Why Tax Policy Does Not Respond to Rising Inequality

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Abstract

In many theoretical models, both normative and positive, the response to rising inequality is for tax rates on the rich to increase. US tax policy over the last forty years has done the opposite. We suggest that tax policy has not responded to inequality because many voters adhere to an equal treatment fairness criterion and to an argument that in a democracy, just as all have one vote, all should pay the same tax rate. We show first that the failure of tax policy to respond to inequality is a pattern found across twenty countries. US-specific explanations emphasizing money in politics, cannot account for the phenomenon. We then present survey evidence to show that there is little support for dramatically higher top tax rates among the US population. In fact, many Americans prefer a proportional rather than a progressive tax system. We propose a new survey instrument for measuring belief in equal treatment and field a survey to test it. We also present preliminary results from a survey experiment exposing respondents to an article about the "one person, one vote" principle. This treatment decreases support for progressive taxation. Our findings suggest that an equal treatment fairness criterion has a substantial impact on economic policy preferences and may help account for why taxes on the rich have not increased significantly in the context of rising inequality.

1 Introduction

Few people would disagree with the notion that a tax policy should be fair. At the same time, there is often little agreement between people about what "fair" means. In this paper we will suggest that US tax policy hasn't responded to rising inequality because of disagreement over contested criteria for tax fairness. In so doing we will diverge from explanations which suggest that recent trends are due solely to the fact that tax policy is captured by the rich, that American voters are distracted by other issues, such as religion, or that they are simply too uninformed or unwilling to think about tax policy. We will proceed with our argument in four successive steps.

As a first step, we will take a broad look at the history of progressive taxation to ask whether the recent failure of US tax policy to respond to rising inequality is somehow abnormal or atypical. This is an important exercise because if US policy tends to follow broader trends (or non-trends), then explanations focusing on US specific features, such as the role of private money in political campaigns, will prove unsatisfying. We will draw on data on top marginal rates of income and inheritance taxation for twenty countries over the last twenty years that was collected for Scheve and Stasavage (2016). Making use of the fact that changes in inequality become apparent only with a certain lag, we will ask whether recent increases in inequality tend to prompt governments to raise top tax rates. We find no evidence of an average effect of this sort across our twenty countries.

Given the absence of a general trend for governments to increase top tax rates in response to inequality, we will next consider evidence on individual opinion on taxes in the United States. This will be based on a survey conducted in 2014 on a nationally representative sample of 2,250 adults where respondents were asked to express a preferred marginal tax rate for those making more than \$375,000 a year (the current highest bracket in the US) in addition to expressing preferences for marginal tax rates applying at other levels of income. The average preferred top tax rate in our survey is 33 percent, a little bit lower than the current top marginal rate of 39.6%. Our finding for the top marginal rate departs from some existing survey evidence, but there is good reason to prefer our methodology. Some existing survey evidence suggests that US voters would like to see higher top tax rates, but the survey questions used to produce this evidence are very blunt in form. They depend generally on asking respondents whether those earning more than \$250,000 per year, or sometimes \$1,000,000, should pay more tax but without saying how much more tax should be paid. Also, these questions do not allow respondents to distinguish between paying more as a result of an increase in statutory rates and paying more as a result of restricting exemptions, deductions, and reclassifications that allow individuals to pay effective rates considerably below what one would expect given statutory marginal rates of income taxation.

We also use our survey evidence to ask what degree of progressivity respondents would like the tax system to have. To do this we compare top rates preferred by respondents for those making more than \$375,000 a year with the rates respondents preferred for other levels of income. The responses suggest that a substantial fraction of our respondents (twenty percent) would prefer to have a flat tax system in place where individuals at different levels of income are subject to the same marginal tax rate. Many other respondents would like to see a tax schedule that is nearly flat. The fact that there is significant support for a flat tax is in keeping with existing survey evidence.¹

We will next suggest a simple explanation for the failure of tax rates, and preferences over tax rates, to respond to rising inequality, as well as for the continued degree of support for a flat tax. Many Americans adhere to an *equal treatment* criterion of tax fairness in which all should pay the same tax rate just as all have the same vote in a democracy. This same argument is also sometimes expressed in terms of equal protection before the law. We make no claim that this fairness criterion is somehow derived from axiomatic principles.² This is more of a rule of thumb that seems to resonate with people. We will

¹See the compendium "Public Opinion on Taxes: 1937 to Today." American Enterprise Institute 2012. ²This distinguishes our work from Fisman, Jakiela, and Kariv (2014) as well as Weinzierl (2016) though these authors share our broader interest in how perceptions of fairness influence policy preferences. Important earlier contributions on this include Lane (1959), Hochschild (1986), Roberts and Hite (1994), Piketty (1995), Roemer (1998), Fong (2001), and Durante, Putterman, and van der Weele 2014.

show that the one vote one tax rate argument has been present in tax debates since the sixteenth century. This itself is prima facie evidence that it may actually matter. It stands in contrast to the principal fairness-based argument in favor of progressive taxation - the "ability to pay" principle that those with more should pay a higher rate because they can better afford it.

The final step in our inquiry is to propose a new survey instrument for measuring commitment to an equal treatment criterion of fairness and to field a new survey in the United States to test the instrument. We show that the measure is strongly correlated with tax policy preferences and is distinct from other beliefs that are thought to explain tax policy preferences. Perhaps most interestingly, responses to this equal treatment question are not correlated with responses to a question asking if inequality is a problem and whether it should be reduced. It seems to be the case that many individuals are concerned about inequality but do not believe that progressive taxation is the appropriate way to go about alleviating it.

With our survey we also report the results of an initial attempt to provide causal evidence for the equal treatment argument based on one person, one vote, one tax rate. We know that this argument has been used for five hundred years, but it is of course possible that the argument is only used by those who already oppose progressive taxation for other reasons, and the same may be true on the receiving end of the argument. To deal with this possibility we conducted a survey experiment in which respondents were asked to read either a treatment article about a 1964 US Supreme Court decision on the one person one vote principle, or a control article describing a Supreme Court decision on warrantless searches and cell phones. We then asked respondents whether they believed that those with higher incomes should pay the same rate of tax as everybody else or a higher rate of tax than everyone else. We found that the treatment group was more likely to respond that those with higher incomes should pay the same rate as everyone else.

In the remainder of this paper we will proceed first by presenting evidence to show that the failure of US tax policy to respond to rising inequality over the past forty years is nothing exceptional; it is a more general pattern we see across twenty countries over two hundred years. We will then present our survey evidence on the preferred top tax rates of US voters. These suggest that on average, voters are currently getting the statutory tax rates that they want and a substantial number would like to see a flat tax system. This is followed by our discussion of the "equal treatment" fairness criterion over the past five hundred years and the evidence from our survey.

2 Inequality Hasn't Driven Tax Progressivity

Across a wide class of theoretical models, both normative and positive, the degree of tax progressivity should be a positive function of the degree of pre-tax inequality.³ This also makes sense if policy follows the ability to pay criterion of fairness. The rich should pay a higher rate because they can better afford to do so. Given these expectations, observers of US politics over recent decades suggest that the trend away from high top tax rates during a period of rising inequality is an anomaly that is perhaps explained by policy being captured by the rich given the prominent role of money in US politics. In this section we will show that there is nothing anomalous about recent US experience. Across twenty countries for two hundred years we fail to see that governments respond to rising inequality by making their tax systems more progressive. Capture by the rich may still be occurring, but if it is occurring we cannot use specificities of the US system to explain it.

