When do the Rich Win?[*]

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Abstract: There is growing interest in the influence of economic "haves" and "have-nots" on public policy. In a widely referenced article, Gilens and Page (2014) compare the influence of upper and middle-income citizens and find that the preferences of the former are all that matter for policy. Here, we reconsider this possibility, examining how often the rich win and the kinds of policies they get. We find that the rich and middle almost always agree and, when they disagree, the rich win only slightly more often. Even when the rich do win, resulting policies do not lean point systematically in a conservative direction. Incorporating the preferences of the poor produces similar results; though the poor do not fare as well, their preferences are not completely dominated by those of the rich or middle. Based on our results, it appears that inequalities in policy representation across income groups are limited. The rich still do matter, seemingly more than they should, and this may have substantial consequences for policy, particularly as effects cumulate over time. It also may be that income does not matter very much, and that other divisions in the electorate or other actors are more relevant for policy.

A major theoretical justification for representative democracy is that it puts power in the hands of the people. Political scientists have tested whether this actually is true by assessing the degree to which policy reflects citizens' preferences. Recent work finds that public policy is frequently responsive to the will of the people, but that there is significant variation across policy domains.[1] There may be variation in to whom policy is responsive as well. Indeed, recent work suggests that policy is responsive primarily, or even solely, to the richest Americans, at the expense of the middle class and poor.[2]

The finding of such pronounced inequality in political representation clearly contrasts with the normative basis for representative democracy. It is not entirely surprising, however. The rich have more time and money to give to campaigns, and politics more generally.[3] They also tend to vote more often, and evidence suggests that voters are better represented than non-voters.[4] That the rich are better represented than the poor is what we might therefore expect. For similar reasons, we might expect that the middle also are better represented than the poor.

Perhaps more surprising would be that the rich are better represented than the middle. The median voter carries special importance in representative democracy.[5] To the extent that governments react to voters, they should be especially responsive to the middle; it is tyranny of the majority that is the major concern in classic empirical democratic theory, after all.[6] Yet recent research by Gilens and Page (2014) argues that the preferences of average-income Americans play only a marginal role in the formation of policy. Indeed, they claim that, "When a majority of citizens disagrees with economic elites or with organized interests, they generally lose."[7]

Scholars who find differences in policy representation across groups focus on a model that looks like the following:

$$P_j = f\left(Opinion_j^{mid}, Opinion_j^{rich}\right),$$

where P represents a proposed policy in issue area j, $Opinion_j^{mid}$ represents the opinion of medium income Americans, and $Opinion_j^{rich}$ represents the preferences of high income Americans. Here, policy is a function of the preferences of middle and high income Americans, and corresponding analysis gauges the relative contribution of each. Gilens and Page (2014) find that $Opinion_j^{rich}$ completely dominates $Opinion_j^{mid}$.

We reconsider this issue below, though as we shall see our analysis is heavily influenced by the possibility that $Opinion_j^{rich}$ and $Opinion_j^{mid}$ are often not very different. Indeed, previous research already has shown that preferences across economic groups, and especially the middle and rich, do not differ much in many policy areas.[8] In these instances, it does not matter whether the government is more reactive to one group – policy will end up in the same place. This is not to say that it does not matter theoretically, of course – we would ideally want governments to react to all citizens.[9] We are acknowledging here only that it does not matter practically, as there will be no substantive difference in policy outputs.

Strong agreement between income cohorts thus complicates an analysis of unequal representation, making it difficult to identify the target of responsiveness.[10] It is well known in the statistical literature that regression analysis with highly correlated independent variables is problematic.[11] The collinearity between preferences may explain why scholars have reached such different conclusions: while Gilens and Page conclude that the rich are best represented, others find that the poor are better represented than the rich,[12] and still others show that the relationship varies across issues.[13] Indeed, some previous work suggests that multicollinearity complicates Gilens and Page's own analyses.[14]

We propose focusing on a subset of polices for which we find clear disagreement across majorities of middle and high income citizens. We derive this subset from Gilens' dataset, made available through the Russell Sage Foundation website. This is the same dataset used by Gilens and Page;[15] it provides public preferences imputed across income percentiles for a wide range of specific policies.[16] Our analysis focuses more clearly on the situation that is a central concern in the Gilens and Page paper, namely, "when a majority of citizens disagrees with economic elites."[17] We would argue that this is the set of policies that is of greatest theoretical interest as

well. Moreover, focusing on these cases has the added benefit of averting some of the problems associated with multicollinearity in regressions. We accordingly use these data to consider two crucial questions:

- How often do the preferences of the middle and rich disagree? and,

- When they disagree, who wins?

Our analysis proceeds as follows. We first compare the preferences of the rich and the middle, and find the rich and middle rarely disagree; in nearly 90 percent of cases, majorities of the middle and rich are in agreement. Next, we investigate what happens when the two groups disagree, and find that the rich win more often than the middle, though not strikingly – or significantly – so. We then consider the kinds of policies on which the rich and middle win. Our suspicion is that readers of Gilens and Page (and related work) have been drawing the inference that the rich advocate and win on conservative policies that give them economic advantages, such as tax cuts, over the objections of the middle (and poor). We find very little evidence to support such an inference, however. Finally, we bring the preferences of the poor into the analysis, the results of which indicate that the poor do slightly worse than other income groups, though even they occasionally win over the preferences of the middle or the rich. What inequality we do observe here appears to come mostly from negative power, where the middle and rich effectively block many of the policies that the poor favor.

The Middle and the Rich

As noted above, the potential for unequal policy representation depends on differences in preferences between income groups. Let us consider differences using Gilens' dataset. The data include responses to 1,863 survey questions about potential policies over the 1981-2002 period. Of those, 84 have mixed outcomes, where the policy in question was partly adopted. Following

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Gilens, we drop these partially adopted policies. This means that our analysis rests on the same 1,779 policies that Gilens and Page analyze.[18]

Gilens estimates levels of support for each of these policies across various income percentiles using observed information about support among income groups.[19] For our analysis, we focus on support by those at the 10th, 50th, and 90th percentiles, the same percentiles used by Gilens.[20] Relying on imputed data limits what we can infer, of course, but the nature of the opinion data, in which income questions vary in both response categories and availability, makes the imputation necessary. And relying on Gilens' imputations has the added advantage of allowing us to assess the structure of preferences that formed the basis for what is perhaps the most influential political science article on political inequality to date.

