Public Opinion on Health Care Policies in the 21st Century

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Abstract

Since the advent of the Patient Protection and Affordable Care Act, health care and public opinion on health care policies became important subjects of study in the 21st century. Broad literature examining the relationship between public opinion on redistributive policies and the level of income inequality exists, but not with a focus on health care policies. A debate between two contrasting views appears in previous literature on how the public reacts to rising income inequality. This study empirically tests where health care policies reside in this debate. Using the General Social Survey and Census reports, I examine how both the actual level of income inequality and perceptions of income inequality impact respondents' preferences towards governmental health care provisions. I include other factors as control variables that the previous literature has found to be relevant predictors of public opinion. Running ordinary least squares regressions, I find a positive relationship between the actual level of income inequality and public opposition to health care policies. In contrast, there exists a negative relationship between the perception of income inequality and respondents' opposition to health care policies. Based on previous literature, I gather from these outcomes that a rise in income inequality, along with less concern for inequality, makes people less supportive of health care provisions. This interpretation suggests that the social fragmentation theory holds in the case of health care policies; growing inequality causes more fragmentation between the insured and the uninsured.

Key Words: Public Opinion, Income Inequality, Health Care Policies

Introduction

Before the advent of The Patient Protection and Affordable Care Act, popularly known as "Obamacare," the United States had been unique among wealthy industrialized nations for not providing centralized health insurance plans to all of its citizens (Biedenbach, 2008). Obamacare, despite its enactment in March 23, 2010, still faces intense public opposition from many Americans (Blackman, 2013; Hoff, 2010). As a result, topics related to governmental provision of health care have become an important subject in the social sciences.

Obamacare is not the first governmental effort to reform the health care system in the US. Before the 21st century, there had been a number of centralized attempts to increase governmental involvement in health care, including those of the Clinton administration in 1994 (Anderson, Reinhardt, Hussey, & Petrosyan, 2003). Expansion in the health care system from the public sector, as opposed to the private sector, is often initiated to assure access across all socioeconomic groups (Alexander, 2009; van Doorslaer, Wagstaff, van der Burg, Christiansen, & et al, 1999). In other words, recent governmental health care interventions in the US, including Obamacare and the Clinton Administration's plan that preceded it, align in their redistributive objectives to minimize the inequality in health care access among citizens.

A large body of literature has studied public opinion on redistributive policies, but not necessarily with a focus on health care (Alexander, 2009). Since health care policies in the US can be put under the category of redistributive policies, some fundamental approaches can be borrowed. This paper adopts an approach that explains how the level of income inequality in a society affects its people's opinion on redistribution. Growing income inequality among Americans has been a national concern, culminating in the 21st century (Kenworthy & McCall, 2008; MacRae, 2004; Oxendine, 2007). Conflicting views explain how the public reacts to this rising trend of income inequality: whether they support or oppose governmental intervention. Determining where health care policy preference stands in this debate may help guide the U.S. health care system in the 21st century.

While this debate also applies to health care policies, one cannot directly assume that the public will react to health care policies in the same way they do to redistributive policies in general. Thus, it is necessary to focus exclusively on governmental health care provisions and inquire more deeply into how public opinion responds to the state of income inequality. Taking the inquiry a step further than examining an underexplored area of redistributive policies, this work includes an analysis of the opinions of a particular socioeconomic cohort—insured Americans—within U.S. communities.

To summarize, this study quantitatively examines how Americans react to income inequality in terms of their preferences toward health care policies. I empirically test the impacts that the actual level and the perceived level of income inequality have on public opinion about health care policies by surveying the relevant literature and identifying possible factors that shape public opinion on redistributive policies. These factors, including the level of income inequality, serve as a basis for my regression models. Estimates from ordered logistic regressions suggest that rising income inequality in the US and Americans' lack of concern about inequality altogether heighten public opposition to governmental health care policies. This analysis provides some important policy implications for the U.S. health care system, as public opinion

may be a key factor in shaping the future of Obamacare and other health care reform movements (Anderson, Reinhardt, Hussey, & Petrosyan, 2003; Panayotova, 2001).