The data for our analysis are drawn from top income and wealth shares, in addition to data on top marginal tax rates collected for Scheve and Stasavage (2016).⁴ We will test for "causality" in the sense defined by Granger (1969) extended to a panel setting. The

 $^{^{3}}$ Under fairly general assumptions, but not all cases, this is true in the political economy model of Meltzer and Richard (1981). Farhi and Werning (2009) present a political economy model where an increase in wealth inequality leads to increased bequest taxation in equilibrium. For normative models see Piketty and Saez (2012) on optimal labor income taxation and Saez and Stantcheva (2016) on optimal capital taxation.

⁴The twenty countries are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Korea, the Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Granger approach involves asking whether past realizations of inequality can be used to predict future movement in tax rates taking into account past realizations of tax rates. This is obviously a substantially weaker definition of causality than would generally be used in current work since omitted factors might be the underlying force driving both tax policy and pre-tax inequality. However, recall that the results we present will suggest the absence of a correlation between tax rates and inequality. The principal omitted factors one might think of, such as social norms, the political strength of different groups, or biases inherent in institutions would be most likely to cause a spurious correlation between inequality and top tax rates.

The basic equation we estimate is presented below. In it a current measure of the tax rate T is regressed on a lagged value of the tax rate and I, which is a lagged measure of inequality. This makes a great deal of intuitive sense. In most instances top tax rates change infrequently and incrementally, so past rates should predict current rates. Likewise, measures of inequality appear only with a certain lag reflecting time delays in collecting data on income and wealth. This time lag will allow us to attempt to disentangle the causal relationship, if one exists, between tax rates and inequality. In addition, the regression also includes a set of country fixed effects and a set of time period fixed effects. These will control for country specific or period specific factors that may push both tax rates and inequality in the same direction or in opposite directions from each other. We will consider a setting where each observation for each country covers a five year time period.

$$T_{it} = \alpha + \beta T_{it-1} + \gamma I_{it-1} + \eta_i + \theta_t + \varepsilon_{it} \tag{1}$$

We will estimate equation (1) using data on both income and wealth inequality. Tables 1 and 2 report results for the top marginal rate of income taxation where the inequality measure is the share of total incomes accruing to either the top one percent of individuals or the top 0.1 percent of individuals, with the inequality data drawn from Atkinson and Piketty (2007, 2010) and subsequent papers for the top incomes project. We will also use the statutory top marginal rate of inheritance taxation as a measure of tax policy and the share of total wealth held by the top one percent of individuals as a measure of inequality. Results for these estimates are reported in Table 3. We have data on these top one percent wealth shares for eleven countries in our sample.⁵ It is useful to look at wealth both because the dynamics of wealth inequality and taxation may differ from those of income taxation, and also because the top 1 percent wealth shares often extend further back in time than do many of our top income share series.

In order to consider whether any null results where inequality fails to change top tax rates are due to measurement error, in Tables 1, 2, and 3 we also report estimates of the following equation where we examine whether lagged tax rates influence inequality.

$$I_{it} = \alpha + \beta I_{it-1} + \gamma T_{it-1} + \eta_i + \theta_t + \varepsilon_{it}$$
⁽²⁾

There are a number of mechanisms that might prompt higher rates to lower inequality (noting that our top incomes and top wealth shares measures are pre-tax). Our goal here is not to adjudicate between them. Our objective in estimating equation (2) is simply to provide a reality check to see whether it is possible to get any sort of result using these Granger tests on our data.

The conclusions from the estimates of equations 1 and 2 are unambiguous. When assessing whether lagged inequality influences the choice of tax rates we see that the coefficients on our different lagged inequality measures are never statistically significant. When assessing whether lagged tax rates influence future inequality, we see that the coefficients on the lagged text rate variables are statistically significant, and they suggest the expected effect - higher top tax rates lead to lower inequality.

In this section we have shown that the US experience of tax policy failing to respond to rising inequality is hardly exceptional; it is a pattern that we see across a broad set of countries. We should note that what we have found here is evidence for the absence

⁵The source for all countries but Ireland is Roine and Waldenstrom 2015. For Ireland the data are from Turner 2010.

	Ordinary Least Squares, Five-Year Data					
	Top Inco	ome Tax Rate	Income Share of Top 1			
	(1)	(2)	(3)	(4)		
Top Income Tax $Rate_{t-1}$	0.863	0.691	-0.047	-0.023		
	(0.043)	(0.061)	(0.007)	(0.007)		
	0.000	0.000	0.000	0.003		
Income Share of Top $1\%_{t-1}$	0.294	-0.196	0.672	0.674		
	(0.311)	(0.365)	(0.050)	(0.041)		
	0.359	0.598	0.000	0.000		
Common Time Trends	Yes	No	Yes	No		
Period Fixed Effects	No	Yes	No	Yes		
Country Fixed Effects	Yes	Yes	Yes	Yes		
R-squared	0.820	0.886	0.895	0.921		
Number of Observations	290	290	289	289		

Table 1: Granger Causality Analysis of Income Inequality and Income Taxation, 1900-2010: Income Share of Top 1% Measure of Inequality. The table reports the results of pooled-cross-sectional OLS regressions. Specifications in columns 1-2 regress the variable Top Income Tax Rate on the variable Top Income Tax Rate lagged one period the variable Income Share of Top 1% lagged one period. Specifications in columns 3-4 regress the variable Income Share of Top 1% on the variable Top Income Tax Rate lagged one period and the variable Income Share of Top 1% on the variable Top Income Tax Rate lagged one period and the variable Income Share of Top 1% lagged one period. Table reports robust standard errors clustered by country in parentheses and p-values. Specifications in columns 1 and 3 include common time trends and specifications in columns 2 and 4 include period fixed effects.

	Ordinary Least Squares, Five-Year Data					
	Top Income Tax Rate		Income S	Share of Top 0.01%		
	(1)	(2)	(3)	(4)		
Top Income Tax $Rate_{t-1}$	0.845	0.677	-0.011	-0.003		
	(0.050)	(0.068)	(0.003)	(0.001)		
	0.000	0.000	0.001	0.030		
Income Share of Top $0.01\%_{t-1}$	1.631	0.289	0.655	0.740		
	(1.652)	(1.699)	(0.087)	(0.077)		
	0.345	0.868	0.000	0.000		
Common Time Trends	Yes	No	Yes	No		
Period Fixed Effects	No	Yes	No	Yes		
Country Fixed Effects	Yes	Yes	Yes	Yes		
R-squared	0.775	0.877	0.872	0.927		
Number of Observations	201	201	197	197		

Table 2: Granger Causality Analysis of Income Inequality and Income Taxation, 1900-2010: Income Share of Top 0.01% Measure of Inequality. The table reports the results of pooled-cross-sectional OLS regressions. Specifications in columns 1-2 regress the variable Top Income Tax Rate on the variable Top Income Tax Rate lagged one period the variable Income Share of Top 0.01% lagged one period. Specifications in columns 3-4 regress the variable Income Share of Top 0.01% on the variable Top Income Tax Rate lagged one period and the variable Income Share of Top 0.01% on the variable Top Income Tax Rate lagged one period and the variable Income Share of Top 0.01% in parentheses and p-values. Specifications in columns 1 and 3 include common time trends and specifications in columns 2 and 4 include period fixed effects.

