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Thuy Vu

May 2018

ESSAYS ON SOCIAL POLICY AND PREFERENCES FOR REDISTRIBUTION

A Dissertation

Presented to

The Faculty of the Department
of Economics

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree of
Doctor of Philosophy

By

Thuy Vu

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Abstract

This dissertation is composed of two essays. The first chapter "The Impact of Government Programs on Individual Preferences for Redistribution: Evidence from SCHIP/Medicaid expansion" investigates the effects of government's transfer programs on individual's preferences for redistribution. Using the restricted file of the General Social Survey from 1996 to 2014, I study the impact of a large public insurance program targeting children on their parents' support for government's redistribution. To account for the endogeneity of program eligibility, I adopt an instrumental variable approach that exploits state-level variation in children's age groups and income thresholds for program eligibility to simulate individual household's exposure to the policy. I find strong evidence suggesting that having a child eligible for the program has a positive and significant impact on parents' support for redistribution, by around 25% of the variable's standard deviation. It is possibly mediated through the channel of increasing individual's trust in the government. The result is robust to alternate specifications and different measures of support for redistribution.

The second chapter "The Effects of Relative Income on Preferences for Redistribution" investigates whether individuals' position on the income distribution, i.e their relative income, affects their preferences for redistribution. Specifically, using cross-state variations from the US General Social Survey (GSS), augmented with cross-country variations from the World Values Survey (WVS), I examine whether the individuals' preferences for redistribution change once they become relatively rich compared to their peers. Controlling for the level of income, I look at the effects of peer group's relative income, using the practice of measuring individual preferences for redistribution from the literature. Consistent with previous studies, I find

relative income to have an effect on individual's happiness. I also find evidence that relative income affect individual's attitudes towards income inequality and support for redistribution. An increase in individuals' relative income results in less support for redistributive policies: those with higher income compared to their peer group are less favorable of government reducing income differences, less in support of government aid and less in favor of other redistributive policies. The results are consistent using both data from the US and other countries, and robust to different functional forms, and measures of relative income.

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to Mom

Contents

1	The Impact of Government Programs on Individual Preferences for Redistribution: Evidence from SCHIP/Medicaid expansion	1
1.1	Introduction	1
1.2	Background	6
1.2.1	SCHIP/Medicaid expansion	6
1.2.2	Related Literature	9
1.3	Empirical Strategy	13
1.4	Data	17
1.4.1	Support for Redistribution	17
1.4.2	SCHIP and Medicaid Eligibility	21
1.5	Results	22
1.5.1	OLS Results	22
1.5.2	IV Results	24
1.6	Further Results and Mechanisms	26
1.6.1	Are preferences really changing?	26
1.6.2	General vs. Specific Information vs. Experience	28
1.6.3	Trust in the Government	29
1.6.4	Supplemental Analysis	31
1.7	Conclusion	34

A	Appendix: Tables and Figures	48
B	Appendix: Constructing Variables	54
1	Support for Redistribution Measures	54
2	Trust in the Government Measures	55
3	Eligibility Variables	56
4	Household Income Variable	57
2	The Effects of Relative Income on Preferences for Redistribution	58
2.1	Introduction	58
2.2	Empirical Strategy	63
2.3	Data	66
2.4	Results	70
2.4.1	Happiness	70
2.4.2	Preferences for Redistribution	71
2.4.3	Attitudes	72
2.5	Additional Analysis	73
2.6	Conclusion	77
A	Appendix: Tables and Figures	89

List of Figures

1.1	Income Eligibility Levels for Children in SCHIP/Medicaid, 2017 . . .	36
1.2	Eligibility Evolution for SCHIP/Medicaid Expansion	37
1.3	Distribution of Support for Redistribution for the Main Sample . . .	38
1.4	State Income and Support for Redistribution	39
1.5	SCHIP Program Structure as of January 2017	48
2.1	Changes in Support for Redistribution	79
2.2	Support for Redistribution and Relative Income by State	80
2.3	Histogram of Support for Redistribution Variables	81
2.4	Histogram of Subjective Rank	89

List of Tables

1.1	Summary Statistics	40
1.2	Demographic Traits and Support for Redistribution	41
1.3	OLS Regression of Support for Redistribution on Eligibility	42
1.4	The Effects of SCHIP/Medicaid Eligibility on Support for Redistribution (1-7 scale)	43
1.5	The Effects of SCHIP/Medicaid Eligibility on Other Measures of Support for Redistribution	44
1.6	The Effects of SCHIP/Medicaid Eligibility on Trust in the Government	45
1.7	Placebo Experiment Using Childless People	46
1.8	Effects of Medicaid/SCHIP eligibility on support for redistribution (1-7 scale) with Additional State Controls	47
1.9	Variations and Changes in Support for Redistribution	49
1.10	OLS Regression of Support for Redistribution (Dummy) on Eligibility	50
1.11	The Effects of SCHIP/Medicaid Eligibility on Support for Redistribution (Dummy)	51
1.12	Summary Statistics for Placebo Group: Individuals in Households without Resident Children	52
1.13	Placebo Experiment Using Childless People	53
2.1	Summary Statistics	82
2.2	The Effects of Relative Income on Happiness	83
2.3	The Effects of Relative Income on Support for Redistribution	84

2.4	The Effects of Relative Income on Attitudes	85
2.5	The Effects of Relative Income on Happiness - World Data	86
2.6	The Effects of Relative Income on Support for Redistribution - World Data	87
2.7	The Effects of Relative Income on Attitudes - World Data	88
2.8	GSS Variable Details	90
2.9	WVS Variable Details	91
2.10	The Effects of Relative Income on Happiness	92
2.11	The Effects of Relative Income on Support for Redistribution	93
2.12	The Effects of Relative Income on Attitudes	94
2.13	The Effects of Relative Income on Happiness - World Data	95
2.14	The Effects of Relative Income on Support for Redistribution - World Data	96
2.15	The Effects of Relative Income on Attitudes - World Data	97
2.16	Relative Income Effect on Happiness (sq)	98
2.17	Relative Income Effect on Support for Redistribution (sq)	99
2.18	Relative Income Effect on Attitudes (sq)	100
2.19	Relative Income Effect on Happiness (Interaction)	101
2.20	Relative Income Effect on Support for Redistribution (Interaction) . .	102
2.21	Relative Income Effect on Attitudes (Interaction)	103
2.22	The Effects of Relative Income on Happiness - Ordered Probit	104
2.23	The Effects of Relative Income on Support for Redistribution - Or- dered Probit	105
2.24	The Effects of Relative Income on Attitudes - Ordered Probit	106
2.25	Relative Income Effect on Happiness - Regional Price Parity	107
2.26	Relative Income Effect on Support for Redistribution - Regional Price Parity	108
2.27	Relative Income Effect on Attitudes - Regional Price Parity	109

Chapter 1

The Impact of Government Programs on Individual Preferences for Redistribution: Evidence from SCHIP/Medicaid expansion

1.1 Introduction

Preferences for government redistribution are important determinants of voting and hence public policies (Fisman et al.2017). With stagnant wages and rising inequality emerging as key political issues, there is increasing interest in how individuals view redistributive policies, such as raising taxes on the wealthy or creating social programs for people at the lower end of the income distribution. A key determinant of these policies is individuals' preferences for redistribution, so understanding their determinants is of importance to economists. With my paper, I investigate how

government programs affect these preferences, specifically, whether having a child eligible for free public children's health insurance program increases parents' support for government's redistribution.

Several papers in the literature have looked at the macroeconomic determinants of redistributive preferences. Alesina and Fuchs-Schundeln (2007) exploit the German separation and unification as natural experiments and found that culture and political systems strongly determines individual's preferences for redistribution. In another paper, Alesina and Ferrara (2005) show that prospects for future income mobility and beliefs about equality of opportunity predict these preferences as well. Luttmer and Singhal (2011) suggest the persistent effect of culture on determining individual's demand for redistribution in that immigrants still have similar demand for redistribution to the average preference in their birth countries after moving, and this effect persists to the second generation. There are also studies that look at malleability of preferences for redistribution experimentally. Kuziemko et al. (2015) suggest that treatment of information can change support for redistribution only to a small degree. Using Amazon.com's Mechanical Turk platform¹, where individuals are paid to take part in surveys, they presented their respondents with some pertinent information about inequality, such as how much money the rich make compared with the middle class, etc... The subjects are then asked a series of questions regarding their views on government policies. They found the treatment of information to have

¹Amazon Mechanical Turk is a crowdsourcing internet marketplace enabling individuals and businesses, or "requesters" to coordinate the use of human intelligence to perform tasks that computers are currently unable to do.

very large effects on respondents' view whether inequality is a problem, but only exhibits small change in their policy preferences, with the exception of the estate tax. Their results suggest that preferences cannot be influenced by merely exposing the subjects to the treatment of information. It is, however, possible that the preferences for redistribution can be influenced by some stronger external shocks.

With my paper, I explore a more micro level determinant of these preferences in real world data: Is there a possible role of being a beneficiary to a government program in changing individual's support for redistribution?. I examine the impacts of receiving free public insurance for children from Medicaid expansion and the State Children's Insurance Program (SCHIP). The treatment in my paper is not solely information, but rather the experience of enrollment in a government's social program. The target of these two insurance programs are children of different age groups from poor and near poor households, so both programs are forms of government redistribution. During the period of my analysis, from 1996 to 2014, SCHIP was introduced and Medicaid and SCHIP both expanded their generosity in eligible income thresholds and eligible age of children. For example, in 1996, an average teenager was only eligible to receive public children's health insurance if he/she lived in a household with income under 94% of the Federal Poverty Level (FPL). By 2005, the generosity had expanded to include teenagers in households with income of up to 220% of the FPL.

Since its implementation starting in 1997, the expansion of free public children's insurance under SCHIP and Medicaid has received a lot of attention among

economists. Several studies have been done on the effects of SCHIP/ Medicaid expansion on insurance coverage, children's health outcomes, students' cognitive outcomes, households' spending and parents' labor market outcomes... To my knowledge, my paper is the first to examine the effects of SCHIP/Medicaid expansion on support for redistribution. I use the restricted file of the 1996-2014 General Social Survey (GSS) data and an instrumental variable approach to estimate the impact of the program. To measure preferences for redistribution, I use respondents' answer to the GSS question: "Do you think the government should reduce income differences?", measured on a scale of 1 to 7. To check for robustness, I utilize other questions that also measure the individuals' underlying redistributive preferences in the GSS. In order to estimate the effect of SCHIP/Medicaid program on parents' support for redistribution, it would be ideal to run a regression of the parents' preferences on whether they participate in the program. However, take up is likely endogenous since among the eligible, the people who choose to use the policy have very different unobserved characteristics that might also affect their support for redistribution. Cunningham (2001) have found that the low take-up rate of 9% for SCHIP is likely due to non-economic factors such as stigma, lower preferences for health coverage, language barriers, lack of awareness, and lack of understanding of the importance of access to health care. Due to the endogeneity in take-up, I instead use eligibility for SCHIP/Medicaid instead of take-up as the main independent variable. From the information about individual's state of resident, household income and age composition of children, I can identify if the individual has any child eligible for the public

insurance program based on the state’s eligibility criteria. However, even eligibility might also be endogenous if there are differences in unobserved characteristics among eligible and ineligible parents that jointly determines support for redistribution. Moreover, parents might adjust their fertility decision or household income in order to qualify for the policy. These factors would together give us a biased estimate of the program effects. Therefore, I instrument for the possible endogenous eligibility of each household with ”simulated eligibility” constructed from aggregate data that represents the state generosity, only varying at the state-time level. This, consequently, is not correlated with other individuals’ unobserved characteristics and would take care of endogeneity at the individual and household level. The remaining concerns are possible endogeneity in the timing and generosity of each state at the state-time level or state-time-parent level. I attempt to address these concerns by additionally controlling for state time unobserved shocks using non-parents and controlling for state-time-parent economic conditions using adult unemployment rate and state parents income.

My analysis provides evidence that eligibility for free public insurance significantly increases parents’ support for redistribution by 0.3 to 0.6 point on a 1-7 scale, or about 25% of the standard deviation. The result is robust to several measure of support for redistribution in the GSS and survives the placebo experiment using non-parents. Additional controls for state-time-parent trend suggests that there are possible unobserved shocks at this level that lead to the timing and generosity in each state. However, this trend cannot fully account for the observed increase in support for redistribution for the eligible. I also find suggestive evidence that trust

in the government is increased, which serves as a possible mechanism through which preferences for redistribution were affected. This is further discussed in a later section on mechanisms.

My paper contributes to the existing literature on the effects of SCHIP/Medicaid expansion. While many have looked at health, labor and education outcomes, my paper is the first to look at the effects of these programs on preferences for redistribution. Furthermore, my paper enriches the literature on the malleability of redistributive preferences. Using the restricted file of the GSS with a well-established empirical strategy used in public economics, I provide strong evidence that individual's preferences for redistribution are indeed malleable given the experience of a social program. The paper proceeds as follows. The next section gives a background of SCHIP/Medicaid expansion along with the literature review. Section 3 presents the estimation strategies used. Section 4 describes the data and presents some descriptive statistics while Section 5 discusses the main empirical results. Section 6 offers a discussion of further results and mechanism. Section 7 concludes.

1.2 Background

1.2.1 SCHIP/Medicaid expansion

Created in 1965, the federal Medicaid program funds state efforts to help improve the health of disadvantaged people in society. Originally, Medicaid was set up to provide public health insurance to those who were disabled and women who were pregnant. In the late 1980s, Medicaid was expanded to include children, a vulnerable and often

forgotten population. To qualify, household income of the children's family needs to be below a certain amount determined by each state. By the 1990s, many states still have extremely low income eligibility thresholds for Medicaid. For example, according to the websites for Idaho's Department of Health and Welfare, Medicaid eligibility in Idaho is capped at roughly \$4000 a year for a family of four. To increase the level of assistance, State Children's Health Insurance Program (SCHIP) was signed into law in 1997. Under this program, the federal government allocates money to states, and states can choose their own SCHIP implementation. States are allowed to implement SCHIP in one of three ways: 1) expanding their existing Medicaid, 2) creating a whole new SCHIP program, or 3) creating a combination of both (Herz, Fernandez, and Peterson 2005).² Expanding Medicaid allows a state to use some pre-existing infrastructure, but creating a new program enables states to have their own policy requirements. As of May 2015, thirteen states created their own SCHIP programs, eight states implemented a Medicaid expansion while twenty nine states applied a combination of both (the Center for Medicaid and SCHIP Services (CMCS)).

Medicaid and SCHIP are technically two separate programs. While Medicaid gives all eligible children the right to public insurance, SCHIP is a block grant provided both by state funds and the federal government. Being eligible for SCHIP does not guarantee a child free public insurance if the grant runs out. However, LoSasso and Buchmueller (2004) have examined the effects of these two separate implementations on children's insurance coverage and suggest that these programs have similar

²The current implementation of SCHIP can be found in Figure 5 of the Appendix

impacts on insurance among children. Other analyses by Currie et al. (2008) also did not see differential impacts in other disparity outcomes. Furthermore, as many states implemented SCHIP as an expansion of Medicaid, it is nearly impossible to separate a child's eligibility as being from Medicaid or from SCHIP. Therefore, in this paper, I will not distinguish between these two programs but rather combine these interchangeable programs Medicaid and SCHIP coverage into a single category - SCHIP/Medicaid expansion.

Though there are some federally-mandated minimum eligibility requirements, states are generally free to choose eligibility qualifications. All states have eligibility requirements based on income, and these are multiples of the Federal Poverty Level. That is, if a state has an eligibility requirement of 200% of the FPL, then to qualify for SCHIP in that state, a family would have to earn less than two times the FPL of that year. The FPL varies by year and family size, but it does not vary by cost of living except in Alaska and Hawaii, which do not share the same poverty line with the contiguous 48 states. Because so much of the program planning has been left to states, by 2011, states had vastly different eligibility cutoffs for SCHIP. Figure 1 shows the income eligibility level for children in SCHIP/Medicaid expansion as of 2017. Most states had eligibility cutoffs between 200-300% of the FPL. Some states, such as Idaho, North Dakota, and Alaska, had eligibility cutoffs between 100-200% of the FPL. Others, such as New Jersey and New York, had cutoffs of 350% and 400% FPL (CMCS).

Under the Affordable Care Act (ACA), eligibility for children through Medicaid and CHIP is maintained. The ACA requires states to use a uniform definition of

income, known as the modified adjusted gross income, to better coordinate eligibility across health care programs. The ACA protects the gains already achieved in children's coverage by requiring states to maintain eligibility thresholds that are at least equal to those they had in place at the time the law was enacted through September 30, 2019. The Affordable Care Act stimulates SCHIP funding through 2015 and also massively expands Medicaid.

SCHIP/Medicaid expansion's eligibility changes for different age groups, different household income, from state to state and from year to year. While initially providing public health insurance for only young children, the program has expanded coverage to older children of up to 18 years old. And generosity has increased from covering only children in family with income below the FPL up to income 400% of the FPL. As seen from Figure 2, the gap in eligibility has narrowed for children of older age groups compared to younger children, and coverage for near poor households up to 300% of the FPL are catching up with that of poor household with income under the FPL.

1.2.2 Related Literature

Preferences for redistribution is an area of growing interest among economists. Studying the macroeconomic determinants of preferences for redistribution, Alesina (2007, 2011) suggests that culture, political party affiliation, upward mobility and beliefs about equality of opportunities strongly affects preferences. In the United States, individuals believe in the American dream where everyone has an equal opportunity

to achieve success. Therefore, compared to other developed nations, America generally expresses a distaste for redistribution. Luttmer and Singhal (2011) suggests the persistent effect of culture on shaping preferences for redistribution. To separate culture from the economic and institutional environment, the authors regress immigrants' redistributive preferences on the average preference in their birth countries, and find a strong positive relationship robust to rich controls for country's economic factors. Interestingly, they also find culture to have significant effects persisting to the second generation.

