

# Income Distributions and the Relative Representation of Rich and Poor Citizens

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## **Abstract**

In this paper, we consider the impact of the income distributions in different countries on the representation of preferences for more or less government spending in different policy domains. We show that the more right-skewed the income distribution, meaning the more incomes in the upper half of the distribution are spread out compared to those in the lower half, the closer the preferences of middle-income citizens are to those of the poor relative to those of the rich. Since policies are more likely to be implemented by governments the more citizens support them, the poor are advantaged relative to the rich when the income distribution is more right-skewed. We use survey data from the Comparative Study of Electoral Systems (CSES), income distribution data from the Organization for Economic Cooperation and Development (OECD), and government spending data from the OECD and the World Bank.

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In recent years, numerous political scientists as well as non-academic observers of politics have focused on inequalities in influence on government policy associated with income. Studies by Bartels (2008), Gilens (2012), and Gilens and Page (2014) suggest that, while poor and middle-income citizens have little influence over government policy in the United States, rich citizens' preferences are strongly represented by government. Few studies have sought to assess whether such dominance by the best-off citizens exists in other contexts. Consequently, little is known about how contextual factors condition the representation of different income groups.

In this paper, we seek to determine whether governments cross-nationally are more likely to act on the preferences of rich and poor citizens. In particular, we seek to determine whether the income distribution in different countries has an impact on the structure of policy preferences and, indirectly, on the representation of the preferences of rich and poor citizens.

We consider whether the relative proximity of the incomes of citizens in the centre of the income distribution in different countries to those of citizens in the top and bottom fifths of the distribution helps account for the representational advantage of the rich. While not necessarily explaining why the rich may be advantaged in general, the income distribution should at least help explain why the rich are more successful in some countries than others.

Our analyses rest on two key assumptions. First, in general, the stronger the public support for a policy change is, the more likely governments are to implement that change. This may occur due to direct representation, when governments follow developments in public opinion, or indirectly, when governing parties are replaced by parties that more closely match public opinion (Soroka and Wlezien, 2010, 35-36). Gilens (2012) provides American evidence that supports this assumption. He finds that the probability of policy implementation increases with the proportion supporting the policy (73). Second, income at least partly influences citizens' policy preferences.

If income influences policy preferences, we should find that, the smaller the distance is

between the income of the richest citizens and that of citizens in the middle of the income distribution, the more people share the preferences of the rich. Conversely, the smaller the distance between the income of the poorest citizens and those in the middle of the income distribution, the more people share the preferences of the poor. Note that Lupu and Pontusson (2011) make a similar argument about how the shape of the income distribution induces middle-income citizens to feel more or less affinity with the poor. Future versions of this paper will seek to contrast its arguments with those of Lupu and Pontusson (2011).

If the degree of public support for a policy change matters to its likelihood of implementation, the relative proximity of the incomes of citizens in the middle of the income distribution to those of citizens at the low end of the distribution compared to the proximity of the incomes of middle-income citizens to those with high incomes should determine how likely it is that each group's preferences will be implemented. As has been pointed out by Enns and Wlezien (2011); Soroka and Wlezien (2014), when middle-income citizens have preferences that are closer to those of the rich, the rich should be advantaged. Conversely, when the preferences of people in the middle of the income distributions are closer to those of those of the poor, the poor should be advantaged. Thus, if the rich have a representational advantage, that advantage should vary across countries.

In this paper, we use data on preferences for more or less spending in eight different areas of policy asked in Module 4 of the Comparative Study of Electoral Systems (CSES) along with income distribution data from the Organization for Economic Cooperation and Development (OECD) and data on changes in spending from the OECD and the World Bank. We show that, the more the income distribution is right-skewed, the closer the preferences of citizens in the centre of the income distribution are to those of poor citizens than to those of the rich. We then show that, when rich and poor citizens disagree, the poor get their way when the income distribution is right-skewed and when middle-income citizens' preferences are closer to those of the poor than to those of the rich.

