Distribution Agreement

In presenting this thesis as a partial fulfillment of the requirements for a degree from Emory University, I hereby grant to Emory University and its agents the non-exclusive license to archive, make accessible, and display my thesis in whole or in part in all forms of media, now or hereafter now, including display on the World Wide Web. I understand that I may select some access restrictions as part of the online submission of this thesis. I retain all ownership rights to the copyright of the thesis. I also retain the right to use in future works (such as articles or books) all or part of this thesis.

Hyun Bin (Peter) Kim   April 16, 2019

A Mixed-Methods Analysis of Public and Physician Attitudes Towards the Expansion of
Medicare

by

Hyun Bin (Peter) Kim

Ellen L. Idler
Adviser

Department of Sociology

Ellen L. Idler

Adviser

Jeffrey S. Mullis

Committee Member

Trisha M. Kesar

Committee Member

2019

A Mixed-Methods Analysis of Public and Physician Attitudes Towards the Expansion of Medicare

By

Hyun Bin (Peter) Kim

Ellen L. Idler

Adviser

An abstract of
a thesis submitted to the Faculty of Emory College of Arts and Sciences
of Emory University in partial fulfillment
of the requirements of the degree of
Bachelor of Arts with Honors

Department of Sociology

2019

Abstract

A Mixed-Methods Analysis of Public and Physician Attitudes Towards the Expansion of Medicare

By Hyun Bin (Peter) Kim

Given the recent interest in the expansion of Medicare in the United States, there is an increasing need to characterize opinions of health reform among the public and medical professionals in order to understand which social groups are more and less likely to favor expansion. The present study utilizes a two-part mixed-methods approach: the first portion of the project uses survey data from the Kaiser Family Foundation Poll: November 2017 Health Tracking Poll to determine which sociodemographic variables are most important in predicting attitudes towards Medicare expansion via a binary logistic regression analysis. The quantitative results suggest that higher socioeconomic status and Republican respondents are the most likely groups to oppose the expansion of Medicare. However, adults aged 65 and over also emerge as strong opponents of expansion. Therefore, to better understand this age effect, the second portion of this study involves in-depth interviews with physicians and medical trainees on their personal opinions of Medicare expansion and their views on why age is an important predictor of expansion. The qualitative findings indicate that medical professionals in general are supportive of a conservative expansion of Medicare and explain the age effect in terms of self-interest of those over 65. These results shed light for legislators and policy implementors on how best to design expansion and other health policy initiatives in ways that increases the political feasibility of such plans.

A Mixed-Methods Analysis of Public and Physician Attitudes Towards the Expansion of Medicare

By

Hyun Bin (Peter) Kim

Ellen L. Idler

Adviser

A thesis submitted to the Faculty of Emory College of Arts and Sciences
of Emory University in partial fulfillment
of the requirements of the degree of
Bachelor of Arts with Honors

Department of Sociology

2019

Acknowledgements

I cannot express how deeply grateful I am to Dr. Ellen Idler for her insightful guidance throughout the honors thesis process. I can't believe that it has been just over a year since you inspired me to study the Sociology of medicine that fateful, chilly morning when I walked into your Sociology 230 class. Thank you for expanding my horizons through your unfiltered enthusiasm; and I hope to carry your lessons into the future and make my contribution towards making health care in the United States more equitable, affordable and quality-driven.

Thank you to all my committee members, Dr. Jeffrey Mullis and Dr. Trisha Kesar, for volunteering their valuable time to seeing my honors thesis through to completion. To Dr. Mullis, I wouldn't have been able to manage the statistical analyses without the lessons I took away from your class. To Dr. Kesar, thank you for providing me foundational experiences in conducting clinical research that I know will be invaluable for me in the near future; thank you also for inspiring me to pursue my side passions such as writing about my opinions on health care on my blog.

Special thanks to Joon Chung and the Emory Writing Center for helping me through multiple drafts of my thesis. To Joon, thank you for your patience in assisting me through my statistical hiccups. Congratulations and best of luck in your post-doctoral fellowship.

Finally, thank you to all my friends and family for their understanding and support throughout this process.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

National health insurance implementation has been marked by contentious debate in the United

States since 1915, when the American Association for Labor Legislation advocated for large-

scale health reform that amounted to nothing more than political impasse (Starr 1982).

Throughout the twentieth century, the American Medical Association (AMA) proved to be a

fierce opponent of national health insurance, and the group successfully lobbied against the

Truman National Health Program in 1945 (Markel 2014). Two decades later, the AMA

continued to be "vigorously opposed" to Medicaid and Medicare, two government-sponsored

health insurance plans for the poor and elderly respectively, but the AMA eventually

compromised, and the proposals were established in 1965 (Cohen 1985). Then came the partisan

passage of the Affordable Care Act (ACA), which was opposed by all House and Senate

Republicans in 2010; although a sizeable public was initially dissatisfied with the ACA given its

partisan nature, public opinion towards the ACA has been steadily improving with 51% of

surveyed adults favoring the law in January, 2019 (Henry J Kaiser Family Foundation 2019).

Talks of health reform persist today with political discussions surrounding "Medicare for All", a

policy proposal that advocates for universal health care coverage through the expansion of

Medicare to include individuals under the age of 65.

However, there is a lack of consensus on what groups will be covered and whether

public or private institutions will be responsible for the expansion of Medicare. In one version,

Bernie Sanders, a former presidential candidate and sitting senator of Vermont, supported a

radical approach that would replace the current system, which is a mix of private and public

insurance plans, with one single government-run insurance plan (Relman and Bryan 2018). The

Sanders message is clear: private insurance should play no role in delivering health care. In

contrast to

the Sanders approach, the Center for American Progress (CAP), a public policy and advocacy organization, recommended a less radical shift called "Medicare Extra for All". The CAP plan promotes providing a public, government insurance option for all Americans that functions within the existing market-based health care structure (CAP Health Policy Team 2018). Additionally, a team of Democrats have drafted an even more moderate policy blueprint that retains the current institutional arrangements and extends Medicare eligibility to those aged 55 and over (Japsen 2018). With multiple health reform options on the table that are set to be discussed in upcoming political hearings (Weigel 2019), there is clear political interest, at least among Democrats, in the expansion of Medicare.

The fervor for health reform has also been documented among the public, but voters have not always viewed health care as a pressing political priority. For example, health care was the sixth and fourth most relevant issue for voters in the 2000 and 2004 presidential elections, respectively (Pentecost 2006). Although the public did not see health reform as urgent in the early 2000s, other polls have found a growing trend of support for health reform. Polls conducted in 1994 and 2009 find that over 80% of respondents favored some or complete reform of the health care system (Blendon and Benson 2009). Not only that, more Americans are saying that health care is an important factor in determining their vote. 73% and 74% of voters in 2008 and 2012 view health care as "very important to their vote" (Pew Research Center for the People and the Press 2012), and a poll conducted just prior to the 2018 midterm elections found that about three-quarters of voters cited health care and the economy as important to their vote (Geiger 2018). According to the polls, there has been a modern-day revival of public interest in health care reform.

Similarly, calls for reform have resonated among physicians and physician interest groups such as the AMA, which has typically opposed national health insurance plans such as the Truman Health Plan; yet, during the 2018 AMA annual conference in Chicago, following pressure from the medical student caucus, senior members of the medical group have agreed to study to possibility of changing the AMA's disapproving stance towards single-payer health reform (McCanne 2018). The AMA's decision to consider the reversal of its single-payer opposition, a view that has been established as historical precedent, is indicative of the salience of health reform and the expansion of Medicare among physicians.

Therefore, in order to better understand the potential for the implementation of the expansion of Medicare, there has been an increasing need for public opinion research to investigate what social factors are important in determining favorability towards expansion and why these factors may be important. Public attitudes are critical in determining the success of health reform, because members of the public can influence policy implementation by voting (Upadhyay and Dinh 2018). The Clinton Health Plan of 1993 is a prime example of how unpopular public opinion can prevent a bill from even coming to Congress (Yankelovich 1995). Additionally, in their dual capacity as influential community members, and as clinicians who interact with various patient populations, physicians occupy a unique position from which to offer insight into attitudes towards the expansion of Medicare. The purpose of this study is twofold: first, to describe how social factors such as demographics and socioeconomic status (SES) impact favorability towards the expansion of Medicare; and second, to gather an in-depth understanding from physicians of the meaning of the findings, and their own personal/professional views on the issue. These results can provide a nuanced view on public opinion that may be pertinent to future research and policy implementation.

This paper will begin with a discussion of public attitudes towards health care reform in the United States. The next section will highlight the effect of political party identification on approval of health care reform. I will then consider how SES can influence health policy preferences. The final section will examine health reform attitudes of physicians and the factors associated with favorable and unfavorable physician views.

LITERATURE REVIEW

General Public Attitudes Towards Health Care and Reform

Many Americans believe in government responsibility for the delivery of healthcare, but public support for health legislation is tempered by suspicion of government and personal cost such as increased taxes (Blendon, Benson and McMurtry 2018, Blendon and Benson 2001, Kiley 2018, Pew Research Center for the People and the Press 2014). In an era that is marked by substantial distrust of government (Pew Research Center for the People and the Press 2017), the empirical findings suggest that approval of health reform decreases as taxes related to funding reform (Brodie et al. 2010, Kessler and Brady 2009) and role of government in delivering health care increases (Blendon and Benson 2009), especially among Republicans who are less likely to trust the government (Dalen, Waterbrook and Alpert 2015). The trends indicate that Americans favor some form of government-sponsored health care, but the public's desire is modulated by dissatisfaction with "big government" and personal cost of health legislation.

However, fear of government has not consistently been linked with opposition to health reform. Medicare, a wholly government-run program, has reliably been popular among the public. Since 1996, about 70% of surveyed participants were in favor of the social program each year. In addition, the greatest approval of Medicare was found in the older adult population, who

were also more likely to believe that the health insurance system was effective and affordable (Brodie, Hamel and Norton 2015). Although the public are cautious of government intervention in health care, there is widespread support towards existing programs such as Medicare.

The Effect of Political Party Identification

Given the polarizing nature of politics in the United States, popular opinion would suggest that political party identification is the strongest predictor of favorability towards health reform. In most cases, greater proportions of Democrats compared to Republicans favor reform, with Independents somewhere in the middle (Blendon, Benson and McMurtry 2018, Brodie et al. 2010). The sharp divide is highlighted in a July, 2018 Kaiser Family Foundation Poll that established that 75% of Democrats held favorable views of the ACA in comparison to 77% of Republicans who held negative views (Kirzinger, Muñana and Brodie 2018). As demonstrated in the national polls, health reform is dependably a partisan issue.

Furthermore, numerous studies have argued that political party identification is a better predictor of favorability towards reform than other demographic variables. In terms of age and race, researchers find that younger and non-white respondents are more likely to favor health reform, but this demographic effect of age and race, albeit significant, is much weaker than political party identification in predicting reform attitudes in their models (Hindman 2012, Reeves and Kriner 2014). Similarly, Brodie et al. identify that Americans living in the North Central and South region of the United States are more likely to approve of the ACA, but they suggest that these regional differences are primarily a result of political party leanings (Brodie, Deane and Cho 2011). These findings reveal the overriding influence of party identification over other social indicators in determining health policy preferences, and the strength of party identification is consistent with voting behaviors of these social groups. For instance, older

Americans and those living in the South are less likely to favor reform and the ACA, and they are also more likely to represent and vote for Republican interests (Binstock 2011, Maxwell 2016, Roper Center 2016, Valentino and Sears 2005). Moreover, females and minority groups are less likely to vote for Republican candidates compared to male and non-Hispanic whites (Binstock 2011). Therefore, the evidence of decreased favorability towards health reform among the elderly, those living in the South, males, non-Hispanics and whites seems tightly tied to affiliation with the Republican party, which the literature suggests is a more robust predictor of attitudes towards health reform than other demographic variables.

Scholars have utilized reference group theory to explain how political party identification influences policy opinions. Research illustrates that individuals may form their own political opinions based on the positions established by their respective political party members, who serve as their primary reference group (Bartels 2002, Goren, Federico and Kittilson 2009, Jacoby 1988). Additionally, Cohen provides evidence in support of reference group theory by showing that college students routinely change their own personal beliefs to match those of their referential political party (Cohen 2003). Consequently, individuals may construct or shift their attitudes to reflect the ideals endorsed by their political party.

In an effort to further characterize the impact of political reference groups, researchers have sought to understand how membership in a political party can affect perception and interpretation of the world. Haidt, in his contemporary book *The Righteous Mind: Why Good People Are Divided by Politics and Religion*, argues that Democrats/liberals and Republicans/conservatives are in a constant state of bitter conflict, because each political group prioritizes different types of moralities (Haidt and Graham 2007). Liberals tend to solely focus on the ethic of *autonomy*, "the idea that people are, first and foremost, autonomous individuals

with wants, needs, and… should be free to satisfy these wants, needs, and preferences as they see fit… without interfering too much in each other's projects." (Haidt 2012). In contrast, conservatives emphasize the ethics of *community* and *divinity* alongside *autonomy*. The ethic of *community* is the, "idea that people are, first and foremost, members of larger entities such as families, teams, armies, companies, tribes, and nations. These larger entities are more than the sum of the people who compose them; they are real, they matter, and they must be protected. People have an obligation to play their assigned roles in these entities. Many societies therefore develop moral concepts such as duty, hierarchy, respect, reputation, and patriotism. In such societies, the Western insistence that people should design their own lives and pursue their own goals seems selfish and dangerous—a sure way to weaken the social fabric and destroy the institutions and collective entities upon which everyone depends." (Haidt 2012). In addition, the ethic of *divinity* is, "the idea that people are, first and foremost, temporary vessels within which a divine soul has been implanted. People are not just animals with an extra serving of consciousness; they are children of God and should behave accordingly… Even if it does no harm and violates nobody's rights when a man has sex with a chicken carcass, he still shouldn't do it because it degrades him, dishonors his creator, and violates the sacred order of the universe." (Haidt 2012). The significant difference between the moralities of *autonomy* and *community/divinity* lay in the importance of the individual. While *autonomy* epitomizes individual agency, *community/divinity* place more importance on personal sacrifice and loyalty to the collective institutions of family and the sacred. For example, conservatives justify their preference for reducing welfare benefits to decrease rates of single motherhood within minority communities, because in their understanding, welfare perpetuates the culture of men abandoning their moral duties as fathers. On the other hand, liberals and Democrats are quick to condemn

these religious beliefs as unethical and racially discriminatory against minority groups, who employ welfare to maintain their identity as autonomous individuals (Haidt 2012). According to Haidt, liberals and conservatives, engrossed in their own distinct combinations of moralities, can lose the ability to communicate with their ideological opponents. Thus, identification with a particular political party can impart a moral interpretive framework that has fueled the significant partisan divide in the American political realm.