Kuziemko et al. (2015) has explored the formation of preferences for redistribution, specifically, whether information intervention . They conducted an online survey experiment to analyze how information treatment affects preferences for redistribution. The subjects were randomized into treatments that provide interactive, customized information on U.S. income inequality, the link between top income tax rates and economic growth, and the estate tax. The authors found that while increasing respondents' belief that inequality is bad, the treatment of information didn't increase support for redistribution to the poor. Support for taxing the rich did go up, but not by much. The small effects for this change can be at least partially explained by the respondents' low trust in government: by priming people to think negatively about the government substantially reduces support for transfer programs. When they informed their subjects a slide showing that the estate tax currently affects only about 0.1 percent of estates - the very richest ones - they found that this "has an extremely large positive effect on estate tax support, even increasing respondents'

willingness to write to their U.S. senator about the issue.” It also suggests that giving people more information about specific inequalities, as opposed to citing overall statistics about inequality, can have a big impact on voters’ attitudes.

An interesting question therefore stems from this finding: Does being a beneficiary to a government’s transfer programs change an individual’s support for redistribution?. There have been studies that look at effects of government programs on political success in the developing countries context. Labonne (2013) studies the impacts of targeted government transfers in the Philippines on a local incumbent’s electoral performance and find that the incumbent’s vote share increases where the program was implemented. Manacorda and Miguel (2011) also found that beneficiaries to the Uruguayan PANES program are 11 to 13 percentage points more likely to favor the incumbent government. De La O (2013) and Zucco (2013) also find congruent results in Brazil and Mexico while Bechtel (2011) finds similar effects for the program in Germany. In the US context, as American are generally less supportive of redistribution, the impact of a government program is possibly different. Using the roll-out of the Food Stamp Program, Kogan (2016) explores whether food stamp program benefits would affect voting outcomes. He finds that in counties where the program had been implemented, voters are more likely to favor the Democratic Party, which is traditionally known to be favor redistributive policies. The mechanism of this vote gain acts primarily through mobilization of new supporters rather than the conversion of political opponents. However, the voting decision is not completely reflective of an individual’s preferences for distribution but rather represents a combination of several factors such as the current social and economic

condition, the evaluation of government performance, the evaluation of candidates' characteristics, or political party affiliation, etc. In order to study the effects of a government program on preference for redistribution more precisely, we would need a more direct measure of the variable.

My paper exploits the variation in roll-out of Medicaid expansion and SCHIP for children to explore whether the program's recipients grow more supportive of redistribution after being eligible for its benefits. Rather than looking at voting outcomes, which can be easily influenced by many different factors, I explore one potential way through which support for redistribution increases: preference for redistribution. I look directly at individuals' response to the GSS question whether they think the government should reduce income differences, which was also used by Kuziemko et al. (2015), and Keeley and Tan (2008). This variable will be my main measure of preferences for redistribution throughout the analysis.

The program SCHIP/Medicaid expansion and its effects on numerous outcomes have been studied in the current literature. Since its implementation starting 1997, the program has been broadly analyzed and has been shown to have significant effects both in the short and long run in improving children's health insurance coverage (LoSasso and Buchmueller 2004; Bansak and Raphael 2006; Hudson et al. 2005). It is also shown to have a positive and significant impact on children's health outcomes (Currie et al. 2008), students' cognitive outcomes (Cohodes et al. 2014). Besides children, the program also has an effect on parents' spending (Leininger et al. 2010) and parents' labor market outcomes (Bansak and Raphael 2008)...However, to my knowledge, there is no existing studies in the literature that analyzies the effects of

SCHIP/Medicaid expansion on support for redistribution. My paper brings together the two areas of literature: the study of malleability of preferences for redistribution, and program evaluation of SCHIP/Medicaid. I use the state-time variation in roll-out and expansions of coverage to estimate the impact on parents' redistribution preferences, controlling for their endogenous eligibility.

1.3 Empirical Strategy

To study the possible effects if SCHIP/Medicaid on preferences for redistribution, I focus on individuals aged 18 to 65 who has at least one child under 18 in the household. Exploiting differences in timing of implementation and roll-out of Medicaid expansion and SCHIP as exogenous shocks, I regress the variable of interest - support for redistribution on eligibility and other controls of the respondents. In order to control for state specific characteristics and time specific shocks, I also include state fixed effects and year fixed effects. Other controls about the individual include dummies for having children in each age category (0 to 5 years old, 6 to 12 years old and 13 to 17 years old), the total number of children and household income. These factors must be included in my specification as they are the main variables used to determine eligibility, as the policy expands coverage of health insurance for children with different generosity in different states at different time. The main regression takes the following form:

$$Support_{ist} = \alpha + \beta Eligibility_{ist} + X'_{ist}\delta + \gamma_s + \delta_t + \epsilon_{ist} \quad (1)$$

Where $Support_{ist}$ or support for redistribution for individual i , in state s and

year t can be measured on a scale of 1 to 7 (with 7 indicating the most support for redistribution) or as a dummy (with 1 indicating support for redistribution). *Eligibility* is an indicator variable that takes the value of 1 if the respondent has any child eligible for free public insurance and 0 otherwise (the detailed construction of this variable is described below). X_{ist} is a vector of demographic controls including the respondent's sex, age, race, education, marital and employment status, dummies for having children in each age group, total number of children and household income. γ_s and δ_t , respectively, are the state and year fixed effects mentioned above.

To construct eligibility, for each state in a given year, I use the information about the eligibility requirements on household income levels and children age groups. For example, for Illinois, in 1998, infants under one year old in households with total income under 185% of the FPL, children under 6 years old in households with total income under 133% of the FPL, and children aged 6 to 14 in households with total income under FPL are covered ³. Given this information, I can identify whether the respondent is in an eligible household upon knowing the total household income and age of the children. Eligibility is determined based on the year, the respondent's children age groups, state of residence, and household income as a percentage of the poverty line for a specific year. Equation (1) is therefore similar to a multi-layer difference-in-differences model; however, instead of having a fixed control and treatment group, I have varying control and treatment groups due to the program's frequently changing eligibility requirements. The treatment group includes people in households that have recently experienced an eligibility expansion, and the

³Source: National Governors Association annual MCH update and the Kaiser Family Foundation report

control group includes people in households that have already received the Medicaid benefits or the people in households with children who would never qualify for SCHIP/Medicaid expansion i.e: high income households or households with children aged 18 or older. The coefficient of interest, β , measures the difference in support for redistribution between the treatment and the control group.

An important concern regarding equation (1) is that eligibility may be endogenous. The household income and age composition of children that I use to construct eligibility can be easily correlated with unobservable characteristics of the households/individuals that may also jointly determine their preferences for redistribution. The regression consequently would not give me an unbiased causal estimator for the effects of SCHIP/Medicaid expansion. In order to account for this endogeneity, I utilize an instrumental variable approach using simulated eligibility similar to the one pioneered by Currie & Gruber (1996) and later adopted by Currie (2009) and LoSasso (2012) in studying the effects of SCHIP. The instrument varies only by legislative environment and will not be affected by households' or individuals' unobserved characteristics, as the primary focus of investigation is how program expansions affect support for redistribution. To create this instrument, I use the data from the Current Population Survey. I take a random sample without replacement of 3,000 observations of children under 18 in each year, and then run this population through eligibility criteria of each state for children of different ages. Based on each child's age, household income and simulated state, I would know this child's eligibility for the program. This yields, for each state and year, a fraction of 3,000 sampled children who would be eligible for SCHIP had the state eligibility been the national

eligibility. In turn, this provides an estimate, for each parent in the GSS sample, of the probability that he/she has a child eligible for the program, or their "simulated eligibility" instrument. This instrument varies only at the state, year level. It satisfies the two requirements of an instrumental variable: instrument exogeneity and instrument relevance. First, the simulated eligibility is relevant and should be strongly correlated with actual eligibility, as it is derived from the actual eligibility criteria. We should expect a strong first stage from the following regression:

$$Elig_{ist} = \alpha + \beta_{FS} SimulatedElig_{st} + X'_{ist} \delta + \gamma_s + \delta_t + \epsilon_{ist} \quad (2)$$

Second, this instrument is plausibly uncorrelated with unobserved household characteristics as it only varies only by legislative environment and not by individuals' household income or fertility choices. Relying on this exclusion restriction, I run the reduced form regression below:

$$Support_{ist} = \alpha + \beta_{RF} SimulatedElig_{st} + X'_{ist} \delta + \gamma_s + \delta_t + \epsilon_{ist} \quad (3)$$

My instrumental variable estimate is therefore simply β_{RF}/β_{FS} . This provides an unbiased estimator of the effects of receiving SCHIP/Medicaid expansion on support for redistribution under the assumption that, conditional on the controls, simulated eligibility does not affect support for redistribution through any channel other than actual eligibility.

1.4 Data

1.4.1 Support for Redistribution

I use the restricted file of the General Social Survey (GSS) data that includes geocodes for each observation to answer the research question. The GSS is a project of the independent research organization NORC at the University of Chicago, with principal funding from the National Science Foundation.⁴ It consists of cross-sectional surveys conducted in the United States biennially from 1994. The period I use includes biennial data from 1996 to 2014, which gives me information on the years preceding SCHIP, spanning its roll-out and during its expansions. The GSS also has detailed demographic and socioeconomic characteristics of the individual such as age, race, gender, age composition of children, household income, political affiliation, etc. To investigate an individual's support for redistribution, I use the answer to the question:

"Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel?"

⁴Data accessed from the GSS Data Explorer website at gssdataexplorer.norc.org. The restricted dataset was obtained through NORC.

This question has been widely used in the literature (e.g., by Kuziemko 2015, Keeley and Tan 2008). The response is recorded as an ordered categorical variable taking the values 1 to 7, with 1 referring to "The Government should reduce differences" and 7 referring to "No government action" (The answers "don't know," "no answer," and "not applicable" are recorded as missing.). I reverse the values of this variable such that a higher value indicates more support for redistribution (7 now means "The Government reduce differences"). My sample only includes individuals under 65 years old in households with resident children under 18 years old. The number of observations in the sample studied is 8,601.

I also redefine the above variable into an indicator variable for whether the person supports redistributive policies to examine whether receiving benefits from SCHIP/Medicaid expansion is able to "switch" individuals' preferences. The dummy *Support* takes the value of one if they believe that the government should reduce income differences with a value of five or higher on the scale of 1-7. I also test the robustness of my results using responses to other questions such as "Should the government improve standards of living?" "Are we spending too much, too little, or about the right amount on welfare?" "Should the government reduce income differentials?" "Is it the government's responsibility to reduce income differences?"⁵. Some questions are not asked every single year, but if the before and after year responses are available, they can still provide us insights into the effects of receiving SCHIP/Medicaid expansion benefits for children on support for redistribution. As several measures are utilized, I create an index to test the joint significance of these

⁵Details about these survey questions are available in the Appendix

variables using the method introduced by Kling (2007).

Summary statistics for key variables are provided in Table 1. The top panel describes different measures of support for redistribution. The main variable used in my analysis, as discussed, is the answer to the GSS question "Should the government reduce income differences?", or "Support" as referred to in this paper, on a scale of 1 to 7 with a mean of 4.2. Figure 3 displays the histogram for this main outcome of interest. As seen, "Support" is quite balanced in my sample, with a little more density on the "for distribution" side. Other measures seem to have means indicating neutrality, where a person neither favors nor opposes redistribution. The middle panel describes different measures of eligibility that I use in this analysis. In my sample, the probability that an individual has any eligible child is about 35%. Having any eligible child is simply referred to as "Eligibility" and this will be my main measure of the right hand side variable. Panel 3 refers to the individual's basic demographic characteristics such as age, race, gender, education, marital and employment status and income. The means of these variables in GSS are very comparable to that of the Current Population Survey or of the American Community Survey.

Before turning to further analysis, I present some initial results describing the "Support" variable to provide the reader a sense of the data. Table 2 presents a series of regressions showing how key demographic traits are related to an individual's level of support for redistribution in the GSS. The table shows results for two outcomes: support for redistribution on a 1-7 scale (column 1) and as a dummy variable (column 2). The regressions are estimated on a pooled GSS sample across all years, and each regression controls for year and state fixed effects. The standard errors presented in

the table are clustered at the state level.

Very similar to the results by Alesina (2011) using GSS data from 1972-2004, my regressions show that support for redistribution exhibits a sharp education gradient, in that more highly educated individuals are significantly less likely to support redistribution. Individuals with a more conservative political view are also less supportive. On the other hand, even after controlling for income, education and age, the regressions also show that females are significantly more supportive. Single and black individuals also exhibits more support for redistribution, as do parents. During the period of my analysis, where SCHIP was implemented and Medicaid and SCHIP were expanded, support for redistribution exhibits an increasing trend but at a decreasing rate. This is consistent with the initial reaction of support for redistribution being strong but the marginal increases for each expansion being smaller in magnitude.

In the GSS, income is an ordered categorical variable taking values 1 to 13 with each number referencing a different income category where 13 is the highest income category for the household in the previous year. As the upper bound of the highest income level changes every few rounds, I have to use several different income variables for the period of my analysis in order to obtain a more correct income measure.⁶ As income is recorded in categories, I use the midpoint method to get an estimate for each individual's household income. The lowest and the highest income values in a category are known and each household's income is the average of these upper and lower bounds. In my regressions, I use this household income variable and compare

⁶Details about how I formed the income variable are available in the Appendix

it to a multiple of the FPL to determine eligibility of each household, based on their children's age. The data for the FPL for each income year and household size is taken from the U.S. Bureau of the Census, the Current Population Survey, Annual Social and Economic Supplements. I match the year and household size to find out the FPL for each household, and apply the state generosity in coverage to determine eligibility.

From Table 2, we can see that individuals with higher household income are less supportive of redistributive policies. However, at the state level, Figure 4 reveals an interesting fact. The scatter plot of support vs. average household income in each state shows a slight upward sloping fitted line, suggesting that the states at the lower end of the socioeconomic spectrum, or the ones that benefit more from redistributive policies, are more likely to disfavor redistribution.

1.4.2 SCHIP and Medicaid Eligibility

The data on Medicaid and SCHIP eligibility from 2000-2017 are collected from the Kaiser Family Foundation, in interviews conducted annually with the Medicaid/SCHIP administrator in different states. Data on Medicaid and SCHIP eligibility from 1996-2000 are from the National Governors' Association annual MPC update. The Health Policy Studies Division of the National Governors' Association has conducted a national survey of state Medicaid coverage of pregnant women and children and innovative maternal and child health initiatives. The Association surveyed each state Medicaid agency and the annual MCH Update reflects the changes states have made to Medicaid coverage for pregnant women and children. Using

information on FPL from the US Bureau of the Census coupled with the Medicaid/SCHIP generosity in each state, I can determine whether an individual has a child (or children) eligible for the program.

To construct the simulated eligibility, as discussed in the empirical strategy section, I use the data from the Current Population Survey from 1996-2014 due to the limited sample size of the GSS. For each year in the period of analysis, I pick a random sample of 3000 children from the national population. I then use the eligibility criteria in each state that includes the generosity in household income threshold for each age of children for eligibility to determine the percentage of children that would be eligible if they lived in a specific state. Therefore, with each state and year, I have the constructed simulated eligibility that represents state generosity for each parent.

1.5 Results

1.5.1 OLS Results

Table 3 displays results from the regression of the respondents' level of support for redistribution on their eligibility for SCHIP/Medicaid expansion. The results indicate that having any child eligible for the benefits of free public insurance is associated with 0.34 points higher support for redistribution on a 1-7 scale, or about 17% of the standard deviation. The effects may also vary by the intensity of treatment where the respondent's view might be more influenced if he/she has more eligible children. Hence, I separate the effects of eligibility by having one eligible child, having two eligible children and having three eligible children or more. As can be

seen from column (2), the respondents' attitude is most influenced when they become eligible for the policy with one child. After the first child, having one more eligible child makes the respondent marginally more supportive of redistribution, but the magnitude decreases. The effect diminishes by the third child. So having two eligible children makes an individual more favorable of redistribution compared to having only one eligible child, but a person with four eligible children increases support for redistribution just as much as a person with two. I also explore whether parents with children of different age groups respond differently to the program, i.e whether it is different for parents with younger children (0-5 year-olds) compared to parents with older children (6-12 year-olds and 13-17 year-olds). The results are displayed in columns (3), (4), and (5), respectively for parents of each age group. As seen, the magnitude is the strongest for those having an eligible baby, since they are the group whose children are the most vulnerable and therefore have the most expensive healthcare. I also find positive and significant effects for parents of older children.

Having an increase of support for redistribution for the average individual might not mean that there is a change in an individual's preferences. It is possible that this change only comes from individuals who are already supportive of government redistributive policies, while not changing attitudes for the non-supporters. Moreover, having an increase of 0.34 on a 1-7 scale might be difficult to interpret, especially if the individual's support for redistribution is not affected linearly. Therefore, I also convert the 1-7 scale into a dummy variable indicating whether an individual is supportive of redistribution: variable "Support" takes the value of 1 if their response for the question is at least 5 out of 7. Table 11 in the Appendix summarizes the

results, with the same specifications to the ones in Table 3. As we can see, receiving the benefits of SCHIP/Medicaid expansion can shift a person’s preference from not supporting to supporting redistribution by 7 percentage points. However, it is found that preferences can only be shifted for respondents with the most at-risk children: the ones with eligible babies (column 3). I also find evidence consistent with the intensity of treatment shifting preferences. The results (column 2) indicate having one additional child, up to two eligible children is associated with incrementally more support for redistribution, which is consistent with the results in Table 3.