## Hypotheses

We first seek to show how income distributions influence the structure of spending preferences. In this paper, we divide citizens into three groups on the basis of their incomes. Poor citizens are those with the lowest 20% of incomes, rich citizens are those with the highest 20% of incomes, and middle-income citizens have incomes in the central 60% of the income distribution.

**Hypothesis 1** *The more spread out the upper half of the income distribution is compared to the lower half, the closer the preferences of middle-income voters are to those of poor citizens than to those of rich citizens.*

**Hypothesis 2** *The closer the preferences of middle-income voters are to those of poor citizens than to those of rich citizens, the better the representation of the poor relative to the rich.*

## Data

We use questions on preferences for more or less government spending from CSES Module 4. These questions are asked about spending on health care, education, unemployment, defense, pensions, business, police, and welfare. The CSES includes an income variable that places respondents into income quintiles. As mentioned above, we consider those in the lowest quintile the poor, those in the highest quintile the rich, and those in between the middle-income group. In the first set of analyses on the relationship between the income distribution and the relative proximity of preferences, like Soroka and Wlezien (2014), we code the spending preference variables from -2 to + 2, where -2 means “much less than now”, -1 means “somewhat less than now”, 0 means “the same as now”, +1 means “somewhat more than now” and + 2 means “much more than now”. For the second set of analyses on the representation of preferences, we simply consider net preferences for more/less spending in

each income group. We take the difference between the proportion saying they want more spending and the proportion wanting less spending.

For income distributions, we have two variables from the OECD on the ratio of incomes at the 90th percentile to those at the 50th percentile and the ratio of incomes at the 50th percentile to incomes at the 10th percentile. Similar to Lupu and Pontusson (2011), we take the ratio of the first ratio to the second as a measure of the shape of the income distribution. In other words, this ratio of ratios (called skew by Lupu and Pontusson (2011)) indicates how much more incomes are spread out in the upper half of the distribution compared to the lower half. Recall that we expect greater spread at the upper half relative to the lower half to increase the relative proximity of the preferences of middle-income citizens to the poor compared to their proximity to the rich. In turn, greater spread at the upper end should favour the representation of the poor relative to the rich.

We also use spending data from the OECD and the World Bank. For now, we have spending on education (World Bank), health care (OECD), and welfare (OECD). All spending data are per capita in constant local currency units. When assessing representation, we consider whether spending has increased or decreased in the first year and, when possible, the first two years following each election. At this point, data on spending are very limited. On education spending, we have data on spending from 16 countries from the year after the election and from eight countries from the second year following the election. On health spending, we have spending data from 19 countries, the year after the election and from 18 countries two years following the election. On welfare, we have data on spending from ten countries in the year following each election and from six countries in the second year following the election.

# Results

## Income Distributions and the Proximity of Preferences

We first consider how the shape of the income distribution influences the relative proximity of the preferences of middle-income citizens to those of the rich and the poor. Figure 1 shows the relationship between the degree to which the income distribution is right-skewed and the relative proximity of the preferences of middle-income preferences to those of the rich and to those of the poor. It shows preferences in all eight policy areas. We can see that, the greater the spread in the upper half of the income distribution relative to that in the lower half, the more distant the preferences of middle-income citizens are from the rich compared to the poor.