Furthermore, these differences in moralities can potentially impact health policy preferences. In recent history, the "death panel" scare, the notion that the ACA would legally allow medical professionals to decide whether particular patients such as the elderly were societally productive enough to deserve medical treatment (Gonyea 2017), was a baseless claim, yet 30% of the people who heard of the death panels believed that they were true; and over twice more Republicans than Democrats were convinced that the ACA would implement these panels (Pew Research Center for the People and the Press 2009). Haidt suggests that conservatives were more likely to believe in death panels and presumably, less likely to support the ACA, because conservatives frequently rely on an ethic of *divinity* that treasures the "sanctity of life". Conversely, liberals tend to focus on morality guided by *autonomy* and secular materialism, the idea that life is matter that can be modified to maximize efficiency (think abortion, genetic modification) that provides a non-sacred definition of life. Therefore, liberals were less likely to fall for the death panel scare (Trost 2009). Heavily colored by political party identification, the moral frameworks that we use to analyze the world can influence our health policy preferences.

The process of politically-motivated reference group socialization is important to consider, because party identification can have ideological influences that can impact health outcomes and behaviors. Kannan and Veazie observe that while Democrats are more likely to

smoke and drink excessively, Republicans are less likely to have a healthier diet, engage in exercise and get flu shots (Kannan and Veazie 2018). In order to interpret this effect, the authors contend that affiliation with a particular political party and their ideals ingrains a cognitive-motivational style that may impact personal philosophies. For example, conservatives hold the sentiment that health and wellness are personal accountabilities (Niederdeppe and Clarke 2013), and this belief may foster a negative opinion of health reform such as the expansion of Medicare that gives the government more power and individuals less responsibility in determining the fate of their health. Overall, research suggests that the socializing impact of party identification can alter the moral and cognitive interpretive scaffolding that we use to navigate our daily lives and make decisions that can impact our health status.

The Effect of Self-Interest and SES

Despite work that has argued that political party identification is a more powerful predictor of approval of reform than income (Reeves and Kriner 2014), numerous studies have emphasized the dual importance of social class and political party identification. Brady and Kessler find that income has a strong, negative association with favorability towards health reform, even after controlling for party identification (Brady and Kessler 2010). Additionally, Henderson and Hillygus find a partisan divide in health reform attitudes, but they also discover that respondents who report having medically-related financial insecurity are more likely to favor reform regardless of party identification (Henderson and Hillygus 2011). Evidence demonstrates that income, a critical component of SES, may impact attitudes towards health reform.

In general, socioeconomic status (SES) is negatively associated with favorability towards health reform and government-based health solutions. Respondents with characteristics typically associated with a higher SES – white, male, advanced education, high income – were less likely

to support increasing the government's role and spending in health care (Gelman, Lee and Ghitza 2010, LeCount and Abrahamson 2017). Some studies have gone even further and have emphasized that SES overshadows the effects of demographic variables in predicting attitudes towards health reform. In one such study, Kinder and Winter indicate that social class – a composite measure of education, income and home ownership – partially explains why Blacks are more likely to favor government health insurance than Whites (Kinder and Winter 2001). Furthermore, Lizotte identifies a gender gap in which women are more likely than men to be in favor of increased government spending on and regulation of health care services, but this gap is reduced after considering income (Lizotte 2016). Therefore, SES seems to be a powerful explanatory variable regardless of demographic indicators such as race and sex in predicting health reform opinions.

Explanations of the SES effect on policy preferences have hinged on the self-interest model, which describes that people will advocate for laws and regulations that are economically or socially beneficial to themselves. LeCount and Abrahamson offer direct evidence for this theory in their analysis that shows that the sickest individuals, who self-rate their health as poorer, are the most supportive of funding and government role in health care (LeCount and Abrahamson 2017). The sick desire health reform, because legislation will help manage the costs of their illness; oppositely, the healthy do not have an immediate need for medical services, so they are less likely to approve of reform. In addition, Gelman et al. suggest that the elderly who qualify for Medicare are less likely to favor reform, because they fear that reform will siphon off resources from Medicare and cause eventual cutbacks in benefits that older adults currently enjoy (Gelman, Lee and Ghitza 2010). According to these studies, there is empirical support that self-interest is a significant predictor of attitudes towards welfare and health reform.

However, the self-interest motive is telling of a worrying pattern. Although healthy people are less likely to become ill and need health care services, the onset of poor health is often sudden and unpredictable. Therefore, long-term self-interest would suggest that individuals with good health should encourage health reform so that there are affordable and accessible health care options in place to prepare for the inevitability of sickness. Yet the outcomes of the LeCount and Abrahamson study indicate that people prefer to focus on short-term gains such as the instant economic relief gained from preventing a reform-related tax hike.

With respect to the apparent self-interest effect among those who are the most ill, it is important to recognize the two following points: adverse selection, and the cyclic connection between SES, poor health and favorability towards health reform. First, adverse selection, also termed negative selection, occurs when certain groups like the elderly and chronically ill make up a significant percentage of a health insurer's client population, because they have direct incentives – the self-interest - to purchase insurance to manage their existing medical conditions. The individual mandate, which imposed a tax penalty on eligible people who decide to forgo health insurance and was recently repealed during the tax reform legislation in 2019, was an ACA law that was intended to prevent adverse selection and ensure that insurance companies had a viable pool of healthy policy-holders, who are less likely to need medical attention, paying monthly premiums to offset the self-interest motive of the sick, who regularly consume health care services. However, following the removal of the individual mandate, premiums are on average 6% higher in 2019 than they would have been with the mandate in place (Kamal et al. 2018). The self-interest motive has been an important driver of adverse selection that has been increasing medical costs for both patients and health insurance providers.

Second, having low SES may contribute to poor health and a lower ability to cope with illnesses and health care costs that eventually manifests as increased favorability towards reform. In their landmark article, Link and Phelan outline that the fundamental causes of disease are most often rooted in the social determinants such as SES rather than the biomedical determinants of health (Link and Phelan 1995), and multiple studies have found evidence in support of the fundamental causes hypothesis. For example, researchers have reported that low SES is partly responsible for lower survival rates among patients diagnosed with breast cancer, higher rates of adolescent obesity and poorer physical health among children (Arias et al. 2018, Roubinov et al. 2018, Silber et al. 2018). Additionally, in a separate analysis, Phelan et al. describe that while there are insignificant differences in all-cause mortality for nonpreventable medical conditions between high SES and low SES subjects, a significant gap exists for preventable medical conditions, in which high SES subjects have higher survival rates than those of low SES subjects (Phelan et al. 2004). These results illustrate that higher SES individuals can use their readily accessible economic and informational resources to increase their chances of survival in the case of preventable diseases. Through the logic of fundamental causes, low SES individuals, who are less able to mobilize social and economic resources, are more likely to be afflicted by illness, and consequently, more likely to invoke the self-interest motive and favor health reform.

Research has also identified the connection between self-interest and welfare policy preferences. Margalit shows that loss of employment is associated with increased favorability towards welfare policies, and Brunner et al. discover that an increase in earnings leads to decreased support for redistributive policies (Brunner, Ross and Washington 2010, Margalit 2013). Their findings demonstrate that individuals who are in financial predicaments are more supportive of welfare legislation given the possibility for personal benefit from such policies.

Ultimately, self-interest seems to be a versatile framework to base our understanding of policy preferences ranging from welfare to health care.

However, critics of the self-interest model question the purported link between self-interest and policy preferences. In his analysis, Mughan claims that self-interest is independent of policy preferences through his study of political attitudes of Americans and Australians that shows that economic insecurity does not predict favorability towards welfare policies (Mughan 2007). Despite this result that contradicts the self-interest motive, the literature review largely reveals that self-interest and political party identification are the two most significant determinants of policy preferences. Specifically, following Haidt's moral foundations theory (Haidt and Graham 2007), membership to a particular political party and ideology imparts a moral interpretative framework that alters the way individuals view the significance of self-interest in their lives. For liberals and Democrats, who prioritize the foundations of fairness and compassion for others, self-interest may be seen as immoral. In contrast, for conservatives and Republicans, who view all five moral foundations – harm/care, fairness/reciprocity, ingroup/loyalty, authority/respect, purity/sanctity – as equally important, self-interest may be justified under certain circumstances. Therefore, the unique treatment of self-interest between Democrats and Republicans may impact the degree to which self-interest affects approval or disapproval of health reform. In sum, both political party identification and self-interest must be considered in order to gain a deeper understanding of how individuals form positive or negative attitudes towards the expansion of Medicare.

Physician Perspectives

Physicians and physician-interest groups have historically opposed health reform that included a national health insurance system. Groups such as the AMA have long argued that a

national health plan would be detrimental to patient choice and physician autonomy. The AMA exhibited its opposition in 1945, when the AMA successfully lobbied against Truman's Health Program and in 2009, when the association resisted the inclusion of a public option in the ACA (Markel 2014, Pear 2009). However, during the 2018 annual conference in Chicago, the AMA decided to study the possibility of modifying their stance on a single-payer health care system (Luthra 2018). But what had prompted the AMA to go against the precedent of opposing national health plans? The answer lies with the medical student caucus that convinced the senior members of the AMA to consider the feasibility of single-payer health reform. In general, younger physicians are emerging as supporters of health reform.

Older physicians tend to hold mixed opinions of the ACA while larger percentages of younger physicians and medical students are in favor of the ACA (Sommers and Bindman 2012). Winkelman et al. find that 63% of medical students surveyed approved of the ACA compared to 36% of the general public and 48% of practicing physicians (Winkelman et al. 2015). Moreover, much like other members of the public, physicians are subject to the effect of political party identification, through which self-identified liberals and conservatives were more and less likely to favor the ACA, respectively (Antiel et al. 2014, Winkelman et al. 2012); it is important to note that unlike the majority of Americans, physicians uniformly belong to a more educated and wealthier SES strata. Interestingly, physician specialty is also significant in predicting attitudes towards the ACA. Surgeons and procedural specialists as well as medical students considering a surgical field were less likely than primary care physicians to favor the ACA (Antiel et al. 2014, Winkelman et al. 2015); in contrast, younger and liberal physicians interested in primary care were the most supportive of health reform. Thus, physician approval of health reform seems to

be connected with party affiliation, stage of medical career (medical student or practicing physician), and medical specialty.

In sum, this paper takes a mixed-methods approach, which some have described as a methodology that offers a "enriched understanding of complex health research problems" (Tariq and Woodman 2013), to first, quantitatively understand, "What social variables are the strongest predictors of favorability towards the expansion of Medicare?" and second, to qualitatively understand, "Why might these social factors be important in predicting attitudes towards expansion?"

QUANTITATIVE METHODS

Data and Sample

The data were extracted from the November 2017 Kaiser Health Tracking Poll (Henry J. Kaiser Family Foundation 2017), a cross-sectional telephone survey that aims to understand the American public's opinions and experiences with recent political issues and the United States health care system. Social Science Research Solutions collected the data from a nationally-representative sample using a random-digit dialing telephone sample that was generated from a list provided by Marketing Systems Group. Only participants over the age of 18 were included in the survey. The sample consists of 1,201 respondents. However, only 603 respondents are included in the final analyses, because only half of the total sample were asked the dependent variable of interest in this study. A weighting scheme is provided in the survey dataset that factors in national population demographics and patterns of telephone use in order to ensure that the sample is as nationally representative as possible. Note that all final analyses utilize this

weight. After weighting, missing data ranges from 0.0% (sex) to 14.5% (health insurance coverage type) of the sample.

Prior to weighting, the sample is majority male, white and non-Hispanic. Ages are roughly evenly distributed in which respondents aged '18-24' compose the smallest cohort at 9.5% of the sample in comparison to respondents aged '65+' who compose the largest cohort at 29.5% of the sample. A plurality of the participants earns 'less than $40,000' annually (33.7%), have employer-based health insurance coverage (42.6%), and a majority are employed (56.4%) with college degrees (54.4%). In addition, respondents are mostly not married (52.1%) and do not serve as the parent or guardian of a dependent under 18 (77.6%). Furthermore, an overview of the covariates reveals that a large number of respondents are from the South (38.1%) and self-rate their health as either excellent or very good (52.9%). Roughly equal numbers of Republicans and Democrats are represented in the sample at 24.0% and 34.0%, respectively. See table 1 for a side-by-side comparison of the unweighted and weighted sample characteristics.

[Table 1]

Measures

Dependent variable. The dependent variable used in this study is a dichotomous, ordinal measure of whether a respondent approved or disapproved of the expansion of Medicare. The survey question asks, "As you may know, people typically become eligible for health insurance through Medicare when they turn 65. Do you favor or oppose giving some people under the age of 65 the option to buy insurance through the Medicare program?" Response categories include favor, oppose, don't know or refused.

Independent variables. The majority of the demographic variables are directly included in the analysis without recoding. However, the race variable is recoded to consolidate the "Asians"

with the "Other or Mixed Race" category due to low response counts. Education is reorganized to reflect the highest degree earned given the excess number of categories in the original variable. For example, participants with some post-graduate schooling but no degree are assumed to have a bachelor's or four-year degree. Both employment status and health insurance coverage type are recoded into a fewer number of categories to minimize the effect of low response counts. The 'retired' category within employment status is retained to be able to study older adults who are most likely to be enrolled in Medicare. Income is measured as an ordinal variable that did not need further recoding. Marital status is reorganized into a dichotomous nominal variable to account for low response counts, and child status, a measure of whether a respondent cared for a dependent under 18 in their household, is used as presented in the dataset. The analysis also includes self-rated health, region of residence and political party identification as control variables in the model; for these control factors, only political party identification is recoded to consolidate 'Independent' and 'Others' into a single group, because I am mainly interested in analyzing opinions among Democrats and Republicans. See figure 1 for additional details on the variables and their respective recoding strategies.