	Ordinary Least Squares, Five-Year Data					
	Top Inhe	ritance Tax Rate	Wealth	Share of Top 1%		
	(1) (2)		(3)	(4)		
Top Inheritance Tax $Rate_{t-1}$	0.927	0.834	-0.042	-0.008		
	(0.038)	(0.033)	(0.019)	(0.017)		
	0.000	0.000	0.044	0.658		
Wealth Share of Top $1\%_{t-1}$	0.060	0.071	0.927	0.926		
	(0.101)	(0.096)	(0.021)	(0.019)		
	0.567	0.478	0.000	0.000		
Common Time Trends	Yes	No	Yes	No		
Period Fixed Effects	No	Yes	No	Yes		
Country Fixed Effects	Yes	Yes	Yes	Yes		
R-squared	0.919	0.931	0.978	0.983		
Number of Observations	208	208	205	205		

Table 3: Granger Causality Analysis of Wealth Inequality and Inheritance Taxation, 1900-2010. The table reports the results of pooled-cross-sectional OLS regressions. Specifications in columns 1-2 regress the variable Top Inheritance Tax Rate on the variable Top Inheritance Tax Rate lagged one period the variable Wealth Share of Top 1% lagged one period. Specifications in columns 3-4 regress the variable Wealth Share of Top 1% on the variable Top Inheritance Tax Rate lagged one period and the variable Wealth Share of Top 1% lagged one period. Table reports robust standard errors clustered by country in parentheses and p-values. Specifications in columns 1 and 3 include common time trends and specifications in columns 2 and 4 include period fixed effects.

of an inequality effect on average. There may well be cases of individual countries in individual periods where policy responded to inequality, but these occasions are probably fairly rare. The big question then is why policy doesn't respond to rising inequality. A first question to ask in this regard is whether voters may actually want policy to respond to rising inequality, but for one reason or another this isn't happening. In the next section we will take a first step towards answering this question by showing that, on average, US voters today appear to be getting the marginal income tax rates that they want.

3 US Voters May Be Getting the Tax Rates They Want

If rising inequality doesn't lead to higher tax rates on the rich, this raises two possibilities. The first is that voters do in fact want more progressive taxation but policy is not responding. A prime reason for this might be that the policy process is captured by the rich through campaign contributions, lobbying expenditures, or other activities.⁶ However, the results from the previous section suggest that if capture is occurring, then it cannot be explained by particularities of the US political system, such as the very prominent role of private money in political campaigns, because the US is hardly exceptional among our twenty countries in seeing tax policy not respond to rising inequality. An alternative possibility is that the average tax preferences of voters do not actually change very much in response to inequality. In this section we will provide evidence to suggest that while American voters may believe the wealthy benefit unduly from the current tax system, it's not clear that they think the remedy for this is to raise top statutory marginal rates of income taxation. We will base this conclusion on a 2014 survey of a nationally representative group of respondents.

Existing survey data suggest that many US voters are unhappy with our current tax

⁶See Hacker and Pierson (2011) and Winters and Page (2009) for two variants of this argument. See Bonica, McCarty, Poole, and Rosenthal (2013) for a review of the ways in which campaign finance and lobbying expenditures can influence redistributive policies in the United States. Gilens (2012) and Bartels (2008) show that across a range of policies in the United States legislators tend to tilt in the direction of their high income constituents.

system. Whether this translates into desire for substantially higher rates on the rich is another question. In one recent survey when asked "Do you think that America's tax system" either "favors the wealthy over the middle class or the poor", "favors the middle class over the poor and the wealthy," or "treats everyone equally" a clear majority (62 percent) responded that the system favors the wealthy while only 8 percent responded that the system treats everyone equally.⁷ That the system favors the wealthy was in fact the modal response across income groups and regions of the country. It was also the modal response across party affiliations, even if the fraction of Democrats saying the system favors the wealthy (80 percent) was twice the fraction of Republicans who had the same response. If a majority of Americans believe that the current tax system favors the wealthy, this leaves open the question of whether they would like to see the top statutory marginal rate increased substantially. The alternative possibility is that people believe that there are too many ways in which the wealthy are able to benefit from exemptions, deductions, reclassifications, and other features of the tax code, in order to substantially lower their liabilities. Therefore the priority should be to reduce these possibilities rather than to increase statutory rates.

The survey data we use were collected in June 2014 by Ballard-Rosa, Martin, and Scheve (2016) based on a sample of 2,250 individuals representative of the American adult population.⁸

The core question on tax rates was as follows.

Consider the taxes paid in the US by those families making X each year. Please select from the list below which marginal tax rate you would most like to see families making X each year pay: 0, 5, 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80.

⁷Huffington Post/YouGov poll conducted January 21-23 2015. See http://big.assets. huffingtonpost.com/tabsHPtaxes20150123.pdf

⁸The survey was conducted by YouGov. YouGov employs matched sampling to approximate a random sample of the adult population. Matched sampling involves taking a stratified random sample of the target population and then matching available internet respondents to the target sample (Rivers (2011)). Ansolabehere and Rivers (2013) and Ansolabehere and Schaffner (2013) show that matched sampling produces accurate population estimates and replicates the correlational structure of random samples using telephones and residential addresses.

There is a possibility that respondents to this survey might confuse the marginal tax rate, the rate applying on the last dollar of income, with the average tax rate, which is obtained by dividing total taxes paid by total income. In order to limit this possibility we gave respondents a definition of the marginal tax rate. The levels of income considered for X in the survey were designed to closely track the cutoffs in the current U.S. income tax schedule. All respondents were asked to provide a preferred rate for the greater than \$375,000 category. In addition, all individuals were asked to state a preferred rate for one of the other tax bracket chosen at random. These responses therefore give us an indication of the top marginal tax rate preferred by Americans as well as of the degree of preferred tax progressivity.