[Figure 1 about here]

Figure 1 plots high and middle income support for each of the 1,779 policies. Middle-income support is on the x-axis and high-income support is on the y-axis; bills that passed are in black while those that failed are in gray. The diagonal dashed line shows the point at which the two groups' preferences are identical, and thus also distinguishes between policies that receive more support from the rich (above the line) from policies that receive more support from the middle (below the line).

As Gilens and Page note, preferences are very highly correlated. The Pearson's *r* between the two is a striking 0.94. Gilens and Page report that the correlation drops to 0.78 when adjusting for correlated measurement error, though it is unclear whether we are dealing with correlated measurement error or simply correlated preferences; see analysis and discussion in the Appendix, and Enns (2015).[21] This complicates regression analysis, as discussed above. We do not use regression in our main analysis, but we do present results paralleling Gilens and

Page's methodology in the Appendix. Those results support the findings we present in the body of the paper.

It is clear from Figure 1 that there is a positive relationship between (a) the preferences of both the middle and rich and (b) government action. In the lower-left corner, bills without support from either the middle or the rich are likely to fail, indicated by the predominance of gray dots, though some of these bills still pass. In the upper-right corner, bills with support from both the middle and rich are more likely to succeed, though many of these fail as well. Consistent with previous research, the relationship between opinion and policy is far from perfect.

[Table 1 about here]

The spread of points in Figure 1 also indicates that while the relationship between middle and rich preferences is strong, it is not perfect. Table 1 provides an alternative analysis of the same data, focused on majority support or opposition among the high and middle income groups using 50 percent as the cut-point between support and opposition. Here we can see that the rich and middle agree on 1,594 bills: the 616 bills that both groups oppose, and the 978 bills that both groups favor. This amounts to 89.6 percent of the 1,799 bills. To be clear: although the magnitude of support may differ across the middle and rich, on 89.6 percent of these bills there is majority support, or majority opposition, in both income groups. On all of these policies, an analysis of "majoritarian congruence" would predict exactly the same outcome.[22]

A majority of the middle disagree with a majority of the rich on just 185 bills – 78 that the middle favor and the rich do not, and 107 that the rich favor but the middle do not. Although this is not evident in the table, note that when the middle and rich disagree it often is not by much: by 10.9 percentage points on average. While seemingly small, this is larger and

significantly different from the preference gap when they agree, which is a mere 5.2 percentage points ($p < 0.001$). Overall, then, there is a tremendous amount of agreement in preferences, but there are also 185 instances in which the middle and rich clearly disagree. These are the policies which allow us to explore, reliably, whose preferences win out in the policymaking process.

This raises an important difference between our analyses and that of Gilens and Page (2014): whereas their work examines the magnitude of support in both income groups, we focus here on dichotomous majority support (within each income group). This has implications for tests of influence. For instance, on policies where both the middle and the rich agree, bills are about 10 percentage points more likely to be passed (or blocked) if support from the rich is greater (less) than support from the middle. (See Appendix Table A1.) This may help explain why Gilens and Page (2014) find evidence in their regression analyses for the rich winning over the middle; see the additional analyses and discussion related to Appendix Table A3.[23]

Our interest is in addressing what happens when the middle and rich disagree, and we thus do not consider this dichotomous approach as contentious – indeed, we regard it as a more appropriate way of linking preferences with the passage or failure of bills. As discussed above, it averts the problems associated with using regression analysis with highly correlated regressors. The approach also fits with a large body of previous work on policy congruence, which focuses on the passage of bills and their match with opinion majorities.[24] Perhaps most importantly, it directly addresses what Gilens and Page conclude on the basis of their results, namely, that when a majority of citizens disagree with economic elites, they generally lose.[25] We now turn to testing that proposition.

Who Wins when the Middle and the Rich Disagree?

Figure 2 illustrates the way in which we narrow the dataset. The 1,594 policies on which the middle and rich agree cannot provide any leverage on questions about differential representation – these polices are shown here as light gray circles. The remaining 185 policies – instances in which a majority of one group supports the policy while a majority of the other does not – can offer direct information about majoritarian congruence. As we have seen, there are 78 cases in which the middle favors the policy but the rich oppose it. These are the cases below the dashed line, illustrated as black squares for policies that passed, and gray squares for policies that failed. Above the dashed line there are the 107 cases, illustrated in the same way, in which a majority of the rich favors the bill while a majority of the middle opposes it. Note that based on these numbers, when preferences differ, it is more often the case that the rich favor passage and the middle prefer the status quo.

[Figure 2 about here]

What happens when preferences differ? Just how often do the rich win? We can see in Figure 2 that the rich do not always win: there is a mix of both gray and black on both sides of the dashed line. Note however that a win for the rich over the middle can occur in two ways. The first is where a majority of the rich support the policy and the policy passes. These are the aforementioned black squares above the line in Figure 2. The second is where a majority of the rich oppose the policy and the policy fails. These instances are indicated by the gray squares below the line in Figure 2. This sort of negative power can be quite powerful in the political arena. Our analysis must focus, then, on a combination of these positive and negative wins.

[Table 2 about here]

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Table 2 rearranges our cases in a way that makes the derivation of these win-rates clear. The first two columns show the number of policies favored by the middle (first column) or the rich (second column). Rows split these policies by whether they passed or failed; and, equivalently, whether the middle or rich won. So there are 20 policies that received majority support from middle-income respondents (and majority opposition from the rich) and passed. By contrast, there are 58 policies that were favored by the middle (and opposed by the rich) and did not pass. In the former cases, the middle won; in the latter, the rich won. Taking into account the first and second columns, the third column reports the total number of wins for each group. For the middle, there are 87 wins (47 percent of all cases); for the rich, 98 wins (53 percent of all cases). There is a small gap in win rates, but note that it is not significantly different from 50 percent ($p = 0.41$).

Results differ only a little when we further restrict our analysis to cases where there is a clear gap between preferences of the rich and the middle. For instance, for the 101 cases where preferences differ by at least 10 percentage points – the same cutoff Gilens uses in some analyses[26] – the number of middle wins is 45 of 101; for the rich it is 56 of 101. Again, this difference is not statistically significant ($p = 0.86$).