[Figure 1]

Statistical Analyses

Bivariate relationships between the favorability towards the expansion of Medicare and the sociodemographic independent variables are examined using crosstabs with a chi-square statistic. Following the bivariate analysis, a binary logistic regression is used to identify which terms are the most significant predictors of approval of the expansion of Medicare. The weight provided in the Kaiser Family Foundation dataset (Henry J. Kaiser Family Foundation 2017) is

applied to all the statistical analyses. SPSS software (IBM Corp. Released 2017. IBM SPSS Statistics for Windows) is used to conduct all the statistical tests.

QUANTITATIVE RESULTS

[Figure 2]

Univariate & Bivariate Analyses

Figure 2 presents the bivariate crosstab results that show the extent of each sociodemographic group approving of the expansion of Medicare. Overall, an overwhelming majority are in favor of the expansion of Medicare (75.4%). Additionally, respondents aged 55-64 (84.9%), Medicaid beneficiaries (88.2%), Blacks/African-Americans (83.6%), Hispanics (80.0%), participants reporting good health (80.2%) and Democrats (82.8%) are among the most likely to favor the expansion of Medicare. On the other hand, respondents aged '65+' (68.2%), earning '$90K+' annually (68.9%), hailing from the Northeast (69.1%), and supporting the Republican party (64.5%) are among the least likely groups to favor expansion.

Moreover, age is positively related to approval of expansion in a dose-response relationship in which increasing age led to increasing levels of approval up until the '65+' age cohort that has the second lowest favorability proportion in the entire sample (68.2%). In addition, income is negatively related to approval of expansion; for instance, higher income respondents tend to oppose expansion.

In general, lower SES, unhealthier and Democratic respondents are more likely to favor the expansion of Medicare. However, the SES effect is not clearly identified with education, which has a trending significance (p < 0.10) that demonstrates that post-graduates, who have the

highest level of education, are the least likely to favor expansion (69.6%). Refer to figure 2 for additional details on the crosstab results.

[Table 2]

Binary Logistic Regression

Table 2 describes the binary logistic regressions that illustrate the degree to which respondents opposed expanding Medicare to include some groups under 65. Model 1 analyzes the effect of demographics on favorability towards Medicare expansion. This model shows that respondents aged '35-64' are 40.7% (95% CI: 0.402, 0.875) to 62.9% (95% CI: 0.245, 0.561) less likely to oppose expansion than those aged '65+'. The impact of age on reform approval is consistently significant throughout the six models. Additionally, a racial divide in opinion toward expansion is identified in model 1; Blacks/African-Americans are 37.9% (95% CI: 0.423, 0.910) less likely than Whites to oppose expansion.

Model 2 analyzes the effect of SES and demographics on attitudes towards expansion. This model demonstrates that the three measures of SES (income, health insurance coverage type, and education) in the present study and expansion approval are significantly and negatively related. First, consistent with the bivariate crosstab results, higher income individuals are more likely to oppose expansion such that respondents with incomes in the '$90K+' range are 79.6% (95% CI: 1.286, 2.507) more likely than individuals from the lowest income bracket to oppose expansion. Second, Medicaid beneficiaries, who come from low SES backgrounds, are 71.7% (95% CI: 0.169, 0.471) less likely than participants with employer-based health insurance coverage to oppose expansion after controlling for income. Third, respondents with post-graduate degrees are more likely than those with 'high school degrees or less' to oppose expansion (analyses not shown), yet we do not see this significance emerge in model 2, because

income and health insurance coverage type completely mediate the effects of education (analyses not shown). Income and health insurance coverage type also mediate the racial divide that is significant in model 1 (analyses not shown). Finally, model 2 shows that respondents who identify as 'not working' are more likely to oppose expansion, but this result lacks practical meaning, because the 'not working' category consists of a diverse group including students, stay at home parents, the unemployed and disabled.

Model 3 factors in social tie variables, and the findings of this model illustrate that married respondents are 47.5% (95% CI: 1.096, 1.985) more likely than respondents who are not married to oppose reform.

Models 4 and 5 account for the impact of self-rated health and respondent's region of residence on attitudes towards expansion. In the case of self-rated health, respondents who rated their health as 'good' are 49.6% (95% CI: 0.367, 0.693) less likely than those who rated their health as 'excellent/very good' to oppose expansion. In the case of region, participants from the North Central region are 64.2% (95% CI: 1.172, 2.298) more likely than Southern respondents to oppose expansion.

Model 6 considers the effect of political party identification on approval towards expansion. Republicans are 236.9% (95% CI: 2.369, 4.790) more likely than Independents to oppose the expansion of Medicare. Conversely, Democrats are 54.6% (95% CI: 0.320, 0.644) less likely than Independents to oppose expansion. In addition, party identification mediates the effect of marital status, which loses significance in model 6, and party identification suppresses education and Hispanic status, which both regain significance in model 6; respondents with post-graduate degrees are 77.2% (95% CI: 1.132, 2.773) more likely than those with 'high school

degrees or less' to oppose expansion, and Hispanics are 80.1% (95% CI: 1.130, 2.871) more likely than non-Hispanics to oppose the expansion.

[Table 3]

To further understand the suppression effects, I examined possible interactions between Hispanic status, education and political party identification. As shown in table 2, which separately incorporates the two interaction terms (Hispanic Status x Party ID; Education x Party ID) into model 6 (main model), Hispanic Republicans and non-Hispanic Republicans are 318.7% (95% CI: 1.451, 12.080) and 241.1% (95% CI: 2.369, 4.910) more likely than non-Hispanic Independents/Others to oppose the expansion of Medicare. In contrast, non-Hispanic Democrats are 62.2% (95% CI: 0.257, 0.554) less likely than non-Hispanic Independents/Others to oppose expansion. In addition, marital status regains significance in the model that analyzes the interaction between Hispanic status and party identification.

Furthermore, the interaction between education and party illustrates that Republicans in general are more likely than Independents and Democrats to oppose the expansion of Medicare, even after adjusting for education. For instance, 'high school degree or less' Republicans are 1,128.8% (95% CI: 4.835, 31.226) times more likely than post-graduate Independents/Others to oppose expansion. In contrast, 'high school degree or less' and college-graduate Democrats are 66.1% (95% CI: 0.157, 0.732) and 70.2% (95% CI: 0.169, 0.526) less likely than post-graduate Independents/Others to oppose expansion, respectively. Moreover, among Republicans, the degree of opposition towards expansion seems to increase as education levels decrease. While post-graduate Republicans are 102.3% (95% CI: 1.199, 3.414) more likely than post-graduate Independents/Others to oppose expansion, 'high school degree or less' Republicans are over six times more likely to oppose expansion than post-graduate Independents/Others.

The Bayesian Information Criterion (BIC) calculated at the bottom of table 3 informs us that the interaction and main models do not differ in their degree of fit with the data. See table 3 for further details of the interaction analysis.

QUALITATIVE METHODS

Data and Sample

Following Institutional Review Board (IRB) approval and positive verbal consent from participants, the data were collected through in-depth interviews with physicians and medical trainees (medical students and residents) via telephone and in-person meetings, and the interviews were conducted between March 6th and March 19th. The interview asks both close-ended sociodemographic and open-ended health policy questions. A qualitative approach is chosen to offer additional insight into the quantitative findings gathered from the Kaiser Family Foundation Health Tracking Poll; specifically, the interview is designed to understand the views of health care professionals on why the elderly are significantly less likely than younger age groups to favor the expansion of Medicare. Moreover, the interview asks questions regarding the physician's/trainee's own personal views on the expansion of Medicare. Refer to the appendix A for a detailed look at the interview guide.

A total of six participants are included in the study. Four respondents were recruited initially through email through my own personal networks. An additional two respondents were recruited via a snowball sampling strategy. All six interviewees provided consent to be audio-recorded, and these tapes were transcribed verbatim in order to conduct content analysis using the NVivo 12 Pro software (NVivo qualitative data analysis software; QSR International Pty Ltd. Version 12). Overall, the sample consists of non-Hispanic physicians and medical trainees aged

25 to 54 who are primarily White or Caucasian. A plurality of respondents are Democrats and equal numbers of males and females are represented in the sample. Respondents are practicing or interested in numerous types of medical specialties including internal medicine, geriatrics, general surgery, emergency medicine, and palliative medicine. See table 4 for additional details on the summary characteristics of the interview sample.

[Table 4]

QUALITATIVE RESULTS

Self-Interest: A Go-To Explanation for the Age Effect

When asked about why age is significant in predicting attitudes towards expansion, all six respondents cite self-interest as the primary reason older adults over 65 are among the least likely groups to favor expansion. Both physicians and medical students believe that the elderly (over 65) fear that expansion will lead to a cutback in Medicare benefits. Likewise, the respondents suggest that those under 65 are more likely to favor expansion, given that this younger age group will potentially benefit from the expansion. James, an eighth-year surgical resident, sums up the self-interest motive for all age groups:

> I would assume that those over 65 don't want to expand Medicare, because they would assume that it would mean less for them. If we let more people into the club, you get worse medical care. I think for a similar reason, if you're 45-55, you are a direct beneficiary, potentially, of that expansion. Um, I think that you're just thinking about your own situation, and you say, "well man, if I'm going to be, you know, sixty in a couple years, and they are giving me an option to buy-in, maybe that's something that I should do." I assume that both are just self-preservation interests that uh, over 65-year olds say, "I don't want to expand Medicare, because we're just going to dilute the uh, the benefits" and the younger people say they want to expand Medicare, because then they get more stuff.

Furthermore, half of the respondents utilize poor health status, another dimension of self-interest, to explain why those aged 35-64 are significantly more likely to approve of expansion compared to the elderly. The respondents suggest that older age is linked with higher incidence of

disease, and therefore a higher burden of medical costs that push individuals to favor expansion, which would help alleviate these financial concerns. Additionally, respondents believe that poor health status explains why the 45-54 age cohort has an elevated likelihood of favoring expansion than the 65 and over age group. As Matthew elaborates,

> It seems to me that the 45-54 is a sort of "sweet spot" where these people are in the age block where they are using a lot of health care services, so they deal with a large health care cost. So, it makes sense that this group is interested in favoring government aid with health care to help relieve the medical cost burden for this group.

However, this health status explanation should also apply to individuals who are older such as adults aged 55-64, who we would expect to have both the second highest rate of illness and approval of expansion, following adults aged 65 and over; yet the results demonstrate that the 45-54 age category remains the most likely age group to favor expansion, despite the fact that this age group is not the oldest and thus sickest. In an effort to remedy this apparent inconsistency, Dawn points out that the adults in the 45-54 and 55-64 age groups may have experienced the recent economic downturn in distinct ways:

> I don't know if they were impacted by economic downturn, but for those aged 45-54, it may be a group that has had more difficulty finding employment that um, allows them to have health insurance versus the 55-64 group that could have been in a place where they were able to retire with benefits versus being laid off where you won't have any sort of continued benefit after retirement. Um, I don't know if I can say exactly why that the 45-54 category is higher than the 55-64 group but um, I would wonder if the economic downturn was particularly difficult for that age group that's really not that close to retirement age yet.

For Dawn, both the 45-54 and 55-64 age groups are dealing with increased incidences of disease and favor reforms such as Medicare expansion, but during times of national economic distress, members of the 55-64 age cohort, who are close enough to retirement age, are able to retire early and secure adequate financial benefits that allow them to afford health insurance. In contrast, those aged 45-54 are at risk of losing employment during economic recessions without

any possibility of early retirement and pensions; and this outcome puts an enormous financial burden onto this age group, who are then more likely to favor government programs like the expansion of Medicare that promise economic relief.

In addition to the self-interest motive, only Jennifer mentions the possibility of party affiliation and political ideology impacting preferences towards expansion. She describes that she is "a little surprised" that younger people, who tend to be more liberal, did not have more favorable opinions towards reform.

In general, physicians and medical trainees predominantly use a self-interest framework to interpret why individuals over 65 are the least likely group to favor expansion than people aged 35-64.

Conservative Expansion: The Favored Route for Health Reform

Regardless of political party affiliation and physician specialty, the majority of respondents in this present study are in favor of some sort of limited expansion of Medicare. In particular, Ben favors a limited expansion that includes "those who are working and are over 40", because this age group starts to experience the financial demands of paying for increased health care needs. Others such as Matthew and James are also in favor of a limited expansion, but they support implementing a public option, which allows individuals to purchase the Medicare plan through the ACA health insurance marketplace; yet Matthew and James have different reasons for favoring the public option. For Matthew, the public option is an insurance plan that is the least disruptive to the current market-based arrangement of health care in the United States, and therefore, a plan that is the most politically feasible. For James, this buy-in plan serves as an adequate compromise for his desire to both increase access to health care and limit unchecked government spending:

I think generally, yeah, I would favor the option to buy-in. I do have, personally, some degree of uh, fiscally conservative tendencies, so uh, I'm always giving pause when I'm thinking about an expansion of a government aid program or programs that promise to give the electorate something. However, if it's in exchange for some kind of premium or something that the individual has to pay for, you know, some sort of individual contribution, then I think it makes more sense rather than just giving away aid for free.

However, a few of the respondents expressed concern about how the reform would be funded. Unlike Dawn, who is in favor of expansion despite the uncertainty surrounding the affordability of an expanded Medicare program, Jennifer is hesitant to favor expansion, because she believes that there is a current lack of understanding of how the expansion will be funded:

Well, I mean, my inclination would actually be not [favoring Medicare expansion] unless someone could put forth a really cogent explanation for how it's going to be paid for. The articles that I have read so far, much of the um, a lot of the proposals about expanding Medicare when people actually start asking questions about well, where is the money going to come from, I think that the estimate about how much it was going to cost, it's like a hundred trillion dollars. And, I don't know where that money is going to come from and so, and if someone could give me a satisfactory answer to that question, then I think that maybe this would be a good plan but until that time, I'm not necessarily in favor of this [Medicare expansion].

Although Jennifer raised questions as to the economic feasibility of the expansion of Medicare, there is a general approval among physicians and medical trainees that expansion is a much-needed reform that takes steps to reduce costs and increase access and coverage to health care services in the United States.