The responses to the survey question for the preferred rates by income category can be seen in Figure 1*Marginal Tax Rate Opinions, United States 2014.* This figure plots the distribution of preferred tax rates in the United States for six income categories approximating current US tax groups. The survey was conducted by YouGov in June 2014. For each income group, the box indicates the interquartile range, the line in the middle of box indicates the median, and the whiskers indicate the 10th and 90th percentiles.figure.caption.4. The tax schedule implied by the median responses looks a lot like the tax schedule currently in place in the United States, albeit with somewhat lower rates for the highest income category. The median preferred rate for those earning more than \$375,000 a year is 30 percent, and the mean preferred rate is 33 percent, as compared to the actual current top marginal rate of 39.6 percent. It's also clear from the box and whisker plot that most of the responses are centered around the 30 percent level. There just isn't much indication in these data that Americans would like to see substantially high top marginal rates of income tax.⁹

⁹One reasonable question to ask about these results, as well as responses to a number of alternative approaches for soliciting opinion about tax preferences is the effect of reminding respondents what the current top marginal tax rate is. In an October 2016 survey discussed in greater detail below, we asked this question while using \$500,000 as the threshold and randomly assigning respondents information about the status quo top income tax rate (39.6%). Adding this information did systematically lead respondents to express a preference for a somewhat higher rate, but the effect was small enough (about 3.5 percentage points) that it does not change our conclusion that Americans do not seem to want a substantially higher



Figure 1: Marginal Tax Rate Opinions, United States 2014. This figure plots the distribution of preferred tax rates in the United States for six income categories approximating current US tax groups. The survey was conducted by YouGov in June 2014. For each income group, the box indicates the interquartile range, the line in the middle of box indicates the median, and the whiskers indicate the 10th and 90th percentiles.

We can also use the survey responses to get a sense of how progressive Americans would like tax rates to be. To do this we considered the survey responses for the greater than \$375,000 category and for the rate preferred for the other randomly assigned tax bracket. We then considered the tax schedule implied by these two preferred rates as if the individual thought that the tax schedule should be linear. This is an assumption that admittedly may or may not hold for individual cases, but it is one that will be particularly reasonable for respondents preferring relatively flat tax schedules, and our main goal here is to see if a substantial fraction of individuals prefer a flat tax system, as opposed to a progressive one.

Figure 2Linear Tax Rate Schedule Opinions. United States 2014. The survey was conducted by YouGov in June 2014. Each respondent was asked their preferred rate for the highest income category and one of the lower income categories. The figure plots the implied linear tax rate schedule for each respondent implied by these two rates. The figure does not extrapolate beyond the two points used to determine the schedule and therefore some schedules are longer than others depending how low was the lower category assigned to a given respondent. Respondents with an implied flat linear tax schedule are plotted in red and all other respondents in grey. The thick red and black lines plot the mean schedules for each group.figure.caption.5 presents the plot of the implied linear tax schedules for a random sample of 1,000 of our survey respondents.¹⁰ The plot highlights all respondents with an exactly zero slope in red to indicate the extent to which we observe a preference for flat rates in our sample. Such preferences are quite common, constituting a bit more than 20 percent of the schedules. Moreover, there is another larger group of respondents for whom the slope of their linear schedules is only somewhat larger than zero. The key conclusion from this figure is that a preference for flat tax schedules is relatively common and contributes significantly to pushing the overall preferred rate on top incomes lower.

top statutory rate than the status quo. See Appendix for these results. See also Ballard-Rosa, Martin, and Scheve (2016) for a conjoint experimental measurement strategy for measuring income tax policy preferences that arrives at the same conclusion.

 $^{^{10}}$ We took a sample of 1,000 because of computer memory problems in plotting the schedules for all 2,250 respondents.



Figure 2: Linear Tax Rate Schedule Opinions, United States 2014. The survey was conducted by YouGov in June 2014. Each respondent was asked their preferred rate for the highest income category and one of the lower income categories. The figure plots the implied linear tax rate schedule for each respondent implied by these two rates. The figure does not extrapolate beyond the two points used to determine the schedule and therefore some schedules are longer than others depending how low was the lower category assigned to a given respondent. Respondents with an implied flat linear tax schedule are plotted in red and all other respondents in grey. The thick red and black lines plot the mean schedules for each group.

It seems clear from the above evidence that there is not much support among American voters for substantially higher top marginal tax rates. This suggests that if people believed the tax system is biased in favor of the wealthy, then this is because they believe that the rich are able to benefit from substantial privileges to avoid paying the top marginal rate implied by the current tax schedule. It is also clear from our survey evidence that a substantial number of voters would like to see a flat tax system implemented. The question then is why they express this preference. We will consider this in the next two sections, first by reviewing the history of equal treatment arguments against progressive taxation, and then reporting results from a survey that we conducted to explore the presence of the equal treatment beliefs in American public opinion.

4 Equal Treatment Arguments in History

It is apparent from the previous section that a number of US voters would prefer to see a flat tax system where all pay the same rate. There could be a number of explanations for this phenomenon. One possibility is that this is a top down story where voters predisposed towards one political party, the Republicans in particular, have taken a cue from leaders who propose flat tax policies. A second possibility is that voters simply don't know how much income inequality there is, or they are otherwise uninformed about tax policy and its consequences, or they simply choose not to act on the information they do have.¹¹ A second possibility is that support for a flat tax has less to do with current US party politics than with more deeply held ideas about equal treatment in a democracy. In this section we will show that since the sixteenth century, supporters of proportionate, as opposed to progressive, taxation have drawn the following analogy - if equal treatment dictates that everyone in a republic should have one vote, then it is logical that all should also pay the

¹¹See Bartels (2008, 2005). Boudreau and MacKenzie (2016) report experimental evidence showing that giving California voters better information about the extent of inequality results in an increase in support for a proposed progressive income tax. Kuziemko, Norton, Saez, and Stantcheva (2013) provide experimental evidence showing that providing better information about the income distribution results in a preferred increase of the top marginal tax rate by only one percentage point. See also McCall 2013

same tax rate. More generally they have argued that proportionate taxation is equivalent to equal treatment under the law. We make no claim that this argument is derived from axiomatic principles. After all, the same logic of equal treatment before the law could be used to defend a highly regressive system where all pay the same lump sum in taxes.¹² Such a policy would likely garner very little public support. What we do claim is that the one vote one tax rate argument, based on the principle of equal treatment, seems to resonate with many people. It's hard to imagine why the argument would have been used consistently for five hundred years if this were not the case.

The first appearance in our knowledge of the equal treatment argument for proportionate taxation came in Florence at the beginning of the sixteenth century. In the year 1500, Florence's citizens were debating whether to establish a tax policy named the *decima scalata* or "scaled tenth" in which tax rates increased in wealth. This debate gave rise to two fairness based arguments that are still with us today - ability to pay as an argument for the *decima scalata* and equal treatment as an argument against. Proponents of ability to pay suggested that rich people who consumed luxury goods could afford to pay a higher rate of tax. Francesco Guicciardini, an opponent of the *decima scalata* and a well known contemporary of Machiavelli, suggested in the following terms that any such policy would violate the notion of equal treatment in a republic.

I admit that equality is a good thing in a republic, indeed a necessary one, because it is the foundation of liberty. But the equality that we are seeking is as follows: that no citizen may oppress another, that each is equal before the law and its magistrates, and that the vote of each man who is eligible to participate in this Council has the same weight as that of any other.¹³

Though Guicciardini was himself an opponent of the *decima scalata*, his quote derives from a short text he wrote at this time which is composed of two discourses, one in favor of progressive taxation and one opposed to it. Guicciardini was a lively commentator

¹²This is a point made with further elaboration in Fried (2002).

¹³Francesco Guicciardini 1520 [1867]

on Florentine debates over a range of topics, and it is generally presumed that his two discourses provide an accurate portrayal of the tenor of debates on Florence's city council on taxation.

