   | 30.5%  | 130   | 39.5%  | 407   | 32.9%  | 173   | 42.3%  | 917  | 38.2%  |
| 3-5 Hours/Week                          | 44    | 12.8%  | 205   | 11.1%  | 46    | 13.2%  | 278   | 11.7%  | 55    | 16.7%  | 153   | 12.4%  | 72    | 17.6%  | 356  | 14.8%  |
| 6-10 Hours/Week                         | 12    | 3.5%   | 85    | 4.6%   | 12    | 3.4%   | 121   | 5.1%   | 13    | 4.0%   | 53    | 4.3%   | 29    | 7.1%   | 143  | 6.0%   |
| 11-15 Hours/Week                        | 3     | 0.9%   | 37    | 2.0%   | 8     | 2.3%   | 49    | 2.1%   | 7     | 2.1%   | 34    | 2.7%   | 5     | 1.2%   | 46   | 1.9%   |
| 16-20 Hours/Week                        | 2     | 0.6%   | 13    | 0.7%   | 1     | 0.3%   | 24    | 1.0%   | 1     | 0.3%   | 14    | 1.1%   | 2     | .5%    | 25   | 1.0%   |
| More Than 20 Hours/Week                 | 6     | 1.7%   | 23    | 1.2%   | 4     | 1.1%   | 33    | 1.4%   | 7     | 2.1%   | 7     | 0.6%   | 3     | .7%    | 20   | .8%    |
| Valid Cases                             | 344   | 100.0% | 1846  | 100.0% | 348   | 100.0% | 2,370 | 100.0% | 329   | 100.0% | 1237  | 100.0% | 409   | 100.0% | 2402 | 100.0% |

The results from this survey question are important in understanding the level that students at Union College volunteer. This information indicates that Union students are more likely to volunteer than students at other schools, and shows that the majority of students volunteer on some level. When looking at the relationship between smoking students at Union College and their volunteering characteristics, it should be noted that volunteering is in no way an uncommon activity at Union, and is promoted by school administration and fellow students. This relationship can be important when trying to interpret the decision for smoking student to volunteer, as they have more pressure on them to participate in these activities than they would if they were not Union students.

Similarly, the participation in volunteer activities by Union College students can also be broken down by grade. The HEDS Union College Survey provides information on which year students participate more in volunteer activities, comparing the results to peer colleges. From the 2010 survey results, it can be seen that 3<sup>rd</sup> year Union College students participate the most, followed by 2<sup>nd</sup> year students, then 4<sup>th</sup> year students, and lastly 1<sup>st</sup> year students. The 2010 survey results also indicate that Union Student volunteer at higher rates in every grade compared to peer colleges.

**Figure 7.** Time Spent Volunteering By Grade: Union College Students Vs. Peer College Students

| Q.13M PARTICIPATION IN VOLUNTEER SERVICE, BY YEAR: |        |        |        |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
|  | 2001   |        | 2005   |        | 2008   |        | 2010   |        |
|  | Union  | Peers  | Union  | Peers  | Union  | Peers  | Union  | Peers  |
| 1st Year Volunteer Service                         | 63.9%  | 58.8%  | 58.5%  | 63.8%  | 59.1%  | 69.1%  | 63.9%  | 62.3%  |
| 2nd Year Volunteer Service                         | 75.4%  | 69.3%  | 73.9%  | 69.6%  | 82.9%  | 72.8%  | 83.8%  | 75.8%  |
| 3rd Year Volunteer Service                         | 73.2%  | 57.9%  | 75.8%  | 61.9%  | 79.3%  | 62.7%  | 84.2%  | 72.0%  |
| 4th Year Volunteer Service                         | 69.4%  | 56.8%  | 67.6%  | 60.8%  | 78.8%  | 62.4%  | 79.3%  | 68.7%  |
| Valid Cases  | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

*Percentages may sum to more than 100.0%. Multiple Responses Allowed.*

This information can be important when looking at the relationship between smoking cigarettes and utilizing tobacco. It is clear from this data that Union students volunteer at higher rates than most college students in peer universities. Furthermore, the results indicate that students start participating at higher rates in their 2<sup>nd</sup> academic year. For Union students this may be correlated with Greek life, which is only open to students that are at least in their 2<sup>nd</sup> year of education. Greek life is known to be heavily involved in philanthropy events with their members. With the in-depth interviews coming from a large amount of students in Greek life, participating in volunteer activities for these individuals could be influenced by their role in the Greek community.

### 3.2.5 Union College Policy Change - Faculty Interview

An interview was conducted on Eric Noll, Chief Human Resources Officer at Union College, on the process involved in implementing this new tobacco policy on campus. The interview began with an overview of the timeline for Union College implementing a tobacco-free campus. Eric elaborated on the lengthy process that the college administration has gone through over the past several years while attempting to eliminate tobacco use on campus. Originally, cigarette smoking was allowed in dorms

and anywhere on campus, but this policy was changed roughly 10 years ago when smoking was no longer permitted inside buildings. The college policy then changed to allow cigarette smoking 25 feet away from buildings on campus, which is now the current policy in place on the campus. The idea of a completely tobacco-free campus did not come into light until approximately 7 years ago, when administrators began to realize how the current policy could be negatively effecting the smoking population on campus as well as non-smoking individuals. Eric noted that Union College is currently one of the only universities in the Capital District of New York that allows smoking on campus, a statistic that makes administrators feel behind in the fight against the negative health implications of tobacco use. After the hiring of Dr. Robert Kelly in November of 2014, who is currently the Chief of Staff for Union College and Chair of the Task Force for a Tobacco/Smoke-Free Union, the campaign to eliminate tobacco use was kicked into high gear. Over the past two years, the college conducted both faculty and student surveys around campus geared toward tobacco use and the desire for a tobacco-free campus environment. After analyzing survey results and conducting administrative meetings, the college began drafting a new tobacco policy that would ban the use of any tobacco products on campus. While the formal policy has still not been released to the student body, the Union College administration is firm on the implementation of this new policy beginning in 2016.

The interview with Eric additionally touched on the reasoning behind administrators' decision to implement the new policy. Answering the question, Eric explained how the main focus of the initiative targets the negative health effects that tobacco has on its users, with no positive attributes presented by the substance use.

Furthermore, he explained how administrators feel that it is unfair for non-smokers to be susceptible to second hand smoking around campus and outside buildings. While littering cigarette butts does not seem to be a current issue at Union, this new policy promotes a cleaner campus by ensuring that there are no cigarette butts being thrown on the ground.