DISCUSSION & CONCLUSION

Political Party Identification & SES

The regression analysis suggests that SES is a strong predictor of attitudes towards expansion. Aligned with the work of Brady and Kessler (Brady and Kessler 2010), the findings of this study show that lower income respondents and Medicaid beneficiaries, two groups that occupy the

lower rungs of the SES ladder, are the most likely to approve of expansion. Similar to another study (Kinder and Winter 2001), the predictive power of SES is further demonstrated given that income and health insurance coverage type mediate the apparent racial divide in model 1. Therefore, Black/African-American favorability towards expansion seems to be more associated with economic status rather than racial identity, a result that is reminiscent of previous work that finds that the gender discrepancy in attitudes towards the ACA is partially explained by income (Lizotte 2016); however, not all SES indicators are equally important in determining attitudes towards the expansion of Medicare. In addition to explaining the racial divide, income and health insurance coverage type explain the post-graduate opposition to expansion. Post-graduates are less likely to favor expansion, because higher educated individuals tend to occupy higher paying jobs that offer generous health insurance benefits. Thus, the present study suggests that the economic components of SES are robust predictors of favorability towards expansion.

Despite the predictive capability of income and health insurance coverage type, political party identification remains an important factor in influencing attitudes towards expansion. Consistent with past research (Blendon, Benson and McMurtry 2018, Brodie et al. 2010), the results demonstrate that political party identification is a strong determinant of approval of expansion. Democrats are significantly more likely to approve of expansion followed by Independents/Others and then Republicans.

Not only that, political party identification may be a better predictor of expansion than marital status, a documented measure of SES (Penn Wharton Budget Model 2016). For instance, marital status loses significance in model 6 after introducing party identification into the analysis; this mediation effect is explained through the crosstab results of party identification and marital status that show that married individuals, who often occupy higher SES strata (Penn

Wharton Budget Model 2016), frequently affiliate with the Republican party, a trend that previous researchers have identified (Jones 2008, Newport 2009). Therefore, Republican party affiliation explains why married respondents are more opposed to expansion than 'not married' respondents; and therefore, party identification proves to be a more potent explanatory variable of opinions towards the expansion of Medicare than certain measures of SES.

Furthermore, the interaction analysis of education, Hispanic status and party identification illustrates that political party mainly determines whether a respondent is in favor or in opposition to expansion. In fact, regardless of education, all Republican and Democrat groups are more and less likely to be opposed to the expansion of Medicare, respectively, when compared to Independent post-graduates. Likewise, the interaction between Hispanic status and political party identification reveals that party identification largely predicts attitudes towards expansion. For example, non-Hispanic and Hispanic Republicans are both significantly more likely to oppose expansion than non-Hispanic Independents. Overall, the interaction analysis suggests that party identification plays a major role while Hispanic status and education play minor roles in influencing opinions toward expansion.

Nonetheless, education may still be worthy of consideration when studying policy preferences among the public, because the interaction analysis also demonstrates a negative dose-response relationship between education and Republican party affiliation. As education levels decrease, there is a steady increase in the likelihood of opposing the expansion of Medicare. In contrast to previous work that found that higher education strengthens a respondent's existing political opinions (Legerski and Berg 2018), this result demonstrates that higher education among Republicans leads to lower levels of opposition towards expansion; consequently, just as Heerwig and McCabe suggest, education may have a "liberalizing" effect

(Heerwig and McCabe 2009) that may induce respondents to be less opposed to liberal policies such as the expansion of Medicare.

Ultimately, echoing the work conducted by Henderson and Hillygus (Henderson and Hillygus 2011), the present study provides ample evidence that the economic and educational dimensions of SES should be analyzed in conjunction with party identification to accurately assess policy preferences among the public.

Age

In contrast to previous studies that assert that the effect of age on policy preferences is a product of political party identification (Hindman 2012, Reeves and Kriner 2014), my findings suggest that age is a strong, dependable predictor of health reform opinion, even after controlling for political party affiliation and other sociodemographic variables. Given these results, two questions arise: first, why are older adults over the age of 65, who qualify for Medicare and are most likely to be insured, significantly less likely to favor the expansion of Medicare compared to those aged 35-64? Second, why are adults in the 45-54 age bracket over twice more likely than those aged 35-44 and 55-64 to favor expansion?

A tempting explanation for the opposition of elderly persons lies in the self-interest motive with respect to health. Given that individuals with 'good' health are significantly more likely to favor expansion than those with 'excellent/very good' health, there is evidence from my study as well as previous work (LeCount and Abrahamson 2017) that suggests that respondents who have poorer health are more likely to support expansion, because they will directly benefit from such a policy. Not only that, numerous physicians and medical trainees attribute the higher likelihood of expansion approval among those aged '35-64' to the poor health of individuals in this age group, who do not qualify for Medicare. However, a crosstab analysis between self-rated

health and age finds that similar numbers of respondents in both the '55-64' and '65+' age groups report 'good' and 'fair/poor' health, so the elderly do not seem to be any sicker than some of the younger age groups. Therefore, there is a lack of support for the self-interest motive in the context of health status in this study.

Gelman, Lee and Ghitza offer another explanation by citing that elderly persons' disapproval of the expansion of Medicare is in part motivated by self-interest in the context of Medicare benefits (Gelman, Lee and Ghitza 2010). They suggest that older adults are hesitant about supporting the expansion of Medicare, because the elderly are concerned that they will experience a cutback in health insurance benefits if the program is extended to include people under 65. In fact, all six interview respondents cite self-interest as the primary motive for why those aged '65+' are the least likely to favor expansion than some of the younger age groups. Thus, my findings illustrate that the elderly express higher levels of disapproval towards expansion, because they are more disposed towards associating Medicare expansion with a dilution in personal insurance benefits. Consequently, Medicare expansion legislators and policy implementors interested in gaining support from the elderly, who represent 14.9% of the U.S. population (U.S. Census Bureau 2016), should design a plan that does not interfere with the Medicare benefits that older adults currently receive.

In addition, the heightened degree of approval for those in the '45-54' age category continues to be perplexing, especially given that the '45-54' age group has the highest percentage of Republicans, who are among the most likely to disapprove of expansion. For the physicians and medical trainees interviewed, reasons for this effect revolved around poorer health and the impact of economic downturn within this age group; however, health status does not explain this effect, because those aged '45-54' do not seem to be any sicker than respondents

aged '35-44' and '55-64'. Second, this present research utilizes a cross-sectional design, so reasonable conclusions about the effect of past recessions cannot be adequately measured. Given the lack of consensus on why adults aged '45-54' are the most likely age group to favor reform, what other explanations can account for this age effect?

Drawing from empirical work conducted by Case and Deaton (Case and Deaton 2015), I suggest that it may be possible that the '45-54' age cohort is the most likely age group to favor expansion in part because non-Hispanic Whites in this age group have been experiencing a rapid increase in mortality rates by poisonings (drugs and alcohol) such as opioid overdoses. I argue that respondents in this age group have been exposed to these poisoning-related deaths within their peer networks; and the experience with these deaths may have encouraged individuals aged '45-54' to favor the expansion of Medicare, in hopes that such a reform would tackle drug and alcohol abuse deaths that they have experienced within their own communities. Future research should aim to test whether the increasing mortality rates of non-Hispanic whites aged '45-54' have been influencing health policy opinions.

Physician Views and their Determinants

In contrast to previous findings surrounding physician and medical student attitudes towards health reform (Antiel et al. 2014, Sommers and Bindman 2012, Winkelman et al. 2012, Winkelman et al. 2015), five out of six interview respondents report favoring some form of Medicare expansion regardless of medical specialty, age, political party affiliation, and whether they are a medical trainee (medical student or resident) or practicing physician. Although primary care and Democratic physicians/medical students were more likely than specialist and Republican physicians to favor the ACA in past research, the results of my study provide some

evidence that physicians in general may be beginning to see health reform such as Medicare expansion in a more positive light.

Limitations

Nonetheless, the present study is limited in the following ways. First, the number of interview respondents are too few in number and the sample was generated in a non-random fashion to adequately generalize the qualitative findings to a larger population of physicians and medical trainees. Not only that, the interview sample was primarily recruited from academic medical institutions that further diminishes the generalizability of the qualitative results. Future work should focus on increasing sample size and recruiting in a randomized manner from a diverse range of medical settings to better be able to generalize medical professionals' attitudes towards the expansion of Medicare and their interpretations as to why certain variables are important in predicting the public's favorability towards expansion.

In addition, my study utilized self-report measures in both the quantitative and qualitative analyses; therefore, survey measures such as self-reported health and interview responses may be limited in that the data were self-reported. Other research can build off of this study by, for instance, measuring health status of a participant through medical expert evaluations to provide verifiable indicators of personal health.

Moreover, the wording of the Kaiser Family Foundation Health Tracking Poll permits this present study to only examine whether survey respondents favored or opposed providing a Medicare based insurance option for "some people under the age of 65" that would exist alongside private insurance plans. Consequently, the above analyses cannot make inferences on public attitudes towards other Medicare expansion plans such as "Medicare for All" that proposes to replace private insurance plans entirely with a single, government-run plan.

Finally, the data analyzed represent public opinion in November 2017 and thus, the results may not be indicative of current public attitudes towards the expansion of Medicare, which has gained increasing traction in the public sphere through the media in the past year. A more accurate representation of public opinion can be obtained in a future study that investigates more recent data.

Future Directions

The present study provides additional support for past research that finds that SES and political party affiliation are both strong and dominant predictors of attitudes towards health reform among the public. Future researchers should work to unpack the reasons behind the socioeconomically privileged individuals' disapproval towards expansion, similar to how Jonathan Haidt develops his moral foundations framework to explain how political party affiliation has contributed to the mechanism by which individuals justify their policy preferences. A more in-depth understanding of these reasons can set up the grounds for civil and productive debates that can lead to compromises on controversial topics such as health care reform.

Furthermore, taking a slightly different approach to other research conducted on health policy that chiefly use quantitative methods, this study takes advantage of a mixed-methods approach that first, quantitatively identifies age among other variables that predict favorability towards Medicare expansion and second, qualitatively suggests that self-interest motivates those over 65 to reject reform in the opinion of medical professionals, who have valuable experience interacting with older Americans in the health care setting. These results offer a glimpse into the intricate understanding of Medicare expansion preferences among the American elderly that legislators and researchers can employ to design more effective and feasible health policies.

This study also shows that unlike in the past, both physicians and medical students/residents in general may be cautiously favorable towards the expansion of Medicare. It is possible that as more information regarding Medicare expansion disseminates into the medical field that more physicians are seeing the merits of expansion. It would be interesting for future work to examine if there exists an unprecedented wave of support towards health reform among practicing physicians.

REFERENCES

Antiel, R. M., K. M. James, J. S. Egginton, R. D. Sheeler, M. Liebow, S. D. Goold and J. C. Tilburt. 2014. "Specialty, Political Affiliation, and Perceived Social Responsibility Are Associated with U.S. Physician Reactions to Health Care Reform Legislation." *J Gen Intern Med* 29(2):399-403. doi: 10.1007/s11606-013-2718-4.

Arias, N., M. D. Calvo, J. A. Benitez-Andrades, M. J. Alvarez, B. Alonso-Cortes and C. Benavides. 2018. "Socioeconomic Status in Adolescents: A Study of Its Relationship with Overweight and Obesity and Influence on Social Network Configuration." *Int J Environ Res Public Health* 15(9). doi: 10.3390/ijerph15092014.

Bartels, Larry M. 2002. "Beyond the Running Tally: Partisan Bias in Political Perceptions." *Political Behavior* 24(2):117-50. doi: 10.1023/A:1021226224601.

Binstock, Robert H. 2011. "Older Voters and the 2010 U.S. Election: Implications for 2012 and Beyond?". *The Gerontologist* 52(3):408-17. doi: 10.1093/geront/gnr118.

Blendon, R. J. and J. M. Benson. 2009. "The American Public and the Next Phase of the Health Care Reform Debate." *N Engl J Med* 361(21):e48. doi: 10.1056/NEJMp0906394.

Blendon, R. J., J. M. Benson and C. L. McMurtry. 2018. "Health Care in the 2018 Election." *N Engl J Med* 379(18):e32. doi: 10.1056/NEJMsr1813425.

Blendon, Robert J. and John M. Benson. 2001. "Americans' Views on Health Policy: A Fifty-Year Historical Perspective." *Health Affairs* 20(2):33-46. doi: 10.1377/hlthaff.20.2.33.

Brady, D. W. and D. P. Kessler. 2010. "Who Supports Health Reform?". *PS Polit Sci Polit* 43(1):1-6. doi: 10.1017/S1049096510990720.

Brodie, M., D. Altman, C. Deane, S. Buscho and E. Hamel. 2010. "Liking the Pieces, Not the Package: Contradictions in Public Opinion During Health Reform." *Health Aff (Millwood)* 29(6):1125-30. doi: 10.1377/hlthaff.2010.0434.

Brodie, M., C. Deane and S. Cho. 2011. "Regional Variations in Public Opinion on the Affordable Care Act." *J Health Polit Policy Law* 36(6):1097-103. doi: 10.1215/03616878-1460587.

Brodie, M., H. C. Hamel and M. Norton. 2015. "Medicare as Reflected in Public Opinion." *Journal of the American Society on Aging* 39(2).

Brunner, Eric, Stephen L. Ross and Ebonya Washington. 2010. "Economics and Policy Preferences: Causal Evidence of the Impact of Economic Conditions on Support for Redistribution and Other Ballot Proposals." *The Review of Economics and Statistics* 93(3):888-906. doi: 10.1162/REST_a_00088.

CAP Health Policy Team. 2018. "Medicare Extra for All." *Center for American Progress*. Retrieved: Nov 14, 2018 (https://www.americanprogress.org/issues/healthcare/reports/2018/02/22/447095/medicare-extra-for-all/).

Case, A. and A. Deaton. 2015. "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century." *Proc Natl Acad Sci U S A* 112(49):15078-83. doi: 10.1073/pnas.1518393112.

Cohen, Geoffrey L. 2003. "Party over Policy: The Dominating Impact of Group Influence on Political Beliefs." Pp. 808-22: American Psychological Association.

Cohen, W. J. 1985. "Reflections on the Enactment of Medicare and Medicaid." *Health Care Financ Rev* Suppl:3-11.

Dalen, James E., Keith Waterbrook and Joseph S. Alpert. 2015. "Why Do So Many Americans Oppose the Affordable Care Act?". *The American Journal of Medicine* 128(8):807-10. doi: https://doi.org/10.1016/j.amjmed.2015.01.032.