Literature Review

Social Fragmentation Theory

Researchers have found a general trend of increasing income inequality in the US from the early 1900s to the present (Kenworthy & McCall, 2008; MacRae, 2004; Oxendine, 2007); however, there are conflicting interpretations of how Americans react to this rise in income inequality. One of the most dominant views is that perceived apathy among Americans regarding the problem of income inequality is increasing (McCall & Kenworthy, 2009). This can be explained through the "social distance" model suggested by MacRae (2004), which argues that a growing income gap between people encourages social fragmentation instead of egalitarian sympathy in U.S. communities (MacRae, 2004; Oxendine, 2007). With fragmentation, taxpayers with higher incomes become less concerned about the transfer recipients and less supportive of redistributive policies in the US.

The view that rising inequality engenders social fragmentation and therefore less support for redistributive policies is validated by looking at other empirical studies. Kenworthy and McCall (2008) empirically tested the survey responses of Americans in the late 1980s and the early 1990s regarding their opinions on inequality and redistributive policies, finding that a rise in inequality shows no heightened support for redistribution. Furthermore, Rehm, Hacker, and Schlesinger (2012) argued that social fragmentation is accelerated when people with economic disadvantages (low income) also face economic insecurity (high risk employment status). Their study concludes that the two groups—the disadvantaged and the insecure—are not distinct but becoming highly correlated as income gap grows in the US (Western, Bloome, Sosnaud, & Tach, 2012). The trend and the characteristics of U.S. income inequality altogether create and accelerate social fragmentation among Americans, making them less interested in the need for redistribution.

Alternative Explanations

The social fragmentation theory depicts Americans as ethically unconcerned and having policy preferences largely dependent on personal economic benefits. The other side of the literature disagrees. Through empirical analyses, Panayotova (2001) suggested that an individual's perceived level of social status and rank has no significant effect on redistributive policy preferences. More recently, Brooks and Manza (2013) supported this view by arguing that economic incentives do not affect individuals' policy preferences.

As seen in section 2.1, Kenworthy and McCall (2008) acknowledged that a rise in inequality heightens opposition to redistributive policies; however, their more recent study (2009) offers alternative explanations. They first propose that Americans may be uninformed about the state of income inequality and may be swayed by contemporaneous debates on redistributive policies. They also propose the possibility that Americans are concerned about inequality, but do not express their concerns through support for redistributive policies; people do not want income redistribution, but demand other avenues to solve the problem of inequality such as pursuing equal opportunity through government spending on education. These explanations will be further discussed in the context of health care provisions in the US.

Application to Health Care Policy Preferences in the US

This paper borrows a common approach taken from the literature of redistributive policies, seeking how rising inequality affects public opinion on policies, because there is little research focusing on health care policies in particular. Research on redistributive policies reveals two conflicting views: the social fragmentation theory suggests public opposition to redistributive policies in response to rising inequality, while others explain that such policy preferences are unrelated to the economic motivations embedded in the social fragmentation theory. This paper expands the discussion to an underexplored, but extremely important policy domain; I examine whether or not public opinion on health care policies can rest on social fragmentation theory.

Before discussing the validity of the social fragmentation theory for health care policies, it is important to distinguish between the taxpayers and the transfer recipients of the program—the two groups that fragment as income inequality rises. Reports on health care policies make a distinction between the insured and the uninsured under the U.S. health care system (Curtis, 2005; DeNavas-Walt, Proctor, & Smith, 2013; Jecklin, 2007; Kaplan & Inguanzo, 2011). The cost of care for the uninsured is disproportionately imposed on individuals with higher income, who are more likely to be already insured and thus uncompensated for what they pay (Curtis, 2005). Exploiting this distinction between the insured and the uninsured, this research explores whether or not rising income inequality will cause fragmentation between the two populations. If the insured feel unconcerned about the uninsured and prefer not to pay for their benefits, then the social fragmentation theory will hold, and vice versa.

In the US, the profile of the insured can be explained in four socioeconomic categories: income level, employment status, marital status, and race. The uninsured rate was significantly lower among people with higher income and full-time year-round working status when compared to low-income individuals working less than full-time (DeNavas-Walt, Proctor, & Smith, 2013). This is due to the fact that a majority of the U.S. population generally relies on employers to gain access to health insurance (Savage, 2012). Under employer-provided insurance, it is likely that family members of the employees also gain health insurance coverage; thus, people's marital status, apart from their own employment status, also plays a big role in their insurance coverage (Jecklin, 2007). In terms of race and ethnicity, Hispanic and Latino communities face a considerably higher uninsured rate compared to that of non-Hispanic whites (Kaplan & Inguanzo, 2011). Based on these reports, the analysis specifies four shared socioeconomic characteristics of the insured Americans: high-income, full-time employed, married, and racially white.