Another portion of the faculty interview touched on the key obstacles that the administration has seen in its effort towards creating this policy. Surprisingly, Eric stated that the process has actually been relatively easy for the school administration to put in place, but has been a very lengthy process due to many unique concerns that need to be addressed. One primary concern is for the smoking population at Union College, and the need to present this group with help for associated habits or addiction. With this concern in mind, Union has offered support for those who wish to discontinue smoking, by offering cessation programs to administration, faculty, students, and staff through the health center and counseling center. The administration even offered an on-campus hypnosis treatment session for those interested in an alternative method to stop smoking. Another concern with this new policy change comes with smokers who decide to take their smoking off campus. Eric mentioned that some administrators were concerned about the potential for groups of student smokers to be more likely to gather off-campus where they can freely utilize tobacco products without problem. If this type of student behavior does begin to occur with the policy change, the safety of these students could be jeopardized by placing themselves at risk off campus locations. Lastly, an additional concern touched upon in this interview regarded the types of tobacco that will be banned from campus. This new policy will ban all forms of tobacco including

electronic cigarettes as well as chewing tobacco. In the eyes of administration, it is going to be extremely hard to monitor some of these forms of tobacco use, and will mainly be up to the students to make smart decisions and follow school policy.

With some concerns for administration with this new policy, the next portion of the interview questioned Eric about how the school and administration plan on enforcing the new policy. From an administration standpoint, they are hoping for the Union College community to come together as a whole and work toward promoting this new policy on campus, rather than having to rely on disciplinary actions using campus safety. Throughout 2015, administrators have placed banners and signs all throughout the campus to notify the community about the upcoming change in tobacco policy. This new policy change was also promoted on the Union College website and in the school newspaper. Through raising awareness to this new type of campus, administrators hope that students will follow and promote this new policy as a group. In the interview, Eric noted the administration's desire for "community policing", so that when a student sees a peer smoking on campus, they feel comfortable approaching them with a kind reminder of the new policy. Despite this, this new tobacco policy will embed within the rest of campus policy, and a policy violation of any nature will be subject to disciplinary action by the school. Union College has a cumulative disciplinary 10-point system in place, with students receiving a written warning at 1 point, an educational sanction at 2 points, and increasing sanctions with more points. Currently, a smoking policy violation carries a disciplinary sanction between 1 and 2 points. While this disciplinary system is in place for students, there is no current system in place for faculty and staff, but administrators are confident that Union employees will follow the new policy. For those

who break policy guidelines, they may be subject to alternative administrative sanctions.

This interview with Eric Noll allows for an understanding of the process that Union College administration has gone through to create a tobacco-free campus. It is clear that while the process for administration has been smooth and lacks substantial concerns, there are always areas in need of consideration when changing any campus-wide policy. The Union College administration seems confident that this new policy change will be extremely successful and will promote a healthy and educational campus atmosphere for the Union College population throughout the future years.

### **3.3 Quantitative Results**

#### **3.3.1 Empirical Analysis**

The empirical results indicate a statistically significant negative relationship existing between cigarette consumption and participation in volunteer activities. Appendix 2 represents the regression estimates utilizing a Probit regression of all variables on having volunteered within the past year. The table differentiates the marginal effects on volunteer participation rates between the whole sample, men, and women. Appendix 3 provides further insight on the marginal effects of independent variables with additional probit regression results, controlling for specific variables in the economic model. Through variation in control of differing variables in the economic model, I am able to analyze the magnitude to which these variables influence volunteer participation and their impact on the effect smoking status has on volunteering.

### 3.3.2 Marginal Effects With All Variables Controlled

The provided data indicates that smoking either daily or some days is associated with a decreased probability of having participated in volunteer activities, and can be seen in Appendix 2.1 and 2.2. Looking at the 2010 CPS data analysis in Table 2 (APPENDIX 2.1), it can be seen that smoking daily decreases probability of volunteering by 11% and smoking some days decreases probability by 6.3%. Results in Table 2 additionally show an increased negative effect of cigarettes on volunteer participation in women over men. The data shows that women smoking daily are associated with a decrease in the probability of having volunteered by 12.7%, while men who smoke daily are only associated with decreased participation by 9.6%. Additionally, key variables can be noticed in Table 2. Regardless of gender, the effect of marriage has a significant positive impact on the probability of volunteering, increasing the probability by roughly 10% for the whole sample. Educational variables are noted to have the highest effect on volunteer participation, being substantially more influential than the effects of smoking cigarettes either daily or some days. In Table 2, it can be concluded that as education increases, so does the probability of having participated in volunteer activities. Looking at the whole sample, we see that obtaining a high school degree leads to an increased probability of volunteering by roughly 9%. Additionally, obtaining some college education leads to an increased probability of roughly 19%, and obtaining a bachelors degree or higher is associated with an increased probability of roughly 29%. When looking at the effects of education on volunteering across genders, evidence supports that females are affected by obtaining some or more college education more than males, when it comes to their volunteer participation. Females that obtain some



college education have an increased probability of volunteering by roughly 20%, and those that obtain a bachelors degree or higher have an increased probability of volunteering by roughly 30%. This indicates that education plays a substantial role in an individual's choice to participate in volunteer activities. An additional influential variable seen on Table 2 is immigration, having nearly the same effect on the probability of volunteering as smoking cigarettes daily does. Regardless of gender, being of immigrant status leads to a decreased probability of volunteering by roughly 11%. In Table 2, it can also be seen that in the whole sample, smoking some days has no greater of an effect than the variables indicating being female or Hispanic. Compared to smoking some days, which decreases the probability of volunteer participation by roughly 6.3%, being a female increases probability of volunteering by 6.3% and being Hispanic decreases the probability of volunteering by 6.1%.

Similarly, the 2006 data (APPENDIX 2.2) analysis indicates that smoking either daily or some days is associated with a decreased probability of having participated in volunteer activities, and can be seen in Appendix 2.2 Table 2. Smoking daily decreases probability of volunteering by 9.6% and smoking some days decreases probability by 2.5%. Results in Table 2 additionally show an increased negative effect of cigarettes on volunteer participation in women over men. The data shows that women smoking daily are associated with a decrease in the probability of having volunteered by 10%, while men who smoke daily are only associated with decreased participation by 9.2%. Furthermore, it should be noted that smoking some days only holds statistical significance on the .05 level for the whole sample, on the .10 level for women, and no statistical significance for men. Additionally, key variables can be noticed in Table 2.

Regardless of gender, the effect of marriage has a significant positive impact on the probability of volunteering, increasing the probability by 9.2% for the whole sample. Educational variables are noted to have the highest effect on volunteer participation, being substantially more influential than the effects of smoking cigarettes either daily or some days. In Table 2, it can be concluded that as education increases, so does the probability of having participated in volunteer activities. Looking at the whole sample, we see that obtaining a high school degree leads to an increased probability of volunteering by roughly 6.2%. Additionally, obtaining some college education leads to an increased probability by 15.6%, and obtaining a bachelors degree or higher is associated with an increased probability of roughly 25.7%. When looking at the effects of education on volunteering across genders, evidence again supports that females are affected by obtaining some or more college education more than males, when it comes to their volunteer participation. Females that obtain some college education have an increased probability of volunteering by roughly 18%, and those that obtain a bachelors degree or higher have an increased probability of volunteering by roughly 26.7%. Males that obtain some college education have an increased probability of volunteering by roughly 13.4%, and those that obtain a bachelors degree or higher have an increased probability of volunteering by roughly 23.9%. This indicates that education plays a substantial role in an individual's choice to participate in volunteer activities. An additional influential variable seen on Table 2 is immigration, having a larger effect on the probability of volunteering than smoking cigarettes daily does. Regardless of gender, being of immigrant status leads to a decreased probability of volunteering by roughly 14%.