Geiger, A. 2018. "A Look at Voters' Views Ahead of the 2018 Midterms." *Pew Research Center*. Retrieved: Nov 15, 2018 (http://www.pewresearch.org/fact-tank/2018/11/01/a-look-at-voters-views-ahead-of-the-2018-midterms/).

Gelman, Andrew, Daniel Lee and Yair Ghitza. 2010. "Public Opinion on Health Care Reform." in *The Forum*, Vol. 8.

Gonyea, D. 2017. "From the Start, Obama Struggled with Fallout from a Kind of Fake News." Retrieved: Feb 20, 2019 (https://www.npr.org/2017/01/10/509164679/from-the-start-obama-struggled-with-fallout-from-a-kind-of-fake-news).

Goren, Paul, Christopher M. Federico and Miki Caul Kittilson. 2009. "Source Cues, Partisan Identities, and Political Value Expression." *American Journal of Political Science* 53(4):805-20. doi: 10.1111/j.1540-5907.2009.00402.x.

Haidt, Jonathan and Jesse Graham. 2007. "When Morality Opposes Justice: Conservatives Have Moral Intuitions That Liberals May Not Recognize." *Social Justice Research* 20(1):98-116. doi: 10.1007/s11211-007-0034-z.

Haidt, Jonathan. 2012. *The Righteous Mind : Why Good People Are Divided by Politics and Religion*. New York: Pantheon Books.

Heerwig, Jennifer A. and Brian J. McCabe. 2009. "Education and Social Desirability Bias: The Case of a Black Presidential Candidate*." *Social Science Quarterly* 90(3):674-86. doi: 10.1111/j.1540-6237.2009.00637.x.

Henderson, M. and D. S. Hillygus. 2011. "The Dynamics of Health Care Opinion, 2008-2010: Partisanship, Self-Interest, and Racial Resentment." *J Health Polit Policy Law* 36(6):945-60. doi: 10.1215/03616878-1460533.

Henry J Kaiser Family Foundation. 2019. "Kff Health Tracking Poll: The Public's Views on the Aca." Retrieved: Feb 19, 2019 (https://www.kff.org/interactive/kff-health-tracking-poll-the-publics-views-on-the-aca/#?response=Favorable--Unfavorable&aRange=twoYear).

Henry J. Kaiser Family Foundation. 2017. "Kaiser Family Foundation Poll: November 2017 Kaiser Health Tracking Poll." edited by Social Science Research Solutions: RoperExpress.

Hindman, Douglas Blanks. 2012. "Knowledge Gaps, Belief Gaps, and Public Opinion About Health Care Reform." *Journalism & Mass Communication Quarterly* 89(4):585-605. doi: 10.1177/1077699012456021.

IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.

Jacoby, William G. 1988. "The Impact of Party Identification on Issue Attitudes." *American Journal of Political Science* 32(3):643-61. doi: 10.2307/2111240.

Japsen, B. 2018. "Medicare at 55 Could Gain Momentum in 2019." Retrieved: Jan 14, 2019 (https://www.forbes.com/sites/brucejapsen/2018/12/30/medicare-at-55-could-gain-momentum-in-2019/#6ceda72b70ef).

Jones, J. 2008. "Marital Status and Party Preference Often Related: Gop Fares Better among Married American." Retrieved: Feb 26, 2019 (https://news.gallup.com/poll/104335/Love-Politics-Valentines-Day.aspx).

Kamal, R., C. Cox, R. Fehr, M. Ramirez, K. Horstman and L. Levitt. 2018. "How Repeal of the Individual Mandate and Expansion of Loosely Regulated Plans Are Affecting 2019 Premiums." *Health Costs*. Retrieved: Nov 17, 2018 (https://www.kff.org/health-costs/issue-brief/how-repeal-of-the-individual-mandate-and-expansion-of-loosely-regulated-plans-are-affecting-2019-premiums/).

Kannan, Viji Diane and Peter J. Veazie. 2018. "Political Orientation, Political Environment, and Health Behaviors in the United States." *Preventive Medicine* 114:95-101. doi: https://doi.org/10.1016/j.ypmed.2018.06.011.

Kessler, D. P. and D. W. Brady. 2009. "Putting the Public's Money Where Its Mouth Is." *Health Aff (Millwood)* 28(5):w917-25. doi: 10.1377/hlthaff.28.5.w917.

Kiley, J. 2018. "Most Continue to Say Ensuring Health Care Coverage Is Government's Responsibility." *Pew Research Center*. Retrieved: Nov 28, 2018 (http://www.pewresearch.org/fact-tank/2018/10/03/most-continue-to-say-ensuring-health-care-coverage-is-governments-responsibility/).

Kinder, Donald R. and Nicholas Winter. 2001. "Exploring the Racial Divide: Blacks, Whites, and Opinion on National Policy." *American Journal of Political Science* 45(2):439-56. doi: 10.2307/2669351.

Kirzinger, A., C. Muñana and M. Brodie. 2018. "Kaiser Health Tracking Poll - July 2018: Changes to the Affordable Care Act; Health Care in the 2018 Midterms and the Supreme Court." *Kaiser Family Foundation*. Retrieved: Nov 17, 2018 (https://www.kff.org/health-reform/poll-finding/kaiser-health-tracking-poll-july-2018-changes-to-the-affordable-care-act-health-care-in-the-2018-midterms-and-the-supreme-court/).

LeCount, Ryan Jerome and Kathleen Abrahamson. 2017. "Self-Rated Health and Attitudes About U.S. Health Care Policy." *Sociological Spectrum* 37(4):237-49. doi: 10.1080/02732173.2017.1334607.

Legerski, Elizabeth Miklya and Justin Allen Berg. 2018. "Does Educational Attainment Influence the Relationship between Political Orientation and Opinions toward the Affordable Care Act?". *Health Sociology Review* 27(1):75-88. doi: 10.1080/14461242.2017.1395289.

Link, B. G. and J. Phelan. 1995. "Social Conditions as Fundamental Causes of Disease." *J Health Soc Behav* Spec No:80-94.

Lizotte, Mary-Kate. 2016. "Investigating Women's Greater Support of the Affordable Care Act." *The Social Science Journal* 53(2):209-17. doi: https://doi.org/10.1016/j.soscij.2014.12.003.

Luthra, S. 2018. "Once Its Greatest Foes, Some Doctors Are Now Embracing Single-Payer." *Kaiser Health News*. Retrieved: Nov 8, 2018 (https://khn.org/news/once-its-greatest-foes-doctors-are-embracing-single-payer/).

Margalit, Yotam. 2013. "Explaining Social Policy Preferences: Evidence from the Great Recession." *American Political Science Review* 107(1):80-103. doi: 10.1017/S0003055412000603.

Markel, H. 2014. "69 Years Ago, a President Pitches His Idea for National Health Care." *PBS New Hour*. Retrieved: Nov 27, 2018 (https://www.pbs.org/newshour/health/november-19-1945-harry-truman-calls-national-health-insurance-program).

Maxwell, Angie. 2016. "A Tale of Two Tea Parties? Southern Distinctiveness and Tea Party Membership." *PS: Political Science & Politics* 49(2):210-14. doi: 10.1017/S1049096516000056.

McCanne, D. 2018. "Medical Students Bring the Ama into the Single Payer Dialogue." *Quote of the Day*. Retrieved: Jan 18, 2019 (http://pnhp.org/news/medical-students-bring-the-ama-into-the-single-payer-dialogue/).

Mughan, Anthony. 2007. "Economic Insecurity and Welfare Preferences: A Micro-Level Analysis." *Comparative Politics* 39(3):293-310. doi: 10.2307/20434042.

Newport, F. 2009. "Marriage Remains Key Predictor of Party Identification: Married Americans Tilt Republican; Unmarried Americans, Democratic." Retrieved: Feb 26, 2019 (https://news.gallup.com/poll/121571/marriage-remains-key-predictor-party-identification.aspx).

Niederdeppe, Jeff and Christopher Clarke. 2013. "Public Views About Health Causation, Attributions of Responsibility, and Inequality Au - Lundell, Helen." *Journal of Health Communication* 18(9):1116-30. doi: 10.1080/10810730.2013.768724.

NVivo qualitative data analysis software; QSR International Pty Ltd. Version 12, 2018.

Pear, R. 2009. "Doctors' Group Opposes Public Insurance Plan." *The New York Times*. Retrieved: Jan 14, 2019 (https://www.nytimes.com/2009/06/11/us/politics/11health.html).

Penn Wharton Budget Model. 2016. "Socioeconomic Patterns of Marriage and Divorce." Retrieved: Feb 26, 2019 (http://budgetmodel.wharton.upenn.edu/issues/2016/2/3/socioeconomic-patterns-of-marriage-and-divorce).

Pentecost, M. J. 2006. "Health Care and Public Opinion." *Perm J* 10(2):83-5.

Pew Research Center for the People and the Press. 2009. "Health Care Reform Closely
Followed, Much Discussed.". Retrieved: Feb 20, 2019 (http://www.people-press.org/2009/08/20/health-care-reform-closely-followed-much-discussed/).

Pew Research Center for the People and the Press. 2012. "For Voters It's Still the Economy."
Pew Research Center. Retrieved: Nov 14, 2018 (http://www.people-press.org/2012/09/24/for-voters-its-still-the-economy/).

Pew Research Center for the People and the Press. 2014. "Section 4: Political Compromise and
Divisive Policy Debates." *Pew Research Center*. Retrieved: Nov 14, 2018
(http://www.people-press.org/2014/06/12/section-4-political-compromise-and-divisive-policy-debates/).

Pew Research Center for the People and the Press. 2017. "Public Trust in Government: 1958-
2017." *Pew Research Center*. Retrieved: Nov 14, 2018 (http://www.people-press.org/2017/12/14/public-trust-in-government-1958-2017/).

Phelan, J. C., B. G. Link, A. Diez-Roux, I. Kawachi and B. Levin. 2004. ""Fundamental Causes" of
Social Inequalities in Mortality: A Test of the Theory." *J Health Soc Behav* 45(3):265-85.
doi: 10.1177/002214650404500303.

Reeves, Andrew and Douglas L. Kriner. 2014. "Responsive Partisanship: Public Support for the
Clinton and Obama Health Care Plans." *Journal of Health Politics, Policy and Law*
39(4):717-49. doi: 10.1215/03616878-2743015.

Relman, E. and B. Bryan. 2018. "Democrats Are Embracing a Radical Change to Us Healthcare,
and It Could Be the Defining Political Fight for Years to Come." *Business Insider*.
Retrieved: Jan 14, 2019 (https://www.businessinsider.com/medicare-for-all-democrats-bernie-sanders-trump-details-2018-9).

Roper Center. 2016. "How Groups Voted in 2016." Retrieved: Jan 13, 2019
(https://ropercenter.cornell.edu/how-groups-voted-2016).

Roubinov, Danielle S., Melissa J. Hagan, W. Thomas Boyce, Nancy E. Adler and Nicole R. Bush.
2018. "Family Socioeconomic Status, Cortisol, and Physical Health in Early Childhood:
The Role of Advantageous Neighborhood Characteristics." *Psychosomatic Medicine*
80(5).

Silber, Jeffrey H., Paul R. Rosenbaum, Richard N. Ross, Joseph G. Reiter, Bijan A. Niknam,
Alexander S. Hill, Diana M. Bongiorno, Shivani A. Shah, Lauren L. Hochman, Orit Even-Shoshan and Kevin R. Fox. 2018. "Disparities in Breast Cancer Survival by Socioeconomic
Status Despite Medicare and Medicaid Insurance." *The Milbank Quarterly* 96(4):706-54.
doi: 10.1111/1468-0009.12355.

Sommers, Benjamin D. and Andrew B. Bindman. 2012. "New Physicians, the Affordable Care Act, and the Changing Practice of Medicine." *JAMA* 307(16):1697-98. doi: 10.1001/jama.2012.523.

Starr, Paul. 1982. *The Social Transformation of American Medicine*. New York: Basic Books.

Tariq, S. and J. Woodman. 2013. "Using Mixed Methods in Health Research." *JRSM Short Rep* 4(6):2042533313479197. doi: 10.1177/2042533313479197.

Trost, M. 2009. "The Healthcare Debate: Jonathan Haidt on How Our Moral Roots Skew Our Reasoning." TED Blog. (https://blog.ted.com/the_healthcare/).

U.S. Census Bureau. 2016. *Table 1. Population by Age and Sex: 2016*   Congress. Retrieved Mar 20, 2019 (https://www.census.gov/data/tables/2016/demo/age-and-sex/2016-age-sex-composition.html).

Upadhyay, P. and C. Dinh. 2018. "Public Opinion and Health Reform." (https://ldi.upenn.edu/healthpolicysense/public-opinion-and-health-reform).

Valentino, Nicholas A. and David O. Sears. 2005. "Old Times There Are Not Forgotten: Race and Partisan Realignment in the Contemporary South." *American Journal of Political Science* 49(3):672-88. doi: 10.1111/j.1540-5907.2005.00136.x.

Weigel, D. 2019. "House Democrats Plan to Hold Hearings on Medicare for All." *The Washington Post*. Retrieved: Jan 14, 2019 (https://www.washingtonpost.com/powerpost/democrats-plan-to-hold-hearings-on-medicare-for-all/2019/01/03/7051eccc-0f6c-11e9-84fc-d58c33d6c8c7_story.html?utm_term=.cd9031fd8e1f).

Winkelman, T. N., R. M. Antiel, C. S. Davey, J. C. Tilburt and J. Y. Song. 2012. "Medical Students and the Affordable Care Act: Uninformed and Undecided." *Arch Intern Med* 172(20):1603-5. doi: 10.1001/archinternmed.2012.3758.

Winkelman, T. N., L. S. Lehmann, N. K. Vidwan, M. Niess, C. S. Davey, D. Donovan, J. Cofrancesco, Jr., M. Mallory, S. Moutsios, R. M. Antiel and J. Y. Song. 2015. "Medical Students' Views and Knowledge of the Affordable Care Act: A Survey of Eight U.S. Medical Schools." *J Gen Intern Med* 30(7):1018-24. doi: 10.1007/s11606-015-3267-9.

Yankelovich, D. 1995. "The Debate That Wasn't: The Public and the Clinton Plan." *Health Aff (Millwood)* 14(1):7-23.