1.5.2 IV Results

There are possible concerns that individuals’ eligibility might be correlated with their unobserved characteristics: parents might adjust their income or fertility decisions in order to become eligible for the policy. This would lead to the OLS estimate being inconsistent. To address this, I instrument for actual eligibility with ”Simulated Eligibility” variable, which represents state generosity and only varies by state and year. Results for the instrumental variable approach are presented in Table 4. The first stage results shown in column (1) indicates that state generosity strongly predicts actual eligibility for parents: the more generous is the state is, the more likely that parents will have a child eligible for SCHIP/Medicaid expansion. The reduced form is also significant, indicating that a more generous state policy also leads to stronger the support for government redistribution by parents living in that state. The instrumental variable estimate, which is the reduced form estimate scaled by the first stage by indirect least squares, is 0.576 and significant at a 5% level. This

provides evidence that having any child eligible for SCHIP/Medicaid's free public insurance program increases parents' support for redistribution by 0.576 point on a 1-7 scale, about 25% of the standard deviation. The IV estimate, compared to the OLS, is higher in magnitude. However, it is much less precise with a much bigger standard error since state generosity only captures variations in policy through state and year, dropping variations in household income and children's composition. According to the regression-based form of the Hausman test, the IV estimate and the OLS estimate are not statistically different from each other, suggesting that the independent variable *Eligibility* may not be endogenous, and the OLS estimate may in fact be consistent. Given this result, the rest of this analysis will present the OLS and IV estimates side by side to provide a more comprehensive evaluation on the effects of SCHIP/Medicaid expansion.

Similarly to the previous section, I also repeat the instrumental variable approach for the regression with the "Support" dummy as my dependent variable to detect shifts in preferences. The results are in Table 11 of the Appendix. Having a child eligible for free public insurance can make parents' preferences change from not supporting to supporting redistributive programs by 10 percentage points. However, this effect is not significant.

1.6 Further Results and Mechanisms

1.6.1 Are preferences really changing?

One channel to ascertain the changes in respondents' preferences towards redistribution would be to directly ask them whether they support redistribution if given a certain benefit from the government. However, their answer to only one question may not correctly reflect their preferences, as this is just a response to receiving the benefits, irrespective of whether they support the concept of redistribution or not. It is important to make a distinction between a person's actual change in preference and his/her reaction to the specific GSS question "Should the government reduce income differences?". What provides better insights are other questions in the GSS that indirectly measure a person's redistributive preferences such as "Should the government improve standard of living for the poor?" "Are we spending too little on welfare?" "Do you agree that it is the government's responsibility to reduce income differences?" "Do you think the government should reduce the rich poor gap?"⁷. These different measures help measure how people think about redistribution from different angles to test the robustness of this result. The effects of the program on support for redistribution using these variables are shown in Table 5. Throughout, I find evidence suggesting that SCHIP/Medicaid expansion does increase the individual's agreement to these questions, with the exception of the response to "The government should reduce income differences" (Panel C). For some questions, the low number of observations makes the estimates noisy, thus I do not detect a significant

⁷Details about the questions are available in the Appendix

effect. But consistently, the estimates all indicate a positive relationship between eligibility and support.

Issues of multiple testing might arise as I have several questions that underlie the same measure of support for redistribution. To address these issues, following the methods adopted by Kling, Liebman, and Katz (2007) and Anderson (2008), I construct a standardized index for "Support" that together averages these measures of support for redistribution. The index is formed by first standardizing each outcome by subtracting the mean and dividing it by the standard deviation of the control group. I then take the sum of the five standardized outcomes and divide it by the standard deviation to obtain an index with mean of 0 and standard deviation of 1. A higher value of the index represents more favorable views towards redistribution. Due to the limitation of the data with different questions are asked in different years to different individuals, forming this index would greatly limiting the number of observations. The questions asking whether "The government should reduce income differences" and "The government should reduce the rich poor gap" are only asked in very few rounds. Thus, I would not have enough observations if the index were constructed from all of the above mentioned five measures. The index is therefore created using only the first three outcomes ⁸ as these three questions are asked in every single round of the GSS from 1996 to 2014. The estimate for this Support index indicates that becoming eligible for the state children insurance program increases support for redistribution by 0.45 standard deviations for parents in household with resident children under 18 years old. This reaffirms my central thesis: being a

⁸the main measure, the government should improve standard of living for the poor and the government should spend more money on welfare

beneficiary to a government program increases support for redistribution.

1.6.2 General vs. Specific Information vs. Experience

Following an earlier discussion, Kuziemko et al. (2015) find no effects of information shock on redistributive preferences, with the exception of, interestingly, information on the estate tax. When the subjects in their randomized experiments are informed with a slide showing that the estate tax currently affects only about 0.1 percent of estates - the very richest ones - the authors found that this "has an extremely large positive effect on estate tax support, even increasing respondents' willingness to write to their U.S. senator about the issue." A possible explanation for this observed effect is that giving people specific information rather than general statistics can affect respondents' attitudes. In the case of the free children public insurance program, the beneficiaries are provided with the "experience", which includes detailed information about the program and more. This is likely to be a stronger treatment than giving general information. Eligible individuals go through the entire process from when they learn about the program, apply for the program and eventually have their children insured. Once they have gone through the experience, not only will they gain specific information about the program, they will also have updated information about the effectiveness of the program and how it actually works. Gaining an experience generates better understanding, which ultimately translates into changes in their attitudes and preferences.

If the treatment of general information yields no effects, specific information on the estate tax yields some effects in the Kuziemko experiment. I find that this

stronger treatment does affect preferences. This result reinforces the patterns found in the Kuziemko et al.(2015) experiments. The increase in support for redistribution, as discussed in the earlier section, is robust to different measures of the outcomes.

1.6.3 Trust in the Government

Kuziemko et al. (2015) also emphasize that the small effects found with information intervention can be explained by the respondents' low trust in government. In their experiment, distrust in government inhibits respondents from translating concern for inequality into supporting the government's wealth redistribution. This trust mechanism can also be tested in my analysis. The GSS also has information on individual's trust. Following Alesina (2000), I use the two questions in the GSS to measure trust in the government: "As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in the executive branch of the federal government?". The same question is also asked about the person's confidence in congress. The answers are recorded on a scale from 1 to 3, with 1 being "A great deal" and 3 being "Hardly any". I reverse the scale so that a higher value indicates more confidence/trust in the government. In Table 6, I report the results for these two measures. Panel A displays results for individual's trust in the federal government and Panel B shows results for their trust in congress. Consistently, I find that being a beneficiary to the program significantly increase individual's trust in the Federal Government by 0.49 point, and trust in Congress by 0.18 point on a 1 to 3 scale. Even though the IV estimates are not significant due to limited number of observations, they both indicate a positive

effect on trust. Furthermore, we can rely on the significant OLS estimates for confidence in this increase in trust. This may act as a potential channel leading to more in favor of government action to reduce inequality. The effects could be mediated through actual program take up or mechanisms not necessarily involving take-up. While poor households and young children are generally the target around which government policies are designed, the group of near poor households and parents with older children are more often neglected. Having a program that acknowledges their needs may increase their trust in the government. Once the recipients develop confidence in the government to develop effective programs to help the needed, they would more likely favor government transfer programs, irrespective of whether they use the program or not.

Similar to the previous section, I construct a standardized index for trust in the government for an easier interpretation of the magnitude of the effect and to take care of multiple testing issues (Panel C). The IV results indicate about a 0.58 standard deviations increase in trust. This increase may come from an improved understanding of the policy. It might also come from the fact that the program now becomes available to these families so they can take it up when needed. A certain subgroup of near poor household and parents with older children might have never been considered in a welfare program. Now that they can potentially receive benefits, their trust and support increase.

1.6.4 Supplemental Analysis

1.6.4.1 Placebo Experiment

The main empirical specification I use in this analysis follows the literature using simulated eligibility as an instrument for endogenous eligibility, taking the timing and generosity in each state as exogenous (Currie et al 2008, Bansak and Raphael 2007). However, it may be important to analyze if the timing of the policy is correlated with any unobserved state time attributes. One possible concern with my instrumental variable approach is the exogeneity of the instrument due to unobserved state-time shocks. In order for the IV estimate to be consistent, the generosity of each state must not be caused by any unobserved state-time characteristics, that is, there should not be events happening in each state that lead to changes in both state generosity and support for redistribution. In order to examine whether there were any unobserved state-time characteristics that might have led to the generosity change, I repeat the instrumental variable approach as a placebo experiment on the groups of individuals without children under 18 in the household. These individuals are living in the same states as the individuals in the main sample, and therefore would experience the same state-time environment. Analysis on this group helps detect any state-time unobserved shocks that might lead to different timing and generosity adopted by each state. Summary statistics for this placebo group can be found in Table 12 in the Appendix.

The challenge with this thought experiment is that there is no actual eligibility for this group, since these individuals have no children who would be eligible for the

program. Therefore, I can only create the "Intended-Eligibility" variable where the respondents' household income is the only determinant of whether they would be eligible for SCHIP/Medicaid expansion in their state of residence, each year. That is, based on his/her current household income, if the respondent had a child, would he/she be eligible for the public children's insurance. This variable captures the intention to treat, rather than actual treatment. I also repeat the exercise for the main sample for an appropriate comparison for the two groups. Table 7 displays the results.

While the first stage estimates are very similar for childless individuals and individuals with children, there is a significant difference in the reduced form. Support for redistribution increases significantly by 0.661 point on a 1-7 scale for the main sample, while no significant effects are detected for the childless group. This means that any change in support for the people with children are driven by free public insurance coverage, rather than any state-time shift in redistributive preferences. This also suggests that Medicaid expansion and SCHIP generosity changes are not caused by any specific events happening at the state-level, ruling out reverse causality at the state-time level. If there was a statewide shift in preferences that then drive policy changes, we would expect both parents and non-parents to be experiencing the same shift in preferences. In terms of instrumental variable estimates, we can see a positive significant effect observed for the main sample, versus an insignificant effect for the placebo group. We see the same pattern for the OLS in Appendix Table 13. There is an evidence of an increase in support for the childless individuals, yet the effect is smaller compared to that for the main sample.

1.6.4.2 Additional Controls for State-time-parent Trends

The placebo experiment using households without resident children takes care of the endogeneity of timing of the policy at the state and year level. However, there are possible remaining concerns about different timing and expansion of the policy due to different trends for parents among states. Trends for childless individuals in these states would not be able to capture changes in state family conditions. Therefore, in order to address these concerns, I include additional controls for parents at the state-year level. Table 8 presents the results adding state unemployment rate and state parents' income by year. These controls are calculated using the Current Population Survey. However, as the CPS doesn't have full age composition of children in the household, I will only use the age of the youngest child to classify the category for parents. The left panel includes the overall state unemployment rate and parents' income, while the right panel adds more detailed controls with state unemployment rate for different age groups of parents, and state parents' income for parents of younger versus older children (using the age of the youngest child only). Even after controlling for several state-time factors, there is still a marginally significant effect in Column 4. The 2SLS and OLS estimates in this table are similar in magnitude to the OLS estimate in Table 3, but are not statistically significant. The estimates with and without trends are not statistically different from each other. The estimate without trends is larger but also less precisely estimated. The IV estimates in Table 8 show that conditional on state-year-parent trends, the OLS estimate is not biased; therefore they are also included in Columns 2 and 4. Furthermore, the IV estimates in Table 8 are almost numerically identical to the initial OLS estimate in Table 3.

These results give confidence to the robustness of the initial OLS estimates. The result suggests that there are possible state time unobservables that correlates with the state-time generosity; however, these unobservables cannot fully discount the effect of Medicaid/SCHIP on parents' preferences for redistribution.

1.7 Conclusion

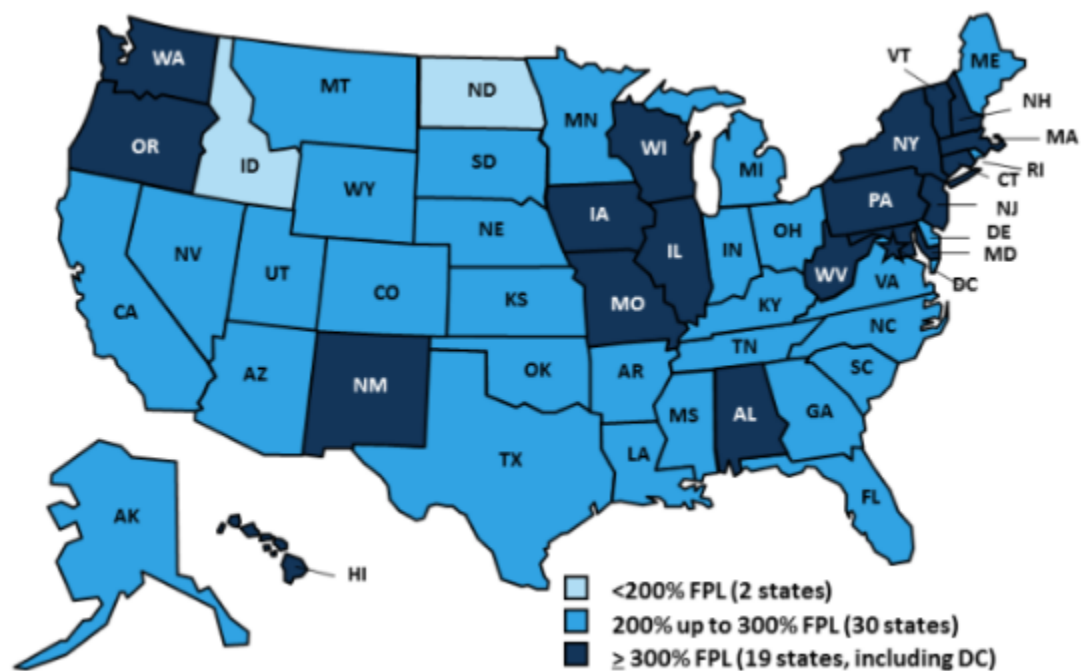
Since the introduction of SCHIP and Medicaid expansion in 1997, the coverage for older children in near poor households has substantially increased. Among the numerous effects of SCHIP/Medicaid expansion, my analysis provides evidence that SCHIP/Medicaid expansion's free public insurance for children changes eligible parents' redistributive preferences. Utilizing several layers of the policy variations in age groups, income thresholds and year, I was able to quantify the effects of the program on support for redistribution. Children under 6 years old in poor households with income less than the federal poverty level have always been eligible for public insurance under Medicaid. With Medicaid expansions and SCHIP, the older children under 18 years old in near poor households are eligible as well. Receiving coverage for children in these households is likely to lessen the financial burden and health risks for parents, and therefore help them better understand and internalize the benefits of these government welfare program. This appears to translate into an increase in their support for redistribution. Furthermore, the groups that shows the effect in my paper are the eligible group, or the intention-to-treat. The effect of the program on the treated can be scaled by the take-up rate, but the effect does not necessarily mediate through take-up channel. The parents in this analysis are not necessarily

the ones who take up the program, but support for redistribution can also increase through the channel of having the program as an option. The near poor households are a disadvantaged group often left out in government policies. Even if they do not take up the program, having a policy targeting their needs would also increase their support.

Being eligible for the program and actually taking up SCHIP and Medicaid provides specific information on the program for individuals. Furthermore, the beneficiaries are provided with the experience of how the government program works. The updated knowledge on government's efficiency appears to increase individual's trust in the government, therefore bring forth support for redistributive policies. This has a potential policy implication about the unintended impact of government programs: increasing individuals' support for redistribution and trust in the government.

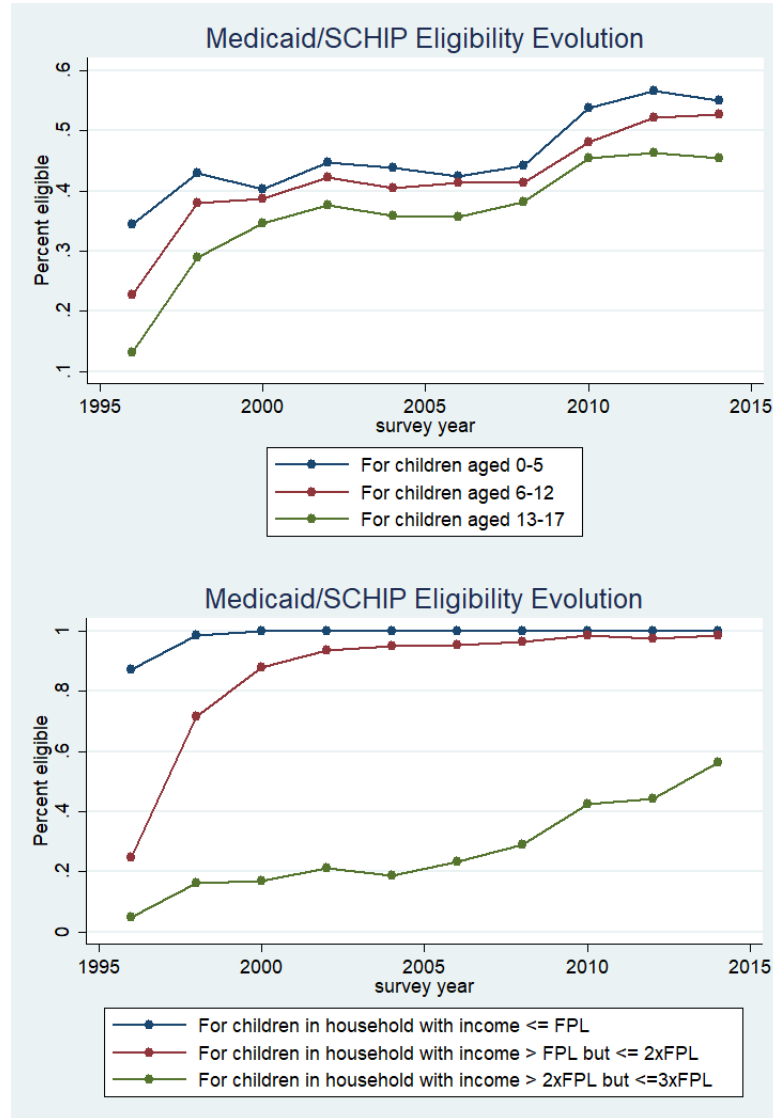
My results provide some insights on the malleability of preferences for redistribution. Being a beneficiary of a government program can improve an individual's support, even when the program is not a direct cash-transfer. Most governments redistribute economic resources between citizens, and policies with redistributive components have become increasingly important in recent years. These programs can have an effect on individuals' preferences for redistribution. Whether this effect is long lasting would be an interesting question to further investigate in future research.