### **3.3.3 A Comparison of Data Set Results**

Comparing the two data sets analyzed, it should be noted that there is a difference of four years between collection. Analyzing the differences in Table 2-2006 and Table 2-2010 (APPENDIX 2.1,2.2), conclusions can be gathered on the increasing and decreasing variable effects on the probability of having volunteered. When comparing the effects of smoking on the probability of having volunteered, an increased negative effect in smoking daily is indicated, rising from 9.6% in 2006 to 11.0% in 2010. Additionally, the negative effect of smoking some days has also increased from 2.5% in 2006 (only statistically significant on the .05 level) to 6.3% in 2010. In a similar manner, educational variables have also had an increasing positive effect on the probability of having volunteering as the years have gone on. As indicated in the data analysis, having a high school degree some college education increased the probability of having volunteered by 6.2% in 2006, and rose to 8.9% in 2010. Similarly, having some college education increased the probability of having volunteered by 15.8% in 2006 and rose to 18.8% in 2010 data. Lastly, obtaining a bachelors degree or higher leads to an increase in the probability of volunteering by 25.7% in 2006 data and 28.6% in 2010. These differences indicate an increasing likelihood in volunteering in correlation with increased education over time.

### **3.3.4 Adding Control Variables**

The results of Table 3 (APPENDIX 3.1,3.2) highlight a continual negative association between cigarette consumption and volunteering. The 2010 data (APPENDIX 3.1) indicates a lack of significant association between individuals who

previously smoked and volunteer participation once additional maternal variables are controlled in regression. On the contrary, the 2006 data (APPENDIX 3.2) indicates that there is a statistically significant effect of formerly smoking, have an extremely weak positive effect and increasing the probability of having volunteered by .5% (seen in column 8). The influence of specific control variables on the effect cigarette consumption has on volunteering is highlighted in columns 2, 5, and 7. Results from these columns show a noticeable distortion in the association between cigarette consumption and the probability of volunteer participation when compared back to column 1, where no control variables used. Specific influential variables highlighted are marital status, education, and immigration, all holding statistical validity in the results.

We can see that marital status plays a crucial role in volunteer motivation. In column 8 with all variables being controlled, being married is associated with an increased probability of volunteering by 10% for the 2010 data, and an increase by 9.2% in the 2006 data. Additionally, when only controlling for marriage in column 2 in both the 2010 and 2006 data, we see a substantial decrease in the effect smoking cigarettes have compared to column 1, where there are no controls used.

Another significant impact on the regression analysis comes from individuals differing levels of education. We are able to see a significant influence by education in both data analyses when controlling for all variables in column 8. In the 2010 data analysis, having a high school education increases probability of volunteering by 9%, having some college education increases the probability by 19%, and obtaining a bachelors degree or higher is associated with an increased probability of nearly 29%. In the 2006 data analysis, having a high school education increases probability of

volunteering by 6.2%, having some college education increases the probability by 15.8%, and obtaining a bachelors degree or higher is associated with an increased probability of 25.7%. From the data analysis in both years, it is indicated that having either some or more college education has greater effects on volunteer participation than smoking cigarettes either daily or some days. We also see that when only controlling for education levels in column 5, the effects of daily smoking and smoking some days are substantially decreased compared to column 1, where there are no controls used.

Lastly, immigration status is also significant. When controlling for all variables in column 8 we see that being an immigrant is associated with a decrease in the probably of volunteering by 11% in 2010, and 14% in 2006, both being greater influence in volunteer participation than the effect of smoking cigarettes. Furthermore, when only controlling for immigration status in column 7, we see an increased negative effect of cigarette usage compared to column 1 in data analyzed for both years.

Additional categories of variable control are added throughout the regression analysis in columns 1, 3, 4, 6, and 8. Column 1 shows the effect of smoking status on volunteer participation, taking into account no control variables. Column 3 shows the effects of smoking status after controlling for maternal characteristic variables. We see interesting changes for both years of data analyzed, as the effect of smoking daily increases compared to column 1, but the effect of smoking some days decreases. In column 4, educational variables are also controlled for, which leads to a noticeable decrease that the effects of smoking status has on volunteering in both years of data analyzed. In column 6, employment variables are additionally controlled for, having

similar results to column 4. Lastly, in column 8, all variables are controlled for including regional characteristics and immigrant status. For both data sets suggest little influence by regional characteristics, besides immigration, on the probability of having volunteered. This column is additionally able to show us the influence on volunteer participation when all variables in our econometric equation are accounted for. By comparing the column (8) to column 1, we are able to see the influence of the econometric model's control variables on the effect that smoking status has on volunteering. For the 2010 data, it can be seen that when no controls are used in column 1, smoking status has very large effects, as smoking daily decreases probability of volunteering by 16%, smoking some days decreases probability by 11%, and having formerly smoked actually increases probability of volunteering by 2.4%. Similarly for the 2006 data, in column 1, smoking daily decreases probability of volunteering by 14.5%, smoking some days decreases probability by 6.4%, and having formerly smoked actually increases probability of volunteering by 3.2%. For both years of data, when we compare to column 8, due to the introduction of the control variables we see incredible decreases in the effect that smoking has on volunteering and insignificant effects of having formerly smoked. It should be noted that with additional control on variables placed in regression analysis, the association between the cigarette consumption variables and volunteer participation fluctuates, yet still holds statistical significance.

## CHAPTER 4

### 4.1 Empirical Conclusions

The empirical results of this research provide insight on the multiple relationships present between the variables incorporated. The data supports my hypothesis, findings that smoking cigarettes is associated with a decreased probability of participating in volunteer activities within the last year. The major findings of this empirical research are that smoking daily is associated with a decrease in the probability of volunteering by 9.6% (2006 data) and 11% (2010 data), and smoking some days is associated with a decrease in the probability of volunteering by 2.5% (2006 data) and 6.3% (2010 data). The findings also indicate that smoking further decreases the probability of volunteer participation within the last year. Possible explanations for this relation can be connected back to the previously existing research analyzed. Reasoning could include that smokers are less invested in their own wellbeing since they are aware of smoking negative health implications yet still partake, and are therefore more likely to also be less invested in the well being of other societal members. Volunteer activities lead to delayed gratification because participating benefits the overall wellbeing of communities over time. Smokers are also found to be more impulsive and choose to pursue actions that are associated with immediate gratification rather than activities such as volunteering.