It is well known that it is harder to pass legislation in the US than block it, and it is important to take this into account in our analysis. When doing so, the rich do slightly better: if a majority of the rich favor a policy and a majority of the middle opposes, the policy is adopted 37% of the time; by contrast, when the middle favor a policy and the rich are opposed, the policy is adopted 26% of the time. The difference is statistically significant ($p = 0.05$). Although the rich do slightly better here, they still do not dominate the middle.

Over the 22-year period of the study, the rich won just 11 more times than the middle; this is equivalent to the rich netting one bill every other year. Admittedly, this does not include all policy decisions taken, but it should include those salient, seemingly important ones – these are the policies about which survey organizations ask, after all.[27] These results thus do not provide evidence of high-income dominance of American politics. The rich are systematically overrepresented, it seems, just not by much. Of course, small differences in the number of policies can make a difference, particularly as they accumulate over time. This is more difficult to measure. We can, however, gain some sense of the accumulating policy impact by assessing the ideological orientation of the policies on which the rich and middle win.

The Ideological Disposition of Policy Wins

To what extent do rich wins push policy in a conservative direction? The answer to this question is significant. If rich wins always result in conservative policy, then they can make a rather large difference over time. We suspect that this is the inference many readers of recent scholarship have drawn. To our knowledge, however, this has not been systematically analyzed. And it is not necessarily the case that all rich wins result in conservative policy. After all, we know that income is positively related to education, and while the former can push individuals towards the right, the latter can sometimes push towards the left.[28] This has been well-established in work on public opinion, and it may help explain why several of the rich wins in these data actually lead to leftward policy shifts. For example, a majority of the rich supported expanding access to abortion via the French abortion pill RU-486; even though the middle were opposed, the policy changed.

We thus explore the ideology of bills directly by coding the 185 policies where the middle and rich disagree. Incomplete data forces us to drop 19 cases, leaving 166 observations in

the analysis; see the Appendix for details. These 166 bills are coded for ideological direction by the authors, as the ideological direction of most policies is relatively clear. Bills that expand the size or scope of government, including raising revenue, are coded as ideologically liberal. Social issues are also coded according to their ideological location at that time. So, for example, conservative policies include enacting NAFTA or restricting access to abortion or birth control; liberal policies include tax increases and affirmative action policies. Our coding allows for ideologically neutral policies as well; these tend to be concerned with foreign affairs and defense.

[Figure 3 about here]

The breakdown of these bills is shown in Figure 3. The left panel shows the 75 policies the middle won; the right panel shows the 91 policies the rich won. Black bars show policies that passed, gray bars show blocked policies. Across the board, the prevalence of the latter in Figure 3 indicates that it is easier to block policies than pass policies, which is understandable given the bias of American political institutions towards the status quo.

Let us consider first the ideological complexion of blocked bills. The middle appear to block policies without regard to ideology – the gray bars on the left, middle, and right are roughly the same height. The rich, on the other hand, block non-ideological and left-leaning policies a little more frequently than conservative policies. The middle blocked 21 conservative bills and 20 liberal bills, whereas the rich blocked 20 liberal and 11 conservative bills.

What about passed bills? The middle passes bills that are either lack a clear ideological bent, or are on the left. Notably, there are no cases of the middle passing an ideologically conservative bill over the objections of the rich in the entire 22-year dataset, though there are 11 instances of the middle wanting a conservative bill that the rich block. Similarly, bills that the

rich successfully pass tend to be slightly more conservative, though not strikingly so: the rich passed 8 liberal policies over the objections of the middle, alongside 15 conservative polices – only slightly greater than the number of similar non-ideological bills. One concern not addressed here is that the wealthy are especially successful with economic bills, but there is no evidence for this in the data; see the Appendix for a brief analysis.

In sum, since the rich win more than the middle (see Table 2), and since they prefer policies to the right (Figure 3), policy change is more conservative than it would be otherwise. The difference in any given year is small: of the 91 ideologically-coded bills for which the rich won, only 15 of those are bills that pushed the status quo in a conservative direction. This represents a minority (28 percent) of bills that the rich passed over the objections of the middle; and it represents less than one conservative bill per year in the sample. Even so, as we have noted, such seemingly small annual differences may accumulate and have big effects over time.

Bringing the Poor Back In

The mathematics of representative democracy suggest that policy should follow middle-income preferences (the median voter). This makes a comparison of the rich versus the middle important – it is a test of whether high-income citizens are prioritized over what representative democratic elections should (mathematically speaking) produce. At the same time, normative concerns about inequality are not just about the under-representation of the middle; they are also, if not more often, concerned with the under-representation of the poor. Political science does not have a predominant theory as to why the poor would be better represented than the middle or the rich. The point is not that the poor should not matter, of course, just that we have stronger expectations about the representation of the middle and rich. So far, we have seen that the rich do a little better than the middle. What about the poor?

Analysis incorporating the poor reveals broad policy agreement among all three groups. Indeed, majorities of all three groups agree on 80.2 percent of the policies. That said, the variation between the poor and rich is much greater than that between the poor and middle. The Pearson's *r* correlation for the preferences of the poor and rich is 0.84, whereas the correlation between the poor and middle is 0.93. Recall from above that the correlation between the middle and rich is 0.94. So the poor and middle are roughly correlated to the same degree as the middle and rich. But what happens when they disagree?

[Table 3 about here]

Table 3 shows the passage rate of policies for different combinations of support among the poor, middle and rich. Note that this table includes the entire Gilens dataset, not just the subset previously analyzed. The top half of the table shows policies for which either all three income groups are opposed (the first row), or only one of the three groups supports the policy. As we can see, even if a majority of all three groups are opposed to the policy, it still passes roughly 24 percent of the time. If the middle or rich want the policy, it passes more often, though still not most of the time. Even so, support from just the middle or rich seems to lead to bill passage more reliably (37.5 percent and 38.5 percent respectively) than if just the poor support the bill (18.6 percent). Indeed, the passage rate for bills supported by just the poor is lower than the rate for bill unsupported by all groups (although this difference is not statistically significant). These results suggest that the rich and middle may be effective at blocking policies that the poor want.