Figure 1.1: Income Eligibility Levels for Children in SCHIP/Medicaid, 2017



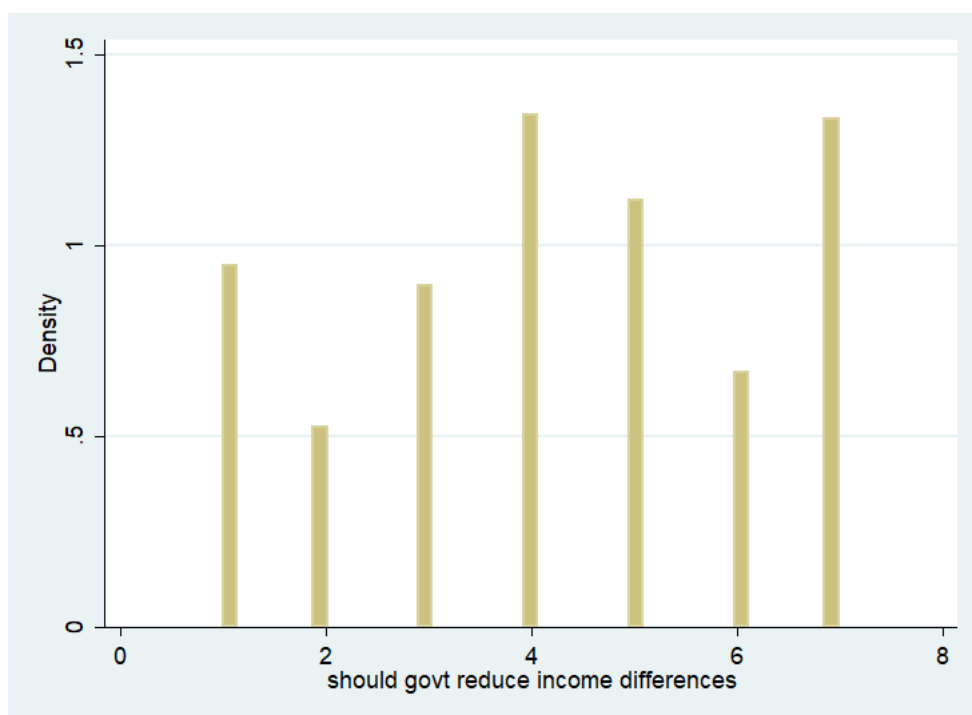
Notes: Eligibility levels are based on 2016 federal poverty levels for a family of three. Based on results from a national survey conducted by the Kaiser Commission on Medicaid and the Uninsured and the Georgetown University Center for Children and Families, 2017.

Figure 1.2: Eligibility Evolution for SCHIP/Medicaid Expansion



Notes: Mean eligibility each year is calculated based on the sample of 1,000 children drawn from the Current Population Survey for each year, each age group for a total of 30,000 observations. These 30,000 observations are run through each state income thresholds generosity to determine eligibility for each state, year. The mean eligibility across states is reported on the graph.

Figure 1.3: Distribution of Support for Redistribution for the Main Sample



Notes: Support for Redistribution is measured on a scale of 1 to 7. A higher value indicates stronger support for government's redistribution. Data is obtained from the variable eqwlth from the General Social Survey from 1996-2014.

Figure 1.4: State Income and Support for Redistribution

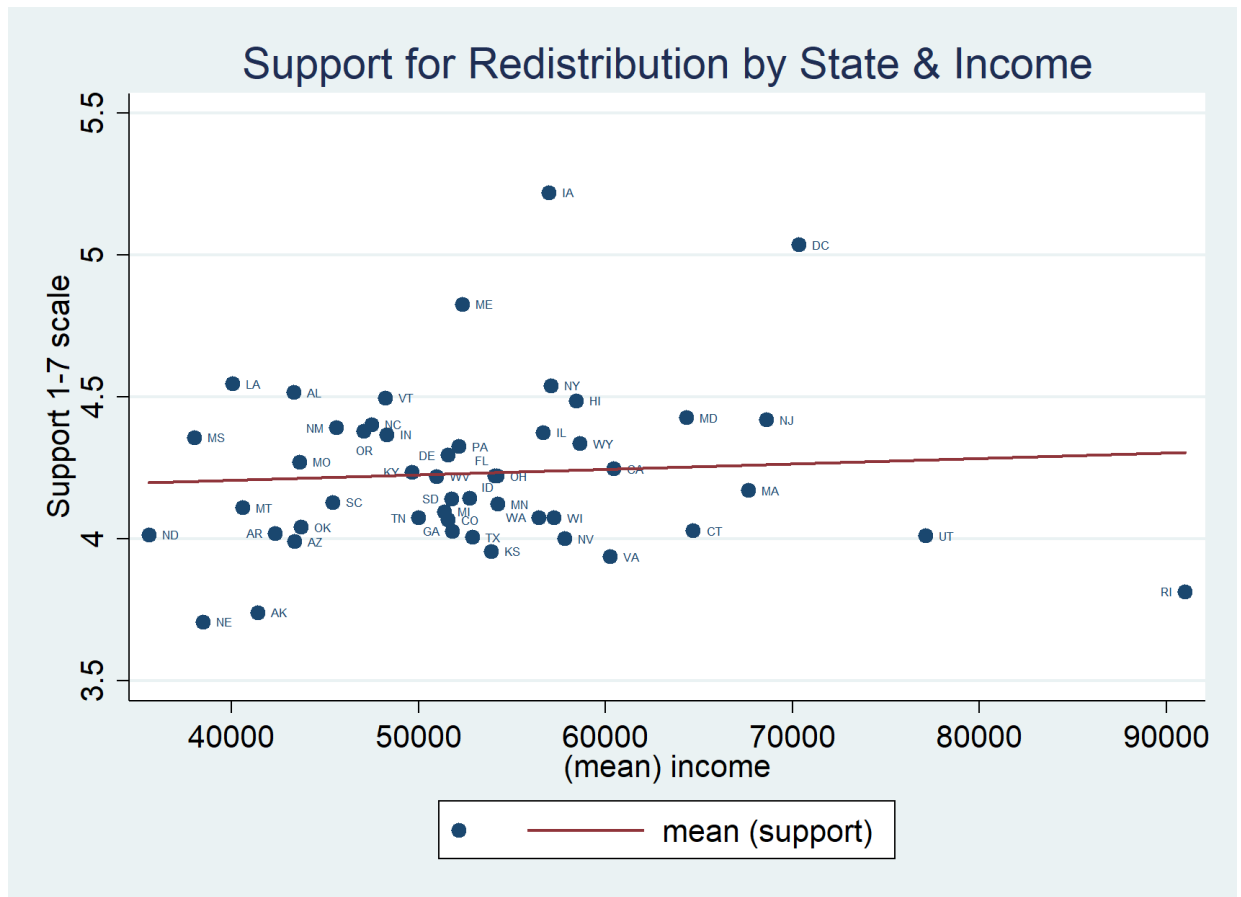


Table 1.1: Summary Statistics

Variable	Mean	Std. Dev.
1. Measures of Support for Redistribution		
Support (1-7 scale)	4.294	1.961
Support (Indicator)	0.467	0.499
Gov improves living standard (1-5)	3.135	1.165
Spends more on welfare (1-3)	1.776	0.781
Gov makes income equal (1-5)	2.875	1.239
Gov reduces rich poor gap (1-4)	2.457	1.088
2. Policy Measures		
Eligibility (Any eligible child)	0.347	0.476
Having 1+ eligible child	0.367	0.339
Having 2+ eligible children	0.235	0.323
Having 3+ eligible children	0.117	0.322
Have an eligible child 0-5 yo	0.187	0.390
Have an eligible child 6-12 yo	0.191	0.393
Have an eligible child 13-17 yo	0.148	0.355
3. Individual Characteristics		
Respondent's age	37.424	10.119
Female	0.588	0.492
White	0.718	0.450
Black	0.154	0.361
Other race	0.129	0.335
Married	0.661	0.474
Single	0.322	0.467
Work full time	0.591	0.492
Unemployed	0.037	0.189
Retired	0.010	0.099
Less than HS degree	0.166	0.372
High school degree	0.283	0.450
Some college	0.295	0.456
College degree	0.256	0.436
Advanced degree	0.085	0.279
Health Status	1.896	0.771
Conservative (1-7)	4.171	1.363
Household income	56933	37979
Household size	4.160	1.320
Number of babies (0-5 yo)	0.606	0.793
Number of preteens (6-12 yo)	0.724	0.862
Number of teens (12-17 yo)	0.567	0.745
N=8,601		

Table 1.2: Demographic Traits and Support for Redistribution

	(1) Support (1-7 scale)	(2) Support (dummy)
Female	0.163*** (0.0377)	0.0197** (0.00896)
Black	0.680*** (0.0730)	0.115*** (0.0173)
Single	0.176*** (0.0505)	0.0398*** (0.0116)
Parents	0.142** (0.0562)	0.0168 (0.0138)
Respondent's age	-0.00209 (0.0127)	0.000715 (0.00390)
Years of Education	-0.0653*** (0.00945)	-0.00853*** (0.00179)
Conservative	-0.377*** (0.0167)	-0.0786*** (0.00382)
Log income	-0.144*** (0.0285)	-0.0327*** (0.00745)
Time	0.0889* (0.0500)	0.0223* (0.0127)
Observations	8785	8785
Adjusted R^2	0.144	0.088

Notes: In addition to the regressors listed in the table, regressions control for state and year fixed effects. Standard errors are corrected for clustering at the state level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 1.3: OLS Regression of Support for Redistribution on Eligibility

	(1)	(2)	(3)	(4)	(5)
Eligibility	0.340*** (0.118)				
1+ elig child		0.583*** (0.161)			
2+ elig children		0.245* (0.142)			
3+ elig children		-0.0725 (0.155)			
Elig child 0-5 yo			0.344*** (0.127)		
Elig child 6-12 yo				0.189* (0.103)	
Elig child 13-17 yo					0.249* (0.140)
Have a child 0-5 yo	0.143* (0.0723)	0.0479 (0.0777)	0.225*** (0.0830)	0.129* (0.0732)	-0.134* (0.0737)
Have a child 6-12 yo	-0.0932 (0.0681)	0.0174 (0.0845)	-0.0884 (0.0697)	-0.131* (0.0704)	-0.0837 (0.0691)
Have a child 13-17 yo	-0.0931 (0.0766)	-0.0299 (0.0911)	-0.0904 (0.0788)	-0.0839 (0.0766)	-0.146* (0.0765)
Female	0.163* (0.0930)	0.155 (0.0938)	0.147 (0.0950)	0.137 (0.0936)	0.139 (0.0935)
Black	0.916*** (0.164)	0.922*** (0.163)	0.924*** (0.165)	0.921*** (0.162)	0.919*** (0.166)
Single	0.0921 (0.116)	0.0863 (0.116)	0.131 (0.118)	0.143 (0.121)	0.141 (0.122)
Log income	-0.102 (0.0694)	-0.102 (0.0682)	-0.128* (0.0672)	-0.141** (0.0660)	-0.137* (0.0693)
Observations	5231	5231 ⁴²	5231	5231	5231

Notes: Data are as described in Table 1. Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, religion, marital and employment status and income. Standard errors clustered at the state level are reported in parentheses.

Table 1.4: The Effects of SCHIP/Medicaid Eligibility on Support for Redistribution (1-7 scale)

	(1) First stage	(2) Reduced form	(3) IV
Simulated Eligibility	1.147*** (0.0612)	0.661** (0.309)	
Eligibility			0.576** (0.240)
Have a child 0-5 yo	0.00970 (0.0229)	0.241 (0.190)	0.244 (0.187)
Have a child 6-12 yo	-0.0301 (0.0236)	0.0993 (0.129)	0.109 (0.127)
Have a child 13-17 yo	0.0373 (0.0282)	0.0792 (0.147)	0.0671 (0.139)
Female	-0.00663 (0.0134)	0.369*** (0.0784)	0.372*** (0.0769)
Single	0.0162 (0.0209)	0.133 (0.0938)	0.124 (0.0934)
Black	0.0182 (0.0180)	0.903*** (0.110)	0.893*** (0.109)
Log income	-0.368*** (0.0142)	-0.333*** (0.0561)	-0.137 (0.0876)
Observations	5231	5231	5231

Notes: All statistics are weighted by the GSS weight wtssall.

Data are as described in table 1.

Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income.

Standard errors are clustered at the state level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 1.5: The Effects of SCHIP/Medicaid Eligibility on Other Measures of Support for Redistribution

	(1) OLS	(2) IV using Simulated Eligibility
A - The government should improve standard of living (1-5)		
Eligibility	0.233** (0.070)	0.180 (0.128)
Observations	4271	4271
B - The government should spend more on welfare (1-3)		
Eligibility	0.111** (0.034)	0.362*** (0.101)
Observations	3499	3499
C - The government should reduce income differences (1-5)		
Eligibility	0.293* (0.120)	-0.129 (0.212)
Observations	1931	1931
D - The government should reduce the rich poor gap (1-5)		
Eligibility	0.243* (0.096)	0.237 (0.240)
Observations	1217	1217
E - Support for Redistribution index for 3 frequent variables		
Eligibility	0.285*** (0.057)	0.453** (0.152)
Observations	1988	1988

Notes: Data are as described in Table 1. Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income. Standard errors clustered at the state level are reported in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 1.6: The Effects of SCHIP/Medicaid Eligibility on Trust in the Government

	(1) OLS	(2) IV using Simulated Eligibility
A - Trust in the Federal Government (1-3)		
Eligibility	0.056* (0.027)	0.494 (0.390)
Observations	3239	3239
B - Trust in Congress (1-3)		
Eligibility	0.085*** (0.019)	0.184 (0.303)
Observations	3230	3230
C - Trust Index		
Eligibility	0.107* (0.040)	0.588 (0.516)
Observations	3200	3200

Notes: Data are as described in Table 1. Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income. Standard errors clustered at the state level are reported in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 1.7: Placebo Experiment Using Childless People

	HH w/o Resident Children			HH w/ Resident Children		
	(1)	(2)	(3)	(4)	(5)	(6)
	First stage	Reduced form	IV	First stage	Reduced form	IV
SimulatedElig	0.941*** (0.0550)	0.294 (0.306)		1.060*** (0.0858)	0.661** (0.309)	
IntendedElig			0.313 (0.316)			0.623** (0.250)
Female	0.000823 (0.00956)	0.266*** (0.0541)	0.266*** (0.0526)	-0.0811*** (0.0168)	0.369*** (0.0770)	0.368*** (0.0739)
Single	-0.0185 (0.0156)	-0.0377 (0.0734)	-0.0319 (0.0733)	0.237*** (0.0207)	0.133 (0.0938)	0.120 (0.0932)
Black	0.00851 (0.0182)	0.582*** (0.0994)	0.579*** (0.0988)	0.0356 (0.0215)	0.903*** (0.110)	0.895*** (0.109)
Log income	-0.322*** (0.0102)	-0.324*** (0.0488)	-0.223** (0.101)	-0.375*** (0.0215)	-0.333*** (0.0561)	-0.227** (0.0917)
Observations	4126	4126	4126	5231	5231	5231

Notes: All statistics are weighted by the GSS weight wtssall.