Other Socioeconomic Factors

In accordance with previous literature, this study focuses on the level of income inequality and the four characteristics of the insured (income, working status, marital status, and race) when analyzing public opinion on health care policies. In addition to these factors, it is important to identify other possible predictors of public opinion to isolate the impact of rising inequality. Consulting previous empirical studies on redistributive policies, I detect relevant predictors of public opinion that serve as control variables in my analysis.

First, political party identification strongly influences an individual's policy preference (Alexander, 2009; Anderson, Reinhardt, Hussey, & Petrosyan, 2003; Barany, 2009; Lee, 2006).

Obamacare, for instance, is associated with the Democratic Party as suggested by its nickname. Americans who strongly identify as Republican may disapprove of redistributive policies in general. Barany (2009) finds that individuals with political inclination to the Right become more hostile to redistribution.

Previous literature also included additional demographic and personal information in their analysis of redistributive policies, such as age, sex, and educational degree (Alexander, 2009; McCall & Kenworthy, 2009; Kenworthy & McCall, 2008; Panayotova, 2001). Older generations tend to be more health conscious and vulnerable to health problems (Yamada, 2005), implying differing degrees of concern for health care policies across age groups. In terms of education, Panayotova (2001) finds that Americans with a higher degree of education tend to be less favorable toward redistributive policies. Therefore, other factors—political identification, age, health status, sex, and educational degree—are included in order to eliminate noise in observing the relationship between income inequality and public opinion on health care policies.

Research Design and Methods

This study employs quantitative methods in order to investigate the relationship between the degree of income inequality and public opinion on health care policies. The research question asks how rising income inequality in the US affects people's preference for governmental health care provisions. To explore this relationship, data are drawn from the General Social Survey (GSS), which contains a nationally representative sample of Americans, and from the Census. The GSS provides a useful dataset to perform the regressions in this study, because it contains survey responses regarding Americans' social policy preferences and their perceptions of income inequality, as well as other demographic and socioeconomic information about the respondents that are used as controls. Due to data availability for one of the independent variables (see INCGAP below), only data collected in years between 1987 and 2008 are used.

Dependent Variable

The dependent variable for my regression models is public opposition to redistributive health care policies, coded as "NOGOVHLTH." This public opinion data comes from the GSS. The survey question I use to gauge public opposition is:

> "In general, some people think it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills. Others think that these matters are not the responsibility of the federal government and that people should take care of these things themselves. Where would you place yourself on this scale?" (Smith, Marsden, Hout, & Kim, 2013).

The response choices are on an ordinal scale of 1 to 5, where 1 corresponds to "government should help," 3 to "agree with both," and 5 to "people should help themselves." A higher score in NOGOVHLTH indicates a stronger opposition to government provision for health care. This question was asked on a biyearly basis, but data are used only from a limited number of years due to the data availability of other variables.

Previous research (Kenworthy & McCall, 2008; McCall & Kenworthy, 2009) that applies a similar empirical method use a different survey question from the GSS to capture public opinion on health care policies. This survey question asks the following: "We are faced with

many problems in this country, none of which can be solved easily or inexpensively. Are we spending too much, too little, or about the right amount on improving and protecting the nation's health?" (Smith, Marsden, Hout, & Kim, 2013). However, by addressing the improvement of health in the abstract, this survey question only gives partial insight into the level of public support for health care policies. Improving and protecting the "nation's health" does not coincide with redistributing health care benefits. Instead, the survey question may include governmental efforts in advancing the country's health in general, such as funding medical research and investing in the medical industry. For this reason, compared to other survey questions, NOGOVHLTH best captures the public opinion on the redistributive nature of health care policies and is used in this study.

Independent Variables

This study operationalizes two main independent variables to examine the effect of income inequality on public opinion about health care policies over time: the actual level of income inequality and the respondents' perception of income inequality. The first independent variable, coded as "GINI," comes from Gini coefficients and indicates the actual degree of income inequality in the US. The Gini coefficients, which I extract from the Census (2011), measure the degree of inequality in the distribution of family income in a country (Central Intelligence Agency, 2013). GINI ranges from 0 to 1 (rounded up to the thousandth), where a higher GINI indicates a more unequal distribution of income in the US. GINI is calculated on a yearly basis, and has only one value for any given year. Thus, all the other GSS survey responses from the same year are assigned the same value of GINI.