In addition to smoking cigarettes, we are able to conclude that other variables such as marital status, education, and immigration have a strong influence on the probability of individuals participating in volunteer activities. The data analyses conducted in this empirical research align extremely well with the previous research

conducted by O’Herlihy et al (2002), who similarly found that marriage and educational alignment increase the likelihood of volunteering, and Thoits and Newitt (2001), who concluded that higher levels of education are associated with increased volunteer participation. Although reasoning behind the influential nature of these additional variables is uncertain, they can be related back to the findings of Schervish & Havens (1997) who suggested an extreme complexity in volunteer motivations with many outside factors influencing volunteer motivation. Potential explanation for the influence of these variables can be suggested. Increasing education may lead to higher income and a higher ability to have the available time to participate in volunteer activities. This can potentially explain the significant positive association between increased education and increased volunteer participation. Additionally, Hispanic and immigrant status may likely have the strong negative effects because of differing cultural backgrounds to which they are associate. These individuals may additionally feel less embodied in American society, leading to a decreased motivation to participate in volunteer activities.

## **4.2 Qualitative Conclusions**

The interviews conducted on 14 Union College allowed for insight into the perspectives of the student smoker population on campus. The hypothesis being tested during this interview aimed to understand if there was a negative relationship between smoking cigarettes and volunteering. After conducting the study, it is clear that there is no definitive correlation between these two behaviors in the sample. Despite this, there were various overlapping concepts and themes found through the analysis of the



interview data. Student smokers on campus seemed to place high value in individual health and wellbeing, along with high value in the wellbeing of others and the surrounding community. On the contrary, the interview data indicated that student smokers have mixed perceptions and attitudes regarding the effectiveness and necessity to participate in volunteer activities. Despite these mixed results, 13 out of the 14 sampled individuals had participated in volunteer activities within the past year. Through this analysis, it is clear that the status of being a Union College student plays a key role in the decision to volunteer in the community, and may also have influential factors in the decision to smoke cigarettes.

The interview data additionally indicates overlapping themes coming from differing responses throughout the totality of questions asked to interviewees, especially when asking subjects about the decision to smoke cigarettes. Some of the main themes presented in this research came from responses that utilize methods of internal justification to combat negative harm associated with cigarette smoking. After an analysis of interview responses, it is clear that the majority of these lack concern for the damage being done on their bodies. Additionally, the majority of interviewed individuals failed to self identify as heavy smoking individuals, despite a large portion of the interviewed subjects reporting to smoke almost every weekend. Another overlapping theme came from the presence of Greek life influencing both cigarette smoking and volunteering. The social aspects of Greek life can be associated with increased peer pressure and influences toward situational tobacco use. This can be seen in the Union College survey data reporting the highest amount of tobacco use occurring at Greek affiliated locations, followed by party environments. Lastly, Union College

additionally played a large role in the behaviors of these student smokers, with many responses justifying cigarette smoking only while in college, along with responses which suggested smoking as a normal occurrence around campus lacking any associated stigma.

As for the relationship between student smokers and volunteering, the results from these interviews fail to indicate any accurate or substantial results. In the follow up question responses, interview subjects agreed regarding a lack of corresponding relationship. On the contrary, this analysis could be interpreted as smokers being able to actively volunteer in society. It is clear that in many cases, it seems that the status of being an undergraduate college student plays an extremely influential role in a student's decision to both volunteer and smoke cigarettes.

### **Policy Change:**

As for the qualitative portion associated on the change of policy at Union College, the in-depth interview with Eric Noll lead to insight on the administrative perspective of student smokers on campus. This interview revealed administrative concerns with the change in policy, including student safety if choosing to smoke outside the campus gates, along with enforcement issues associated with the ban on tobacco products, which includes e-cigarettes and chewing tobacco. After analyzing the role of education in the relationship between smoking and volunteering, this research provided additional insight on the administration's attitudes toward student smokers. The administration realizes the sensitivity regarding the ban on tobacco for those who face extreme habits or addiction, and is aiding individuals by offer sensation and therapy

sessions for individuals in need. Despite this new ban associating tobacco use with a negative label and disciplinary action, the administration is still ensuring the necessary steps to take care of the student smoking population.

An analysis of the Union College survey results provided by Dean Leavitt indicated a very small student smoking population on campus. The results additionally indicate that students perceive the average Union College student to smoke more than they actually do. While some students may be concerned regarding the policy change beginning in July 2016, the actual amount of students that will be affected is most likely small.

#### **4.3 The Role of Education:**

Union College plays a crucial role in the findings presented in the qualitative portion of this study, and aligns with the results indicated in the empirical analysis completed. From the quantitative data analysis on 2006 and 2010 CPS data, it can be seen that education has an extremely high influence on volunteer participation rates. From the results, it can be seen that having some college education leads to an increased probability of having volunteered by 15.8% (2006 data) and 18.8% (2010 data). Furthermore, obtaining a bachelors degree or higher leads to an increase in the probability of volunteering by 25.7% (2006 data) and 28.6% (2010 data). Through these findings in both data analyses, the effect of education plays a greater role on participating in volunteer activities than that of smoking everyday (9.6% in 2006 & 11% in 2010), and smoking some days (2.5% in 2006 and 6.3% in 2010). The quantitative analysis on the effect of education indicates that being enrolled in an

bachelor degree program may outweigh the negative effects that smoking cigarettes has on the likelihood of having volunteered. With this knowledge, the interview results indicating extremely high levels of volunteer participation can be justified through their educational status.

Union College is known to be a top liberal arts university for undergraduate education. With an annual tuition of over \$50,000, students accepted are often from prestigious families and have access to a plethora of socioeconomic resources through their enrollment at Union College. Previous research conducted by Thoits and Newitt (2001), specifically address the volunteering characteristics of similar individuals. From their research, they conclude that those with socioeconomic resources, such as higher levels of education, are associated with increased volunteer participation. The college-educated students at Union may have more access to community service opportunities, and ability to aid less fortunate individuals because of their higher socioeconomic standing. Furthermore, some of the findings of O’Herlihy et al. (2002) included higher levels of charitable being associated with higher levels of income and educational attainment. The type of student enrolled at Union College may certainly have a positive effect on their likelihood of their probability of having volunteered within the past year. This can also be seen in the Union College HEDS Survey results, which indicated higher volunteer rates for Union students compared to peer colleges.

The status of being a Union College student additionally played a key role in the interview responses gathered in the qualitative portion of this research project, and can be analyzed from a psychological perspective. Results from this analysis indicate that Union College clearly has a student population ‘norm’, with many of the subjects

indicating underlying expectations placed on them by their peers and the colligate community. Another influence previous noted in interview responses was academic stress and a lack of free time. This factored into the responses for some individuals who's indicated a lack of value in community service efforts along with some individuals who justified the use of cigarettes.