Figure 1: Relationship between the Shape of the Income Distribution and the Relative Proximity of the Preferences of Middle-Income Citizens to the Rich and the Poor

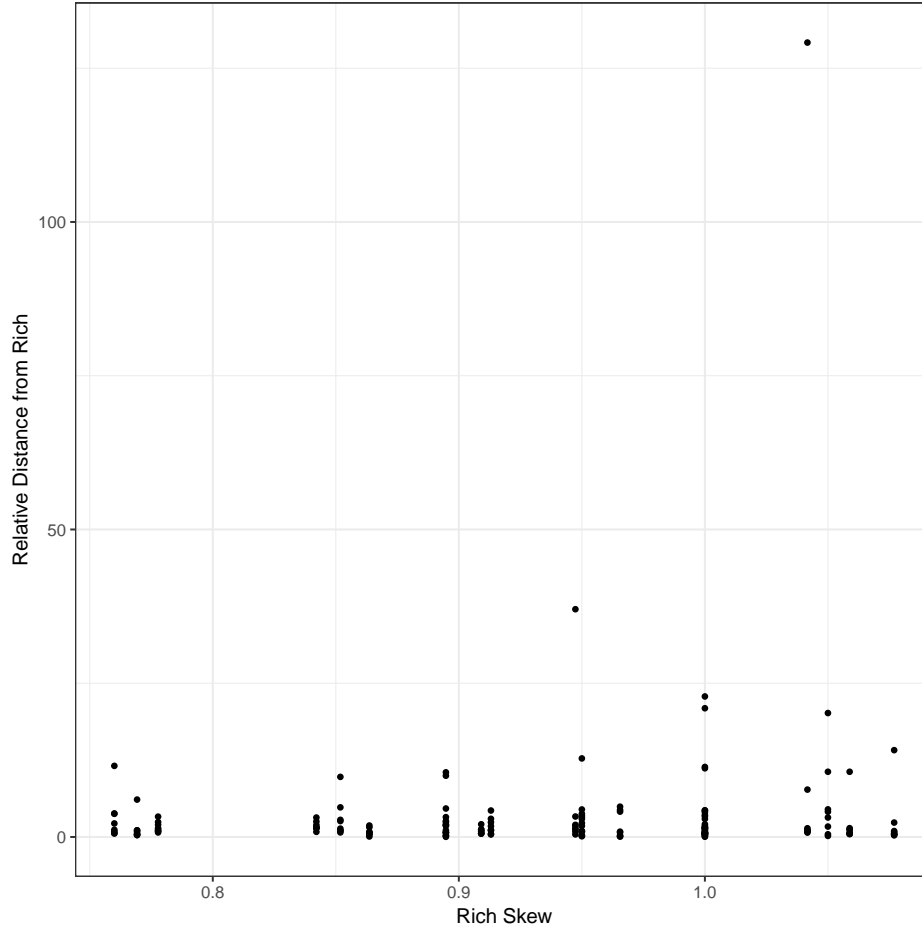


Table 1 shows the results of a regression of the relative distance of middle-income preferences from those of the rich relative to those of the poor on the degree to which the income distribution is more spread out in the upper half than the lower half. The model includes fixed effects for issue areas (reference category is health care). The relative distance between the preferences of the middle and the rich compared to the distance between middle-income people and the poor is greater on welfare preferences compared to health care preferences ( $p < 0.10$ ). Most importantly, the greater the right skew in the income distribution, the greater the distance between middle-income preferences and those of the rich compared to the distance between the middle and the poor ( $p < 0.10$ ). In short, the shape of the income distribution shapes the extent to which the rich and the poor share preferences with the

centre.



Table 1: Linear Regression of Relative Proximity of Preferences on Right Skewness of Income Distribution

Model 1	
DV: Relative Proximity of Preferences	
Intercept	-10.95 (8.40)
Education	0.26 (3.19)
Unemployment	-0.36 (3.19)
Defense	1.52 (3.19)
Pensions	0.29 (3.19)
Business	0.38 (3.19)
Police	0.18 (3.23)
Welfare	5.62 <sup>†</sup> (3.23)
Right Skew	14.37 <sup>†</sup> (8.68)
<i>N</i>	174
<i>R</i> <sup>2</sup>	0.04
adj. <i>R</i> <sup>2</sup>	-0.00
Resid. sd	10.59

Standard errors in parentheses

<sup>†</sup> significant at  $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

## **Income Distribution, Preference Proximity, and the Representation of Rich and Poor Citizens**

If the shape of the income distribution influences the relative proximity of the preferences of middle-income citizens compared to those of the rich and the poor, then, when the income distribution is more right-skewed, more people should share the preferences of the poor relative to the rich. In turn, the distribution of preferences across income groups should advantage the poor.