Table 1: Sample descriptive characteristics

	Unweighted (n = 603)	Weighted (n = 2,179)
Sex	%	%
Female	47.6	52.3
Male	52.4	47.7
Age		
18-24	9.5	13.0
25-34	13.9	18.9
35-44	12.6	15.7
45-54	14.3	17.0
55-64	19.6	15.8
65+	29.5	19.1
Race		
White	75.3	70.1
Black/African-American	10.9	14.0
Other	10.3	12.5
Hispanic		
No	86.1	83.6
Yes	13.1	15.5
Education		
HS or Less	25.2	40.4
College Degree	54.4	46.2
Post-graduate Degree	19.2	12.2
Employment Status		
Employed	56.4	59.3
Not Working	19.2	24.7
Retired	23.1	14.7
Respondent Income		
Less than $40K	33.7	41.8
$40K-$90K	30.3	28.6
$90K+	26.2	21.1
Coverage Type		
Employer-based	42.6	41.4
Medicare	22.9	15.9
Medicaid	9.1	12.4
Other	14.4	15.9
Marital Status		
Not Married	52.1	57.3
Married	47.8	42.5
Child		
No	77.6	72.7

Yes	21.9	26.5
Self-rated Health		
Excellent/Very Good	52.9	51.0
Good	28.9	28.1
Fair/Poor	17.7	20.0
Region		
South	38.1	38.3
Northeast	15.9	15.9
North Central	21.7	21.2
West	24.2	24.6
Party		
Republican	24.0	22.7
Democrat	34.0	34.8
Independent/Other	39.8	39.8

1. Percentage calculations include missing values
2. HS attribute in education stands for high school

Figure 1: A flowchart of independent variables that describes each variable (blue) and its respective attributes (yellow) included in the final analyses.
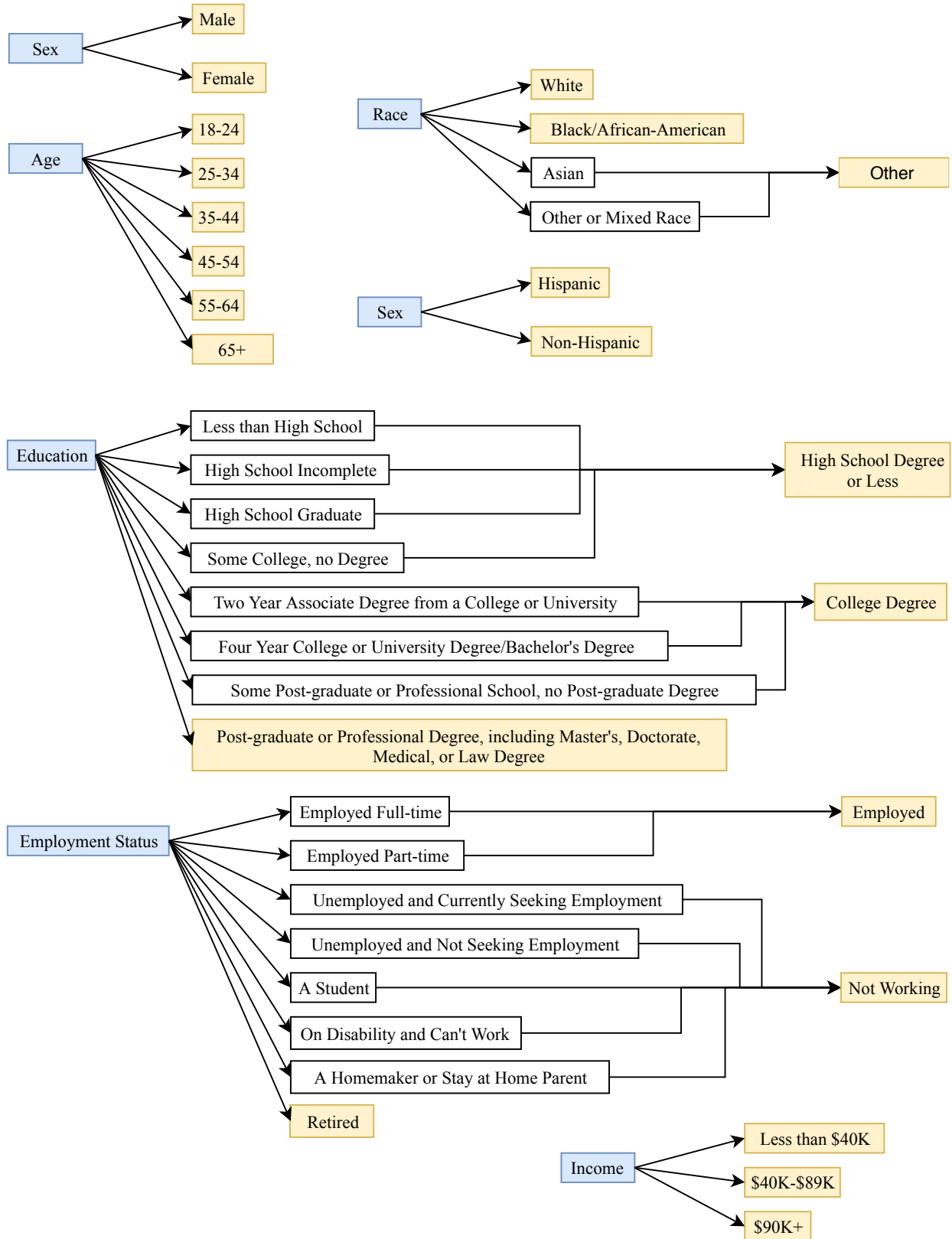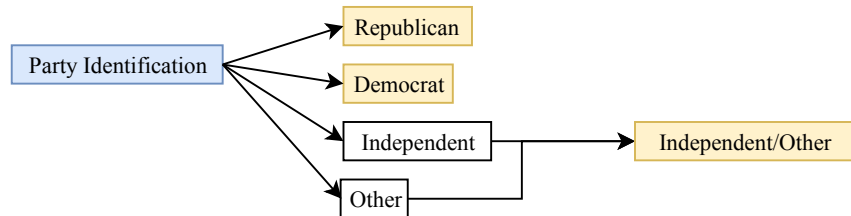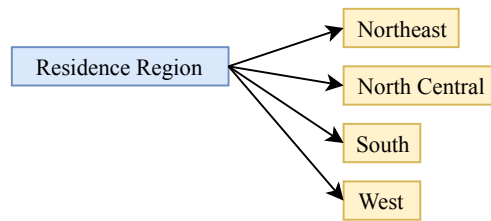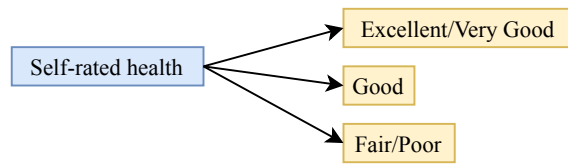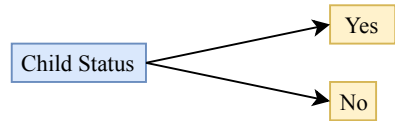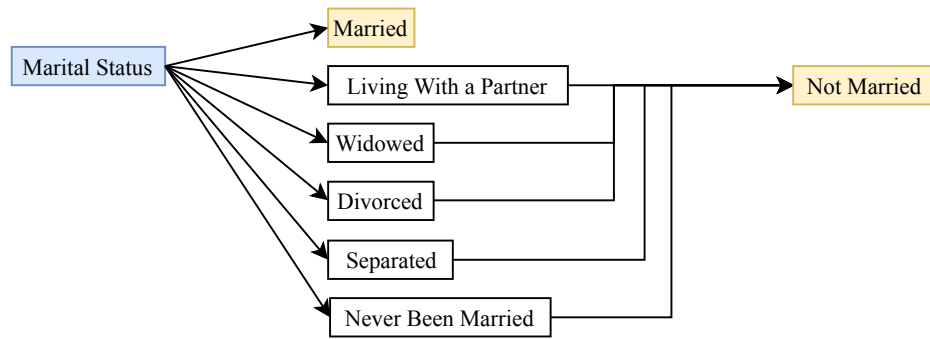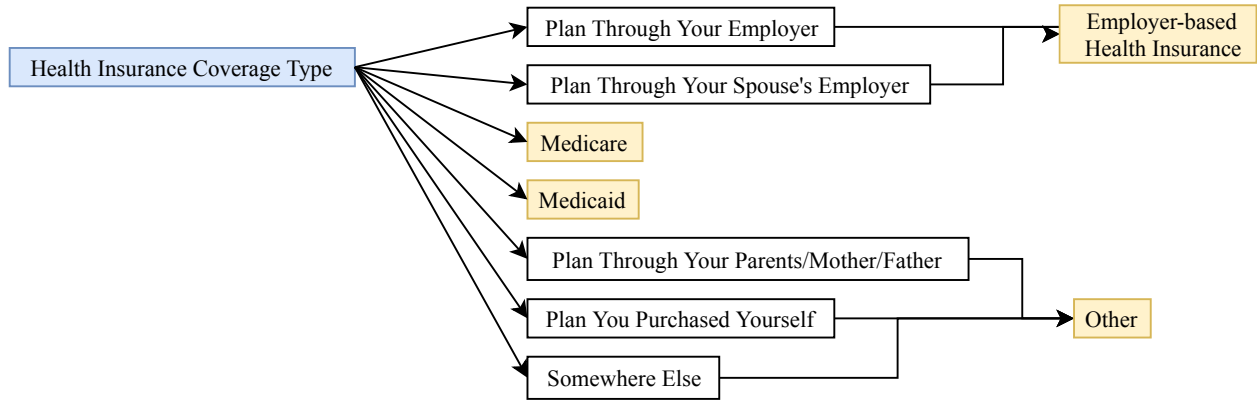
Figure 2: Crosstab results of % favoring the expansion of Medicare by sociodemographic group with chi-square statistic

Employed — 76.3
Post-graduate Degree — 69.6
High School Degree or Less — 76.0
College Degree — 76.2
Non-Hispanic — 74.6
Hispanic — 80.0
Other Race — 73.8
White — 75.0
Black/African-American — 83.6
18-24 — 69.7
25-34 — 72.6
35-44 — 73.8
45-54 — 82.9
55-64 — 84.9
65+ — 68.2
Female — 74.5
Male — 76.3
Overall Sample — 75.4

% Favoring Expansion of Medicare
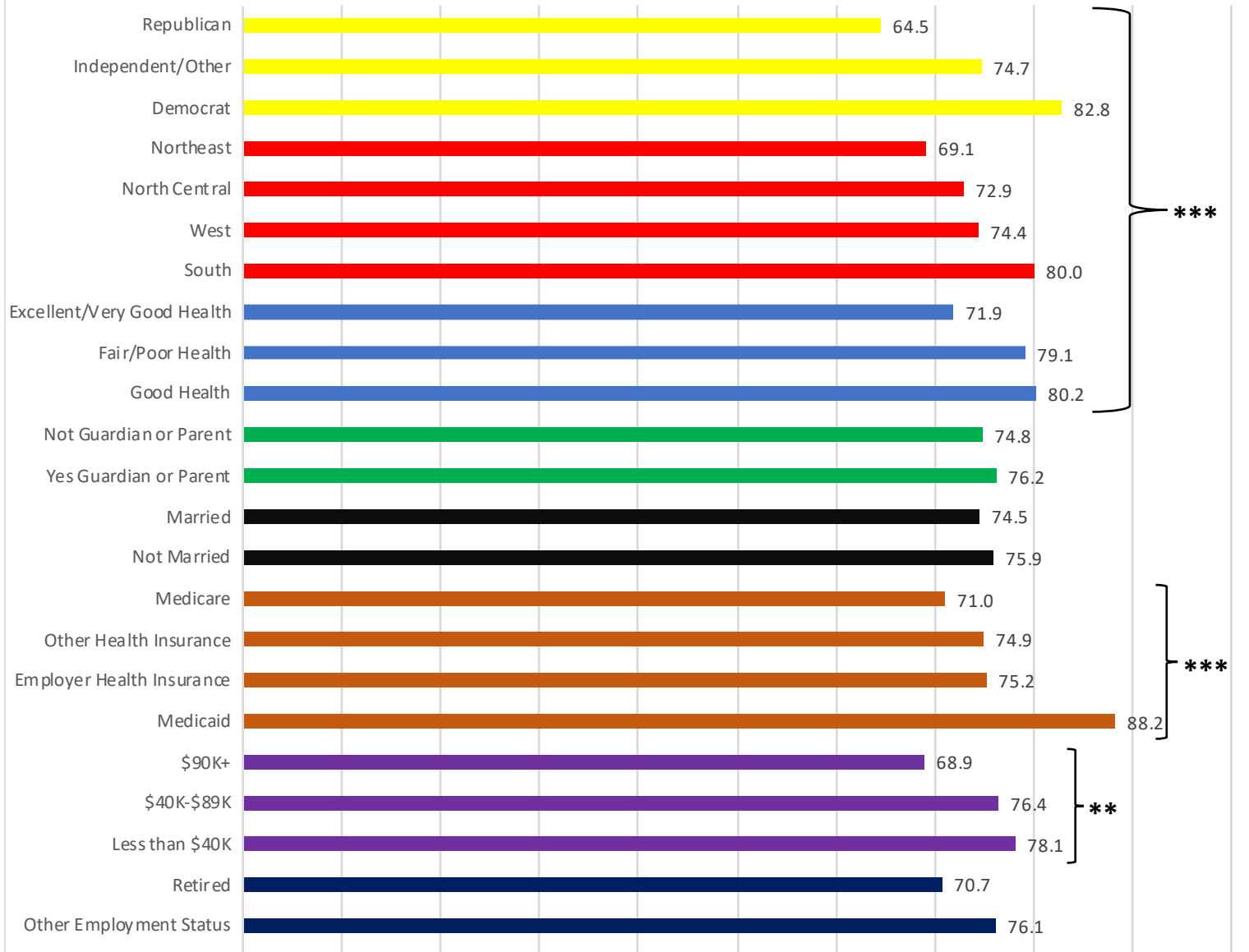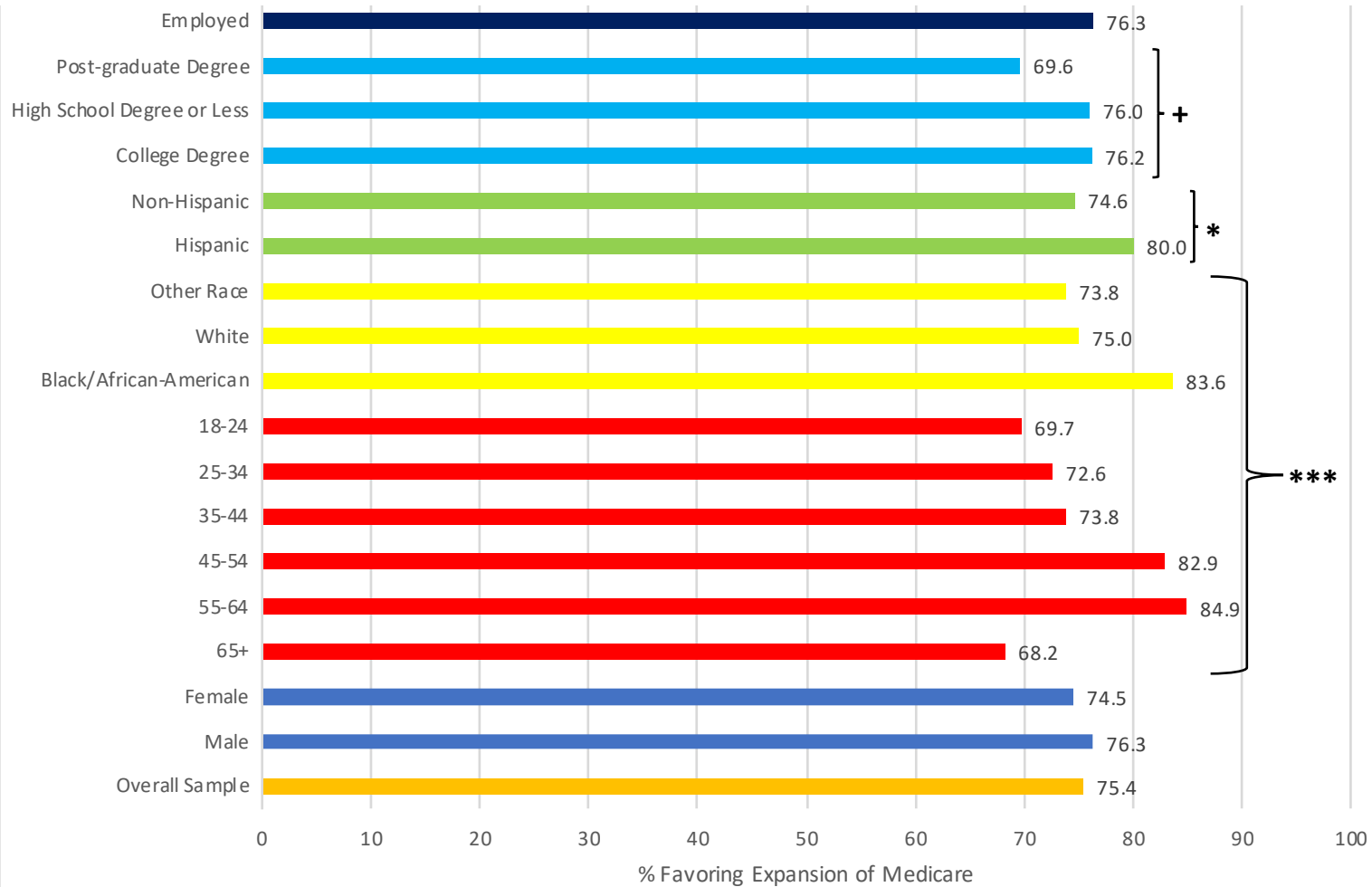
\+ p < 0.10 (trending categories include: education)
* p < 0.05 (significant categories include: ethnicity)
** p < 0.01 (significant categories include: income)
*** p < 0.001 (significant categories include: political party affiliation, region, self-rated health, health insurance coverage type, age and race)