As a student, peer and social influences clearly played a role in the decision for some of the sampled students to volunteer in community services, stay concerned with their wellbeing and health, and decide to smoke cigarettes. The literature of Thomas, Musick, and Wilson (1998) theorizes a 'normativist' perspective to volunteering for younger aged individuals. This perspective assumes that volunteer activities come from individuals being socialized and influenced into obtaining pro social attitudes. Union College seems to uphold a similar normativist perspective, promoting community service and volunteer opportunities to students on campus through emails, newspaper articles, and the creation of the Union College Kenney Community Center. Additionally, the college seems to further uphold this perspective through their disciplinary point system, which forces students receiving disciplinary actions to complete community services hours as part of their sanctions. This promotion of community service as a 'good' behavior further aligns with Thomas, Musick, and Wilson (1998) theory, which suggests individuals being taught that volunteering is a 'civil duty' that they are obligated to preform in society. The analysis of Union College's students and administration associating volunteer activities with positive reinforcements may lead to students being conditioned to participate in community activities.

#### **4.4 Why Conduct This Research?**

These findings are useful to volunteer organizations. These results and given interpretations can be potentially utilized when determining the most accurate audience when attempting to find volunteer laborers in their communities. Furthermore, this research can aid colleges around the nation by increasing knowledge about the perspectives and tendencies of college-age smoking individuals. The administration at higher-level educational institutions can utilize these findings in various departments. A dean of student's office could see these findings useful in understanding the characteristics of smokers and the associated perspectives of the student smoking population across campuses. Furthermore, volunteer offices and centers at universities can utilize these findings in understanding student volunteer behaviors and attitudes. The research findings in this study can also help aid human resource departments in their decision on policy changes, and the potential effects it may have on their student populations.

#### **4.5 Limitations**

A main limitation of this mixed method study comes from the inability to reasonably analyze the quantitative results from the CPS 2006 and 2010 data analysis to the qualitative results from the Union College student interview data. The CPS data sets analyzed come from survey results on individuals around the nation, while the interview data is limited to college-age undergraduate students. Furthermore, the CPS analysis comes from data collected from a large sample of nearly 100,000 individuals, while the interview data was only collected from 14 undergraduate students. While the

CPS analysis may in many ways be representative in regressing variable relationships for U.S. smoking individuals, it is not accurate to assume the same variable relationship representation to the small 2,200 undergraduate population at Union College.

Additional limitations to the empirical study should be noted. Validity in this analysis may be questioned, as it does not take into account influential variables regarding occupation and economic status. Additionally, this study did not account for individuals being enrolled in education, which could lead to inaccuracy seeing as they may have less time for volunteer activities. If this model was inclusive of these variables, the statistical significance of smoking status on volunteer participation rates may be altered. In addition to the variables utilized in this economic model, we must take into account outside influences that may affect motivation to volunteer. As suggested in Schervish's and Havens's (1997) work, household and community factors may contribute to individual's perception of volunteer work and influence their participation rate. The conclusions of this analysis are solely based on data from the 2006 and 2010 CPS. While these two data sets allowed for an analysis of nearly 100,000 subjects, this sample may not be representative of the entire United States population.

Additional limitations should be noted on the qualitative portion of this research project regarding student smokers at Union College. Surveys conducted on the Union College campus were analyzed in an attempt to understand the demographics and behaviors of the student body. These surveys include the 2015 Union College CORE alcohol and drug survey along with the 2015 Union College HEDS student survey. Limitations should be noted on these surveys, as they all have low response rates compared to the complete Union College population. These surveys were not

mandatory, and a response bias may be present depending on the type of student who is more likely to take time to fill out these surveys. Furthermore, these surveys are not conducted on a regular basis, only occurring every two to three years on campus. Responses and analyses of this data may be inaccurate and misrepresentative of the entire student body.

Furthermore, limitations should also be noted in the qualitative interview section of this research project. The high amount of volunteer participation rates by student interviewees at Union College is affected by many outside influences, making an accurate interpretation hard to acquire. Union students who are involved in Greek and athletic activities are required to complete a certain amount community service to be involved in these activities. Because such a large portion of Union students are Greek members and athletes, the likelihood of participating in volunteer activities seems to be greatly increased. Furthermore, limitations should be noted on the sample of students interviewed. Totalling 14 students, while important insights were gained through these in-depth conversations, the sample size is not large enough to be representative of the Union smoking community. Because the smoking student population at Union is very limited, a snowball sampling method was incorporated to find interviewees. This snowball sampling technique may lead to a response bias, with participant views and behaviors being more closely aligned with each other compared to a completely random sampling method.

#### **4.6 Future Research**

There are many questions still remaining about the relationship between smoking cigarettes and its effect on volunteering after completing this research project.



On an empirical level, further research could be more accurate if it were to include additional years and other data sets in its analysis. Including an empirical analysis on more individuals collected at a more recent time could help to gain a more accurate representation of the U.S. population. Further research could also investigate the effects of the influential control variables: marital status, education, and immigration on volunteer participation rates rather than only focusing on smoking cigarettes. Future empirical research could also come from an analysis of liberal arts undergraduate students, which was a specific area not addressed by any of the CPS questions.

Future research could also include a larger qualitative analysis on student smokers at Union College. A key element lacking in this analysis is an accurate student survey on smokers at Union College. Receiving insight on the behaviors and perspective of the entirety of student smokers would aid in understanding the complex relationship between smoking and volunteering. In addition to a survey on student smokers, an increased amount of in-depth interviews with smoking individuals may additionally aid in the understanding of the perspectives of Union student smokers. Further research necessary can also include an overview of the effects of the policy change beginning in the next academic year at Union College. After implementing the change to a tobacco free campus, it research on student who still choose to utilize cigarettes would help further understand the effected smoking population at Union College.

APPENDIX

**APPENDIX 1.1**

**2006 Current Population Survey Descriptive Statistics – Mean Estimations**

| <b>Variable Name</b>           | <b>Survey: Mean Estimation</b> | <b>Variable Stand Error</b> |
|--------------------------------|--------------------------------|-----------------------------|
| Has Volunteered                | .2724                          | .0024                       |
| Everyday                       | .1977                          | .0022                       |
| Someday                        | .0372                          | .0010                       |
| Former                         | .1594                          | .0019                       |
| Age                            | 40.9687                        | .0717                       |
| Married                        | .5555                          | .0027                       |
| Female                         | .5134                          | .0027                       |
| White                          | .6866                          | .0027                       |
| Black                          | .1130                          | .0019                       |
| Hispanic                       | .1369                          | .0019                       |
| Other                          | .0636                          | .0013                       |
| Less Than High School Edu.     | .1259                          | .0018                       |
| High School Edu.               | .3051                          | .0025                       |
| Some College Edu.              | .2893                          | .0025                       |
| More College Edu.              | .2798                          | .0024                       |
| Employed                       | .7478                          | .00013                      |
| Unemployed                     | .0321                          | .0024                       |
| MSA                            | .8361                          | .0019                       |
| Northeast                      | .1805                          | .0021                       |
| Midwest                        | .2281                          | .0022                       |
| South                          | .3613                          | .0026                       |
| West                           | .2301                          | .0023                       |
| Immigrant                      | .1554                          | .0020                       |
| <b>Number of Observations:</b> | <b>48,798</b>                  |                             |