At this point, as mentioned above, we have very limited data on spending. We only have data on education, health care, and welfare. Moreover, data are available only for a small number of countries. In order to determine whether one income group is advantaged compare to another, we must first identify cases where preferences differ across income groups. To determine the preference of each group, we calculate their net support for spending by taking the difference between the proportion of respondents with that income who want more spending and the proportion who want less spending. In none of the cases for which we have data on education or health spending do we find differences in preferences between rich and poor citizens in those areas. Thus, we do not consider relative representation of preferences in those areas. On welfare spending, we find differences in four of the ten countries. In other words, in four cases, the aggregate preference of low income citizens is to increase/decrease spending, while the overall preference of high income citizens is a decrease/increase.

Overall, on welfare, the poor win more often than the rich. Of the four cases where the poor want more spending and the rich do not, the government increased spending on welfare three times. These are three countries where the income distribution is right skewed. These are Australia (2013), France (2012), and Switzerland (2011). In the one case (United States 2012) where the income distribution is not right-skewed, welfare spending does not increase. Moreover, in the three countries where spending did increase, the welfare preferences of people with middle incomes were closer to those of the poor than to those of the rich. Conversely, in the country where welfare spending did not increase, the welfare preferences

of people in the middle were closer to those of the rich than to those of the poor.

Consequently, the relative representation of the preferences of rich and poor citizens appears to depend on the income distribution and its effects on the structure of preferences across income groups.

## Conclusion

These preliminary results show that the shape of the income distribution shapes the structure of preferences. The more right-skewed the income distribution is, the closer the preferences of middle-income citizens are to those of the poor than to those of the rich. We also find that poor citizens get their way when their preferences conflict with those of the rich in countries where the income distribution is right-skewed and where the preferences of middle-income citizens are closer to those of low-income citizens than to those of high-income citizens.

These results suggest that findings by Bartels (2008) and Gilens (2012) that the rich have disproportionate influence over policy in the US do not generalize to other contexts. Our results suggest that when the income distribution is more compact at the lower level, as it tends to be in countries with strong welfare states, the poor can actually get their way even when their preferences conflict with those of the rich.

Obviously, these results are dependent on a very small dataset. We expect the number of cases to expand as the CSES releases more data. The number of cases will also expand as we obtain data on spending from more countries and from more policy areas.

## References

- Bartels, Larry M. 2008. *Unequal Democracy: The Political Economy of the New Gilded Age*. New York; Princeton: Russell Sage Foundation; Princeton University Press.
- Enns, Peter K. and Christopher Wlezien. 2011. Group Opinion and the Study of Representation. In *Who Gets Represented?*, ed. Peter K. Enns and Christopher Wlezien. New York: Russell Sage Foundation pp. 1–25.
- Gilens, Martin. 2012. *Affluence and Influence: Economic Inequality and Political Power in America*. Princeton, N.J; New York: Princeton University Press; Russell Sage Foundation.
- Gilens, Martin and Benjamin I. Page. 2014. “Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens.” *Perspectives on Politics* 12(3):564–581.
- Lupu, Noam and Jonas Pontusson. 2011. “The Structure of Inequality and the Politics of Redistribution.” *American Political Science Review* 105(02):316–336.
- Soroka, Stuart and Christopher Wlezien. 2014. “Responsiveness and Representation A Preliminary Analysis of Wave 4 CSES Data.”
- Soroka, Stuart Neil and Christopher Wlezien. 2010. *Degrees of Democracy: Politics, Public Opinion, and Policy*. Cambridge: Cambridge University Press.