1. All crosstab and chi-square calculations are performed using weighted data
2. "Overall Sample" colored in orange represents the univariate favorability ratings for the sample as a whole

Table 2: Binary logistic regression analysis comparing odds ratios (OR) and 95% confidence intervals (95% CI) examining which groups are more likely to oppose the expansion of Medicare

	OR (95% CI)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Sex						
Female	1.000	1.000	1.000	1.000	1.000	1.000
Male	0.932 (0.731, 1.189)	0.898 (0.693, 1.163)	0.845 (0.649, 1.099)	0.878 (0.673, 1.146)	0.866 (0.661, 1.133)	0.826 (0.622, 1.097)
Age						
65+	1.000	1.000	1.000	1.000	1.000	1.000
18-24	1.024 (0.698, 1.501)	0.610 (0.347, 1.073)	0.682 (0.383, 1.211)	0.654 (0.364, 1.175)	0.612 (0.338, 1.109)	0.848 (0.450, 1.598)
25-34	0.808 (0.552. 1.184)	0.655 (0.371, 1.157)	0.646 (0.362, 1.154)	0.597 (0.331, 1.077)	**0.544 (0.299, 0.991)**	0.789 (0.418, 1.489)
35-44	**0.593 (0.402, 0.875)**	**0.363 (0.207, 0.637)**	**0.347 (0.191, 0.630)**	**0.348 (0.191, 0.634)**	**0.312 (0.169, 0.577)**	**0.381 (0.198, 0.734)**
45-54	**0.371 (0.245, 0.561)**	**0.198 (0.112, 0.351)**	**0.182 (0.101, 0.327)**	**0.176 (0.097, 0.319)**	**0.157 (0.086, 0.287)**	**0.114 (0.060, 0.216)**
55-64	**0.454 (0.301, 0.684)**	**0.234 (0.134, 0.406)**	**0.226 (0.130, 0.394)**	**0.229 (0.131, 0.401)**	**0.216 (0.122, 0.380)**	**0.308 (0.170, 0.558)**
Race						
White	1.000	1.000	1.000	1.000	1.000	1.000
Black/African-American	**0.621 (0.423, 0.910)**	0.872 (0.582, 1.304)	0.894 (0.596, 1.343)	0.976 (0.646, 1.474)	1.034 (0.680, 1.574)	1.395 (0.887, 2.195)

Other	1.117 (0.769, 1.623)	0.984 (0.658, 1.470)	1.038 (0.690, 1.560)	1.034 (0.683, 1.565)	1.048 (0.688, 1.597)	1.141 (0.732, 1.779)
Hispanic						
No	1.000	1.000	1.000	1.000	1.000	1.000
Yes	0.772 (0.526, 1.134)	1.028 (0.681, 1.550)	1.038 (0.685, 1.574)	1.085 (0.712, 1.653)	1.230 (0.797, 1.897)	**1.801 (1.130, 2.871)**
Education						
HS Degree or Less	-	1.000	1.000	1.000	1.000	1.000
College Degree	-	0.824 (0.616, 1.102)	0.791 (0.589, 1.062)	0.759 (0.563, 1.022)	0.774 (0.573, 1.046)	0.937 (0.683, 1.285)
Post-graduate Degree	-	1.067 (0.709, 1.605)	1.027 (0.679, 1.552)	0.968 (0.638, 1.471)	1.018 (0.668, 1.552)	**1.772 (1.132, 2.773)**
Employment Status						
Employed	-	1.000	1.000	1.000	1.000	1.000
Retired	-	0.889 (0.534, 1.480)	0.837 (0.502, 1.396)	0.835 (0.499, 1.398)	0.803 (0.477, 1.352)	0.756 (0.433, 1.320)
Not Working	-	**2.601 (1.800, 3.757)**	**2.573 (1.778, 3.722)**	**2.521 (1.732, 3.669)**	**2.690 (1.838, 3.937)**	**2.799 (1.875, 4.177)**
Respondent Income						
Less than $40K	-	1.000	1.000	1.000	1.000	1.000
$40K-$90K	-	**1.887 (1.356, 2.627)**	**1.796 (1.286, 2.507)**	**1.690 (1.204, 2.372)**	**1.749 (1.239, 2.468)**	**1.733 (1.214, 2.474)**

$90K+	-	**2.434** **(1.682, 3.524)**	**2.264** **(1.554, 3.298)**	**2.092** **(1.425, 3.072)**	**2.179** **(1.477, 3.215)**	**2.078** **(1.385, 3.118)**
Coverage Type						
Employer-based	-	1.000	1.000	1.000	1.000	1.000
Medicare	-	0.693 (0.429, 1.117)	0.778 (0.478, 1.265)	0.821 (0.501, 1.347)	0.811 (0.493, 1.335)	1.161 (0.681, 1.978)
Medicaid	-	**0.283** **(0.169, 0.471)**	**0.276** **(0.165, 0.464)**	**0.296** **(0.175, 0.500)**	**0.271** **(0.159, 0.462)**	**0.302** **(0.173, 0.528)**
Other	-	0.784 (0.537, 1.144)	0.846 (0.578, 1.239)	0.823 (0.561, 1.206)	0.808 (0.548, 1.190)	0.960 (0.642, 1.437)
Marital Status						
Not Married	-	-	1.000	1.000	1.000	1.000
Married	-	-	**1.475** **(1.096, 1.985)**	**1.539** **(1.142, 2.074)**	**1.537** **(1.136, 2.078)**	1.307 (0.943, 1.810)
Child						
No	-	-	1.000	1.000	1.000	1.000
Yes	-	-	1.126 (0.793, 1.600)	1.032 (0.725, 1.469)	1.046 (0.734, 1.491)	1.232 (0.845, 1.797)
Self-rated Health						
Excellent/Very Good	-	-	-	1.000	1.000	1.000
Good	-	-	-	**0.504** **(0.367, 0.693)**	**0.497** **(0.361, 0.684)**	**0.479** **(0.343, 0.669)**

Fair/Poor	-	-	-	0.673 (0.449, 1.008)	0.683 (0.455, 1.024)	0.754 (0.492, 1.155)
Region						
South	-	-	-	-	1.000	1.000
Northeast	-	-	-	-	1.287 (0.878, 1.888)	1.144 (0.764, 1.714)
North Central	-	-	-	-	**1.642 (1.172, 2.298)**	**1.619 (1.137, 2.306)**
West	-	-	-	-	1.038 (0.728, 1.480)	1.118 (0.773, 1.617)
Party						
Independent/Other	-	-	-	-	-	1.000
Republican	-	-	-	-	-	**3.369 (2.369, 4.790)**
Democrat	-	-	-	-	-	**0.454 (0.320, 0.644)**

1. The sub-category labeled as 1.000 is the reference category
2. Significance is tested at the p < 0.05 level
3. The above regression analysis uses weighted data
4. HS attribute in education stands for high school
5. Bolded values are significant

Table 3: Binary logistic regression analysis including interaction effects comparing odds ratios (OR) and 95% confidence intervals (95% CI) examining which groups are more likely to oppose the expansion of Medicare

	OR (95% CI)		
	Main Model	Hispanic x Party ID	Education x Party ID
Sex			
Female	1.000	1.000	1.000
Male	0.817 (0.616, 1.084)	0.797 (0.600, 1.059)	0.849 (0.636, 1.132)
Age			
65+	1.000	1.000	1.000
18-24	0.854 (0.454, 1.606)	0.866 (0.462, 1.624)	0.892 (0.471, 1.692)
25-34	0.804 (0.427, 1.516)	0.829 (0.440, 1.564)	0.901 (0.473, 1.715)
35-44	**0.391 (0.203, 0.751)**	**0.403 (0.209, 0.777)**	**0.391 (0.200, 0.762)**
45-54	**0.114 (0.060, 0.216)**	**0.113 (0.060, 0.215)**	**0.095 (0.048, 0.187)**
55-64	**0.310 (0.172, 0.560)**	**0.312 (0.173, 0.563)**	**0.302 (0.166, 0.551)**
Race			
White	1.000	1.000	1.000
Black/African-American	1.400 (0.890, 2.202)	1.490 (0.943, 2.356)	1.499 (0.957, 2.349)
Other	1.178 (0.757, 1.833)	1.221 (0.782, 1.907)	1.148 (0.729, 1.807)
Hispanic			
No	1.000	-	1.000
Yes	**1.886 (1.182, 3.007)**	-	**1.737 (1.076, 2.804)**

Education

HS Degree or Less	1.000	1.000	-
College Degree	0.906 (0.661, 1.241)	0.924 (0.674, 1.267)	-
Post-graduate Degree	**1.831 (1.173, 2.860)**	**1.879 (1.203, 2.936)**	-
Employment Status			
Employed	1.000	1.000	1.000
Retired	0.770 (0.442, 1.340)	0.724 (0.415, 1.264)	0.765 (0.436, 1.343)
Not Working	**2.787 (1.869, 4.156)**	**2.722 (1.813, 4.088)**	**2.556 (1.709, 3.823)**
Respondent Income			
Less than $40K	1.000	1.000	1.000
$40K-$90K	**1.715 (1.203, 2.445)**	**1.684 (1.180, 2.402)**	**2.277 (1.503, 3.449)**
$90K+	**2.038 (1.359, 3.054)**	**1.963 (1.305, 2.954)**	**1.902 (1.321, 2.737)**
Coverage Type			
Employer-based	1.000	1.000	1.000
Medicare	1.105 (0.649, 1.879)	1.161 (0.683, 1.971)	1.019 (0.595, 1.746)
Medicaid	**0.291 (0.166, 0.511)**	**0.279 (0.159, 0.491)**	**0.284 (0.162, 0.498)**
Other	0.951 (0.638, 1.419)	0.973 (0.651, 1.455)	0.879 (0.583, 1.325)
Marital Status			
Not Married	1.000	1.000	1.000

Married	1.375 (0.993, 1.904)	**1.428 (1.027, 1.984)**	1.327 (0.951, 1.851)
Child			
No	1.000	1.000	1.000
Yes	1.198 (0.823, 1.743)	1.133 (0.774, 1.658)	1.101 (0.749, 1.618)
Self-rated Health			
Excellent/Very Good	1.000	1.000	1.000
Good	**0.472 (0.339, 0.659)**	**0.485 (0.346, 0.680)**	**0.421 (0.299, 0.593)**
Fair/Poor	0.755 (0.493, 1.158)	0.727 (0.473, 1.117)	0.737 (0.478, 1.136)
Region			
South	1.000	1.000	1.000
Northeast	1.161 (0.775, 1.740)	1.123 (0.747, 1.688)	1.215 (0.803, 1.838)
North Central	**1.670 (1.173, 2.377)**	**1.636 (1.148, 2.332)**	**1.716 (1.200, 2.455)**
West	1.142 (0.791, 1.648)	1.094 (0.756, 1.582)	1.244 (0.855, 1.812)
Party			
Independent/Other	1.000	-	-
Republican	**3.425 (2.410, 4.866)**	-	-
Democrat	**0.453 (0.319, 0.642)**	-	-
Hispanic x Party ID			
Non-Hispanic, Independent/Other	-	1.000	-