Move forward three centuries from Guicciardini, and a different sort of republic was again confronted with the question of which was the fairer option between a proportional and a progressive tax. In the United States the North had financed the Civil War in part by establishing an income tax with a progressive rate system with a top marginal rate of ten percent. As argued in Scheve and Stasavage (2016) and elsewhere, the primary fairness based justification offered for progressive taxation was that since the rich were able to avoid being drafted into the union army by paying for a replacement, then they should bear a greater financial burden so as to restore some degree of equal treatment. However, after 1865 the question then became one of whether and why a progressive tax system should be retained. Justin Smith Morrill, a founder of the Republican Party in Vermont and the main protagonist behind the Land Grant College Act of 1862 argued that proportionate taxation should be the rule. He made this argument in terms that directly echoed Francesco Guicciardini's argument from three centuries prior.

In a republican form of government the true theory is to make no distinctions as to persons in the rates of taxation. Recognizing no class for special favors, we ought not to create a class for special burdens. Pursuing this principle a majority of the Committee of Ways and Means have agreed to that portion of the bill which makes the income tax after this year a uniform one of five per cent upon the annual gains.¹⁴

As part of his speech Morrill argued in favor of maintaining an income tax with a flat rate of five percent for all income above an exemption limit. This policy was eventually adopted in March of 1867. The US would not see steeply progressive income taxation until the First World War. Though we do not know what precise effect Morril's equal

¹⁴Representative Justin Smith Morrill, May 7, 1866. Congressional Globe p.2437

treatment argument had in leading to this outcome, it is striking to see how politicians seeking to obtain a majority would make the same fairness-based argument at a distance of over three centuries.

Following sixteenth and nineteenth century experience, now consider the context for equal treatment arguments in 2016. Today the US has had a progressive income tax system for a little over a century, and at times during this century the rich have paid much higher rates of tax than everyone else. There have also been important periods of opposition to progressive taxation. As early as the 1950s, some groups sought a constitutional amendment that would limit the degree of progressivity in the income tax system. Since the 1980s a number of people, usually in Republican circles, have called for establishing a flat tax system in which all income above an exemption level would be taxed at the same rate. Another variant of this tax specifies that all income above the exemption level used for consumption would be taxed with investment income excluded. The contribution by Hall and Rabushka (1981) has provided one of the main intellectual inspirations for the flat tax movement.

In making arguments in favor of a flat tax, people have made use of the same equal treatment arguments used previously by Francesco Guicciardini and Justin Smith Morrill. Hall and Rabushka (1981 p.185) suggest "Remember until recently, fairness meant equal treatment under the law." Likewise, Grover Norquist, the head of Americans for Tax Reform has suggested that "A single tax rate puts all citizens in the same relationship with their government." Statements like these by Hall, Rabushka, and Norquist would most likely be read by an elite audience. However, it's important to emphasize that the same equal treatment arguments have also recently been made by people who have a much broader audience. Consider the following comment by Sean Hannity of Fox News.

A flat tax would be fair. Everyone would be treated equally under the law. (Sean Hannity *Let Freedom Ring* 2003 p.226)

We could continue by listing similar quotes from other observers, as well as from

the numerous presidential candidates who have supported a flat tax, from Steve Forbes, Herman Cain, Rick Perry, and Ted Cruz on the Republican side to Jerry Brown in 1992 on the democratic side. But by this stage, we have probably made our main point for this section. Over a span of five centuries those arguing against progressive taxation have consistently argued that it violates the principle of equal treatment under the law. To repeat what we said earlier, we are not claiming that this argument is axiomatically derived; the same logic could be used to support a lump sum tax. What we are saying is that if equal treatment arguments against progressive taxation have been made for five hundred years, then it seems like they are relevant.

5 Equal Treatment Tax Policy Opinions

We have argued that one reason that tax policy has not responded to higher economic inequality is that beliefs about equal treatment inform opinions over taxing high incomes and wealth. For those who believe in this criterion for fairness, equal treatment prompts citizens to be less supportive of highly progressive tax systems. They believe that progressivity by definition requires governments to treat the rich differently than everyone else. Moreover, commitment to equal treatment explains why public support for progressive tax policies may not increase in spite of increasing inequality.

As we have discussed, equal treatment competes with alternative tax fairness criteria, such as ability to pay, in determining what sort of tax system people think is fair. We expect there to be variation across individuals, time, and countries in the extent to which beliefs about equal treatment and ability to pay are salient. In this section, we propose a survey instrument for measuring commitment to the equal treatment criterion of fairness. We then show that the measure is correlated with tax policy preferences and is distinct from other beliefs that might explain tax policy preferences. Finally, we present preliminary results from a survey experiment in which we make equal treatment more salient by exposing respondents to a short article about "one person, one vote" principles in U.S. election law. This treatment decreases support for progressive taxation.

5.1 Measuring Equal Treatment Beliefs

To measure commitment to equal treatment, we propose asking individual survey respondents the following question:

Some people say that the government should treat all citizens equally regardless of any economic or other advantages or disadvantages that they may have; others say that the government should take into account these circumstances in setting policy. On a scale for which one indicates treating citizens equally regardless of any economic or other advantages or disadvantages that they may have and five indicates taking into account these circumstances, which idea do you think should guide government policy?

Respondents are then presented a five-point scale for which the end points are "1=Treat citizens equally regardless of circumstances" and "5=Take into account economic or other advantages or disadvantages."

To investigate this measurement strategy, we fielded a survey in the United States in October 2016. The sample of 952 adults was a quota sample with quotas determined to be approximately representative of the U.S. adult population on region, sex, age, and education.¹⁵ Table 4*Equal Treatment Survey Responses, October 2016.* Table reports the marginal responses to the question "Some people say that the government should treat all citizens equally regardless of any economic or other advantages or disadvantages that they may have; others say that the government should take into account these circumstances in setting policy. On a scale for which one indicates treating citizens equally regardless of any economic or other advantages that they may have and five indicates taking into account these circumstances, which idea do you think should guide

¹⁵The survey was conducted online by Respondi. See the Appendix for further details about the survey. The target number of respondents for the survey is 1,100. At the time of writing, most but not all quotas had been filled. All results reported here should be viewed as preliminary.

		Percent of Respondents
Take into account differences	(1)	13.24
	(2)	11.65
	(3)	19.96
	(4)	11.34
Treat citizens equally	(5)	43.91
Observations		952

Table 4: Equal Treatment Survey Responses, October 2016. Table reports the marginal responses to the question "Some people say that the government should treat all citizens equally regardless of any economic or other advantages or disadvantages that they may have; others say that the government should take into account these circumstances in setting policy. On a scale for which one indicates treating citizens equally regardless of any economic or other advantages that they may have and five indicates taking into account these circumstances, which idea do you think should guide government policy?" The response categories are reversed so the measure is increasing in commitment to the equal treatment fairness criterion.

government policy?" The response categories are reversed so the measure is increasing in commitment to the equal treatment fairness criterion.table.caption.6 reports the distribution of responses to this question in our data (with codings reversed so that our measure is increasing in equal treatment).