Data are as described in table 1. Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income. Standard errors are clustered at the state level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 1.8: Effects of Medicaid/SCHIP eligibility on support for redistribution (1-7 scale) with Additional State Controls

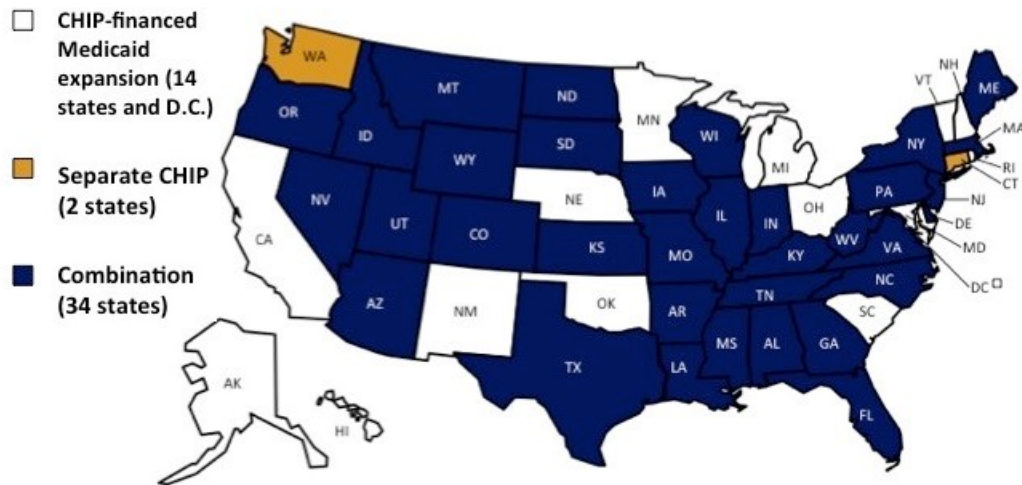
	(1) IV	(2) OLS	(3) IV	(4) OLS
Eligibility	0.374 (0.653)	0.226 (0.147)	0.247 (0.695)	0.243* (0.128)
State Parents' Inc	-3.069*** (1.097)	-1.816* (1.070)		
StPar.'s Inc (0-5 yo)			0.394 (0.681)	0.241 (0.526)
StPar.'s Inc (6-12 yo)			-1.826* (1.023)	-0.737 (0.696)
StPar.'s Inc (13-17 yo)			-0.698 (0.754)	-0.877* (0.481)
Unemployment Rate	-1.114 (3.859)	-2.451 (4.019)		
UR (18-30 yo)			0.230 (2.603)	-0.791 (2.353)
UR (31-45 yo)			1.162 (3.944)	-2.911 (3.720)
UR (46-65 yo)			-2.748 (4.991)	-0.730 (3.855)
Observations	5231	5231	5231	5231

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Data are as described in Table 1. Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, religion, marital and employment status and household income. Standard errors clustered at the state level are reported in parentheses. The first two columns have additional controls for state unemployment rate by year calculated for individuals aged 18 to 65 and average state household income for parents. Columns (3) and (4) include controls for unemployment rate for individuals aged 18 to 30, 31 to 45, 46 to 65 and average state household income for parents with children aged 0 to 5, 6 to 12 and 13 to 17 years old.

A Appendix: Tables and Figures

Figure 1.5: SCHIP Program Structure as of January 2017



Notes: The Affordable Care Act required states to align federal income eligibility for all children in Medicaid at a ceiling of 133% FPL. This so-called "stair-step" provision transferred many school-aged children from separate SCHIP programs to Medicaid. Eleven states had exclusively separate CHIP programs prior to 2014 and are only now considered combination programs due to the ACA stair-step provision: AZ, AL, GA, KS, MS, OR, PA, TX, UT, WV, WY.

Table 1.9: Variations and Changes in Support for Redistribution

	SCHIP Implementation	
	Before	After & During
By Parental Status		
<i>Non Parents</i>	4.239	4.278
	1.821	1.860
<i>Parents</i>	4.223	4.301
	1.972	2.019
By Income Quintile		
<i>1st Quintile</i>	4.763	4.858
	1.828	1.892
<i>2nd Quintile</i>	4.422	4.613
	1.900	1.894
<i>3rd Quintile</i>	4.250	4.298
	1.873	1.927
<i>4th Quintile</i>	4.004	3.967
	1.902	1.920
<i>5th Quintile</i>	3.557	3.506
	1.978	1.924
By Region		
<i>New england</i>	4.165	4.410
	1.977	1.988
<i>Middle atlantic</i>	4.418	4.530
	1.893	1.965
<i>E. nor. central</i>	4.209	4.266
	1.902	2.013
<i>W. nor. central</i>	4.177	4.377
	1.882	1.964
<i>South atlantic</i>	4.145	4.244
	2.026	2.081
<i>E. sou. central</i>	4.211	4.334
	2.003	1.996
<i>W. sou. central</i>	3.981	4.218
	1.988	2.072
<i>Mountain</i>	4.090	4.141
	1.841	1.992
<i>Pacific</i>	4.160	4.289
	1.945	1.984

Standard errors are reported below means.

Table 1.10: OLS Regression of Support for Redistribution (Dummy) on Eligibility

	(1)	(2)	(3)	(4)	(5)
Eligibility	0.0737*** (0.0274)				
1 elig child		0.0984*** (0.0334)			
2 elig children		0.0735** (0.0323)			
3+ elig children		0.00398 (0.0359)			
Elig child 0-5 yo			0.0865** (0.0375)		
Elig child 6-12 yo				0.0263 (0.0266)	
Elig child 13-17 yo					0.0396 (0.0363)
Log income	-0.0129 (0.0130)	-0.0133 (0.0135)	-0.0177 (0.0125)	-0.0223* (0.0132)	-0.0215 (0.0133)
Observations	5231	5231	5231	5231	5231

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Data are as described in Table 1. Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income. Standard errors clustered at the state level are reported in parentheses.

Table 1.11: The Effects of SCHIP/Medicaid Eligibility on Support for Redistribution (Dummy)

	(1) First stage	(2) Reduced form	(3) IV
Simulated Eligibility	1.147*** (0.0942)	0.118 (0.111)	
Eligibility			0.102 (0.116)
Have a child 0-5 yo	-0.00641 (0.0226)	0.0388 (0.0400)	0.0396 (0.0401)
Have a child 6-12 yo	-0.0194 (0.0233)	0.0309 (0.0338)	0.0334 (0.0339)
Have a child 13-17 yo	0.0389 (0.0258)	0.0449 (0.0335)	0.0399 (0.0328)
Female	-0.0101 (0.0132)	0.0587*** (0.0209)	0.0600*** (0.0207)
Single	0.0120 (0.0219)	0.0577** (0.0226)	0.0561** (0.0222)
Black	0.0190 (0.0178)	0.148*** (0.0294)	0.145*** (0.0285)
Log income	-0.375*** (0.0155)	-0.0742*** (0.0129)	-0.0259 (0.0448)
Observations	5231	5231	5231

Standard errors in parentheses

All statistics are weighted by the GSS weight wtssall.

Data are as described in table 1.

Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income.

Standard errors are clustered at the state level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 1.12: Summary Statistics for Placebo Group: Individuals in Households without Resident Children

Variable	Mean	Std. Dev.
Respondent's age	42.878	13.964
Female	0.503	0.500
White	0.774	0.418
Black	0.133	0.339
Other race	0.094	0.291
Married	0.481	0.500
Single	0.495	0.500
Work full time	0.594	0.491
Unemployed	0.045	0.208
Retired	0.063	0.242
Less than HS degree	0.131	0.337
High school degree	0.269	0.443
Some college	0.298	0.458
College degree	0.302	0.459
Advanced degree	0.097	0.296
Household income	56366	39772
Household size	2.215	0.989

Table 1.13: Placebo Experiment Using Childless People

	HH w/o Resident Children		HH w/ Resident Children	
	(1)	(2)	(3)	(4)
	IV	OLS	IV	OLS
IntendedElig	0.313 (0.316)	0.176* (0.0924)	0.623** (0.250)	0.384*** (0.123)
Female	0.266*** (0.0526)	0.208*** (0.0618)	0.368*** (0.0739)	0.304*** (0.0908)
Single	-0.0319 (0.0733)	0.138 (0.0886)	0.120 (0.0932)	0.197 (0.119)
Black	0.579*** (0.0988)	0.625*** (0.120)	0.895*** (0.109)	1.050*** (0.150)
Log income	-0.223** (0.101)	-0.213** (0.0931)	-0.227** (0.0917)	-0.201* (0.117)
Observations	4126	4126	5231	5231

Standard errors in parentheses

All statistics are weighted by the GSS weight wtssall.

Data are as described in table 1.

Each column reports results from estimating a separate regression that also controls for children's age group, year and state fixed effects, respondents' sex, age, race, education, marital and employment status and income.

Standard errors are clustered at the state level.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B Appendix: Constructing Variables

1 Support for Redistribution Measures

All measures have been reverted so that a higher value indicates higher support for redistribution.

The government should improve standard of living (available for all rounds)

I'd like to talk with you about issues some people tell us are important. Please look at CARD BC. Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans; they are at Point 1 on this card. Other people think it is not the government's responsibility, and that each person should take care of himself; they are at Point 5.

A. Where would you place yourself on this scale, or haven't you have up your mind on this?

The government should spend more on welfare (available for all rounds)

We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount. First (READ ITEM A) . . . are we spending too much, too little, or about the right amount on (ITEM)?

K. Welfare

The government should reduce income differences (available only for 1996, 1998 and 2006)

Do you agree or disagree?

B. It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.

The government should reduce the rich poor gap (available only for 1996, 2000 and 2010)

Do you agree or disagree?

B. It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.

2 Trust in the Government Measures

Both scales have been reverted so that a higher value indicates higher trust in the government. The full question is:

”I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them? ”

1 A great deal

2 Only some

3 Hardly any

Trust in the Federal Government E. Executive branch of the federal government

Trust in Congress L. Congress

3 Eligibility Variables

Data from GSS from year 1996-2014 includes data on whether the person has a child within an age range (babies (0-5), preteen (6-12), teens (13-17)). The main variable *Eligibility* indicates if the respondent has any child eligible for Medicaid/SCHIP. It is calculated as follows: The person is has an eligible baby (0-5 years old) if he/she has babies in the household and the household income is less than generosity for babies in that state. Similarly, the person is has an eligible preteen (6-12 years old) and teenager (13-17 years old) if he/she has preteens or teenagers in the household and the household income is less than generosity for preteens and teenagers in that state. However, if the person only has a child 13-17 years old (teenager) in the household and state only covers up to children 15 years old (for example), because I don't know the exact age of the teenager, I assume that the age distribution of the teenagers are uniform for the range of 13 to 17 years old. Therefore, I can calculate the probability of this teenager being covered by the policy.

The person is "Eligible" if he/she has an eligible baby, an eligible preteen or an eligible teenager in the household.

4 Household Income Variable

Household income is measured as a categorical variable in the GSS. I therefore had to use the midpoint method to calculate income for each year in the analysis.

As the upper and lower bound in each income category changes every few years, I use several measures of household income for different years. I use the variable `income91` for year 1996 that reports income for the previous year 1995, `income98` for years 1998-2004 and `income06` for years 2006-2014 in order to have a more accurate measures of household income.

Chapter 2

The Effects of Relative Income on Preferences for Redistribution

2.1 Introduction

Preferences for government redistribution are important determinants of voting and hence public policies (Fisman et al.2017). With stagnant wages and rising inequality emerging as key political issues, there is increasing interest in how individuals view redistributive policies, such as raising taxes on the wealthy or creating social programs for people at the lower end of the income distribution. A key determinant of these policies is individuals' preferences for redistribution, so understanding their determinants is of prime importance to economists.

There is empirical evidence by Alesina (2011) suggesting that individuals' characteristics such as their gender, race, education, or income have an effect on their redistributive preferences. For example: females are more likely to support redistribution, while conservative individuals are less likely to do so. Individuals' income

also determine their attitudes towards redistribution in that a person with higher income is less likely to support government redistribution. Theoretical models by Romer (1985) also support income as a determinant of preferences for redistribution. However, in more recent research, this finding has been challenged by the literature. While real income has been steadily increasing, preferences for redistribution has been rather stable. If we believe that income is negatively associated with demand for redistribution, the pattern is not observed in either US or world data. Figure 1 shows how support for redistribution changes over time in the US. Overall, support for redistribution seems rather stable, while real income has increased over time. Some other papers in the literature have found evidence that preferences can be affected by individuals' regard for others. For example: individuals can deviate from pure self-interest in caring about the consumption of others (Fehr and Schmidt, 1999; Bolton and Ockenfels, 2000), and such other-regarding preferences tend to affect their demand for redistribution (Fong, 2001; Alesina and Giuliano, 2010). If individuals' preferences are affected by their perceptions of others, it is possible that it is relative income rather than income levels, i.e absolute income, that determines their preferences for redistribution. With this paper, I investigate how individuals' relative position on the income distribution affects their redistributive preferences.

The effects of relative income have been studied in the literature and have been found to affect individuals' well-being and utility. For example, the paper by Luttmer (2005) has found neighbors' income to have a negative effect on individuals' happiness. Another paper by Card et al. (2012) find that individuals' relative earnings to their coworkers affect their job satisfaction. The paper by Ball and Chernova (2008)

use cross-country variations and find that individuals' relative income to their country's citizen affect their happiness. They also find that quantitatively, changes in relative income have much larger effects on happiness compared to changes in absolute, or levels of income. Similarly, a series of papers by Easterlin (1974, 1995, 2001) give evidence that relative income rather than absolute income matters more for well-being. Relative income has also been found to affect individuals' conspicuous consumption (Charles and Hurst 2008), or their political leaning (Vigdor 2006).

In this analysis, the possible role of relative income in shaping individual preferences for redistribution is examined. This research question has been answered in the theoretical and experimental frameworks. Meltzer and Richard (1981) suggest that a relatively richer person benefits less from redistribution, and therefore votes for a smaller government. Empirical tests for the theory has been looking at the effects of inequality on redistributive policies. Meltzer and Richard (1983) found US government spending to be negatively associated with inequality, but little evidence looking at cross-country data. Perotti (1996) and Bassett et al. (1999) found little effects of inequality on the marginal tax rate, government expenditures and government transfers, while more recent work such as Alesina and La Ferrara (2000), Ravallion and Lokshin (2000), and Corneo and Gruner (2000) looking at data from the US, Europe and Russia, found social mobility to negatively affect individuals' level of support for government redistribution. While these studies have thoroughly studied the effects of inequality and social mobility on support for redistribution, I look at the effects of individuals' income relative to their peers, or their "relative income". Experimental evidence for this question can be found in Karadja, Mollerstrom and Seim (2014).

Conducting an experiment in Sweden in which subjects are randomly informed of their true position in the income distribution, the authors find that individuals who are richer than they initially thought reexamine their preferences and demand less redistribution.

With my analysis, I empirically study the effects of relative income on preferences for distribution using data from the U.S. General Social Survey (GSS). The thought experiment is that given the same level of income, two similar individuals living in different states might have different perception of how rich or poor they are, therefore might feel differently about redistribution. The GSS provides questions regarding a wide range of opinions, including political behavior, religious preferences and economic beliefs, as well as standard demographics to help me identify the impacts of relative income exploiting cross-state variations. Compared to Karadja, Mollerstrom and Seim (2014), my analysis uses real world data with a different source of variations, as well as a much bigger data set (I have over 60,000 observations spanning over forty years compared to 1,562 observations in the experiment by Karadja et al.). Moreover, while Karadja, Mollerstrom and Seim's study only pertains to individual with false beliefs about their relative position, my study involves how relative income matters for the average individual in the population, regardless of whether they correctly assess their relative position. It is possible that the individuals who have a misperception about their relative position might be the most sensitive about redistribution, therefore have different responses once their knowledge is revised. Adding to the external validity of the study, I also augment the analysis using cross-country variations using the World Values Survey.

I find evidence that relative income affects individual's attitudes towards income inequality and support for redistribution. An increase in a person's relative income leads to less support for redistribution: less support for government reducing income differences, government aid, less favor of low tax for the poor and taxing the rich, and less favor to aid the unemployed. Consistent with previous studies, I find relative income to have a positive and significant effect on individual's happiness. I also look into whether relative income shapes people's attitudes towards income inequality and beliefs about income-generating process. I find that an increase in relative income can make people more right-leaning, more supportive of income inequality, more likely to believe that hard work brings success, and that being rich and successful is important. My results are consistent over various robustness checks of different relative income measures, functional forms of relative income, and dataset. The paper contributes to the limited literature on the effects of relative income on support for redistribution. It can also be interpreted as evidence of self-reinforcing relationships between personal income, beliefs and political preferences, which have been proposed theoretically by Piketty (1995), Alesina and Angeletos (2005) and Benabou and Tirole (2006). The paper proceeds as follows. The next section discusses the estimation strategy used to answer this research question. Section 3 describes the data and presents some descriptive statistics while Section 4 discusses the empirical results. Section 5 presents an extension using World Values Survey data, and Section 6 concludes. The Appendix gives more detailed information about the GSS, the WVS and the variables used for this analysis.