The second independent variable is the respondents' perceptions of income inequality. The GSS asks respondents: "Do you agree or disagree? Differences in income in America are too large" (Smith, Marsden, Hout, & Kim, 2013). Responses to this question will be coded as "INCGAP," on an ordinal scale of 1 to 5, where 1 corresponds to "strongly disagree," 3 to "neither agree nor disagree," and 5 to "strongly agree." A higher score in INCGAP indicates the perception of a greater income inequality in the US. This question was asked and collected in years 1987, 1996, 2000, and 2008.

The inclusion of INCGAP to the regression models is important for two reasons. First, changes in the actual level of inequality are not immediately translated into changes in American's perception of inequality. In other words, individuals may have imperfect information about the true level of inequality. Although some research (Kenworthy & McCall, 2008) confirms that Americans have a good understanding of the actual trend of inequality taking place in the US, it is more statistically accurate to utilize the perceived level of inequality provided by the survey respondents.

The second reason to include INGAP is to capture the respondents' opinion about the level of income inequality. Even individuals who observe the same degree of inequality may express different opinions. In other words, INCGAP can represent individuals' opinions about income inequality depending on their tolerance or justification for income inequality. In this case, responding with a 5 for INCGAP may denote a stronger concern for income inequality when compared to a response of 1, regardless of the income gap they observe.

The figures below illustrate how the mean values of the dependent and independent variables change over the years between 1987 and 2008. Opposition to health care policies, NOGOVHLTH, is fluctuating over the years. The actual level of income inequality, GINI, is

steadily increasing at a relatively consistent pace. The perception of income inequality, INCGAP, also follows a generally increasing trend. Accordingly, in Table 1,the correlation between GINI and INCGAP is positive and statistically significant; in other words, at least on the superficial level, respondents' perception corresponds to the actual level of income inequality.

Table 1 Correlation between the Dependent and Independent Variables

	Variables	Y	X_1	X_2	Mean	SD	Min	Max
Y	NOGOVHLTH	1.0000			2.4210	1.2061	1	5
X_1	GINI	0.0108 (0.1360)	1.0000		0.4536	0.0152	0.426	0.47
X_2	INCGAP	-0.2348* (0.0000)	0.0747* (0.0000)	1.0000	3.6656	1.1181	1	5

Note: significance levels in parentheses, indicated by * $p<0.001$.

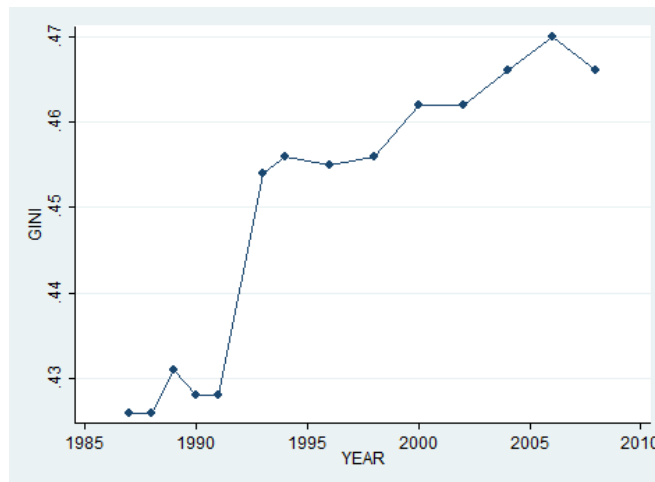Figure 1 trend of the dependent variable (NOGOVHLTH) between 1987 and 2008

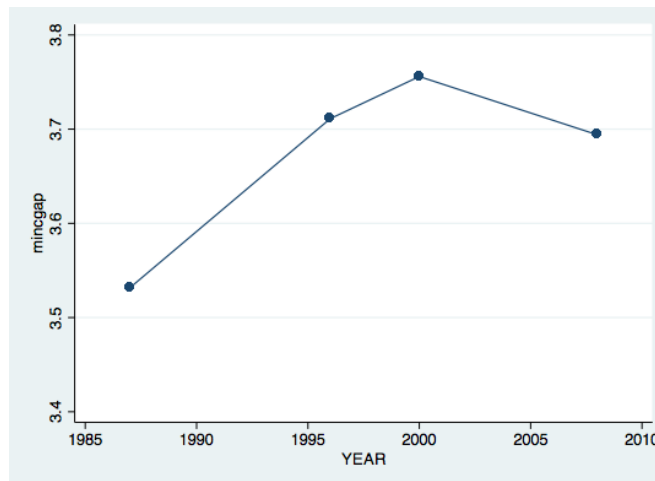Figure 2 trend of the first independent variable (GINI) between 1987 and 2008