In our sample, 44 percent of respondents chose the extreme "treat citizens equally" response while 13% of respondents chose the extreme "take into account differences" response with at least 11 percent of respondents choosing one of the categories in between. The question elicited varied responses that allow us to differentiate degrees of commitment to how much an equal treatment principle should guide government policy. We constructed the variable *Equal Treatment* with values from one to five with increasing values indicating greater commitment to the government treating citizens equally regardless of their circumstances.

5.2 Equal Treatment and Policy Opinions: Correlational Evidence

Our argument claims that fairness considerations influence the tax policies that individuals support, and a commitment to equal treatment is associated with support for less tax progressivity and lower taxes on the rich. To test this idea, our survey repeated the same income tax question from the 2014 YouGov survey that we discussed above. Respondents were asked

Consider the taxes paid in the US by those families making X each year. Please select from the list below which marginal tax rate you would most like to see families making X each year pay: 0, 5, 10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80.

Here we will focus our attention on the rate respondents preferred for families making greater than \$375,000. The variable *Top Rate Opinion* equals the respondent's preferred marginal rate on families making greater \$375,000.¹⁶ Our objective is simply to see if our *Equal Treatment* measure is correlated with *Top Rate Opinion* and whether this correlation is robust to including other common correlates of tax policy opinion.

Table 5Equal Treatment and Top Rate Opinion. The table reports the results of OLS regressions of the variable Top Rate Opinion on Equal Treatment and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values.table.caption.7 reports estimates from ordinary least square regressions of Top Rate Opinion on Equal Treatment and various control variables. The Model 1 specification reports the results of the bivariate regression of Top Rate Opinion on Equal Treatment and various control variables. The Model 1 specification reports the results of the bivariate regression of Top Rate Opinion on Equal Treatment. The estimated coefficient for Equal Treatment is -2.204 and is precisely estimated with a standard error of 0.418. The interpretation of the coefficient is substantively informative and suggests a rather large effect: moving from a response of "Take into account differences" to a response of "Treat citizens equally" (a 4-unit increase) is associated with a 9 percentage point reduction in the preferred top rate of income taxation (32% versus 23%).

Models 2 through 6 add various control variables to the regression to evaluate the robustness of the results. Model 2 adds a full set of demographic controls for sex, race,

¹⁶As noted above, we also asked respondents their preferred rate on families making more than \$500,000. All the analyses here were also conducted on this dependent variable and were qualitatively the same. See Appendix for these results.

	(1)	(2)	(3)	(4)	(5)	(6)
Equal Treatment	-2.204	-2.395	-2.394	-2.308	-2.387	-2.395
	(0.418)	(0.444)	(0.444)	(0.448)	(0.447)	(0.444)
	0.000	0.000	0.000	0.000	0.000	0.000
Right Ideology			0.171			
			(0.257)			
			0.506			
Republican Party ID				-3.072		
				(1.323)		
				0.021		
Work vs. Luck					-0.386	
					(1.209)	
					0.750	
Inequality Aversion						-0.489
1 0						(0.357)
						0.171
Constant	34.346	39.010	37.837	38.961	37.680	41.213
	(1.658)	(3.094)	(3.279)	(3.106)	(3.711)	(3.530)
	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
Demographic Controls	No	Yes	Yes	Yes	Yes	Yes
2 cmc8rapine concrete	1.0	100	100	100	100	100
Observations	952	876	876	876	876	876
R-squared	0.032	0.046	0.047	0.051	0.046	0.049
S.E.R.	17.64	17.90	17.90	17.86	17.91	17.88

Table 5: *Equal Treatment and Top Rate Opinion*. The table reports the results of OLS regressions of the variable *Top Rate Opinion* on *Equal Treatment* and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values.

age, education, education, and income.¹⁷ The inclusion of these demographic variables increases the absolute value of the coefficient on Equal Treatment.

We next added variables measuring respondent ideology and partial partial principle and its influence on policy preferences. The estimates for Models 3 and 4 are inconsistent with this intuition. Adding these variables has almost no impact on the magnitude of the *Equal Treatment* coefficient.

Beliefs about the relative role of luck and effort may also be important for tax policy and redistributive policy preferences, with individuals being less willing to tax income and wealth if they believe that effort rather than luck and connections was important (see e.g. Piketty 1995, Roemer 1998, Alesina and Angeletos 2005). To measure this belief, we asked respondents the following question:

Some people say that people get ahead by their own hard work; others say that lucky breaks or help from other people are more important. Which do you think is most important?

Respondents were given three response options "Hard work is most important," "Hard work and luck are equally important," and "Luck is the most important." In our sample, very few respondents chose the "Luck is the most important" option, and so we dichotomized the measure. The variable *Work vs. Luck* is equal to one if the respondent gave the "Hard work is most important" response and zero otherwise. In our sample, the correlation between *Work vs. Luck* and *Equal Treatment* is very low (0.035). Not surprisingly, adding this variable to the regression model (Model 5) has no impact on the estimated coefficient for *Equal Treatment*.

 $^{^{17}}$ Female equals 1 if respondent is female and 0 if male. White equals 1 if respondent identifies as white and 0 otherwise. Dichotomous indicator variables for age categories 31 to 50, 51 to 65, and greater than 65 were used with 18 to 30 being the omitted category. Two indicator variables for educational attainment were used for "some college" and "college degree or more" with "high school degree or less" being the omitted category. Household Income 2015 indicates the self-reported household income category of the respondent for 2015.

Another potential confounder with our equal treatment measure is inequality aversion. We investigated this issue by asking respondents the following question:

The American households with incomes in the top 10% earn an average of \$230,000 per year, and households with incomes in the bottom 50% earn an average of \$25,000 per year. Should this difference be (smaller, bigger / bigger, smaller), or about what it is now?

Respondents were then given three response options "Smaller," "Bigger," and "About what it is now." Then individuals who responded "Smaller" and "Bigger" were asked whether the difference should be "A great deal [smaller/bigger]," "Moderately [smaller/bigger]," or "A little [smaller/bigger]." We constructed the variable Inequality Aversion as a seven point scale ranging from 1 "a great deal bigger" to 7 "a great deal smaller". In our sample the correlation between Inequality Aversion and Equal Treatment is zero (0.001). This is an important fact and it suggests that there are individuals who want to do something about inequality but also adhere to the equal treatment criterion for fairness, leading them to have very different views about the fairness of taxing the rich more heavily than everyone else. Model 6 in Table 5 Equal Treatment and Top Rate Opinion. The table reports the results of OLS regressions of the variable Top Rate Opinion on Equal Treatment and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values.table.caption.7 reports the results of the regression of Top Rate Opinion on Equal Treatment, Inequality Aversion and the full set of demographic control variables. The estimated coefficient for Equal Treatment is negative, statistically significant, and of approximately the same magnitude as in the other specifications. In contrast, the coefficient for *Inequality Aversion* is negative rather than positive, and it is imprecisely estimated.

Finally, one might suggest that our argument about commitment to equal treatment fairness criterion and tax policy opinions could be applied to many forms of government spending as well. Many types of government spending programs benefit some citizens more than others, and a commitment to equal treatment may dampen enthusiasm for big government. Alternatively, citizens believing in equal treatment might want to see more government spending precisely to see that equal treatment in areas such as education is actually respected. Our survey recorded answers to the following standard question about government services:

Do you think that the government should provide more services than it does now, fewer services than it does now, or about the same number of services as it does now?