2.2 Empirical Strategy

To study the effects of relative income on individuals' preferences for redistribution, I follow the methods used to study the impact of relative income on individuals' happiness used by Luttmer (2005), and represented in Clark and Shields (2008). The thought experiment is that given the same level of income, two similar individuals living in different neighborhoods where they are relatively richer or poorer than their peers might feel differently about redistribution. Therefore, the empirical strategy estimates the outcomes for individual i , living in state s , in year t on his/her relative income, holding level of income, absolute income constant. While in Luttmer(2005), the authors use people living in the same Public Use Microdata Area as the individuals as a comparison group, here I use the individuals living in the same state. The regression takes the following form:

$$Outcome_{ist} = \beta Relativeinc_{ist} + \alpha Absoluteinc_{ist} + X'_{ist}\delta + \gamma_t + \theta_s + \epsilon_{ist}$$

As one's levels of income influences preferences for redistribution (Alesina 2011), controlling for one's absolute income in the above regression gives us the effects of changing in an individual's relative position, given the same income, on the outcomes of interest. The regression also controls for other individuals' demographic characteristics such as their gender, age, race, education, religion, and marital, employment, and health status, as expressed in vector X_{ist} . The state fixed effects θ_s included in the regressions take care of state-specific time-invariant characteristics, while the year fixed effects γ_t take care of any nation-wide year-specific shocks, such as yearly inflation. I measure relative income by taking the logarithm on the ratio of their own

income to the average individual income in their state of residence. The regression, therefore, becomes:

$$Outcome_{ist} = \beta_1 \log(Y_{ist}/Y_{st}) + \alpha_1 \log Y_{ist} + X'_{ist} \delta_1 + \gamma_{1t} + \theta_{1s} + \epsilon_{1ist}$$

The coefficient of interest is β_1 . Given the same level of income, this coefficient captures the difference in the individuals' preferences for redistribution or other outcomes of interest if they live in a relatively poor states compared to a relatively rich states. Here, I impute the comparison group to be the people living in the same states with the individuals, as the literature suggests that people generally compare themselves to people living in the same geographic locations (Knight and Song, 2006). However, there is additional concern that individuals might compare themselves to a finer reference group, rather than others living in the same states: they may care disproportionately about their relative standing with respects to individuals in the same age cohort, rather than everyone else in the state population. The scope of the geographic reference can vary, from being as large as their country's residence (Ball and Chernova, 2007), American states (Blanchflower and Oswald, 2004), or the Public Use Microdata Area (PUMA) (Luttmer, 2005). In order to identify whom individuals compare themselves to more correctly, I rely on a different measure of individuals relative position: their "subjective rank". This question in the GSS asks where the individuals would place themselves on the income distribution, therefore, would more correctly reflect whom individuals compare themselves to. Moreover, this takes care of heterogeneity in costs of living since individuals may implicitly consider the cost of living when they compare themselves to others (Bottan and

Truglia, 2017). I estimate the following equation:

$$Outcome_{ist} = \beta_2 SubjectiveRank_{ist} + \alpha_2 logY_{ist} + X'_{ist}\delta_2 + \gamma_{2t} + \theta_{2s} + \epsilon_{2ist}$$

β_2 is the coefficient of interest. It captures the difference in preferences for redistribution for individuals with the same level of income, but subjectively classify themselves in different social classes. This variable reflects the individuals' position among their reference group more correctly. However, individuals' perception of where they are on the income distribution can be endogenous. Diener et Fujita (1997) show that the choice of one's reference group depends on the personality of the individual or on his potential performance. Some studies suggest that optimistic people only compare downward, whereas pessimistic people compare with more successful ones (Lyubomirski and Ross, 1997). Falk et Knell (2000) find that the choice of one's reference group is the outcome of two opposite forces : self enhancement, which tends to promote downward comparisons, and self improvement which elicits upward comparisons. If these characteristics simultaneously determine individuals' support for redistribution, the estimate becomes biased. Therefore, estimates using individuals' subjective rank are only presented as a robustness check in the Appendix.

The outcomes of interest include individual's happiness, support for redistribution, and other attitudinal variables measuring their opinions on different aspects of inequality. These variables are measured on the scaled designed by GSS for an easy interpretation of the effect. However, for robustness checks, I also run regressions using ordered probit, and other functional forms of relative income. The results for this section are reported in the Appendix.

2.3 Data

The data I use for this analysis is the restricted file of the US General Social Survey (GSS) data from 1972 to 2014. The GSS consists of cross-sectional surveys conducted by the National Opinion Research Center (NORC) in the United States annually 1972-1994, except for the years 1979, 1981, and 1992, and biennially beginning in 1994. The main areas covered in the GSS include socioeconomic status, social mobility, social control, family, race relations, sexual relations, civil liberties, and morality.

To measure happiness, I use individuals' responses to the three questions: "Taken all together, how happy are you these days?", "So far as you and your family are concerned, how satisfied are you with your present financial situation", and "All in all, how satisfied would you say you are with your job?", measured on a scale of 1 to 3, 1 to 3, and 1 to 4, respectively.¹ A higher number indicates higher level of happiness.

Individuals' preferences for redistribution are measured through individuals' responses to the following GSS question:

"Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning

¹Details about the exact wordings of the questions are available in the Appendix

that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel?". This question has been widely used in the literature (e.g., by Kuziemko 2015, Keeley and Tan 2008). The response is recorded as an ordered categorical variable taking the values 1 to 7, with 1 referring to "The Government should reduce differences" and 7 referring to "No government action" (The answers "don't know," "no answer," and "not applicable" are recorded as missing). I reverse the values of this variable such that a higher value indicates more support for redistribution (7 now means "The Government reduce differences").

I also include respondents' answers to questions such as "Should the government reduce income differences", "The government should insure jobs and stable prices", "Should the government improve standard of living for the poor?" "Should the government redistribute wealth?", "Should the government offer tax breaks for poor areas?" "How much income tax should the rich pay?", and "Is it the government responsibility to provide for the unemployed?", as these questions also measure support for redistribution from different angles. These variables are measured on different scales, but consistently I reverse the scale so that higher support for redistribution is associated with a higher number.

Last but not least, I also include some measures of individuals' beliefs and attitudes such as their political leaning, whether they believe that income among people should be different, if they believe hard work brings success, and if they believe people ought to be rich to get ahead. As shown in Figure 3, there is substantial

variation in respondents' level of support for redistribution, but the distribution is quite symmetric.²

In the GSS, income is an ordered categorical variable taking values 1 to 13 with each number referencing a different income category where 13 is the highest income category for the household in the previous year. As the upper bound of the highest income level changes every few rounds, I have to use several different income variables for the period of my analysis in order to obtain a more correct income measure.³ As income is recorded in categories, I use the midpoint method to get an estimate for each individual's household income. The lowest and the highest income values in a category are known and each household's income is the average of these upper and lower bounds. For the available years, income is also converted using Regional Price Parity in order to take care of different costs of living in different states.

Individuals' relative income, as described in the previous section, is measured in two ways. The "actual relative income" is calculated using the logarithm of the ratio of individuals' income to the average income in their states of residence, with state average income calculated from individuals' income from the Current Population Survey (CPS) from 1972 to 2014. Figure 2 describes the relationship between average relative income and support for redistribution at the state level. Most states seem to have average relative income above 1. This can be due to the skewness in income distribution, or can be due to the fact that individuals' income is calculated using the GSS, while state average income is calculated from the CPS. Even though we see a slight negative relationship between relative income and support for redistribution,

²Except for the variables "Low tax poor" and "Tax rich".

³Details about how I formed the income variable are available in the Appendix

this figure is merely descriptive. While my analysis looks at the effects of relative income, holding income constant, the states' average income shown in the graph entangles both of these effects. To make income comparable across states, I also calculate income using the Regional Price Parity (RPP) measures from the Bureau of Economic Analysis. However, as this measure is only available from 2008, the analysis using RPP becomes rather limited. Tables 25 to 27 of the Appendix reinforces robustness of my results using RPP.

Another measure of relative income, "subjective rank", uses individuals' answers to the following GSS question "If you were asked to use one of four names for your social class, which would you say you belong in: the lower class, the working class, the middle class, or the upper class?", so one unit increase in their subjective rank indicates a movement to the social class immediately above their current social class. The correlation between subjective rank and actual relative income rank is at 0.197, and there is substantial variation in subjective rank as shown in Appendix Figure 1. For further details and the exact definitions of other variables used, see the Appendix.

Summary statistics for key variables are provided in Table 1. The top panel describes different measures of relative income. The middle panel describes different outcome variables: happiness, support for redistribution, and attitudes. In general, the variables seem to have mean around the scale middle point, with an exception to the variable Hard work brings success. And the bottom panel refers to the individual's basic demographic characteristics such as age, race, gender, education, marital and employment status and income. The means of these variables in GSS are very comparable to that of the Current Population Survey or of the American Community

Survey.

2.4 Results

2.4.1 Happiness

First, to test to consistency of my findings with the literature, I will look at results concerning individuals' happiness. The variables I am looking at include their life satisfaction, financial satisfaction, and job satisfaction. The results are in Table 2. I find that a 100% increase in individuals' relative income also increases their job satisfaction by 0.097 point on a 1-4 scale. This means if peer group income is reduced by half, individuals' job satisfaction increases about 13% of the standard deviation. In terms of financial satisfaction, a change of the same magnitude increases individuals' financial satisfaction by about 40% of the standard deviation. Their might be an increase in their general life satisfaction as the estimate is positive, however, it is not significant at a conventional level.

If I instead use individuals' subjective rank as a measure of their relative income, the results are very similar. Panel B in Table 10 of the Appendix displays this result. An increase in subjective rank is associated with a significant increase in individuals' life satisfaction, financial satisfaction, and job satisfaction. Compared to using logarithm of income ratio as a relative income measure, individuals' subjective rank predicts happiness more precisely. However, these estimates are more likely endogenous.

I also explore non-linearity in the effects of absolute and relative income by adding

their quadratic regressors. And as it is also possible that the effects of relative income differ by levels of income, I also add the interaction of absolute and relative income into the regression. The results for these specifications are available in the Appendix Tables 16 and 19. Overall, while I find that happiness might be correlated with the square of relative income, there is not much evidence that relative income affect people with different income levels differently.

2.4.2 Preferences for Redistribution

Column 1 of Table 3 shows the impact of relative income on individuals' preferences for redistribution using a measure of preferences for redistribution that has been widely used in the literature.⁴ This is the individual's response to the question: "Do you think the government should reduce income differences", measured on a scale of 1 to 7. The result shows that an increase in relative income significantly decreases individuals' belief that the government should reduce income differences. This indicates that given the same income, if the individuals are relatively richer compared to their peers, they are less likely to support redistribution.⁵ Specifically, if individuals' income stays the same but peer group income is reduced by half, they reduce their support for redistribution by 0.5 point, or 25% of the standard deviation. This is comparable to the effects of race - being black - by Alesina et al.(2009) on preferences of redistribution.

To make sure that the result I find is robust, I also use other questions in the

⁴For example: papers by Kuziemko et al.(2015) and Keeley and Tan (2008).

⁵The result still holds when the equation is estimated exploring non-linearity adding the squares of absolute and relative income, and alternatively adding their interaction.

GSS that measure the degree of support for government redistribution such as: "The government should insure jobs and stable prices" "The government should improve the standard of living of all poor", "The government should reduce the rich poor gap", "There should be tax breaks for poor areas" "The rich should pay higher tax rate", and "The government should provide decent standard of living for the unemployed". These different measures help determine how people truly think about redistribution from several different angles. Throughout, it is reassuring that most of the estimates point to the direction that an increase in relative income, holding income constant, leads to less support for government redistribution. For some questions, the low number of observations makes the estimates noisy, thus I do not detect a significant effect and for questions regarding whether individuals believe that the government should provide basic standard of living (Column 2), there is evidence that individuals increase their support. However, consistently for other variables, the estimates all indicate a negative relationship between relative income and support, and are jointly significant.⁶

2.4.3 Attitudes

Table 4 shows the regression results for other individuals' attitudinal variables. Following Vigdor (2006) that finds relative income to affect voting choice for different parties, I find that here the individuals are significantly more likely to identify themselves to with the Republican party if they have relatively higher income compared

⁶To address issues of multiple testing, I also construct an index from the variables. Given different questions are asked in different years, the index can only represent the most frequently asked questions. The result shows a negative and significant effect of relative income on the support for redistribution index.

to others in their states. The result is displayed in the first column, showing a significant estimate.

Beliefs about the income-generating process have been studied theoretically (Piketty, 1995; Benabou and Tirole, 2006) and beliefs about the extent to which individuals' economic success can be attributed to effort, rather than to luck, have been found to be a stronger empirical determinant of preferences for redistribution than income itself (Fong, 2001). Therefore, columns 2, 3, and 4 examine individuals' beliefs regarding inequality and income generating causes as a channel through which individual preferences for redistribution are affected. I find individuals with higher relative income are significantly less likely to believe that income should be equal among people, more likely to believe that anyone can achieve success with hard work. I find no significant changes in their beliefs that people need to be rich to get ahead. However, given the significant effect on other attitudinal outcomes, it is rather interesting to see that when the income of the reference group changes, individuals' attitudes and preferences are also affected.

2.5 Additional Analysis

In this section, I augment the above analysis with cross-country variations from the world data, available with the World Values Survey (WVS) and the European Values Survey (EVS). The WVS and the EVS are surveys administered in face-to-face interviews with nationally representative samples of respondents in over 100 countries. It consists of over 200 questions concerning personal values and attitudes

toward a wide range of social issues such as religion, family, work, and democracy. My analysis uses pooled data on 112 countries observed in multiples waves (5 in the WVS and 4 in the EVS) between 1990 and 2014 yielding 477,003 individual-level observations.⁷ I also obtained some macroeconomics indicators from World Bank to control for countries' economic conditions.

With the GSS, I compare preferences for individuals with the same income but residing in different states, therefore have different relative position. By using cross-country variations, I am therefore implicitly assuming, as did Easterlin (1974), that the reference group to which individuals compares themselves is the population of the country in which they live. With this augmentation, the thought experiment is that given the same level of real income, two similar individuals living in different countries might have a different perception of whether they are rich or poor, and therefore feel differently about redistribution. The reference group becomes individuals' fellow country men, so the analysis captures the difference in preferences for redistribution of individuals with the same real income residing in different countries, or individuals who have the same income while income of their fellow country men changes. So for individual i , living in country c in year t , I run the following regression:

$$Outcome_{ict} = \beta_3 Relativeinc_{ict} + \alpha_3 Absoluteinc_{ict} + X'_{ict} \delta_3 + \gamma_{3t} + \theta_{3c} + \epsilon_{3ict}$$

The coefficient of interest is β_3 that captures the effect of relative income, holding one's own income constant. The advantage of this specification is that individuals become less mobile across countries rather than across states. If there is a concern

⁷However, not all variables are available for all countries and all waves. Therefore, the number of observations vary in every regression.

that individuals with different preferences for their relative position might move across states to change their relative income, the issue becomes somewhat less of an issue when thinking about people moving across countries.

In the WVS and EVS, respondents are presented with 10 income brackets, and asked to indicate the bracket in which their income falls. The income brackets used in each country are expressed in local currency; the boundaries of the income brackets differ across countries, both in terms of their purchasing power parity equivalents and in terms of the percentiles of the country income distributions at which they fall. Here, for this analysis, I measure income as the average of the upper and lower bound in an income category, and convert it into PPP in order to take care of the difference in living expenses across different countries. For individuals in the highest income category (for which no upper limit is specified), I use a figure equal to 120% of the lower bound of the category as an approximation of family income in local currency.

To measure relative income, similar to the previous section, I use both the logarithm of the ratio of their own income to the average income in the country (Ball and Chernova 2008), and the measure of their own perception of their relative position (measured on a scale of 1 to 5) as a robustness check.⁸ Other individuals controls include their gender, age, health, religion, marital and employment status, marital and employment status, and country and year fixed effects. The country fixed effects takes care of the time-invariant differences between countries, such as their climate, political institutions, culture...The time fixed effects takes care of global-wide shocks

⁸Results using WVS Subjective Rank as a relative income measure are in Tables 13 to 15 of the Appendix.

that affect individuals' view on government redistributive policies.

Tables 5, 6 and 7 respectively shows the effects of individuals relative income compared to their fellow citizens on their happiness, support for government redistributive policies, and other attitudes. The results using cross-country variations show a similar pattern with the results using GSS. An increase in relative income is associated with an increase in financial satisfaction and life satisfaction. Absolute income has a significant effect when I use the measure of actual relative income, but lose its significance when individuals subjective rank is used. This shows evidence that absolute income is not a consistent determinant of individuals' utility.

In terms of preferences for redistribution, consistently, I find that an increase in relative income makes the individuals less supportive of government redistribution. Even though the effects are not very precisely estimated for some measures due to the small number of observations, the estimates all indicate a negative relationship between relative income and support for redistribution. The effects of absolute income, however, is not as clear. For the variable measuring whether individuals believe that the government should offer aid (column 1), it shows that the higher the individuals income, the more likely they would support government aid, which might indicate individuals' altruism in their preferences, but this does not agree with the rest of other findings.

Table 7 shows the effect of relative income on different attitudes and beliefs. The estimates show that individuals might be more likely to believe that success is brought by hard work, that wealth should grow, and that being rich and successful is important when they become relatively richer compare to their fellow countrymen.

There is no evidence of individuals to be more likely to identify themselves with the conservative party, since it is possible that the political system in each country can greatly differ. There is also evidence showing they are more likely to believe that wealth of a nation should grow, and that being rich and successful is important.

2.6 Conclusion

This paper shows that relative income has strong effects on individual preferences for redistribution. It also suggests that relative income can shape some of the individuals' attitudes and beliefs.