## APPENDIX 1.2

### 2010 Current Population Survey Descriptive Statistics – Mean Estimations

| <u>Variable Name</u>           | <u>Survey: Mean Estimation</u> | <u>Variable Stand Error</u> |
|--------------------------------|--------------------------------|-----------------------------|
| Has Volunteered                | .2766                          | .0024                       |
| Everyday                       | .1350                          | .0018                       |
| Someday                        | .0336                          | .0010                       |
| Former                         | .1444                          | .0019                       |
| Age                            | 41.5146                        | .0730                       |
| Married                        | .5415                          | .0027                       |
| Female                         | .5106                          | .0027                       |
| White                          | .6668                          | .0026                       |
| Black                          | .1137                          | .0018                       |
| Hispanic                       | .1504                          | .0020                       |
| Other                          | .0691                          | .0014                       |
| Less Than High School Edu.     | .1106                          | .0017                       |
| High School Edu.               | .2890                          | .0024                       |
| Some College Edu.              | .3002                          | .0025                       |
| More College Edu.              | .3002                          | .0024                       |
| Employed                       | .6982                          | .0025                       |
| Unemployed                     | .0680                          | .0014                       |
| MSA                            | .8395                          | .0018                       |
| Northeast                      | .1776                          | .0021                       |
| Midwest                        | .2205                          | .0021                       |
| South                          | .3670                          | .0026                       |
| West                           | .2349                          | .0023                       |
| Immigrant                      | .1583                          | .0020                       |
| <b>Number of Observations:</b> | <b>48,622</b>                  |                             |

## APPENDIX 2.1

**Table 2. Average Marginal Effects Derived by Model Probit Regressions -2010**  
**Dependent Variable: Volunteer Participation (*Has volunteered*)**

| <b>Independent Variable</b>     | <i>Whole Sample</i>   | <i>Males</i>         | <i>Females</i>        |
|---------------------------------|-----------------------|----------------------|-----------------------|
| <b>Cigarette Consumption</b>    |                       |                      |                       |
| Daily Smoker                    | -.1102***<br>(-14.74) | -.0955***<br>(-9.71) | -.1267***<br>(-11.23) |
| Some Days Smokes                | -.0627***<br>(-4.56)  | -.0601***<br>(-3.31) | -.0653***<br>(-3.19)  |
| Formerly Smoked                 | .0063<br>(1.00)       | .0006<br>(0.06)      | .0132<br>(1.40)       |
| <b>Maternal Characteristics</b> |                       |                      |                       |
| Age                             | .0002<br>(1.32)       | -.0000<br>(-0.15)    | .0006**<br>(2.15)     |
| Married                         | .1018***<br>(21.33)   | .1023***<br>(14.78)  | .0995***<br>(14.79)   |
| Female                          | .0627***<br>(13.90)   | ----                 | ----                  |
| Black                           | -.0447***<br>(-5.35)  | -.0265**<br>(-2.18)  | -.0603***<br>(-5.22)  |
| Hispanic                        | -.0615***<br>(-7.26)  | -.0514<br>(-4.25)    | -.0711***<br>(-6.01)  |
| Other Ethnicity                 | -.0471***<br>(-4.51)  | -.0323**<br>(-2.23)  | -.0608***<br>(-4.04)  |
| <b>Education</b>                |                       |                      |                       |
| High School Education           | .0892***<br>(8.63)    | .1034***<br>(7.21)   | .0735***<br>(4.93)    |
| Some College Education          | .1877***<br>(18.46)   | .1034***<br>(12.54)  | .1958***<br>(13.53)   |
| More College Education          | .2860***<br>(28.13)   | .2688***<br>(18.82)  | .3025***<br>(20.84)   |
| <b>Current Characteristics</b>  |                       |                      |                       |
| Employed                        | .0243***<br>(4.27)    | .0433***<br>(4.63)   | .0118<br>(1.57)       |
| Unemployed                      | .0443***<br>(4.26)    | .0546***<br>(3.67)   | .0407***<br>(2.74)    |
| <b>Regional Characteristics</b> |                       |                      |                       |
| Metropolitan Area               | -.0099*<br>(-1.73)    | -.0142*<br>(-1.80)   | -.0056<br>(-0.68)     |
| Northeast                       | -.0479***<br>(-6.72)  | -.0344***<br>(-3.48) | -.0607***<br>(-5.94)  |
| Midwest                         | .0062<br>(0.96)       | .0111<br>(1.26)      | .00187<br>(0.20)      |
| South                           | -.0389***<br>(-6.32)  | -.0323***<br>(-3.78) | -.0455***<br>(-5.15)  |
| Immigrant                       | -.1126***<br>(-13.40) | -.1148***<br>(-9.67) | -.1122***<br>(-9.45)  |
| <b>Number of Observations:</b>  | 48,622                | 23292                | 25330                 |

Notes: '---' - indicates omission due to collinearity  
T-values provided inside parentheses ( )

\*\*\*- Indicates statistical significance at the .01 level.

\*\* - Indicates statistical significance at the .05 level

\* - Indicates statistical significance at the .10 level

## APPENDIX 2.2

**Table 2. Average Marginal Effects Derived by Model Probit Regressions - 2006**  
**Dependent Variable: Volunteer Participation (*Has volunteered*)**