The bottom half of Table 3 shows what happens when various combinations of income groups support passage. Even if a majority of all three groups favor a policy (in the final row), that bill passes only 40 percent of the time. The rich seem most effective at blocking bills they do

not want – if a majority of the middle and poor want a policy, and the rich do not, the passage

rate (20.4 percent) is comparable to the rate when all three groups are opposed. The rich do fare

the best, but the middle do only slightly worse. Perhaps most notably, adding the support of the

poor does not increase passage rates very much.

It is not the case that the preferences of one income group totally dominate policymaking.

The rich do slightly better than the middle, and the poor are least successful. It is important not

to lose sight of the fact that all three income groups agree on the vast majority of cases, however,

more than 80 percent, and the differences in success rates when there is disagreement are not

great. There are inequalities to be sure, but they are limited.

Discussion: Who Wins?

Recent research suggests that U.S. policy is only responsive to the preferences of high

income citizens. Disagreement in policy preferences is a necessary condition for differential

representation, however. If majorities in different income cohorts prefer the same policy, we

cannot distinguish whose preferences are being represented. The government might follow the

rich, or the middle, or even the poor – but policy will end at the same place. To assess the extent

of differential representation, then, we have examined policies where there is disagreement

between majorities in different income groups.

Results suggest that across a wide range of policies, disagreement on policy across

income groups is rare. The preferences of rich, poor, and middle income Americans are

correlated at what we regard as astonishingly high rates. That said, income groups do not agree

on all policies, and we find that when the rich and middle disagree, it is very nearly a coin flip as

to which group wins. While this may be more encouraging (normatively speaking) than recent

scholarship, a 50-50 split between the 50th and 90th income percentiles not necessarily an equal

result, given what the median voter theorem would expect. If middle-income wins tend to move policy closer to the median voter, then these high-income wins will tend to move policy further away.

The potential impact of high-income wins is at its greatest if the rich pass policies in one ideological direction. This does not seem to be the case, however. There is only a slight right-leaning bias in those adopted policies that were supported by the rich and opposed by the middle. Our analyses thus suggest that policy in America is only a little to the right of where it would be if preferences of those with middling incomes determined policy. The poor seem to do less well than both of the other groups at getting policies they want passed, though the poor are often successful at blocking policies they dislike.

It is also important to keep in mind that not all policy decisions are about preferences of the rich, middle, and poor. Party control of government is a key variable in the policymaking process. For instance, the rich seemed to do less well during the Johnson and Obama presidencies, with the Great Society programs, the Affordable Care Act, and other various tax increases. They did better under Reagan's "Reagonomics" and income tax reduction. It may be of some significance then that the time period analyzed (1981 – 2002) is one during which the Republicans controlled the presidency the majority of the time, 14 years out of 22. Adding the post-2002 period may well change results. This is, of course, a testable prediction, and one we leave for future work.

While explaining differences in the representation of income groups is important, what may be more pressing is understanding why there exists such broad policy agreement across income groups. Why would the poorest and the richest Americans, who ostensibly have very different needs from the government, agree to such an extent? This seemingly puzzling empirical

finding emerges not only in our current analysis but in virtually all investigations of inequalities in representation by income groups. It accordingly may be that the striking similarity in preferences, not marginal differences in the representation of those preferences, is the real story. This perspective is in line with Bartels' influential "Homer Gets a Tax Cut" paper, where the emphasis is on the troubling structure of public preferences for social welfare policy.[29] Alternatively, it may be that income is not the most salient cleavage where policy preferences are concerned, or at least that there are many other competing, cross-cutting, cleavages. This too is another subject for future work – and an important one for those interested in inequalities in policy representation in the United States.

Appendix

Details on coding ideology

The full text of some survey questions is not readily available in the Gilens and Page data, but we are able to recover enough of the question text in 166 cases of the 185 to code by ideology. Questions where the full text was not available were found using the Roper Center iPoll database. Partial question text from the Gilens data was matched to full question text in the Roper Center by searching for the partial question text and the year that the question was asked (indicated in the Gilens data). We could not find the full question text of nineteen questions, and so are forced to drop those from the analysis. The remaining 166 policies were then coded as liberal, conservative, or neutral. The authors coded these themselves, as the ideological direction of policies was clear when the full text was available. The data are available online at (the Harvard Dataverse: http://dx.doi.org/10.7910/DVN/UZSQTV).

The Strength of Policy Support and Policy Adoption

Table A1 shows policy passage for bills that are jointly supported or opposed by the rich and the middle, across varying strengths of policy support or opposition by income group. For issues in the two leftmost columns, both the rich and the middle supported the policy. For issues on the right, both groups opposed it. Note that when majorities of both groups agree (are either both opposed or both supportive), the rich are 10 percent more likely to be in greater support or opposition. This may help account for why scholars find differences in policy representation using regression-based methods. Also see the analysis in Table A3 and the associated discussion below.

[Table A1 about here]

Policy Support and Adoption for Economic and Social Issues

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Issues coded in Gilens' original dataset as pertaining to the budget, economy and labor, and taxation were recoded as economic issues. Defense and terrorism were omitted, and all other issue areas were coded as social issues. Table A2 reproduces the analysis in Table 2 separating out just these re-coded bills. Note that the win rates for the two issue types are not statistically different from one another.

[Table A2 about here]

Analysis using Regression

As noted above, regression likely is not the best way to analyze these data, as it can give misleading results when the independent variables are highly correlated.[30] Indeed, one published article posits that Gilens and Page's analyses are questionable for this very reason.[31] This is part of the rationale for our alternative approach. That being said, some readers may be interested in whether our results are the product of a change in the method of analysis, rather than a focus on the subset of cases in which rich and middle-income preferences diverge. We accordingly examine this possibility below.

We begin by reproducing the main result from Gilens and Page's article (Table 3 in that paper), using structural equation modeling to correct for measurement error. It is not clear (to us) that this is the correct approach with these data, as it may be that we are dealing with correlated preferences and not correlated errors,[32] and the choice makes a difference, as we can see from Gilens and Page's own analysis. To allow for both possibilities, we report results using the structural equation modeling approach as well as non-structural equation modeling. The substantive message is the same in each case: when we subset the data to only those observations where the rich and the middle disagree, it is unclear whose preferences matter, if public opinion matters at all.