Figure 3 trend of second independent variable (INCGAP) between 1987 and 2008

Control Variables

The regressions include a list of controls for individual characteristics as detected by other empirical studies. Respondents' age ("AGE"), sex ("SEX"), race ("RACE"), family income ("INCOME"), highest degree of education ("DEGREE"), marital status ("MARITAL"), political identification ("PARTYID"), and employment status ("WRKSTAT") are all included. In addition to these commonly used control variables, my regression also includes the condition of the individual's health ("HEALTH"). Individuals' health condition may determine their demand for health care access and therefore their opinion about health care policies. Finally, the year when variables were collected is included ("YEAR") because of its high correlation with GINI: 0.9138 with p-value smaller than 0.001. The effect of the steadily increasing GINI over time should not be mistaken with any other trends that also draw a steady increase over time. All of these control variables were collected from the GSS.

Regression Models

I use ordinary least squares regression models to estimate the relationships between the dependent variable and the independent variables. Correlations between the variables found in Table 1 cannot capture the true relationship due to complex interventions of other factors. Ordinary least squares regressions isolate the effect of independent variables on the dependent variable by controlling for these other factors. All outcomes are coded so that positive coefficients on independent variables indicate greater opposition to health care provided by the government. A total of three sets of regression models are used in the study.

The first set of regression models utilizes the first independent variable, GINI. I estimate the relationship between public opinion on health care policies and the actual level of income inequality (Model 1.1). In addition to this simple model, YEAR is used to control the constant and steady increment of GINI, allowing for a more accurate estimation of the impact of GINI on public opinion (Model 1.2). Again, the sample years for all models are restricted between 1987 and 2008 to render regression outcomes comparable to models using INCGAP.

$$NOGOVHLTH_i = \beta_1 GINI_y + \beta_2 controls_i + \alpha_0 + u_i \qquad (1.1)$$

$$NOGOVHLTH_i = \beta_1 GINI_y + \beta_2 controls_i + \beta_3 YEAR_y + \alpha_0 + u_i \qquad (1.2)$$

The second set runs similar models using the second independent variable, INCGAP. First, I regress the perception of inequality on public opinion, the same method earlier applied to GINI.

$$NOGOVHLTH_i = \beta_1 INCGAP_i + \beta_2 controls_i + \alpha_0 + u_i \qquad (2.1)$$

However, there is a big difference between GINI and INCGAP, because respondents from the same sample year are assigned the same GINI whereas each respondent give his or her own INCGAP independent of the sample year. The value of GINI is thus interrelated with the time trend. On the other hand, INCGAP alone cannot capture the time trend, as responses from different sample years can share the same INCGAP value. As a result, to capture the time trend for INCGAP, I rerun Model 2.1 for each separate year sample. By comparing the coefficients over the sample years, I can estimate how the impact of the perception of income inequality on public opinion changed over time. Due to the data availability of INCGAP, data from years 1987, 1996, 2000, and 2008 are used.

$$NOGOVHLTH_{i,y} = \beta_1 INCGAP_{i,y} + \beta_2 controls_{i,y} + \alpha_0 + u_{i,y} \qquad (2.2)$$

The final set of regressions restricts the sample to survey respondents who represent the demographic and socioeconomic characteristics of the insured population in the US. The profile of the insured is identified to have four common characteristics: high-income, full-time employed, married, and racially white. This research defines the listed characteristics as "family

income of $25,000 or over" (the highest income level category provided by the GSS) for INCOME, "working full time" for WRKSTAT, "married" for MARITAL, and "white" for RACE. The restricted sample will either have all four characteristics or have any of the four characteristics listed above. By examining the restricted samples' regression outcomes, these models can explain whether a fragmented society with groups of different health care policy preferences exists or not in the US.

$$NOGOVHLTH = \beta_1 GINI + \beta_2 YEAR + \beta_3 controls + \alpha_0 + u \qquad (3.1)$$

$$NOGOVHLTH_i = \beta_1 INCGAP_i + \beta_2 controls_i + \alpha_0 + u_i \qquad (3.2)$$