Respondents were then given three response options "More," "Fewer," and "About the same." Then individuals who responded "More" and "Fewer" were asked whether the difference should be "A lot [more/fewer]," "Somewhat [more/fewer]," or "Slightly [more/fewer]." We constructed the variable *Government Services* as a seven point scale ranging from 1 "a lot fewer" to 7 "a lot more". Table 6*Equal Treatment and Government Services Opinion*. The table reports the results of OLS regressions of the variable *Government Services* on *Equal Treatment* and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values.table.caption.8 reports estimates from ordinary least square regressions of *Government Services* on *Equal Treatment* and various control variables employing the same specifications as in Table 5*Equal Treatment and Top Rate Opinion*. The table reports the results of OLS regressions of the variable *Top Rate Opinion* on *Equal Treatment* and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values.table.caption.7.

Across all six models, the estimated coefficient on *Equal Treatment* is negative and precisely estimated. This result is consistent with the expectation that individuals committed to an equal treatment fairness criterion are less supportive of expanding government services and government spending more generally that is likely to be targeted to different individuals based on characteristics such as economic hardship, age, geography, etc. While

	(1)	(2)	(3)	(4)	(5)	(6)
Equal Treatment	-0.184	-0.162	-0.162	-0.133	-0.159	-0.162
	(0.039)	(0.040)	(0.040)	(0.040)	(0.040)	(0.040)
	0.000	0.000	0.000	0.001	0.000	0.000
Right Ideology			-0.065			
			(0.025)			
			0.009			
Republican Party ID				-1.030		
1 0				(0.144)		
				0.000		
Work vs Luck				0.000	-0 164	
					(0.120)	
					0.120)	
Inequality Aversion					0.110	-0.098
Inequality Interston						(0.030)
						(0.052)
Constant	5 195	6 107	6 6 4 1	6 1 9 0	6 959	6.640
Constant	0.100	(0.197)	(0.041)	(0.100)	(0.203)	(0.040)
	(0.145)	(0.280)	(0.331)	(0.280)	(0.285)	(0.309)
	0.000	0.000	0.000	0.000	0.000	0.000
	NT	17	V	17	V	V
Demographic Controls	INO	res	res	res	res	res
Observations	952	876	876	876	876	876
R-squared	0.021	0.102	0.110	0.159	0.104	0.112
S.E.R.	1.833	1.762	1.755	1.707	1.761	1.753

Table 6: *Equal Treatment and Government Services Opinion*. The table reports the results of OLS regressions of the variable *Government Services* on *Equal Treatment* and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values.

our focus is primarily in accounting for tax policy opinions and tax policy outcomes, this suggests the possibility that there are a wide number of policy problems for which the application of the equal treatment principle will have a clear policy implication and be influential for opinion formation.

5.3 Equal Treatment and Policy Opinions: Experimental Evidence

We have not yet asked whether being committed to equal treatment or being exposed to such arguments has a causal effect on policy preferences. It could alternatively be the case that expressing support for equal treatment is a characteristic of individuals who are already opposed to progressive taxation in the first place.

One way to approach this problem would be to look back to history and see if there is some random source of variation in terms of who received an equal treatment argument and who did not. This would be a tall order. The alternative strategy we adopt in this section is to conduct a survey experiment in which individuals are randomly assigned to read either an article on the importance of the one person one vote principle in a democracy or a control article about cell phone privacy. We then ask them their preferences for progressive or proportional taxation and see whether reading the treatment article appears to make a difference for their expressed opinion. This is a first effort at experimentally manipulating beliefs in equal treatment, and the results reported below are preliminary both because it is our first attempt and because not all of our data have been collected.

At the beginning of our survey, immediately after respondents consented to participate in the study, the survey randomly assigned them one of two articles. The full text of each article is reported in the Appendix, but it is useful to summarize their content here. The treatment article was entitled "One Person One Vote: An Uncontroversial Idea in an Era of Political Polarization," and it briefly reported the history of Supreme Court decisions from Baker vs. Carr in 1962 forward that established the one person, one vote principle in election law. The article ends with a quote from a commentator attesting to the degree of consensus about this principle: "Here is a set of decisions that has been completely accepted, there has been almost no resistance. One person, one vote is a difficult premise to argue with." The control article was entitled "Cell Phone Privacy: An Uncontroversial Idea in an Era of Political Polarization." The article describes a unanimous verdict by the Supreme Court differentiating cell phones from cars and other belongings that are often with a person when they are arrested, setting out cell phones for privacy protection. The article was chosen for the control condition because it also described a relatively uncontroversial principle in the law but one sufficiently interesting to hold the respondent's attention. We then asked respondents a few follow up questions about the assigned article to force them to think about what they had read.

The outcome variable for the experiment is a question about whether they prefer a progressive or proportional tax system. The exact wording of the question was:

Do you think individuals with higher incomes should pay a larger share of their income in taxes than those with lower incomes, the same share, or a smaller share?¹⁸

We constructed the variable *Progressive Tax Opinion* equal to 1 if the respondent indicated "larger" and 0 if the respondent indicated "the same share."¹⁹ 58% of respondents expressed a preference for at least a somewhat progressive tax system while a substantial minority expressed a preference for a proportional system. Table reports the basic difference of means test from the experiment.²⁰ Being assigned to read Article 1 about one person one vote reduced support for a progressive tax system by 6 percentage points on average. The standard error of the estimate is 3.4 (the t-test assumes unequal variances) and the p-value is 0.06. This estimate is substantively significant and marginally statistically significant.

¹⁸If respondents answered larger or smaller, we asked a follow up question that required them to indicate whether this change should be "much larger/smaller" or "somewhat larger/smaller."

¹⁹Very few respondents expressed a preference for a regressive tax system and these were dropped from our analysis.

²⁰The survey instrument employed an attention check question to identify respondents who were clicking through the survey or otherwise not paying attention to the questions. These observations have been dropped from the analysis.

	Percent Favoring Progressivity
Article 1	55.1
	(2.4)
Article 2	61.5
	(2.4)
Difference	-6.4
	(3.4)
t-stat	-1.881
p-value	0.060
Observations	838

Table 7: *Equal Treatment and Progressive Tax Opinion.* The table reports the percent of respondents favoring at least a somewhat progressive tax system by exposure to the treatment (Article 1 on "one person, one vote") and control (Article 2 on cell phone privacy). The table also reports the difference in means test (assuming unequal variances).

The placement of this experiment at the beginning of the survey allows us an opportunity to investigate if reading the treatment article about "one person, one vote" principles affected responses to our *Equal Treatment* variable which was designed to measure commitment to this fairness criterion. Our expectation is that the mechanism by which the treatment influenced progressive tax opinion is through making this fairness criterion salient. However, the treatment does not significantly shift responses to the equal treatment question. One possibility is that this question comes in the middle of the survey well after the article has been read and various other questions have been asked and the effect is short-lived. Another possibility is that the equal treatment question that we are using is not capturing the same ideas about equality as are being activated by the treatment article. Finally, it could be that the treatment is influencing tax policy opinions through a mechanism unrelated to our argument. We will pursue these questions in future research.