| <b>Independent Variable</b>       | <i>Whole Sample</i>   | <i>Males</i>          | <i>Females</i>        |
|-----------------------------------|-----------------------|-----------------------|-----------------------|
| <b>Cigarette Consumption</b>      |                       |                       |                       |
| Daily Smoker                      | -.0962***<br>(-13.89) | -.0917***<br>(-9.91)  | -.1004***<br>(-9.77)  |
| Some Days Smokes                  | -.0248**<br>(-2.01)   | -.0177<br>(-1.08)     | -.0326*<br>(-1.77)    |
| Formerly Smoked                   | .0048<br>(0.79)       | -.0079<br>(-0.98)***  | .0195**<br>(2.15)     |
| <b>Maternal Characteristics</b>   |                       |                       |                       |
| Age                               | .0006***<br>(3.21)    | .0004***<br>(1.49)    | .0008***<br>(2.98)    |
| Married                           | .0918***<br>(19.02)   | .0946***<br>(13.72)   | .0878***<br>(12.73)   |
| Female                            | .0724***<br>(16.01)   | ----                  | ----                  |
| Black                             | -.0684***<br>(-7.85)  | -.0506***<br>(-3.99)  | -.0840***<br>(-6.96)  |
| Hispanic                          | -.0570***<br>(-6.44)  | -.0518***<br>(-4.16)  | -.0620***<br>(-4.92)  |
| Other Ethnicity                   | -.0495***<br>(-4.68)  | -.0326**<br>(-2.29)   | -.0650***<br>(-4.18)  |
| <b>Education</b>                  |                       |                       |                       |
| High School Education             | .0616***<br>(6.41)    | .0561***<br>(4.32)    | .0681***<br>(4.83)    |
| Some College Education            | .1575***<br>(16.48)   | .1339***<br>(10.22)   | .1804***<br>(13.00)   |
| More College Education            | .2574***<br>(26.97)   | .2388***<br>(18.36)   | .2767***<br>(19.84)   |
| <b>Employment Characteristics</b> |                       |                       |                       |
| Employed                          | .0199***<br>(3.46)    | .0318***<br>(3.35)    | .0113<br>(1.48)       |
| Unemployed                        | .0499***<br>(3.42)    | .0280<br>(1.34)       | .0727***<br>(3.50)    |
| <b>Regional Characteristics</b>   |                       |                       |                       |
| Metropolitan Area                 | -.0193*<br>(-3.43)    | -.0306***<br>(-4.03)  | -.0089<br>(-1.08)     |
| Northeast                         | -.0347***<br>(-4.83)  | -.0161<br>(-1.64)     | -.0532***<br>(-5.11)  |
| Midwest                           | .0297***<br>(4.60)    | .0379<br>(4.28)       | .0216**<br>(2.29)     |
| South                             | -.0207***<br>(-3.34)  | -.0078<br>(-0.93)     | -.0332***<br>(-3.68)  |
| Immigrant                         | -.1396***<br>(-16.10) | -.1333***<br>(-11.02) | -.1466***<br>(-11.80) |
| <b>Number of Observations:</b>    | 48,798                | 23,455                | 25,343                |

Notes: '---' - indicates omission due to collinearity  
T-values provided inside parentheses ( )

\*\*\* - Indicates statistical significance at the .01 level.

\*\* - Indicates statistical significance at the .05 level

\* - Indicates statistical significance at the .10 level

## APPENDIX 3.1

**Table 3: Marginal Effects of Estimations on Volunteer Participation - 2010**  
*Marginal Effects on Volunteer Participation derived from Probit Regressions*  
*(Dependent Variable: Has\_Volunteered)*

| Independent Variable     | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                |
|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Daily Smoker</b>      | <b>-0.163***</b> | <b>-0.151***</b> | <b>-0.168***</b> | <b>-0.104***</b> | <b>-0.098***</b> | <b>-0.105***</b> | <b>-0.182***</b> | <b>-0.110***</b> |
|                          | -21.19           | -19.92           | -22.29           | -13.76           | -12.93           | -13.83           | -24.18           | -14.64           |
| <b>Some Days Smokes</b>  | <b>-0.110***</b> | <b>-0.091***</b> | <b>-0.083***</b> | <b>-0.055***</b> | <b>-0.073***</b> | <b>-0.056***</b> | <b>-0.118***</b> | <b>-0.063***</b> |
|                          | -7.76            | -6.43            | -5.85            | -3.95            | -5.31            | -4.07            | -8.4             | -4.56            |
| <b>Formerly Smoked</b>   | <b>0.024***</b>  | <b>0.015**</b>   | <b>-0.007</b>    | <b>0.011*</b>    | <b>.032***</b>   | <b>0.011*</b>    | <b>0.007</b>     | <b>0.006</b>     |
|                          | 3.69             | 2.27             | -1.08            | 1.78             |                  | 1.75             | 1.14             | 1                |
| <b>Married</b>           |                  | <b>0.127***</b>  | <b>0.114***</b>  | <b>0.098***</b>  |                  | <b>0.098***</b>  |                  | <b>0.102***</b>  |
|                          |                  | 27.45            | 22.98            | 20.64            |                  | 20.23            |                  | 21.33            |
| <b>Female</b>            |                  |                  | <b>0.065***</b>  | <b>0.060***</b>  |                  | <b>0.063***</b>  |                  | <b>0.063***</b>  |
|                          |                  |                  | 14.08            | 13.37            |                  | 13.83            |                  | 13.9             |
| <b>Black</b>             |                  |                  | <b>-0.099***</b> | <b>-0.063***</b> |                  | <b>-0.064***</b> |                  | <b>-0.045***</b> |
|                          |                  |                  | -11.77           | -7.73            |                  | -7.75            |                  | -5.35            |
| <b>Hispanic</b>          |                  |                  | <b>-0.191***</b> | <b>-0.108***</b> |                  | <b>-0.109***</b> |                  | <b>-0.061***</b> |
|                          |                  |                  | -24.87           | -14.04           |                  | -14              |                  | -7.26            |
| <b>Other Ethnicity</b>   |                  |                  | <b>-0.104***</b> | <b>-0.106***</b> |                  | <b>-0.104***</b> |                  | <b>-0.047***</b> |
|                          |                  |                  | -10.7            | -11.03           |                  | -10.78           |                  | -4.51            |
| <b>High School Edu.</b>  |                  |                  |                  | <b>0.108***</b>  | <b>0.144***</b>  | <b>0.105***</b>  |                  | <b>0.089***</b>  |
|                          |                  |                  |                  | 10.54            | 14.19            | 10.11            |                  | 8.63             |
| <b>Some College Edu.</b> |                  |                  |                  | <b>0.212***</b>  | <b>0.254***</b>  | <b>0.208***</b>  |                  | <b>0.188***</b>  |
|                          |                  |                  |                  | 21.12            | 25.9             | 20.29            |                  | 18.46            |
| <b>More College Edu.</b> |                  |                  |                  | <b>0.305***</b>  | <b>0.368***</b>  | <b>0.298***</b>  |                  | <b>0.286***</b>  |
|                          |                  |                  |                  | 30.66            | 38.97            | 28.84            |                  | 28.13            |
| <b>Employed</b>          |                  |                  |                  |                  |                  | <b>0.024***</b>  |                  | <b>0.024***</b>  |
|                          |                  |                  |                  |                  |                  | 4.28             |                  | 4.27             |
| <b>Unemployed</b>        |                  |                  |                  |                  |                  | <b>0.024***</b>  |                  | <b>0.044***</b>  |
|                          |                  |                  |                  |                  |                  | 4.41             |                  | 4.26             |
| <b>Metropolitan Area</b> |                  |                  |                  |                  |                  |                  |                  | <b>-0.010*</b>   |
|                          |                  |                  |                  |                  |                  |                  |                  | -1.73            |
| <b>Northeast</b>         |                  |                  |                  |                  |                  |                  |                  | <b>-0.048***</b> |
|                          |                  |                  |                  |                  |                  |                  |                  | -6.72            |
| <b>South</b>             |                  |                  |                  |                  |                  |                  |                  | <b>-0.039***</b> |
|                          |                  |                  |                  |                  |                  |                  |                  | -6.32            |
| <b>Immigrant</b>         |                  |                  |                  |                  |                  |                  | <b>-0.180***</b> | <b>-0.112***</b> |
|                          |                  |                  |                  |                  |                  |                  | -24.75           | -13.29           |