I use cross-state variations from 50 states in the United States that include about 60,000 people, and augment the analysis with cross-country variations for about half a million individuals in 112 countries. Ordinary least squares with different functional forms and ordered probit equations are estimated. Consistently, I find reference group income to affect preferences for redistribution positively. In another word, the lower the individuals' income relative to their peers, the higher their support for redistribution. Moreover, if the individuals are richer than their comparison group, they become more likely they switch to internal locus of control where they believe that individuals' success is the result of their own efforts rather than luck. After controlling for relative income, the effects of absolute, or levels of income, become less consistent, with different signs in each regression.⁹ This suggests that it is relative income rather than absolute income that affects individuals' preferences for

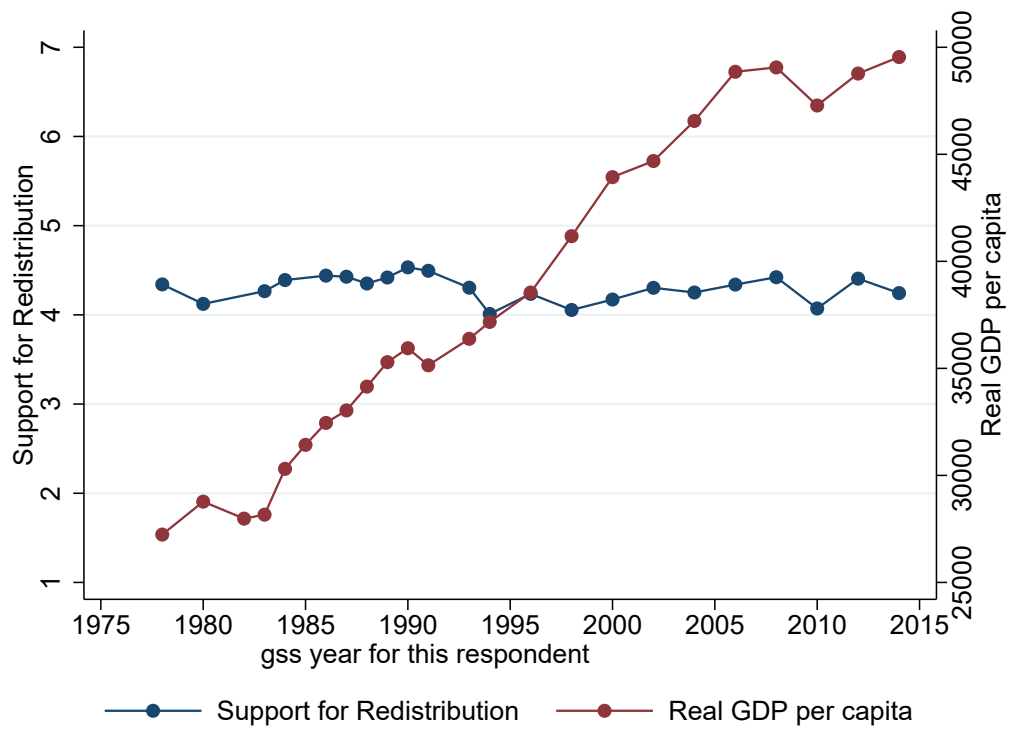
⁹Especially when the quadratic form of absolute and relative income are included, the effects of absolute income is reversed or disappear. See tables 9, 10, and 11 of the Appendix

redistribution. The results hold in both the US and worldwide contexts.

The results can help explain why individuals who live in poorer states are less likely to support government redistribution. Individuals, particularly those at the low end of the income distribution, are less likely to support redistribution when they reside in communities with similarly low income. If they only compare themselves to people living in small geographic areas, while their income can be lower than other states, they do not support the redistribution of wealth.

The exact working mechanism of how relative income affects preferences for redistribution needs further investigation in future research. But preliminary results in this analysis reconfirm the theory set forth by Meltzer and Richard (1981) that the general population have preferences to maximize their utility, so their demand for redistribution is dependent on what their relative position on the income spectrum. Individuals richer than the average population incurs a net loss in redistribution, and therefore support it less.

Figure 2.1: Changes in Support for Redistribution



Notes: Real GDP per capita measured in 2009 dollars is taken from the St.Louis Federal Reserve website. Support for Redistribution is measured using the variable "eqwlth" from the GSS.

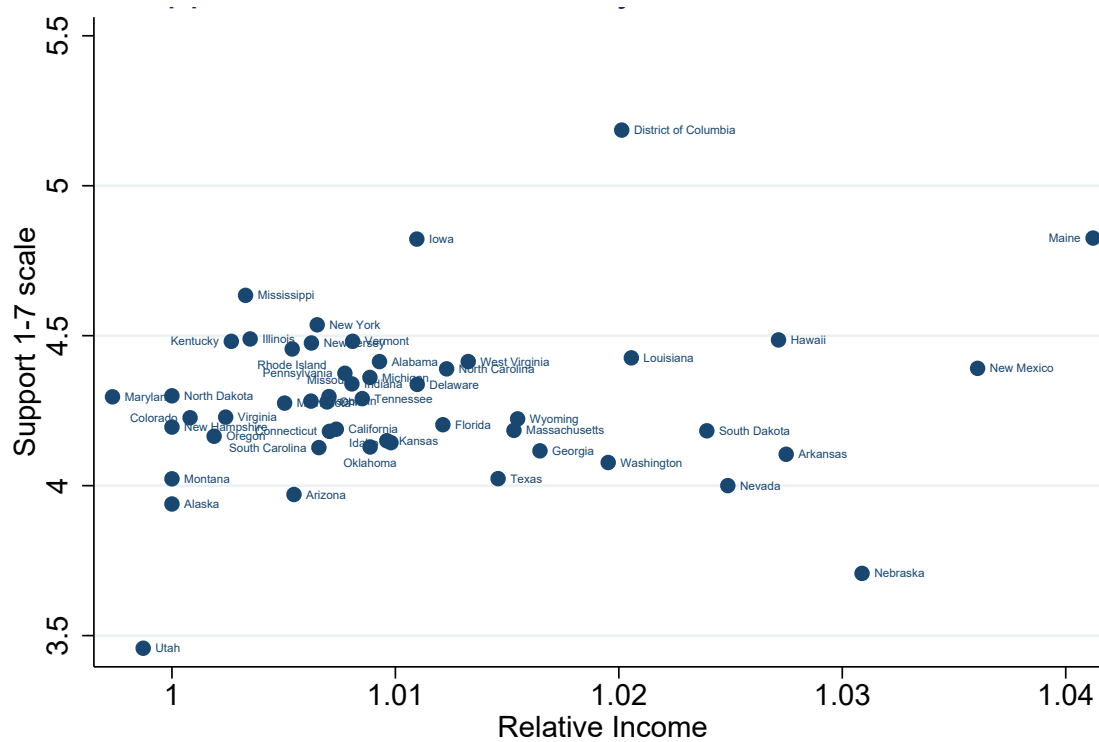


Figure 2.3: Histogram of Support for Redistribution Variables

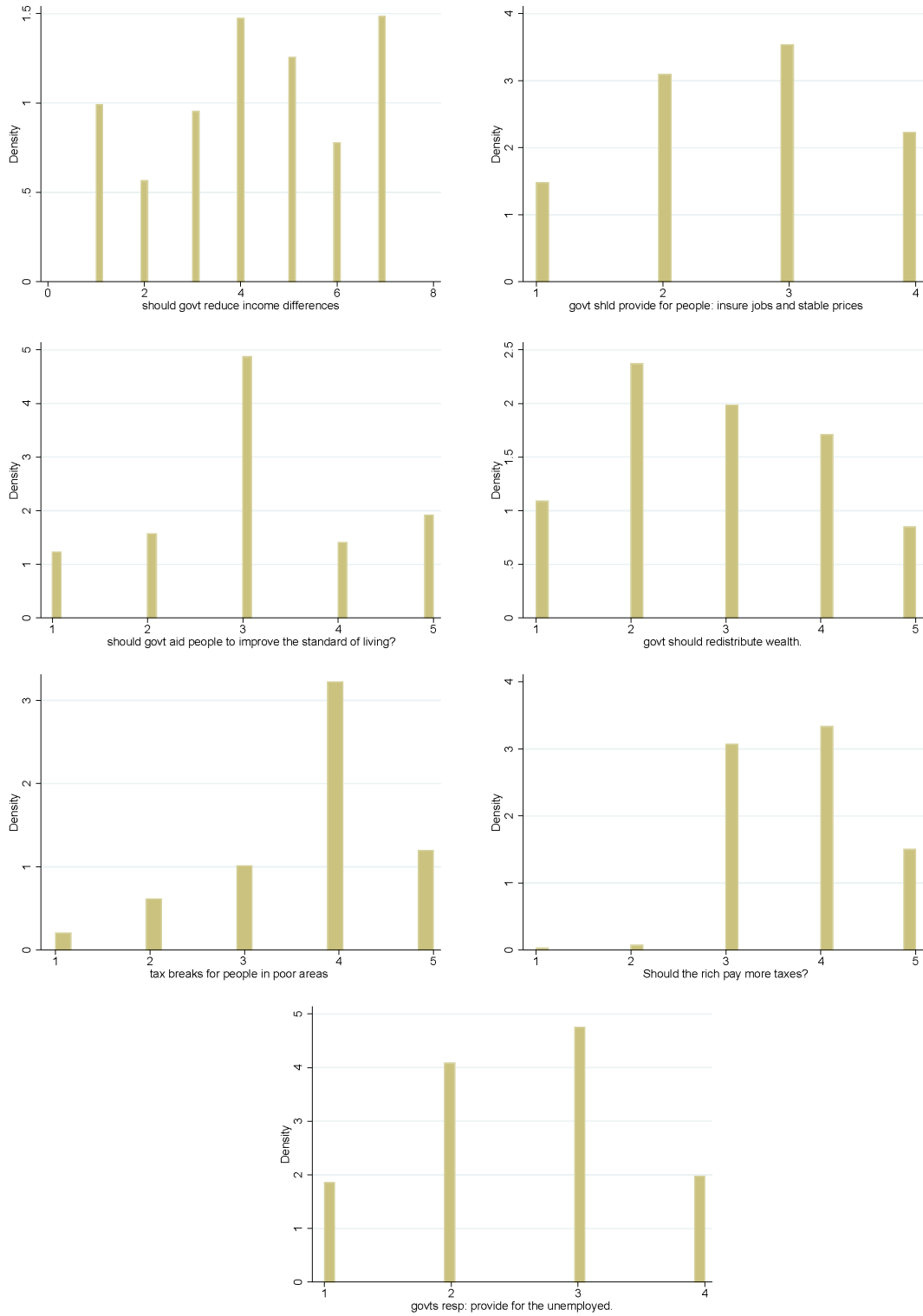


Table 2.1: Summary Statistics

Variable Name	N	Mean	Std. Dev.
<i>1. Measures of Relative Income</i>			
Relative Income (log own income / state's average)	54,504	-0.176	0.734
Subjective Ranking (1-4)	58,997	2.451	0.660
<i>2. Outcome Measures</i>			
Life Satisfaction (1-3)	57,709	0.637	1.000
Financial Satisfaction (1-3)	57,841	2.025	0.747
Job Satisfaction (1-4)	5,899	3.337	0.750
Gov reduces inc diff (1-7)	32,207	4.294	1.973
Gov shd provide (1-4)	1,424	2.630	0.975
Gov Aid (1-5)	31,095	3.110	1.185
Redistribute Wealth (1-5)	1,867	2.858	1.208
Low Tax Poor (1-5)	642	3.735	0.986
Tax Rich(1-5)	1,798	3.776	0.766
Aid Unemployed (1-4)	7,068	2.540	0.924
Right wing (0-6)	61,085	2.666	1.987
Incomes are equal (1-4)	8,102	2.459	1.085
Hardwork brings success (1-5)	478	4.048	0.752
Rich get ahead (1-5)	2,690	2.599	1.075
<i>3. Individual Characteristics</i>			
Black	62,465	0.135	0.342
Have a partner	62,465	0.602	0.489
Divorced	62,465	0.026	0.160
Female	62,465	0.543	0.498
Have 1 child	62,465	0.152	0.359
Have 2+ children	62,465	0.574	0.494
Age	62,244	44.623	17.061
Work full-time	62,465	0.501	0.500
Work part-time	62,465	0.110	0.313
Unemployed	62,465	0.035	0.183
Health condition	46,020	1.981	0.838
Christian	62,196	0.012	0.109
No religions	62,196	0.115	0.319
Less than HS degree	62,465	0.223	0.416
High School degree	62,465	0.309	0.462
Some College	62,465	0.242	0.428
College	62,465	0.155	0.361
Advanced degree	62,465	0.071	0.257

Table 2.2: The Effects of Relative Income on Happiness

	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Rel. Income	0.032 (0.034)	0.318*** (0.038)	0.097* (0.054)
Income	0.007 (0.033)	0.152*** (0.039)	0.021 (0.056)
Observations	35448	35540	28308
Adjusted R^2	0.139	0.138	0.074

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.3: The Effects of Relative Income on Support for Redistribution

	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
Rel. Income	-0.522* (0.295)	0.993*** (0.293)	-0.261** (0.010)	-1.564** (0.722)	-1.669* (0.966)	-0.277 (0.365)	0.095 (0.296)
Income	0.381 (0.289)	-0.921*** (0.308)	-0.360*** (0.010)	-1.245* (0.708)	-1.823*** (0.947)	0.111 (0.368)	-0.217 (0.295)
Observations	15604	1300	15453	1360	399	1313	4070
Adjusted R^2	0.095	0.157	0.106	0.139	0.074	0.049	0.141

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.4: The Effects of Relative Income on Attitudes

	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Rel. Income	0.409*** (0.123)	-1.560*** (0.326)	2.041** (0.748)	-0.477 (0.370)
Income	0.421*** (0.126)	1.388*** (0.315)	-2.052*** (0.730)	0.434 (0.374)
Observations	37364	5024	434	2113
Adjusted R^2	0.141	0.111	0.051	0.058

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.5: The Effects of Relative Income on Happiness - World Data

	Life Satisfaction (1-10)	Financial Satisfaction (1-10)
Rel. Income	0.083*** (0.019)	0.095*** (0.022)
Income	0.025*** (0.009)	0.053*** (0.010)
Observations	44991	41151
Adjusted R^2	0.188	0.170

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the country level are in parentheses. All statistics are weighted by the WVS & EVS population weighted sample. Regressions control for age, age squared, education, marital and employment status. All income variables are converted using PPP and transformed into logs.

Table 2.6: The Effects of Relative Income on Support for Redistribution - World Data

	Govmt Aid	Tax Rich	Aid Unemployed
Rel.Income	-0.001 (0.026)	-0.013 (0.041)	-0.082** (0.038)
Income	0.0207* (0.013)	-0.0412 (0.029)	0.0108 (0.027)
Observations	44421	8977	9017
Adjusted R^2	0.109	0.080	0.136

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the country level are in parentheses. All statistics are weighted by the WVS & EVS population weighted sample. Regressions control for age, age squared, education, marital and employment status. All income variables are converted using PPP and transformed into logs.

Table 2.7: The Effects of Relative Income on Attitudes - World Data

	Right wing	Income equal	Hard work brings success	Wealth sh. grow	Rich important	Successful important
Rel.Income	-0.001 (0.024)	0.002 (0.026)	0.056* (0.031)	0.069** (0.030)	0.055*** (0.018)	0.013 (0.020)
Income	0.014 (0.011)	-0.099*** (0.013)	-0.060*** (0.016)	-0.072*** (0.016)	0.031** (0.013)	0.034** (0.014)
Observations	34674	44255	24166	23471	9144	9123
Adjusted R^2	0.060	0.094	0.106	0.062	0.140	0.139

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the country level are in parentheses. All statistics are weighted by the WVS & EVS population weighted sample. Regressions control for age, age squared, education, marital and employment status. All income variables are converted using PPP and transformed into logs.

A Appendix: Tables and Figures

Figure 2.4: Histogram of Subjective Rank

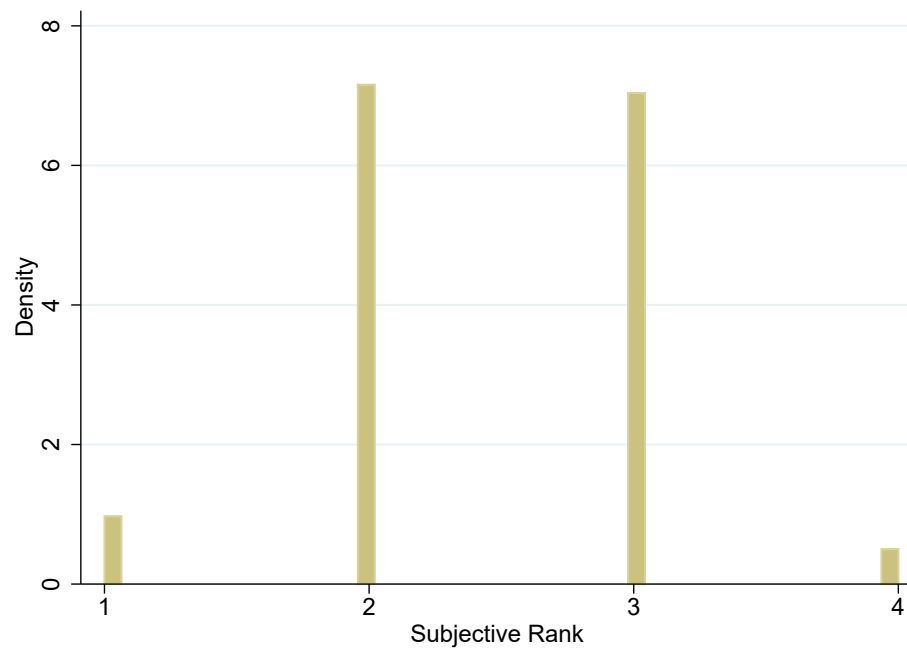


Table 2.8: GSS Variable Details

Variable Name	Question Details	Scale
1. Happiness		
Life Satisfaction	Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?	1-3
Financial Satisfaction	We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not at all?	1-3
Job Satisfaction	On the whole, how satisfied are you with the work you do—would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?	1-4
2. Support for Redistribution		
Gov reduces inc diff	Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences.	1-7
Gov shd provide	Do you agree that the government must see to it that everyone has a job and that prices are stable, even if the rights of businessmen have to be restricted.	1-4
Gov Aid	Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans; they are at Point 1 on this card. Other people think it is not the government's responsibility, and that each person should take care of himself; they are at Point 5.	
Redistribute Wealth	What is your opinion of the following statement? It is the responsibility of the government to redistribute wealth among people with high and low incomes.	1-5
Low Tax Poor	Here are several things that the government in Washington might do to deal with the problems of poverty and unemployment. I would like you to tell me if you favor or oppose them. Would you say that you strongly favor it, favor it, neither favor nor oppose it, oppose, or strongly oppose it? Giving businesses & industry special tax breaks for locating in poor and high unemployment areas.	1-5
Tax Rich	Some people think those with high incomes should pay a larger proportion (percentage) of their earnings in taxes than those who earn low incomes. Other people think that those with high incomes and those with low incomes should pay the same proportion (percentage) of their earnings in taxes. Do you think those with high incomes should pay a much larger proportion, pay a larger proportion, pay the same proportion as those who earn low incomes, pay a smaller proportion?	1-5
Aid Unemployed	On the whole, do you think it should or should not be the government's responsibility to . . . F. Provide a decent standard of living for the unemployed.	1-4