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Results are presented in Table A3. Model 1 is the structural equation model for the full set of cases used by Gilens and Page. Here we see that we can get very close to reproducing their results, although there are minor differences, perhaps due to our use of a structural equation model estimation in R rather than in AMOS. Model 2 shows results based on the same approach, but including only the instances on which a majority of the two groups agree. Note the similarities between Models 1 and 2 – similarities which we take as an indication that Gilens and Page's results reflect in large part on the policies where majorities of these two groups agree with each other.

This suspicion is confirmed in Model 3, which replicates the analysis using the observations we are most interested in – the 185 cases where a majority of the rich disagrees with a majority of the middle. Model 4 explicitly models the binary nature of the dependent variable. Models 5 and 6 are OLS and probit models respectively, corresponding to Models 3 and 4, but without a structural equation component.

[Table A3 about here]

Results from these regression-based models, SEM and non-SEM alike, are similar: all indicate that when we subset the data to only the cases where the rich and the middle disagree, we cannot tell whether rich or the middle income preferences make any difference whatsoever to policy outputs. This is as true when we treat the dependent variable as interval-level (Models 3 and 5) or binary (Models 4 and 6); it is also as true in SEMs (Models 1 through 4) as in non-SEMs (Models 5 and 6).

In sum, results suggest that Gilens and Page's results are driven primarily by differences in opinion on policies for which majorities of the rich and middle agree. In other words, it is not

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whether (and how much) the rich and middle disagree, but how much the rich and middle differ when they agree, that matters for the Gilens and Page findings.

An Additional Regression-Based Approach

An alternative way to explore the relative impact of the middle and the rich is to rely on a specification that removes the high levels of multicollinearity between the preference variables. One way is to create a new variable that represents the difference between support of the rich and support of the middle. Table A4 presents the results of such an analysis. There we can see that the approach produces the same basic findings as preceding analyses. The opinion of the rich does seem to matter more for policy passage, as indicated by the positive and statistically significant coefficient associated with "difference." However, it only matters when the rich and the middle happen to agree: when the two groups disagree, the marginal effect of "difference" on policy change drops to 0.80 (1.06-0.26) and is not statistically significant ($p = 0.13$).

[Table A4 about here]

There are some problems associated with this approach, however. For example, it cannot distinguish between majority support or opposition – it treats 60 percent of the rich favoring something and 40 percent of the middle the same as 40 percent of the rich and 20 percent of the middle, even though these are clearly very different situations. It also cannot account for the kind of status quo bias that we address in our main analysis. One possible way of addressing these shortcomings is to include middle (or rich) opinion in the model. Then, the "difference" variable will capture the effect of the difference in support controlling for the actual *level* of support. Doing this makes little difference, the results of which are reported in the second column of Table A4. There it is clear that when middle income opinion is included and both it and the

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interest group variable are interacted with disagreement, the estimated effect of the preference

difference when the two groups disagree is larger (1.38) but equally unreliable ($p = 0.23$).

Notes

[1] Christopher Wlezien, "Patterns of Representation: Dynamics of Public Preferences and Policy." *Journal of Politics*, 66(2004): 1-24, and Stuart Soroka and Christopher Wlezien, *Degrees of Democracy: Politics, Public Opinion, and Policy*. (Cambridge University Press, 2010), and Paul Burstein, "The Impact of Public Opinion on Public Policy: A Review and an Agenda." *Political Research Quarterly,* 56(March 2003): 29-40 and James Druckman and Lawrence Jacobs, "Lumpers and Splitters: The Public Opinion Information that Politicians Collect and Use." *Public Opinion Quarterly* (Winter 2006) 70:453-476.

[2] Martin Gilens and Benjamin Page, "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens." *Perspectives on Politics*, 12(September 2014):564-581, and American Political Science Association Task Force on Inequality and American Democracy. 2004. "American Democracy in an Age of Rising Inequality, and Martin Gilens, *Affluence and Influence: Economic Inequality and Political Power in America*, (Princeton: Princeton University Press, 2012); and Larry Bartels, "Homer Gets a Tax Cut: Inequality and Public Policy in the American Mind," *Perspectives on Politics* 3 (March 2005): 15-31.

[3] Henry Brady, Sidney Verba, and Kay Lehman Schlozman, "Beyond SES: A Resource Model of Political Participation," *American Political Science Review* 89 (June 1995): 271-294.

[4] John Griffin and Brian Newman, "Are Voters Better Represented?" *Journal of Politics* 67 (November 2005): 1206-1227.

[5] See, for example, Anthony Downs, *An Economic Theory of Democracy,* (New York: Harper and Row 1957).

[6] See, for example, James Madison, Federalist No. 10, in *The Federalist Papers*, ed., Clinton Rossiter (New York: New American Library 1961), 77-84.

[7] Gilens and Page "Testing Theories" 2014, 576.

[8] Stuart Soroka and Christopher Wlezien, "On the Limits to Inequality in Representation," *PS: Political Science and Politics* 41 (April 2008): 319-327 and Peter Enns and Christopher Wlezien, eds., *Who Gets Represented* (New York: Russell Sage 2011)

[9] Also see Soroka and Wlezien 2008.

[10] Christopher Wlezien and Stuart Soroka, "Inequality in Policy Responsiveness?" in Peter Enns and Christopher Wlezien, eds., *Who Gets Represented* (New York: Russell Sage 2011), chap. 10.

[11] Damoder Gujarati, *Basic Econometrics* (Tata McGraw-Hill Education) 2009.

[12] Joseph Ura and Christopher Ellis, "Income, Preferences, and the Dynamics of Policy Responsivess." *PS: Political Science and Politics* 41 (October 2008): 785-794.

[13] Wlezien and Soroka "Inequality" 2011.

[14] Omar Bashir, "Testing Inferences about American Politics: A Review of the 'Oligarchy' Result," *Research and Politics* (October-December 2015): 1-7.

[15] Gilens and Page "Testing Theories" 2014.

[16] Gilens *Affluence and Influence* 2012.

[17] Gilens and Page "Testing Theories" 2014, 576.

[18] Gilens and Page, "Testing Theories," 2014.

[19] Gilens *Affluence and Influence* 2012, chap. 2 .

[20] *Ibid.*

[21] Peter Enns, "Relative Policy Support and Coincidental Representation," *Perspectives on Politics* 13 (December 2015): 1053 – 1064.

[22] Robert Weissberg *Public Opinion and Popular Government*. (Englewood Cliffs: Prentice Hall 1976).