Sample Size: 48,622 in all columns

Notes:

T-test results are *not* in bold, located under the given marginal effect.  
 Variable 'Age' is controlled for in columns 3,4,6, & 8 but is statistically insignificant at the .05 level in all regressions. Variable 'Midwest' is controlled for in column 8 but was statistically insignificant at the .05 level in the regression

Statistical Significance:

\*\*\* - Indicates statistical significance at the .01 level  
 \*\* - Indicates statistical significance at the .05 level  
 \* - Indicates statistical significance at the .10 level

## APPENDIX 3.2

**Table 3: Marginal Effects of Estimations on Volunteer Participation-2006**  
*Marginal Effects on Volunteer Participation derived from Probit Regressions*  
*(Dependent Variable: Has\_Volunteered)*

| Independent Variable     | 1                | 2                | 3                | 4                | 5                | 6                | 7               | 8                |
|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|
| <b>Daily Smoker</b>      | <b>-0.145***</b> | <b>-0.131***</b> | <b>-0.149***</b> | <b>-0.088***</b> | <b>-0.081***</b> | <b>-0.089***</b> | <b>-.166***</b> | <b>-0.096***</b> |
|                          | -20.63           | -18.67           | -21.51           | -12.55           | -11.56           | -12.70           | -23.89          | -13.89           |
| <b>Some Days Smokes</b>  | <b>-0.064***</b> | <b>-0.046***</b> | <b>-0.042***</b> | <b>-0.019</b>    | <b>-0.034***</b> | <b>-0.019</b>    | <b>-.073***</b> | <b>-0.025**</b>  |
|                          | -4.93            | -3.55            | -3.28            | -1.50            | -2.69            | -1.55            | -5.70           | -2.01            |
| <b>Formerly Smoked</b>   | <b>0.032***</b>  | <b>0.021***</b>  | <b>-0.002</b>    | <b>0.011*</b>    | <b>0.033***</b>  | <b>0.010*</b>    | <b>.014**</b>   | <b>0.005***</b>  |
|                          | 5.15             | 3.39             | -0.24            | 1.77             | 5.52             | 1.71             | 2.19            | 0.79             |
| <b>Married</b>           |                  | <b>.005***</b>   | <b>0.101***</b>  | <b>0.088***</b>  |                  | <b>0.088***</b>  |                 | <b>0.092***</b>  |
|                          |                  | 25.12            | 20.54            | 18.20            |                  | 18.18            |                 | 19.02            |
| <b>Female</b>            |                  |                  | <b>0.073***</b>  | <b>0.070***</b>  |                  | <b>0.072***</b>  |                 | <b>0.072***</b>  |
|                          |                  |                  | 15.79            | 15.56            |                  | 15.93            |                 | 16.01            |
| <b>Black</b>             |                  |                  | <b>-0.116***</b> | <b>-0.082***</b> |                  | <b>-0.084***</b> |                 | <b>-0.068***</b> |
|                          |                  |                  | -13.27           | -9.53            |                  | -9.69            |                 | -7.85            |
| <b>Hispanic</b>          |                  |                  | <b>-0.199***</b> | <b>-0.123***</b> |                  | <b>-0.123***</b> |                 | <b>-0.057***</b> |
|                          |                  |                  | -25.26           | -15.13           |                  | -15.15           |                 | -6.44            |
| <b>Other Ethnicity</b>   |                  |                  | <b>-0.116***</b> | <b>-0.126***</b> |                  | <b>-0.125***</b> |                 | <b>-0.050***</b> |
|                          |                  |                  | -11.82           | -12.97           |                  | -12.88           |                 | -4.68            |
| <b>High School Edu.</b>  |                  |                  |                  | <b>0.082***</b>  | <b>0.124***</b>  | <b>0.079***</b>  |                 | <b>0.062***</b>  |
|                          |                  |                  |                  | 8.56             | 13.22            | 8.20             |                 | 6.41             |
| <b>Some College Edu.</b> |                  |                  |                  | <b>0.183***</b>  | <b>0.230***</b>  | <b>0.179***</b>  |                 | <b>0.158***</b>  |
|                          |                  |                  |                  | 19.41            | 25.31            | 18.85            |                 | 16.48            |
| <b>More College Edu.</b> |                  |                  |                  | <b>0.275***</b>  | <b>0.339***</b>  | <b>0.270***</b>  |                 | <b>0.257***</b>  |
|                          |                  |                  |                  | 29.50            | 38.52            | 28.49            |                 | 26.97            |
| <b>Employed</b>          |                  |                  |                  |                  |                  | <b>0.021***</b>  |                 | <b>0.020***</b>  |
|                          |                  |                  |                  |                  |                  | 3.57             |                 | 3.46             |
| <b>Unemployed</b>        |                  |                  |                  |                  |                  | <b>0.054***</b>  |                 | <b>0.050***</b>  |
|                          |                  |                  |                  |                  |                  | 3.67             |                 | 3.42             |
| <b>Metropolitan Area</b> |                  |                  |                  |                  |                  |                  |                 | <b>-0.019***</b> |
|                          |                  |                  |                  |                  |                  |                  |                 | -3.43            |
| <b>Northeast</b>         |                  |                  |                  |                  |                  |                  |                 | <b>-0.035***</b> |
|                          |                  |                  |                  |                  |                  |                  |                 | -4.83            |
| <b>South</b>             |                  |                  |                  |                  |                  |                  |                 | <b>-0.021***</b> |
|                          |                  |                  |                  |                  |                  |                  |                 | 4.60             |
| <b>Midwest</b>           |                  |                  |                  |                  |                  |                  |                 | <b>0.030***</b>  |
|                          |                  |                  |                  |                  |                  |                  |                 | -3.34            |
| <b>Immigrant</b>         |                  |                  |                  |                  |                  |                  | <b>-.205***</b> | <b>-0.140***</b> |
|                          |                  |                  |                  |                  |                  |                  | -27.28          | -16.10           |

Sample Size: 48,798 in all columns

Notes:

T-test results are *not* in bold, located under the given marginal effect.  
 Variable 'Age' is controlled for in columns 3,4,6, & 8 but is statistically insignificant at the .05 level or lacks statistical influence in all regressions.

Statistical Significance:

\*\*\*- Indicates statistical significance at the .01 level  
 \*\* - Indicates statistical significance at the .05 level  
 \* - Indicates statistical significance at the .10 level

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