Table 2.9: WVS Variable Details

Variable Name	Question Details	Scale
1. Happiness		
Life Satisfaction	All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are "completely dissatisfied" and 10 means you are completely satisfied" where would you put your satisfaction with your life as a whole?	1-10
Financial Satisfaction	How satisfied are you with the financial situation of your household?	1-10
2. Support for Redistribution		
Govmt Aid	How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between. Left: Government should take more responsibility to ensure that everyone is provided for Right: People should take more responsibility to provide for themselves	1-10
Tax Rich	Many things are desirable, but not all of them are essential characteristics of democracy. Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means "not at all an essential characteristic of democracy" and 10 means it definitely is "an essential characteristic of democracy" Governments tax the rich and subsidize the poor	1-10
Aid Unemployed	Many things are desirable, but not all of them are essential characteristics of democracy. Please tell me for each of the following things how essential you think it is as a characteristic of democracy. Use this scale where 1 means "not at all an essential characteristic of democracy" and 10 means it definitely is "an essential characteristic of democracy" People receive state aid for unemployment.	1-10
3. Other Attitudes		
Right Wing	In political matters, people talk of "the left" and "the right." How would you place your views on this scale, generally speaking? 1 - Left, 10- Right	1-10
Income equal	How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between. Left: Incomes should be made more equal Right: We need larger income differences as incentives for individual effort	1-10
Hard work success	Left: In the long run, hard work usually brings a better life Right: Hard work doesn't generally bring success: it's more a matter of luck and connections	1-10
Wealth sh grow	Left: People can only get rich at the expense of others Right: Wealth can grow so there's enough for everyone	1-10
Rich Important	Now I will briefly describe some people. Using the card, would you please indicate for each description whether that person is very much like you, like you, somewhat like you, not like you, not at all like you? It is important to this person to be rich; to have a lot of money and expensive things.	1-6
Successful Important	Being very successful is important to this person; to have people recognize one's achievements.	1-6

Table 2.10: The Effects of Relative Income on Happiness

	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Panel A			
Rel. Income	0.032 (0.034)	0.318*** (0.038)	0.097* (0.054)
Income	0.007 (0.033)	0.152*** (0.039)	0.021 (0.056)
Observations	35448	35540	28308
Adjusted R^2	0.139	0.138	0.074
	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Panel B			
Subjective Rank	0.095*** (0.006)	0.258*** (0.010)	0.096*** (0.010)
Income	0.027*** (0.005)	0.141*** (0.009)	0.064*** (0.008)
Observations	34593	34691	27666
Adjusted R^2	0.146	0.180	0.079

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.11: The Effects of Relative Income on Support for Redistribution

	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
Panel A							
Rel. Income	-0.522* (0.295)	0.993*** (0.293)	-0.261** (0.010)	-1.564** (0.722)	-1.669* (0.966)	-0.277 (0.365)	0.095 (0.296)
Income	0.381 (0.289)	-0.921*** (0.308)	-0.360*** (0.010)	-1.245* (0.708)	-1.823*** (0.947)	0.111 (0.368)	-0.217 (0.295)
Observations	15604	1300	15453	1360	399	1313	4070
Adjusted R^2	0.095	0.157	0.106	0.139	0.074	0.049	0.141
	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
Panel B							
Subjective Rank	-0.392*** (0.029)	0.060 (0.052)	-0.144*** (0.017)	-0.231*** (0.066)	0.074 (0.097)	-0.091** (0.042)	-0.115*** (0.035)
Income	-0.119*** (0.028)	0.071 (0.052)	-0.089*** (0.019)	-0.310*** (0.046)	0.144 (0.121)	-0.162*** (0.039)	-0.093*** (0.029)
Observations	15523	1296	15374	1355	398	1310	2798
Adjusted R^2	0.102	0.159	0.111	0.150	0.072	0.054	0.146

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.12: The Effects of Relative Income on Attitudes

	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Panel A				
Rel. Income	0.409*** (0.123)	-1.560*** (0.326)	2.041** (0.748)	-0.477 (0.370)
Income	0.421*** (0.126)	1.388*** (0.315)	-2.052*** (0.730)	0.434 (0.374)
Observations	37364	5024	434	2113
Adjusted R^2	0.141	0.111	0.051	0.058
	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Panel B				
Subjective Rank	0.263*** (0.022)	-0.197*** (0.033)	0.121** (0.054)	-0.040 (0.040)
Income	-0.010 (0.019)	-0.179*** (0.031)	-0.033 (0.058)	-0.038 (0.043)
Observations	35261	3746	433	2096
Adjusted R^2	0.146	0.136	0.058	0.056

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.13: The Effects of Relative Income on Happiness - World Data

	Life Satisfaction (1-10)	Financial Satisfaction (1-10)
Panel A		
Rel. Income	0.083*** (0.019)	0.095*** (0.022)
Income	0.025*** (0.009)	0.053*** (0.010)
Observations	44991	41151
Adjusted R^2	0.188	0.170
	Life Satisfaction (1-10)	Financial Satisfaction (1-10)
Panel B		
Subjective rank	0.685*** (0.065)	0.401*** (0.049)
Income	0.064 (0.117)	0.021 (0.067)
Observations	42912	43937
Adjusted R^2	0.253	0.255

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the country level are in parentheses. All statistics are weighted by the WVS & EVS population weighted sample. Regressions control for age, age squared, education, marital and employment status. All income variables are converted using PPP and transformed into logs.

Table 2.14: The Effects of Relative Income on Support for Redistribution - World Data

Panel A	Govmt Aid	Tax Rich	Aid Unemployed
Rel.Income	-0.001 (0.026)	-0.013 (0.041)	-0.082** (0.038)
Income	0.0207* (0.013)	-0.0412 (0.029)	0.0108 (0.027)
Observations	44421	8977	9017
Adjusted R^2	0.109	0.080	0.136
Panel B	Govmt Aid	Tax Rich	Aid Unemployed
Subjective rank	-0.249*** (0.029)	-0.156** (0.048)	-0.139 (0.093)
Income	-0.0178 (0.036)	-0.0243 (0.029)	-0.0676 (0.045)
Observations	43186	11217	11229
Adjusted R^2	0.112	0.111	0.091

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the country level are in parentheses. All statistics are weighted by the WVS & EVS population weighted sample. Regressions control for age, age squared, education, marital and employment status. All income variables are converted using PPP and transformed into logs.

Table 2.15: The Effects of Relative Income on Attitudes - World Data

Panel A	Right wing	Income equal	Hard work brings success	Wealth sh. grow	Rich important	Successful important
Rel.Income	-0.001 (0.024)	0.002 (0.026)	0.056* (0.031)	0.069** (0.030)	0.055*** (0.018)	0.013 (0.020)
Income	0.014 (0.011)	-0.099*** (0.013)	-0.060*** (0.016)	-0.072*** (0.016)	0.031** (0.013)	0.034** (0.014)
Observations	34674	44255	24166	23471	9144	9123
Adjusted R^2	0.060	0.094	0.106	0.062	0.140	0.139
Panel B	Right wing	Income equal	Hard work brings success	Wealth sh. grow	Rich important	Successful important
Subjective rank	0.165*** (0.043)	-0.278*** (0.042)	0.172** (0.055)	0.220*** (0.038)	0.141*** (0.033)	0.146*** (0.027)
Income	-0.011 (0.013)	-0.027 (0.040)	0.041** (0.014)	0.054*** (0.010)	0.0366*** (0.008)	0.0135 (0.008)
Observations	30874	43052	12098	11770	11440	11394
Adjusted R^2	0.055	0.152	0.046	0.067	0.253	0.280

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the country level are in parentheses. All statistics are weighted by the WVS & EVS population weighted sample. Regressions control for age, age squared, education, marital and employment status. All income variables are converted using PPP and transformed into logs.

Table 2.16: Relative Income Effect on Happiness (sq)

	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Relative Income	0.0690** (0.0297)	0.491*** (0.0344)	0.146*** (0.0448)
Income	-0.252* (0.148)	-0.947*** (0.172)	-0.195 (0.243)
Rel.Inc squ	0.00878 (0.00737)	0.0561*** (0.00853)	0.0204* (0.0119)
Income squared	0.0135* (0.00760)	0.0415*** (0.00881)	0.00915 (0.0124)
Observations	35448	35540	28308
Adjusted R^2	0.140	0.152	0.075

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.17: Relative Income Effect on Support for Redistribution (sq)

	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
Relative Income	-0.740*** (0.218)	1.347 (1.231)	-0.154** (0.0781)	-1.590*** (0.613)	-3.578 (2.462)	-0.309 (0.414)	0.0299 (0.205)
Income	2.272* (1.220)	-0.893 (2.933)	0.352 (0.523)	1.627 (3.241)	8.506 (6.179)	0.784 (2.255)	0.373 (1.538)
Rel.Inc squ	-0.0196 (0.0592)	0.111 (0.145)	-0.0232 (0.0258)	-0.0135 (0.161)	0.286 (0.276)	-0.00662 (0.112)	-0.00652 (0.0761)
Income squared	-0.0971 (0.0613)	-0.0102 (0.140)	-0.0372 (0.0269)	-0.0209 (0.162)	-0.234 (0.283)	-0.0359 (0.113)	-0.0302 (0.0772)
Observations	15604	1300	15453	1360	399	1313	4070
Adjusted R^2	0.097	0.164	0.108	0.139	0.073	0.049	0.142

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.18: Relative Income Effect on Attitudes (sq)

	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Relative Income	-0.309*** (0.0945)	-1.732*** (0.239)	2.014 (2.448)	-0.458 (0.310)
Income	-1.941*** (0.466)	1.743 (1.617)	2.035 (4.908)	-1.865 (1.951)
Rel.Inc squ	-0.0420* (0.0230)	-0.0739 (0.0793)	0.208 (0.227)	-0.0952 (0.0963)
Income squared	0.123*** (0.0239)	-0.0191 (0.0808)	-0.210 (0.219)	0.117 (0.0980)
Observations	37364	5024	434	2113
Adjusted R^2	0.143	0.115	0.048	0.058

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.19: Relative Income Effect on Happiness (Interaction)

	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Relative Income	0.0624 (0.0989)	0.548*** (0.118)	0.0125 (0.0941)
Income	0.0777 (0.0680)	0.101 (0.0815)	0.0979 (0.0929)
Interaction	0.000335 (0.00246)	-0.00214 (0.00383)	0.00492* (0.00287)
Observations	18612	18660	16146
Adjusted R^2	0.114	0.119	0.057

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs. Income measures are demeaned for the interaction term.

Table 2.20: Relative Income Effect on Support for Redistribution (Interaction)

	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
Relative Income	-0.666 (0.532)	1.463** (0.658)	-0.0368 (0.280)	-2.407* (1.351)	-1.980 (2.104)	-0.472 (0.833)	0.513 (0.494)
Income	-0.0817 (0.449)	-1.707*** (0.582)	-0.121 (0.212)	2.395** (1.132)	1.965 (2.788)	0.290 (0.410)	-0.160 (0.470)
Interaction	-0.00476 (0.00937)	0.0196 (0.0184)	0.00348 (0.00610)	0.0111 (0.0196)	-0.0757* (0.0431)	-0.00499 (0.0152)	-0.0131 (0.00841)
Observations	9493	661	9103	766	239	743	2554
Adjusted R^2	0.086	0.178	0.088	0.107	0.059	0.032	0.115

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs. Income measures are demeaned for the interaction term.

Table 2.21: Relative Income Effect on Attitudes (Interaction)

	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Relative Income	-0.225 (0.314)	-2.253*** (0.573)	4.770** (2.325)	-1.178 (0.914)
Income	0.435 (0.296)	1.349*** (0.432)	-2.661* (1.541)	0.443 (0.662)
Interaction	0.00851 (0.00551)	0.00366 (0.00959)	-0.143 (0.110)	0.00977 (0.0181)
Observations	20068	3218	173	1220
Adjusted R^2	0.149	0.094	0.083	0.058

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs. Income measures are demeaned for the interaction term.

Table 2.22: The Effects of Relative Income on Happiness - Ordered Probit

	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Panel A			
logreline	0.0627 (0.0679)	0.533*** (0.0631)	0.123 (0.0794)
loginc	0.0113 (0.0665)	-0.249*** (0.0634)	-0.0240 (0.0810)
Observations	35448	35540	28308
Adjusted R^2			
	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
Panel B			
Subjective Rank	0.189*** (0.0113)	0.443*** (0.0175)	0.148*** (0.0142)
loginc	0.0530*** (0.00940)	0.251*** (0.0171)	0.0814*** (0.0110)
Observations	34593	34691	27666
Adjusted R^2			

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.23: The Effects of Relative Income on Support for Redistribution - Ordered Probit

Panel A	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
logrelinc	-0.304* (0.168)	1.395*** (0.362)	-0.251** (0.0974)	-1.542** (0.660)	-5.452*** (1.015)	-0.464 (0.544)	0.120 (0.374)
loginc	0.224 (0.165)	-1.305*** (0.381)	-0.347*** (0.0937)	1.247* (0.648)	5.657*** (0.996)	0.213 (0.549)	-0.278 (0.374)
Observations	15604	1300	15453	1360	399	1313	4070
Adjusted R^2							
Panel B	Govmt reduces inc diff (1-7)	Govmt shd provide (1-4)	Gov Aid (1-5)	Redistribute Wealth (1-5)	Low Tax Poor (1-5)	Tax Rich (1-5)	Aid Unemployed (1-4)
Subjective Rank	-0.164*** (0.0170)	0.0734 (0.0642)	-0.141*** (0.0171)	-0.230*** (0.0627)	-0.0895 (0.116)	-0.135** (0.0636)	-0.147*** (0.0441)
loginc	-0.0696*** (0.0160)	0.0883 (0.0637)	-0.0868*** (0.0192)	-0.289*** (0.0459)	0.189 (0.119)	-0.246*** (0.0593)	-0.120*** (0.0374)
Observations	15523	1296	15374	1355	398	1310	2798
Adjusted R^2							

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.24: The Effects of Relative Income on Attitudes - Ordered Probit

	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Panel A				
logreinc	0.211*** (0.0714)	-1.723*** (0.348)	2.920*** (1.125)	-0.519 (0.365)
loginc	0.221*** (0.0731)	1.538*** (0.338)	-2.938*** (1.100)	0.476 (0.369)
Observations	37364	5024	434	2113
	Right wing (0-6)	Income equal (1-4)	Hard work brings success (1-5)	Rich get ahead (1-5)
Panel B				
Subjective Rank	0.140*** (0.0109)	-0.224*** (0.0374)	0.222** (0.0917)	-0.0393 (0.0396)
loginc	-0.000965 (0.0103)	-0.198*** (0.0331)	-0.0621 (0.0989)	-0.0379 (0.0428)
Observations	35261	3746	433	2096

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and employment status, and state and year fixed effects. All income variables are transformed into logs.

Table 2.25: Relative Income Effect on Happiness - Regional Price Parity

	Life Satisfaction (1-3)	Financial Satisfaction (1-3)	Job Satisfaction (1-4)
logrelinec	1.480 (1.764)	0.00631 (2.704)	-0.0133 (3.499)
loginc	-1.460 (1.765)	0.0506 (2.702)	0.0553 (3.498)
Observations	5023	5029	3832
Adjusted R^2	0.161	0.155	0.077
Subjective Rank	0.0856*** (0.0165)	0.311*** (0.0179)	0.0871*** (0.0278)
loginc	0.0151 (0.0153)	0.0304** (0.0145)	0.0393 (0.0252)
Observations	4999	5004	3816
Adjusted R^2	0.168	0.221	0.081

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs and converted using regional price parity.

Table 2.26: Relative Income Effect on Support for Redistribution - Regional Price Parity

	Govmt reduces inc diff (1-7)	Gov Aid (1-5)
logreline	-6.811 (9.769)	-8.013* (4.017)
loginc	6.701 (9.758)	7.870* (4.006)
Observations	2512	2462
Adjusted R^2	0.078	0.115
	Govmt reduces inc diff (1-7)	Gov Aid (1-5)
Subjective Rank	-0.327*** (0.0581)	-0.270*** (0.0299)
loginc	-0.0800 (0.0711)	-0.118** (0.0452)
Observations	2497	2448
Adjusted R^2	0.087	0.132

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs and converted using regional price parity.

Table 2.27: Relative Income Effect on Attitudes - Regional Price Parity

	Right wing (0-6)
logreinc	-1.401 (5.660)
loginc	1.306 (5.647)
Observations	4882
Adjusted R^2	0.186
	Right wing (0-6)
Subjective Rank	0.188*** (0.0567)
loginc	-0.0945* (0.0494)
Observations	4861
Adjusted R^2	0.188

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: Standard errors clustered at the state level are in parentheses. All statistics are weighted by the GSS weight. Regressions control for individuals' gender, age, race, education, marital and unemployment status, and state and year fixed effects. All income variables are transformed into logs and converted using regional price parity.

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