Data Analysis

Actual Level of Income Inequality

The estimates for the first set of the regression models (see Table 2 below), which use the actual level of income inequality as the independent variable, indicate a positive relationship between income inequality and opposition to governmental health care provision. Model 1.1 shows a lack of robustness in the relationship. However, controlling for the constantly and steadily increasing GINI with the YEAR variable, Model 1.2 alternatively yields statistically significant outcomes; even when control variables are included, the coefficient stays positive and significant. I can therefore conclude that rising income inequality taking place in the US, measured by Gini coefficients, heightens public opposition to health care policies.

All control variables, except for DEGREE, in Model 1.2 are statistically significant. Among them are INCOME, WRKSTAT, MARITAL, and RACE, all displaying positive coefficients. This is especially noteworthy considering the profile of the insured in the US. Respondents' income, working status, marital status, and race were all coded so that a higher value would imply that respondents are closer to the profile of the insured: high-income, full-time employed, married, and white. The positive and statistically significant relationship between the listed control variables and respondent opinion on health care policies suggests that people possessing the characteristics of an insured individual tend to be less supportive of health care provision.

Table 2 Estimated Effects of GINI on Public Opinion about Health Care Policies—Model 1

Independent Variables	Model 1.1		Model 1.2	
	Without controls	With controls	Without controls	With controls
GINI	1.707* (0.7316)	0.033 (0.7158)	8.110*** (1.9072)	6.360*** (1.8253)
YEAR			-0.017*** (0.0047)	-0.017*** (0.0040)
AGE		0.007*** (0.0008)		0.007*** (0.0008)
SEX		-0.080*** (0.0224)		-0.079*** (0.0224)
RACE		0.099*** (0.0208)		0.095*** (0.0208)

INCOME		0.023*** (0.0051)		0.024*** (0.0051)
DEGREE		0.003 (0.0104)		-0.004 (0.0103)
PARTYID		0.1323*** (0.0055)		0.133*** (0.0055)
HEALTH		0.097*** (0.0145)		0.095*** (0.0145)
MARITAL		0.105*** (0.0242)		0.103*** (0.0242)
WRKSTAT		0.041* (0.0179)		0.039* (0.0179)
Observations	11484	10955	10955	10955

Note: standard errors in parentheses; p-value indicated by *** p<0.001, ** p<0.01, * p<0.05.

Perceived Level of Income Inequality

In the second set of the regression models, the perceived level of income inequality also shows a statistically significant relationship with the respondents' health care policy opinions, but in an opposite direction. In Model 2.1 in Table 3, we see that the perceived level of income inequality gives a statistically significant and negative coefficient. Even when controlling for other spurious factors, the coefficient does not significantly change, p-value remaining the same (0.000); robustness of the regression outcomes is assured. The greater a respondent perceives the level of income inequality in the US, the more he or she will support health care policies. Other control variables—RACE, INCOME, PARTYID, HEALTH, and MARITAL—were statistically significant as well. The positive relationship between the listed control variables and respondent opinion on health care policies suggests a stronger opposition among insured people.

Moving on to the yearly trend of the impact of INCGAP, Model 2.2 in Table 4 shows that the impact of perception of income inequality does not follow a consistent trend, with a noticeable anomaly in 2000. Furthermore, the coefficient for the year 2000 loses statistical robustness when including control variables in the regression; however, estimates for all other years remain significant and robust. Excluding 2000 and taking only statistically significant outcomes into account, the impact that perceived level of income inequality has on public opinion is generally growing stronger over time. To summarize, negative coefficients in Model 2.1 and 2.2 suggest that respondents who perceived greater level of income inequality tend to pose less opposition to health care provision. This negative relationship between INCGAP and NOGOVHLTH is strengthening over time.

Table 3 Estimated Effects of INCGAP on Public Opinion about Health Care Policies—Model 2.1

Independent Variables	Model 2.1	
	Without controls	With controls
INCGAP	-0.249*** (0.0205)	-0.201*** (0.0202)
AGE		0.007*** (0.0016)
SEX		0.023 (0.0443)
RACE		0.096* (0.0422)
INCOME		0.030** (0.0095)
DEGREE		-0.032 (0.0201)
PARTYID		0.114*** (0.0108)
HEALTH		0.093*** (0.0281)
MARITAL		0.144** (0.0480)
WRKSTAT		0.012 (0.0351)
Observations	2699	2699

Note: standard errors in parentheses; p-value indicated by *** p<0.001, ** p<0.01, * p<0.05.