[23] Also see Enns "Coincidental Representation" 2015.

[24] E.g., Alan Monroe, "Consistency between Public Preferences and National Policy Decisions." *American Politics Research* 7 (January 1979): 3-19; Alan Monroe, "Public Opinion and Public Policy, 1980 – 1993." *Public Opinion Quarterly* (Spring 1998) 6-28; Jeffrey Lax and Justin Phillips, "The Democratic Deficit in the States" *American Journal of Political Science* 56 (January 2012): 148 – 166.

[25] That said, note than an approach focusing on magnitudes of support leads to similar conclusions; see the Appendix for two different methods. The first uses similar methodology as Gilens and Page use, the second uses methods designed to ameliorate the issues present due to multicollinearity. Both regression analyses reinforce the conclusions reached in the main text of this article.

[26] Gilens *Affluence and Influence* 2012.

[27] Burstein "The Impact of Public Opinion" 2003.

[28] There is of course a considerable body of work using both education and income as predictors of political ideology. For recent research demonstrating the complexity of these relationships, see, e.g., Stanley Feldman and Christopher Johnston, "Understanding the Determinants of Political Ideology: Implications of Structural Complexity," *Political Psychology* 35(2013): 337-358; Christopher R. Ellis and Joseph Daniel Ura, "United We Divide? Education, Income, and

Heterogeneity in Mass Partisan Polarization," pp. 61-92 in Peter Enns and Christopher Wlezien

eds. *Who Gets Represented?* New York: Russell Sage Foundation (2011) .

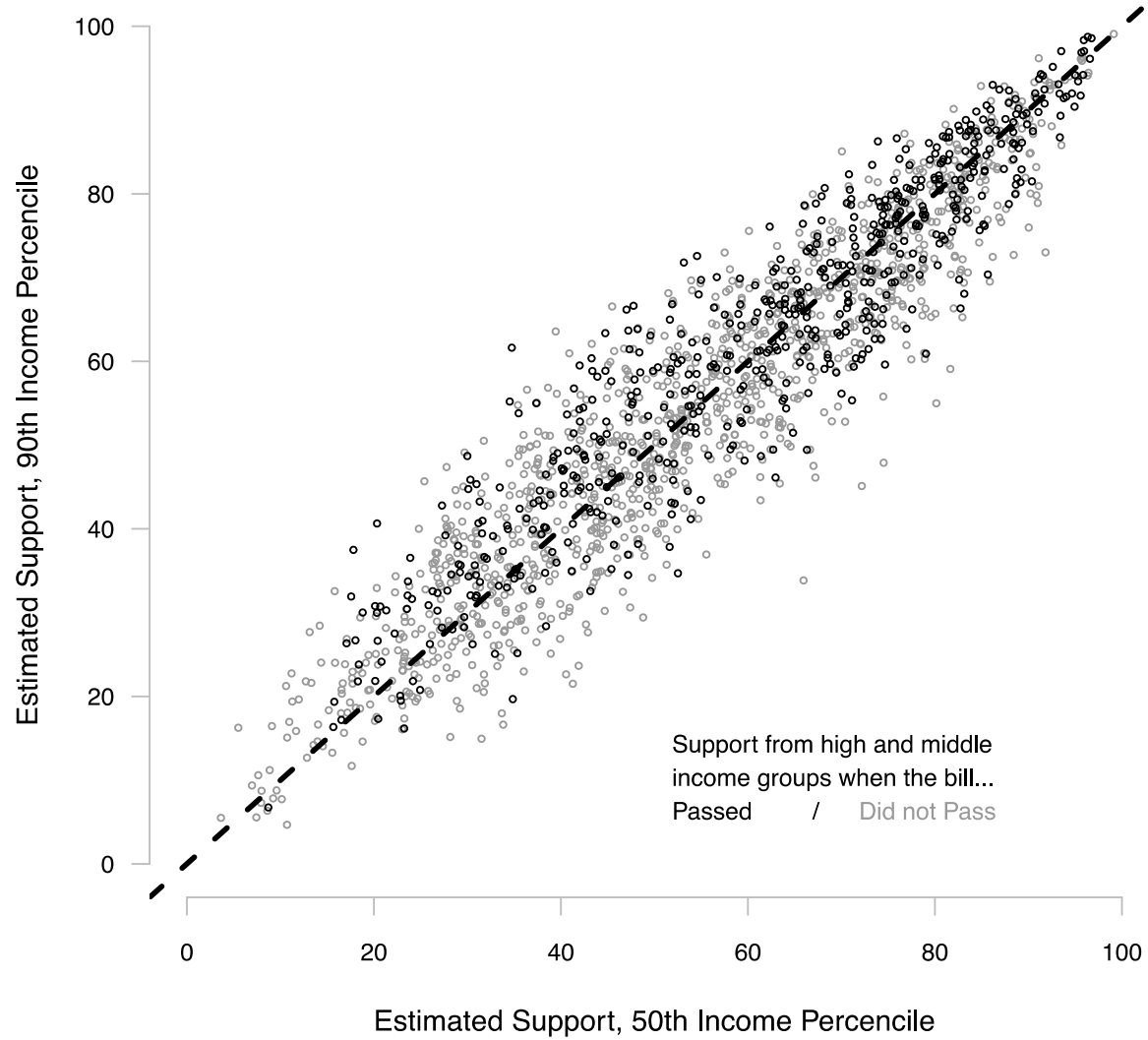[29] Bartels "Homer Gets a Tax Cut" 2005.