Hispanic, Republican	-	**4.187** **(1.451, 12.080)**	-
Hispanic, Democrat	-	1.396 (0.748, 2.604)	-
Hispanic, Independent/Other	-	1.123 (0.529, 2.383)	-
Non-Hispanic, Republican	-	**3.411** **(2.369, 4.910)**	-
Non-Hispanic, Democrat	-	**0.378** **(0.257, 0.554)**	-
Education x Party ID			
Post-graduate Degree, Independent/Other	-	-	1.000
HS Degree or Less, Republican	-	-	**12.288** **(4.835, 31.226)**
HS Degree or Less, Democrat	-	-	**0.339** **(0.157, 0.732)**
HS Degree or Less, Independent/Other	-	-	**2.014** **(1.075, 3.774)**
College Degree, Republican	-	-	**4.033** **(2.350, 6.921)**
College Degree, Democrat	-	-	**0.298** **(0.169, 0.526)**
College Degree, Independent/Other	-	-	0.682 (0.419, 1.110)
Post-graduate Degree, Republican	-	-	**2.023** **(1.199, 3.414)**
Post-graduate Degree, Democrat	-	-	0.789 (0.460, 1.354)
Bayesian Information Criterion (BIC)	1608.747	1616.977	1607.402

1. The sub-category labeled as 1.000 is the reference category
2. Significance is tested at the $p < 0.05$ level
3. The above regression analysis uses weighted data
4. HS attribute in education stands for high school
5. Bolded values are significant

Table 4: Interview Sample Characteristics

Name	Sex	Age Group	Race	Region	Ethnicity	Stage of Medical Career	Actual or Intended Specialty	Party Affiliation
Ben	Male	45-54	Other	Outside US	Non-Hispanic	Practicing Physician	Internal Medicine	Republican
Jennifer	Female	25-34	White or Caucasian	Northeast	Non-Hispanic	Medical Student	Internal Medicine	Independent
Matthew	Male	25-34	Other	Northeast	Non-Hispanic	Resident	General Surgery	Democrat
James	Male	25-34	White or Caucasian	North Central	Non-Hispanic	Medical Student	Emergency Medicine	Independent
Dawn	Female	35-44	White or Caucasian	South	Non-Hispanic	Practicing Physician	Geriatric Medicine & Gerontology	Democrat
Anne	Female	35-44	White or Caucasian	South	Non-Hispanic	Practicing Physician	Hospice and Palliative Care	Democrat

APPENDIX A

Introduction

Hello, my name is Peter Kim, and I'm an undergraduate student at Emory University conducting research into public attitudes towards health care reform, specifically the expansion of Medicare to some or all groups not currently covered by Medicare. Medicare is the federal government's health insurance program for US residents who are eligible for Social Security, which is almost everyone over age 65. The purpose of this interview is to get an expert opinion from you as a physician/future physician on your own attitude toward Medicare expansion, sometimes called "Medicare for All", and to share with you some of the important social factors that my research shows to be important in determining an individual's likelihood of favoring Medicare expansion. The interview data I am collecting here will be recorded (with your permission) and analyzed to provide additional insight into my honors thesis paper. All information that you provide will remain confidential, and I would like to remind you that this interview is voluntary, so if you wish, you may skip questions and can withdraw from the study at any time.

Do you have any questions for me?

Before we continue, do you consent to participating in this interview? Second, do I have your permission to audio-record this interview?

Demographics

What is your age? (18-24, 25-34, 35-44, 45-54,55-64, 65+)

Where are you originally from? (Northeast, North Central, West, South)

What race do you most identify with? (White, Black or Other)

What ethnicity do you most identify with? (Hispanic or Non-Hispanic)

How would you describe your current stage as a medical professional? (medical student, resident, practicing physician)
        If practicing physician – how long have you been practicing for?
        What is your intended or actual specialty (family medicine, general surgeon, etc.)?

How would you describe your political affiliation? (Democrat, Republican, Independent, Other or Prefer not to answer?)

Now, I would like to move on to a different topic…

Opening Questions

In your opinion, what is the best thing about the health care system in the United States today? What about its biggest problem?

Now, I would like to share with you some of the results from my analysis of the Kaiser Family Foundation dataset, which was collected by Social Science Research Solutions between November 8 and 13 in 2017 and conducted on a nationally representative sample of 1,201 respondents. Out of this sample, 603 participants were asked, "As you may know, people typically become eligible for health insurance through Medicare when they turn 65. Do you favor or oppose giving some people under the age of 65 the option to buy insurance through the Medicare program?" Prior to interviewing physicians about their attitudes, I was interested in finding out what the attitudes of different population groups would be toward expanding Medicare.

The following results were obtained using multiple logistic regression analysis that controlled for demographic variables, socioeconomic variables, social tie variables, self-rated health, region and party. The outcome variable was if the respondent favored or opposed giving some people under the age of 65 the option to buy insurance through the Medicare program.

Overall the results from this national sample indicated that respondents enrolled in Medicaid, a federal and state-level program that assists in paying for medical costs for those with limited economic resources or disability, were the most likely to favor the expansion of Medicare (88.2%). In contrast, those aged over 65 were the least likely to favor the expansion of Medicare (68.2%). In general, the findings illustrate that the most socially advantaged approved of reform the least: those with incomes over $90K (69.8%), those with post-graduate education (69.6%), whites and Caucasians (75.0%), and non-Hispanics (74.6%). But there were some interesting findings that I would like to discuss with you.

As we can see in Figure 1, the important results are that those 35-44, 45-54, and 55-64 are statistically more likely to favor Medicare expansion than those over 65. What's really interesting is that those 45-54 are almost nine times more likely than those over 65 to favor expansion (82.9% of those 45-54 approve while 68.2% of those 65+ approve of the expansion of Medicare). Keep in mind that those who are 65+ are the single group with the highest rate of insurance coverage 96.4%, compared with a range of 77.7% to 93.4% for all younger groups.
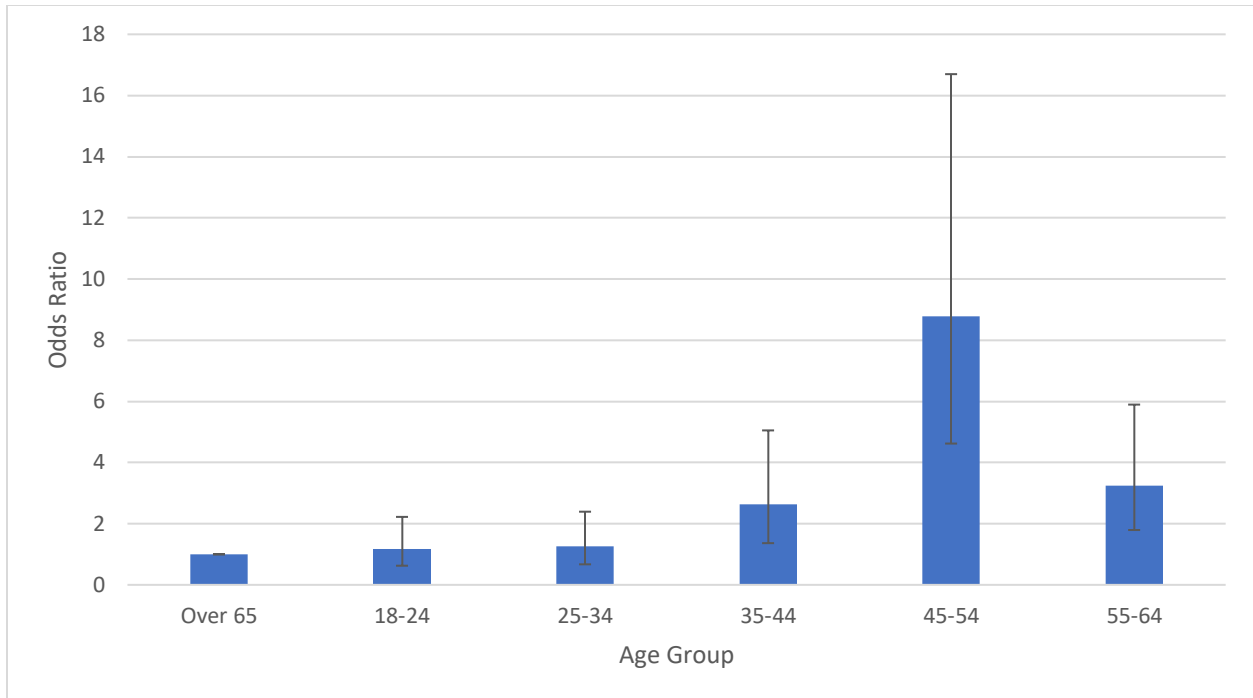
Figure 1: **Odds of approving of expanding Medicare by age group compared with those 65+ after controlling for demographic, socioeconomic, social ties, region, self-rated health and party affiliation**. Error bars represent the 95% confidence interval. Data was obtained from the Kaiser Family Foundation Poll: Kaiser Health Tracking Poll collected in November 2017 of a nationally representative sample.

Moving on to Figure 2, we can see that the only significant result is that respondents from the North Central region (Midwest – ND, SD, NE, KS, MN, IA, MO, WI, IL, IN, OH, MI) were 0.6 times as likely as respondents from the South to favor Medicare expansion. Regional differences show that respondents in the South were more favorable to Medicare expansion than in any other region and were significantly more likely to favor it than those in the North Central states.
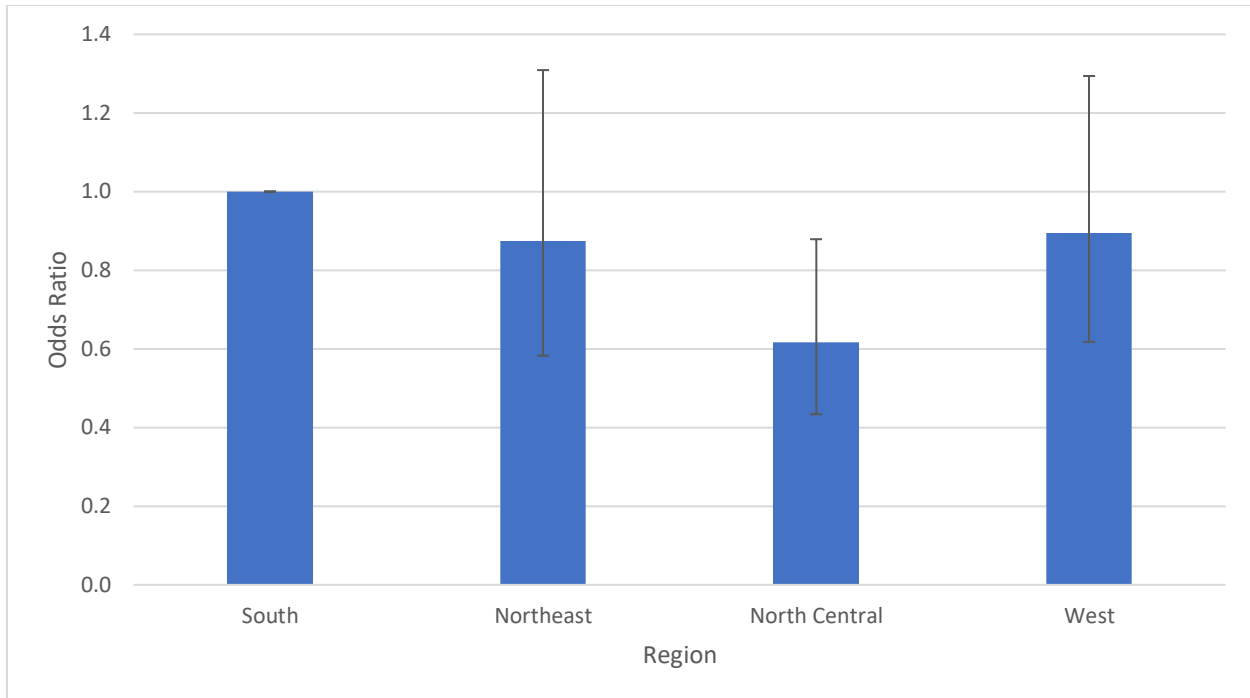
Figure 2: **Odds of approving of expanding Medicare by region compared with those in the South after controlling for demographic, socioeconomic, social ties, self-rated health and party affiliation**. Error bars represent the 95% confidence interval. Data was obtained from the Kaiser Family Foundation Poll: Kaiser Health Tracking Poll collected in November 2017 of a nationally representative sample.

Key Questions

Given these findings, why do you think that those over 65 are much less likely to favor Medicare expansion?

       [If no explanation for 45-54 - probe: why do you think the group aged 45-54 has the greatest favorability?]

       [If no reference to self-interest or party effects - topical probe – 1) Do you think the role of self-interest is important in explaining this effect? 2) Do you think the partisan divide may explain this effect?]

Why do you think that those in the South are more likely to favor Medicare expansion with 80% of Southern respondents saying they favor the expansion of Medicare in comparison to 72.9% of North Central respondents (Note: Northeast has 69.1% favorability and West has 74.4% favorability, but these differences are not significant in the multivariate analysis)

       [If no response/don't know – probe: typically, we would expect to see that those in the South have lower favorability ratings towards health care reform in general given that health care is a partisan issue, and the South is more heavily populated by members of the Republican party but that doesn't seem to be the case here.]

How would you answer the question about Medicare expansion if you were interviewed by the Kaiser Foundation?

How do you think other medical students/physicians you know would answer it?
    Within that group, are there any likely factors you can think of that might determine an individual's response? What would they be?

Closing Questions

What do you hope to see in terms of health care reform in the United States in the near future?

This concludes my interview. Thank you so much for your time, and finally, do you have any questions for me?

Feel free to reach me at: peter.kim2@emory.edu if you have any other questions, and if you would like, I would be more than happy to share my thesis with you when it is completed.
    [If respondent would like copy of thesis – save their email]