Table 4 Estimated Effects of INCGAP on Public Opinion about Health Care Policies—Model 2.2

Independent Variables	Model 2.2							
	Year 1987		Year 1996		Year 2000		Year 2008	
	Without controls	With controls	Without controls	With controls	Without controls	With controls	Without controls	With controls
INCGAP	-0.235*** (0.0297)	-0.200*** (0.0293)	-0.276*** (0.0447)	-0.212*** (0.0446)	-0.147* (0.0662)	-0.045 (0.0675)	-0.313*** (0.0441)	-0.247*** (0.0443)
AGE		0.009*** (0.0023)		0.005 (0.0042)		0.008 (0.0049)		0.004 (0.0034)
SEX		0.096 (0.0616)		-0.017 (0.1105)		-0.244 (0.1310)		0.045 (0.0992)
RACE		0.050 (0.0622)		0.087 (0.1036)		0.046 (0.1278)		0.191* (0.0847)
INCOME		0.030* (0.0128)		-0.021 (0.0288)		0.044 (0.0311)		0.050* (0.0219)
DEGREE		-0.051 (0.0301)		0.058 (0.0502)		-0.104 (0.0585)		0.001 (0.0416)
PARTYID		0.103*** (0.0152)		0.149*** (0.0286)		0.127*** (0.0328)		0.120*** (0.0238)
HEALTH		0.072 (0.0393)		0.194** (0.0734)		0.128 (0.0881)		0.074 (0.0601)
MARITAL		0.167* (0.0684)		0.104 (0.1176)		0.334* (0.1449)		0.058 (0.1054)
WRKSTAT		0.068 (0.0505)		0.012 (0.0945)		-0.082 (0.1065)		-0.051 (0.0701)
Observations	1368	1368	406	406	327	327	598	598

Note: standard errors in parentheses; p-value indicated by *** p<0.001, ** p<0.01, * p<0.05.

Restricted Sample

Finally, I look at the regression outcomes using samples that are restricted to survey respondents who display either all or at least one of the four representative characteristics of the insured in the US. The regressions using GINI as the independent variable, Model 3.1 in Table 5, indicate that the effect of GINI is positively stronger for the restricted sample. The coefficient for GINI is 6.360 in the entire sample for Model 1.1 in Table 2, whereas samples that have all or any of the insured characteristics have greater coefficients, respectively 8.015 and 6.996 (Table 7). These coefficients are both statistically significant. Compared to the entire sample, the restricted group of respondents tends to oppose more (higher NOGOVHLTH) to health care provisions when GINI is higher. This positive relationship only gets stronger for the groups with people having all the characteristics of the insured.

The restricted sample model that examines the effect of INCGAP shows the opposite. In the model using the whole sample, the coefficient for INCGAP is -0.201 in the entire sample for Model 2.1 in Table 3. This is a bigger coefficient compared to those of the restricted sample: -0.254 and -0.210 for Model 3.2 in Table 5. These outcomes are also statistically significant. In other words, in comparison to the entire sample, the restricted sample shows less opposition to health care policies when the perception of income inequality is higher.

Table 5 Estimated Effects of GINI/INCGAP on Restricted Sample's Opinion about Health Care Policies—Model 3

Independent Variables	Model 3.1		Model 3.2	
	All four characteristics	Any of the four characteristics	All four characteristics	Any of the four characteristics
GINI	8.015* (3.9001)	6.996*** (1.8083)		
INCGAP			-0.254*** (0.0074)	-0.210*** (0.0205)
YEAR	-0.241* (0.0097)	-0.018*** (0.0044)		
AGE	0.008*** (0.0024)	0.008*** (0.0007)	0.007 (0.0048)	0.007*** (0.0014)
SEX	--0.077 (0.0490)	-0.094*** (0.0219)	0.087 (0.0960)	-0.010 (0.044)
DEGREE	-0.015 (0.0203)	-0.018 (0.0098)	0.005 (0.0411)	-0.013 (0.0193)
PARTYID	0.165*** (0.0119)	0.140*** (0.0053)	0.135*** (0.0242)	0.115*** (0.0106)
HEALTH	-0.110** (0.0358)	0.111*** (0.0142)	0.124 (0.0677)	0.094*** (0.0283)
Observations	1368	406	327	598

Note: standard errors in parentheses; p-value indicated by *** p<0.001, ** p<0.01, * p<0.05.