Our survey recorded the time that respondents spent reading the article that they were assigned. This alerted us to the possibility that not all respondents assigned to the treatment condition were actually treated because they could not have possibly read the

	IV Estimates
Read Article 1	-0.091
	(0.048)
	0.060
Constant	0.615
	(0.024)
F-test	988.5
F-test p-value	0.000
Observations	838

Table 8: Equal Treatment and Progressive Tax Opinion: IV Estimates. The table report IV estimates for the regression of Progressive Tax Opinion on Read Article 1 employing random assignment of Article 1 as an instrument for Read Article 1.

article for the length of time that they were on the page. As a preliminary exploration of the consequences of this non-compliance with the treatment, we conducted an instrumental variable analysis for which the endogenous variable was a dichotomous variable, *Read Article 1* equal to one if the respondent "read" the treatment article and zero otherwise (based on the number of words, we used 30 seconds on the page as the cutoff for whether it was possible for the page to have been read). The instrumental variable is a dichotomous variable equal to one if the respondent was randomly assigned to read Article 1 on "one person, one vote" and zero if assigned to read Article 2 on cell phone privacy. The instrument is, of course, highly relevant (F-test is equal to 988), and the exclusion restriction should hold because the treatment is randomly assigned, and exposure to the article cannot influence opinion except through reading it.

Table 8*Equal Treatment and Progressive Tax Opinion: IV Estimates.* The table report IV estimates for the regression of *Progressive Tax Opinion* on *Read Article 1* employing random assignment of Article 1 as an instrument for *Read Article 1*.table.caption.10 reports the results of the IV estimates for the regression of *Progressive Tax Opinion* on *Read Article 1.* The IV estimate indicates a 9 percentage point decrease in the support for a progressive tax system from reading the equal treatment article. Keeping in mind the caveats we have made for this preliminary analysis, this estimate suggests that not only is a commitment to equal treatment correlated with less progressive tax opinions, but making equal treatment more salient causes decrease support for progressive taxation.

6 Conclusion

Why hasn't US tax policy responded to rising inequality? We have argued in this paper that the US is hardly alone in experiencing this phenomenon, and the explanation may lie in contested voter notions of fairness. Many US voters subscribe to an ability to pay criterion for tax fairness. Ability to pay implies that if pre-tax inequality increases, then tax rates on the wealthy should also rise. But it's also clear that many other US voters adhere to a very different, equal treatment, vision of tax fairness where all should pay the same tax rate irrespective of how unequal things are. The simple fact that this argument has been used repeatedly for five hundred years suggests it may have some impact on tax policy. We have provided individual-level evidence that suggests that a commitment to equal treatment is observed in the American electorate, that this commitment is correlated with tax policy preferences, and there is some preliminary evidence that experimental manipulation of the saliency of equal treatment has a causal effect on tax policy preferences.

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A Sample

To be completed

B Alternative Measure of Top Rate Opinion—\$500,000

	(1)	(2)	(3)	(4)	(5)	(6)
Equal Treatment	-2.460	-2.775	-2.776	-2.632	-2.749	-2.775
	(0.449)	(0.481)	(0.482)	(0.485)	(0.480)	(0.480)
	0.000	0.000	0.000	0.000	0.000	0.000
Right Ideology			-0.145			
			(0.278)			
			0.603			
Republican Party ID				-5.020		
- •				(1.475)		
				0.001		
Work vs. Luck					-1.420	
					(1.357)	
					0.296	
Inequality Aversion						-0.419
						(0.387)
						0.280
Status Quo Promnt	3.460	3.379	3.355	3.485	3.303	3.422
	(1.285)	(1.353)	(1.355)	(1.343)	(1.358)	(1.353)
	0.007	0.013	0.013	0.010	0.015	0.012
Constant	40 914	47106	48 111	46.975	47.629	48 972
Constant	(1.888)	$(3\ 414)$	(3.850)	(3.418)	(3.487)	(3.840)
	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
Demographic Controls	No	Yes	Yes	Yes	Yes	Yes
0 1						
Observations	952	876	876	876	876	876
R-squared	0.040	0.062	0.062	0.073	0.063	0.064
S.E.R.	19.81	19.96	19.96	19.85	19.96	19.95

Threshold

Table A-1: Equal Treatment and Top Rate Opinion-\$500k Threshold. The table reports the results of OLS regressions of the variable Top Rate Opinion-\$500k Threshold on Equal Treatment and various control variables. The table reports OLS coefficient estimates, robust standard errors in parentheses, and p-values. The variable Status Quo Prompt is equal to one if the respondent saw the version of the question which also provided information about the status quo top rate of income taxation and zero if they did not.

C Description of Experiment

At the beginning of the survey after indicating their consent to participate in the study respondents were given the following introduction:

We are interested in what kind of news about the law and courts that people find important and interesting. Please read the following article. We will then ask you a couple of questions about it.

We then randomly assigned half the respondents to Article 1 and half to to Article 2. Article 1

"One Person One Vote: An Uncontroversial Idea in an Era of Political Polarization"

"People, not land or trees or pastures vote," Chief Justice Earl Warren wrote in 1964 in one of a series of cases that established the principle of one person, one vote in American election law. Each citizen's vote should count the same in elections. This principle has a special place among the landmark decisions of the Warren Court, it had an impact but it remains relatively uncontroversial. Before the 1960s, the Supreme Court shied away from ruling on controversies involving political representation and population. But in Baker v. Carr in 1962, the Supreme Court decided that people living in some parts of Tennessee had been underrepresented in the state legislature. Later decisions adopted the language of one person, one vote and argued that this principle was required in elections in order to reflect each citizen's political equality.

While nothing in American politics is without conflict, the one person one vote principle is central to almost anyone's intuitive understanding of democratic equality and has remained uncontroversial. As Henry P. Monaghan of Columbia Law School put it: "Here is a set of decisions that has been completely accepted, there has been almost no resistance...One person, one vote is a difficult premise to argue with."

Article 2

"Cell Phone Privacy: An Uncontroversial Idea in an Era of Political Polarization"

The fourth amendment of the United States constitution protects citizens against "unreasonable searches and seizures." The Supreme Court is unified that cell phones deserve protection from warrantless searches. In a 9-0 verdict, the Court, citing privacy concerns, came to a common conclusion despite its ideological divides: "Our answer to the question of what police must do before searching a cell phone seized incident to an arrest is accordingly simple—get a warrant."

The key issue in the case was whether cell phones were different than cars, wallets, purses, and other items typically with a person when they are arrested. These items are all subject to warrantless searches if the police have "probable cause" that a crime has been committed. In the ruling, Chief Justice John Roberts argued that that cell phones and other electronic devices are different. "Modern cell phones, as a category, implicate privacy concerns far beyond those implicated by the search of a cigarette pack, a wallet, or a purse...Cell phones differ in both a quantitative and a qualitative sense from other objects that might be kept on an arrestee's person."

We then asked respondents a few follow up questions about the article to force them to think about what they had read. We then asked them the question about tax policy discussed in the main text of the paper.