[30] Jason Osborne and Elaine Waters, "Four Assumptions of Multiple Regression that Researchers

Should Always Test." *Practical Assessment, Research, and Evaluation* 8(2002): 1-9.
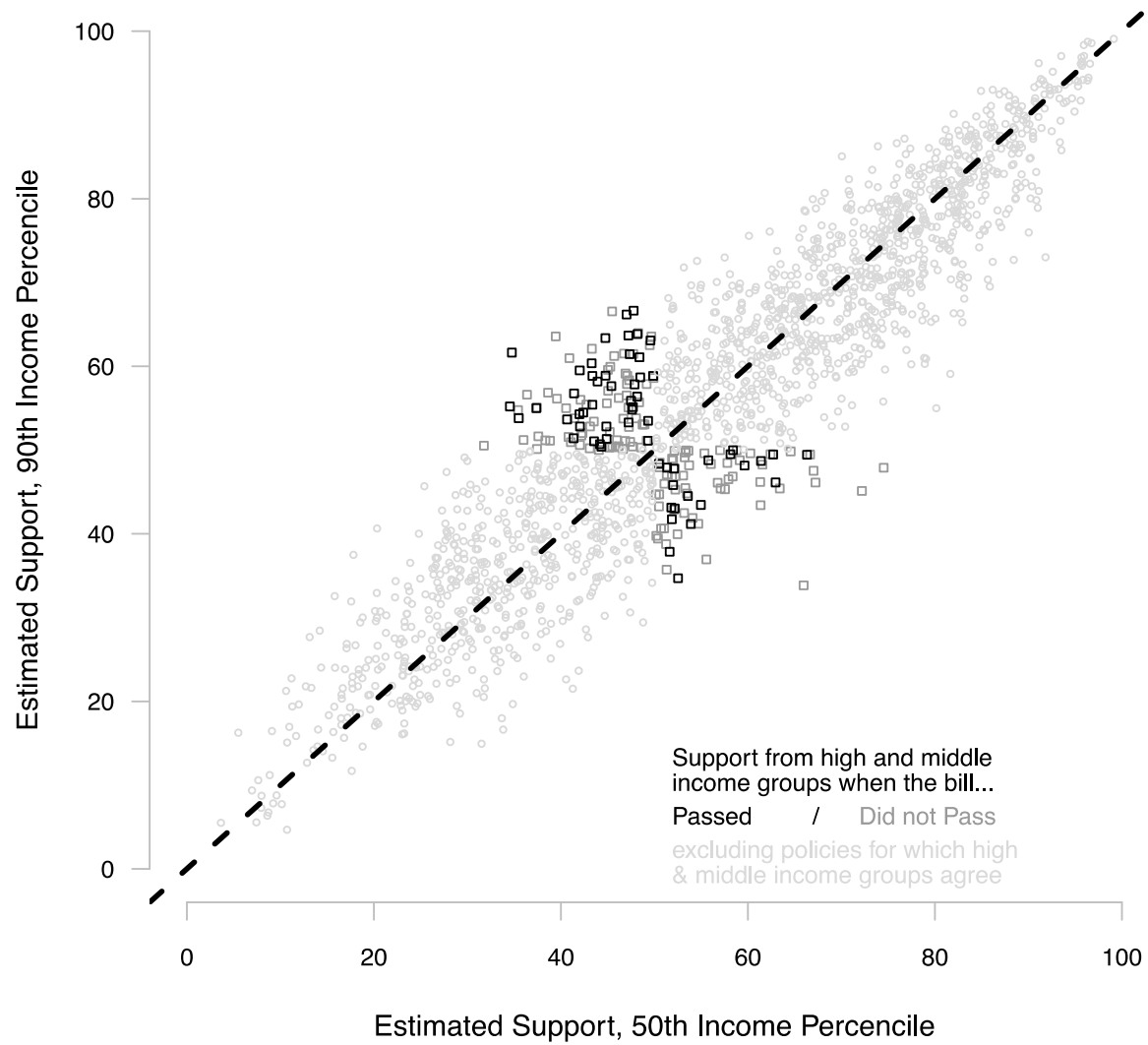
[31] Bashir "Testing Inferences" 2015.

[32] Enns "Coincidental Representation" 2015.

Figure 1. Policy Support for People with High and Middle Incomes, 1779 Issues

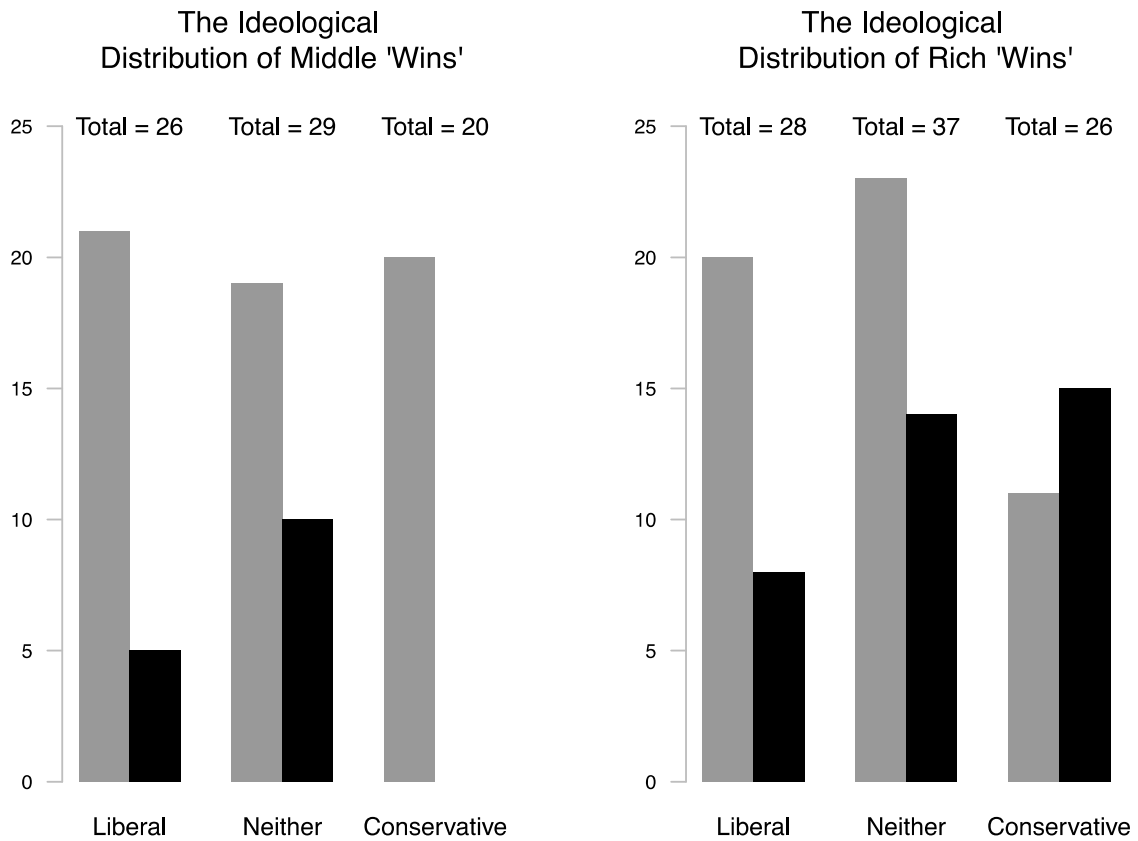Source: Authors' analysis of Gilens data.