Conclusion and Discussion

Conclusion

My regression analysis reveals opposite outcomes for the two independent variables: while the actual level of income inequality (GINI) has a positive relationship with respondents' opposition to health care provision, the perceived level of inequality (INCGAP) has a negative

relationship. Both relationships remain statistically significant and robust throughout different years. Considering the positive correlation between INCGAP and GINI (Table 1), it is unexpected that INCGAP and GINI would have different effects on respondents' preferences toward health care policies. The positive correlation implies that as GINI increases, the average value of INCGAP for a given year moves in the same direction at least on the superficial level. However, the estimated coefficients that account for the effects of other control variables show that they impact the outcome variable in different directions.

Revisiting the reasons for including the perceived level of inequality, it is plausible to conclude that such mixed results support the social fragmentation theory. INCGAP can be interpreted in two ways, the first being the respondents' information about income inequality and the second being the subjective opinion about income inequality (higher value of responses indicating higher levels of concerns). The second interpretation of the variable can translate the results as: less concerned people are also inclined to oppose governmental health care policies more. This interpretation is more compatible with how the measured income inequality in the US is rising, and the rise in income inequality negatively affects public opinion on health care policies. As seen in Model 2.2 in Table 4, respondents with less concern for income inequality have increasingly negative opinions on health care policies over time.

In Model 1 and 2, the effect of having the characteristics of the insured is straightforward. Positive coefficients for GINI, RACE, INCOME, MARITAL, and WRKSTAT in the regression models suggest that being high-income, full-time employed, married, white individuals— representative characteristics of the insured—make people more likely to oppose to health care provisions. Model 3, the restricted sample of those displaying the characteristics of the insured has stronger opposition to health care policies in relation to rising GINI, while stronger support for health care policies in relation to increase in INCGAP. This further supports the social fragmentation theory of how the insured population has stronger opposition to health care policies as income inequality rises.

Limitations

A number of statistical limitations exist in the analysis. First, the reason this study relied on the four key characteristics to define the insured in the US is because of the missing information regarding the respondents' health care coverage. If available, the coefficients for the health care coverage variable would have more definitively shown whether or not the insured more strongly oppose health care policies. In such a case, a more clear-cut judgment of the validity of the social fragmentation theory could have been made. While GSS started collecting information on health care coverage in 2008, it is impossible to conduct a time trend analysis with data for only one year. In addition to the impossibility of tracking time trends, the number of responses was too small to retrieve a robust regression outcome even for the 2008 cohort. The problem related to the small sample size is also a problem for the 2000 cohort in Model 2.2; the sample size is not big enough to return statistically significant estimates for the independent variable. However, these problems could not be avoided, as panel data containing responses for health care coverage along with opinion on both income inequality and health care policies do not exist. The GSS is the best option available.

Another limitation of the regression model is the categorization of INCOME in the GSS. The highest income category for the GSS is "$25,000 or over," containing 61.65% of the entire sample. However, reports on health care coverage reveal further variations among individuals

over the income level of $25,000. In 2012, the uninsured rate was 21.4% for people with family income ranging from $25,000 to $49,999, 15.0% for people with family income ranging from $50,000 to $74,999, and 7.9% for people with family income of $75,000 or more (DeNavas-Walt, Proctor, & Smith, 2013). In the GSS, a large portion of the respondents with varying income levels and insurance coverage rates are aggregated in the same income category, thus giving less accurate outcomes.

Implications

The debate on how taxpayers of redistributive policies respond to rising inequality extends to the discussion on governmental health care provision in the 21st century. The government cannot ignore public opinion when assessing and reforming the national health care system. Studies that analyze public opinion provide important guides for the government in its policy formation (Panayotova, 2001). The regression outcomes of my study therefore provide meaningful figures to understand how different socioeconomic groups react to health care policies in the face of rising inequality. Despite a restrictive sample, over-categorization, and inevitable limitations of quantitative studies, no other surveys offer more comprehensive data than the GSS. Thus, this study provides the best estimate of the public opinion on health care policies to date and sheds light on how income inequality works in the context of health care policy preferences of the American public.

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