Figure 2. Issues where People with High and Middle Incomes Disagree

Estimated Support, 90th Income Percencile

Support from high and middle
income groups when the bill...

Passed   /   Did not Pass

excluding policies for which high
& middle income groups agree

Estimated Support, 50th Income Percencile

Source: Authors' analysis of Gilens data

Figure 3. The Ideological Orientation of Rich and Middle Income Policy Wins

Source: Authors' coding of subset of Gilens data. Black bars represent policies that passed, gray bars represent policies that were blocked. See Appendix for coding details.

Table 1. Policy Support for People with High and Middle Incomes

	Rich Oppose	Rich Favor
Middle Oppose	616	107
Middle Favor	78	978

Source: Authors' analysis of Gilens's data.
Each cell represents counts of policies that a majority of the group favors or opposes. Thus, both the rich and middle oppose 616 policies, for example.

Table 2. Policy Success when the People with High and Middle Incomes Disagree

	Middle Favor	Rich Favor	Total Wins	Win Rate
Middle Win	20	67	87	47.0%
Rich Win	58	40	98	53.0%

Source: Authors' analysis of Gilens' data.
This is the subset of all policies where the middle and the rich disagree. Thus, there are 20 policies that a majority of the middle want that a majority of the rich do not. The win rate is calculated by taking the group's total wins divided by the total number of policies (n=185).

Table 3. Wins across all policies by income group

	Blocked	*Passed*	*Passage Rate*
None Favor	416	130	23.8%
Poor Favor	57	13	18.6%
Middle Favor	15	9	37.5%
Rich Favor	56	35	38.5%
Middle/Poor Favor	43	11	20.4%
Rich/Poor Favor	11	5	31.2%
Rich/Middle Favor	64	33	34.0%
All Favor	529	352	40.0%

Source: Authors' analysis of Gilens data.
The top half of the table represents policies that either all groups oppose or only one out of the three favor. The bottom half represents policies that either all three favor or two of the three favor. Columns indicate whether the policy was passed or not. The passage rate is calculated by taking the proportion of policies that passed in each row.

Table A1. Strength of policy preferences

	Both Support		Both Oppose	
	Rich Support Greater	*Middle Support Greater*	*Rich Opposition Greater*	*Middle Opposition Greater*
Blocked	259	334	226	247
Passed	204	181	46	97

Source: Authors' analysis of Gilens data.
The two rows represent whether policies were passed or not. The four cells on the left are policies that a majority of both the rich and middle support, the four cells on the right are policies that both opposed.

Table A2. Economic vs Social Issues

	Economic		Social	
	Middle Favor	*Rich Favor*	*Middle Favor*	*Rich Favor*
Middle Win	3	12	16	53
Rich Win	16	4	39	33

Source: Authors' analysis of Gilens data.

This shows the policies that the rich and middle disagree on (the subset highlighted in Figure 2) broken down by economic issues (left side) and social issues (right side). The economic win rate is calculated by taking the total of that group's wins divided by the total number of economic issues that the two groups disagree on. The rich's win rate for economic issues is 57.1% and on social issues is 51.1%. A two-tailed difference of proportions test does not find a statistically significant difference between the win rates across the two groups of policies ($p = 0.738$).

Table A3. Regression Results

	Structural Equation Models				Non-Structural Equation Models	
	Model 1	*Model 2*	*Model 3*	*Model 4*	*Model 5*	*Model 6*
Middle Preferences	0.025	0.032	-0.498	-1.313	-0.237	-0.827
	(0.081)	(0.082)	(0.353)	(0.875)	(1.009)	(2.932)
Rich Preferences	0.764***	0.757***	0.164	0.542	1.528	4.036
	(0.078)	(0.079)	(0.377)	(1.183)	(1.172)	(3.404)
Interest Groups	0.483***	0.469***	0.645***	1.752***	0.549**	1.546**
	(0.075)	(0.079)	(0.239)	(0.532)	(0.241)	(0.716)
Constant					-0.444	-2.466
					(0.737)	(2.148)
R^2	0.071	0.073	0.049	0.081	0.059	
AIC						230.4
N	1779	1594	185	185	185	185

*$p < 0.1$ ** $p < 0.05$ *** $p < 0.01$.

Predictors are the logits of the imputed percent of respondents in favor of the policy at the 50th and 90th income percentiles. The interest group variable was created as described by Gilens and Page (2014). All predictors have been rescaled to range from 0 to 1.

Model 1 is the replication of Gilens and Page (2014), estimated using their methodology on the whole data.

Model 2 uses the same methodology but subsetting to just the 1594 observations where the rich and middle agree.

Model 3 uses the same methodology but subsetting to just the 185 observations where the rich and middle disagree.

Model 4 replicates Model 3 explicitly taking into account the binary nature of the dependent variable using asymptotic distribution free standard errors.

Model 5 re-estimates model 3 using simple OLS.

Model 6 re-estimates the model once again using probit and no structural equation modeling.

Table A4. Additional Regression Results

	Model 7	Model 8
Difference	1.059***	1.750***
	(0.183)	(0.272)
Disagreement	0.110	-0.296
	(0.356)	(2.820)
Difference * Disagree	-0.257	-0.372
	(0.587)	(1.192)
Interest Groups	1.450***	1.406***
	(0.223)	(0.240)
Groups * Disagree		0.140
		(0.755)
Middle Preferences		2.332***
		(0.266)
Middle * Disagree		1.035
		(5.565)
Constant	-1.717***	-3.143***
	(0.253)	(0.254)
AIC	2203.5	2128.8
N	1779	1779

* $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$.
Difference represents the difference between rich and middle support.
Predictors are the logits of the imputed percent of respondents in
favor of the policy at the 50th and 90th income percentiles. The
interest group variable was created as described by Gilens and Page
(2014). All predictors have been rescaled to range from 0 to 1.